

ECOLOGY AND ETHNOGRAPHY
OF MUSLIM TRADE IN WEST AFRICA

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Paul E. Lovejoy

Africa World Press, Inc.

P.O. Box 1892
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First Printing 2005

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Book design: Saverance Publishing Services

Cover design: Dapo Ojo-Ade

Library of Congress Cataloging-in-Publication Data

Lovejoy, Paul E.

Ecology and ethnography of Muslim trade in West Africa / Paul E. Lovejoy.
p. cm.

Includes bibliographical references and index.

ISBN 1-59221-425-8 (pbk.) -- ISBN 1-59221-426-6 (cloth)

1. Africa, West--Commerce--History.
2. Merchants--Africa, West--History.
3. Muslims--Africa, West--History.
4. Africa, West--Economic conditions.
5. Africa, West--Social conditions. I. Title.

HF3920.L68 2005

381'.088'2970966--dc22

2005023664

DEDICATED TO

| Stephen Baier
| Mark B. Duffill

WITH APPRECIATION AND RESPECT

| Toyin Falola
| Mariza de Calvaho Soares

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PREFACE

This collection of essays addresses issues of society and economy in the Central Sudan of West Africa, including the desert-side economy and the growth of ecologically based trade across the savanna in the economic development of the region. The papers cover the period from the 15th and 16th centuries to the 19th century. The focus on the interior of West Africa is important in terms of the study of the Atlantic world and the interface among economic and political systems in which slavery was important. In fact the significance stretches beyond West Africa and the Atlantic world because the Central Sudan was part of a broader pattern of trade and society that encompassed the Muslim world to the north, east and west of the Central Sudan, ultimately connecting the Central Sudan with the heartlands of Islam.

In revising the papers, I have been guided by the following principles: first, to stay as close to the original text as possible, as a reflection of my own development and as a way of making assessable my contribution to the history of West Africa. I have revised the text into a common format and style, and have removed repetition, thereby reducing the length of several chapters from their original presentation. In combining these essays into a single volume, I have eliminated overviews that refer to the other articles in the collection. In chapters that were originally jointly authored papers, I have eliminated references to “we” and used the passive voice. Endnotes, footnotes, parenthetical notes, and bibliographical references have been standardized. In some few cases, I have corrected errors in the text, deleted unnecessary references, or otherwise modified generalizations and comparisons. I have seen no reason to perpetuate mistakes, bad judgment, or repetition. I can only say, modestly, that I have felt it necessary to make such corrections only on occasion.

I would like to thank the following people for their comments, influence, and collaboration over the years, in various capacities, as teacher, peer, colleague, critic, and friend: Allen Isaacman, Martin Klein, J. S. Hogendorn, A.G. Hopkins, Stephen Baier, Richard Roberts, Russell Chace, Philip D. Curtin, Stanley Engerman, M.B. Duffill, Ann O'Hear, John Lavers, Muhammad Al-Hajj, Humphrey Fisher, Robin Law, Dennis Cordell, Robert Joyce, James Webb, Stephen Haufbauer, Stephen Giles, Robin Law, David Robinson, Murray Last, Sydney Kanya-Forstner, Jan Vansina, and Colin Newbury for their encouragement and advice. Mariza de Carvalho Soares read the entire manuscript and offered invaluable comments on how to reorganize and condense the various papers into a coherent book. I owe her my special gratitude, as expressed in the dedication.

I would like to express my appreciation to the *Journal of African History*, *Canadian Journal of African Studies*, *Cahiers d'études africaines*, *Journal of the Historical Society of Nigeria*, *African Economic History*, *International Journal of African Historical Studies*, Sage Publications, Westview Press, the African Studies Program, University of Wisconsin, and Cambridge University Press for publishing the original versions of these papers, large parts of which are presented here in substantially unaltered form, and for their kind permission for the publication of the modified essays, thereby enabling more general dissemination and enhanced accessibility. These essays are an outgrowth of finishing my Ph.D. degree at the University of Wisconsin, my initial fieldwork and archival research conducted in Britain, Nigeria, Ghana and Senegal between April 1969 and August 1970 with the assistance of a Fulbright-Hays Fellowship. Subsequent support came from the Social Science Research Council of New York, for additional research in Nigeria, Ahmadu Bello University, the Faculty of Arts, York University, the Canada Council, and the Social Sciences and Humanities Research Council of Canada, for research in Niger and Benin, as well as Nigeria.

The work would not have been possible without the encouragement of Toyin Falola, who wanted me to forego any revisions and let him edit my work. His influence on my scholarship is enormous, more than he might know, and my respect for him also requires that I list him among those for special recognition. I chose to revise my own work, and with all due respect, I forewent his offer, although he will always be my editor-in-chief. The result, in fact, was two books, including not only this one but also *Slavery, Commerce and*

Production in the Sokoto Caliphate of West Africa. Kassahun Checole made both publications possible, and 'Damola Ifaturoti successfully implemented the project. I thank them very much.

Toronto

27 July 2005

1 | **ECOLOGY AND TRADE IN WEST AFRICA**

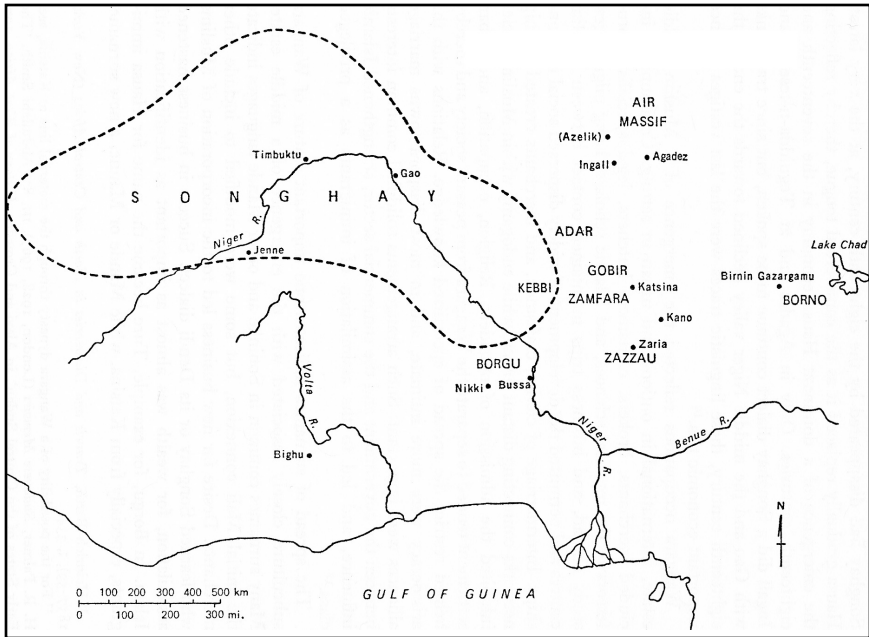
This collection of essays addresses issues of trade, production, and society in the Central Sudan of West Africa, from the formative years in the fifteenth and sixteenth centuries through the nineteenth century. The essays explore the origins of ecologically-based trade along the southern edge of the Sahara Desert and between the savanna and forested areas of West Africa. By examining the medieval origins of trade and commerce, and the importance of Islamic influence, these essays address the history of the autonomy of West Africa with respect to the Atlantic world and more fully, the expansion of western Europe. As these essays demonstrate, the countries of the Central Sudan participated openly and fully with other parts of sub-Saharan Africa and with North Africa, and much of this trade was ecologically based that involved the movement of goods across ecological frontiers – forest, savanna, sahel and desert – from areas of supply to markets where such commodities had to be imported.

The essays assembled here explore the economic and social history of the Central Sudan from the seventeenth to the nineteenth centuries. While the original essays are known to specialists, an increasing number of students and scholars are interested in the history of the African diaspora in relation to African historical dimensions. This volume focuses on the history of the Muslim areas of West Africa, which it is known was an important dimension of the history of the African diaspora. Enslaved Muslims were found, usually in small numbers, almost everywhere in the Americas, and indeed in non-Muslim areas of West Africa. Not all of these Muslims came from the Central Sudan, and before c. 1800, virtually no Muslims from this region were to be found in the Americas. The change came as a result of the *jihad* of 'Uthman dan Fodio after 1804, which greatly increased the number of people who were being

enslaved in this region, often whether or not they were Muslims, and while most of the recently enslaved stayed within the Central Sudan, not all did, as is revealed in the history of Bahia and North Africa.

The themes in this volume focus on a discussion of desert-side economy and ecologically based trade. This analysis, based initially on collaboration with Stephen Baier, examines the peculiarities of desert-side ecology and its influence on trade and production, and accordingly on social organization and relationships of servility. Far from “subsistence” or “tribal,” the desert-side was a market-driven economy, interrupted by war and raiding, and enduring the exactions of masters and political authorities, as well as being exposed to the risk of drought. Desert-side society was driven by production for exchange, whether in livestock, grain, salt or other commodities, including transport services, access to wells, and enslaved people. The essays consciously adopt a regional perspective in examining the social formation of trade and production. As I have recently argued, much of this development was centered in or near towns and cities. This urban background of the region needs to be highlighted.¹ Kano and Sokoto were the two largest cities in the nineteenth century; Kano’s population variously estimated at 30,000-80,000, and Sokoto about 50,000 in the 1850s. Moreover, given the policies of Muhammad Bello in the development of fortified towns (*ribats*), the number of towns swelled in the nineteenth century, perhaps numbering several hundred by mid-century.²

The development of desert-side trade and economy was based on transhumance livestock migration, and the management of human and physical resources that such migration requires, to maximize political and economic advantage. Livestock herds were moved along legally sanctioned trails, and nomads had access to pastures and water by tradition and by legal right to public domains. The interaction among herders, milk maids, and settled farmers was symbiotic, although not devoid of friction when animals strayed into gardens or broke into compounds or when farmers encroached on areas that herders thought were part of recognized trails. This complex interaction of economic interdependency and excruciating conflict over resources was articulated in ethnic distinctions and the use of language, costume, and physical markings as means of identifying economic and cultural uniqueness, either as Fulbe or Habe, Fulani or Hausawa, and so forth, as discussed below. These



West Africa in the Sixteenth Century

social and economic divisions, interpreted in terms of ethnicity, were a fundamental cleavage that shaped the *jihad* after 1804.

This cultural distinction between herders and farmers, bush folk and town dwellers, reveals fission in West African society that was based not only on difference in occupation and specialization but one that indirectly was derivative of ecological factors. While people moved and changed, there was ecology of trade. Ultimately, livestock, especially transport animals, were concentrated in the Sahara, sahel, and northern savanna, and their food value, transport capacity, and military advantage were restricted to areas where livestock could be bred or to places where they could be sold, which ultimately meant where it was safe to go. Forest produce was similarly restricted by transport capacity, as the case of kola nuts, discussed below, demonstrates. Kola was a particularly important luxury in Muslim areas because of the prohibition on alcohol and the acceptance of kola as a stimulant that was not prescribed by Islamic law or custom. The ecological basis of the trade in kola is apparent, and indeed the type of kola accepted most readily in Muslim markets, including that of the Central Sudan, was *C. nitida*, which could be stored longer than other varieties, but which was only found in the

lower Volta basin and areas further west. Hence the Central Sudan was particularly distant from the production zone in the forest. The growth of this ecologically based trade in the far western Sudan can be traced back more than 1,000 years and attests to the antiquity of the exchange between the savanna and the forest. The consumption of kola in the Central Sudan is closely associated with the history of Asante in the eighteenth and nineteenth centuries, at a time when Asante was involved in the trans-Atlantic slave trade, so that Asante had a major export into the interior as well as to the coast. An examination of the interior trade of West Africa, particularly the Central Sudan, thereby helps to place the trans-Atlantic slave trade and its abolition in perspective.

The economic development of the interior of West Africa depended upon long-distance trade and market exchange. Much of this region was within a single currency zone, based on cowrie shells imported through the ports of the Bight of Benin, and interchangeable with gold, which was produced in Asante, and which was based on the *mithqal*, a standard unit of weight in the Muslim world. Also increasingly prevalent were silver dollars, including Spanish and American dollars and the Austrian Maria Theresa thaler. A common currency zone facilitated trade, as did Islamic commercial practices and law. In this volume, the commercial sector is examined through several key commodities, including kola nuts, various types of salt, textiles, currency, and slaves. In addition to considering how these commodities were produced and distributed, these essays also examine who the merchants were, specifically in terms of their ethnic identification, the transformation of social status, and the nature of Islamic institutions governing commercial transactions.

The focus on the Central Sudan highlights the history of Borno and the Hausa cities, whose history dates back to the medieval period, and to the period before the focus of this volume. Moreover, the political landscape was transformed with the establishment of the Sokoto Caliphate in the *jihad* of 1804-08. Although warfare and raiding continued, the jihad marks the history of the region; the establishment of the Sokoto Caliphate as an Islamic state resulted in the consolidation of one of the largest states in the history of sub-Saharan Africa. By the 1840s and 1850s, the Caliphate extended outward from the heartlands of the Hausa cities, westward as far as modern Burkino Faso and eastward to the border of the Central African Republic, an area encompassing large parts of Niger and

Nigeria, an estimated 150,000 sq miles in area.³ By contrast, neighboring Borno was in decline, having lost much of its territory to the Caliphate and finding it difficult to control rebellious provinces. The general insecurity of raiding and war permeated nineteenth century society; hundreds of were walled or their fortifications extended to protect the population. This urbanization was closely associated with the expansion of production and trade in a great variety of manufactures and other commodities. The importance of slave labor in this production and trade is discussed in the chapters that follow. The essays in this volume are structuralist in its approach and interpretation, concentrating on trade and how it functioned and on production, especially the relative importance of slavery in the economy, and the gender-determined roles in society as shaped by slavery.

Earlier versions of these essays were previously published, although as reproduced here, they are shortened to avoid repetition, and otherwise tightened to sharpen the focus. The occasional contradiction and error have been addressed, hopefully satisfactorily. Annotation and house style has been standardized, and the collection indexed. Chapter 2 was originally published with Stephen Baier, as "The Desert-Side Economy of the Central Sudan," *International Journal of African Historical Studies*, VIII:4, 1975, 551-81. Chapter 3, "The Borno Salt Industry," originally published in *International Journal of African Historical Studies*, XI:4, 1978, 629-68, includes an additional section on productivity at the salines, derived from "The Volume of the Central Sudan Salt Trade," in G. Liesegang, A. Pasch, A. Jones, eds., *Figuring African Trade* (Berlin: Reimar). For a fuller discussion, reference should be made to my *Salt of the Desert Sun: A History of Salt Production and Trade in the Central Sudan* (Cambridge: Cambridge University Press, 1986).

Chapters 4-8, "Kola in the History of West Africa," "Wangara Merchants in the Central Sudan in the Fifteenth and Sixteenth Centuries," "Islam and the 19th Century Hausa Kola Trade," "The Kambarin Beriberi, a Specialized Group of Hausa Kola Traders," and "Gradations in Servility at the Desert-Edge," remain largely unchanged from their original publication.⁴ Reference should also be made to my *Caravans of Kola: The Hausa Kola Trade, 1700-1900* (Zaria: Ahmadu Bello University Press and Ibadan: Universities Press, 1980). Chapter 9, "Merchants, Porters, and Teamsters in the Nineteenth-Century Central Sudan," was originally published with M.B. Duffill in Catherine Coquery-Vidrovitch and Paul E. Lovejoy,

eds., *The Workers of African Trade* (Beverly Hills, Sage Publications, 1985), 137-67.

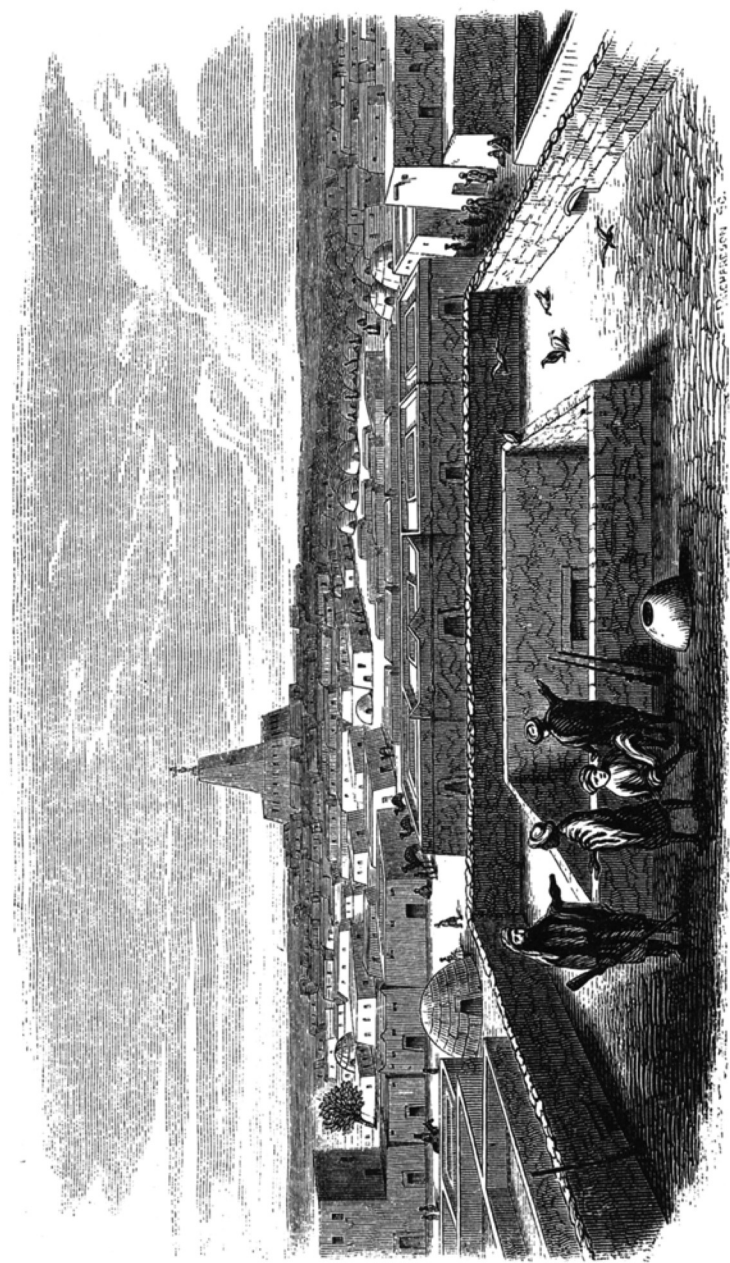
Chapter 10, "Trade between Kano and Salaga in the Nineteenth Century," was originally published as "Polanyi's 'Ports of Trade': Salaga and Kano in the Nineteenth Century," *Canadian Journal of African Studies*, XVI:2, 1982, 245-278; and in slightly revised form as "International Trade in West Africa in the Nineteenth Century: Salaga and Kano as 'Ports of Trade'," in Toyin Falola (ed.), *Ghana in Africa and the World. Essays in Honor of Adu Boahen* (Trenton NJ: Africa World Press, 2002), 477-512. Chapter 11, "Currency and Commodities in the Regional Trade of the Central Sudan," was originally published as "Interregional Monetary Flows in the Pre-colonial Trade of Nigeria," *Journal of African History*, XV:4, 1974, 563-85. Chapter 12, "The Trans-Saharan Trade and the Salt Trade Compared," combines "Commercial Sectors in the Economy of the Nineteenth-Century Central Sudan: the Trans-Saharan Trade and the Desert-Side Salt Trade," *African Economic History*, XIII, 1994, 85-116, most of "The Volume of the Central Sudan Salt Trade," in G. Liesegang, A. Pasch, A. Jones, eds., *Figuring African Trade* (Berlin: Reimar), except that portion on productivity that is incorporated in Chapter 3, as noted above.⁵

Notes

1. Paul E. Lovejoy, "The Urban Background of Enslaved Muslims in the Americas," *Slavery and Abolition*, forthcoming. Also see "The Sahara-Atlantic Divide, Or How Women Fitted into the Slave Trade," in Gwyn Campbell, Suzanne Miers, Suzanne and Joseph C. Miller (eds.), *Women and Slavery* (Athens, OH: Ohio University Press, forthcoming); and "Islam, Slavery, and Political Transformation in West Africa: Constraints on the Trans-Atlantic Slave Trade," *Outre-Mers: Revue d'histoire*, 89 (2002), 247-82. Also see the various essays in Paul E. Lovejoy, ed., *Slavery on the Frontiers of Islam* (Princeton: Markus Wiener, 2004).
2. Lovejoy, "Urban Background," and sources cited therein.
3. Modibbo Tukur, "The Imposition of British Colonial Domination on the Sokoto Caliphate, Borno and Neighbouring States, 1897-1914" (Ph.D. thesis, unpublished, Ahmadu Bello University, 1979), 203.
4. "Kola in the History of West Africa," *Cahiers d'études africaines*, XX:1/2 (1980), 97-134, 173-75; "The Role of the Wangara in the Economic Transformation of the Central Sudan in the Fifteenth and Sixteenth Centuries," *Journal of African History*, XIX:2 (1978), 173-93; "Long-Dis-

tance Trade and Islam: The Case of the Nineteenth Century Hausa Kola Trade," *Journal of the Historical Society of Nigeria*, V:4 (1971), 537-47 "The Kambarin Beriberi: The Formation of a Specialized Group of Hausa Kola Traders in the Nineteenth Century," *Journal of African History*, XIV:4 (1973), 633-51; and "The Tuareg of the Central Sudan: Gradations in Servility at the Desert Edge (Niger and Nigeria)," in Suzanne Miers and Igor Kopytoff, eds., *Slavery in Africa: Historical and Anthropological Perspectives* (Madison: University of Wisconsin Press, 1977), 391-411 (with Stephen Baier).

5. All all archival materials and unpublished papers used in these studies are on deposit at the Harriet Tubman Resource Centre on the African Diaspora, York University. Oral data derived from interviews conducted in Nigeria and Ghana are also on deposit at the Northern History Research Scheme, Department of History, Ahmadu Bello University.



Timbuktu c. 1854

Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), vol. 3, frontispiece

2 | *THE DESERT-SIDE ECONOMY OF THE CENTRAL SUDAN*

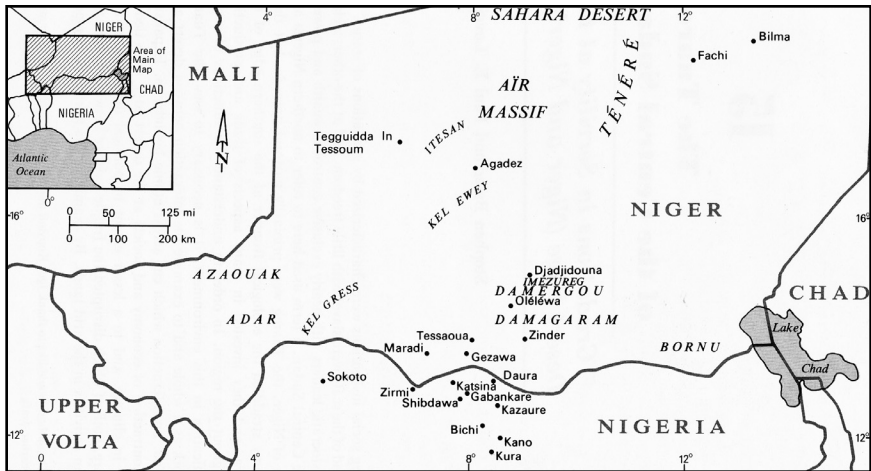
The role of the desert edge in West Africa has often been highlighted by drought, as was the case in the early 1970s. A serious drought, which began in some places in 1968 and continued in many areas until 1973 or 1974, highlighted the fragility of the desert-side economy of the region. The drought was probably the worst in over two centuries, but its economic impact on the savanna, although severe, was nonetheless minimized because of a reorientation of the savanna economy toward the coast, a shift that dates to the beginning of the colonial period. With the end of the trans-Saharan trade, the redirection of overseas trade toward the Atlantic, and the development of peanuts (groundnuts) as an agricultural export, much of the savanna gained new independence from the economy of the desert and sahel. Nevertheless, the area along the southern edge of the Sahara was extremely significant historically in the development of adjacent savanna regions before the colonial period, and it seems likely that the decline of the desert-edge sector was one of the most underestimated impacts of colonialism. The region offered an extensive market for grain, manufactures, and other products imported from the savanna, was a source of livestock, several types of mineral salts and transport services, and provided access to North African markets. In addition, it was the original home of many immigrant merchants, crafts men, and farmers who contributed greatly to the development of the savanna. An examination of the desert edge therefore reveals the dynamics of economic change in the pre-colonial era and provides a comprehensive perspective on the crisis of the early 1970s.

Parts of the southern Sahara were so closely integrated with adjacent areas of savanna that they can be analyzed within economic regions. Subdivided into areas of localized specialization, each region depended upon production for the market by a majority

of people within regional boundaries. In many places towns developed, sometimes in proximity to relatively densely populated rural areas, and these became centers of economic growth. The desert edge in sub-Saharan Africa was only one of these larger spheres, but the types of interaction found here also characterized other parts of the world that straddled the ecological frontier between desert and adjacent areas of fertile agricultural land. This was especially so for areas along the great desert strip from the western Sahara through the Arabian Peninsula as far as the Gobi Desert in Central Asia.

The region comprising much of northern Nigeria, Niger, and Chad, referred to as the Central Sudan, provides an example of an integrated desert-side economy. The desert played a unique role in the development of the savanna here, where integration enabled the desert sector to survive periods of crippling drought and to prosper in times of favorable weather. The purpose of this chapter is to explore some of the links between this area and the larger economy in the belief that only a regional perspective on economic and social history can overcome the distortion involved in localized approaches. In particular it suggests that the dominant ethnic groups, Tuareg, Hausa, and Kanuri, cannot be treated in isolation, that distinctions among them were closely related to economic specialization and interdependence, and that movement across ethnic boundaries was frequent, and necessary to economic change.

In the Central Sudan, Tuareg and Hausa, and indeed Kanuri and Fulani, interacted within a larger composite society and economy in which cultural distinctions reflected degrees of specialization and political allegiance. More specifically, Tuareg society was constructed in a pyramidal fashion with nobles on top and various levels of dependents and servile groups below, dominated by the few aristocratic leaders who in effect acted as managers of large firms. These firms invested in diverse activities ranging from stock breeding to transport, trade in salt, dates, grain, and manufactures, land ownership, slave labor, the finance of craft production, and commercial brokerage. Investments crossed cultural boundaries, however defined, so that Tuareg firms were heavily committed to the economic well-being of the whole Central Sudan, not just the desert edge where the nomads concentrated. Personnel for the firms were drawn from both sides of the Hausa-Tuareg ethnic frontier, and even included people of Kanuri and North African origin. Movement across the frontier was continuous and was accelerated by droughts and economic cycles, although it is difficult to estimate



Territory of the Tuareg of the Central Sudan

the flow of people across the ethnic frontier. Nevertheless, a strong correlation existed between nomadic life and Tuareg affiliation on the one hand and sedentary life and Hausa (or Kanuri) identification on the other. Finally, the dominant interaction between the Tuareg and their sedentary neighbors was one of peaceful cooperation and trade, with raiding confined for the most part to the periphery of the area where nomads had important investments. Similar observations could be made about the Tubu and other Saharan nomads and their relationships with the people of the savanna.

THE DESERT-SIDE SECTOR

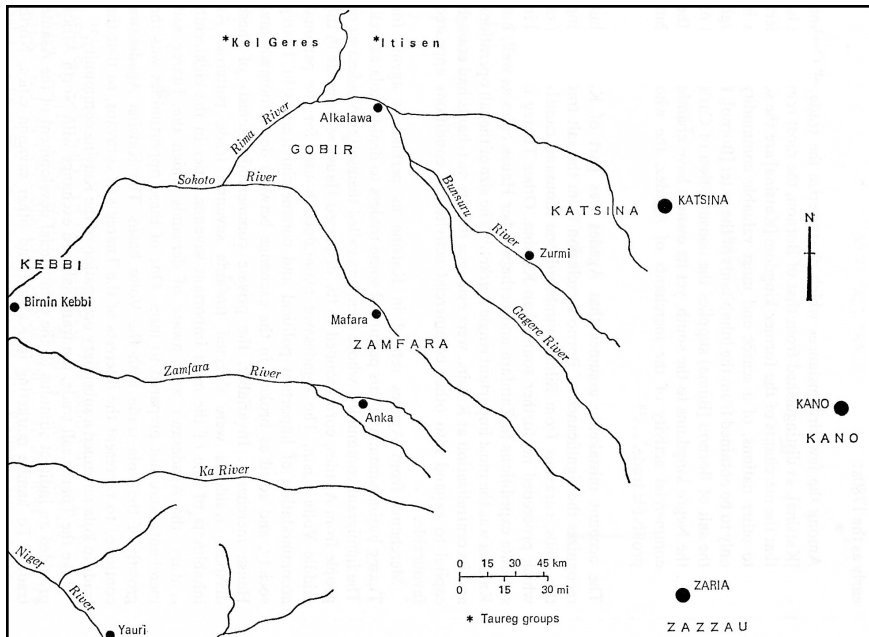
The Tuareg, like other nomads to their east and west, secured a living from the harsh desert environment of the southern Sahara and the sahelian steppe through specialization. They dominated the relatively fertile areas of the sahel, from where they traded with the savanna, particularly the area centering on the Hausa states. Their concentration along the southern fringes of the Sahara placed them close to farming villages and savanna markets, where they obtained foodstuffs and manufactures and sold the products of the desert. The extent of interaction clearly establishes that the Tuareg were market oriented, not in some peripheral way as the old stereotype of pre-colonial Africa would suggest, but to a degree which helps demonstrate the importance of market forces in the history of the Central Sudan.

The Tuareg of the Aïr Massif, Adar, and Azawak required considerable amounts of grain for their diet, although milk was a principal food for half the year and in some cases the only nourishment for two to three months. Estimates which indicate the extent of dependence on millet imports over the past several centuries show that "In the extremely hot season...when milk is very scarce most Tuareg eat millet porridge with a little milk or sauce...and Tuareg who are not very wealthy eat millet porridge to a great extent all the year around, so that the necessary amount of millet for many camps is about 0.5 kilo a day per person, or about 180 kilos a year." Figuring a population of less than fifty thousand nomads in the Aïr and Azawak at the end of the nineteenth century, and millet consumption averaging 150 kilos per person per year, as much as 7,500 metric tons of millet had to be obtained. It seems reasonable to assume that approximately the same was true in the distant past. In the middle nineteenth century, for example, commerce at Agades, the most important town in Aïr, was "nothing but a speculation in provisions principally in ghussub or kasab [millet], which constitutes the principal and almost only food of the inhabitants." Even traders from such distant places as Tuat dealt in grain, and in 1850 millet was "the real standard of the market" at Agades, although cowries, silver, and gold were in circulation.

The Tuareg depended on the savanna markets for many articles beside grain. Every item of Tuareg dress described by F.K. Hornemann in the 1790s, for example, was manufactured in Hausa towns and villages.

The clothing of this nation consists of wide dark-blue breeches, a short narrow shirt of the same colour, with wide sleeves, which they bring together and tie on the back of their neck.... They wind a black cloth round their head in such a manner that at a distance it appears like a helmet, for their eyes only are seen.... Round their waist they wear a girdle of a dark colour.... Their upper dress is a Soudanian shirt, over which a long sword hangs from the shoulder.

The swords were fashioned in Kano and other savanna towns, where craftsmen attached handles to blades imported from North Africa and Europe. Such luxuries as tobacco and kola were also brought from the south. This supply pattern developed several centuries before the 1790s and continued through the nineteenth century.



Eighteenth Century Hausa States

The income needed to purchase grain and manufactures was largely derived from the sale of animals – goats, sheep, camels, cattle, and horses – or through the extension of services dependent upon livestock production. Consequently, the requirements of the herds set limits on Tuareg settlement and economic activity, and the dominant pattern was one of seasonal transhumance, which provided a framework not only for animal husbandry but also for trade between desert and savanna. During July and August, when some rain fell in the southern desert, herders took their animals to areas with the best pastures. Rainfall in the Air Massif was greater than in the surrounding countryside, so that pastures there held up long enough for a large contingent of Air Tuareg, as well as others from the south and west, to make an annual trek across the Tenere in late October and November to Bilma and Fachi, two oases north of Borno on the route to North Africa. Here they purchased salt and dates and sold grain, cloth, and other goods. Profits from this trade, together with earnings gained from services extended to trans-Saharan commerce, were important supplements to Tuareg income. In December, after the return of the salt caravan, most Tuareg left Air for the south, selling salt and dates and pasturing

animals along the way. Although they were less involved in the salt trade, the Tuareg of Adar and Azawak, areas west of the Aïr Massif, also moved south during the dry season. Some people moved as far as Sokoto, Kano, and Katsina, although many groups used pastures slightly farther north, just within the territory of the sedentary states along the desert edge. In June when the rains began again they left for the north, for the excessive dampness of the savanna at this time of year endangered the health of the camels.

Transport costs at the desert edge were low because of this pattern of transhumance. Since water and pasture requirements could be met by traveling south each year, Tuareg merchants easily transported goods regardless of cost. Millet, for example, was about twice as expensive in Agades as in Damerghou about 250 kilometers away, so that transport costs between these points were less than 350 cowries (about a third of a franc in 1903) per metric ton-kilometer. For the salt trade costs were probably higher because of the long and arduous desert crossing between the Aïr Massif and Bilma. For example, millet purchased in Damagaram was taken to Bilma and traded for salt, returned to Damagaram and sold again for millet, the salt was worth eighty times the value of the original stock, and much of the increase was for transport. This aspect of the desert-side economy explains why nomads could move bulk commodities great distances, and helps explain why many savanna markets were located along livestock trails, particularly since pack oxen were used extensively in transport as well as camels, and they could be sold if necessary. The profits from salt and date sales enabled the Tuareg to purchase savanna products. In 1850, when "almost the whole supply of provision is imported, as well as all the clothing material, it is evident that the population [of Aïr] could not be so numerous as it is, were it not sustained by the salt-trade of Bilma, which furnishes the people with the means of bartering advantageously with Hausa."

The large annual caravans of several thousand camels each carried salt and dates to every Hausa center. Salts were of several types; different types were used in cooking, medicine, and industry, and some were mixed with tobacco. The Bilma and Fachi varieties were only a few of many kinds processed for the Central Sudan market, but this was an extremely important current of trade, with up to two thousand metric tons entering the Sudan each year at the end of the nineteenth century. The value of this in salt was about £40,000 in Damagaram, or about half the value of trans Saharan imports to

Tripoli during an average year in the 1890s, before the volume of that trade started its final decline. Unlike the trans-Saharan business, however, Tuareg merchants reaped most of the profits from the salt trade. The Tuareg participated in the trans-Saharan trade primarily as transporters, guides, and hired security forces, and they also controlled a sizeable proportion of desert-edge production destined for trans-Saharan export. Few nomads possessed the capital needed to invest directly in the trans-Saharan trade, but instead camel owners received a payment for each load they carried and left organization to North Africans, who had a superior knowledge of market conditions and better financial connections.

One such trade that required transport was the trade in ostrich feathers. Exports of feathers increased rapidly in the 1870s, declined again in the 1880s, and by the 1890s accounted for about half the total value of exports across the Sahara. The financing of the trade was largely in the hands of North African expatriates, most of whom were from Ghadames. By the late 1870s these Ghadamsi merchants had established a community at Djadjidouna in Damerghou, where they bought ostrich feathers from village heads who organized the hunting or raising of birds. The Tuareg of Damerghou taxed the trade at the village level, asking payment in feathers of the choicest grade.

Another important source of income derived from the control of agricultural production in the sahel and savanna. Military supremacy enabled the Tuareg to dominate farming communities in the Aïr Massif, Damerghou, southern Adar, and parts of Damagaram, Maradi, Tessaoua, and beyond. Itisen and Kel Gress controlled villages as far south as an area fifty miles north of the Sokoto river valley, while Damerghou, the sahel region immediately south of the Aïr, was the most important granary for Aïr nomads. Specific families or larger sections, the basic units in the Tuareg segmentary structure, had rights to widely scattered villages, whose dispersed separation prevented political consolidation. The nineteenth-century Kel Ewey leader Annur, for example, owned the town of Tagelel, which had an estimated 120 compounds in 1851, while only a few kilometers away a "man who played the chief part during the [1840s] interregnum...in Azben [Aïr] received tribute from the small settlement at Farara." Many people in this region were the descendents of farmers and hunters who had moved north to exploit the frontier regions where game was plentiful and agricultural settlement sparse. Most were Hausa, although some spoke Kanuri who were called Dagera. The Tuareg of the sahel fought among themselves

for control of these scattered villages, and Tuareg strangers often tried to enslave farmers and steal their cattle. Although the villages of Damerghou were located on hilltops and protected by palisades, settlements on the fringe of the desert were extremely vulnerable to nomadic raiders, whose mobility and experience in warfare gave them each advantage. For this reason sedentary immigrants freely submitted to a Tuareg section for protection. Hausa and Dagera archers even fought alongside their patrons when outsiders challenged the *status quo*.

Living among the free farmers of Damerghou and Adar, and scattered throughout the sahel were people known to their sedentary neighbors as *bugaje* (sing., *buzu*, f. *buzuwa*). As enslaved people or their immediate descendents, *bugaje* were low in social status, had to lodge their overlords when they passed through, and paid tribute in millet. Distinctions between *bugaje* and the free people of neighboring villages were minor, since both owed their patrons a portion of the harvest, at least in Damerghou and Adar, where *bugaje* and free farmers alike paid tribute to the Tuareg, just as savanna farmers paid a tax to the governments of the sedentary states where they resided. Unless newly sedentarized, *bugaje* usually spoke Hausa. Most had been enslaved from Sudanese populations in the first place, so that their assimilation into Tuareg culture was along a continuum, with changes usually occurring in stages. When previously nomadic *bugaje* became exclusively farmers, for example, they still preserved the custom of wearing the veil as they did when they wandered, like their nomadic masters. They also employed a unique system of land use, which involved moving their households and animal enclosures along narrow strips of land.

Although the Tuareg nomads obtained some grain through the taxation of sedentary people, they traded for well over half of their requirements. In Damerghou, for example, they distributed salt and dates to Hausa and Dagera village heads and instructed them to collect millet and store it in granaries so that it could be picked up on the return trip in June. Some village heads, using these goods as capital, organized trading expeditions on their own. Notable in this context were the Hausa entrepreneurs of western Damerghou, who traded between their homes and the Tarka valley to the west, at least in the late nineteenth century. At that time, these sedentary farmers carried a sizeable proportion of the trade between Agades and the south. In the dry season they loaded millet from their fields on pack oxen and headed north to Agades, where they traded for

animals. Several loads of millet purchased as many as fifteen goats or sheep, although prices of course varied. This trade, which had begun centuries earlier, accounted for as much as fifteen hundred metric tons of millet a year in 1902, probably about half of the grain requirement of the Agades market. This quantity suggests that thousands of livestock were sold at Agades each year. Other commercial patterns, such as those involving savanna tobacco merchants and grain sellers who traveled north to exchange their products for livestock, salt, and dates, also accounted for considerable quantities of Tuareg trade.

The highly stratified Tuareg social system concentrated wealth and control of economic resources in the hands of a few. Aristocratic Tuareg (Tamashek, *imajeren*, sing., *amajer*) managed operations in which dependents fit into a series of status categories of varying degrees of freedom. At the bottom were slaves called *iklan*; above them were *irewelen*, or freed slaves, and higher still were *imrad*, or vassals. Status was fluid, and despite the theoretical hierarchy, which functioned primarily to assure first access to resources in times of scarcity, Tuareg nobles tended to treat all dependents alike. Nobles constituted not more than ten percent of the nomadic population, but they made the important decisions. They assigned some dependents, primarily *irewelen* and *imrad*, the task of herding, and sometimes sent them far away from the main camp. When nobles made contracts with North African merchants to provide transport animals and escorts for trans-Saharan caravans, *imrad* and *irewelen* did most of the traveling. Nobles accompanied them when caravan movements coincided with the annual descent toward the savanna and the return to the desert, but few nobles traveled across the Tenere with the salt caravans. They left this difficult work to their dependents.

Besides those directly attached to noble camps, the aristocracy also controlled other nomadic and sedentary dependents. A noble or his lineage might have nominal control over a whole section of *imrad* Tuareg who had lost their claim to nobility status after suffering defeat in battle or loss of their herds. *Imrad* sections took charge of surplus animals belonging to nobles, but they had to surrender them in times of scarcity. Noble Tuareg also controlled independent sections of *iklan* and *irewelen*, most of who were sedentary; these were the *bugaje* of the sahel and savanna. Hausa-speaking people knew all dependent Tuareg by this name, which can be confusing because it lumps together nomadic and sedentary people of the lower status

categories. By calling all Tuareg of low status *bugaje*, Hausa speakers reflected their own unfamiliarity with the hierarchy.

Although some nomadic and sedentary dependents were technically slaves, nomadic life prevented the constant surveillance of servile labor. In addition, the possibility of drought in the sahel meant that people had to be free to emigrate to save themselves. These conditions affected *bugaje* and Hausa or Dagera farmers alike, as the observations of the nineteenth-century scholar and diplomat Heinrich Barth suggest. In describing slave conditions at the Tessaoua estate of Annur in 1850 Barth writes:

The estate is very extensive, and consists of a great many clusters of huts scattered over the whole fields, while isolated dum-palms give to the whole a peculiar feature. The people, all followers and mostly domestic slaves of Annur, seemed to live in tolerable ease and comfort, as far as I was able to see, my companion introducing me into several huts. Indeed every candid person, however opposed to slavery he may be, must acknowledge that the Tawarek in general, and particularly the Kel-owi, treat their slaves not only humanely, but even with the utmost indulgence and affability, and scarcely let them feel their bondage at all. Of course there are exceptions.

But even the exceptions are instructive for, once Tuareg owners left, mistreated individuals fled south, where they joined existing communities of northern immigrants. This course of action was also open to servile nomadic Tuareg. However, in response to maltreatment they relied primarily on an institution whereby they changed masters by cutting the ear of another noble's camel.

As can be seen from the above description, ethnic identification in the sahel and southern Sahara was characterized by a division between farmer and nomad and between Tuareg and Hausa or Kanuri. Hence ecological specialization was at the basis of ethnicity. Furthermore, within each cultural division other distinctions were recognized, each of which had a foundation in the relative economic, political, and social position of the people involved. Noble Tuareg were the highest in status and power and considered themselves the most characteristically Tuareg in culture. Their language was in effect a specialized tongue identified with specific occupations as well as a distinctive life style. Under them were various nomadic groups who identified closely with the dominant status system but who were treated as subordinates and servile

members of the society. These people, the majority of the nomadic population, were often relegated to pastures where only goats or sheep could be raised or to areas further south where cattle became the specialty. Since political and economic power was related to numbers of camels, status distinctions corresponded very closely with economic stratification. But environmental conditions limited the numbers of nomads and the size of herds. When the desert economy prospered, demographic increase threatened to outdistance the resources for survival, but localized and periodically widespread droughts checked this tendency. In times of scarcity, many nomads lost their livestock and were forced to emigrate, so that population declined until conditions attracted new immigrants, both slave and free. Although the extent of movement across ethnic boundaries cannot be calculated, the number of nomads with dark skin, some as dark as savanna inhabitants, demonstrates that this population drift has been continuous over the centuries.

In the case of the sedentary population of the sahel and Air Massif, ethnic distinctions related primarily to the process of immigration, time and conditions of settlement, and relationship to Tuareg overlords. Land effectively belonged to the nomads, a right secured through military conquest, the expulsion or destruction of such early sedentary states as Gobir, and the continued insistence that tribute be paid to specific "drum groups" or individually powerful Tuareg leaders. Since most people in the marginal lands of the sahel invested in animals in addition to raising millet and other food crops, distinctions between people were much closer to being a continuum than was the case between the most nomadic Tuareg and the sedentary population of the savanna. Many farmers, who often were livestock dealers as well, probably found it advantageous to invest in animal husbandry, since land was neither alienable nor profitable over the long run. Drought was too great a danger, tribute payments reduced the size of agricultural surpluses, and livestock could be moved or sold if necessary. It seems likely that the optimum size of herds for sedentary people was about six cattle and probably larger numbers of sheep and goats. Beyond that point, it was more profitable to follow the herds and abandon or reduce the commitment to agriculture. This pattern explains the existence of semi-nomadic *bugaje*, permanently settled *bugaje*, and other people who appear to fall midway between nomadic Tuareg society and sedentary Hausa-Dagera society. The movement across the ethnic frontier and its correspondence with economic activity,

therefore, appear to fit into a pattern which characterized similar regions in the sahel, particularly in Dar Fur and even closer to home, in Muniyo, where distinctions between Fulani cattle herders and Manga agriculturalists have been continuously manipulated to permit people to cross ethnic boundaries.

SAVANNA INVESTMENTS

Ethnic distinctions assumed an even more complicated pattern than the analysis has so far permitted, for the Tuareg maintained an elaborate commercial infrastructure in the savanna which enabled people to move throughout the Central Sudan. Tuareg investment was so extensive by the early 1850s that Barth found it "astonishing how much property is held in these fertile regions [Hausa country] by the Tawarek of Asben, and to what consequences this may eventually lead every body will easily conjecture." Barth was thinking in terms of political influence, wrongly thinking that Tuareg influence would undermine the Caliphate. He was perceptive enough to recognize that cultural distinctions were not isolating features in the Central Sudan but instead were the means through which social and economic relations were regulated. This network closely approximates the commercial diasporas analyzed by Abner Cohen, Philip Curtin, and others, but seen within the context of a larger social and economic system, the Tuareg diaspora appears an integral part of a multi-ethnic Central Sudan society and economy.

The commercial infrastructure was centered in urban communities, where brokers, landlords, and craftsmen were located, while livestock were often kept at rural grazing sites, which became centers not only for camel herds but also for villages and estates adjacent to campsites. The principal confederations of Tuareg visited different areas of Hausaland, with the Kel Gress and Itisen concentrating on markets south of Adar and the Kel Ewey visiting areas further east. Markets overlapped, however, as an account from the 1820s indicates:

During the whole of the dry Season they remain in Houssa, principally in the Provinces of Kano, Kashna [Katsina], Zamfra [Zamfara], and Saccatoo [Sokoto]. The latter are mostly Killgris [Kel Gress]: and Kashna and Kano are the principal resort of the Etassen [Itisen] and Killaway [Kel Ewey]: they do not live, except a few, in houses in the town, but build temporary huts in the woods, not far from them, where they have their wives, their bullocks, horses,

and camels, the men only visiting the town: in this way they live until the month in which the rains commence, when they retire north to the desert.

The permanent grazing camps and related urban business establishments which accommodated this trade not only handled the loads of thousands of camels and pack oxen but considerable numbers of people, too, perhaps as many as a couple of thousand each year.

Urban communities associated with the Tuareg were located in nearly every city and town. They relied on residents who themselves were descendents of Agades merchants, and hence were identified as Agadesawa and Asbenawa, people of Agades and Air respectively. Further west, in the Sokoto area, immigrants from the north called themselves Adarawa, or people of the Adar. Many northern immigrants ran lodging houses (*masauke*), operated brokerage firms, and provided storage facilities. Others became craftsmen or processed dried meat (*kilishi*) for sale to merchants and other travelers. Meeting some Agadesawa in 1850, Barth learned that they were established in the northern provinces of Hausa, chiefly in Katsina and Tasawa, "where living is infinitely cheaper than in Agades." He thought that these were all "intelligent men, having been brought up in the center of intercourse between a variety of tribes and nations of the most different organization, and, through the web of routes which join here, receiving information of distant regions." Katsina's community was particularly important in the eighteenth century, when its merchants engaged in importing kola nuts and exporting Borno salts, textiles, leather goods, and other items to Borgu and the middle Volta basin.

In the nineteenth century Tuareg merchants, including a deposed Agades sultan, operated in the principal cities of the Central Sudan. The Kel Azanieres, for example, a rich and powerful Kel Ewey section with its principal dry-season base in Zinder, traded in Katsina, Kano, Sokoto, and Hadejia. Although section members cooperated with each other, every wealthy Tuareg operated on his own, even if he lacked a network of agents with permanent residences in the major cities. A "considerable estate" located outside K'ofar Wombai, one of the main gates of Kano City, belonged to one Tuareg merchant whose "company of slaves," certainly *bugaje*, conducted business while he was traveling. Tuareg nobles called on the services of such *bugaje* who were empowered to act in their interests. The use of servile employees was common in all sectors

of the Tuareg economy, and it was also common practice among the North African merchants, the partners and backers of the Tuareg in the trans-Saharan trade.

Typical of the arrangements for bulking and distribution were those used by the Tuareg in Zinder. Just north of the city was a small community of settled Tuareg, and slightly farther north, not more than a kilometer away, was the large camp (*zongo*) of the nomads. Nobles from a dozen Kel Ewey sections maintained dry-season homes at this campsite, and used their houses as bases from which to sell salt and dates. They entrusted goods to their servants, who traveled to periodic markets nearby. Other servants took herds to pasture and returned from time to time if grazing lands were not far from the *zongo*. When the Tuareg left for Aïr each year in June, they took most of their dependents with them, but they left servile women in charge of their houses and possessions. These women sold salt and dates from the previous year's caravan on their master's account. Since they were by themselves for about half of each year, they were able to accumulate resources by trading with their master's capital, and Tuareg nobles saw nothing wrong in this. Several women from the *zongo* near Zinder became landlady-brokers for stranger Tuareg belonging to sections which did not maintain camps near Zinder. They lodged their guests, helped them sell their goods and buy local manufactures and grain, and provided storage facilities. Tuareg women maintained houses and performed similar functions in Agades, Kano, Bichi, and Hadejia. In a matrilo-cal society, the need to provide the services of landlord-brokers elicited a response from those who normally maintained permanent residences, that is, the women.

Until the early twentieth century, many of the important merchants in the Central Sudan were either northern immigrants or their descendents. In Zinder, for example, two important traders of the late nineteenth century were the descendents of Agadesawa who settled in Tessaoua. In the first two decades of the twentieth century Manzo Kandarga, a freed slave of the *anastafidet*, or leader of the Kel Ewey sections, dominated the commerce of the city. When Manzo Kandarga died, two of the traders who replaced him were Agadesawa descendents. At the end of the nineteenth century the local trader with the largest business in Zinder was Malam Yaro, the son of a servile Tuareg woman and a man who was either an assimilated North African or a Kanuri immigrant. Malam Yaro's business was large enough that his financial and banking system has come

to light. North Africans who did business with his firm could sell in Zinder and buy in Kano by taking advantage of an institution for the delegation of credit from one person to another. A North African or Tuareg merchant could sell goods to Malam Yaro in Zinder, but receive in lieu of payment a letter instructing the firm's representative in Kano, Malam Yaro's half brother, to give the traveling merchant goods worth the amount deposited in Zinder. The balance was regulated by transfers of the same kind in the other direction, or by transfers of money or merchandise within the firm. This delegation of credit, called *hawald* in Arabic, was common practice among North Africans as well. The merchants of the Tuareg communities in Sudanese cities borrowed this practice, and undoubtedly others as well, from the commercial culture of North Africa.

Outside the main cities grazing camps were sometimes so extensive that whole communities grew up around them. The prosperous town of Bichi developed adjacent to one campsite twenty miles northwest of Kano City, as noted by Barth.

The town is very remarkable, as exhibiting the peculiar circumstances of the social state in this country [in 1850], for it belongs partly to the Tawarek tribe of Itisan, whose buze or serfs – properly half-castes, born of free mothers, but slaves from the fathers' side – live here cultivating for their lords the fields around the town. Thus we see Tawarek every where, not only as occasional merchants, but even as settlers and proprietors.

Around the town were several small servile villages founded by Tuareg merchants and immigrants. The name of one village, Damargu, reflects the origin of its inhabitants. It was settled in the eighteenth century, and perhaps earlier, and its first six village heads were from Aïr. The family of Madugu K'osai, the famous nineteenth-century Tokarawa caravan leader and kola trader, was associated with this village. 'Yan Gwarzo and 'Yan Bundu, only a few miles away, were other *bugaje* villages near Bichi. Similar Tuareg communities existed at K'ofar Guga, the quarter near Katsina's northwestern gate, at Bebeji in Kano Emirate, at Zinder in Damagaram, and at Zirimi in Zamfara.

Tuareg investment and the immigration of people from the north led to the formation of other communities in the savanna, which specialized in a wide variety of crafts and commerce only indirectly connected with the desert-side sector. Immigrants were

welcome in the savanna, as was anyone who helped increase population and promote economic growth. Some northerners, at least, were even appointed village, ward, or town heads, while others engaged in such crafts as dyeing and leatherworking. In Zinder, for example, most tanners were *bugaje* or Hausa who lived in the Tuareg encampment. These craftsmen lacked resources or their own, so Tuareg or North African financiers gave them raw skins to work and paid them in kind when the finished product was delivered. Immigrants of northern origin were involved in the extensive textile production of Kura, a town twenty miles south of Kano, which catered to the Tuareg demand for black turbans and veils. Other northerners pursued crafts in Gwarzo and neighboring towns and villages in the Kano area.

Many Tuareg-controlled agricultural communities were not specifically associated with grazing camps or urban centers. Most were located in the Katsina and Kano Emirates and were really an extension of the sahelian agricultural system. Annur, for example, had an estate outside Zinder in the mid-nineteenth century, in addition to villages in Damerghou and near Tessaoua, while his brother Ennaji, who headed the salt caravan of 1850, owned a place at Kazaure, thirty-five miles north of Kano, and supported a Muslim cleric at Gezawa, fifty miles north of Katsina. The inhabitants of these southern communities were servile in status and known as *bugaje* to their Hausa neighbors, but otherwise they were nearly indistinguishable from others in Hausa society. They formed the nucleus of the Agalawa, or "Southerners," whose ranks were swelled in the late eighteenth and nineteenth centuries by immigrant farmers from the north. The Agalawa became famous for their success in the savanna trade, particularly importing kola nuts from Asante and exporting Borno salts, textiles, leather goods, and dried onion leaves (*gabu*) to Borgu and the middle Volta basin. Their first concentrations were near Katsina, the most important eighteenth-century Hausa commercial center, but after c.1806 many people left for the Kano area, where the economic boom following the success of the *jihād* attracted other immigrants as well. In Kano Emirate, however, the Agalawa were recognized as fully assimilated members of Hausa society with only historical ties with the Tuareg. Other immigrants included the Tokarawa, whose ancestors abandoned nomadic livestock herding in the sahel in order to exploit commercial opportunities in the savanna; like their distant cousins, the Agalawa, they usually imported kola.

Some of these people were descended from servile nomads who lost their herds and were forced south to become farmers in the Hausa countryside, and they naturally settled close to the Agalawa. Others were more fortunate and reinvested livestock proceeds in new commercial ventures. These immigrants, like the Agalawa, adopted a corporate name and distinctive facial markings (*askar*) to promote their business interests. The continued use of *bugaje* as a term of reference reflected overlapping backgrounds, although in Kano they considered themselves full members of Hausa Muslim society. Many accounts trace ancestry back to the late eighteenth or early nineteenth century, but the pattern of immigration continued throughout the nineteenth century and into the twentieth. Together with the more numerous Agalawa, the Tokarawa accounted for a large portion of the prosperous commercial class of Kano and other towns at the end of the nineteenth century, and in the twentieth they commanded enough capital to play a major role in the economy of developing the colonial economy of northern Nigeria, particularly by investing in produce buying and motor transport and by continuing to dominate kola wholesaling.

Tuareg investment in the savanna, the immigration of such people as the Agalawa, Tokorawa, and others, and the operation of the livestock industry, with its dependence upon scarce resources, demonstrate the interrelationships between desert and savanna and help elucidate questions relating to ethnicity. Not only does the integration of Tuareg society and economy within a larger sphere suggest that the organizational principles behind ethnic identification were related to economic specialization, but the use of surnames, facial markings, and other identifying features also accompanied ever-increasing economic diversification. Pure Tuareg were nobles and nomads, and closely connected with the management or operation of livestock production, transport, and desert-oriented trade. Immigrants in the savanna were associated with one or another aspect of the commercial infrastructure which handled Tuareg operations, or they branched off into some other activity, such as the kola trade in the case of the Agalawa and Tokarawa. Hence a series of ethnic boundaries or sub-boundaries obtained, so that analysis must constantly exploit distinctions in order to unravel economic specialization and change. A process emerges through this analysis which was closely related to economic cycles and shifting opportunities. A preliminary analysis of these cycles suggests a relation between periods of famine

and agricultural prosperity, although such political changes as the *jihad* between 1804 and 1808 also had major repercussions.

DROUGHT AND MIGRATION CYCLES

The Tuareg trade network and commercial infrastructure not only formed a link between the economies of desert and savanna, but also provided a safety valve for the desert during drought, particularly those lasting more than several years. These climatic cycles, though rare, were among the chief determinants of the direction and extent of economic activity in the Central Sudan, for they served as a demographic pump to channel specialized personnel into the savanna economy. Over the centuries the low points in the cycles represented limits in the growth of the desert-side sector, which was always more severely affected in period of drought because the rainfall there, even in good years, was marginal. Since the desert sector could not grow beyond a certain point, the forging of close links with the savanna and ever-expanding investments there were inevitable.

The present analysis is most complete for the eighteenth and nineteenth centuries; the chronology for early droughts, especially those before the middle of the eighteenth century, must be considered tentative. This is especially true for the seven-year drought in Borno in the mid sixteenth century, the eleven-year famine in Kano at the turn of the seventeenth, and the seven-year famine in Borno at the beginning of the eighteenth. Nevertheless, famines of these magnitudes must have seriously affected large parts, if not all, of the southern Sahara and the Central Sudan and set in motion major population shifts from the desert and sahel. Numbers of livestock must have declined, and related changes in political and economic power must have altered the stratification of Tuareg society. By the mid eighteenth century the Kel Ewey emerged as the dominant force in Aïr, and they accounted for a larger proportion of darker-skinned Tuareg than their claims to a North African origin can support. The Kel Gress and Itisen were evicted from Aïr in the 1690s, and by the mid-eighteenth century they were well established in Adar. These were only the broadest political changes in the period before 1750, but the major geographical division among the dominant Tuareg confederations lasted well into the nineteenth century.

Beside information on droughts, some observations can be made on early periods of prosperity. The reign of Mai Idris b. Ali of Borno, for example, was one such time. He ruled for over fifty years,

beginning in about 1563. There was an eleven-year drought at Kano toward the end of Idris's term, but the reference to Borno prosperity suggests that it may not have reached Borno. This would suggest that the drought was localized and not as severe as some others that affected the region as a whole. Furthermore, for most of the seventeenth century, until the 1690s, only one drought is reported, perhaps of short duration since the number of years is not recorded. More precision is impossible at present because it occurred during the forty-year reign of Mai Ali b. Umar. The famine at Agades in the 1690s coincided with a war between different sections of the Tuareg, in which the Kel Ewey defeated the Kel Gress and Itisen forces in the struggle for Aïr; it appears to have been of only one or two years' duration and may not have been accompanied by drought.

Much more can be said for the eighteenth century. A seven-year drought hit Borno sometime between 1690 and 1720, but it is not reported in Hausa country, although it could have coincided with the famine among the Tuareg in the 1690s. But the major catastrophe of the century was the drought of the 1740s and early 1750s, and for this a great deal more information is available than for any other drought until the present century. This alone suggests its severity. Although Borno chronology is confused for this period, it is known that famine overlapped the reigns of two *mai*, the first of whom reigned for three years, possibly in the late 1740s but probably from 1750 to 1753. The drought lasted for most, if not all, of both reigns. It was particularly severe for two years, probably in the 1740s, when it acquired the name 'Ali Shu. At Kano, this period is remembered as a time of trouble, principally because of the protracted war with Gobir, but drought probably contributed to the memory. This is especially so because the reign of Alhaji Kabe, c.1743-1753, is contrasted with the period of general prosperity and immigration that followed. What can be called the Great Drought of the 1740s and early 1750s swept most of West Africa along with a series of epidemic. It was severe in the middle Volta Basin, the Niger bend area around Timbuktu, and in the Senegambia region.

Another drought occurred in the 1790s, and while it was not as desiccating as the Great Drought, it did force the evacuation of Agades, deplete grain stores in Kano which had been set aside to safeguard against famine, and probably is to be identified with a drought which hit Borno within a decade after 1793. Many Agade-sawa merchants attached to Tuareg networks in the Hausa cities

moved to the savanna at this time, and at least some Agalawa immigrants trace their ancestry to this period as well.

The nineteenth century is remarkable for the absence of any multi-year droughts, and only one severe drought is reported. Hence much of the immigration during this century was an outgrowth of decisions to reinvest capital acquired on the desert edge in response to opportunities in the savanna rather than to a loss of capital and emigration by necessity. The period to the 1840s was remembered as a time of great prosperity interrupted in 1847 by a year of scarcity. The most severe time was the drought of 1855, called *banga-banga*, when for thirty days at a time no grain was available in Kano, and people were forced to eat vultures. Years of more localized scarcity or inadequate rainfall are reported for 1863, 1864, 1873, 1884, 1889, and 1890. The impression gained from traveler accounts that the nineteenth century was a period of favorable climate compared to both the eighteenth and twentieth centuries is confirmed by research on the level of Lake Chad. In 1874 Chad was at the highest level in living memory, but it dropped rapidly with the dry years before and after the turn of the century, and was lowest in 1913.

Although little evidence on reactions to pre-colonial drought is available, knowledge of recent patterns and the human ecology of the sahel suggests a model of a drought-recovery cycle. The events of the early twentieth century represent an important source of information on cyclical patterns in the desert economy, and although the context of these events must be considered in attempting to reconstruct earlier cycles. The crisis in the desert economy after the turn of the century was the result of the interplay of a number of factors. The trans-Saharan trade collapsed, in part because of the completion of the railway from the coast to Kano in 1911. The end of trans-Saharan business marked the loss of an important source of income for the Tuareg, while the presence of the colonial governments in Niger and Nigeria undermined their military superiority and interfered with the collection of tribute from sedentary people. The Tuareg had the salt and animal trades to fall back on, but the French upset these activities as well. French military forces in need of pack animals and remounts commandeered camels belonging to the Tuareg, often without compensation. The drought from 1911 to 1914 compounded the problem by causing further losses of camels, perhaps on a magnitude about equal to those resulting from French military confiscation. Further requisitions during World War I added

to tensions, with the result that the Tuareg revolted in 1916. This uprising seriously challenged the colonial presence in the desert and magnified the existing crisis in the desert-side economy. The French used severe measures to repress the uprising, so much so that the majority of people in northern Air left for temporary exile in Nigeria. In 1938, twenty years later, the desert economy was still in the process of recovery. In that year the size of the salt caravans, which observers said was proportionate to the size of camel herds, finally approached the pre-crisis level, but not until the 1950s were the caravans as large as the average for the years between 1910 and 1913. Such a long period of regeneration can be hypothesized for severe droughts like that of the mid eighteenth century.

The impact of warfare such as that associated with the 1916 revolt and its repression was roughly similar to that of severe droughts. Gaining a livelihood from the desert depended on a constant search for pasturage and water, but this became impossible when combatants filled in wells, making movement extremely difficult and hazardous. Neutral sections were often caught in the fighting, since raiding parties were interested in the animals and grain supplies not only of their enemies but of non-combatants as well. Many Tuareg responded by leaving the desert until the fighting was over, moving temporarily to the southern end of the network. This is what happened during the revolt of 1916, when much of the Air Massif became uninhabitable and was temporarily abandoned.

Among the first people to move south in 1913 drought were the sedentary farmers of Damerghou, whose crop failures gave advance warning of the impending disaster. They took their animals to Katsina and Sokoto and traded them for millet or locust beans (*dorowa*), which supplemented the diet when millet prices were high. Some old people and children stayed behind in Damerghou but were supplied from time to time by villagers returning with provisions. Because they left early and were able to sell their animals before the price fell drastically, they suffered less than their neighbors to the south in Damagaram, although deaths from starvation occurred in Damerghou as elsewhere. In the desert drought resulted in a mass exodus of nomads trying to save themselves and their herds. The desert economy contracted and nomadic Tuareg and their dependents left for the extreme southern end of the Tuareg network. Nobles provided for servile nomads attached to their camps as far as they were able, for they considered these dependents to be members of their families. But nobles held rights

of ownership to many of the animals in the herds of independent *imrad* sections, and to many of the animals belonging to independent nomads of lesser status as well. Tuareg social structure defined hierarchical claims to resources, and this blueprint of the order of precedence functioned efficiently during times of drought, when resources were scarce. Accordingly, nobles claimed many of the animals herded by independent nomads of lesser status, so that many no longer had herds large enough to support their families. When the disturbance in the desert economy was especially prolonged, as in the case of the drought of the mid eighteenth century or the upheaval associated with the 1911-1914 drought and the 1916 revolt, many immigrants from the north were permanently lost to the desert economy through sedentarization. Unfortunately, even a rough estimate of the proportion of the nomadic population which spilled over into the savanna is not possible, even in the case of the migration of the early twentieth century, when data are abundant in comparison with earlier periods.

In times of scarcity nobles and their retainers depended on the hospitality of servile farmers settled on estates deep within the territory of the sedentary states. In normal years they stayed only for a short time as they passed through, primarily to collect tribute and settle disputes. But during hard times nobles stayed until the weather improved and herds recovered. Estates in the south were least affected by drought, but the prolonged presence of the nomadic master constituted a serious burden when grain surpluses were marginal.

Just as the Tuareg social structure collapsed during hard times, it expanded again when the weather improved or political conditions returned to normal. Nobles collected their personal followers and headed north. As the herds grew and could support a larger population, nobles called on *imrad* or other servile Tuareg who had become temporarily sedentary or semi-sedentary working on farms to return to grazing herds. Nobles enticed people into their followings by loaning them animals. The population which had been superfluous and even dangerous during periods of scarcity gradually became necessary once again to take charge of surplus animals, to trade, and to undertake transport and escort duties.

The assimilation of outsiders during economic recovery took several forms. First, Tuareg participation in wars between sedentary states or raids on sedentary peoples produced captives; Kel Ewey

and Kel Gress sections exchanged these, so that the necessity of keeping a close watch on newly-acquired slaves was reduced. Once acquired, slaves were quickly assimilated into Tuareg society. Their status began to evolve almost immediately, and they were given progressively greater freedom of movement. This spatial mobility was the basis of a social system, which adapted to the cyclical nature of the desert-edge climate. As opportunities in the north improved, free farmers left the southern states, moved toward the desert edge, and established tributary relations with nomads. This is exactly what happened in Damerghou in the late eighteenth and early nineteenth centuries, when the area was repopulated with immigrants from Katsina, Gobir, Daura, and western Borno. This movement appears to have continued the resettlement of the sahel which followed the disastrous drought of the 1740s and early 1750s, but a break in the pattern must have occurred with the drought of the 1790s.

The cyclical pattern of desert-edge regeneration gradually produced a situation in which some people were able to move from the sahel and southern Sahara because they became successful and decided to reinvest in the savanna. This movement was a steady trickle compared to the larger movements of people fleeing drought conditions, but it was an important source of capital. The investments of successful Tuareg businessmen in southern estates accounted for some of this demographic shift, and servile farmers from the sahel could move to Agalawa communities in the savanna if crops failed in the north and conditions looked better on another estate in the south. These northern immigrants also assumed the Agalawa identification. In the Tokarawa case, sedentarization and emigration from the north was steady but gradual throughout the nineteenth century, as some servile nomads were forced south through the loss of livestock, while others used capital derived from livestock sales to reinvest in the lucrative kola trade. Family traditions recount stories of men who had lost everything in the north and others who moved with their herds. Some wealthy cattle dealers successfully established their sons in kola importing, and in two instances sons became major caravan leaders.

THE DESERT EDGE IN THE COLONIAL PERIOD

Until recently the desert sector provided impetus for growth and change in many areas of economic activity in the Central Sudan. Nomads dominated commerce because of their long experience in trade across the ecological frontier, their association with

the trans-Saharan trade, their ownership of transport animals, their ability to accumulate surplus pack and slaughter animals in times of prosperity, and their military superiority based on wealth and mobility. Capital accumulated in the desert sector was often invested in trade and production in the savanna, as the examples of nomadic participation in the sahelian leather and cloth industries and the numerous cases of investment in grain-producing estates and servile villages demonstrate. When nomads came to live permanently in the savanna in times of prosperity they brought capital with them, and even if they were fleeing drought they brought at the very least valuable experience in commerce.

The economies of the desert and savanna continued to be closely integrated in the twentieth century, but the desert was no longer an important source of commercial capital and specialized personnel. The explanation for this change lies in the crisis in the desert that followed the imposition of colonial rule. The new economic situation upset the centuries-old pattern in which sahelian merchants moved south to invest in savanna trade and production as an offshoot of their desert trade. Many of the leading merchants in Hausa society were descended from Tuareg immigrants, and they continued to be important in trade even after the desert-edge was marginalized. They participated in the reorientation of trade toward the coast and its new commercial opportunities, although the same opportunities were within the reach of many Hausa, many of whom entered the lower levels of the distribution hierarchy that surrounded the export of peanuts and the import of European textiles and other manufactures. The position of northern immigrants and Tuareg capital in the savanna declined in the twentieth century, nonetheless. The unusually heavy migration from the desert in the early twentieth century did not produce new groups of merchants. Most *bugaje* immigrants in Damagaram, to take an example, were destitute, and they tended to concentrate their dry-season commercial activities in the natron trade. Although it offered limited opportunities, they lacked the capital necessary to deal in livestock, and instead, Hausa- and Kanuri-speaking farmers invested heavily in animals.

CONCLUSION

The relationship of the desert edge to the economy or the Central Sudan demonstrates clearly how flexible ethnicity can be as an organizing principle. In this region ethnic groups have been

categories of ascription and identification by and for the people involved, and as such ethnicity has organized interaction among people. Identification related most specifically to ecological specialization, in which different groups of people exploited distinct niches in the environment and where interaction was primarily limited to commerce and the maintenance of hierarchies including servile relationships. Methodologically, these organizing principles have assisted in historical reconstruction, not in the simplistic fashion in which the migration myths of whole peoples are often imagined as being historically accurate, but rather the structure of the desert-edge society comes into focus in its regional context, which informs the analysis of economic change.

Notes

1. An earlier version was originally published, with Stephen Baier, in the *International Journal of African Historical Studies*, 8:4 (1975), 551-81.
2. The literature on nomads and the desert edge is extensive. See, for example, O. Lattimore, *Inner Asian Frontiers of China* (New York, 1940); Philip D. Curtin, *Economic Change in Pre-Colonial Africa: Senegambia in the Era of the Slave Trade* (Madison, 1975); William Irons and Neville Dyson-Hudson, eds., *Perspectives on Nomadism* (Leiden, 1972), Fredrik Barth, *Nomads of South Persia* (Oslo, 1961); and Cynthia Nelson, ed., *The Desert and the Sown: Nomads in the Wider Society* (Berkeley, 1974).
3. This argument proceeds within the theoretical framework advanced by Fredrik Barth, *Ethnic Groups and Boundaries* (Bergen, 1969), but also see Michael Horowitz, "Ethnic Boundary Maintenance among Pastoralists and Farmers in the Western Sudan (Niger)," in Irons and Dyson-Hudson, eds., *Perspectives on Nomadism*. 105-14; and Johannes Nicolaisen, *Ecology and Culture of the Pastoral Tuareg* (Copenhagen, 1963).
4. For an introduction to Tuareg economy, see Nicolaisen, *Pastoral Tuareg*, but also see Maurice Abadie, *La Colonie du Niger* (Paris, 1927), Boubou Hama, *Recherche sur l'histoire des Touareg Sahaliens et Soudanais* (Paris, 1967), especially 339-40, 347-50; Hama, ed., *Documents Nigeriens. Tome I, L' Air* (Niamey, 1969). Yves Urvoy, *Histoire des populations du Soudan central (Colonie du Niger)* (Paris, 1966), 164-83; Urvoy, "Chronique d'Agades," *Journal de la Sociétés Africanistes*, 4 (1934), 145-77; Murray Last, *The Sokoto Caliphate* (London, 1967), 24-36, 107-13.
5. Air Tuareg need eight to ten liters of milk a day when living solely on milk, but they "claim they get weary from constant milk drinking." See Nicolaisen, *Pastoral Tuareg*, 209, 213.

6. Nicolaisen, *Pastoral Tuareg*, 8, 211; Francis Rennell of Rodd, *People of the Veil* (London, 1926), 402; and Camille-Charles Jean, *Les Touaregs du Sud-Est l'Air* (Paris, 1909), 100-17.
7. Heinrich Barth in August Petermann, "Progress of the African Mission, Consisting of Messrs. Richardson, Barth, and Overweg, to Central Africa," *Journal of the Royal Geographical Society*, XXV (1851), 146-47. Also see Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857), I, 374; M.J.E. Daumas and Ausone de Chancel, *Le Grand désert: Itinéraire d'une caravane du Sahara au pays des Kel Gres – Royaume de Haoussa* (Paris, 1856), 172; and C.A. Walckenaer, *Recherches géographiques sur l'intérieur de l'Afrique septentrionale* (Paris, 1821), 449.
8. Barth, *Travels*, I, 374.
9. Friedrich Konrad Hornemann, *The Journal of Frederick Hornemann's Travels from Cairo to Mourzouk, the Capital of the Kingdom of Fezzan, in Africa, in the Years 1797-98* (London, 1902), 109-10. Also see Barth, *Travels*, I, 519.
10. Transport costs in the savanna between Zinder and Zungeru at the same time averaged 50 per cent higher. See Henri Gaden, "Notice sur la residence de Zinder," *Revue des Troupes Coloniales*, 11, 17 (1903), 650, 652, 790, "Notice politique et commerciale sur l'Azbin" (August 1903), Archives du Department de Zinder, Zinder (hereafter ADZ). See also Stephen Baier, "African Merchants in the Colonial Period: A History of Commerce in Damagaram (Central Niger), 1880-1960" (unpublished Ph.D. dissertation, University of Wisconsin, 1974), 127.
11. Barth, *Travels*, I, 291.
12. For the salt industry of Bilma, see Abadie, *Niger*, 274-75; Hama, *Touareg, Saharais et Soudanais*, 362-63; Nicolaisen, *Pastoral Tuareg*, 214-15; "Etude du Capitaine Lefebvre sur la question de Bilma (août 1904)," 11 G 2, No. 4, Archives de la Republique du Sénégal, Dakar [hereafter ARSD]; James Richardson, *Narrative of a Mission to Central Africa Performed in the Years 1851-51* (London, 1853), II, 117, and Henry Beaufoy, "Mr. Lucas's Communications," *Proceedings of the Association for Promoting the Discovery of the Interior of Africa* (London, 1967), I, 169. For the volume of trans-Saharan trade between Tripoli and the Central Sudan at the end of the nineteenth century, see Baier, "African Merchants," 19-20, 52-57.
13. For the trans-Saharan trade, see Hornemann, *Journal*, 64; James Richardson, *Travels in the Great Desert Sahara in the Years of 1845 and 1846* (London, 1848), II, 17, 115-17; and Barth, *Travels*, I, 159-69. Also see A. Adu Boahen, *Britain, the Sahara, and the Western Sudan, 1788-1861* (London, 1960); Boahen, "The Caravan Trade in the Nineteenth Century," *Journal of African History*, III, 2 (1962), 349-59; and C.W. Newbury, "North African and Western Sudan Trade in the Nine-

- teenth Century: A Re-Evaluation," *Journal of African History*, V11, 2 (1966), 233-46. See also Baier, "African Merchants," 48-78.
14. Baier, "African Merchants," 52-57, 60-61.
 15. For Tuareg-controlled agricultural villages in Adar and Damerghu, see Stephen Baier, "The Trade of the Hausa of Damerghou, 1900-1930" (unpublished paper presented at the Fifteenth Annual Convention of the African Studies Association, Syracuse, 1973). For earlier references, see Hugh Clapperton, *Journal of a Second Expedition into the Interior of Africa* (London, 1829), 195-96, and Barth, *Travels*, III, 97, 101, 103.
 16. Barth, *Travels*, I, 321, 420, 422; and Richardson, *Mission*, II, 170.
 17. Interview with Haruna Biriam at Malam Tilum, 14 Oct. 1972, Baier Collection, Tape 41, African Studies Association Center for African Oral Data, Archives of Traditional Music, Indiana University, Bloomington, Indiana [hereafter Baier Collection]. Also see Baier, "Damerghou."
 18. Richardson considered *bugaje* to be "Tuaricks, who having settled in Soudan, have forgotten their own language, speaking only Hausa.... On the south, they are scattered in villages and towns, or wandering in tribes, along the north banks of the Niger. [And]...they are scattered... through the extensive provinces of Housa, subjected to the Fullahs." *Mission*, II, 165. See also Baier, "Damerghou"; and Barth, *Travels*, I, 431.
 19. Gaden, "Notice," 650-54, interview with Guntu Nomo at Gangara, 13 Oct. 1972, Baier Collection. Tape 40. According to the prices Gaden reported in 1902, from two to four sheep could be traded for a load or millet weighing about a hundred kg. Nicolaisen's estimate for the 1950s put three to four camel loads of grain at about the same price as fifteen goats or sheep. Nicolaisen, *Pastoral Tuareg*, 213-14. For an account of the Agades-Damerghou trade, see Baier, "Damerghou."
 20. Baier, "Damerghou," 2-4.
 21. Rennell of Rodd, *People of the Veil*, 136-138, Nicolaisen, *Pastoral Tuareg*. 10-12, E. Bernus, "Les Touaregs du sahel nigérien," *Cahiers d'Outre-Mer*. 19 (1966), 12-16; J Clauzel, "Les Hierarchies sociales en pays Touareg," *Travaux de l'Institut des Recherche Saharienne*, 21 (1962), 136-48; and Henri Lhote, *Les Touareg du l'Ahaggar* (Paris, 1955).
 22. Barth, *Travels*, I, 439.
 23. For Darfur, see Gunnar Haaland. "Economic Determinants in Ethnic Process," in Barth, *Ethnic Groups*, 58-73; and Fredrik Barth, "Economic Spheres in Darfur," in Raymond Firth, ed., *Themes in Economic Anthropology* (London, 1967). For the Manga and Fulani, see Horowitz, "Ethnic Boundary Maintenance."
 24. Barth, *Travels*, I, 481.

25. Curtin, *Economic Change*. Abner Cohen, "Cultural Strategies in the Organisation or Trading Diasporas," in Claude Meillassoux, ed., *The Development of Indigenous Trade and Markets in West Africa* (London, 1971) 266-81; and Paul E. Lovejoy, "The Kambarin Beriberi: The Formation of a Specialized Group of Hausa Kola Traders in the Nineteenth Century," *Journal of African History*, XIV, 2 (1973).
26. For a detailed description of the economic ties between Sokoto, Adar, and the Tuareg of Azawak, see Djibo Hamani, "Adar, the Touareg and Sokoto. Relations of Sokoto with the Hausawa and Touareg during the Nineteenth Century" (unpublished paper presented to the Sokoto Seminar, Sokoto, January 1975).
27. Clapperton, *Journal*, 229.
28. Barth, *Travels*, I, 359, 372. *Kilishi* was a specialty of the inhabitants or Agadesawa ward in Kano.
29. Barth, *Travels*, I, 526, also I, 438; III, 73, 564; Richardson, *Mission*, II, 170, 179, 194; and Lovejoy, *Caravans of Kola*. For the operations of the Kel Azanieres in Zinder, see Roberta Ann Dunbar, "Damagaram (Zinder, Niger), 1812-1906: The History of a Central Sudanic Kingdom" (unpublished Ph.D. dissertation, University of California, Los Angeles, 1970).
30. See interviews with Muhamman Kane, Illali Ali, and Cillo Alassan at Zinder, 22, 30 May and 6 Oct. 1972, Baier Collection, Tapes 37, 38, 20, 36, and Barth, *Travels*, I, 486.
31. Lovejoy, *Caravans of Kola*; Baier, "African Merchants," 15-38, 69-73, 214-34, Muhammad Uba Adamu, "Some Notes on the Influence of North African Traders in Kano," *Kano Studies*, I, 4 (1968), 43-49.
32. Dunbar, "Damagaram," 202, 208, 224n; André Salifou, "Malan Yaroh, un grand négociant du Soudan central: la fin du XIX siècle," *Journal de l'Société des Africanistes*, 42 (1972), 7-27.
33. Baier, "African Merchants," 34-36.
34. Barth, *Travels*, I, 496.
35. Bichi Inspection Notes (1949-1950), Kanoprof 6/1, 331, Nigerian National Archives, Kaduna [hereafter NNAK]; interviews with Malam Abubakar and Malam Kasan, at 'Yan Bundu, 21 March 1970, Lovejoy Collection, Tape 22, Department of History, Ahmadu Bello University, Zaria, and Harriet Tubman Resource Centre on the African Diaspora, York University (hereafter Lovejoy Collection).
36. Barth, *Travels*, I, 467, III, 97, 739; Richardson, *Mission*, II, 179, 214-13; and Dunbar. "Damagaram."
37. See, for example, Bichi Inspection Notes (1949-1950), Kanoprof 6/1, 33V, NNAK; Baier, "African Merchants," 33-39; and Philip Shea, "The Development of an Export Oriented Dyed Cloth Industry in Kano

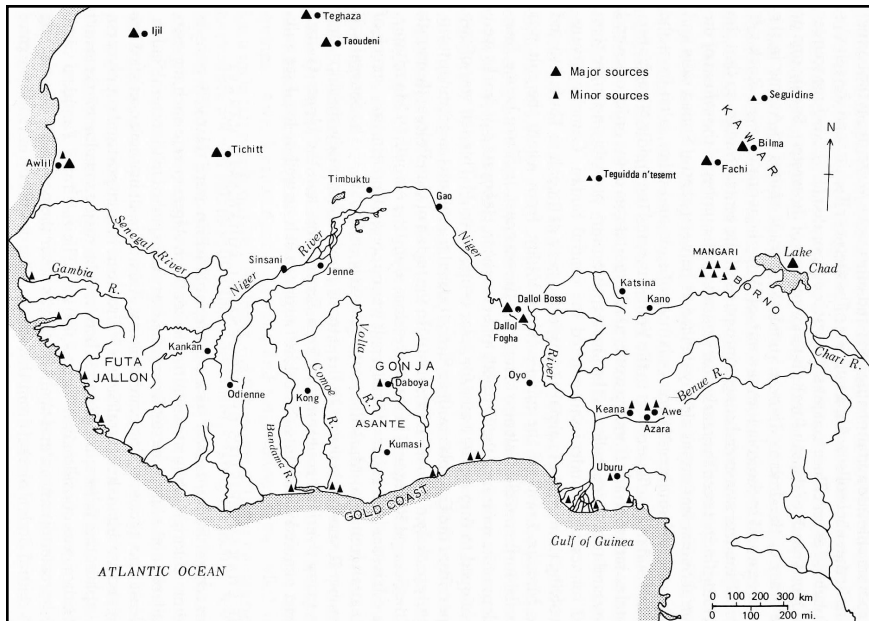
- Emirate in the Nineteenth Century" (Ph.D. thesis, unpublished, University of Wisconsin, 1975).
38. Barth, *Travels*, I, 442, 438, 467, III, 73, 564, Richardson, *Mission*, II, 2-3, 170, 179, 194. Annur also had estates in Aïr. For examples of other estates near Gobir, Tasawa, Maradi, and Zamfara, see Barth in Petermann, "Progress of the African Mission," 157; Barth, *Travels*, I, 441, 451, 456; III, 97, 101, 103.
39. Lovejoy, *Caravans of Kola*.
40. On the struggle between the Tuareg factions, see Hama, *Touareg Sahaliens et Soudanais*, 347-48, 391, who suggests that Tuareg pressure began in Adar in the seventeenth century, continued into the eighteenth, and included wars with Kebbi, Gobir, and Zamfara. Hama suggests 1770 as the date when the Kel Ewey gained complete control of Aïr. Urvoy, *Soudan central*, 183, 269, also argues that Kel Ewey supremacy was consolidated between 1750 and 1770. Nicolaisen, *Pastoral Tuareg*, 412, accepts an eighteenth-century date. Hornemann, *Journal*, 181-82, learned at Fezzan in 1797-1798 that the "Kolluvi [Kel Ewey] possess (from recent conquest, it would seem) the country of Agadez; which, with other provinces adjacent forms a state named collectively Asben." Barth, *Travels*, I, 278, thought that the Kel Ewey conquered Aïr around 1740.
41. "Tawarikh Salatin Barnu," Deutsche Morgenlandische Gesellschaft, ms. arab. 53 (photocopy, Northern History Research Scheme, Ahmadu Bello University, Zaria, uncat.), Abdullahi Smith, trans.
42. On the great drought of the mid-seventeenth century, see Curtin, *Economic Change*, appendix 1, Sekene Mody Cissoko, "Famines et epidemies a Tombouctou et dans la Boucle du Niger du XVI au XVIII siècle," *Bulletin de l'IFAN*, XXX, 3 (1988), 815; and "Kitab Ghunja," as translated in Jack Goody, *The Ethnography of the Northern Territories of the Gold Coast West of the White Volta* (London, 1954), 41.
43. Lovejoy, *Caravans of Kola*. In 1846 Agades contained an estimated eight to ten thousand inhabitants, but was much smaller than it had been in previous years, for a "great number of the people have emigrated to Soudan, where less labour is required to till the soil, and nature is more lavish in her productions." See Richardson, *Great Desert Sahara*, II, 144. Four years later Barth learned that the immigration had taken place at the end of the eighteenth century. Barth, *Travels*, I, 371.
44. Kano Chronicle," as translated in H.R. Palmer, *Sudanese Memoirs* (London, 1928), III, 116-30.
45. Hill, *Rural Hausa*, 131.
46. A.T. Grove, "Desertification in the African Environment," *African Affairs*, 73 (1974), 141. Grove, "A Note on the Remarkably Low Rainfall of the Sudan Zone in 1913," *Savanna*, 2, 2 (1973), 136. Although the drought was especially pronounced in 1913, Niger and Nigeria

- both had below average rainfall throughout the period from 1911 to 1914. See Grove, "Low Rainfall," 134, E. Bernus, "Drought in the Niger Republic," *Savanna*, II: 2 (1973), 130-31, and E. Bernus and O. Savonnet, "Les problemes de secheresse dans l'Afrique de l'Ouest," *Presence Africaine*, 88 (1973), 116.
47. See Baier, "African Merchants," 103-28, for a discussion of the crisis in the desert economy and the recovery.
 48. See Finn Fuglestad, "Les Révoltes des Tuaregs du Niger," *Cahiers des Etudes Africaines*, 49 (1973), 82-120. On French commandeering of camels see Rennell of Rodd, *People of the Veil*, 205, Niger, "Rapport politique, le trimestre 1915," 2G IS-2, Archives Nationales du Sénégal, Dakar [hereafter ANS]; Löffler, "Rapport sur les operations de Tibesti," TC 2 1, Archives Nationales du Niger, Niamey (hereafter ANN); and Baier. "African Merchants," 105-06.
 49. On the volume of the Bilma salt trade, see Baier, "African Merchants," 110 ff; a full list of the archival sources is given in *ibid.*, 112. The recovery of the salt trade between Taodeni and Timbuctu was also slow; see L. Genevieve, "Les Kounta et leur activités commerciales," *Bulletin de l'IFAN*, 12 (1950), 118-19.
 50. And grain prices could be very high, as they were early in the famine year of 1914, when a cow bought only two kg of millet, a price about five hundred times less favorable than in good years; see Baier, "Damerghou," 10-11; interviews with Amadu Mai and Haruna Biriam at Gangara and Malarn Tillum, 13 and 14 Oct. 1972, Baier Collection, Tapes 40 and 41. Nuts of the *dorowa* (*Parkia clappertoniana*) appear last on a list of famine foods obtained from village heads in the Dambatta district in 1973. Some of the foods higher on the list, such as cassava, wheat, and peanuts, became more available in subsequent years. See Michael Mortimore, "Famine in Hausaland, 1973," *Savanna*, II, 2 (1973), 105.
 51. For the immigration of the early twentieth century, see P. Gamory-Dubourdeau, "Etude sur la creation des cantons de sedentarisation dans le cercle de Zinder, et particulièrement dans la subdivision centrale (arrondissement de Mirria)," *Bulletin du Comité des Etudes Historiques et Scientifiques de l'A.O.F.*, 8 (1924), 239-58. See also interviews with Ibrahim Mahaman and Alhassan d'an Madugu Muhaman at Barbarkiya, 28 Aug. 1972, Baier Collection, Tape 29.
 52. Gaden, "Notice," 622.
 53. Interview with Ibrahim Muhaman, Baier Collection, Tape 29; "Rapport commerciale, 2 trimestre 1909," ADZ.

3 | **THE BORNO SALT INDUSTRY**

The production and distribution of salt had a unique position in the economy of Borno. Probably more salt was traded within its borders than anywhere else in pre-colonial Africa.¹ This industry defies simple generalization: methods of production varied; types of salt were numerous; labor organization ranged from slave to free and migrant; and patterns of distribution were complex. Many thousands of workers and merchants depended upon the trade, so much so that the prosperity of the state was closely related to salt production. By the nineteenth century, and probably much earlier, salt was exported to areas as far away as the Volta basin, the Guinea coast, and the upper reaches of the Congo River basin. This network of distribution and the many industries that it served demonstrates the key position of the Borno salt trade in the wider economy of West Africa, and from an early date.

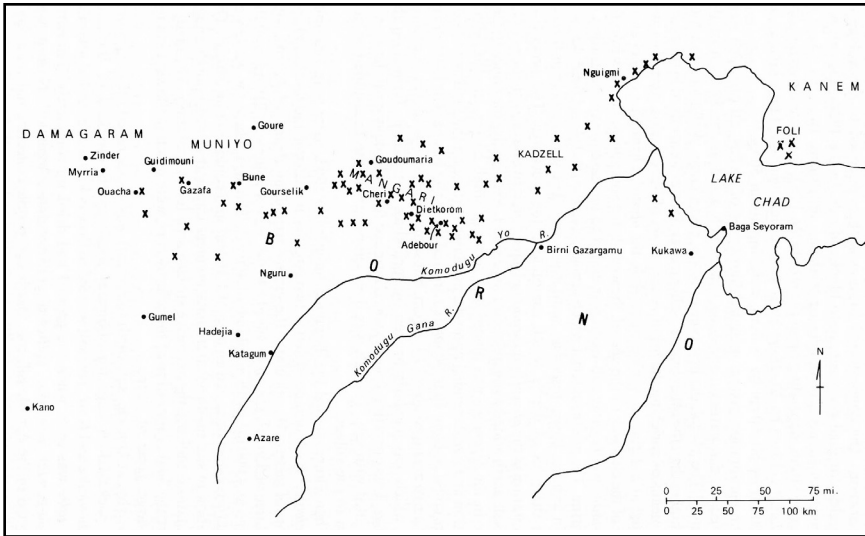
Although there is no direct evidence that a concern for the salt industry affected political decisions in Borno and neighboring areas, there is much circumstantial evidence to show that salt had been a major consideration affecting the history of the Central Sudan, at least since the fifteenth century. The separation of Borno from ancient Kanem in the fifteenth century led to a realignment of political power in the Chad basin.² Whereas the state when in Kanem had been centered to the east of Lake Chad, Borno was located to its west, and the shift in political power had far reaching consequences. Borno was a much more fertile agricultural region than Kanem, and it was located close to the even more fertile Hausa country. Borno also controlled the oases of Fachi and Kawar, on the caravan route to North Africa and crucial not only for trans-Saharan trade but also as the sites of major salt deposits. The types of salt from these sites included red natron (Dirkou), white natron (Djado, Sequidine), *kantu* salt (Bilma, Fachi), and small quantities



Sources of Salt and Natron in the Western and Central Sudan

of purer, higher priced salt (*beza*, *bilma*).³ These sources are the best known of the production sites in the Central Sudan, Their position on the route to North Africa meant that medieval Arabic writers were familiar with their locations, although there is no mention of salt production, except for alum. Because of the importance of Kavar in trans-Saharan communication, they have loomed large in Borno history. It seems likely that the salt resources were exploited from an early date. Because Borno had firm control of Kavar and Fachi in the sixteenth century, at least, the state dominated the trade with North Africa and hence benefited from the salt industry of the desert.⁴

The desert-side region of Borno, of which the Kavar and Fachi oases were an important part, included the whole area north of the Komodugu Yo River, the only major western tributary of Lake Chad, located in a relatively fertile valley. The area north of the river was called Yeri and included virtually all the centers of salt production in the state, not just those in the desert but many in the sahel as well. Indeed the river can be thought of as the divide between the source of salt and its market. The more populated southern parts of Borno consumed much of the output and also provided food-



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stuffs, manufactures and slaves for the north. Borno commanded the respect and often the tribute of numerous states and provinces even further south, including Bagirmi and Mandara in the south-east and many of the Hausa and Sosebaki states in the west. These dependencies in turn were a major market for Borno salt, much of which was redistributed even further.

The central location of the Komodugu Yo valley was recognized as early as the end of the fifteenth century, when a capital was established at Birni Gazargamu on the southern bank of the river. The town eventually became the center of a densely populated district, whose position was crucial to the salt industry of the sahel.⁵ Birni Gazargamu was within one hundred kilometers of perhaps two hundred locations where salt could be produced, so that the capital was well placed to oversee production and trade, and the metropolitan district could supply much of the agricultural and craft commodities needed in the salt camps. The northern side of the Komodugu Yo in effect consisted of a broad belt, which stretched from the Sosebaki states in the west to the shores of Lake Chad. The region subdivided into Muniyo, Mangari, Kadzell, and the islands and eastern shore of the lake. Only the lake itself was not under the political control of Borno, but even so the state was able to influence trade across the lake and hence salt distribution. The types of salt included several kinds of natron, *baboul* or *kige*, which was derived

from the ashes of bushes, and many varieties of *manda*, which was a mixture of natron and sodium chloride, and from the eastern shores of Lake Chad, *ungurnu*, or trona.⁶ The first direct evidence for salt production in these regions north of the Komodugu Yo and from the eastern shores of Lake Chad dates only to the nineteenth century, but geological conditions indicate that it is extremely likely that salt was in fact being processed before that time. It is clear that the potential output of this belt greatly exceeded that of the desert sites of Kawar and Fachi. Because the documentary sources are silent, the early organization of the sahel industry is unknown, but it seems reasonable to speculate that salt has been a major sector of the Borno economy since the fifteenth century.

It is possible to study the salt industry in the late nineteenth and early twentieth centuries, when there is ample evidence for an examination of its organization and economic importance. Based on this analysis, it is possible to detect major changes that appear to have occurred earlier. The analysis is necessarily uneven because of the nature of the sources. Broad patterns are clear for the eighteenth and early nineteenth centuries, but detailed material is available only for the late nineteenth and early twentieth centuries, when Borno had undergone at least one hundred fifty years of decline. Indeed, an examination of the salt industry provides a new perspective on the economic consequences of this political collapse. The purpose of this chapter, therefore, is two-fold. First, it involves an analysis of the salt industry in the economy of Borno at the end of the nineteenth and early twentieth centuries. Second, it provides a preliminary chronology for the economic disintegration of Borno in the eighteenth and nineteenth centuries.

Borno salts consist of sodium chloride, sodium sulfate, sodium carbonate, potassium chloride, calcium carbonate, sodium phosphate, potassium sulphate, and calcium sulphate in various concentrations.⁷ Those referred to as natron (*kanwa*) have low concentrations of sodium chloride (less than 4 per cent) and are high in sodium carbonate (20-75 per cent) but can include high concentrations of sodium sulfate and/or calcium carbonate. Mangari salt has even a greater variation in composition but generally has a higher concentration of sodium chloride (12-68 per cent), usually with significant amounts of sodium carbonate (many samples range from 11-31 per cent, but some are as low as 0.18 per cent) and sodium sulfate (15-56 per cent). Small amounts (less than 5 per cent) of potassium chloride are often found in these samples and occasion-

ally traces of other salts (sodium phosphate and potassium sulfate) are present. *Baboul* or *kige* salt contains virtually no sodium carbonate or sodium sulfate and consists primarily of sodium chloride and potassium chloride, with smaller amounts of calcium carbonate, potassium sulfate, and calcium sulfate. *Gwangwarasa* is different from the other types of natron in that it consists almost completely of sodium sulfate, and hence cannot be consumed by humans. The greatest variation in chemical composition is found in the natron and salt from the regions of Muniyo, Mangari, and Kadzell (see Table I). Geological conditions differed greatly throughout this wide area, so that the output from different places was unique. Indeed the salt and natron of Mangari and Muniyo can be thought of as falling on a continuum based on the amount of sodium chloride present. The desert sites were fewer and while variations existed among locations there were in effect only five or six types, compared to the hundred or more found in the sahel.

Borno salt was used for a variety of industrial purposes.⁸ By far the greatest industrial use was as a salt and medicine for livestock. White natron in powdered form (*gari*) was used for this purpose throughout the Central Sudan and beyond. Natron was used as a mordant in dyeing textiles, although this function was replaced to a great extent in the Hausa centers of the nineteenth century by using the residue from dye pits. In earlier times, however, when the Borno textile industry was more important, its use may have been greater. White natron was also used in making soap and it was mixed with ink.⁹ *Gwangwarasa*, found in only a few locations in Mangari, was used in tanning hides and skins. Since the leather industry was second only to textile production in the Central Sudan, the demand for *gwangwarasa* was very great.

The medicinal uses of the different salts were numerous: *ungurnu*, or trona, from the eastern shores of Lake Chad, white natron from Mangari and Kavar, and red natron from Mangari and Kavar contained high concentrations of sodium carbonates and hence were excellent for stomach ailments. Local medicinal knowledge credited the different types of natron with specific properties: some were milder and better for children and elders, while others were useful in pregnancy. Because Mangari salt was so similar to natron, it, too, could be used as medicine. In addition, natron and varieties of Mangari salt were used in various mixtures to treat dan-druff, problems related to pregnancy, eye disorders, infertility, and as an ingredient in curative potions and mixtures.

Culinary uses were equally specialized. Specific recipes required their own salt or natron. The standard Hausa millet porridge, for example, could be made with various grades of white natron, *ungurnu*, red natron, or Mangari salt; each recipe had a different name. Special meals were prepared for new mothers, in which the hooves of cattle were cooked in a brine made from Mangari salt. Most salts could be used as substitutes, and consumption depended to a great extent on price and availability. Nonetheless, it is clear that market demand influenced output. Since the tastes of the various salts differed, it is in the culinary uses especially that Borno salts faced competition from other sources. While Mangari salt was in great demand in rural Kano and Zaria, *baboul* was seldom exported that far west. Its consumption was confined largely to Borno, which suggests that production was never great enough to satisfy western demand. Similarly, the highest quality Kawar salt, *beza*, never filled the demand, and consequently good quality salt from Teguidda and other desert locations further west was found in the Central Sudan markets. Salt from the Benue River valley, especially from Awe and probably Keana and other sites, was also shipped north, since it was relatively pure in sodium chloride when compared with the Borno types.

Salt and natron were also mixed with tobacco, which was commonly chewed or taken as snuff. Salt, whether from Kawar, Mangari, or Lake Chad, was used widely for this purpose in the Central Sudan, Asante, the Yoruba states, and elsewhere. *Ungurnu* from Lake Chad was especially popular in Asante, but white natron from Muniyo was also common. Any salt could be added to bring out a pungent taste to the tobacco, and preference appears to have varied with the consumer and availability.

Each salt had its own market, despite the high degree of substitution. Fachi and Bilma salt was used in Borno, among the Tuareg of the Aïr Massif, Damergou, and Adar, throughout the Hausa country, and southward to the Niger-Benue confluence. Smaller quantities were also shipped further south and west. Natron from Kawar was more restricted; it was used by the Tuareg and in the Hausa country.¹⁰ Manda salt from Mangari was used in Borno and in the Benue valley to the south. It was also exported to Kano and Zaria, where in the nineteenth century it was common in the countryside. Natron from Muniyo and Mangari was sent throughout virtually all of what is now Nigeria and some was exported westward as far as Asante and the Mossi states. *Ungurnu* from Lake Chad was exported south of the lake throughout the Cameroons,

it was consumed in Borno and the Hausa country, and it was an important export as far west as Asante.¹¹ *Gwangwarasa* was used in the tanning centers of the Sokoto Caliphate and in Borno. Thus in the eighteenth and nineteenth centuries, Borno salt could be found throughout the Central Sudan from Lake Chad and the region south of the lake westward to include an area which today comprises all of Nigeria, Benin, Togo, Ghana, Niger, and parts of Upper Volta. Reports of Hausa caravans loaded with natron at Timbuktu suggest that Borno output may have served an even wider area.

Borno salt faced competition from other sources in this wide region, but these never produced enough salt to threaten the Borno industry. Several hundred tons of salt were produced at Teguidda, N-tesemt, to the west of Agades,¹² and comparable quantities were processed in Dallol Fogha and Dallol Bosso, south of the modern city of Niamey.¹³ In the Benue basin there were a number of sources, including Awe, Keana, Azara, and smaller sites, and their total output may have reached a thousand tons. Other sites to the south, including Uburu Lake and various places in Ogoja, supplied relatively local markets, while Daboya in the northern Asante province of Gonja and sea salt from many locations along the coast from the Niger Delta to the Volta River were also important.¹⁴ Vegetable salt, made from the ashes of acca and other plants, and relatively small sites at Bunza, south of Sokoto, and other places along the Niger and its tributaries met local demand for some salt, too. Finally, imported European salt, adulterated to satisfy taste, also contributed to the salt market.¹⁵ Despite these other sources, however, Borno production found a ready market.

The annual output of all types of Borno salt was probably on the order of 6,000-9,500 metric tons, although it is certain that the amount varied with political and climatic conditions. Of this figure, the desert sites of Kawar and Fachi probably accounted for 2,000-4,000 tons;¹⁶ *manda* from Mangari country may have amounted to 1,500-2,000 tons;¹⁷ *baboul* or *kige* from Kadzell may have been 150 tons or more;¹⁸ natron from Muniyo and Mangari probably totaled 1,000-2,000 tons;¹⁹ and *ungurnu* from Lake Chad may have exceeded 1,000 tons.²⁰ It is clear from these estimates that more salt, perhaps two or three times as much, was produced in the sahelian locations than in the desert ones. Estimates for the desert sites are more accurate than for the other areas because the camel caravans that crossed the Tenere were more easily calculated. Further south, caravans were much smaller but very frequent. The amount of sahelian

manda is possible to estimate through identification of production sites, while *baboul* centers were so widely scattered and impermanent that only a rough guess is possible. Similarly, the quantities of natron are difficult to judge. Natron produced in Muniyo and Mangari was usually piled into heaps wherever it was found, while there was extensive smuggling of *ungurnu* across Lake Chad. These difficulties suggest a wide margin of error in estimating sahelian output in particular and consequently output there may have been even more in good years than the above figures indicate.

Production sites varied greatly in size. The largest were the desert ones. In the Kavar Oases there were two large red natron pits near Dirkou, salt pits and depressions at Kalala and Bilma, salt at Ayemma, and white natron pits at Djado and Sequidine. The Bilma site consisted of an area fifteen hectares in size that was subdivided into a series of large holes, two to three meters deep, and five to six meters square, which were continually dredged in order to allow salt to form on the surface of the water. At Fachi, the pits were much larger, about sixty meters by thirty. These were subdivided into smaller workings that were separated by dams.²¹ Salt was formed into several shapes, the most important being *kantu*, large cones which weighed about fifteen kg or more, and smaller, flat cakes, called *kunkuru* or *foshi*. Better quality salt, *beza*, was packaged in small leather bags called *sukulmi*. The molds for *kantu* were made from palm fronds and the workers filled these with the salt that formed on the surface and edges of the water. It took several days before the salt was dry and could be removed from the molds.²²

The workers were slaves and their number probably approached several thousand. At one time they appear to have lived in many places in Kavar, perhaps during the sixteenth and seventeenth centuries when the political sway of Borno was most secure. By the eighteenth century and continuing into the nineteenth, the situation was uneasy, and in southern Kavar slaves were concentrated at Bilma. Kalala, the market town nearby whose name meant "salt pits," continued to be the center for the annual camel caravans, but after repeated Tuareg raids, it had to be abandoned as a permanent settlement.²³ Oases to the north shared a similar fate. Unless there were fortifications where the inhabitants could retreat if necessary, salt camps were temporary. The Fachi and Bilma fortresses were sufficiently secure to enable these places to remain major centers. Otherwise, slaves of the Tubu worked the more northerly salt sites,

and the southern ones remained in the hands of a sedentary Kanuri population.²⁴

Ownership of the salt works was divided between Tubu nomads and several Kanuri families, but the Tuareg secured special rights of access and tribute, probably in the last third of the eighteenth century and perhaps earlier. Originally, the Kanuri of Aneye, Dirkou, and Bilma had exclusive rights to the salt, but this changed, according to Grandin, in the sixteenth century when the Kel Gress Tuareg gained control of Bilma. Thereafter the Tuareg received an annual payment for the right to work the salt sites, except for approximately two hectares owned by the five principal Kanuri families of Kavar.²⁵ There is no evidence for Grandin's date for this transfer, however, and it seems more likely that these events occurred in the last third of the eighteenth century. In about 1759, an allied force of Tuareg nomads defeated Borno in a war over Bilma, with the result that the Kel Gress, Kel Ewey, and others associated with the Agades Confederation secured sole access to the salt trade and the right to collect an annual tribute. At that time, the Tuareg imposed a restriction on the inhabitants of Kavar that prevented the sedentary population from farming, except for the production of dates. This made the salt workers totally dependent upon the importation of grain and other foodstuffs. The abandonment of settlements in many parts of Kavar and the attacks on Kalala was probably related to this political situation. Indeed the eighteenth century is marked by many battles between Borno and the Air Tuareg in other regions, particularly in northern Muniyo, Kadzell, and even the area around Birni Gazargamu.²⁶ Another result of the changing political situation was increased Tubu influence in central and northern Kavar. Borno appears to have retained nominal sovereignty over the desert saltworks, but the Tuareg appointed a slave representative, the Boulama, to organize tribute payments and to oversee commercial negotiations.²⁷

Salt production in Muniyo and Mangari was far more scattered than the desert industry. First, natron was processed throughout Muniyo and Mangari, sometimes at large sites, sometimes simply by scraping natron from the ground wherever it appeared. Second, manda salt was made at perhaps one hundred sites from western Muniyo to an area that was only a few kilometers from Birni Gazargamu. This salt required filtering devices and furnaces and hence production centers gained a degree of permanence. Some sites were quite large, but there were also many small ones.²⁸ Third, *baboul*

salt, which also needed filters and ovens, was even more dispersed; there were no large sites. Salt camps consisted of only one or two furnaces, and workers shifted location from year to year. Their camps were found primarily in Kadzell, but some were located in northern and eastern Mangari, again within a few kilometers of Birni Gazargamu. There were also sites south of the Komodugu Yo along the western shore of Lake Chad.²⁹

The production of natron, *manda*, and *baboul* or *kige* had one important common denominator. Production centers were concentrated in a region fairly close to the pre-1808 capital of Borno, and it can be assumed that the distribution of rights to salt production was an important dimension of the politics of the state in the period 1500-1800. With the destruction of Birni Gazargamu in 1808, the abandonment of the capital district, and the creation of a new center further east, the importance of salt production to the Borno economy changed. In order to understand the implications of the political history, however, it is first necessary to examine the sahelian salt industry in more detail.

The production of natron in Muniyo and Mangari differed from the manufacture of *manda*. No furnaces were used and no filtering was necessary. The natron was simply scraped from the ground or from the edges of the ponds and lakes, which filled the many depressions between the sand dunes of the countryside. The amounts produced at individual sites could be considerable, as Heinrich Barth observed when he visited the natron lake of Keleno, near Magadjiri, in 1853. He found that a large provision of natron, consisting of from twenty to twenty-five piles about ten meters in diameter, and four in height, protected by layers of reeds, was stored up at the northern end of the lake. The whole circumference of the basin, which was called "abge" by the inhabitants, was almost two kilometers.³⁰ Barth found that natron production was on a comparable scale at Bune, located forty kilometers further east in Muniyo. A survey of other production sites in 1915 showed that there were at least fifty-two natron workings.³¹ Furthermore, there was a difference between the processing of red and white natron. Red natron was only worked in bogs, because the crystals, which formed in a completely dry bed were too difficult to extract. Red natron was found at Yamia, Saouarni, between Guidjigaoua and Adebour, and at other places.³² White natron was best mined in completely dry conditions, if loose, producing the impure variety (*gari*), which was packaged in mats. Pieces of white natron came

primarily from the edges of retreating lakes and ponds. Because of the impurities in the natron, "white" natron (Hausa: *farar kanwa*) was in fact classified into three types: white, grey, and black. Finally, *gwangwarasa*, used in tanning, was only found at a few sites, and was worked in the same fashion as white natron.

The production of *manda* involved boiling filtered brine in ovens, which contained from forty to one hundred and seventy small pots. The product, often referred to as cones of salt, weighed three to six kg and varied greatly in purity and chemical composition. The techniques of manufacture were the same, however, and the organization and number of workers at each furnace appear to have been very similar, at least for the first few decades of the twentieth century when information is available on production. Work units consisted of ten to twenty people, mostly men, who carried brine, scraped salt earth for the filters, made the filters and furnaces, fetched firewood, and packaged the finished salt cones for transport.³³ A headman was in charge of the furnace, other workers (*kandine*) made the molds for the salt boiling, while male and female workers (*bagazao*) did the rest. At Ari Koumbomiram, a major location near Cheri, for example, there were ten furnaces in operation in the early 1940s, and these were organized into work units of approximately ten people each. At one furnace there were five *kandine*, including the furnace master, and five *bagazao*. This unit included eight men and two women, who were the wives of the furnace master and one of the workers.³⁴ The salt season lasted from five to eight months, depending upon the year and the site. In a seven-month season, a work unit could stage twenty-seven boilings, which produced fifty cones each time, for a total of 1,350-1,400 cones.³⁵

The scale of *manda* production varied greatly with the individual sites. In the early decades of the twentieth century there were at least seven locations, which had from 20-50 furnaces and employed from 300 to perhaps 750 workers each. There were about nineteen sites that had ten to twenty furnaces and employed 150-300 workers. Finally there were more than forty sites that had fewer than ten furnaces; many had only one. This overview is based on three surveys which were made over a thirty-year period and which partially overlap. The earliest was a study of twenty-two sites completed by Ronjat in 1905 (Table II), but it only covered Muniyo and hence contains information on salt sites, which later reports did not include. Furthermore, the 1905 report does not categorize sites in terms of the number of workers or furnaces.

Instead Ronjat estimated the number of work units, which varied from ten to twenty men in size. For purposes of comparison, these units have been calculated to have fifteen workers per furnace. Actually, Ronjat's data indicate that from 2,700-5,400 workers were employed at the twenty-two sites, although a figure of 4,500 is used here for purposes of comparison. The second report (Table III) was based on a survey of thirty sites in Mangari, which Janouih examined in 1915. He learned that 4,690 workers were involved in the production of 761 tons of salt at these sites. There is virtually no overlap between the two reports. The third report (Table IV) was written in 1936 and includes 54 sites, many of which were listed in the 1915 survey. The 1936 report indicates that there were 47 sites with three or fewer furnaces, not including additional locations south of the Nigeria-Niger border. Also, it is clear that by 1936 the size of most of the larger sites had decreased, with the exception of Adebou and Bougdomma. Nonetheless, it appears that at least 2,475 workers were involved in salt production at these 54 sites. On the basis of these surveys and similar ones made in British Nigeria, it seems reasonable to conclude that the number of furnaces used in the production of *manda* salt in the first decade of the twentieth century was probably on the order of 600-650 and that at least ten thousand workers were employed in the industry. The size of the labor force in natron production may have been one half again as large, comprising a total of fifteen thousand workers.

In contrast to the desert sites of Kavar and Fachi, where slaves constituted the work force, in Mangari and Muniyo free, migrant labor was used to produce salt and natron.³⁶ Most sites, particularly the many small ones, had no permanent settlements. Only a few of the production centers, including Adebou, Cheri, Buné, and Gourselik, were inhabited permanently, and even then the resident population was relatively small.³⁷ The workers, most of whom were Manga, except in the far west where Hausa were also found, moved into the salt camps during the production season in November and stayed until March, April, or May, returning to their home villages to farm during the rainy season. Many came from villages in the south, so that the general pattern was a south-north migration that was similar to the transhumance movements of others along the desert-edge. In 1945, for example, Géry found that about 60 per cent of the 1,000 workers at Ari Koumbomiram were from Nigeria, and others came from villages elsewhere in Niger. Earlier reports indicate a similar phenomenon.³⁸ The size of the work force indicates

that here was one industry where migrant labor was important even before the colonial period, although it is possible that slaves were also employed in the past.

The traditions of origin for many of the permanent residents in the area of the salt camps establish a long history of such migration, although there is a sharp distinction between workers and the political elite. The elite claims to have originally come from Borno, that is, the south, while the workers maintain that they come from Muniyo, further west. Workers who have been long settled at Adebour and Mainé-Soroa, for example, cite Birni Gafata and other old centers in Muniyo as their ancestral homes,³⁹ and while their traditions do not indicate the reason for movement it probably related to the resettlement of eastern Mangari in the late eighteenth or early nineteenth century. These traditions, therefore, disguise earlier patterns of labor movement that could also have been on a north-south axis. The traditions of the elite establish a connection with the pre-nineteenth century aristocracy of Borno. Significantly, officials claim to be Kanuri, not Manga, even though their families have lived in Mangari for many generations.⁴⁰ The reason for this distinction relates to the ownership of the salt deposits, for virtually all owners, who often used the Borno title, *kachella*, were connected with the old aristocracy of the Saifawa dynasty.

The size of holdings varied considerably. Some officials owned five or six locations, some of which were very large. Others only had a small site or two. The *muniyoma*, who lived at Guré in the nineteenth century, for example, owned the works at Abgue, Adris, Maibirim, and Gourselik, which in 1905 employed approximately fifteen hundred workers.⁴¹ Others also owned more than one site and employed from 200-1,000 workers each, while some holdings were much smaller, comprising one location and needing only twenty or thirty workers. Goudoumaria and Mainé Soroa were also the residences of important proprietors. It is likely that the eastern part of Mangari was controlled from Birni Gazargamu at one time, although there is no direct evidence for this. In the eighteenth century, however, officials generally lived in the capital, and it is likely that salt camps were originally granted as political rewards.⁴²

Ownership of the deposits was profitable, since it paid a dividend in salt each year. The *kachella* of Mainé-Soroa, who owned the furnaces of Adebour, Fanamiram, Ari Koumboriram, Dietkorom,

Bitoa, and Kaboboa, received at least 250 cones of salt per furnace per year in 1914.⁴³ This quantity was the same as that allocated to the furnace master for each furnace. Workers received an average of ninety cones each for a seven-month season during which time a furnace could produce a total of 1,350-1,400 salt cones. The owner's share was approximately 18 per cent, although this may be a low estimate. Géry found that at Ari Koumbomiram, near Cheri, 1,350 cones of salt could be produced at a furnace in a season. Of these the *kachella* of Mainé-Sorora received 384, the furnace master 192, and the nine other workers from 48-120 cones, depending upon the job. Since there were ten furnaces at Ari Koumboriram in 1945, the *kachella*'s share was about 3,840 cones of salt, which was approximately 28 per cent of the total output. These estimates are different because the 1914 survey did not take into account the three special firings which were distributed on an entirely different basis from the rest. For these firings, the owner received two-thirds of the output and for the others he got less.⁴⁴

Production of salt in Kadzell involved a different process than in Mangari and Muniyo. The salt, *baboul* or *kige*, was made primarily from the ashes of a bush, *Salvadora persica* (Kanuri: *babul*, *kaligu*; Arabic: *arak*, *siwark*). The bush grew throughout Kadzell, eastern Mangari, the area south of the Komodugu Yo near Lake Chad and also to the east of the lake. Other plants were also burned to produce salt, including three varieties of grass (Kanuri: *pagam*, *kalaslim*, and *kanido*), which were found near Lake Chad, and the bush, *Capparis aphylla* (Kanuri: *tundub*), which was found as far south of the Komodugu Yo as Kukawa.⁴⁵

The equipment used in making *baboul* was similar to that used in Mangari and Muniyo, but first the bushes and clumps of grass were burned, and the ashes placed in a filter similar to the ones used in the production of *manda*. The brine was then boiled in ovens or in single pots over a fire:

The solution from which the salt is obtained is prepared by treating with water the ashes of burnt branches and leaves of the kigu tree. This solution is put into large conical pots about 20 inches high and 16 inches diameter at the base. Usually two of these pots, sometimes three, are placed in a roughly-made furnace consisting merely of a hole in the ground with convenient supports for the pots, and a wood fire is lighted. The solution is concentrated by boiling, the pot being continually replenished

as its contents evaporate. When the solution has attained a certain degree of concentration, which is marked by the formation round its rim of small salt crystals, the fire is allowed to go out, and the contents of the pot cool. In doing so they solidify and form a cone of salt which is extracted by breaking the pot. The salt solution requires to be boiled about 24 hours before it is sufficiently concentrated to deposit the salt on cooling.⁴⁶

The work units were slightly smaller than in *manda* production, comprising eight to fifteen workers. The crucial variable was the availability of water for filtering, the bushes themselves being very common. Production was concentrated in the months September to April, in the south, and November to May, further north.

The number of furnaces and the size of the work force for *baboul* production are virtually impossible to estimate. There were no major centers, only small camps that were widely scattered. The most complete survey was done by Ravoux in 1932, but he only examined twenty-two *baboul* camps (Table V). Ravoux counted 419 workers, an average of nineteen workers or approximately two labor units per site. The largest had only fifty workers. These twenty-two camps produced two thousand salt cones, or about 91 per site. On the basis of other reports, however, it seems likely that there were at least another hundred and perhaps many more *baboul* camps, so that the total number of workers was probably on the order of 2,500 and the quantity of salt at least 12,000 cones, or 150 fifty tons.⁴⁷

The most important difference between the production of *baboul* and the production of salt and natron in Mangari and Muniyo was in the mode of labor. *Baboul* production appears to have been almost entirely based on the use of slaves,⁴⁸ not free, migrant workers. The only exception in the late nineteenth century was the presence of some Manga, who probably were free, in eastern Mangari. The ethnic composition of the slave population was diverse. Slaves appear to have been identified according to the identity of their owners, and these included Mobbeur, Segourti, Koyam, Kanembu, Kanuri, Shuwa Arab, and Tubu. It is possible that some Manga also owned slaves, and that smaller groups, including Dietko, may have had some slaves. The Kanembu, Koyam, Segourti, and Tubu settled slaves along the routes that they followed in their transhumance movements with their herds which moved north and south across Kadzell. The Shuwa Arabs were also herders, but they were concentrated south of the Komodugu Yo. The Mobbeur were farmers who

lived in villages along the Komodugu Yo, but their slaves spent the salt season further north in Kadzell. Finally, the Kanuri were the settled population of central Borno, which in the nineteenth century meant the region around Kukawa.

The salt to the east of Lake Chad, *ungurnu*, was relatively pure trona, which was found in the valleys east of the lake. Although these areas of production were not part of Borno in the nineteenth century, much of the production was exported across the lake to Borno, while the rest passed through tributary states to the south of the lake. The Yedina, who lived on the islands and manned large fleets of canoes, controlled much of this production and transported the *ungurnu* across Lake Chad. While the Yedina never submitted to the Borno government, commercial relations were so important that an informal dependency was in fact established. Without the Borno commercial infrastructure and its connections with the wider Central Sudan market, there would have been no commercial outlet.⁴⁹

The processing of *ungurnu* was simple. Since the lake was subject to constant evaporation, the salt (trona) was forced to the surface on the neighboring valleys to the east and northeast of the lake in the region known as Foli, and all that was required was to break the desposits into chunks for transport to Borno. The Yedina appear to have used slaves for this task. Sometimes, they travelled east of the lake, particularly to the region of Kelbouram in Kanem, where deposits were to be found at Kelbouram, Betra, Liga, Tergouna, and Anjia.⁵⁰ The *ungurnu* was cut into flat cone-shaped blocks weighing about thirteen kg each. These were transported to such markets as Ounnda, on the eastern shore of Lake Chad, where the slabs was loaded on boats. The Kanembu and Dugu were also involved in bringing *ungurnu* to the lake-side.⁵¹ Some idea of the size of the industry can be determined from the organization of the trade across the lake. Except for the *ungurnu* dispatched south to the Shari River, most salt went west to the Borno port of Baga Soroyam, which was close to Kukawa, the nineteenth century capital of Borno. From these points *ungurnu* was re-exported overland throughout an extensive area. The Yedina transported this cargo in expeditions which could have as many as forty vessels, each of which carried from two to six men and twenty to sixty slabs of *ungurnu*. A fleet of this size could transport from ten to thirty metric tons.⁵² If the estimate that upwards of a thousand tons were being produced

is accurate then a very considerable number of people must have been involved, both in production and transport.

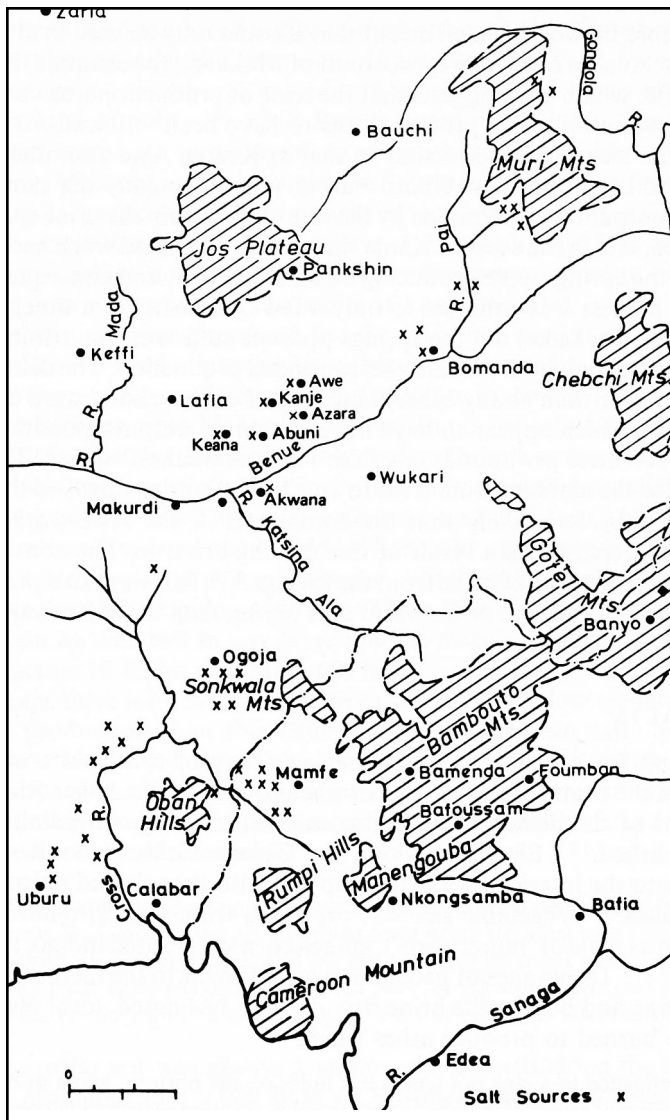
Despite inadequate data, it is clear that many thousands of workers, perhaps around twenty-five thousand, were involved in the production of salt and natron in the many sites in Kavar, Fachi, Muniyo, Mangari, Kadzell, and the eastern shores of Lake Chad. Over half, and possibly two-thirds, of these workers were freemen who constituted a considerable market for foodstuffs, manufactured goods, and other commodities. Consequently, the scale of operation required the participation of thousands of merchants, brokers, and transporters. When the total number of workers, merchants, farmers, and craftsmen who depended upon this trade are considered, then it becomes apparent that a significant portion of the Borrio population was involved in the salt industry or its subsidiary sectors. On the basis of these estimates it can be concluded that the salt industry had a profound impact on the political economy of Borno.

The ratio of free workers to slaves in the salt industry is perhaps unexpected, especially since most accounts have focussed on desert production where slaves predominated. A more thorough study corrects this impression and raises important new questions. It appears that free, migrant labor was centered at those sites which were permanent but relatively close to populated areas in the savanna and sahel. At these places it was possible to control the salt locations and allow labor to respond to market conditions. In the Sahara and at those places in the sahel which were less permanent, it was necessary to use slaves who could be forced to stay in places that were otherwise economically unfavorable. Thus in Kavar and Fachi, the resident population included slave workers, and nomads assigned their slaves to work the pits at the appropriate times of the year. In Kadzell, production sites were also the locations of wells, which were maintained and owned by nomads concerned with transhumance migration and livestock management. Therefore, the slaves of Kadzell had a double purpose. They kept the wells repaired and they made salt. Information on Lake Chad production of *ungurnu* suggests that low caste blacksmiths and others, probably including slaves, were the source of labor. It is clear that the organization of the Borno salt industry depended upon whether it was more feasible to own the workers or the salt sites and whether or not labor could be mobilized without the coercion inherent in the institution of slavery.

PRODUCTIVITY OF THE SALINES

Much of the technology of production was relatively simple; rather, the salt industry of the Central Sudan was highly labor intensive, although there were significant variations in the level of productivity among the various salines. In terms of man hours per ton of salt, the most productive sites were the eastern shores of Lake Chad (Foli), Bilma, Fachi and Teguidda n'tesemt, and the least productive were those sites where filtering and boiling of brine were necessary. A comparison of the different sites reveals that Foli could export several thousand tons of trona, probably involving only 500 workers.⁵³ Bilma required the labor of about 200-300 workers to produce 1,000-2,000 tons of salt in a year.⁵⁴ Fachi was behind Bilma in productivity; about 300 workers could make 600-700 tons of salt.⁵⁵ At Teguidda n'tesemt, the level of output appears to have been about the same; 200 workers made 600 tons of salt.⁵⁶ Efficiency dropped sharply from the figures which characterized these more productive sites. While each worker could produce several tons of trona in Foli, 4 tons in Bilma, 3 tons in Teguidda n'tesemt, and 2-3 tons in Fachi, the corresponding figures for the sahel locations dropped below one ton per worker in Dallol Fogha and even less in Dallol Bosso, in the competing areas near the Niger River west of Sokoto.⁵⁷ In Mangari and Kadzell, productivity was even lower. Janouih's survey of 1916 suggests that it took six or seven workers to make a ton of *manda*, although later reports indicate a level of efficiency at two or three workers per ton.⁵⁸ There are no comparable estimates for the Benue sites, but the ratio of output to worker was low, particularly if the labor required to drain the salt wells and pits is taken into account. Keana has estimated that a woman, together with her assistants, could produce as much as 1.6 tons of salt per season, but this estimate is based on ideal conditions and is probably high.⁵⁹

These estimates – based on an analysis of data on both output and number of workers – can be checked against a report of 1915, which attempted to assess volume of production, number of workers, amount of tax, and value of salt for most of the salines of the Central Sudan (Foli and the Benue sites are not included, and the information for Dallol Fogha is incomplete). Rough as the calculations for 1915 are, it is still apparent that Bilma and Fachi were three times as productive as the natron sites of Mangari and Muniyo and five times as productive as the *manda* industry (Table VI). It can be shown, moreover, that volume was lower than usual



The Brine Springs of the Benue-Cross River Region

at Bilma and Fachi because of drought and because of the French requisition of camels for the conquest of Tibesti. Consequently, the Tuareg did not travel to Bilma in their usual numbers and in the following year the nomads revolted over French exactions.⁶⁰ The reported output for Teguida n'tesemt - 116 tons - is probably a bit low; a reassessment of volume based on the value of the salt pro-

duced in 1951 suggests a figure of 139 tons. Either figure indicates a level of productivity of about one ton per worker, not as high as for Bilma and Fachi, and low by Teguida standards. The figures for Mangari and Muniyo are consistent with my calculations from other data, and they are consistent with each other. The production of *manda* involved a labor input comparable to that for the collection of natron, plus an additional input for the filtering and boiling of brine.

Since each of the salines had a different production season, a more accurate comparison must also take account of the number of months in which salt was produced. And the labor involved preparing the salines, making pots, and gathering firewood must also be included, because these ancillary activities were part of the production process. Furthermore, slack hours in the production schedule have to be allowed for, which only highlight the relative productivity of the various salines. Foli appears to be even more productive than the other sites, while the Benue brine springs are shown to be less productive than an analysis based on output per year alone would suggest. The environmental conditions of the various sites provided a logical explanation for this discrepancy. Foli, with its tremendous reserves of trona, could be exploited more efficiently than the weak brine springs of the Benue valley, whose rate of flow even dwindled in the course of the season, so that the minor springs often went dry, thereby curtailing production entirely.

The calculation of productivity is only a rough guide. Considering the difficulty of estimating output and the unreliability of data on population, all figures must be taken with a grain of salt. There are a few estimates, made by direct observers, which can be used to check the general impression of relative productivity, but these estimates too suffer from the same defects in data. There simply are no reliable figures on the number of workers, scale of output, time involved in production, or variations between different years to allow a proper statistical comparison. Nonetheless, the correlations between the natural environment – which provides some parameters – and the different observations are sufficiently accurate to sustain the conclusion that the salt industry, even for the most productive salines, was labor-intensive. By comparison with modern salt production, the number of available workers was the most significant variable in the factors of production. Modern salt works, and even European workings that were contemporary with the late nineteenth century Central Sudan industry, were far more

dependent upon the technological input; labor was not an important constraint. Salt production in the Central Sudan fitted into a pattern with other areas of production, in which economic activity was labor-intensive. Farmers used the most rudimentary tools such as short-handled hoes and axes, the carding and spinning of cotton depended upon hand methods, while weaving was most often practiced on narrow looms; land transport relied on head porters and livestock, without the use of carts or other vehicles, let alone railways. It is not clear whether or not the salt industry was more labor-intensive than these other sectors, but certainly the competition for labor between various sectors must have been a constraint on the expansion of salt production.

SALT IN THE POLITICAL ECONOMY OF BORNO

The importance of the salt industry to the history of Borno is clear, but much of the information on its development and the related commercial patterns are derived from the colonial period, and at best from the end of the nineteenth century. These were times, however, when the Borno state had disintegrated, despite British colonial efforts after 1903 to revitalize some institutions in the name of indirect rule. Hence relevant information dates from the period of collapse, making it necessary to speculate backwards chronologically in order to understand commercial trends and the production patterns and how they corresponded to political and economic developments.

To assist in understanding the role of the salt industry, Borno history can be divided into four periods. The first covered the fifteenth and sixteenth centuries when the Saifawa dynasty consolidated its control in the plains west of Lake Chad, including the salt deposits of Muniyo, Mangari, and Kadzell. The capital was built at Birni Gazargamu, which became the center of the independent Borno state. The second period, from the late sixteenth century to the early eighteenth century, marks the ascendancy of Borno as an imperial power. Its hegemony stretched from Kanem in the east, to Bagirmi and Mandara in the south, to the Hausa city-states in the west. The third period included the decades from 1738 to 1804 when the Borno state began to collapse, primarily because of the Great Drought of 1738-1756 and continued climatic degradation. Salt was still crucial to the Borno economy, but distributional patterns, at least, began to change. The fourth period was the nineteenth century, when Borno suffered its final disintegration. Birni

Gazargamu was destroyed in 1808, and the center of the state shifted eastward towards Lake Chad and away from many of the salt deposits.

The Borno salt industry fits into wider patterns of desert-side production and exchange which are now understood fairly well from a theoretical perspective.⁶¹ The major sectors of the Borno economy roughly corresponded to regions of ecological specialization. Trade tended to flow south and north between savanna and sahel, and savanna and desert. As in areas of desert-side production and exchange further west, trade in livestock, salt, grain, and textiles often occurred within transhumance corridors that nomadic livestock producers followed while pasturing their herds and promoting their commercial operations. However, corridors of trade and transhumance were somewhat different in Borno than further west. Whereas commercial and livestock movement was generally north and south between the Tuareg country and the Hausa states, travel in the Borno sahel had to take account of Lake Chad which forced merchants and nomads to move along its western bank. The Borno pattern also reflected the increasing economic influence of the Hausa economy and its connections with other parts of West Africa. Thus desert-side trade in Borno tended to flow both between the north and south and between the north-east and south-west. The northern limit was the desolate region of the Ténéré between the Aïr Massif and Fachi. The eastern limit was Lake Chad. At the same time, trade moved east-west across the lake, as well as along its eastern shores.

Salt from Kawar and Fachi at one time probably was transported south to Borno for domestic consumption and for re-export further south and west. The merchants who were involved in this trade appear to have been the Koyam, whose traditions indicate that they once lived at the Kawar oases.⁶² By the eighteenth century, their transhumance movements were centered in Kadzell, to the immediate west of Lake Chad. The Tubu may also have been early transporters of desert salt. Certainly by the nineteenth century, they controlled salt production in parts of Kawar, although by that time most salt was not shipped southward to Borno. In the late fifteenth and sixteenth centuries, and probably continuing into the seventeenth century, Borno protected this trade by staging raids on Agadez and the Tuareg of the Aïr Massif. In this period, Borno control in the area just north of Muniyo and Kadzell was relatively secure. This was probably a time of relative economic prosperity, if rainfall condi-

tions can be taken as an accurate indicator of agricultural output, population growth, and trade. Nicholson's study of climatic change indicates that wetter times prevailed until the middle of the eighteenth century, and it seems more than a coincidence that the power of the Borno state was at its height during this period. A wetter climate in the Borno sahel meant that more people could live in the salt-producing provinces. Indeed the major Islamic center of Kulumbardu, which was in Alkalos, north of Kadzell, dates to this period, but it was destroyed in the 1680s by Tuareg raids. This occurred at the time of a drought which marred the general climatic pattern of the sixteenth, seventeenth, and early eighteenth centuries.⁶³ For much of the eighteenth century, the political picture is less clear, but it appears that Borno no longer had undisputed supremacy in the desert. This allowed the Tuareg to increase their economic importance in the export of Kavar and Fachi salt, although it is likely that when wetter conditions returned after the 1680s, the general level of prosperity returned to Borno as a whole, at least until the great drought of the middle of the eighteenth century.

By the middle of the eighteenth century the trade of Kavar and Fachi depended upon the Tuareg caravans which crossed the Ténéré from Agadez and the Hausa centers to the south. This route effectively bypassed Borno and meant that salt exports flowed in a wide arch around Borno. The Kavar and Fachi inhabitants needed the grain and manufactures brought by the Tuareg, but they now depended almost completely upon merchants who were not citizens of Borno. According to Hausa traditions, the Tuareg began importing salt to Hausaland as early as the fifteenth century, and while the implication is that this salt came from Kavar and Fachi, it is possible that the salt was from Teguidda, west of the Aïr Massif, instead.⁶⁴ It is clear, nonetheless, that the Tuareg became the main transporters of Kavar and Fachi salt by c. 1759 when they defeated Borno in a campaign known as the Bilma war.

The timing of the war appears to be very significant in terms of the changing political fortunes of Borno. It came at the end of one of the worst droughts in Borno history, the Great Drought which, as noted in Chapter 2, lasted from the late 1730s to the 1750s.⁶⁵ While the generally wetter conditions of the previous two and one half centuries did return, the Great Drought probably had a devastating effect on Borno economy and society. It seems likely that the Borno sahel, where the salt industry was centered, suffered severely. Why the Tuareg fared better in the drought than nomads in Borno is still

unclear, but they definitely emerged in a superior position. They not only acquired a monopoly over Kavar and Fachi salt, but they also forced the desert inhabitants to abandon agriculture, except for date production.⁶⁶ This intervention effectively allied the Kavar and Fachi salt industry to the Tuareg and probably contributed to the decline in trade southward to central Borno. It is probably at this time that the Tubu, who in the nineteenth century at least, controlled production of salt in parts of Kavar, lost their position as transporters, as did the Koyam of Kazzell. The Tuareg furthered their interests by transforming the Ténéré into a no-man's land which they crossed for commerce and war.

Borno was able to dominate the salt trade of Mangari, Muniyo, and Kazzell for a longer period than the desert trade. Because these regions were close to Birni Gazargamu, they had the benefit of greater military protection. Unfortunately, little is known about the period before the eighteenth century, except that Borno established its authority over the area by defeating the small Sosebaki states and others, referred to in Borno tradition as the "So."⁶⁷ The hilly region of Muniyo was initially settled by Kanuri-speakers, Dagera, but their connection with the salt industry is unknown and, by the eighteenth century, most Dagera were living to the north.⁶⁸ By then, the Manga, who also spoke Kanuri, were the main population of Muniyo and they were definitely working the salt industry. Indeed the eastern area of salt production was known as "Mangari," although exactly when this name became common is not clear. Traditions indicate that "Manga" was not an ancient ethnic or regional term of the Kanuri, for the earliest references to the name are in the late seventeenth century,⁶⁹ and the name may not have assumed its ethnic connotation until the eighteenth century. According to Lange, the Manga probably incorporated the earlier Dagera. It is tempting to see a connection between the emergence of the Manga and the Great Drought of the mid-eighteenth century. While traditions do not associate the disappearance of the Dagera from the salt region with drought conditions, it seems possible that the ethnic transformation was somehow related to the evacuation and resettlement of Mangari and Muniyo under climatic pressures. By the middle of the eighteenth century the capital of Muniyo was Birni Gafata, perhaps an old Dagera center. This town was located northwest of the major production sites, and by the nineteenth century, many Manga claim to have migrated from there and villages in its vicinity. By the end of the eighteenth century and continuing into the nineteenth century,

Buné was the capital. It was an important production site for natron and a Manga town. In the 1820s and continuing for the rest of the century, the capital of Muniyo was at Guré, the northern limit of Manga settlement and north of the salt producing zone, in order to defend the region from Tuareg incursions.⁷⁰

The political history of the country to the east of Muniyo, which in the nineteenth century was known as Mangari, is less clear, particularly before 1808. It appears to have been directly dependent upon Birni Gazargamu; at least many salt centers in this region were owned by families which traced their official positions to the political regime at Birni Gazargamu.⁷¹ The Manga inhabitants of these villages, however, claim to have come from Muniyo in the west, and this suggests that there was considerable population displacement sometime around 1800, perhaps even as early as the mid-eighteenth century drought. Traditions recall the 1740s and early 1750s as a time of famine and epidemic, and, according to Nicholson, climatic conditions improved but another drought struck in the 1790s, perhaps lasting into the first years of the nineteenth century.⁷² The effects on salt production are unknown, but commercial patterns suggest that any economic dislocation on the scale of the Great Drought and its aftermath must have drastically affected the industry.

Salt from Kadzell, Mangari, and Muniyo was exported south and west. In the nineteenth century, and probably earlier, a ring of market towns surrounded the production camps. To the west, the Sosebaki towns, particularly Ouacha and Myrria, were large markets which catered to merchants from Katsina and elsewhere. Gumel, Nguru, and other towns to the south were equally important, and it can be assumed that Birni Gazargamu once filled a similar role.⁷³ Commercial patterns involved the movement of grain, cotton, tobacco, kola nuts, textiles, and other goods northward into Kadzell, Mangari, and Muniyo from central Borno and the Hausa country. Some foodstuffs were produced locally in Mangari at oases of specialized production, but not enough to feed the salt camps. The nature of the terrain meant that the salt camps were often interspersed with agricultural settlements, and dry-season farming was a subsidiary activity in some parts of the saline districts.⁷⁴ Salt workers also had farms elsewhere, so that some supplies were brought annually by the migrant workers.

Drought conditions would surely have disrupted these patterns of trade and production, and salt output must have been reduced because of the scarcity of water for filtering. More natron could have been scraped from the ground, perhaps, but agricultural production in the fertile oases of Mangari and Muniyo certainly would have collapsed. The drought and reduced harvests further south would have raised food prices and generally disrupted trade. Perhaps the most significant impact was on labor mobilization. If farmers retreated south to areas with higher rainfall, the region of salt production would have lost many workers. In order to maintain levels of output, migrant workers would have had to travel north. It is perhaps in this period, therefore, that the pattern of free, migrant labor became so important.

The final blow to the old order was the destruction of Birni Gazargamu in 1808, when the armies of Islamic revolution swept across the Central Sudan.⁷⁵ Old tributary relationships collapsed as the Hausa states and parts of western Borno were incorporated into the Sokoto Caliphate. Gazargamu was reoccupied temporarily, but it was permanently abandoned in 1809 and the populated districts around it were evacuated. A new capital was established at Kukawa, where Shehu Muhammad al-Kanemi attempted to restructure the Borno state and limit the impact of the Sokoto *jihād*. Kukawa was located further east, close to Baga Soroyam, the main port in the Lake Chad trade. Mangari and Muniyo remained part of the state but were more autonomous than had been the case before 1808. Initially, the Manga opposed the emergence of al-Kanemi as the strong man of Borno because his rise was at the expense of the old Saifawa dynasty, from which the political leaders in Mangari and Muniyo derived their positions. As a result of military expeditions in the early 1820s, al-Kanemi crushed Manga opposition,⁷⁶ and for the next 45 years, under the dynamic rule of Muniyoma Kosso, who built his capital at Guré in northern Muniyo, the region was loyal to the Borno central government.⁷⁷ The last third of the century, however, was again a period of unrest. First, Damagaram, the most western province of Borno, initiated a series of campaigns against Guré, which led to the incorporation of Muniyo into Damagaram.⁷⁸ This struggle for power between two provinces that were supposedly part of Borno demonstrates the weakness of the central government. In contrast to the days of Birni Gazargamu, the salt camps lacked the protection of the state. Salt and natron were still produced and the *ungurnu* trade across Lake Chad still

passed through central Borno, but conditions were probably less secure than they had been during the sixteenth, seventeenth, and eighteenth centuries. The *ungurnu* trade was relatively unaffected because Kukawa, the nineteenth century capital, was only a few kilometers from Baga Sororam, and Borno had probably never controlled the area of *ungurnu* production anyway.

Borno virtually ceased to function as the overlord of the provinces north of the Komodugu Yo. The Borno government not only had no voice in the affairs of Kwar and Fachi, which continued under Tuareg domination, but Damagaram became virtually independent of the capital in the northwest. In 1892, the final collapse of Borno took place when an invading army under Rabeh moved on Kukawa from south of Lake Chad.⁷⁹ Thus the Borno state now had a new government that had yet to consolidate its position in the Chad basin before the colonial occupation of France, Britain and Germany terminated its independence. Despite the efforts of al-Kanemi and his successors to revitalize the state, a steady decline can be seen beginning with the Great Drought of the mid-eighteenth century and continuing virtually uninterrupted through the nineteenth century.

The Borno economy reflected this general political disintegration in ways other than the dislocation of the salt trade, although it now should be apparent that the fortunes of the salt industry are a reliable index of the general condition of economy and state. The Hausa cities and towns, particularly Kano, Katsina, and Zaria, became the southern market centers for the Borno desert-side corridors of trade, while Borno markets, including Kukawa, became intermediary points in these corridors. Many merchants and craftsmen who were involved in this trade in Borno shifted their operations to the Hausa country, where they established new homes. Moreover, numerous Hausa traders now included the Borno market in their business activities. The process took approximately one hundred and fifty years to complete, but by the end of the nineteenth century Borno had become an economic satellite of the central Hausa country.

This dependency had begun to emerge in the eighteenth century, even before the collapse of Borno in the *jihad* of 1804-1808. The Tuareg monopoly of the Kwar-Fachi trade is the clearest example of this, but it is also evident in the Mangari-Muniyo industry which relied heavily upon the Hausa salt market. One

dimension of this development was the evolution of an extensive commercial diaspora to the south and west of Borno.⁸⁰ Initially it was centered on Borno, but gradually it merged with the dominant Hausa mercantile establishment. Settlers left Borno for towns and cities along the trade routes that radiated south to the Benue river valley and west as far as the Volta river basin. Settlement was especially heavy in the Hausa towns, which were in a relatively more fertile and wetter area than much of Borno. Hence as drier conditions predominated after the 1790s, the Hausa region and other areas to the south probably looked more attractive. One such group of Borno merchants was the Kambarin Beriberi, some of whom initially settled at Gummi in the Zamfara river valley but later moved to Kano, Sokoto, Katsina, and other places. They invested in trade with Asante, exporting Borno salt and other goods in exchange for kola nuts.⁸¹ Other Kambari moved into the Benue river valley and settled at Lafia, Kambari, and other towns, where they purchased locally processed salt as well as handling Borno salt and other goods.⁸² Besides the Kambarin Beriberi, there were many other immigrants from Borno, some of whom became brokers for itinerant Manga traders. In almost every town in the textile belt between Kano City and Zaria, and these numbered well over thirty, Borno immigrants acted as cloth and salt brokers.⁸³ This pattern of settlement and trade was only one aspect of a larger phenomenon that also saw large numbers of Hausa merchants traveling to Borno markets for the purpose of selling kola nuts, cloth, and other goods for salt and natron.⁸⁴

Certainly the destruction of Birni Gazargamu in 1808 and the abandonment of the many towns nearby contributed to this general economic decline and subsequent emigration. One consequence, which accelerated the growing dependence of the salt industry on the Hausa economy, was the collapse of the Borno textile industry that had been centered in the Birni Gazargamu area before 1808. In the nineteenth century textiles from Kano and northern Zaria supplanted Borno production. Indeed many textile workers emigrated to Kano and Zaria, some perhaps as slaves captured during the early *jihad* campaigns but others as freemen, as part of the exodus arising from changing climatic conditions as well as the prosperity following the consolidation of the Sokoto Caliphate. The textiles for which Borno was once famous could not compete with the very same fabrics, which were now produced more cheaply and on a larger scale in the Hausa centers.⁸⁵ The collapse of the Borno

industry was so complete that the standard currency of the state, which had been based on cotton strips called *gabaga*, was undermined and by 1848 the cotton strip currency was officially replaced by cowries, the currency of the Sokoto Caliphate and other parts of West Africa.⁸⁶ In some parts of Borno, including Mangari and Muniyo, there was a resistance to the cowrie currency as late as the 1850s, but it was a losing struggle, cowries driving other forms of money from the market.⁸⁷ This change in the textile trade directly affected all branches of the salt industry, for cloth was one of the main items of purchase as well as being a standard of value.

An examination of the salt industry and its relationship to the Borno state illuminates the rise and fall of this once powerful empire. The Saifawa aristocracy transformed Borno from a province of Kanem to an independent state with a firm base for expansion. In part this was so because the agricultural potential of the region west of Lake Chad and the desert-side exchange based on salt production provided the political elite with a sound economic base. By controlling Kawar, Fachi, Muniyo, Mangari, Kadzell, and the western shore of Lake Chad, Borno dominated the major commercial routes of the Central Sudan. The state also had access to North Africa and extensive areas in the south and west that could be raided for slaves. When slave raiding was managed carefully and desert-side trade in salt, grain, and other commodities functioned smoothly, the aristocracy was able to maintain control of an extremely wide area.

But this political and economic system broke down as a result of drought and *jihād*. The Great Drought of the mid-eighteenth century dealt an economic blow that was very severe. Borno had survived earlier climatic catastrophes, and it might have recovered from this one, too, had bad conditions not prevailed into the next century, leaving the economy weak. Then the *jihād* of 1804-1808 reversed the slow recovery. Borno had initially established its hegemony in a situation where there was no other large state, except Kanem to the northeast of Lake Chad and Songhay far to the west. In the nineteenth century, the Sokoto Caliphate was more formidable than any previous state in the Central Sudan, including Borno at its height. Still economically weak and facing a much stronger enemy, Borno was no longer in a position to dominate the desert-side trade and use its geographical position advantageously. Where once it had been possible to exploit the salt industry for political ends, now even the salt trade became dependent upon the Sokoto Caliphate.

Table 3.1: Composition of Borno Salts

Region	Type	NaCl	Na ₂ CO ₃	Na ₂ SO ₄	KCl	CaCO ₃	Na ₂ HPO ₄	K ₂ SO ₄	Ca ₂ SO ₄
Muniyo	stone natron	.35	75.06	trace	.12				
Muniyo	loose natron	1.04	69.66	8.45	.18				
Mangari	Manga salt	24.27	5.23	30.17			2.14		
Mangari	Manga salt (ordinary)	15.71	26.53	36.21	4.76				
Mangari	Cheri Manda	12.60		40.05	.77				
Mangari	Manda Karia	50.07	4.99	29.39	2.54	5.46			
Mangari	Shedanno	22.52	12.00	56.14	2.76				
Mangari	Shedanno	14.98	2.36	37.45	4.67				
Mangari	Diiru	36.58	11.56	28.16	1.84				
Mangari	Dfiru	15.75	.18	42.42	2.47				
Mangari	Wongangawa	16.96	17.32	46.02	1.37				
Mangari	Wongangawa	16.20	31.42	41.86	.62				2.00
Mangari	Manga natron	3.47	20.00	26.53		30.80			
Mangari	Manga salt	68.50	5.20	15.30				2.00	
Kadzell	Baboul	83.78		.90	8.98		1.73	1.13	
Kadzell	Baboul	19.17			66.36		2.43	1.91	
Mangari	Zomba Gwangwaras	.50	.69	87.81					
Bilma	Kantu	38.83	7.43	46.44	4.47				
Kadzell	Baboul	9.62		.73	81.16				
Kadzell	Baboul	26.83	.22	.67	57.88			1.92	
Kadzell	Baboul	67.60		1.42	28.76			1.48	

Sources. (Cd. 3914); Cd. 4719); Marre Lahache, Région du Tchad, 564, 569, 587; Gouletquer and Kleinmann, *Salines du Manga*, 12.

Table 3.2: The Production of *manda* Salt, Muniyo, 1905

Site	Number of Work Units (furnaces)	Number of Workers (estimate) (15 workers/furnace)
Adris	50	750
Gourselik	25	375
Maibirim I	20	300
Kararnaoua	20	300
Mararnaram	19	285
Karagou	16	240
Tairi	14	210
Kila Kamanghana	14	210
Darouram	13	195
Ouakatgi	12	180
Matafararn	12	180

Abgue	10	150
Doumaoua	10	150
N'Garirarn	7	105
Maibirim II	7	105
N'Goriani	5	75
Dokoraram	4	60
Kourkouroa	4	60
Kongolimararn	3	45
Kadellaoua	2	30
Billarna Boucar	2	30
Kogoua	1	15
Total	270	4,050

Source: Lt. Ronjat, Les Mares Salines du Mounyo, 1905, ANRN

Table 3.3: The Production of *manda*, Mangari, 1915

Site	Number of Workers	Furnaces (estimate) (15 workers/furnace)
Dietkoroin	500	33
Fannamirain	340	22
Kakorom	300	20
Miamia	285	19
Adebour	280	18
Bounibounikoa	275	18
Ari Gourdoroin	260	17
Bitoamarain	260	17
Yanouni Souamé	250	16
Zatoukoutou	245	16
Ari Kombomiram	230	15
Dirighia	225	15
Bougdoinnia	195	13
Gambaoua	110	7
Kangaroua Tiari	110	7
Guidjigoua	105	7
Gourselik	80	5
Kogoua	80	5
Abatilor Kilbou	70	4
Frainé Delaram	65	4
Mina Dabalia	65	4

Kousouloua Kilbou	55	3
Kilborom	50	3
Fannamirain	50	3
Cheri	45	3
Forsariniarain	45	3
Kangaroua	40	2
Maibirin	30	2
Tchabaram	25	2
Zoumba	20	1
Total	4,690	304

Source: Janouih, Rapport sur les Salines, 24 Fev. 1916, ANRN

Table 3.4: The Production of *manda*, Mangari, 1936

Site	Furnaces	Number of workers (estimate) (15 workers/furnace)
Bougdomma	18	270
Adebour	16	240
Fannamiram	15	225
Karagou Koura	15	225
Yanoum Souarné	12	180
Dietkorom Manda.	8	120
Kangaroua Gana	6	90
Abatilorl Dibinoa	3	45
Katafourorom	3	45
Maibirin I	3	45
Djenafout	3	45
Maina Dalaram	3	45
N'Gario	3	45
Katokouto	3	45
Cheri	3	45
Gangaoua	3	45
Bittoamaram	3	45
Abatilorl Kilboa	2	30
Doumbokoa	2	30
Bagaram	2	30
Dirguia	2	30
Fofio	2	30
Gadoroa	2	30

Karajou Gamdoua	2	30
Alkamaram	2	30
Kellakam	1	15
Kna Dabalia	1	15
Guerselik	1	15
Kassaoron	1	15
Koussouloa	1	15
Kairiri	1	15
Afounorom	1	15
Allosseram	1	15
Ari Korgorom	1	15
Damagaram	1	15
Djajibolom	1	15
Foussamaram	1	15
Katkompia	1	15
Gourjiou Guirgui	1	15
Kolo Dibia	1	15
Kololoua	1	15
Koudoua	1	15
Kossa	1	15
Mandoua Kilboa	1	15
Melararn	1	15
Ouangangoua	1	15
Ouadorom	1	15
Rakaoua	1	15
Yabari	1	15
Gokordi	1	15
Ad Gadourorn	1	15
Gazororn	1	15
Mamia Koura	1	15
Goudourorn	1	15
Total	165	2,475

Source: L'Adjoint des S.C. Chef de le Sub-division de Mainé-Soroa, 29 Mai 1936, ANRN

**Table 3.5: *Bouboul* Salt Production in Kadzell,
Cantons of Deoua and Diffa, 1932**

Name of Camp	Number of Workers	Number of Salt Cones
Toumaya	11	60
Kadedja Koura	40	130
Korilla	50	140
Kaoua	20	95
Koussouloua	14	60
Ibram Diato	10	70
Kourouloua	12	85
Kouroua	10	65
Guissiria	14	75
Gadegami	10	65
Kala Kemaguena	20	75
Korea	30	140
Toubori	12	70
Kirieoua	13	55
Koutto	40	195
Kateilla Gonbol	40	225
Mustapha Zararni	14	70
Kintiendi Assernbe	20	110
Mamadou Dovdoumibe	10	75
Alla Gamo	8	45
Mela Boudournirom	13	55
Korsouloua	8	40
Total	419	2,000

Source: Ravoux, Rapport de tournée, 10 au 30 août 1932, Cercle de Nguigmi, ANRN

Table 3.6: Productivity of the Salines, 1915

Saline	Workers	Output (tons)	Workers/ton of salt
Bilma and Fachi	900	1,000	0.9
Manda sites (Muniyo and Mangari)	4,732	1,056	4.5
natron sites (Muniyo and Mangari)	2,068	703	2.9
Teguidda n'tesemt	145	116 (139)	1.3 (1.0)

Notes

1. For a comparison of Borno and other salt production sites in the Central Sudan, see Paul E. Lovejoy, *Salt of the Desert Sun: A History of Salt Production and Trade in the Central Sudan* (Cambridge: Cambridge University Press, 1986). For a discussion of salt production elsewhere in Africa, see Ann McDougall, "The Salt Industry in West African History" (M.A. thesis, University of Toronto, 1976), Lars Sundstrom, "The Salt Trade," in Sundstrom, *The Trade of Guinea* (Uppsala, 1965), 122-46; Leon Pales, *Les Sels alimentaires. Problèmes des sels alimentaires en A.O.F.* (Dakar, 1950); R. Portères, *Cendres d'origine végétale sels de cendres comme succédanés du chlorure de sodium alimentaire et catalogue des plantes salines en Afrique intertropicale et Madagascar* (Dakar, 1950).
2. For the political history of Borno, see Abdullahi Smith, "The Early States of the Central Sudan," in J.F.A. Ajayi and M. Crowder, eds., *History of West Africa* (New York, 1972), I, 164-82; John Hunwick, "Songhay, Bornu and Hausaland in the Sixteenth Century," in Ajayi and Crowder, *History of West Africa*, I, 205-12; R.A. Adeleye, "Hausaland and Borno, 1600-1800," in Ajayi and Crowder, *History of West Africa*, I, 497-508; Dierk Lange, *Le Diwan des Sultans du (Kanem) Bornu: Chronologie et Histoire d'un Royaume Africain* (Wiesbaden, 1977); Y. Urvoy, *Histoire de l'Empire du Bornou* (Paris, 1949).
3. For salt production at Kawar and Fachi, see Dixon Denham and Walter Oudney, in D. Denham, H. Clapperton, and W. Oudney, *Narrative of Travels and Discoveries in Northern and Central Africa in the Years 1822, 1823, and 1824* (E.W. Bovill ed., *Missions to the Niger*, [London, 1965]), II, 201-16; Maurice Abadie, *La colonie du Niger* (Paris, 1927), 274-75; P. Grandin, "Notes sur l'industrie et le commerce de sel au Kawar et en Agram," *Bulletin de l'I.F.A.N.*, XIII (1951), 488-533; Hanns Vischer, *Across the Sahara from Tripoli to Bornu* (London, 1910), Appendix I, "Salt Substitutes Used by the Natives of Bornu," 259-69, 298-99; Stephen B. Baier, "African Merchants in the Colonial Period: A History of Commerce in Damagaram (Central Niger), 1880-1960"

- (Ph.D. dissertation, University of Wisconsin, 1974), 106-12; Gustav Nachtigal, *Sahara und Sudan. Ergebnisse Sechsjähriger Reisen in Afrika* (Graz, 1967), I, 535ff; Gerhard Rholf, "Reise durch Nord Afrika vom Mitteleiländischen Meer bis zum Busen von Guinea, 1865 bis 1867. 1. Hälfte: Von Tripoli nach Kuka (Fasan, Sahara, Bornu)," *Petermann's Geographischen Mitteilungen Ergänzungsheft*, XXV, 1868, 24; Pierre Gentil, *Confins Libyens Lac Tchad Fleuve Niger* (Paris, 1946), 22-90.
4. Urvoy (*Bornou*, 91-92) states that Bornu was the theoretical sovereign of Kavar and Fachi but that the Tubu were really in control, especially from the end of the seventeenth century. For an interpretation that Bornu controlled Kavar from 1600-1800, see Adeyeye, "Hausaland and Bornu," 469, who assumes that when the Air Tuareg gained control of the Bilma salt trade in the mid-eighteenth century they secured exclusive commercial relations with Kavar but not political control. This remained in the hands of the Tubu and nominally Bornu. It is clear, however, that Bornu had a strong influence, and perhaps real political power, from the early sixteenth century through the seventeenth; see B.G. Martin, "Kanem, Bomu, and the Fezzan: Notes on the Political History of a Trade Route," *Journal of African History*, X:1 (1969), 15-27; also see Michel Le Sourd, "Tarikh el Kavar," *Bulletin de l'I.F.A.N.*, VIII (1946), 1-54; Hunwick, "Sixteenth Century," 208-12; and John Lavers, "Trans-Saharan Trade, c. 1500-1800: Sources" (unpublished paper presented at the Kano Seminar, 1976). For early Kavar history, see Lange, *Diwan*, 107-11, 122, 127-28. Also see Lange, "Compte-rendu de la mission au Kavar," unpublished report, CNRS, Niamey, 1977; and Lavers, "Kanem and Bornu." Also see A. Buchanan, in H.R. Palmer, ed., *The Bornu Sahara and Sudan* (London, 1936), 126n. Elsewhere Palmer states that "in about 1574-75, Mai Idris Alooma of Bornu made an expedition against Aghram and took Jawan, Ahannama and Bilma in the Kavar Oasis, which had by that time all reverted to the Tubu" (*Bornu Sahara and Sudan*, 18). Dierk Lange has been most helpful on the problem of Bornu control of Kavar in this period.
 5. Smith, "Early States," 182; Hunwick, "Sixteenth Century," 205; and Lavers, "Kanem and Bornu."
 6. For the sahelian sites, see P.L. Gouletquer and D. Kleinmann, *Les Salines du Manga, Niger* (RCP 322 du CNRS, Niamey, 1973); P. Gouletquer, "Les Bouilleurs de sel," *Sciences et Avenir*, 328 (1974), 572-77; P.L. Gouletquer and D. Kleinmann, "Les salines du Manga et leur intérêt dans l'étude des salines protohistoriques en Europe," *Comptes Rendus du 99e Congrès National des Sociétés Savantes*, Besançon, 1974, 21-30; P.L. Gouletquer, "Niger, Country of Salt," in *Salt: The Study of an Ancient Industry* (Essex, 1974), 47-51. F. Marre and M. Lahache, "Le sel, le natron et les eaux de la région du Tchad," in *Documents scientifiques de la Mission Tilho, 1906-1909* (Paris, 1911), II, 533-88;

- Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-1859), III, 45-70; Emile Reibell, *Carnet de Route de la Mission saharienne Foureau-Lamy, 1898-1900* (Paris, 1931), 250-58; F. Foureau, *D'Alger au Congo par le Tchad* (Paris, 1902), 570-88, 640-42, 662-65; Abadie, *Niger*, 278-80; Leon Soula, *Les sels alimentaires. Sels du Manga (Niger). La thenardite de Mainé-Soroa* (Dakar, 1950); P. Géry, "Une industrie autochtone nigérienne: les sauniers du Manga," *Bulletin de l'I.F.A.N.*, 14 (1952), 309-20, Vischer, "Salt Substitutes," 297-302; A. Schultze, *The Sultanate of Bornu* (trans. P. A. Benton, London, 1913), 85-86; Nachtigal, *Sahara und Sudan*, I, 570.
7. For analyses of various salt samples, see Marre and Lahache, "Région du Tchad," 564, 569, 587; Wyndham R. Dunstan, "Report on the Results of the Mineral Survey, 1904-5," Colonial Reports, Miscellaneous, Northern Nigeria, No. 46, 1908 (Cd. 3914); Dunstan, "Report on the Results of the Mineral Survey, 1906-7," No. 59, 1909 (Cd. 4719); Vischer, "Salt Substitutes," 299-302; Hugues Faure, *Reconnaissance géologique des formations sédimentaires post-paléozoïques à Niger oriental* (Paris, 1966), 538-39, and Gouletquer and Kleinmann, *Salines du Manga*, 12.
8. Interviews with Malam Dan Tsoho Koki (5 July 1973), Alhaji Haruna Bakin Zuwo (3 July 1973), Alhaji Abbar Mai Unguwar Koki (7 July 1973), and Alhaji Mahmudu na Bargery (8 and 14 July 1973), all found in the Lovejoy-Umar Collection, Tapes KI-K3, Postgraduate Reading Room, Department of History, Ahmadu Bello University, Zaria; and at the Harriet Tubman Resource Centre on the African Diaspora, York University.
9. In 1924 a "soft soap" which had "a pleasant smell" was made from the resin of the shea nut tree, animal fat, and natron (Denham, Clapperton, and Oudney, *Narrative*, 523).
10. Paul E. Lovejoy and Stephen Baier, "The Desert-Side Economy of the Central Sudan," *International Journal of African Historical Studies*, VII:4 (1975). 551-81; and Grandin, "Sel au Kavar," 513-33.
11. For selected references to natron and salt distribution from Mangari, Muniyo, and Lake Chad, see Lovejoy, *Caravans of Kola*; Annual Report, Northern Nigeria, 1904, 298; Barth, *Travels*, I, 530-39; E.M. Chilver, "Nineteenth Century Trade in the Bamenda Grassfields, Southern Cameroons," *Afrika und Uebersee*, XLV:4 (1961); Georges Bruel, *La France Equatoriale Africaine* (Paris, 1935), 242-43; Robert Flegel, "Der Handel in Nigergebiet und seine voraussichtliche Zukunft," *Mitteilungen der Orientalischen Gesellschaft in Deutschland*, IV (1833-1885), 139; Paul E. Lovejoy, "Interregional Monetary Flows in the Precolonial Trade of Nigeria," *Journal of African History*, XV:4 (1974), 569; Barth to Crowe, 15 March 1851, encl. in Crowe to Palmerston, 7 Nov.

- 1851, C.O. 84/857, as cited in A. Adu Boahen, *Britain, the Sahara and the Western Sudan, 1788-1861* (London, 1964), 125.
12. E. Bernus and S. Bernus, *Du sel et des dattes. Introduction à l'étude de la communauté d'In Gall et de Tegidda-n-tesemt* (Niamey, 1972); S. Bernus and P.L. Gouletquer, "Du Cuivre au sel: Recherches ethno-archéologiques sur la région d'Azelik (campagnes 1973-1975)," *Journal des Africanistes*, 46, 1-2 (1976), 7-68; P.L. Gouletquer and D. Kleinmann, "Structure sociale et commerce du sel dans l'économie touarègue," *Revue de l'Occident Musulman et de la Méditerranée*, 22 (1975), 131-39.
 13. R. Rochette, "Au Niger: Kawara Débé, village de mares," *Revue de Géographie Alpine*, III (1965), 169-203; Roger Lambert, "Les salines du Dallol Fogha (Niger)," *Bulletin du Service des Mines*, Dakar, I (1938), 49-51; M. Perron, "La rivière de set du Fogha (colonie du Niger)," *Bulletin de l'Agence Générale des Colonies* (1926), 368-72; A. Loyzance, Canton de Birni N'Gaouré, recensement, historique, politique, religion, économie, santé, greniers, 2 juin 1947, Archives Nationales, Republic du Niger (hereafter referred to as ANRN).
 14. For a survey of these sites and their relative importance, see Lovejoy, *Salt of the Desert Sun*. Also see Sa'ad Abubakar, "The Middle Benue Region up to c.1850" (Niger-Benue Valley Seminar, Jos, 1974); "A Survey of the Economy of the Eastern Emirates of the Sokoto Caliphate in the Nineteenth Century" (Sokoto Seminar, Sokoto, 1975); Ade Adefuye, "Ozegya Adi Obanseriki of Keana: His Life and Times" (Historical Society of Nigeria Conference, Ife, 1974); "Keana: The Gift of Salt" (Kano Seminar, Kano, 1976); A.E. Afigbo, "Trade and Trade Routes in Nineteenth Century Nsukka," *Journal of the Historical Society of Nigeria*, VII:1 (1973), 78, 88-89; "Pre-Colonial Links between Southeastern Nigeria and the Benue Valley" (Niger-Benue Valley Seminar, Jos, 1974), Anonymous, "Uburu and the Salt Lake," *Nigeria Magazine*, 56 (1958), 84-96; F. Beltaro and R. Bejarski, "The Possibility of a Salt Industry in Nigeria," Geological Survey of Nigeria, RPT. No. 1492, Kaduna, 1971; F.I. Ekejiuba, "The Aro Trade System in the Nineteenth Century," *Ikenga*, I, 1, (1972), 11-26; Rosemary Harris, "The History of Trade at Ikom, Eastern Nigeria," *Africa*, XLII (1972), 122-39; David Northrup, "The Growth of Trade among the Igbo before 1800," *Journal of African History*, XIII, 2 (1972), 217-36; Onuora Nzekwu, "Keana Salt Camp," *Nigeria Magazine*, 83 (1964), 262-78; D.A. Phoenix and R.T. Kiser, "Salt Springs, Lafia Division, Benue Province, Northern Nigeria" (Geological Survey of Nigeria, unpublished, RPT. No. 1436, Kaduna, 1966); C. M. Tattam, "Preliminary Report upon the Salt Industries: Eastern Nigeria," (Geological Survey of Nigeria, RPT. No. 778, Kaduna, 1942); and A.C. Unomah, "Salt Production and Trade in Awe District in the Nineteenth Century" (Historical Society of Nigeria Conference, Ife, 1974).

15. Lovejoy, "Salt Industry." Also see Schultze, *Sultanate of Bornu*, 85, 180; Philip Shea, "The Development of an Export Oriented Dyed Cloth Industry in Kano Emirate in the Nineteenth Century" (Ph.D. thesis, University of Wisconsin, 1975), 149-54; Mahmoud Hamman, "The History of Relations Between Mambila Borderland and Its Eastern Neighbors, to 1901" (B.A. dissertation, Department of History, Ahmadu Bello University, 1975), 40; T.A. Aku, "The Transformation of Political Authority in Southern Jema'a, c. 1800-1904" (B.A. dissertation, Department of History, Ahmadu Bello University, 1974), 13; Daryll Forde, "The Rural Economics," in Margery Perham, ed., *The Native Economies of Nigeria* (London, 1946), I, 56; Imam Umaru in Douglas Edwin Ferguson, "Nineteenth Century Hausaland, being a Description by Imam Imoru of the Land, Economy, and Society of his People" (Ph.D. dissertation, UCLA, 1973), 389; J.M. Freemantle, *Gazetteer of Muri Province* (London, 1920), 54; and G. Rholf, "Reise durch Nord-Afrika... 2. Halfte: von Kuka nach Lagos (Bornu, Saria, Nupe, Yoruba)," *Petermann's Geographischen Mitteilungen, Ergänzungsheft*, XXXIV (1872), 85.
16. For the volume of Kawar and Fachi production, see Baier, "Commerce in Damagaram," 19, 42n, 110-11. Also see Nachtigal, *Sahara und Sudan*, I, 535; whose estimate is probably too high, and Abadie, *Niger*, 274-75. It should be noted that not all camels returning from Kawar were loaded with salt. Several hundred camel loads of dates were carried and fodder, water, and food had to be taken as well. These have not been taken into account here. The various estimates are discussed in Lovejoy, *Salt of the Desert Sun*.
17. There are no reports that give a complete survey of Mangari salt production, but this estimate on salt production is based on the following reports. In 1937 the volume of salt production was estimated at 1,261 tons in Mangari and Muniyo, and another 4.2 tons in the Sosebaki states near Zinder. It was also estimated that two hundred tons of natron were produced in Mangari and Muniyo and 55.6 tons near Zinder. Total salt production in 1938 for this region was 1,520 tons (Chazelas to Gouverneur Général, 2 Sept. 1938, ANRN). This compares with 1,340 tons in 1936, which included 935 tons of salt, 255 tons of natron, and 150 tons of *baboul* (L'Administrateur adjoint commandant le Cercle du Manga, 12 Juillet 1936, ANRN). The figure for 1915 was 761 tons of salt alone, there being no estimate for *baboul* or natron (Janouih, Rapport sur les Salines, Mainé-Soroa, 24 fév. 1916, ANRN). These sources should be combined with the reports of Browne and Becklesfall for 1906, who calculated that approximately thirteen hundred tons of salt alone were being produced (SNP 7/8 2281/1907 Nigerian National Archives, Kaduna [hereafter NNAK]. Chambert estimated, however, that 2,000-3,000 tons of salt were being produced in 1906 (Rapport sur une Tournée pacifique, 23 Sept.

- 1906, ANRN). This report appears to have been based on the study of Ronjat (*Etude sur les Mares salines du Mounyo*, 1905, ANRN), who estimated that 540,000 cones of salt, with an average weight of 5 kg, were manufactured. This calculation indicates a total of about 2,700 hundred tons. Another estimate made in 1942 placed the total output at four thousand tons, but the source of this report is unknown; see C.R. Niven, 16 January 1942, in Mai Prof 2/2 3664, NNAK.
18. Bornu Provincial Report, Annual, 1912 (SNP 10/14 182p/1913, NNAK). I wish to thank R.J. Gavin for this reference. One 1936 report mentions one hundred fifty tons being produced at sixty sites: Chef de la Subdivision de Mainé-Soroa a Monsieur l'Administrateur Commandant le cercle du Manga, 29 mai 1936, in Les Salines, 1905, 1936, 1938, ANRN.
 19. In 1904, 491 tons of natron were imported into Ilorin, while in the same year 665 tons were tallied at Zaria; see Annual Report, Northern Nigeria, 1904, 298 (NNAK). In 1912 3,362 cwt. of natron was shipped through Idah on the Niger River; another 4,167 cwt. went by rail through Offa; and 6,797 cwt. passed by caravan through Bude Egba, on the Ilorin-Ogbomoso road. This amounted to over seven hundred tons of natron for the market south of the Niger-Benue confluence alone (Northern Nigerian Blue Book, 1912). These figures compare with scattered material from earlier periods. Barth (*Travels*, I, 530-39) counted 5,900 loads of natron (about two hundred tons) on a single day on the road between Gumel and Kano in 1851, and Flegel reported that over a hundred tons were transported annually by steamer down the Niger in the early 1880s (Flegel, "Handel in Nigergebiet," 139).
 20. Bruel, *France Equatorial Africaine*, 243; and Lovejoy, *Caravans of Kola*.
 21. Abadie, *Niger*, 274; Grandin, "Sel au Kawar," 483; Denham, Clapperton, and Oudney, *Narrative*, 208-16; Rholfs, "Reise durch Nord-Afrika," 26-27; and Lovejoy, *Salt of the Desert Sun*. Also see Capitaine Prévot, on Kawar, 1909, in Gentil, *Confins*, 24-55, and 1907 report on Fachi, in Gentil, *Confins*, 56-69.
 22. See Grandin, "Sel au Kawar," 501-10, 529-33; and the 1906 Prévot report on Bilma and the 1907 report on Fachi in Gentil, *Confins*, 24-69.
 23. Grandin, "Sel au Kawar," 492-93; Gentil, *Confins*, 23, 66, 68. In 1943 Bilma had a population of 2,900, Fachi had six hundred, Aggueur had five hundred, Dirkou had 1,800, and Aneye had four hundred (Gentil, *Confins*, 23).
 24. Grandin, "Sel au Kawar," 492-97; Gentil, *Confins*, 25-29; Denham, Clapperton and Oudney, *Narrative*, 208-10.
 25. Grandin, "Sel au Kawar," 495.

26. For the war of Bilma (1173 A.H., 1759 A.D.), according to the Asben Record of Abu Tali Armaju, see Palmer, *Bornu Sahara and Sudan*, 66. Palmer comments: "It is related that after one Bornu expedition to Ahir the Kelowi pursued the retreating Kanuri to Balma [Bilma]. Some three or four hundred of the Bornu army were captured and installed by the Kelowi as their subjects at Balma to work the salt. This is said to be the origin of the rights of the Kel-Ahir in Balma, in acknowledgement of which an annual present is sent to Agades." In 1765 "the Kelowi on their yearly expedition to Bornu were set upon and massacred by the Kanuri" (Jean, *Les Tuareg du Sud-Est*, 121). Sultan Muhammad of Agades retaliated by attacking Borno; "He marched to the gates of Kukawa [i.e., Birni Gazargamu] and took two thousand cattle, exacting a promise that Asben caravans should not be interfered with again" (Palmer, *Bornu Sahara and Sudan*, 86). Also see report of Capitaine Prévot, 1909, in Gentil, *Confins*, 29-31, 34.
27. Grandin, "Sel au Kawar," 497-498; Lange, "Mission au Kawar."
28. For the Muniyo and Mangari natron and salt sites, see Gouletquer and Kleinmann, *Salines du Manga*; Gouletquer, "Bouilleurs," 572-77; Marre and Lahache, "Région du Tchad," 533-88; Barth, *Travels*, III, 45-70; Reibell, *Mission*, 250-58; Foureau, *Par le Tchad*, 570-88; Abadie, Niger, 278-80; Soula, *Sels du Manga*; Géry, "Sauniers du Manga." Reports of W.H. Browne (1906), J. Becklesfall (1907), and Seccombe (1907), in Salt from Bornu Province – Samples for Transmission to the Imperial Institute for Report, SNP 7/8 2281/1907, NNAK (An earlier report by Vischer has not been located, but see "Salt Substitutes," 300); J.R. Patterson, Geidam District Notebook, SNP 609p/1917, NNAK; B.A. Marwick, Geidam Re-Assessment Report, 1938, Mai Prof 2/2 3014, NNAK; M. Mahomet Lawan, Touring Notes, in Local Salt Production, c.1941. Mai Prof 2/2 3664, NNAK; letter of H. Vischer, 13 December 1904, Geidam, in Confidential Papers on the Anglo-French Boundary from Niger to Chad, SNP 15/3 Acc 385 BA, NNAK; Administrative Divisions in Bornu Province, SNP 7/10 1267/1909, NNAK; G.C.R. Mundy, Bornu Report No. 5, May 1903, SNP 1511 Acc 48A, NNAK; J.B. Wellman, Village Life of the Manga of Nguru, 1924, Mai Prof 2/4 Acc. 42, NNAK; Janouih, Rapport sur les Salines, Mainé-Soroa, 24 fév. 1916, ANRN; Géry, Rapport de Tournée, chef de subdivision de Mainé-Soroa, 1944, ANRN; Chef de la Subdivision de Mainé-Soroa a Monsieur l'Administrateur Commandant le cercle du Manga, 29 Mai 1936 in "Les Salines, 1905, 1936, 1938," ANRN; L'Administrateur adjoint commandant le Cercle du Manga á Monsieur le Gouverneur du Niger, Gouré, 12 Juillet 1936, ANRN; Rapport annuel sur les salines, Magaria, 1 Mars 1916, ANRN; S. C. Boraud, Rapport de Tournée effectuée dans le canton de Yamia du 6 Octobre 1933 au 19 Octobre 1933, ANRN; Ronjat, Etude sur les Mares Salines du Mounyo. Leur Exploitation – Leur Rapport – Leurs Res-

- sources, qu'elles peuvent fournir au Cercle du Gouré, 1905, ANRN; Capitaine Chambert, Rapport sur une tournée pacifique dans la Sudest de Gouré, 23 sept. 1906, ANRN; Compte rendu de tournée dans les cantons de Miria, Babantapki, Droun, Kissambana, et Guidimouni, 20 juin 1926, Cercle de Zinder, ANRN; Mares de sel et natron, cuvettes de Baboul, Subdivision de Mainé-Soroa, Cercle du Manga, 29 Mai 1936, ANRN; Rapport politique, 2e trimestre, année 1914, Cercle de Mainé Soroa, ANRN; Monographie du Cercle du Manga, 24/7/4 1, ANRN.
29. For the *baboul* industry, see Nachtigal, *Sahara und Sudan*, I, 570; Foureau, *Par le Tchad*, 640-42, 662-65; Schultze, *Sultanate of Bornu*, 85-86; Vischer, "Salt Substitutes," 297-98; Gouletquer and Kleinmann, *Salines du Manga*, 8-12; J.D. Falconer, *The Geology and Geography of Northern Nigeria* (London, 1911), 267; Boyle, French Circle of N'Gegmi, SNP 6/7/ 87/1911, NNAK; J. R. Patterson (1919), in Mobber District Notebook, Mai Prof 2/4 Acc 40, NNAK; Kanembu District Notebook, Mai Prof 2/4 Acc 36, NNAK; Monographie du cercle de N'Guigmi on 1913, ANRN; Ravoux, Rapport de tournée effectuée du 10 au 30 août 1932, Cercle do N'guigmi, ANRN; Tournée administrative du 5 avril au 29 avril 1934, Cercle do N'Guigmi, ANRN; Fischer, Rapport d'une Tournée administrative, Cercle dans le Kadzell, 2-12 sept 1934, ANRN; Cagnier, Rapport de Tournée, Canton de Komadougou, jan. 1935, ANRN; Rapport de tournée du Chef de subdivision de Mainé Soroa, 10-27 fév, 1936, ANRN; Riou, Rapport de tournée, 17 novembre au 1 décembre, 1940 dans le canton de la Komadougou, ANRN; Riou, Rapport de tournée, Rive ouest du Tchad, Kadzell, Komadougou, 13 fév. au 1 mars 1941, Cercle de N'Guigmi, ANRN; Riou, Rapport de Tournée dans la région Ouest du Cercle de N'Guigmi, 14-18 mars 1941, ANRN; Riou, Rapport de tournée, Kadzell et secteur ouest de la Komadougou, 2-16 juillet 1941, ANRN.
 30. Barth, *Travels*, III, 64.
 31. Barth, *Travels*, III, 45; Janouih, Rapport sur les Salines.
 32. Foureau, *Par le Tchad*, 579,587,
 33. Ronjat, Mares Salines, 1905; Adjoint des Chefs de la Subdivision de Mainé-Soroa, 29 mai 1936; Mundy, Bornu Report, 5 May 1903; and Rapport politique, Cercle du Maine Soroa, 1914.
 34. Géry, "Sauniers du Manga," 312-15; Marwick (Geidam Re-assessment Report, 1938, Mai Prof 2/2 3014, NNAK) found that workers from Dara, who made *manda* at Suluma, operated three furnaces in two units of thirteen and one of fifteen men.
 35. This is based on observations made at Adebour, Fanamiram, Dietkorom, Bitoa, and Koboboa; see Rapport politique, Cercle de Mainé-Soroa, 1914. Thirty-nine men at Suluma produced 4,386 cones

- at their three furnaces in 1938, for an average of 1,462 at each one; see Marwick, Geidam Re-assessment Report, 1938.
36. Géry, "Sauniers du Manga," 311; Wellman, Village Life of the Manga of Nguru; Chambert, Rapport, 1906; Rapport politique, Mainé-Soroa, 1914; and André Salifou, *Le Damagaram ou Sultanat de Zinder au XIe Siècle* (Niamey, 1971), 175.
37. Mundy learned in 1903 that only Cheri and Adebour had a permanent population, but even they more than "quadruple in size during the salt-collecting season" (Mundy, Bornu Report, No. 5, May 1903, SNP 1571 Acc. 48A, NNAK); Géry, "Sauniers du Manga," 310, reports that Adebour had 234 permanent residents while Cheri had 182 in 1945. Also see Vischer's letter of 13 December 1904, in Confidential Papers on the Anglo-French Boundary, SNP 15/3 Acc. 385 B.1, NNAK
38. Gery, "Sauniers du Manga," 313. Mundy encountered an estimated 3,000 Manga moving north in 1903, see Bornu Report No. 5. May 1903, SNP 15/1 Acc. 48A, NNAK.
39. The Manga north of Geidam reported in 1909 that they had settled at Madinga, Mainé Soroa, and Abashiri about eighty years earlier, c.1830; see Maps of Administrative Divisions in Borno Province, SNP 7/10 1267/1909, NNAK.
40. For the origins of the elite, see Monographie du Cercle du Manga, 1941.
41. Ronjat, Mares salines, 1905. Also see Géry, "Sauniers du Manga," 308.
42. Louis Brenner, *The Shehus of Kukawa. A History of the Al-Kanemi Dynasty of Bornu* (Oxford, 1973), 6.
43. Rapport politique, Cercle de Mainé-Soroa, 1914; and Géry, "Sauniers du Manga," 308.
44. Géry, "Sauniers du Manga," 316-317,
45. Gouletquer and Kleinmann, *Salines du Manga*, 8-13; Schultze, *Sultanate of Bornu*, 85-86; and Falconer, *Geology*, 267.
46. J.R. Patterson, 1919, in Mobber District Notebook, Mai Prof 2/4 Acc. 40, NNAK; and also see Boyd Alexander, *From the Niger to the Nile* (London, 1908), 341.
47. Boyle, French Circle of Ngegmi, 1911; J.R. Patterson (1919), in Mobber District Notebook; Kanembu District Notebook; Monographie du cercle de N'Guigmi, 1913; Ravoux. Rapport, 1932; Tournée administrative du 5 avril au 29 avril, 1934, Cercle de N'Guigmi; Fischer, Rapport, 1934; Cagnier, Rapport, 1935; Rapport de tournée du Chef de subdivision de Mainé-Soroa, 1936; Riou, Rapport, 1940; Riou, Rapports, 1941.
48. Nachtigal (*Sahara und Sudan*, I, 570) found that slaves from Nguigmi processed *baboul* at several places nearby. J.R. Patterson found in 1919

that salt manufacturing was “almost entirely confined to the domestic slaves of inhabitants of villages along Lake Chad” (Mobber District Notebook). These sites were examined in greater detail by Ravoux in 1932 (Rapport de tournée), Fischer in 1934 (Rapport de tournée), Cagnier in 1935 (Rapport de tournée), and the several reports by Riou in 1941 and 1942 (Rapports). In all these, there are frequent references to the “anciens captifs” who worked the *baboul* ovens.

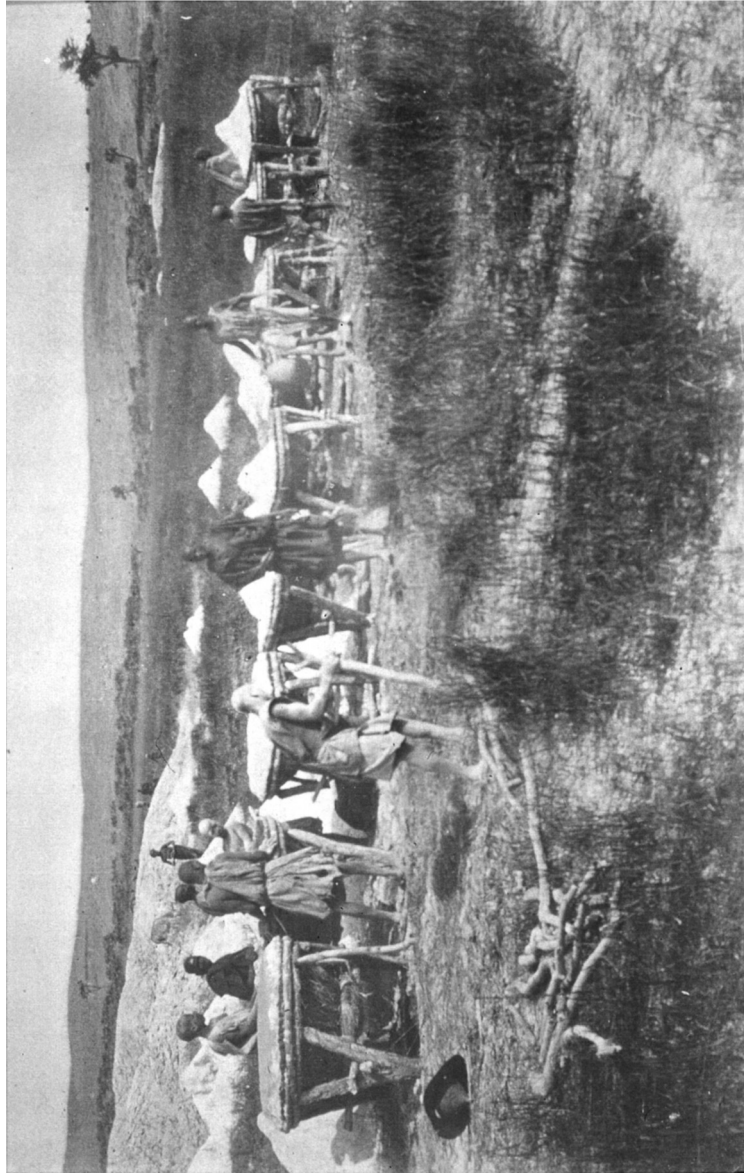
49. For the Lake Chad *ungurnu* trade, see Maps of Administrative Divisions in Borno Province, SNP 7/10 1267/1909, NNAK; Mundy, Bornu Report, 5 May 1903; G.J. Lethem, Notes on Mongonu District, Bornu Province, 1921, SNP 15/317, NNAK; Kanembu District Notebook, by P.F. M.-S., Mai Prof 2/4 Acc. 36, NNAK; Schultze, *Sultan of Bornu*, 53-55; Vischer, “Salt Substitutes,” 310-12; Alexander, *Niger to Nile*, I, 302; II, 99-100; Olive Macleod, *Chiefs and Cities in Central Africa* (London, 1912), 215-16; Landeroin in Tilho, *Documents*, II, 336-37.
50. Landeroin in Tilho, *Documents*, II, 336; Alexander, *Niger to Nile*, 68, 93-94; Macleod, *Chiefs and Cities*, 227.
51. Macleod, *Chiefs and Cities*, 215-16.
52. Mundy, Bornu Report, 1903,
53. Vial and Luxeuil reported that 500 workers produced 280 tons of trona in 1936-37, which suggests a level of productivity of almost two workers per ton, but they also stated that it took three workers to produce a ton, but the length of the season is not stated; cited in Ph. Couty, *Sur un secteur intermédiaire dans une économie de savane africaine: le natron* (Fort Lamy, 1966), 87ff. As Couty argues, however, these figures are not possible, at least data for 1961-64 suggest as much. At this time, when an average of 6,900 tons was produced, the ratio of 2 or 3 workers per ton required a labor force of 14,000-20,000, but the total number of *haddad* – the only source of labor – in the area of Foli was less than 4,000. It seems more likely, therefore that productivity was much higher than indicated by Vial and Luxeuil, although the level of output per worker cannot be calculated. Unfortunately, Couty, whose study of the industry is quite extensive, does not provide data on productivity.
54. Cortier (*Mission Cortier*, 158-59) estimated that a good saline at Bilma – one which measured 20m by 20m – could produce 400 *kantu* (17 kg) and 30 bags of *beza*, based on a labor force of twelve workers. This estimate suggests an output of 6.8 tons of *kantu* per saline, but the workers could easily manage a number of salines.
55. The output of salt at Fachi was probably on the order of 600-700 tons per year in peak years. In 1909, output was estimated at 636 tons; Faure, “Inventaire des évaporites,” 143. In 1961, Fachi was producing 15.6 tons of *beza* and 340.6 tons of *kantu*, for a total output of 356.2 tons of salt.

56. In 1907, Gadel ("Notes sur l'Aïr," 51) estimated the number of workers at 200; M. Cortier ("Teguidda-n-Tisemt," *La Géographie*, 20, 3 (1909), 151) estimated the output at 600 tons in 1909.
57. Faure ("Inventaire des évaporites," 31-32) made a careful study of the number of salt workers in 1963. In the lower Dallol, there were 580 salt workers, who made 500 tons of salt, while in the upper Dallol 213 workers made another 500 tons. Faure's estimate suggests an output of 1.26 tons per worker, but the total number of workers (793) is considerably less than earlier estimates, which appear to have included merchants, firewood sellers, and others indirectly associated with the industry but not actually engaged in production. Tercel (1938) estimated that each *koko* (filtering device) produced 2-3 kg of salt per day, with most production occurring from January to March. Tercel does not indicate the number of workers per *koko*, however. In Dallol Bosso, approximately 1.25 tons of salt were produced per family – the size of a family is unknown. In 1951, P. Urfer estimated that 232 families were producing natron in upper Dallol Bosso, west of Hamdalle in the Tagazar. Each family produced an average of 50 bars (25 kg) so that total production was 11,600 bars (290 tons), although in 1949-50, the previous year, the average was only 15 bars per family, or a total of 3,480 bars (87 tons) (Rapport sur le recensement du canton du Tagazar, Cercle du Niamey, subdivision de Filingue, 1951).
58. Janouih's survey (Rapport sur les salines, Secteur de Maine-Soroa, 24 Fév. 1916) of thirty *manda* salines reveals that it took 4,690 workers to produce 707 tons of salt; that is, it took between six and seven workers to produce one ton in the course of the season, but these workers did everything, from gathering firewood, to collecting salt-earth, carrying brine, etc. Estimates for individual sites suggest a range from six workers per ton to over nine workers per ton. In 1905 Ronjat ("Etude faite sur les mares salines du Mounyo") reported 270 *cases de sel* in Muniyo, which produced an average of 40 cones of salt per unit every three days for five months, or 540,000 cones (8 kg each), or 2,700 tons. Ronjat's figures suggest a level of productivity of two workers per ton, if *cases* consisted of fifteen workers each. Other estimates in 1936 suggest a range of 2-3 workers per ton. The Adjoint of Maine-Soroa (1936) estimated a five-month season, with firings every ten days. Furnaces varied in size, handling from 40 to 170 cones per furnace, with an average of 60 cones (6 kg each). Averaging fifteen workers per furnace, the 166 furnaces had approximately 2,490 workers who produced 900 tons of salt. That is, it took less than three workers to produce each ton. Information on productivity is confusing but indicates, nonetheless, that it took several workers to produce a ton of salt. In 1932, Ravoux counted 419 workers, who made an estimated 2,000 cones (Rapport de tournée, du 10 au 30 août 1932, Cercle de Nguigmi), but his calculation suggests that it required 21 workers per

ton of salt. The Adjoint of Mainé-Soroa estimated that 600 workers made 150 tons of *kige*, which means that four workers produced a ton of salt.

59. Halad Maymako Keana, "The Historical Evolution and Social Organisation of the Traditional Salt Industry of Nigeria: A Case Study of the Keana Salt Industry in Plateau State" (B.A. dissertation, Department of History, Ahmadu Bello University, 1983), 39-41.
60. Rapport sur l'exploitation des salines et mares de natron, 1915; Baier, *Economic History*, 118-21.
61. Lovejoy and Baier, "Desert-Side Economy," 551-81. Also see Philip D. Curtin, *Economic Change in Precolonial Africa. Senegambia in the Era of the Slave Trade* (Madison, 1975).
62. Grandin, "Sel au Kavar," 491.
63. Lavers, "Kanem and Bornu;" Sharon E. Nicholson, "Climatic Variations in the Sahel and Other African Regions During the Past Five Centuries," *Journal of Arid Environments*, 1 (1978), 5-10.
64. "Kano Chronicle," in H.R. Palmer, *Sudanese Memoirs* (Lagos, 1928), III, 111.
65. Lovejoy and Baier, "Desert-Side Economy," 570-74; Sharon Nicholson, "A Climatic Chronology for Africa: Synthesis of Geological, Historical and Meteorological Information and Data" (Ph.D. thesis, University of Wisconsin, 1976), 125-45; and Nicholson, "Climatic Variations," 9-10.
66. Grandin, "Sel au Kavar," 519n.
67. Lavers, "Kanem and Borno"; Hunwick, "Sixteenth Century," 208; Landeroin in Tilho, *Documents*, II, 425-26.
68. Salifou, *Damagaram*, 32; Monographie du Cercle du Manga, 1941.
69. H.P. Palmer, *Gazetteer of Bornu Province* (Lagos, 1929), 46, states that the Manga were probably in origin slaves of the Kanem rulers who were incorporated into Borno at a comparatively early date, but he provides no proof for this speculation. Gustav Nachtigal, *Sahara et Sudan* [Paris, trans. Gourdault, 1881], 1, 529-30) noted that Manga is not an ancient name among the Kanuri, which is also what Barth learned in the 1850s, *Travels*, III, 36.
70. Barth, *Travels*, III, 45, 61; Monographie du Cercle du Manga.
71. Monographie du Cercle du Manga; Barth, *Travels*, III, 61.
72. Lovejoy and Baier, "Desert-Side Economy," 570, 574. In a personal communication, Nicholson explained that meteorological evidence indicates that there was a continued degradation of conditions which accelerated rapidly toward 1800; see "Climatic Variations," 9-10.
73. For patterns of trade between Mangari and the south, see the oral accounts collected by Michael Horowitz, *The Manga of Niger* (New

- Haven, 1972), I, 32, 87, 108, 113-14, 145-46, 154-56, 164; II, 402, 469; III, 510, 515.
74. Barth, *Travels*, III, 57-58; Foureau, *Par le Tchad*, 574.
75. Brenner, *Shehus*, 26-35.
76. For Manga opposition to al-Kanemi, see Brenner, *Shehus*, 45, 60-61, 72; and Denham, Clapperton, and Oudney, *Narrative*, 375, 379.
77. Barth, *Travels*, III, 54; Salifou, *Damagaram*, 50; Monographie du Cercle du Manga, 1941.
78. Salifou, *Damagaram*, 60, 74-75.
79. Brenner, *Shehus*, 123-30.
80. For a discussion of Borno merchants in the south and west, see Paul E. Lovejoy, "The Kambarin Beriberi: The Formation of a Specialized Group of Hausa Kola Traders in the Nineteenth Century," *Journal of African History*, XIV, 4 (1973), 633-51; Lovejoy, *Caravans of Kola*; R.J. Gavin, "The Borno Economy in the 1920s" (Borno Seminar, Zaria, 1973); Abubakar, "Economy of the Eastern Emirates;" Shea, "Dyed Cloth Industry;" A.Y. Aliyu, "Aspects of relations between Bornu and Bauchi from early times to the first half of the 19th century" (Borno Seminar, Zaria, 1973); Wellman, Village Life of the Manga of Nguru; Mundy, Bornu Report, 5 May 1903.
81. Lovejoy, "Kambarin Beriberi," 633-51; and Lovejoy, *Caravans of Kola*.
82. For information on other Kambarin Beriberi, I am indebted to M.B. Duffill on Lafia-Beriberi and the Ph.D. thesis of Garba Nadama on Zamfara (Ahmadu Bello University).
83. Shea, "Dyed Cloth Industry," 30-85. Also see interviews at Kudan, Hunkuyi, and other towns in northern Zaria (Lovejoy-Maccido Collection, Economic History Project, 1975-1976, Tapes 1-6).
84. Gavin, "Borno Economy;" Lovejoy, *Caravans of Kola*; Shea, "Dyed Cloth Industry;" John Works, *Pilgrims in a Strange Land* (New York, 1976), 181-206; Louis Brenner, "The North African Trading Community in the Nineteenth Century Central Sudan," in D.F. McCall and N. Bennett, eds., *Aspects of West African Islam* (Boston, 1971), 137-50, John Lavers, "The Organisation and Distribution of Trade in the Central Sudan in the Pro-Colonial Period" (M.Sc. dissertation, University of London, 1965).
85. Shea, "Dyed Cloth Industry," 33, 56, 75, 80-84.
86. Lovejoy, "Monetary Flows," 577-78. Cloth strips were still recognized as currency in Muniyo as late as the 1850s, when 100 cowries were worth one *gabaga*. Some taxes, however, were assessed in cowries; see Barth, *Travels*, III, 53, 58.
87. Barth, *Travels*, I, 568.



Mangari Salt Production, 1903-04

Museum für Völkerkunde und Schweizerisches Museum für Volkskunde, Basel

4 | **KOLA IN THE HISTORY OF WEST AFRICA**

The kola nut, particularly the variety *Cola nitida*, has been a major commodity in West African trade for many centuries, long before its distinct taste provided the inspiration for numerous cola drinks.¹ Such wondrous potions as kola-wine, kola-cocoa, and kola-chocolate were experimented with in Great Britain in the 1890's, although Wellcome's "Forced March Tabloid" was the only preparation that retained the original taste of the bitter nut.² Other drinks, including Pepsi Cola and Coca Cola, now the most popular, bear little resemblance in taste to the chestnut-size nut traditionally chewed in West Africa. Red, white, or of shades in between, the *C. nitida* nuts were valued because they cleansed the mouth, provided a spurt of energy, and were credited with numerous medicinal and other properties. They were also mildly addictive, which was an important, if unknown, reason why thousands of common folk chewed it, at naming ceremonies, weddings and other occasions, although it constituted a luxury. For the wealthy, they were a necessary sign of their hospitality and affluence. Other varieties of kola, less widely distributed and less prestigious, had similar physiological effects.³

Grown only in the forest, kola found a ready market almost everywhere in West Africa, including the savanna and southern Sahara, many hundreds of km north of its production zone. Despite the great care needed to preserve the nuts, which are vulnerable to a variety of pests and must be kept moist but not wet, kola was central to north-south exchange between forest and savanna. This chapter will concentrate on it, although one must keep in mind that other commodities, especially gold, salt, livestock, slaves, textiles, leather goods, and iron hoes, were also important, and that the commercial patterns here described also relate to a wide range of commodities. Kola is isolated for analysis in order to determine the

origins of *C. nitida* production, to establish the probable routes of distribution in the savanna, and to contribute to the construction of a chronological framework for an analysis of trade in West Africa.

VARIETIES OF KOLA

Kola is indigenous to the West African forest, but is found as far east as Gabon and the Congo River basin. Of its more than forty varieties, four – *C. nitida*, *C. acuminata*, *C. verticillata*, and *C. anomala* – are the most common of the edible species,⁴ and have been important in the commerce of West Africa. These four types are similar in their chemical composition and use. They contain, together with other compounds, large amounts of caffeine, and smaller quantities of theobromine, kolatin, and glucose. All these are stimulants: caffeine affects the central nervous system, theobromine activates the skeletal muscles, kolatin acts on the heart, and glucose provides energy to the body as a whole. When chewed, and it appears that kola was not cooked or made into drinks anywhere in Africa, the nuts have an effect similar to that of coffee, tea or cocoa, and consequently kola, being an excellent refreshment, can be used to relieve hunger, thirst, and fatigue, lending itself well to social situations. It had a ready market almost everywhere in West Africa: in the savanna, where demand was high in the absence of tea, coffee or other preparations filling such roles, and tended to increase with the spread of Islam and its prohibitions on alcoholic beverages; but also in the forest areas, where alcohol was consumed, but where kola was often associated with rituals and ceremonies.

The kola-producing zone can be divided into two parts, one for *C. nitida* and the other for *C. acuminata*, *C. verticillata* and *C. anomala*. This division is significant because *C. nitida* was by far the most important variety in terms of trade between forest and savanna, and because its zone of cultivation was geographically separated from that of the other varieties. There does not appear to be any difference in the techniques of cultivation that would account for this. The explanation as to why one variety assumed such importance commercially while the others did not also remains unclear; one can only note that a market had to be developed, since taste for the nuts is acquired, and that, whatever the reasons, demand for the other varieties has always remained small by comparison. An important factor probably was the relative ease of preserving the nuts, and *C. nitida* can be stored for up to a year if inspected carefully and regularly.

Before the last decade of the nineteenth century, the production of *C. nitida* was confined to the forests west of the Volta River, except for a very limited output in Nupe, near the confluence of the Niger and Benue rivers; this variety of kola was in particular demand among Muslims, and since areas of production were far away, it had to be transported considerable distances in order to reach the most eastern markets in the Central Sudan. *C. acuminata* was the primary variety grown in Yorubaland, the Igbo country, and areas further east; some was sold outside the forest zone, but it figured more prominently in local trade.⁵ *C. Verticillata* also was grown in the forests of Yorubaland, and perhaps further east too; some was exported north into the Central Sudan, where it was known to Hausa consumers as *hannunruwa*; it was also used in Borno, although demand there appears to have been far less than for *C. nitida*. *C. verticillata* was considered slimy, and women used it as much for cosmetic purposes as for its caffeine.⁶ *C. anomala* was grown only in Bamenda, in Cameroons, and was exported north, at least by the middle of the nineteenth century, and unlike *C. verticillata*, it was an acceptable substitute for *C. nitida* in the markets of the Central Sudan. The production area was limited, however, and possibly little *C. anomala* was cultivated before the expansion of Hausa trade into southern Fombina (Adamawa) in the nineteenth century.⁷

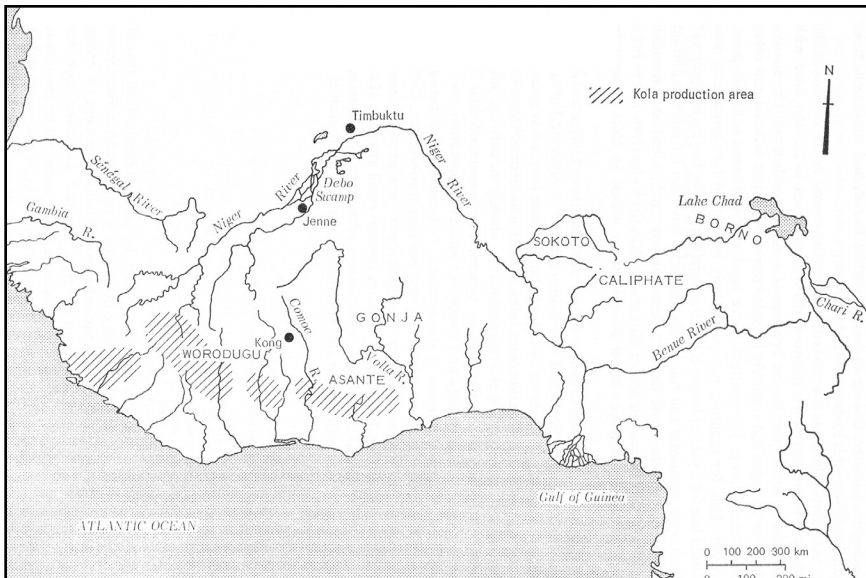
THE DEVELOPMENT OF THE *C. NITIDA* TRADE: METHODOLOGICAL CONSIDERATIONS

Although kola was indigenous to the whole forest area of West Africa, only certain parts have been important historically in the production of *C. nitida*. Kola trees can grow in the forest-savanna fringe south of approximately 10° N latitude, but the main area for *C. nitida*, which is the variety discussed in the rest of this article unless otherwise indicated, has been between 60° and 80° N, from the Volta to the rivers of the Upper Guinea coast. Proximity to the savanna was significant in determining potential output, the most productive region beginning from 125 to 150 kilometers inland and ending approximately 300 kilometers from the coast. This belt was subdivided into four parts. In the east, the Akan forests were the principal source: in the nineteenth century kola was found in Asante, from Mampong in the east through Tekyiman and the Tano River valley, and it also grew in the Ano region along the Comoé River, 200 to 300 kilometers from the coast. The second area, straddling the Bandama

River, was the Guro country, but also included the Bete area to a lesser extent. The third area was further west astride the present Sierra Leone-Liberia-Guinea boundary near the source of the Niger River: a variety of people exported kola from this zone, including, from east to west, the Dan, Gerze (Kpelle), Toma, Kisi, and Kono. The fourth area was the coast between the Scarcies and Nunez rivers in Sierra Leone and Guinea, where the Temne and Bullom collected kola for export along the coast and through the Futa Jallon highland. Kola was also cultivated north of this broad belt, but then only in small groves near villages where conditions were favorable; usually these nuts were smaller, and were consumed locally. Trees had to be tended carefully, and their presence in Futa Jallon, Kuranko country, and even near Kankan indicates their commercial importance.⁸

In the first decade of the twentieth century, *C. nitida* trees were usually planted in the most important producing areas, as was probably done for many centuries. Cultivation was common among the Temne, Baga, Kisi, Toma, Gerze, Dan, Mano, Ge, Guro, Gan and perhaps the Asante.⁹ Groves of thirty to sixty trees were common near Ge villages, while the Kisi planted trees in the forests by their villages. Among the Gerze and Toma, groves were found along the Diani River, in Kabaradougou, and in Simandougou. In the Ano region, which supplied Kong, kola was planted in groves of 250 to 300 trees. Trees were elsewhere planted in smaller numbers. The Guro planted individual trees when girls were aged six or seven in preparation for puberty rites, but there were no plantations. The Mano planted a tree or two on gravesites, this sometimes forming the basis of a small grove.¹⁰

Even when trees were wild, they were often claimed and marked. The Toma, Gerze and their neighbors, after clearing the land around newly discovered trees, used bundles of straw, old machete handles with small stones tied to them, pieces of calabash stuffed with bombax "cotton," and other devices to establish a claim. In Gerze country, abandoned villages were visible because of the number of kola trees at their locations. The Guro acted differently: except for a few trees, most nuts were gathered in forests, where access was a lineage right. In the area between Kumasi and Nkoranza in Asante, kola trees were so thick in the 1890s that they formed a gigantic kola forest. Some of the trees there may even have been planted, and certainly underbrush was cleared away to protect seedlings, which must have been a regular practice for a



Major Kola Production Areas, 1880s

long time. As with the Guro, however, the gathering of kola seems to have been possible for any member of a lineage, which maintained collective rights to the trees.¹¹

It is crucial to the argument presented here that the trade in kola depended, at least in part, on its cultivation. Evidence of this cultivation is conclusive for the late nineteenth century, and one can assume that customs associated with planting trees on gravesites and as a preliminary stage in puberty rites are very old. The question is how old, and how significant such practices have been in spreading *C. nitida*: one text from the sixteenth century indeed states that "plantations of kola" existed then,¹² but this being the only reference, it remains theoretically possible that, as the market for kola developed, commercialization at first only involved nuts tapped from trees in their natural state; and that *C. nitida* has spread by itself throughout the area from the Scarcies and Nunez rivers eastward to the Volta, with cultivation developing only later. My assumption here, however, is that the spread of kola trees from some areas to others was a result of cultivation: the movement of villages, the opening of new lands, and local trade probably resulted in the planting of trees, which does not mean that natural germination and the spread of wild stands of kola were not important. This argument is supported by linguistic data and by

the traditions that chronicle the movement of peoples in the areas of kola production.

The evidence is discussed in five parts: linguistic and ethnographic data are examined in the first two parts; accounts and evidence of trade with the savanna, from the Akan forests, and along the Guinea coast in the following three. The reconstruction of the chronology of the kola trade before 1600 is based on this discussion. Although the data are incomplete and often confusing, the following propositions can be advanced, each of which is discussed at length in the appropriate section: (1) Linguistic data indicate that the likely origin of cultivation for *C. nitida* was in the Guinea-Liberia-Sierra Leone border area, although there is no evidence for ascertaining a date of initial development. (2) Ethnographic data, primarily collected by Person, suggest that kola already was a commercial crop when Mande-speaking groups settled in the forest where it was cultivated. The first Mande group probably moved into the forest in the mid fifteenth century, with the major movements dating to the sixteenth century. Ethnic boundaries were relatively stable by the early seventeenth century, and hence the ethnographic data give some reliable basis for the reconstruction of a chronology. The trade had developed before the fifteenth and sixteenth centuries, but a major transformation occurred then. (3) The market for kola in the savanna probably existed by the thirteenth century, and possibly much earlier. Furthermore, this market was large enough to have by then come to the attention of observers in North Africa. This supports a chronology in which kola commercialization antedates the Mande migrations into the forest in the fifteenth and sixteenth centuries. (4) Kola production in the Akan forests, which developed later than in areas to the west, was important by the fifteenth and perhaps the fourteenth century. This corroborates the thesis that kola cultivation was initiated well before this time in the original area of production. Furthermore, the evidence of kola imports in the Central Sudan demonstrates that demand was quite large in the savanna by the fifteenth century, since the Central Sudan was at a considerable distance from areas of production. (5) Finally, information on trade along the Upper Guinea coast gives some indication of the scale of production at the time when the movement of Mande groups into the forest initiated major changes in the original production zone. The coastal trade must have represented only a fraction of the interior trade, but it was, nonetheless, on the order of several hundred tons per year for a relatively restricted geographi-

cal area of the savanna. It seems likely that other parts of West Africa of comparable population density imported at least as much by the same time. The total trade, therefore, probably involved thousands of tons of kola by the late sixteenth century, although there is no way of verifying this hypothesis.

ORIGINS OF THE KOLA TRADE: THE LINGUISTIC EVIDENCE

Linguistic evidence (see Tables I and II) shows that the terms for kola in the area from the Bandama River westward to Sierra Leone and Guinea are related, and suggests that it was in this area that *C. nitida* was first developed as a commercial crop. The common root of the various words for kola in this region can be reconstructed as **goro*. The similarity in terms is all the more striking because the languages spoken in this region belong to two distinct linguistic subfamilies within Niger-Kordofanian (see Table I): in Greenberg's classification the languages in the far West are grouped under West Atlantic, while those in the interior as far as the Bandama River are Mande.¹³

By contrast, the words for kola in virtually all the languages in the Kwa subfamily are clearly unrelated, there being less similarity within the Kwa group than between West Atlantic and Mande. Among the former group, the people who speak the Anyi, Twi, and Bete languages have been important producers of kola for export, but only the Bete term for kola (*guresu*) bears a resemblance to those used further west. The Bete lived adjacent to the Mande and West Atlantic area and further west than other Kwa-speakers. Their neighbors to the north, the Guro, were major producers of kola, and the Bete country was not far from other centers of cultivation. This is perhaps a significant indication that *C. nitida* was first gathered for commercial purposes in the far west where the Mande and West Atlantic languages are spoken. It should also be noted that the Baule area between the Bandama and Comoé rivers, previously inhabited by the Senufo, Dida and Guro, has not been important in the production of kola. The Baule are an Akan group who moved west from central Asante, where kola was grown, in the eighteenth century. Only the extreme northeast of their country is within the kola zone, contiguous to that of Asante. Otherwise the area they now inhabit occupies a crucial position dividing the kola belt into eastern and western segments.¹⁴ To the west, the **goro* root is universal; to the east, *bese* or *wese* was the most common term among those who collected and sold kola.

Equally significant in the identification of the West Atlantic and Mande area as the initial region of kola production is the linguistic relationship between the **goro* of the forest and the word for kola virtually everywhere in the West African savanna (see Table II). From the Senegambia to Lake Chad, *goro*, *woro* or some other variation is used. The change from "g" to "w" is a normal sound shift in the Mande languages, while vowel differences and "l" and "r" alternatives easily understood linguistically.¹⁵ This similarity suggests that kola spread throughout the savanna from the area west of the Bandama River, and probably from that straddling the Guinea-Sierra Leone border, since the most logical explanation for the diffusion of the **goro* root is that the savanna languages borrowed the term from one of the forest people who grew kola. It was also the case that the kola merchants used only one or two commercial languages in their business activities. The linguistic evidence suggests that the initial diffusion of kola occurred relatively quickly, which would indicate, as Person has argued, the existence of an established, interlocking commercial network capable of providing the security and organization necessary for the relatively quick distribution of the perishable nuts from forest to savanna.¹⁶

Three linguistic data point to this conclusion. First, some non-Mande people such as the Fulbe and the Senufo use the word *woro* instead of *goro*. This indicates that they first obtained kola only after the sound change in the Mande languages had occurred. It is however very likely that both groups have been consumers for many centuries, for they lived relatively close to the kola-producing region and to the north-south routes followed by kola merchants.

Second, the Songhay, Hausa and Kanuri use *goro*, which indicates that they had borrowed the term before the phonological change from "g" to "w" had taken place. One can at least say that the Songhay, and through them the people of the Central Sudan, must have been in contact with merchants who used the *goro* form at the time they came to know kola. Since Songhay and the Central Sudan are particularly far from the western producing region, this also suggests that the introduction of kola was very ancient. Finally, the diffusion of kola consumption must have taken place before kola was exported from the Akan region: if people speaking an Akan or another Kwa language had developed their kola resources before the forest people to the west of the Akan, then some savanna languages would have borrowed a Kwa term. In fact only Guan,

the Kwa language spoken in Gonja, immediately north of the Akan area, has a word similar to *bese*, the Akan and Twi term.

Two languages, Guro and Gola, indicate a possible connection between kola production and the western forest region. The word for kola in Guro, a Mande language, is *guro*, while in Gola, a West Atlantic language, it is *gola*. The fact that the terms for the languages and for kola are identical is either an amazing coincidence or an indication that these people were identified through their participation in the kola trade. The Gola have probably lived in the forests of Sierra Leone since at least the thirteenth century. Their ancestral home, east of the St. Paul River, in today's Liberia, has long been a center of kola production, so that they may have been major producers in the past. When, in the mid sixteenth century, they were forced to move, their lands were occupied by Mande-speakers, probably the Toma, Gbunde, and related groups.¹⁷

The connection between the Guro and kola production is also ancient, although traditions of origin are too confused to provide a chronological framework. Some Guro claim a relationship with the Bete in the south; others remember a migration from the east, probably when the Baule moved into the region in the eighteenth century; while still other Guro claim an association with the Malinke in the savanna. Some traditions mention a search for kola trees as a reason for migration, but they are too vague to suggest anything more than a long tradition of kola production.¹⁸ Nonetheless, the relationship between the ethnic name and the word for kola also occurs in the savanna, where the region adjacent to Guro country is called "the land of kola," Worodugu, which is derived from *woro*, "kola nut," and *dugu*, "land." The Mande sound shift from "g" to "w" seems to have operated here: the geographic term, *Worodugu*, "the land of kola," designating the markets for Guro kola, is literally the northern extension of "Guro-land," which would be **gurodugu*, without the sound shift. This hypothetical reconstruction may or may not be accurate historically, but the connection between the Guro and kola is. But one must also take into account that a general movement of Mande-speaking groups into the forest area had taken place about the same time, i.e. in the fifteenth and sixteenth centuries, and that the traditions of the Toma and Gerze, who were also major kola producers, are more assertive in their claims of savanna origins than the Guro; what then seems likely is that the settlement of all these people was related to the development of kola as an export crop.¹⁹

Although the words for kola in these languages are related to the **goro* root, other data suggest that it was probably people who spoke a West Atlantic language who were initially associated with kola and that the Mande-speakers borrowed the term and probably began collecting the nuts later. Among the Temne, for example, who had moved from the Futa Jallon highlands to coastal Sierra Leone by the fourteenth or fifteenth century, the vocabulary related to kola production suggests that a West Atlantic language probably was the original source of the **goro* root. The Temne word for kola is *kola* or *tola*, while kola trees are called *nola* or *yola*. The variation in these forms would indicate that the word was indigenous to the language or to proto-West Atlantic, particularly to the Mel languages of coastal Sierra Leone. According to Hair, "the term *cola* is probably of Mel origin but it is not unlikely that it had been borrowed by Mande languages long before Europeans arrived [in the fifteenth century]." ²⁰

THE ORIGINS OF THE KOLA TRADE: THE ETHNOGRAPHIC EVIDENCE

Most of the people west of the Bandama River who have been major kola producers claim a savanna origin. They include the Kisi, who speak a West Atlantic language, as well as all the Mande groups who now live in the forests of Guinea, Sierra Leone, Liberia, and the Ivory Coast. The fact that the Gerze, Toma, and others who speak Mande languages were not indigenous to the forest helps confirm the hypothesis that kola cultivation has a West Atlantic (Mel) source, but that immigrants from the savanna expelled or assimilated those people initially involved in the kola trade. Traditions collected by Person establish that ethnic boundaries became relatively stable only in the early seventeenth century. Even then the Gola and others who had previously been displaced continued to expand southward. ²¹ The early history is sketchy because traditions referring to that far ago obviously cannot be regarded as reliable. Person has however been able to suggest several conclusions that bear on our effort to reconstruct the development of kola production.

First, the Kisi, a Mel group, once lived approximately 150 kilometers north of their present boundary in the region of the Niger headwaters and not within the kola zone. By the early seventeenth century, they had occupied the kola forests, probably because other Mel groups were forced out of this area by one of several Mande

invasions.²² The fact that the Kisi are the only Mel group to survive as a major kola producer south of the Malinke heartland is significant because it indicates that by the sixteenth century the production zone had been completely transformed. Those Mel groups probably responsible for the original production of kola had by then been destroyed, forced to evacuate the main kola area, or absorbed into other ethnic configurations. Indeed the Kisi themselves have cultural traits similar to those of people of the savanna, where they once lived and which also reflect Mande influence.

The second conclusion drawn from Person's material relates to the movement of Mande-speaking groups into the forest. The earliest remembered Mande incursion was that of the Vai, which probably took place in the mid fifteenth century and affected the original home of the Gola. Person speculates that "the Vai eruption must have been aimed at the kola and sea salt trade."²³ The Kono may have been involved in a related or similar movement. During this period, the Kamara, a Malinke clan, controlled Konyan, the area to the immediate north of the kola zone astride the routes probably followed by the Vai and Kono. The political consolidation of the Kamara and the Vai-Kono movement may have been related, and suggest that commercial relations similar to those of a later date were probably already established.²⁴

The most famous Mande invasion, the one that also appears to have been associated with the introduction of the *poro* secret society into the forest, was that of the Mane, which dates to c.1545. The occupation of the kola zone by the Toma, who moved south from the Milo valley, and the Gerze (Kpelle), moving from Konyan, probably led to the final expulsion of the Gola from the kola forests. The Mane ended up further south, where they introduced dramatic changes among the Mel groups. Foremost among these was the spread of *poro*, a secret society which became the central institution in social affairs and which was equally important in the economy. The decrees of the *poro* society helped mobilize agricultural labor, protected private property, and regulated commerce. *Poro* became particularly strong among the Toma, Gerze, and neighboring people in the kola forests. Its injunctions appear to have been used to protect claims to kola trees, at least this was the established custom by the end of the nineteenth century.²⁵

With the exception of the Kisi, therefore, Mande groups successfully seized the kola forests; and even the exception is instructive,

since the Kisi also came from the savanna. This major realignment in the kola trade stabilized by the early seventeenth century, when the area then included, from the Kisi in the west to the Bandama valley in the east: Gbande, Gbunde, Toma, Gerze, Mano, Ge, Dan, and Guro, all of which are Mande groups. To the south were non-Mande, including the Bete south of the Guro, the Gola, Temne, Bassa, and Bulom south of the Kisi. Despite this cultural and linguistic transformation, it is likely that many of the indigenous inhabitants were assimilated and hence the demographic change appears more drastic in tradition than it may have been in reality.

Commercial arrangements also changed. Person's assessment is that "the seventeenth century saw a massive descent of Sudanese down the rivers [of the forest zone], where they were linguistically assimilated but did introduce Islam."²⁶ It was in this period that Juula towns were founded to the north of the forest, immigrants maintaining connections essential in the development of trade. This later commercial development has somewhat obscured earlier patterns of trade, just as the movement of the Kisi, Gerze, Toma and others into the kola forests makes it difficult to uncover earlier patterns of production. Nonetheless, scattered information suggests that there was a kola trade well before the sixteenth century.

THE TRADE WITH THE SAVANNA

The kola trade with the savanna is at least seven centuries old, and probably much older.²⁷ The first reference to a nut that almost certainly was kola indicates that it was known as far north as the Mediterranean coast by the thirteenth century. Ibn Fadl Allah al-'Umari (d. 1349) referred to nuts which were "*âcres, désagréables au goût et les Noirs seuls les mangent.*"²⁸ They came from Mali, and were probably the species which the al-Maqqari brothers reported being exported from Walata to Tlemcen in the thirteenth century. Ibn al-Mukhtar, writing in the seventeenth century, also identifies kola with the Mali Empire; he records a prosperous trade during the reign of Kankan Musa (c.1307 to 1332), "*Ses [Mali's] habitants sont riches et vivent largement; il suffit, pour se rendre compte, de citer les mines d'or et les plantations de gouro [kola] qu'on y trouve et dont les pareilles ne se rencontrent pas dans tout Tekrour, sauf au pays de Bergo.*"²⁹ The center of the Mali Empire was just north of Worodugu, the land of kola, while the gold deposits were located at Bure, to the west. This reference makes it clear that kola was collected on a large scale in either the Kisi-Gerze-Toma region

or the Guro area, or in both. The comparison with Bergo (Borgu) is confusing, for that name can refer to two areas. The first and most common is the Bariba States in the northern part of the Republic of Benin; the second is the area around Jenne.³⁰ For Songhay in the sixteenth century, there were two principal kola routes: one went west; the other passed south from Jenne to the Akan forests between the Volta and Comoé rivers. It seems that Ibn al-Mukhtar was contrasting the gold and kola resources of the west, which were channeled through Mali, and those which passed through Jenne from the Akan forests. It is possible, nonetheless, that he was referring to trade through the Bariba States, although other evidence, which will be discussed below, suggests that the fourteenth century is too early for trade across this region. Hence the likely identification is the area near Jenne.

Many of the merchants associated with Mali, collectively known as Juula (Dyula), trace their origins back to before the thirteenth century, when the first references to kola appear. As early as the eleventh century, commercial networks did connect the empire of Ghana with other parts of West Africa and maybe imported kola from the forest.³¹ In the thirteenth century or earlier, Soninke (Sarakole or Serakhulle) merchants and clerics founded the Niger River town of Ja (Dia), which formed the nucleus of a commercial and religious diaspora which identified as Jahaanke. Dia was destroyed, but the Jahaanke moved outward to new settlements in the Senegambia, from where by the late fifteenth century they had established ties with places as far away as the Central Sudan.³² New towns were founded in the vicinity of Ja and became associated with the Maraka who also claim a Soninke origin and a connection with Ghana. Such towns as Sinsani (Sansanding), Nyamina, and others continued in the commercial tradition which maintained extensive links throughout West Africa. Their merchants secured kola from the original production areas, perhaps as early as the fourteenth century. Jenne, which was founded in the fourteenth century probably looked in this direction, too, as Ibn al-Mukhtar's reference to trade through "Bergo" seems to indicate.³³

The merchants of the Mali Empire founded similar settlements, and it is likely that the traders from the northern savanna traveled south too, perhaps directly to the forest and the kola zone. As Ibn al-Mukhtar noted, a major attraction for these merchants was the gold fields of Bure, located along the headwaters of the Niger River, north of the kola forests, and west of Mali. It was a relatively short

distance beyond this major commercial axis to the kola-production zone, but there is no evidence for commercial settlements south of Bure in this period; and, on the basis of genealogical material, Person argues that the earliest Juula, settlements in the area between the Bure gold fields and the forest, where Kankan and Konyan are located, were established only in the fifteenth century,³⁴ that is well after the first references to kola. The discrepancy between the genealogical data and the Arabic sources may indicate that traditions about earlier savanna networks have been forgotten or absorbed into later traditions, or it may suggest that forest people transported kola north into the savanna before the Juula systems developed. As recently as the nineteenth century, Guro women carried kola to Boron and other towns north of the forest, and a similar pattern may have existed for centuries.³⁵

The nature of commodity exchange between the kola zone and the area to the immediate north of the forest suggests how commercial patterns probably functioned in the period before the foundation of the Juula towns. The forest region lacked sources of iron, and consequently an essential item of trade with the savanna was small iron implements, shaped somewhat like hoes, which were refashioned into agricultural tools and which also served as currency in the area of kola production. To the west of the Sassandra River, these small hoes were referred to as *geze*, while in the Bandama valley they were called *sompe*. Iron was worked at relatively few centers in the southern savanna; north of Guro country the important places were at Touba, between Odienne and Man, and Sakhala, north of Mankono.³⁶ These were also major markets for kola. Livestock, textiles, and salt also figured in the exchange, but these items were only important in that they linked the iron-working centers with the north. The crucial exchange, as regards the effort to reconstruct the development of the kola trade, was in iron hoes. The location of the iron deposits required that either kola producers traveled north to visit the blacksmiths of the savanna or intermediaries serviced this branch of the trade. By the seventeenth century the latter prevailed. Although there is no evidence for the earlier period, it seems certain that from ancient times, kola was being relayed through the iron-working centers.

The Kooroko merchants of Wasulu were involved in the kola trade long before they became the commercial agents of Samori in the nineteenth century, suggesting another connection between the iron resources of the savanna and the kola of the forest.³⁷ These

merchants were apparently exporting iron implements southward to the kola forests where iron money was current. The Kooroko who were originally blacksmiths became important kola traders in part because Wasulu was astride several important trade routes to the south. It seems possible that an exchange of iron products for kola nuts was once important, and, if so, it would have involved the Kooroko blacksmiths. They could have smelted iron in Wasulu and taken their wares to the kola markets, which were in the area of Odienne and further south, a distance of 100 to 200 kilometers. It is also possible that Kooroko smiths went south to smelt ore in the region where iron money was made and there purchased kola for transport north. The Kooroko blacksmiths became kola traders, and a principal item of exchange for kola was the iron implements used as money in a wide region south of Wasulu.

As was the case with other Juula, the Kooroko were organized into *jamu* which had strong links with the medieval empires of the savanna. The Sumanoro, for example, trace their ancestry back to the eleventh century and the empire of Ghana. The Jabate, Kamara, and Dumbiya claim a link with the Mali Empire and its founder, Sunjata, which dates to the thirteenth century. The Kulibali were later, and their connection was with Segu and its founder. The Bagayogo, on the other hand, claim to have come from Timbuktu. All these traditions suggest ancient and continued links with the northern savanna and the sahel, as well as the forest to the south. While all these groups may not have been merchants initially, it seems likely that their movements were related to trade or at least to the establishment of communities able to exploit commercial opportunities. Whether people first moved for political or other reasons, the effect of these migrations was to produce distinct waves of commercial development which were associated with the political ascendancy of specific states and created corridors of trade which, changing over time, yet generally followed a north-south axis. Corporate groups of merchants organized into commercial diasporas dominated trade. New groups could and did emerge, but the tendency was for established merchant associations to maintain kinship, religious, and business relationships that excluded outsiders. New merchants could always be incorporated, but new corporate groups were few. The emergence of another group usually included the establishment of close ties with existing merchants, so that commerce remained a monopoly of the Juula, even as the identity of merchants in the Juula diaspora changed.

The evidence for a well-developed kola trade between the eleventh and fourteenth centuries is circumstantial, therefore, although the commercial networks necessary to distribute a commodity as fragile as kola did exist. We know that merchants traded to the gold fields of Bure, and that Mali had iron deposits to supply the iron-deficient forests to the south. The problem is that the period under consideration is well before Mande-speaking groups moved into the forest, and even before the oral traditions of the kola zone. As has been argued on the basis of the linguistic data and the migration traditions of a later period, it seems likely that the kola producers spoke one or more of the West Atlantic (Mel) languages. But is it really safe in concluding that kola was being produced then? I think so, but the proof, circumstantial again, rests on the hypothesis of a division in kola production, between the area where the *goro root is common and the Akan forests to the east.

KOLA PRODUCTION IN THE AKAN FORESTS

The Akan forests became a center of kola production later than the area west of the Bandama River. The natural break in the kola production zone between the Bandama River and the Comoé River, where the Baule live, isolated the Akan forests of the east from developments in the west. This break provides a clue in the chronological reconstruction of the early kola trade. It suggests that the commercialization of kola occurred later than in the Bandama valley and areas further west, an hypothesis which concurs with the linguistic data. It is likely that merchants either introduced seed into the Akan forest, or that they encouraged people to collect nuts for a market that had not previously existed. It is necessary, therefore, to examine available material on commercial networks and kola consumption in an effort to determine when kola production is likely to have begun in the Volta-Comoé region. Since it is probable that the production of *C. nitida* spread from the west, this would establish an approximate point from which to date the full development of the kola trade in the region west of the Bandama River.

Ibn al-Mukhtar's reference to the kola trade through "Bergo" establishes that kola was found in the Akan forests long before the seventeenth century, and probably by the early fourteenth. This information is confirmed in a *materia medica* written in 1586, in which al-Wazīr al-Gassānī, a doctor to Sultan Ahmad al-Mansūr of Morocco, described kola, which "on l'appelle dans le peuple *gūru*," and coming from "un endroit appelé Bītū, [Bighu] où il y a des

mines d'or et de la poudre d'or *tibr*." ³⁸ Bighu is the oldest known commercial town in the Volta basin and was located near the present town of Nsawkaw, 150 kilometers northwest of Kumasi. The center was near the heart of Bono-Mansu, the Akan state that originated in the mid fifteenth century. ³⁹

The origin of the kola trade from the Volta-Comoé region was related to the expansion of the Juula southward from Jenne in the fifteenth century or earlier. The Volta-Comoé basins were the location of major gold deposits, and over a period of several centuries, traders established a network of commercial centers south of the Niger from Jenne to Bobo-Dioulasso, Kong, and Wa, which focused on Bighu. As Wilks has shown, this commercial system was well established by 1471, when the Portuguese began trading at Elmina. By the close of the fifteenth century, the Portuguese were able to take advantage of the existing trade so that over a half ton of gold was purchased on the Gold Coast. ⁴⁰ The peak of this trade was between the 1470s and 1520. In the Volta-Comoé trading system, Juula became a term comparable to Maraka, Jahaanke, or Kooroko; that is, it designated a specific group of merchants who tended to dominate one region and a related set of commercial routes. In the Volta basin, the Yarse were another such group. ⁴¹ Also of Soninke origin, they dominated the trade of the Mossi states in the upper Volta basin and traded south into the forest zone for kola, although they did not arrive in the kola forests until after the Juula.

It is possible, moreover, that in their quest for gold, these Juula of the Jenne-Bighu axis were responsible for the spread of kola into the Akan forests. To purchase gold, traders took such commodities as salt and textiles to the forest. These goods were much bulkier than the gold which they bought; so that, consequently, far more personnel and livestock were needed on the southbound expedition than on the trip back north. Kola, therefore, became an important supplement to the gold trade. Merchants used surplus livestock and porters to carry kola, and they were able to make additional profits from the sale of the nuts, which were already in great demand in the savanna, as the Songhay *tarik* show.

The Bighu-Jenne trade route and Juula commercial activities tied the Volta-Comoé kola-producing region into the heart of the Songhay Empire. Around 1510, while he was in Songhay, Leo Africanus came in contact with kola, which he described as

produit par un très grand arbre, fruit qui ressemble à la chataigne, mais dont la saveur tire sur l'amer. Ces arbres sont à quelque distance du fleuve, sur la terre ferme. Le fruit dont je parle est appelé *goro* dans la langue du pays.⁴²

The region to the south probably refers to trade via Jenne and to the cultivating areas near Bighu, although possibly also to the Worodugu region in the west. In sixteenth-century Songhay, kola was a luxury, as it was later. When the grand mosque in Timbuktu was being built in 1581-82, for example, Askia al-Hajj al-Amin sent a gift of sixty-seven *mithqal* of gold, one thousand cowries, and one hundred kola – the actual amount was possibly one hundred loads of kola. Later in the 1590s, Askia Mahmud distributed kola among his troops, and he used the nuts as gifts on a number of occasions.⁴³ The Moroccan invasion of Songhay in the 1590s may have disrupted the trade temporarily, but merchants soon again responded to the demand for kola.⁴⁴

Further east, in the Hausa states, kola was also common by the fifteenth century, and again its source was the Akan forests. Since this market was distant from the lower Volta basin, references to kola there indicate a well-developed commercial system, which has been identified with a Songhay-centered diaspora locally known as Wangara.⁴⁵ The first mention of this trade is in the Kano Chronicle, a document from the nineteenth century that compiles oral traditions from an earlier era. The Kano Chronicle records that during the time of Queen Amina of Zazzau, "Sarkin Nupe sent forty eunuchs and ten thousand kolas to her. In her time the whole of the products of the west were [sic] brought to Hausaland."⁴⁶ In the Kano Chronicle, her activities are dated to the reign of Sarkin Kano Dauda Bakon Damisa (A.H. 824-841; 1421-1438 A.D.), but more probably Amina ruled in the third quarter of the sixteenth century. Although the kola imported from Nupe may have been locally grown nuts, the nuts are more likely to have been imported from the middle Volta basin through Borgu. It does appear, however, that kola was common in Nupe before it was in the Hausa centers, which suggests that Nupe was in commercial contact with the Akan production zone earlier than the Hausa cities. Even if the reference is to Nupe-grown *C. nitida*, earlier contacts would have been necessary, since the original seeds for Nupe production must have been imported from the west.⁴⁷

Other events attributed to the fifteenth century also indicate that kola was probably first imported from the Akan forests at that time. The Kano Chronicle says that Sarkin Kano Abdullahi, who ruled between c.1438 and c.1452 (A.H. 841-856), "opened the roads from Bornu to Gwanja [Gonja]" and that, during the time of Yakubu (A.H. 856-867; c.1452-1463 A.D.), "merchants from Gwanja began coming to Katsina."⁴⁸ In the nineteenth century when the Kano Chronicle was written, the "Gonja trade" was synonymous with the Asante kola trade. Although the Gonja state was not founded until the sixteenth century – a century after the references to the origins of the trade, it seems likely that tradition accurately relates that kola imports began in the fifteenth century, when trade with the west appears to have expanded. The *Wangarawa Chronicle*, written in 1650-51, indeed suggests that direct trade with the Akan forests may have existed by the end of the fifteenth century. In the list of original Wangara settlements, Bussa, "Borgu" (Nikki?), and Gonja are included, although trade with these places is not discussed.⁴⁹

The information on kola in the Central Sudan helps establish a chronological framework for the early development of the kola trade in West Africa. Since kola, which appears to have come from the Akan forests between the Volta and Comoé rivers, was imported there by the fifteenth century, it is possible to conclude that the cultivation of kola had spread from the Kisi-Toma-Gerze area through the Bandama River valley by that time, even before the Kisi, Toma, and Gerze were kola producers. This suggests that kola cultivation was part of the Akan economy from the time gold production became important. Working backwards chronologically, the Central Sudan evidence confirms the linguistic data and other Arabic sources. The kola trade appears to have been well established in the Volta-Comoé region by the fifteenth, and perhaps the fourteenth century; it had developed centuries earlier in areas to the west.

THE TRADE OF THE UPPER GUINEA COAST

The next major development in the history of the kola trade was the growth of the coastal trade north of the Scarcies River in the sixteenth and seventeenth centuries. Trade in the immediate interior of the coast may have been as old as that further inland, at least as it passed through the Futa Jallon highlands. Jahaanke were trading in the Futa Jallon area by the seventeenth century. Salt was an important item of exchange, and some kola could have been transported

as well. The arrival of the Portuguese marked a significant departure, however. Portuguese and Afro-Portuguese merchants began shipping kola from the Scarcies River north to the Gambia, where it was sold in competition with kola brought overland.⁵⁰ Alvares d'Almada mentioned the coastal trade in kola in 1594, by which time it was a regular feature of Portuguese commerce.⁵¹ In 1606 Bartolomeu André issued a glowing report of the commercial prospects of the Sierra Leone coast, which included gold, ivory, gum, and kola as particularly attractive products. André did not know about the kola trade in the interior, but he did learn that

The trees from which is gathered all the cola the Portuguese carry northwards grow only in this Serra and in the neighbouring lands, and not in any other part of Guinea. Each year seven or more ships come here because of the excellent profits in this trade, since the fruit is very highly prized by the Mandingas and other nations.⁵²

Seven ships could then carry as much as 100 tons of kola.

The overland trade that ran parallel to the coastal traffic probably was much older, but the first reference to it dates only from 1620-21. Richard Jobson, who followed the Gambia River into the interior, learned that "gola" nuts were more expensive near the mouth of the Gambia than upstream. Indeed, "at the highest part of the river, the people brought them abundantly unto us, and did wonder much, we made no esteem or care to buy them."⁵³ Perhaps because of the price differential, the Portuguese continued to trade kola on the Gambia, importing the nuts into the more expensive lower stretch of the river, as Jobson learned, from "a great baye, beyond *Cacho* [Cacheo River], where they meete with a people, that brings them gold, and many of these nuts."⁵⁴

By the mid seventeenth century, the coastal trade amounted to at least 225 metric tons per year, a figure calculated from the estimated 10,000 loads of kola, of 3,000 nuts per load, which contemporary accounts record.⁵⁵ This trade was unlikely to have been as large as that of the interior. Indeed it is likely to have been much smaller. Scattered reports in the seventeenth and eighteenth centuries indicate that sea-borne kola was more expensive, even at the mouth of the Gambia River, than kola brought overland.⁵⁶ The market, therefore, was much more restricted than for the Juula trade, and it is likely that the Scarcies-Nunez region produced less kola than Worodugu. Nonetheless, the coastal data provide some indication of the size

of the kola trade. If 10,000 loads were shipped along the coast and additional amounts were exported from the Scarcies-Nunez region onto the Futa Jallon highlands, then the interior trade must have been very large indeed.

THE INTERIOR TRADE IN THE SEVENTEENTH AND EIGHTEENTH CENTURIES

Subsequent developments in the kola trade of the interior can only be summarized here. In the seventeenth and eighteenth centuries, patterns of commerce were consolidated which were to remain largely unchanged until the second half of the nineteenth century.⁵⁷ The centers of production appear to have remained the same, with no major shifts in population in this period. Kankan, Odienné, Boron, Beyla and other towns dominated the trade between savanna and forest. The most important modifications in trade routes resulted from the development of direct links with the coast in the areas where Freetown and Monrovia were later founded. These routes allowed Juula to trade directly with European slavers.

Politically, the most important changes occurred in the east. The rise of Kong in the seventeenth and early eighteenth centuries created a strong state in the border area between forest and northern savanna which controlled the north-south trade from the Akan forest to Jenne, just as Mali had earlier dominated trade between Worodugu and the savanna.⁵⁸ Gonja and Dagomba, in the Volta basin east of Kong, completed the encirclement of the Akan forests, until the emergence of Asante challenged the hegemony of the savanna. Asante conquered most of the kola production zone around 1700 and by the middle of the eighteenth century controlled Gonja and Dagomba, too.⁵⁹ The political foundation was laid for the tighter administration of the kola trade, and when, by the early nineteenth century, Asante began to restrict trade, the commercial patterns of the middle Volta basin began to diverge sharply from further west. Merchants were increasingly confined to markets outside the production zone, so that kola prices could be protected. Salaga became the official center for the trade with the Mossi States, Borgu, and the Central Sudan,⁶⁰ but some kola also passed through Bondoukou, which became important after the destruction of Bighu in the early eighteenth century.⁶¹ Salaga was a new town, founded in the first few years of the nineteenth century near a provincial capital of Gonja, and it rapidly developed into the largest urban center in Asante. The principal foreign merchants were Hausa from

the Sokoto Caliphate, Yarse from the Mossi states, and Wangara from Borgu.

The Hausa were the most important traders, particularly three new groups of merchants who came to dominate the Hausa trade in the nineteenth century. These were the Agalawa and Tokarawa, who lived particularly in Kano but also in Katsina, and the Kambarin Beriberi, who spread from their initial town of Gummi, south of Sokoto, to other parts of the Caliphate.⁶² The development of these commercial groups was comparable to the spread of the Juula. They identified as Muslims, used a corporate structure grounded in common origins to promote business, and were based in the savanna. Alongside the Agalawa, Tokarawa and Kambarin Beriberi, earlier groups of Hausa merchants who had imported kola continued to trade. The Hausa had a somewhat different relationship with the production zone than other merchants, however. Whereas the Juula catered the markets directly north of the forest and had alternate sources of supply, the Hausa merchants generally traveled greater distances and only had one source. Their caravans had to move as far east-west as north-south, and this reduced the bargaining position accordingly. Therefore, once the Hausa carrying trade was fully developed in the nineteenth century, and Asante had the opportunity to impose restrictions which favored the producers, the Hausa traders had no recourse but to accept.

The trade further west was characterized by more flexible commercial patterns, reflecting the existence of alternate supplies of kola. Juula could travel to virtually any of the three major production regions: the Kisi-Toma-Gerze region, the Guro area, or the Comoé-Volta region. Major towns were located to the north of each of these areas, including Kankan, Balo, and Beyla in the far west, Boron and Tengrela for the Guro area, and Kong and Groumania for the Comoé valley.⁶³ While merchants from Jenne usually went south through Kong, they also imported some kola from areas further west. The Maraka tended to deal with Kankan, but again alternate supplies were available.⁶⁴ These market conditions were flexible, but also influenced by differing demand for nuts of various size and color. Asante nuts were only red, while those of Ano in the Comoé basin included white nuts, too. Kisi nuts were quite small but high in quality. Large nuts were often from trees in the Gerze and Toma areas. In the far west, both red and white nuts were common. These and other differences affected price, but supply was its most important determinant. When they could, but some-

times only one type of kola was on sale, consumers made choices: generally, red nuts were in greatest demand northeast of Segou and Bobo-Dioulasso, while white kola was more common southwest and west of Bobo-Dioulasso and Segou. These differences reflected in part the availability of red kola in Asante, which serviced the upper Volta basin, Jenne, and areas further east, and the supply of both red and white nuts further west.⁶⁵

West of Asante, these supply patterns reinforced a political situation in which producers were unable to develop state structures to protect their interests. Nor were any of the savanna states able to incorporate the production zone within their boundaries.⁶⁶ Other than Asante, the only exception was along the upper Guinea coast and the area astride the Nunez River. There, Futa Jallon was able to exert political control over the area of production, at least by the early nineteenth century, but this exception appears to be related more to the unique geography of the region than to anything else.⁶⁷ The savanna country of the Futa Jallon highlands is very close to the production zone. Even so, the coastal area continued to export kola north by sea, as well as selling kola to Futa Jallon.

THE ECOLOGICAL BASIS OF THE KOLA TRADE

The unique position of Asante as the only centralized state to emerge in an area of kola production highlights an important dimension of the kola trade, the close correlation between ecological specialization and cultural boundaries. The sharp division separating producers from merchants and consumers coincided with the ecological divide between forest and savanna. Noting this forest-savanna distinction, Person distinguishes four zones:

La première, la zone productive, se trouve au coeur de la forêt, sous le contrôle d'ethnies que leur civilisation oppose radicalement aux Soudanais, il en résultait la nécessité d'une zone courtière pour assurer la transition entre les deux types de sociétés. Plus au nord s'étendent les savanes méridionales dont on connaît la pauvreté et qui n'absorbent des kolas qu'en assez faible quantité. Il faut donc la traverser en hâte pour gagner les régions de grande consommation, et c'est pourquoi nous la qualifierons de zone intermédiaire ou zone de transit. Nous trouvons enfin la zone consommatrice où aboutit le gros de ce commerce. C'est essentiellement l'axe nigérien et, plus à l'ouest, celui du Sénégal, tandis que les pays Sénufo et Mosi forment de gros îlots plus à l'est.⁶⁸

A further distinction prevailed between the oldest areas of kola production and the more recent area of the Akan forests. Only in the latter were states to be founded, first Bonu-Mansu as early as the fifteenth century and, from the late seventeenth century, Asante. This exception is almost certainly related to the fact that, together with kola, gold was also produced there. This combination of gold and kola enabled sufficient accumulation for a centralized state to emerge. When these resources were supplemented by the possibility of further accumulation through the export of slaves to the Americas, as again was the unique experience of Asante, then the state could become quite strong indeed.⁶⁹

The kola trade, as an ecologically-based trade, was characteristic of much exchange in West Africa. As can be seen with kola, merchants tended to follow north-south corridors that ultimately stretched from desert to seacoast. In the north, these corridors coincided with transhumance patterns of livestock management, while the coastal trade followed rivers into the interior. In both cases, external trade was grafted onto the existing pattern, connecting it with markets either across the Sahara or across the Atlantic to export slaves and, later, vegetable products. Corridors of trade overlapped, and the means of transport shifted between camels, donkeys, head portage, and riverboats. Furthermore, there tended to be competition between different corridors, often reflected in the corporate identification of merchants. Traders from the northern savanna operated through satellite communities in the south that were connected by a common acceptance of Islam, were international in orientation, and pursued neutrality in political affairs.

One feature of this ecologically based trade was the sharp cultural contrast between merchants and producers: whereas the merchants were Muslims, the producers were not. But not only was there a distinction between Muslims and non-Muslims: producers themselves maintained separate identities. Just as the savanna commercial corridors tended to be dominated by specific groups, the production zone was similarly subdivided. Although a full exploration of these differences is beyond the scope of this study, certain broad patterns are revealing. The distinction between merchants and producers was perhaps the sharpest cultural boundary, as Person has argued in some detail for the region west of the Bandama River, and as was also true in the Akan region.⁷⁰ Unlike the savanna where states, sometimes quite large, were predominant, forest societies were generally stateless and organized on the basis

of lineages. The important exception to this was, of course, Asante, but Asante society was also lineage-based. Setting the forests off against the savanna to its north, the *poro* secret society was the principal agency of social control in the forests of the far west,⁷¹ just as the states of Bono-Mansu and Asante were the means by which the Akan protected their interests. These differences were even reflected in monetary structures. In the savanna cowries and gold were the currency, except in the Senegambia region. This marked the area of consumption off from the area of production, where two patterns prevailed: in the western kola zone beyond the Bandama River, iron money was used; in the Akan area, gold, which was produced locally, was the standard; throughout the production zone cowries were not recognized as money. It is striking, moreover, that the three main divisions in the production zone corresponded to differences in currency, with the smallest variation being between the Guro and the people to their west, and the greatest between the area where the **goro* root was found and the Akan forests.

Other traits also distinguished the producers from each of the three principal inland regions of production, the Kisi-Toma-Gerze area, the Guro-Bete zone, and the Akan forests. *Poro* was dominant in the first region; the Guro had no such secret society, while the Akan formed states. Furthermore, lineage structures were different: among the Guro and people further west, society was patrilineal, while the Akan were matrilineal. The organization of production was also different: in the region where *poro* dominated, trees tended to be owned; wild trees were claimed by clearing the bush. The Guro, on the other hand, tended to collect nuts in the forest, although they planted some trees. In both regions, women and children collected the nuts, and women often transported them as well. Among the Akan, particularly within Asante, slaves and pawns were used to collect nuts, and while women and children gathered them, too, this was not exclusively a female occupation, as it was further west. Indeed men and their slaves took a major share of the harvest.⁷²

In all the production areas, lineages were important. This could be seen in Guro country when women gave some nuts to the elders, a practice which was characteristic of hunting expeditions and agriculture as well. Elders in effect received benefits from kola collection that were theoretically designed to protect the lineage.⁷³ In Asante, slaves who were used in collecting and transporting kola were often owned by lineages. Lineage members banded together in order to

purchase slaves for this purpose. Pawns were also used in the collection of kola in Asante. Indeed, labor was the crucial variable in the kola trade and in all cases mechanisms of labor mobilization were developed which were tied closely to lineage structures and which varied little from one production unit to another.

KOLA IN THE COMMERCIAL REVOLUTION OF THE NINETEENTH CENTURY

After the middle of the nineteenth century, changes occurred which affected the established patterns and which presaged a new era in the kola trade. These changes were related to the shift from the Atlantic slave trade to "legitimate" trade in vegetable products. Kola became in effect, one of these "new" products, and as was the case for such other commodities as peanuts, palm oil, gum, beeswax, gold, hides and skins, which became important in the commercial revolution of the nineteenth century, its history was already an old one. Kola nuts, as has been shown, were traded along the upper Guinea coast as early as the sixteenth century. Nonetheless, the trade of the last half of the nineteenth century was fundamentally different. It was part of the new departure in the economic history of Africa, as A.G. Hopkins has characterized the nineteenth-century revolution to "legitimate" trade.⁷⁴ By mid-century some kola was shipped to Europe, the United States and England, primarily for pharmaceutical purposes but also for the soon to be famous drinks. About 56 tons were imported into England in 1860. This volume rose to 145 tons in 1870, 378 tons in 1879, and by 1910 Chevalier estimated that total African exports reached almost 1900 tons. Not all of this was *C. nitida*.⁷⁵ *C. acuminata* was exported from Lagos to Brazil as early as 1851.⁷⁶ In addition, kola introduced into the West Indies competed with West African output.⁷⁷

The new kola trade resembled other branches of the commercial revolution in that improved transportation, particularly sea-borne traffic in the early stages, and later rail and road transport, created a vent-for surplus. As Hogendorn has demonstrated, this situation prevails when a technological breakthrough allows the marketing of crops on a scale that greatly surpasses earlier output. It depends upon favorable market conditions and the existence of a group of risk-takers, both producers and merchants, who are willing to experiment.⁷⁸ Yet the new kola trade differed from other sectors of the "legitimate" trade revolution in that Europeans and European capital were only marginally involved, and most output was des-

tined for markets internal to Africa. Africans not only produced the additional supplies of kola; but they also were the merchants, although the introduction of European steamships was the essential technological innovation permitting expansion.

The early stages of this expansion were modest, although the innovations of the late nineteenth century provided the foundation for the boom in kola production after c.1910. The dramatic growth that has characterized the past century can be gauged by a comparison of estimates for kola production between 1905-1910, made by Chevalier on the basis of his exhaustive study, and later figures. After a thorough survey of all the major production areas, including extensive travel through the kola country and examination of contemporary colonial accounts, Chevalier estimated that approximately 15,000 tons of *C. nitida* were produced, including 5,000 tons in Asante, 2,000 tons in Sierra Leone, 2,000 tons in the Ivory Coast, 1,900 tons in Liberia, 1,900 tons in Portuguese Guinea, and 2,000 tons in Guinea.⁷⁹ In addition a few hundred tons were produced in Togo and Nigeria, where the introduction of *C. nitida* was a recent development. The Ivory Coast estimate includes the Ano region and the Guro, Bete, and Dan countries. The Liberia and Guinea figures include output from the Mano, Ge, Toma, Gerze, and Kisi, while the Sierra Leone and Portuguese Guinea estimates include the coastal zone of the rivers. Of the total 15,000 tons, approximately 1,000 to 2,000 tons could have been the result of cultivation begun after c.1880, although this figure is but a rough approximation since it is possible that some kola was diverted from other routes to the new, coastal trade. Nonetheless, there was no production of *C. nitida* in Togo and Nigeria before c.1880, and the coastal imports into Nigeria, which exceeded 2,000 tons in 1909, came primarily from areas that had not been producing before 1880.⁸⁰ This means that approximately 130,000 tons of kola were probably being produced in the last decades of the nineteenth century.

Chevalier's figure of 15,000 tons of *C. nitida* for c.1910 can be compared with data from the 1860s. Estimates of world production of kola in 1966 suggest a total of 175,000 tons, of which approximately 120,000 tons were produced in Nigeria.⁸¹ This figure includes varieties of kola other than *C. nitida*, the other varieties being though only a small proportion of total output. Of the most important markets in the savanna, Bamako imported 16,500 tons in 1955, out of a total production figure for the Ivory Coast of 20,000 tons.⁸² Kano, the largest market in northern Nigeria, imported from 28,000 to 38,000

tons annually between 1966 and 1969.⁸³ The increase from c.1910 to the middle 1920s appears to have been on the order of tenfold.

The first instance of the new trade was the coastal trade to Lagos, and ultimately the reshipment of kola overland or up the Niger River to the Central Sudan. Kola came first from Sierra Leone, then from areas along the Liberian and Ivory coasts, and finally, from Asante. The first kola was imported into Lagos from Sierra Leone on European ships as early as 1863, and perhaps in the 1850s.⁸⁴ This new demand led to increased production in areas near the coast and promoted the business of the Saro and other coastal merchants identified with the British colony. The Saro, who were liberated Yoruba slaves, many of whom were Christian, sent the kola to Lagos for trans-shipment up the Niger to Lokoja and then overland to the centers of the Sokoto Caliphate.⁸⁵ By the 1870s kola also came from the Ivory Coast, with imports reaching 277 packages in 1879, compared with 86 packages from Sierra Leone. These modest quantities were soon dwarfed by exports from the Gold Coast, starting with 110 packages in 1879. By 1885 Gold Coast sources totaled 85 per cent of kola imports at Lagos, a proportion that was to remain largely unchanged, despite greatly increased quantities, until the late 1920s. The steady climb in imports rose from 140 tons in 1888, to 698 in 1899, and reached a high of 9,699 tons in 1924, before the amount began to drop off. By the mid 1930s no kola was imported from these sources because of colonial taxation policies that discriminated against imported kola.⁸⁶

The Gold Coast kola came mainly from Akim, the eastern Asante province in the interior of Accra which had not been an important producing area before the last decades of the nineteenth century. Kola output in Akim appears to have expanded under the impetus of Hausa and other merchants who began traveling south from Salaga and other northern market towns to the coast after the British defeated Asante in 1874.⁸⁷ Initially, the main producing areas in Asante continued to export kola overland to the Sokoto Caliphate and other savanna markets, with the result that there was a net increase in kola production. The Akim kola added a new dimension in the trade, in that steamships facilitated the development of trade. By 1910, moreover, the sea route had undermined the old caravan trade across Borgu, and the proportion of kola transported by the old route rapidly decreased from a couple of thousand tons to nothing. The long-term effects of this shift on Asante production were however minimal. Significant amounts of Asante kola were

diverted into the sea-borne trade: by 1923-24, over 4,800 tons, out of a total of 7,657 tons of Gold Coast exports. Still, over 2,000 tons were sent north from Asante in 1924, the principal markets being the northern territories and Upper Volta. This northern market was able to absorb an increasing quantity of kola, reaching 4,650 tons in 1930, at a time when the Nigerian market began to decline.⁸⁸

By far the most significant development after 1890 was the growth of *C. nitida* cultivation in the interior of Lagos where this variety of kola had not previously been grown. Sierra Leone imports and sea-borne shipments from Akim served as an example to the Yoruba farmers of Egba-Owode, Ijebu-Remo, Iwo, and Ota. They began to plant *C. nitida* in the last years of the nineteenth century, a development which led to the rapid increase in production after 1910.⁸⁹ Thereafter, Yoruba production of *C. nitida* expanded to a level surpassing the total production of the older areas of cultivation further west. By the 1930s, the markets of the Central Sudan were no longer supplied from the west, despite a great increase in consumption. Instead the kola trade became a domestic industry within Nigeria, with commercial patterns therefore were significantly altered over previous centuries. Although Yoruba cultivation now supplied the large market of northern Nigeria, this did not curtail production further west. There, similarly, distribution patterns expanded, and the wholesale kola trade became centered at Bamako and other colonial towns. Improved transportation in the twentieth century resulted in a relative price drop for kola nuts, so that kola consumption increased remarkably almost everywhere; once a luxury, kola now became an item of mass consumption.⁹⁰

C. NITIDA PRODUCTION EAST OF THE VOLTA RIVER

One dimension of the kola trade revealed from this study is the fact that the production of *C. nitida* did not spread to the forests east of the Volta River before the very end of the nineteenth century. This is a curious fact that requires some analysis.⁹¹ Merchants traversed northern Oyo in the seventeenth and eighteenth centuries on their way to and from the Akan forests. They sold kola in Oyo, at least in the 1820s, and probably earlier still. It is strange that none of these nuts found their way south into the forest where they could have been planted, as they were in Nupe, in the Niger valley west of the confluence with the Benue River by this time.⁹² That the Yoruba areas near the coast are excellent for kola cultivation has been amply demonstrated in the twentieth century. The historical situ-

ation, therefore, has been one in which kola nuts could have been grown in an area adjacent to a major avenue of the kola trade but no industry developed until the twentieth century, despite extensive commercial interaction between the area of potential cultivation and the trade routes of the savanna. This anomaly raises some important historical questions that cannot at present be answered. For instance, did Oyo consciously prevent the movement of *C. nitida* into the forests to its south, where *C. acuminata* and *C. verticillata* were cultivated, in an effort to prevent areas outside its imperial system from benefiting from the production of *C. nitida*?⁹³ How was Dahomey, where *C. acuminata* was also cultivated and which shared a border with kola-rich Asante, effectively isolated as well? The answer may simply be that no one experimented with the *C. nitida* variety. Certainly the technical skills for the cultivation of the trees were present; there being no significant difference between the cultivation of *C. nitida* and *C. acuminata*. It is also possible that Asante placed some restrictions on kola production, especially in its eastern provinces. Akim, which could have sent kola north, appears to have been a minor source for the Salaga market until after 1874, when Asante could control neither its former provinces nor trade through them.

Table 4.1: Words for Kola in the Languages of the West African Forest

Language	Language Subfamily	Words for Kola
Kisi*	West Atlantic	<i>kolo, ko-tundo</i> (tree)
Temne*		<i>kola, tola</i>
Gola		<i>gola</i>
Limba		<i>tutugi, tugwi</i>
Mano		<i>go</i>
Dan (Dyola)*		<i>go, godi</i> (tree)
Gerze (Kpelle)*	Mande	<i>towole, tugule, tugure</i>
Toma*		<i>ture</i>
Guro*		<i>guro</i>
Mende		<i>tu_j, hui, tolo_j, tolo, toli</i>
Kono*		<i>wuro</i>
Abbey		<i>na</i>
Abidji		<i>to</i>
Abure		<i>bese-va</i>

Avikam		<i>elwa</i>
Attie		<i>le</i>
Anyi*		<i>wese, wose</i>
Bete*		<i>guresu</i>
Ebrie		<i>apho, apo, hapo</i>
Mbatto	Kwa	<i>opo</i>
Neyo		<i>gre</i>
Twi (Asante)*		<i>bese</i>
Krobo		<i>tsle</i>
Ga		<i>chele</i>
Yoruba		<i>o-bi</i>
Igbo		<i>oji</i>
Bassa		<i>we-eh</i>
Edo		<i>eve, ewe, evbe</i>
Ijaw		<i>dabo</i>
Fang		<i>bilu</i>
Tio	Benue-Congo (Bantu)	<i>ibilu</i>
Kongo		<i>biru</i>

* Major 19th-century kola producers.

Sources: A. Chevalier and E. Perrot, *Les kolatiers et les voix de kola* (Paris, A. Challamel, 1911), 159, 168, 176, 370; P.E.H. Hair, "Ethnolinguistic Inventory of the Upper Guinea Coast before 1700," *African Languages Review* VI (1967), 42; M. Delafosse, *La langue mandingue et ses dialectes (malinkd, bambara, dioula)* (Paris, Institut français d'Afrique noire, 1955), 823; V.C. Uchencu, *The Igbo of Southeast Nigeria* (New York, Holt, Rinehart & Winston, 1965), 74; G. Schwab, *Tribes of the Liberian Hinterland* (Cambridge, Mass., Peabody Museum, 1947), 498; and personal communications from Alphonse Tekpetey, University of Wisconsin (16 April 1971), and from G. Canu, directeur de l'Institut de linguistique appliquée, Université d'Abidjan (8 November 1971).

Table 4.2: Words for Kola in the Languages of the West African Savanna

Language	Language Subfamily	Words for Kola
Wolof		<i>guro</i>
Fula	West Atlantic	<i>woro, goro</i>
Diola of Fogny		<i>guru</i>
Soninke (Serakllulle)		<i>goro</i>
Bambara		<i>goro, woro</i>
Malinke		<i>woro</i>
Juula	Mande	<i>wuro</i>
Sarno		<i>gure</i>
Koranko		<i>oro, woro</i>
Susu		<i>kolai, kolaxame</i>
Dagbane		<i>gule</i>
Senufo		<i>woro</i>
More (Mossi)		<i>gure</i>
Dyan		<i>wura</i>
Lobi		<i>wura</i>
Dagara/Dagari		<i>gur</i>
Kirma		<i>woro</i>
Tyurama		<i>woro</i>
Mambar	Voltaic	<i>woro</i>
Senar of Kankalaba		<i>woru</i>
Tenyer		<i>wuro</i>
Tu sian		<i>wer-ne</i>
Seme (Siamu)		<i>gbel</i>
Ele		<i>guru</i>
Fulse		<i>gure</i>
Gurmanche		<i>guoli</i>
Songhay	Songhay	<i>goro</i>
Kanuri	Saharan	<i>goro</i>
Hausa	Chadic	<i>goro</i>
Gbari		<i>gwolo</i>
Guan	Kwa	<i>kapuse</i>

Sources: M. Delafosse, *La langue mandingue et ses dialectes (malinkd, bambara, dioula)* (Paris, Institut francais d'Afrique noire, 1955), 823; H. Weiss, *Grammaire et lexique dioula du Fogny (Casamance)* (Paris, IFAN, 1940), 102; R.P. Prost, R.P., *La langue sonzay el ses dialectes* (Dakar,

IFAN, 1956), 373; Prost, *Contribution d l'étude des langues voltaïques* (Dakar, IFAN, 1964), 410; H. Labouret, *Nouvelles notes s'y les tribus du rameau lobi* (Dakar, IFAN, 1958), 227; P.A. Benton, *The Languages and Peoples of Bornu* (London: Cass, 1968), II: 62; and Charles Bird, "The Mande in West Africa: Historical Perspectives with Linguistic Evidence," (UCLA, unpublished seminar paper, 1964). Besides Guan, the only known exceptions are languages spoken north of Igbo country, an area which was not within the major savanna trade patterns of the far West (personal communication from R. J. Gavin; I wish to thank Phyllis Ferguson for information on Guan).

Notes

1. Originally published in *Cahiers d'études africaines*, XX:1/2 97-134, 173-75.
2. C.H. Robinson, *Nigeria, Our Latest Protectorate* (London, Horace Marshall & Son, 1900), 153. Also see A. Chevalier and E. Perrot, *Les kolatiers et les voix de kola* (Paris, A. Challamel, 1911) 433-35; R.A. Freeman, "A Journey to Bontuku, in the Interior of West Africa," *Royal Geographical Society, Supplementary Papers* (1893), III, 144. In early experiments, kola was prepared with sugar and vanilla to form "kola chocolate." It was used in the manufacture of cocoa and chocolate to improve the quality of inferior cocoa; and also medicinally as a source of caffeine.
3. For a discussion of the uses of kola, see Lovejoy, *Caravans of Kola. The Hausa Kola Trade, 1700-1900* (Zaria: Ahmadu Bello University Press, 1980); and Lars Sundstrom, *The Cola Nut. Functions in West African Social Life* (Stockholm, Almqvist & Wiksell, Studia Ethnographica Upsaliensia, XXVII, 1966), 135.
4. T.A. Russell, "The Kola of Nigeria and the Cameroons," *Tropical Agriculture*, XXXII:3 (1955), 211; but also see J. M. Dalziel, *The Useful Plants of West Tropical Africa* (London, Crown Agents, 1948), 100-07. The scientific classification of the varieties of kola was virtually completed with the publication of Chevalier and Perrot, *Les kolatiers*, in 1911. Chevalier was able to establish that a number of different specimens which had previously been classified separately were the same, and he identified all the major varieties. His classification of sub-varieties of *C. nitida* (a species red or white and with two cotyledons), however, has been challenged by Russell and others. Nonetheless, Chevalier's work was a major breakthrough. It built on the earlier work of numerous German, French, and English botanists, much of which was confusing. For examples of earlier work, see M. Eckhardt, "Die Kolaruss," *Globus* LI (1887), 283-86; J.E. Hertz, "Die Kolanuss," *Mitteilungen der Geographischen Gesellschaft zu Hamburg*, (1880-81),

- 115-27; "Cola," *Kew Bulletin* (1890), 253-60; "Cola," *Kew Bulletin* (1906), 89-91. For a survey of the botanical history, see Russell, "Kola of Nigeria and the Cameroons," 210-28. Also see A. Mischlich, "Ober die Kolanuss in Afrika," *Koloniale Rundschau* (1930), 153-63, 212-15. Another variety of kola, *C. ballayi*, was found in Gabon and areas further east. It was exported to the savanna north of this region, but was not transported to West Africa and hence is not dealt with here. See Chevalier and Perrot, *Les kolatiers*, 21-22, 139-42, 196-98; Jan Vansina, *The Tio Kingdom of the Middle Congo, 1880-1892* (London, Oxford University Press 1970), 112, 117.
5. Babatunde A. Agiri, "Kola in Western Nigeria, 1850-1950. A History of the Cultivation of *Cola nitida* in Egba-Owode, Ijebu-Remo, Iwo and Ota Areas" (Ph.D. thesis, unpublished, University of Wisconsin, 1972), 48-63; Russell, "Kola of Nigeria and the Cameroons," 215-16. *C. acuminata* has from three to five cotyledons; it is called *abata* in Yoruba. For a discussion of *C. acuminata*, see Chevalier and Perrot, *Les kolatiers*, 3-6, 12-13, 294-95.
 6. Lovejoy, *Caravans of Kola*, ch. vii; Russell, "Kola of Nigeria and the Cameroons," 220-21. Agiri ("Kola in Western Nigeria," 52n) identifies *C. verticillata* as monkey kola. *C. verticillata* has two to five cotyledons.
 7. Russell, "Kola of Nigeria and the Cameroons," 221-23; Lovejoy, *Caravans of Kola*, ch. VII; E.M. Chilver, "Nineteenth Century Trade in the Bamenda Grassfields, Southern Cameroons," *Afrika und Uebersee* XLV:4 (1961), 253-54. *C. anomala* has from three to six cotyledons. For a discussion of merchant activity, see M.B. Duffill (ed.), *The Biography of Madugu Mai Gashin Baki* (Madison: African Studies Program, 1984); A. Wirz, *Vom Sklavenhandel zum Kolonialen Handel* (Zurich Freiburg, Atlantis, 1972), 157-58; Chevalier and Perrot, *Les kolatiers*, 397, 403.
 8. Chevalier and Perrot, *Les kolatiers*, 150-52.
 9. Much of the information on kola production is based on Chevalier, who toured the principal kola regions in 1899 and between 1905 and 1910. Since Chevalier's specific intention was to study kola and since he was a botanist with access to official reports, his findings are particularly important. He not only examined areas of intense cultivation, but he visited areas where kola only grew wild or did not grow at all. He also visited the English and German colonies. Another advantage of his study is that he quotes at length from the reports of other observers and compares these with his own findings. Also see Lovejoy, *Caravans of Kola*, ch. II; G. Schwab, *Tribes of the Liberian Hinterland* (Cambridge, Mass., Peabody Museum, 1947), 64; Claude Meillassoux, *Anthropologie économique des Gouro de Côte d'Ivoire* (Paris-La Haye, Mouton, 1964); C. Berberich, "A Locational Analysis of Trade Routes of the Northeast Asante Frontier Network

- in the Nineteenth Century" (Ph.D. thesis, unpublished, Northwestern University, 1974), 142.
10. Schwab, *Liberian Hinterland*, 64; Chevalier and Perrot, *Les kolatiers*, 145-91, 289-96, 313-19, 324; M.-H. Lelong, "La route du kola," *Revue de Géographie humaine et d'Ethnologie* IV (1948-49), 35-44 36-38; Meillassoux, *Anthropologie économique des Gouro*, 119. Also see E. Terray, "Long-Distance Exchange and the Formation of the State: The Case of the Abron Kingdom of Gyaman," *Economy and Society* III:3 (1974), 329-30; M. McCulloch, *Peoples of Sierra Leone* (London, International African Institute, 1950), 67.
 11. Schwab, *Liberian Hinterland*, 64, 418; Lelong, "Route du kola," 36-38; R.A. Freeman, *Travels and Life in Ashanti and Jaman* (London, A. Constable, 1898), 353; Kwame Arhin, "The Financing of the Ashanti Expansion, 1770-1820," *Africa*, XXXVII:3 (1967), 143; Berberich, "Northeast Asante Frontier," 142, citing A. Mohr, "Mohr und Ramseiers Reise nach Kumase," *Mitteilungen der Geographischen Gesellschaft zu Jena*, I (1882), 16; C. Wondji, "Commerce du cola et marchés précoloniaux dans la région de Daloa," *Annales de l'Université d'Abidjan*, sér. I (Histoire), I (1972), 33-36. Wondji, who bases his information on oral accounts, argues that the Bete did not plant kola trees, although colonial observers in the first decade of the twentieth century report otherwise. Again it seems likely that the Bete traditionally protected kola seedlings, even if they did not actually plant trees.
 12. Ibn al-Mukhtar, in Mahmud Kati, *Ta'rikh al-fattash* (ed. and trad. O. Houdas and M. Delafosse, Paris, Maisonneuve, 1964 [1913]), 67.
 13. J.H. Greenberg, *The Languages of Africa* (Bloomington, Indiana University Press, 1966), 8.
 14. J.-P. Chauveau, "Note sur les échanges dans le Baule précolonial," *Cahiers d'études africaines*, XVI:3-4 (1977), 579, 591-94.
 15. Personal communication from Professor Charles Bird, Department of Linguistics, Indiana University. I wish to thank Professor Bird for his assistance, although I am fully responsible for the interpretation.
 16. Yves Person, *Une révolution dyula* (Dakar, IFAN, 1968-71), I, 89-129.
 17. Person, *Révolution dyula*, III, 678; also see Person, "Les Kissi et leurs statuettes de pierre dans le cadre de l'histoire ouest africaine," *Bulletin de l'IFAN*, sér. B, XXIII:1-2 (1961), 12, 47.
 18. Meillassoux, *Anthropologie économique des Gouro*, 33-37.
 19. Person, *Révolution dyula*, I, 74, II, 284-85; Person, "Enquête d'une chronologie ivoirienne," in J. Vansina, R. Mauny and L.-V. Thomas, eds., *The Historian in Tropical Africa* (London, OUP, 1964), 327.
 20. P.E.H. Hair, "Ethnolinguistic Inventory of the Upper Guinea Coast before 1700," *African Languages Review*, VI (1967), 55n.

21. Person, *Révolution dyula*, I, 101-108; Person, "Ethnic Movements and Acculturation in Upper Guinea since the Fifteenth Century," *International Journal of African Historical Studies*, IV:3 (1971), 673-86; Person, "Les ancêtres de Samori," *Cahiers d'études africaines*, IV:1 (1963), 143-45; Person, "Enquête d'une chronologie ivoirienne," 327; Person, "Les Kissi et leurs statuettes de pierre," 27, 47-50; Hair, "Ethnolinguistic Inventory," 42, 55-56.
22. Person, *Révolution dyula*, I, 74, 202; Person, "Ethnic Movements and Acculturation in Upper Guinea since the Fifteenth Century," *International Journal of African Historical Studies*, IV:3 (1971), 673; Person, "Les Kissi et leurs statuettes de pierre," 27, 47-50.
23. Person, "Ethnic Movements," 676; (Also see Person, *Révolution dyula*, I, 74).
24. Person, "Ethnic Movements," 675; and Person, *Révolution dyula*, I, 74).
25. Person, *Révolution dyula*, I, 74; Person, "Ethnic Movements," 675-78, 686. Person's analysis revises the earlier work of Walter Rodney, "A Reconsideration of the Mane Invasions of Sierra Leone," *Journal of African History*, VIII:2 (1967).
26. Person, "Ethnic Movements," 688; also Person, *Révolution dyula*, I, 73-75, 526-27.
27. For a discussion of early references to kola, see R. Mauny, *Tableau géographique de l'Ouest Africain au Moyen Age, Moyen les sources écrites, la tradition et l'archéologie* (Dakar, IFAN, 1961), 249; N. Levtzion, *Ancient Ghana and Mali* (London, Methuen), 181-82; H.P.J. Renaud, "La première mention de la noix de kola dans la matière médicale des Arabes," *Hespéris* VIII (1928), 43-57; Hair, "Ethnolinguistic Inventory," 42; Chevalier and Perrot, *Les kolatiers*, 2-11.
28. Quoted in Mauny, *Tableau géographique*, 249.
29. Mahmud Kati, *Ta'rikh al-fattash*, 67.
30. For the identification of Borgu with the Jenne area, see the map in N.G. Kodjo, "Contribution de l'étude des tribus dites serviles du Songai," *Bulletin de l'IFAN*, sér. B, XXXVIII:4 (1976), 791.
31. For a general study of commercial activity in the upper Niger and adjacent areas, see Person, *Révolution dyula*, I, 89-129. Also see M.B. Perinbam, "Notes on Dyula Origins and Nomenclature," *Bulletin de l'IFAN*, sér. B, 36:4 (1974), 676-90; J. Gallais, *Le delta intérieur du Niger* (Dakar, IFAN, 1967), 469-88; Philip D. Curtin, *Economic Change in Precolonial Africa. Senegambia in the Era of the Slave Trade* (Madison, University of Wisconsin Press, 1975), I, 66-91.
32. Lamin Sanneh "The Origins of Clericalism in West African Islam," *Journal of African History*, XVII:1 (1976), 49-72; Curtin, "Pre-Colonial Trading Networks and Traders: the Diakhanke," in C. Meillassoux,

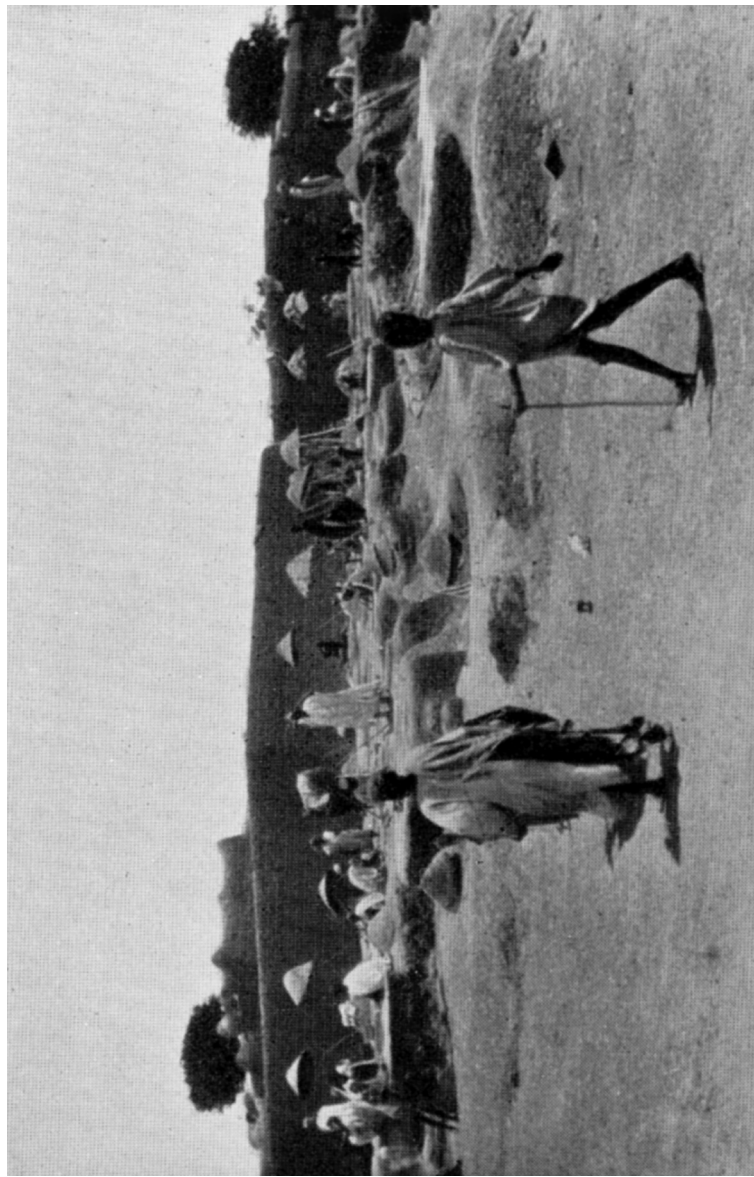
- ed., *The Development of Indigenous Trade and Markets in West Africa* (London: Oxford University Press, 1971), 228-39.
33. Person, *Révolution dyula*, I, 96.
 34. 1980. Also see Meillassoux, *Anthropologie économique des Gouro*, 268-73; Person, *Révolution dyula*, I, 94.
 35. Person, "Enquête d'une chronologie ivoirienne," 325-28; Person, "Le Soudan nigérien et la Guinée occidentale," in H. Deschamps, ed., *Histoire générale de l'Afrique noire, de Madagascar et des archipels*. (Paris, Presses universitaires de France, 1970), 283-86.
 36. R. Portères, *Cendres d'origine végétale sels de cendres comme succédanés du chlorure de sodium alimentaire et catalogue des plantes salées en Afrique intertropicale & Madagascar* (Dakar, 1950), 364-66; Wondji, "Commerce du cola," 38-39, 42-43, 50, 104, 106, 107; Chevalier and Perrot, *Les kolatiers*.
 37. J.-L. Amselle, *Les négociants de la savane* (Paris, Anthropos, 1977)
 38. Cited in Renaud, "La première mention de la noix de kola," 51-52.
 39. N. Levtzion, *Muslims and Chiefs in West Africa. A Study of Islam in the Middle Volta Basin in the Pre-Colonial Period* (Oxford, Clarendon Press), 194-95; Kwame Arhin, "Market Settlements in Northwestern Ashanti: Kintampo," in Jack Goody and Kwame Arhin (eds), *Ashanti and the Northwest*, Institute of African Studies, University of Ghana, *Research Review*, Supplement, I (1965), 143.
 40. Ivor Wilks. "The Early Dyula Towns" (London, School of Oriental and African Studies, unpublished seminar paper, 1969); and Wilks, "The Mossi and Akan States, 1500-1800," in J.F.A. Ajayi and M. Crowder, eds., *History of West Africa* (London, Longman, 1971), 354-63.
 41. M. Izard, "Les Yarse et le commerce dans le Yatenga précolonial," in C. Meillassoux, ed., *The Development of Indigenous Trade and Markets in West Africa* (London, OUP, 1971), 219-20.
 42. Leo Africanus, *Description de l'Afrique* (trans. A. Epaulard, Paris, Maisonneuve, 1956), 54.
 43. Askia Daoud (1549-1583) also gave kola as a gift; see al-Mukhtar in Mahmud Kati, *Ta'rikh al-fattash*, 180, 233, 288, 293; Abd al-Rahman Al-Sa'di, *Ta'rikh al-Sudan* (ed. and trans. O. Houdas, Paris, Maisonneuve, 1964 [1900]), 152.
 44. With his several references to kola, al-Mukhtar (in Mahmud Kati, *Ta'rikh al-fattash*, 67) implies that the trade continued.
 45. Lovejoy, "Notes on the Asl al Wangariyin," *Kano Studies*, n.s., I:3 (1978), 175-85.
 46. "Kano Chronicle," in H.R. Palmer, *Sudanese Memoirs, Being mainly Translations of a Number of Arabic Manuscripts Relating to the Central and Western Sudan* (Lagos, Government Printer, 1928), III, 109.

47. For the dates of Amina's reign, see S.J. Hogben and A.H.M. Kirk-Greene, *The Emirates of Northern Nigeria. A Preliminary Survey of the Historical Traditions* (London: Oxford University Press, 1966), 217; Alhaji Hassan and Shuaibu Na'ibi, *A Chronicle of Abuja* (Lagos: African Universities Press, 1962), 3, 37. For kola in Nupe, see S.F. Nadel, *A Black Byzantium: The Kingdom of Nupe in Nigeria* (London: Oxford University Press, 1942), 90, 231-32. Nupe kola was called *laboshi*, after the district in which it was grown.
48. "Kano Chronicle", in Palmer, *Sudanese Memoirs*, III, 109, 111.
49. Lovejoy, "Notes on the *Asl al Wangariyin*," 173-93 and Muhammad A. Al-Hajj, "A Seventeenth Century Chronicle of the Origins and Missionary Activities of the Wangarawa," *Kano Studies* 1:4 (1968), 9.
50. Curtin, *Economic Change*, I, 228-29; Walter, Rodney, *A History of the Upper Guinea Coast, 1545-1800* (Oxford, Clarendon Press, 1970), 206; Person, "Ethnic Movements," 675; A.M. Howard, "Kola Production and Trade in Sierra Leone, 1850-1930," (London, School of Oriental and African Studies/Institute of Commonwealth Studies, unpublished seminar paper, 1979) and
51. Alvares d'Almada, cited in P.E.H. Hair, "Ethnolinguistic Inventory," 42.
52. P.E.H. Hair, "Sources on Early Sierra Leone: Bartolomeu André's Letter, 1606," *Africana Research Bulletin* VI:3 (1976), 51.
53. Alvares d'Almada (1946: 31, cited in Hair, "Ethnolinguistic Inventory," 42.
54. R. Jobson, *The Golden Trade of the Moors* (Amsterdam, Theatrum Orbis Terrarum, 1968 [1623]), 134-35. Jobson's account was first published in 1623. Hair ("Ethnolinguistic Inventory," 42), citing F. de Lemos Coelho, *Duas descrições seiscentistas da Guiné* (Lisboa, D. Peres, 1953), 8, notes that the Mandingo at Farim on the Cacheo River were familiar with kola before 1669.
55. Curtin, *Economic Change*, I, 228-29, and Rodney, *Upper Guinea Coast*, 206, both of whom cite Coelho, *Duas descrições seiscentistas da Guiné*. There is a discrepancy in these secondary accounts, but Coelho's information is correct as cited by Curtin.
56. Curtin (*Economic Change*, I, 228) argues that the frontier between kola brought by sea and that brought overland shifted gradually but did not move decisively in favour of the sea route until the nineteenth century.
57. For an analysis of the kola trade between the seventeenth and early nineteenth centuries, see Person, *Révolution dyula*, I, 105-29. Also see Gallais, *Le delta intérieur du Niger*, 476-78; Amselle, *Les négociants de la savane*, 101-29. Two of the best nineteenth century accounts are L.-G. Binger, *Du Niger au Golfe de Guinée par le pays de Kong et le Mossi* (Paris, Hachette, 1892), I, 141-43, 311-13; and R. Caillié, *Travels through*

- Central Africa to Timbuktu and across the Great Desert to Morocco, Performed in the Years 1824-1828* (London, Cass, 1968), 316-86.
58. Person, *Révolution dyula*, I, 110; also Person, "Ethnic Movements," 302.
 59. For a survey, see Wilks, "Mossi and Akan States."
 60. The classic study of Asante policy is Ivor Wilks, "Asante Policy towards the Hausa Trade in the Nineteenth Century," in C. Meillassoux, ed., *The Development of Indigenous Trade and Markets in West Africa* (London: Oxford University Press, 1971), 124-42. Also see Lovejoy, *Caravans of Kola*, 11-27.
 61. Terray, E., "Long-Distance Exchange and the Formation of the State: The Case of the Abron Kingdom of Gyaman," *Economy and Society*, III:3 (1974), 320; Terray, "Classes and Class-Consciousness in the Abron Kingdom of Gyaman," in M. Bloch, ed., *Marxist Analyses and Social Anthropology* (London, Malaby Press, 1975), 102; Freeman, *Life in Ashanti and Jaman*, 135-36. Also see Binger, *Du Niger au Golfe de Guinée*, I, 311-12.
 62. Lovejoy, *Caravans of Kola*, 75-93.
 63. Samori's early career as a merchant demonstrates this pattern. Between c.1848-1853 he dealt principally with the Toma, whose language he spoke, but he also traded with the Kisi, Gerze, and Guro. His hometown was between Kankan and the Toma country, and he continued his father's business of taking cattle and salt south for kola. By c.1853 Samori was buying kola and slaves in the forest, gold in Bure, and firearms and textiles in eastern Futa Jallon, which had been brought from Freetown (Person, *Révolution dyula*, I, 247-48).
 64. Caillié, for example, travelled with merchants who purchased kola in Guro country, some of whom took it to Jenne and others to Sinsani; see Caillié, *Travels through Central Africa*, 316-17, 323-24, 331-32, 339, 345, 372, 379, 386.
 65. Person, *Révolution dyula*, I, 103.
 66. Person, *Révolution dyula*, I, 41, 575.
 67. Caillié, *Travels through Central Africa*, 153.
 68. Person, *Révolution dyula*, I, 105.
 69. Ivor Wilks, *Asante in the Nineteenth Century. The Structure and Evolution of a Political Order* (London, Cambridge University Press, 1975), 29, 65, 179, 418-45, 688; Kwame Arhin, "The Financing of the Ashanti Expansion, 1770-1820," *Africa*, XXXVII:3 (1967), 283-91; Lovejoy, *Caravans of Kola*, 11-27.
 70. Person, *Révolution dyula*, I, 105.
 71. Schwab, *Liberian Hinterland*, 65; Person, "Ethnic Movements," 686.
 72. Lovejoy, *Caravans of Kola*, ch. ii; Arhin, "Market Settlements," 143-45; Terray, "Long-Distance Exchange and the State," 328-30.

73. Meillassoux, *Anthropologie économique des Gouro*, 119, 188, 189.
74. A.G. Hopkins, *An Economic History of West Africa* (London: Longman, 1973), 124-66, 246-48.
75. Chevalier and Perrot, *Les kolatiers*, 274-83, 433-35.
76. By 1851 exports were in small quantities. They totalled 397 packages in 1869, 539 packages in 1878, averaging 245 packages in the 1880s. In the 1890s, exports ranged from about 9 to 18 tons per year (Agiri, "Kola in Western Nigeria," 58-62; also see Agiri, "The Yoruba and the Pre-Colonial Kola Trade," *Odu*, XII (1972), 55-68.
77. Chevalier and Perrot, *Les kolatiers*, 200. In addition, European plantations in the Ivory Coast, Cameroon, and Togo produced some kola by 1910 (*ibid.* : 296-302).
78. Jan Hogendorn, "The Vent-for-Surplus Model and African Cash Agriculture to 1940," *Savanna* V:1 (1976), 15-28
79. Chevalier and Perrot, *Les kolatiers*, 358. Chevalier estimated that 4,000 tons of *C. acuminata* and 1,000 tons of other varieties were produced. The total of 20,000 tons included 19,000 tons consumed within Africa and 1,000 tons exported.
80. There is a discrepancy in the sources over the amount of kola imported into Nigeria in 1909. The *Lagos Blue Book* states that the figure was 836 tons, which did not include the overland trade. The *Gold Coast Blue Book* indicated that 2,178.7 tons were exported to Nigeria, and this figure did not include kola exported to Nigeria from Sierra Leone, Liberia and the Ivory Coast; see Paul E. Lovejoy, "The Wholesale Kola Trade of Kano," *African Urban Notes*, V:2 (1970), 141, where the first figure is cited, and *Caravans of Kola*, 151-52, where both figures are quoted.
81. S.O. Onakomaiya, "The Spatial Structure of Internal Trade in Delicacy Foodstuffs in Nigeria" (Ph.D. thesis, unpublished, University of Wisconsin, 1970), citing an estimate of the Cocoa Research Institute of Nigeria.
82. Amselle, *Les négociants de la savane*, 230.
83. Lovejoy, "Wholesale Kola Trade," 136. Other estimates for the export of kola to northern Nigeria are much higher, for they include the whole region. Onakomaiya, "Internal Trade in Delicacy Foodstuffs," 37-88, records estimates ranging from 51,000 to 70,000 tons per year between 1952 and 1965.
84. Agiri, "Kola in Western Nigeria," 64.
85. Agiri, "Kola in Western Nigeria," 64, 66-67; and A.G. Hopkins, "An Economic History of Lagos, 1880-1914" (Ph.D. thesis, unpublished, University of London), 41-42.
86. Agiri, "Kola in Western Nigeria," 65, 69; Lovejoy, "Wholesale Kola Trade," 141.

87. Lovejoy, "Wholesale Kola Trade," 130.
88. A.C. Miles, Report of a Cola Survey of the Eastern Ashanti Areas and a General Review of the Gold Coast Cola Industry, 20 March, 1931, C.O. 98/59, Public Record Office.
89. For a full discussion, see Agiria, "Kola in Western Nigeria," 71-128.
90. Amselle, *Les négociants de la savane*, 189-276.
91. This problem is also raised in Lovejoy, *Caravans of Kola*, 24-25.
92. Nadel, *Black Byzantium*, 90, 231-32.
93. Chevalier and Perrot, *Les kolatiers*, 294; Agiri, "Kola in Western Nigeria," 49-58. Also see Robin Law, *The Oyo Empire, c.1600-c. 1836. A West African Imperialism in the Era of the Atlantic Slave Trade* (Oxford: Clarendon Press, 1977), 132, 208.



Kano dye pits

Walter Miller, *Yesterday and To-morrow in Northern Nigeria* (London: Student Christian Movement Press, 1938), opposite p. 112

5 | WANGARA MERCHANTS IN THE CENTRAL SUDAN IN THE FIFTEENTH AND SIXTEENTH CENTURY

The term “commercial diaspora” has been used by Abner Cohen, Lloyd Fallers and others to define networks of merchants who operate over great distances, often from dispersed settlements along trade routes.¹ One of the most important features of such commercial diasporas has been their role in regulating trade between different cultures, a development made possible through the marginal position of merchants and commercial agents.² This role facilitated exchange within regions, particularly since the merchants themselves promoted a common identity, which transcended mere parochial interests. Religion, dress, language, inter-marriage, and similar social values ensured the maintenance of this identity, often to the point where a sense of belonging to a common class or estate developed. Since home communities were far apart and travel was extensive between different centers, trade networks were characterized by a diaspora culture or feeling of uniqueness not limited by spatial considerations. The origin and development of such commercial systems are varied, but an examination of their history and operation provides valuable insights into wider issues of economic change. Frequently, diaspora merchants were involved in the expanding sectors of the economy, since long-distance traders were usually in the best position to respond to new opportunities. And others associated with diasporas, especially clerics, scholars and similar professionals contributed to related changes in the social and intellectual fields. The spread of Islam has clearly been one significant dimension of this interaction.

However, the nature of commercial diasporas has been called into question, particularly in terms of the relationship between clericalism and commerce. Lamin Sanneh, for example, has argued that the Jakhanke were primarily clerics and were only marginally connected with long-distance trade.³ This view conflicts emphati-

cally with that advanced by Philip Curtin, whose study of Jakhanke commercial activities was essential to his analysis of commercial diasporas in the Senegambia region and the elaboration of the theoretical framework advanced by Cohen.⁴ Curtin does not discount the religious dimension of Jakhanke activities; although he concentrates on their economic role he considers their Islamic credentials as supportive of their commercial function. Sanneh, on the other hand, argues that

the Jakhanke were not a collective commercial guild and they never undertook trade as professional carriers nor as resident agents with a monopoly control, as suggested by Curtin. That African Muslims engaged in commerce is without doubt, and that some religious missionary work was undertaken alongside trade seems equally certain. But the evidence for Jakhanke clerical specialization in trade is almost non-existent except as an hypothesis.⁵

Sanneh is not entirely convincing, however, especially since the emphasis on travel, which was part of the fundamental triad of clerical life (diligence in learning [Ar. *al-qird'ah*], farming [*al-harth*] and travel or mobility [*al-safar*]), allowed, if not encouraged, trade.⁶ The theoretical question, therefore, is the relative importance of clericalism and commerce in commercial diasporas, and the Jakhanke clearly provide a test case in the debate.

Here, I focus on one dimension of "Jakhanke" history – its relationship to the economy of the Central Sudan in the fifteenth and sixteenth centuries. For my purposes, the Central Sudan includes the region that straddles the desert edge east of Songhay to the Chad basin and extends southward to the latitude of the Niger-Benue confluence. It can be seen that the Muslim commercial sector of the Songhay Empire expanded eastward into parts of this region after the middle of the fourteenth century and had a crucial impact on the growth of the Hausa economy in particular. Furthermore, the interaction between Islamic clericalism and trade was intimate and the former cannot be isolated in the manner proposed by Sanneh. Jakhanke clerics were not the only Islamic specialists in the area; nor were their activities divorced from trade. Rather, they participated in both the religious and economic spheres under the corporate rubric "Wangara," which included those who played a key role in the social, religious and commercial life of Songhay and the Central Sudan: namely, the merchants and professionals

in the middle estate of Muslims. This interpretation rests to a great extent upon the work of Muhammad Al-Hajj, whose translation of *Asl al-Wanqariyin al muntasibin lil-Shaikh* makes available the 1650/1 manuscript on the origins of the Kano Wangara community;⁷ and it draws upon the research of the Musa Baba Idris, which establishes that the Wangara were the principal merchants in Borgu.⁸ Finally, the analysis accepts Sanneh's identification of the Kano Wangara community with the Jakhanke dispersal,⁹ but it emphasizes the connection between the Wangara and Songhay.

THE WANGARA DIASPORA

The term "Wangara" has occupied a confusing position in West African historiography. Early Arabic sources used the name in reference to Sudanese traders and particularly dealers in gold who were connected with Ghana and Mali. In this sense the name was little more than a general term for merchant, equivalent to Juula (Dyula).¹⁰ These references establish the existence of Muslim commercial networks in Ghana, Mali, and adjacent areas, a development of crucial importance in the economic history of West Africa. But the term has also been used in regions farther east where the term Juula was unknown, and there, at least, Wangara became the corporate name for commercial groups controlling the external trade of Songhay, the Bariba states, and the Hausa cities. The difference between Malinke and Wangara in sixteenth-century Songhay, for example, was "that the Wangara and Malinke have the same origins, but...Malinke is used to designate the warriors [of Mali] while Wangara serves to designate the traders who trade from country to country."¹¹ In the Central Sudan the term referred to merchants and clerics from the west, although its exact meaning changed over time. In the eighteenth and nineteenth centuries, "All gold countries, as well as any people coming from the gold country, or bringing Goroo [kola] nuts, are called Wangara."¹² In practical terms this included merchants from the middle Volta basin and Borgu, but originally it designated Songhay businessmen and their associates in the Hausa and Bariba towns.

These eastern Wangara were initially immigrants from the commercial centers of Mali who provided brokerage services and accommodation to itinerant merchants in Songhay. Most were Soninke (Sarakolle) in origin and had historic connections with the economy straddling the southern edge of the Sahara between the upper Senegal and middle Niger bend. From opportunities gained

in this desert-side sector, they branched out in every direction. Immigrants from the Ghana heartland settled in towns on the Niger, for the river reduced transport costs considerably. Timbuktu, Jenne, and Gao developed as major centers in this diaspora, and indeed the Wangara ward in Timbuktu was called "Wangara-Counda."¹³ By the late fifteenth century, nonetheless, most were Songhay citizens, and, as Muslims, were actively involved in local politics, especially as strong supporters of Askia Muhammad's *coup d'état* in 1493.¹⁴ Their participation in affairs of state and the continued expansion of the empire altered their role as agents for Mali merchants so that they became the financiers and brokers of Songhay's imperial economy. Their prosperity was linked to Songhay success, while their economic activities were necessary for the consolidation of the empire. They, in turn, became the progenitors of another diaspora. In discussing this development, "Wangara" will refer to Songhay-based merchants and their agents to the east and south. The term applies especially to Borgu merchants who continued in business after the Songhay collapse in the 1590s. The foundation of Wangara settlements in the Hausa cities was related to the expansion of this Songhay oriented commercial diaspora.¹⁵

The language of the system outlined above was the language of Songhay. It was spoken throughout Borgu, where most scholars have mistakenly referred to merchants as "Dendi" from their dialect. In the Hausa country the use of Songhay had disappeared by the eighteenth century, at the very latest. Hausa gradually replaced it as the commercial tongue, thereby reflecting the emergence of a dominant Hausa economy in the seventeenth and eighteenth centuries. Only in Agades and at Teguidda-n-tesemt and Ingall did a Songhay dialect continue to be spoken, but since trade links with Gao and the middle Niger valley declined towards the end of the eighteenth century, these linguistic traces were the last vestiges of once important economic ties.¹⁶

Wangara occupations reflected the emergence of a Muslim middle estate, international in outlook and urban in setting. Communities included merchants, brokers, craftsmen, butchers, legal specialists, professors of the mystical sciences, and other Islamic scholars. Long pilgrimages, study abroad, and business trips maintained contact between Muslim centers and permitted the development of widely dispersed social relationships. Inter-marriage of clerics, craftsmen, and merchants created kinship networks connecting distant towns, while endogamy within Muslim circles inhib-

ited the admission of outsiders. Religion, occupation, and urban settlement tended to separate the Wangara from peasant society and thereby helped restrict the spread of specialized knowledge. Relations with the aristocracy were more intimate, and in most diaspora towns marriage alliances were important. Such arrangements solidified common interests between governments and the commercial sector, strengthened Islamic influence, and led to the assimilation of immigrants as a privileged class.¹⁷

The spread of surnames indicates one important feature of Wangara subculture closely associated with the emergence of a middle estate. Many surnames common in Soninke and other Mande languages indicate the initial Mali connection, but some were modified to include other merchants. Desire for new business led to the incorporation of Muslims who learned Songhay or its Dendi dialect. Success in business could hasten assimilation, for wealth was almost as important as identification with Islam. In Borgu, for example, Ture became the name for Hausa immigrants, especially from Katsina, while Mande or Manne, a new surname, was applied to settlers from Borno.¹⁸ Similarly, North African merchants claiming descent from the Prophet used their title, *shurfa*, as another surname, a pattern, which was also common elsewhere in West Africa. In the Hausa area Mande-ized surnames may have been used in the distant past, but the development of Hausa culture and economy as a focus for expansion in the eighteenth and nineteenth centuries eclipsed this practice, just as it did the use of the Songhay language. Thereafter, an equivalent Hausa system of surnames became prevalent, in which Wangara (Hausa: *Wangarawa*, s. *Bawangari*) became the designation for many merchants of immigrant origin from the west. It eclipsed such Jakhanke names as Jakhité or Zagaite.

SONGHAY ECONOMY AND WANGARA COMMERCIAL EXPANSION

Songhay dominated the economy of much of West Africa from the late fifteenth through the sixteenth century.¹⁹ Timbuktu and Gao, the two most important metropolitan Songhay centers, controlled trans-Saharan trade, desert-side exchange, and river traffic on the Niger. Located in the sahel, but with easy access to the western and central savanna, they were at the hub of overland and river routes where staples of desert-side trade such as grain and salt could readily be transferred from river boat to camel, and

vice versa. Tuareg and other merchants handled the trade between desert saltpans and river ports, but Songhay merchants – the Wangara – dominated river and overland routes to Jenne, Borgu, and other southern points. The desert-side sector also produced livestock and extended transport services to trans-Saharan traders, and the Wangara acted as southern agents for this trade as well.²⁰ Industrial output, particularly textile and leather production, were also important, although the Songhay heartland may have been a net importer of these commodities. In any case craft production and trade were identified with the Wangara community.

Related to Songhay economic growth, Wangara settlers expanded their operations from Timbuktu and Gao to found commercial outposts in the emerging Bariba and Hausa towns. By the fifteenth century, and in some cases earlier still, Wangara communities existed at Nikki, Bussa, Katsina, Kano, Gobir, the Aïr Massif, and Kebbi.²¹ Agents at Bighu, in the middle Volta basin, probably handled the business of merchants traveling from Songhay through Borgu and the upper Volta,²² while some merchants probably traded to Oyo and Nupe, where they may have been the first Muslims to exploit the major crossroads between Nupe and Borgu.²³ Both kola and gold from the middle Volta basin were exported through this area, maybe as early as the fifteenth century, and salt, livestock, slaves and manufactures were probably important as well.

Indeed the Hausa word for kola (*goro*) is of Mande origin and suggests a Wangara connection. As in most Mande languages, including Juula, a sound shift from “g” to “w” altered the word to *woro*, probably when kola first became common in the Manding country. This suggests that the Hausa term was borrowed before the sound shift occurred, unless it came through Songhay.²⁴ Even more important than the introduction of new products, the Wangara can be credited with the inclusion of Borgu and the Hausa country within the Songhay monetary system, which was based on gold and cowries. Both were standard in the Hausa area by the 1570s, while gold was probably circulating and being used as a standard in the fifteenth century. The Hausa term for money, *kurd’i*, *kud’i*, is also Mande in origin and suggests that ties with Songhay and the west were very strong.²⁵

The earliest evidence for Songhay commercial expansion to the east is Ibn Battuta’s account of the famed copper mines of “Takedda,” which has now been identified with Tegidda-n-tesemt,

an important source of salt, and the adjacent sites of Guelele and Azelik.²⁶ In 1353, a century before the rapid expansion of Songhay, Ibn Battuta visited this center and reported that copper was exported to "la ville de Couber [Gobir], située dans le contree des negres infideles; ... a Zaghai [Songhay] et au pays de Bernou," as well as to North Africa.²⁷ Copper, along with gold, was used as currency, and in the archaeological explorations of S. Bernus and P. Gouletquer which establish Azelik as the ancient city of "Takedda," cowries were found among the ruins.²⁸ Azelik and its copper mines did not last into the period of Songhay imperial rule and hence did not assume a major importance in the economic development of the Central Sudan in the late fifteenth century. Agades, which was founded before the middle of the fifteenth century and was located some eighty kilometers to the east in the Aïr Massif, became a commercial rival, and war between the two centers led to the destruction and abandonment of Azelik.²⁹ Nonetheless, the fact that the descendants of the inhabitants of Azelik speak Tasawaq, a dialect of Songhay, suggests that the center was part of a Songhay-based commercial system. Songhay was also spoken at Agades, the successor to Azelik, as shown by the vocabulary collected by Heinrich Barth in 1850.³⁰ The significance of Azelik in the study of the Wangara is hypothetical, but trade with Songhay, a monetary system based on gold and probably cowries, and the commercial links with Gobir and Bornu indicate that Azelik was astride a well-traveled route which linked Songhay with the Central Sudan and is similar to the route which Wangara of the late fifteenth century followed to reach the Hausa cities and Agades.³¹

Kebbi was perhaps the site of the most important early Wangara community in the savanna to the south. Located midway between Songhay and the Kano-Katsina area, its population included Songhay fishermen (Sorko) who had settled along the Sokoto River, Hausa farmers who had emigrated westward, and an immigrant Katsina aristocracy. The state was a Songhay province at the time of Askia Mohammed's campaign against Aïr in 1515, asserted its independence in 1516-17 and in the 1530s, but not until 1533 did a treaty formalize the separation. This association between Kebbi and Songhay, first as a client and subsequently as an ally, has left its mark in Hausa tradition. Kebbi remained the dominant state in the sixteenth century, and its incursions into Zazzau, Kano, Katsina and Adar have often been confused with direct Songhay rule.³² Only to the north in Adar, however, was there a direct Songhay

presence, where Songhay immigrants had established Kalfu Rafi during the reign of Askia Mohammed, probably before 1515.³³ The principal Kebbi centers, Leka, Gungu and Surame, were on several trade routes, one of which connected with Dallol Fogha, a saline valley running north-south from the Niger.³⁴ Kebbi's trade in the first two decades of the sixteenth century also extended westward to the middle Volta gold fields. As Leo Africanus reported, Kebbi's merchants were

very rich, and haue continuall traffique with the nations adioning.... So often as the merchants of Guangara [Kebbi] trauell unto the...region abounding with gold, because the waies are so rough and difficult that their camels cannot goe vpon them, they carrie their wares vpon slaues backs; who being laden with great burthens doe vsually traucil ten or twelue miles a day.³⁵

As this quotation demonstrates, Kebbi was first known to many foreigners through the name of its chief merchants, the Wangara, although it is not clear to which Kebbi center Leo Africanus was referring in his account.³⁶

The first Wangara may have reached Kano in the last decades of the fourteenth century, a movement related to another aspect of Wangara activity – their involvement in the Muslim professions.³⁷ Some were certainly resident by the first half of the fifteenth century, and more arrived there and at Katsina, Gobir and Aïr by the last third of the century.³⁸ The most notable immigration occurred in the 1480s and 1490s under the leadership of Shaikh 'Abd al-Rahman Zagaiti [Jakhité].³⁹ He was one of many scholars, mystics, political advisers, and other specialists traveling between the diaspora towns from Songhay and beyond. Not all of these became associated with the Wangara. Al-Maghili, for example, was a North African who was traveling these parts in the 1490s, and others came from Egypt and elsewhere.⁴⁰ The movement of these clerics suggests that the diaspora was fully developed, with active trade and intellectual interchange between each center as well as with Songhay. Some of this activity may have been related to the extension of Songhay rule to Timbuktu and Jenne. Sunni Ali is notorious in Muslim history for his persecution of the Timbuktu Believers, and his actions prompted the emigration of many to the west, particularly to Walata. Zagaiti's exodus from "Mali" to Kano through Aïr and Katsina may well have been related.⁴¹

Sanneh's identification of Zagaiti with the Jakhanke provides an important link in the reconstruction of Wangara history, for it helps to clarify the process of Muslim dispersion at the crucial time when Songhay emerged as the dominant state in West Africa.⁴² The *Kano Chronicle* and the *Asl al-Wanqariyin* do not specifically connect the group with long-distance trade; they emphasize clerical roles in the same manner that Sanneh does.⁴³ Other data do establish their commercial importance, however. First, Curtin's material shows conclusively that the Jakhanke were merchants as well as clerics, and in a large group such as the one led by Zagaiti it seems reasonable to assume that at least some of the Shaikh's supporters were merchants, mainly because pilgrims often engaged in trade and frequently settled along the way if it became necessary to do so.⁴⁴ Second, Hausa tradition from the nineteenth century recognizes an old association between the Wangara and trade with the west.⁴⁵ Third, oral data collected among the Kano Wangara in 1969 also supports the commercial tie. Contemporary Wangarawa emphasize the clerical heritage, but they also recount the past importance of the landlord-broker business. Furthermore, they often acted as advisers to merchants, particularly those traveling to the west.⁴⁶ Significantly, the Wangarawa are settled in Madabo ward, the site of Zagaiti's mosque and the home of many merchants, particularly Agalawa who traded to Asante and other western points.

In addition to their participation in trade and the professions, many Wangara immigrants were also skilled craftsmen and helped develop Hausa industry. Leather goods, especially footwear, bags, loin cloths, cushions and fans, became important manufactures by the 1510s and within fifty years were probably being exported to North Africa through Borno. In Gobir were "such shooes made as the ancient Romans were woont to weare, the greatest part whereof be carried to Tombuto [Timbuktu] and Gago [Gao]."⁴⁷ Textiles, which eventually became the mainstay of Hausa industrial economy, were centered in Gobir as well, but its "great store of artificiers and linnen weauers" had to compete with the looms of Kano and Zamfara, where cotton became an important cash crop. The immigrants accompanying Shaikh Zagaiti to Kano in the 1490s specialized in tailoring expensive gowns,⁴⁸ and it seems likely that other Wangara in his party who settled in Gobir and Katsina were also involved in textile production.

The founding of settlements, the extension of a common monetary system, the introduction of new products, and the participa-

tion in early craft production suggest one conclusion: the Wangara founded the Muslim commercial diaspora in the Hausa and Bariba states and contributed significantly to the development of the Central Sudan economy. That landlord and brokerage services existed which have characterized subsequent commercial diasporas seems certain. This type of commercial organization, with its use of surnames and its strong Islamic connections, became the model for future Hausa trading activity. As the Hausa economy expanded, other people, often immigrants as well, identified as Muslims, traveled to diaspora communities as settlers or itinerant traders, and prospered. Acquired wealth became a factor in social status, as skilled immigrants improved their social position from that of foreigner to free commoner with middle-class aspirations.

FIFTEENTH- AND SIXTEENTH- CENTURY ORIGINS OF THE HAUSA-BORNO ECONOMY

Tradition rightly regards the fifteenth century as the beginning of the economic transformation of the Hausa country. At that time, according to the Kano Chronicle,

the whole of the products of the west were brought to Hausaland [c.1421-38]...[and] roads from Bornu to Gwanja [were opened (c.1438-52)].... In Yakubu's time [c.1452-63] the Fulani came to Hausaland from Melle [Mali], bringing with them books on Divinity and Etymology.... The Fulani passed by and went to Bornu leaving a few men in Hausaland, together with some slaves and people who were tired of journeying. At this time too the Asbenawa [Tuareg] came to Gobir, and salt became common in Hausaland. In the following year merchants from Gwanja [Gonja] began coming to Katsina; Beriberi [from Bornu] came in large numbers, and a colony of Arabs arrived. Some of the Arabs settled in Kano and some in Katsina.⁴⁹

This commercial expansion and related developments in agriculture, livestock production, manufacturing, and mining, opened up opportunities for investment, which attracted Wangara businessmen and professionals. Their movement east linked the Hausa cities with the commercial sector of the Songhay economy and provided a market for many Central Sudan products. The changes that began in the fifteenth century continued in the following century, thereby solidifying developments which provided the basis for an expansive Hausa-Borno economy.

Hausa towns existed for several centuries before the fifteenth century, but in most cases early settlements were little more than fortified villages.⁵⁰ Indeed Rano, Burum ta Gabas, Daura, and other places continued to be so, but Kano, Katsina, Gobir, Kebbi and Zazzau grew larger with military conquest, commercial expansion, and immigration. In the fifteenth century, Kano, Katsina, and Zazzau forcibly settled people from the south in farming villages and sold others to foreign merchants, some of whom were likely Wangara. Population growth necessitated the extension of city walls and the construction of new, walled towns, thereby creating conditions favorable to commercial expansion. These public works were most clearly associated with Sarkin Kano Muhammad Rumfa (c.1463-99) and the legendary Queen Amina of Zazzau, who is identified with the fifteenth or early sixteenth century.⁵¹ Increased population consolidated the area in which Hausa was spoken and laid the foundation for the spread of Hausa farmers into new areas south and southwest of the original towns.⁵²

By the early sixteenth century, and probably indicative of the situation in the preceding century, the Hausa country developed into a major agricultural region, especially in the production of such foodstuffs as bulrush millet, rice, pepper, pulses and probably sorghum.⁵³ Many of these crops had spread through the savanna in the same period that the early Hausa towns were founded; in fact, the two developments appear to be related. Improved strains of rice, sorghum and hard wheat, and such new crops as cotton, cocoa yams, sour oranges, lemons and limes diffused throughout North Africa and the Middle East in the early centuries of Islamic consolidation (700-1100), and their subsequent introduction into West Africa amounted to an agricultural revolution parallel to those patterns, which took place in the Mediterranean.⁵⁴ In the Central Sudan, these products not only supplied local demand and enabled population growth, but surplus crops permitted increasing economic specialization. Increasing numbers of people, often immigrants or their descendants, pursued occupations, which required the purchase of foodstuffs, although many craftsmen, merchants, and livestock producers grew some grain for their own consumption. Other crops, particularly cotton and indigo, set the base for a manufacturing sector.

The growth of the livestock industry was closely related to agricultural expansion. Livestock became the specialty of immigrants who depended upon the availability of foodstuffs and markets for

meat, dairy products, and hides and skins, although an indigenous Hausa sector also produced large numbers of animals. Gobir, situated in the Air Massif for most of the fifteenth century, contained "many villages inhabited by shepherds, and other herdsmen," but at the end of the century its economy suffered a setback when Tuareg nomads forced Gobir's evacuation to Damergu and areas farther south.⁵⁵ Tuareg immigrants, some of whom had been grazing in Air for centuries, established a sultanate in the early decades of the century. This development marked their increased importance as transporters and livestock breeders, and by the middle of the century they began to sell desert salts in the Hausa cities. The Tuareg position in the economy of the Central Sudan was consolidated in expelling Gobir from the Massif and in founding Agades as a capital and commercial center. Thereafter Air became a focal point for conquest, with Borno, Kebbi and Songhay each attempting to control the region.⁵⁶

The pastoral sector also expanded as a result of Fulbe immigration, which began in the middle of the fifteenth century and in some cases slightly earlier. By the 1510s Fulani, the Hausa name for these immigrants, formed a recognizable part of the Kano population and were probably a small but important market for foodstuffs.⁵⁷ Their migratory patterns resulted in the creation of a network of cattle trails, along which marketplaces were established to facilitate the exchange of meat and dairy products for grain, textiles and other items. It seems probable that Fulani also began to negotiate contracts with farmers for the sale of manure as fertilizer, thereby contributing to the expansion of the agricultural sector.

At the start of the fifteenth century, Borno housed an exiled aristocracy, which controlled only the nucleus of what was to become the Borno state. Not until the end of the century was a permanent capital established at Birni Gazargamo,⁵⁸ but its location was of extreme importance to the development of the Central Sudan economy. The town lay at the confluence of the Komadugu Yo and Komadugu Gana, near present Geidam and the southern limit of Muniyo and Mangari salt sources. The region between Birni Gazargamo and Burum ta Gabas, the most easterly Hausa town, was home for salt and natron workers, who traveled north from their rainy season farms to camps at salt and natron lakes. Borno was in a position, therefore, to expand westward and control this vital industry. Indeed by the seventeenth century, *galadima* were appointed to oversee the area, with headquarters at Nguru, over 120 miles west of

Birni Gazargamo. Control over Damagaram, to the west of Muniyo, effectively encircled the producing area, so that virtually all output could be taxed. Most natron and salt was shipped south and west, through the Hausa country, with Kano, Katsina and Gobir, at least, becoming early distributional centers. In later centuries, and perhaps at this time, too, some types were re-exported as far west as Timbuktu, and it seems likely that Wangara merchants engaged in the trade.⁵⁹

The four types of Muniyo and Mangari natron, *farin kanwa*, *jar kanwa*, *gari* and *gwangwarasa*, and the two types of salt, *mangul* and *manda*, were important to almost every sector of the Central Sudan economy. *Farin kanwa*, *jar kanwa* and the two chloride salts were medicines or constituent parts of medicinal formulae, and they were used in cooking different dishes to add flavor and to regulate the digestive system. *Farin kanwa* was also a raw material in soap making, dyeing, manufacturing glass beads, and was an additive to chewing tobacco and snuff. *Gari*, a powdered and less pure form of *farin kanwa*, was fed to livestock as a medicine and salt, while *gwangwarasa*, a poisonous natron, was used in tanning to soften leather.⁶⁰ The quantity produced remains unknown but must have increased with population growth, rising demand for medicines and cooking salts, and the expansion of livestock production and craft industries. The spread of tobacco consumption, perhaps beginning in the sixteenth century after its introduction from the Americas, also must have influenced output.

Borno gained effective control of two other major salt-producing regions by the early sixteenth century, at the latest. Early military campaigns were directed north of Lake Chad, in an effort to oust the Kanem government, gain access to North Africa, and control Bilma salt and date exports. Borno failed to defeat Kanem decisively but was successful in establishing commercial relations with North Africa and hence in occupying the Kavar oases, whose various salts were important in cooking and medicine.⁶¹ Similarly, political consolidation in the plains west of Lake Chad meant that salts from the eastern shores of the lake had to pass through Borno to reach western markets. By the eighteenth century, the middle Volta basin and Borgu became the major markets for *ungurnu*, the principal form of salt – actually trona – from the islands of Lake Chad. *Ungurnu* was primarily a medicine for stomach ailments, but in the middle Volta basin it was also used in cooking soups and guinea corn dishes and was mixed with tobacco.⁶² The antiquity of

these exports is still being investigated, but the general importance of salt production to the Central Sudan economy is clear.

Borno's position also depended upon close connections with North Africa, particularly with the Ottoman Empire after 1551. Borno based its military supremacy and territorial expansion on importing breeding horses, weapons and armour. Military stores were exchanged for slaves, acquired through Borno expansion and consolidation, pepper which probably came largely from Hausa farms, and gold imported by Wangara merchants from the middle Volta basin or produced in the Central Sudan itself, particularly in Zamfara. Salts, leather and ivory were also exported north. The Borno government actively promoted trans-Saharan commerce by sending numerous commercial and diplomatic missions to the Ottoman court, and indeed to its predecessors at Tripoli before 1551. These began as early as the 1470s and continued well into the seventeenth century. In addition, Italian, Turkish and North African merchants traveled to Birni Gazargamo, from where they distributed Italian glass jewelry and other manufactures throughout other parts of sub-Saharan Africa.⁶³ Borno was, therefore, dealing directly with some of the major commercial countries of the sixteenth-century world. This position provided access for merchants of North African origin in the Central Sudan and increased the area's attractiveness to Wangara businessmen.

ECLIPSE OF THE WANGARA

Wangara continued to be important in the economy of the Central Sudan after the fall of Songhay in 1591, but their business entered a period of relative decline. Their initial connection with the Jakhanke and other Juula was remembered in local tradition as a link with the Mali Empire, but the century-long tie to Songhay undermined the importance of these origins. By 1600 the interests of these eastern Wangara became more committed to the economies of their adopted homes in Borgu and the Hausa cities. Two patterns emerged. In Borgu, Wangara remained the term for the commercial sector, including merchants, craftsmen, and Muslim clerics, and such surnames as Mande, Ture and Sisse were used to distinguish different sections of the Muslim community.⁶⁴ Farther east, Wangara settlers became Hausa citizens who retained their corporate name as a local surname, Wangarawa (s. *Bawangari*). More specific terms were dropped, and Wangara residents became part of a larger Central Sudan commercial and professional class.⁶⁵

The continued use of Wangara as a general term for the Muslim community in Borgu was due in part to the immigration of large numbers of refugees from Songhay after the Moroccan invasion. Borgu Wangara continued to speak Dendi, unlike their Hausa counterparts who now spoke Hausa as their first language. They dominated long-distance trade in Borgu, operated to the middle Volta basin, and, by at least the early eighteenth century, traveled to Dahomey and Guinea Coast ports. This last activity developed in response to European slave demand, which remained strong throughout the eighteenth century. Cowries, manufactures and produce probably constituted imports from the south, while kola and some gold continued to flow from the Akan forests. Salts, textiles, leather goods and dried onion leaves were imported from Borno and the Hausa country.⁶⁶ In the eighteenth century, and probably earlier still, Hausa and Borno merchants traded to Borgu, but only those who settled permanently were assimilated to Wangara society. Itinerant Hausa and Borno merchants, including people of Wangara origin, were called Gambari, the term adopted by the Bariba and Yoruba to refer to itinerant Hausa traders who continued to consider the Hausa cities as home. Their arrival marked a transitional period in the history of the area, when Hausa commerce began to surpass that of the Borgu Wangara.⁶⁷

Wangarawa, the Hausa term for Wangara immigrants, assumed a broader meaning in the seventeenth and eighteenth centuries. It included all merchants traveling from the Volta basin, especially from Gonja, through Borgu. The term was no longer associated with Songhay but became the name for traders in kola and gold from the west, some of whom settled in the Hausa cities as part of a new wave of Wangara immigration. By the 1740s residents of such middle Volta towns as Kafaba and Gbuipe traveled overland through the Hausa states on their way to Mecca. Some stopped in the Muslim centers of 'Yandoto and Katsina to study, while others settled as commercial agents.⁶⁸ Oral information collected in Katsina and Sokoto establishes their involvement in the middle Volta trade before the *jihad* (1804-08), and genealogical material suggests that immigrants continued to arrive into the nineteenth century.⁶⁹ As late as the 1850s, Heinrich Barth observed that "Almost all the more considerable native merchants in Katsena are Wangarawa (Eastern Mandingoes)," ⁷⁰ an indication of the importance of Hausa foreign trade to the west. Barth's statement may have referred to itiner-

ant merchants as well as resident Wangara, for fieldwork failed to uncover the remains of a significant Wangara community.⁷¹

CONCLUSION

Evidently, then, the meaning of the term Wangara underwent a series of changes. North Africans first used it to indicate Juula and Jakhanke merchants and clerics in the Niger-Senegambia region. Later it became the term for Songhay merchants and their diaspora communities in Borgu and the Hausa cities. Finally it came to mean resident merchants in Borgu, and in a modified form it became the Hausa word for traders from the west in general, not just from Songhay. This etymology demonstrates that the Wangara immigrants in the Hausa area were Mande, Juula or Jakhanke immigrants from Mali, but there were subsequent and important changes in identification.⁷² Wangara immigration came from or via Songhay before 1591, but, by the seventeenth century, Wangara influence reflected trade with or through Borgu. This interpretation recognizes the importance of Songhay in the economic development of the Hausa cities and Borgu but does not telescope the several centuries, which elapsed between the spread of Juula activity to Songhay and the extension of Songhay commerce to the small Hausa towns of the late fifteenth century. Dramatic growth in the Central Sudan economy began while the Hausa area was on the periphery of the Songhay economic and intellectual world. Borno's development as a political and economic counterweight to Songhay strengthened the autonomy of the Central Sudan, so that after Songhay's decline Birni Gazargamo and the Hausa cities became focal points for continued development.

The varying fortunes of the Wangara provide an interesting example of commercial development. Although many details are missing, the Songhay merchant class emerged as an outgrowth of trade with Mali, but later became the center of an imperial system of its own. The collapse of the empire abruptly altered the situation, with the Borgu Wangara retaining a strong identification with the old order and the Hausa Wangara adapting to a new one. Thus, Wangara history demonstrates several features of diaspora development and contraction. First, it shows that commercial expansion can be closely associated with political consolidation, not in the simplistic way in which states and trade are often connected but as parallel developments. The concept of diaspora, particularly as applied to the Wangara in Songhay, suggests that the Wangara

network consisted of merchants who were independent of the government, even though they supported many of its policies. Commercial operations beyond the imperial frontiers were made possible through the diaspora, and when sudden changes became necessary in the 1590s, the Borgu and Hausa parts of the network adjusted in very different ways. A smaller, more localized variant survived in Borgu, while the Hausa section lost its independent identity in the face of other commercial developments. Eventually, a Hausa diaspora emerged which was similar to the earlier Wangara system, and the descendants of the Wangara immigrants, as Hausa citizens, participated in this new expansion.

This analysis confirms the conclusions reached by Abdullahi Smith, R.A. Adeleye and John Hunwick which emphasize the importance of Western Sudanese influences on the political, religious, and intellectual development of the Hausa towns,⁷³ but it provides a clearer understanding of economic change. Certainly the growth of Hausa agriculture, Tuareg and Fulani livestock production, the Muniyo, Mangari, Chadic and Bilma salt industries, craft production and iron mining, smelting and smithing all benefited from this commercial development. In the intellectual field, as Sanneh realized, the identification of Zagaiti and the Kano Wangara of the 1490s with the Jakhité lineage demonstrates that the origins of the Jakhanke network is older than previously thought. But Sanneh's emphasis on a strong distinction between clericalism and commerce is disproved. Clearly, as Curtin has argued, commercial diasporas cannot be understood without recognition of a strong link between the two.

Notes

1. Lloyd A. Fallers, *Immigrants and Associations* (The Hague, 1967), 7-10; Abner Cohen, *Custom and Politics in Urban Africa* (London, 1969); and Cohen, "Cultural Strategies in the Organization of Trading Diasporas," in Claude Meillassoux (ed.), *The Development of Indigenous Trade and Markets in West Africa* (London, 1971), 266-81.
2. Cohen, "Cultural Strategies," 266-81. For contributions to the theoretical discussion of commercial diasporas, see Philip D. Curtin, *Economic Change in Precolonial Africa. Senegambia in the Era of the Slave Trade* (Madison, 1975), I, 59-109; Curtin, "Pre-Colonial Trading Networks and Traders: The Diakhanke," in Meillassoux, *Trade and Markets*, 228-39; Paul E. Lovejoy, *Caravans of Kola* (Zaria, 1970); Lovejoy, "The Kambarin Beriberi: The Formation of a Specialized Group of Hausa

- Kola Traders in the Nineteenth Century," *Journal of African History*, xlv, 4 (1973); J.A. Works, *Pilgrims in a Strange Land. Hausa Communities in Chad* (New York, 1976); and B. Marie Perinbam, "The Dyulas in Western Sudanese History: Developers of Resources," in B. K. Swartz and R. E. Dumett (eds.), *West African Dynamics: Archaeological and Historical Perspectives* (Chicago and The Hague, 1980).
3. Lamin Sanneh "The Origins of Clericalism in West African Islam," *Journal of African History*, XVII, 1 (1976), 49-72. Other criticism of the concept of diaspora is to be found in Mahdi Adamu, *The Hausa Factor in West Africa* (Zaria and London, 1978), who considers the concept too narrow to include soldiers of fortune, prostitutes, and others who migrated from the Hausa homeland, although these components of the Hausa diaspora do not in fact undermine the usefulness of the concept.
 4. Curtin, "Diakhanke," 228-39; and Curtin, *Economic Change*, I, 68-83.
 5. Sanneh, "Clericalism," 60. It should be noted that Curtin does not claim that the Jakhanke exercised "monopoly control." Rather, he states that they were the "dominant carriers at some periods, but other merchants traded, even in Diakhanke towns" ("Diakhanke," 237).
 6. Sanneh, "Clericalism," 60.
 7. See Muhammad Al-Hajj, "A Seventeenth Century Chronicle of the Origins and Missionary Activities of the Wangarawa," *Kano Studies*, I, 4 (1968), 7-42.
 8. Musa Baba Idris, "The Role of the Wangara in the Formation of the Trading Diaspora in Borgu," Conference on Manding Studies, London, 1972 (unpublished); and "Political and Economic Relations in the Bariba States. An introduction to the Historical Study of a Plural Society from the Traditions of Origin to the Colonial Period," manuscript in the possession of the late Michael Crowder, who kindly showed it to me.
 9. Sanneh, "Clericalism," 55, 59n., 68-71.
 10. For a discussion see Nehemia Levtzion, "The Early States of the Western Sudan to 1500," in J. F. Ade Ajayi and Michael Crowder (eds.), *History of West Africa* (London, 1971), I, 150; B. Marie Perinbam, "Notes on Dyula Origins and Nomenclature," *Bulletin de l'I.F.A.N.*, XXXVI:4 (sér. B, 1974), 676-90; and Perinbam, "Dyulas in Western Sudanese History."
 11. Ibn al-Mukhtar, *Ta'rikh al-fattash* (ed. et trad. par O. Houdas et M. Delafosse, Paris, 1913; reprinted 1964), 65
 12. D. Denham, H. Clapperton and W. Oudney, *Narrative of Travels and Discoveries in Northern and Central Africa* (London, 1826), I, 281n.
 13. Sekene Mody Cissoko, *Tombouctou et l'Empire Songhay. Epanouissement du Soudan Nigérien aux XVe-XVIe siècles* (Dakar, 1975), 139.

14. J.O. Hunwick, "Songhay, Bornu and Hausaland in the Sixteenth Century," in Ajayi and Crowder, *History of West Africa*, I, 227-28, discusses the importance of Islam in Askia Muhammad's coup. Also see Hunwick, "Religion and State in the Songhay Empire, 1464-159," in I. M. Lewis (ed.), *Islam in Tropical Africa* (London, 1966), 299-312.
15. This analysis is based on the work of Musa Idris, whose preliminary study clearly establishes "Wangara" as the corporate name for Muslims in Borgu. Since they spoke Dendi, a dialect of Songhay, and since some Songhay moved to the Bariba towns after the Moroccan invasion in 1591, I have assumed that most Borgu Wangara were originally from Songhay and that most early trade was with Songhay. The analysis is also based on theories of commercial diaspora organization and development. See especially Lovejoy, *Caravans of Kola*; Lovejoy, "Kambarin Beriberi," 633-51; Cohen, "Cultural Strategies," 266-81; Claude Meillassoux, "Introduction," in Meillassoux, *Trade and Markets*, 67-74; and Curtin, *Economic Change*, I, 59-108.
16. Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 334.
17. For the possibility of a Wangara dynasty through the maternal line at Katsina, see, H.R. Palmer, *Sudanese Memoirs* (London, 1928, 1967), III, 83. Abdullahi Smith, "The Early States of the Central Sudan," in Ajayi and Crowder, *History of West Africa*, I, 97, recognizes the Wangara connection of Sarkin Katsina Muhammad Korau, but he does not specifically associate this with descent through the female line. For the Timbuktu connections with the Songhay aristocracy, see Phyllis Ferguson, "Islamization in Dagbon: A Study of the Alfanema of Yendi" (Ph.D. thesis, unpublished, Cambridge University, 1972), 48-54. Also see N. Levtzion, "A Seventeenth-Century Chronicle by Ibn al-Mukhtar: A Critical Study of *Ta'rikh al-Fattash*," *Bulletin of S.O.A.S.*, XXXIV, 3 (1971), 575.
18. Lovejoy, *Caravans of Kola*. Idris ("Bariba States," 84) argues that all merchants who used Mande-like surnames were Sarakole or Malinke in origin, but his proof is not convincing. His approach follows the earlier lead of Nehemia Levtzion, *Muslims and Chiefs in West Africa. A Study of Islam in the Middle Volta Basin in the Pre-Colonial Period* (London, 1968), 19-21. Also see Perinbam, "Dyulas in Western Sudanese History."
19. For a discussion of the Songhay economy, see N. R. Laurent, "The Economic History of the Songhai Empire, 1465-1592" (Dissertation for the Diploma in African Studies, unpublished, University of Birmingham, 1965); Michal Tymowski, "L'économie et la société dans le bassin du moyen Niger. Fin du XVIe-XVIIIe siècles," *Africana Bulletin*, XVIII (1973), 9-64; and Cissoko, *Tombouctou*, 123-49. For a summary

of Songhay political expansion, see Hunwick, "Songhay, Bornu, and Hausaland," 225-32.

20. Other sectors of the Songhay economy do not appear to be associated with the Wangara community, but they should be mentioned in order to establish its relative position. Besides the activities of the desert-based merchants and businessmen who traded with the Wangara, Fulbe cattle herders supplemented livestock production and filled the demand for dairy products. Fulbe pastoralists concentrated their resources in areas southwest of Timbuktu but expanded operations everywhere where grazing and water were available. (See Hunwick, "Songhay, Bornu, and Hausaland," 226-27.) The Niger River was not only the major route for wholesale grain and salt, but was also the site of a fishing industry. Indeed fishermen were probably the earliest merchants in Songhay, but unfortunately little is known about their role in the development of the Songhay merchant class. Their activities stretched beyond the borders of metropolitan Songhay, not only along the Niger but along such tributaries as the Sokoto and Zamfara rivers. Despite their probable importance, however, fishermen lacked the extensive overland commercial contacts, which the Wangara possessed, so that the spread of Muslim trade marked a major development in the economic growth of Songhay. See Levztzion, "Early States," 142-43; and Muhammad Bello Alkali, "A Hausa Community in Crisis. Kebbi in the Nineteenth Century" (M.A. thesis, unpublished, Ahmadu Bello University, 1969).
21. Al-Hajj, "Wangarawa Chronicle," 9-10. This assumes that the *Asl al-Wanqariyin* reference to Borgu is to be identified with Nikki, which seems likely since the *Asl* mentions Bussa, the other major Bariba town in the fifteenth century. See also Idris, "Bariba States," 84-112; Idris, "Wangara;" Levztzion, *Muslims and Chiefs*, 174; Jacques Lombard, *Structures de type "féodal" en Afrique noire. Etude des dynamismes internes et des relations sociales chez les Bariba du Dahomey* (Paris, 1965), 38, 44, 83; and Ferguson, "Dagbon," 48-54.
22. Al-Hajj, "Wangarawa Chronicle," 9. The *Asl* mentions a community in Gonja, but since Gonja was not founded in the fifteenth century the reference cannot be taken literally. Rather, Gonja is often used in Hausa to refer to the middle Volta basin, and it seems likely that the fifteenth-century town was Bighu, the most important center for centuries. On Bighu, see Ivor Wilks, "The Mossi and Akan States, 1500-1800," in Ajayi and Crowder, *History of West Africa*, I, 354-57.
23. During the time of Queen Amina of Zazzau (fifteenth century) "the whole of the products of the west were brought to Hausaland;" see the H.R. Palmer translation of "The Kano Chronicle," in *Sudanese Memoirs*, III, 109. Commodities included kola nuts and eunuchs, which came from or through Nupe and probably reflected Wangara

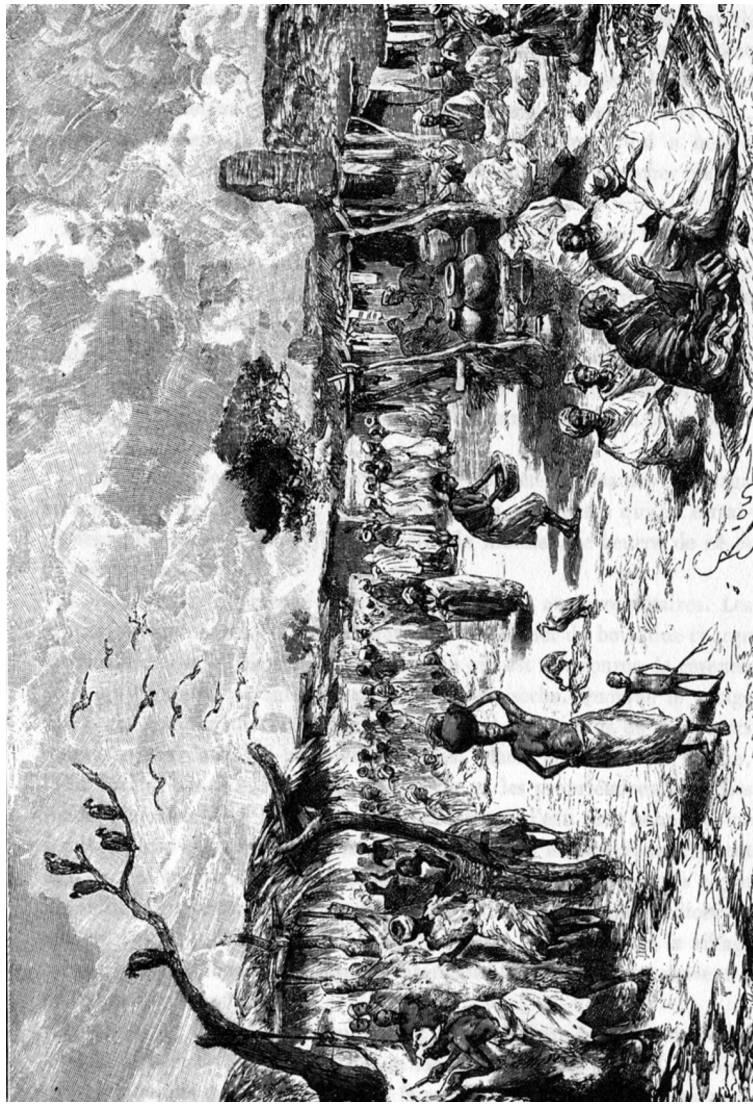
- activity. For the chronology of Amina's reign, see R.A. Adeleye, "Hausaland and Bornu, 1600-1800," in Ajayi and Crowder, *History of West Africa*, 488, 490; and Smith, "Early States," 197n. Other Wangara settlements included Godebere and Tomboua, both in Borgu (Idris, "Bariba States," 84).
24. Lovejoy, *Caravans of Kola*. The historical development of the kola trade is discussed in Lovejoy, "Kola in the History of West Africa." For an overview, see Perinbam, "Dyulas in Western Sudanese History."
 25. This expands upon earlier discussions of cowrie use in the Central Sudan; see Paul E. Lovejoy, "Interregional Monetary Flows in the Precolonial Trade of Nigeria," *Journal of African History*, xv, 4 (1974), 563-85. It should be noted that it corrects Marion Johnson's argument for an early eighteenth-century date for the introduction of cowries into the Central Sudan: see her "The Cowrie Currencies of West Africa," *Journal of African History*, XI:1 (1970), 33. In fact, Giovanni Lorenzo Anania reported as early as 1582, and probably for the period before 1570, that at Katsina "on y utilise comme monnaie, ainsi que cela se fait chez; tous ces Noirs, pour les petites choses, des coquillages de met qui sont tres blancs, et ou l'on échange pour au poids avec les marchandises qui sont apportées par les marchands;" see *L'Universale fabrica del Mondo, overo cosmografia*, in Dierk Lange and Silvio Berthoud, "L'interieur de l'Afrique Occidentale d'apres Giovanni Lorenzo Anania (XVIe siècle)," *Cahiers d'histoire mondiale*, xiv, 2 (1972), 335 (hereafter referred to as Anania, *Cosmografia*). It should be noted that the identification of the Wangara with the gold trade also indicates that they very likely introduced cowries, since gold and cowries were the basis of the Songhay monetary system.
 26. The debate over the identification of "Takedda" has been a long one, with most authors identifying the copper centre with one of the Tegiddas to the west of Agades. G. Brouin, "Du nouveau au sujet de la question de Takedda," *Notes africaines*, XLVII (1950); R. Furon, "A propos du cuivre de la region d'Azelik," *Notes africaines*, XLVIII (1950), 127; and J. Lombard and R. Mauny, "Azelik et la question de Takedda," *Notes africaines*, LXIV (1954), 99-101, favored this interpretation, although Ibn Battuta's failure to mention salt prevented a positive identification with Tegidda-n-tesemt. H. Lhote refuted this interpretation by insisting that no copper was to be found in the region of any of the Tegiddas: see "Recherches sur Takedda, ville décrite par le voyageur arabe Ibn Battouta et située en Air," *Bulletin de l'I.F.A.N.*, sér. B, xxxlv, 3 (1972), 429-70. The debate has finally been settled by S. Bernus and P. Gouletquer and their discovery of major copper workings near the ruins of an old city ten kilometers from Tegidda-n-tesemt: see "Du cuivre au sel: Recherches ethno-archéologiques sur la région d'Azelik (campagnes 1973-1975)," *Journal des africanistes*, XLVI, 1-2 (1976), 7-68; also in G. Calame-Griaule (ed.), *Origine, convergence et diffusion*

- des langues et civilisations résiduelles de l’Air et de l’Azawag: Documents* (Paris, Centre National de la Recherche Scientifique, R.C.P. 322, 1975), 1-68. The question of Ibn Battuta’s failure to mention salt production at Tegidda-n-tesemt and Guelele remains a mystery.
27. See Ibn Battuta, *Voyages*, trad. Defremery et Sanguinetti (Paris, 1922), Vol. IV, *Voyage dans le Soudan*, 436-45, for his description of Takedda.
 28. Bernus and Gouletquer, “Du cuivre au sel,” 52.
 29. Bernus and Gouletquer, “Du cuivre au sel,” 11-13, 61-63.
 30. P.-F. Lacroix, “Emghedeshie – Songhay Language of Agadez: A travers les documents de Barth,” in Calame-Griaule, *L’Air et de l’Azawag*, 1-2; and Bernus and Gouletquer, “Du cuivre au sel,” 62.
 31. This is the route, without mention of Azelik, followed by Zagaiti and his company; see Al-Hajj, “Wangarawa Chronicle.”
 32. Djibo Hamani, *Contribution à l’étude de l’histoire des Etats Hausa: L’Adar Précolonial* (Republique du Niger) (Niamey, 1975), 83, citing Muhammad Bello, *Infadal Maisur* in E. J. Arnett, *The Rise of the Sokoto Fulani* (Kano, 1922), 15
 33. Hamani (*Adar*, 42-44) has reconstructed the history of Kalfu Rafi and its Gazurawa residents on the basis of a local history which claims the Songhay connection and which contains a king list with dates to support the contention. There is no mention of Wangara or other merchants, however.
 34. Hamani, *Adar*, 56, 82-83.
 35. Leo Africanus, *The History and Description of Africa* (J. Pory, trans., London, 1896), II, 822.
 36. For a discussion of the identification of “Guangara” with Kebbi, see Nehemia Levtzion, “The Wangara in Hausaland” (unpublished paper presented at the Conference on Manding Studies, London, 1972). For the argument in favor of one of the Bariba towns, either Nikki or Bussa, see Idris, “Bariba States,” 206. Levtzion’s identification is far superior, however, especially since Leo noted that Zazzau, Katsina, Kano, and Guangara spoke the Gobir language, i.e. Hausa (Leo Africanus, *Description*, *ibid.*). Leo’s location for Guangara also suggests a Kebbi location. It was situated between Borno and Songhay, northwest of Zamfara and west of Kano and Katsina. Only its position relative to Zazzau is impossible, but Leo placed Zazzau northwest of Kano rather than southwest. Leo also noted that Borno’s planned invasion of Guangara in the 1510s was postponed because of trouble with Kanem. This sounds like preparations for war delayed until several decades later: see Anania, *Cosmografia*, 347.
 37. “Kano Chronicle,” 104; and Paul E. Lovejoy, “Notes on the *Asl al-Wanqariyin*,” *Kano Studies*, II:1/2 (1969-70).
 38. Al-Hajj, “Wangarawa Chronicle,” 10.

39. Al-Hajj, "Wangarawa Chronicle;" and Lovejoy, "Notes."
40. 'Abd-al-'Aziz 'Abd-Allah Batran, "A Contribution to the Biography of Shaikh Muhammad Ibn 'Abd-al-Karim ibn Muhammad ('Umar-A'mar) al-Maghili, al Tilimsani," *Journal of African History*, XIV, 3 (1973), 381-94; Lovejoy, "Notes;" and "Kano Chronicle."
41. Al-Hajj, "Wangarawa Chronicle," 9-10. For Sunni Ali's persecution of Muslims, see Hunwick, "Songhay, Bornu, and Hausaland," 226; and Hunwick, "Religion and State," 302. Zagaiti and his party appear to have traveled from Gao or Timbuktu to Gobir, with some staying in Air and others in Katsina. Also see Sanneh, "Clericalism," 68-71; and Lovejoy, "Notes."
42. Sanneh, "Clericalism," 68-71.
43. Al-Hajj, "Wangarawa Chronicle," 7-15; and "Kano Chronicle."
44. Curtin, *Economic Change*, 68-1138, and Curtin, "Diakhanke," 228-39. For the role of pilgrims in trade, see Works, *Pilgrims*, 169-72, 189-90; and 'Umar Al-Naqar, *The Pilgrimage Tradition in West Africa* (Khartoum, 1972).
45. Barth, *Travels*, 1, 479.
46. Account of Musa Husaini, interviewed 26 Dec. 1969, Madabo ward, Kano; Lovejoy Collection, Bayero University College, Kano and Department of History, Ahmadu Bello University, Zaria, Tape 8. Also on deposit at the Harriet Tubman Resource Centre on the African Diaspora, York University. Malam Musa was writing an Arabic history of the Wangara and Madabo ward at the time of the interview.
47. Leo Africanus, *Description*, 828, 829, 831; and Anania, *Cosmografia*, 351.
48. Musa Husaini, Tape 8; and Lovejoy, "Notes."
49. "Kano Chronicle", 107-12. See also Adeleye, "Hausaland and Bornu," 485-92.
50. Smith, "Early States," 191.
51. Smith, "Early States," 187-99; Hunwick, "Songhay, Bornu and Hausaland," 212-18; Adeleye, "Hausaland and Bornu," 487-91; Yusufu Bala Usman, "Some Aspects of the External Relations of Katsina Before 1804," *Savanna* 1, 2 (1972), 175-97; Abdullahi Smith, "Some Notes on the History of Zazzau under the Hausa Kings," in M. J. Mortimore (ed.), *Zaria and Its Region* (Zaria, 1970), 84; and "Kano Chronicle," 110.
52. Smith, "Early States," 185.
53. Gobir, there was "abundance of rice, and of certaine other graine and pulse," while Kano "groweth abundance of corne, of rice, and of cotton." At Katsina, which was suffering famine in the 1510s, fields yielded "great store of barlie and millseed [millet ?]." "Rice, mill, and

- cotton" were also grown in Zamfara. See Leo Africanus, *Description*, 828-31. For pepper, see Anania, *Cosmografia*, 339. See also Tadeusz Lewicki, *West African Food in the Middle Ages* (London, 1974), 21-72.
54. Andrew M. Watson, "The Arab Agricultural Revolution and Its Diffusion, 700-1100," *Journal of Economic History*, XXXIV, 1 (1974), 8-35; and Lewicki, *West African Food*, 13-78.
 55. Leo Africanus, *Description*, 828-29.
 56. Smith, "Early States," 99; Hunwick, "Songhay, Bornu, and Hausaland," 206, 219-21 and "Kano Chronicle."
 57. Leo Africanus, *Description*, 829; and "Kano Chronicle." See also Usman, "Katsina," 190-92.
 58. Smith, "Early States," 182; John E. Lavers, "Kanem and Borno to 1808," in Ikime, *Groundwork of Nigerian History*; and Lavers, "Trans-Saharan Trade circa 1500-1800: A Survey of Sources," Kano Seminar, unpublished, 1976.
 59. Paul E. Lovejoy, *Salt of the Desert Sun*. See also Smith, "Early States," 185; Hunwick, "Songhay, Bornu, and Hausaland," 217; and Lovejoy, "Hausa Kola Trade," 207-10.
 60. Accounts of Alhaji Haruna and Malam Dan Tsoho, 3, 4, 5 July 1973 (interviewed by Lovejoy and Aliyu Bala Umar, Tape K1).
 61. Hunwick, "Songhay, Bornu, and Hausaland," 209-111; B.G. Martin, "Kanem, Bornu, and the Fazzan: Notes on the Political History of a Trade Route," *Journal of African History*, x:1 (1969), 21-22; Leo Africanus, *Description*, 833-4; and Lavers, "Kanem and Borno."
 62. Hunwick, "Songhay, Bornu, and Hausaland," 205-06; and Lovejoy, *Caravans of Kola*, 207-10.
 63. Martin, "Kanem, Bornu, and the Fazzan," 22-26; Hunwick, "Songhay, Bornu, and Hausaland," 206-12; Anania, *Cosmografia*, 339, 347-511; Leo Africanus, *Description*, 833-34; and "Histoire chronologique du royaume de Tripoly de Barbarie," Fonds français, 12219, 12220, Bibliothèque nationale, Paris. See also Lavers, "Trans-Saharan Trade," and Lavers, "Kanem and Borno."
 64. Idris, "Wangara;" and "Bariba States," 84.
 65. Lovejoy, *Caravans of Kola*; and Lovejoy, "Notes."
 66. Idris, "Bariba States," 84, 86; Lovejoy, *Caravans of Kola*, 32; and Lovejoy, "Monetary Flows." For a different interpretation which claims that the Muslim merchants on the Guinea Coast were Hausa, see Adamu, *Hausa Factor*.
 67. Paul Marty, *Etudes sur l'Islam an Dahomey, Le Bas Dahomey – Le Haut Dahomey* (Paris, 1926), 79; Idris, "Bariba States," 85; Lovejoy, *Caravans of Kola*.
 68. Denham, Clapperton, Oudney, *Narrative*, I, 281n.; Ivor Wilks, "The Growth of Islamic Learning in Ghana," *Journal of the Historical Society of*

- Nigeria*, 11, 4 (1963), 413; and the mid-eighteenth century *Kitab Ghunja*, as translated in Jack Goody, *The Ethnography of the Northern Territories of the Gold Coast, West of the White Volta* (London, 1954), 40-41.
69. For eighteenth-century commercial contacts between the Volta and the Hausa cities, see I. Wilks (ed.), "Abu Bakr al-Siddiq of Timbuktu," in Philip D. Curtin (ed.), *Africa Remembered: Narratives of West Africans from the Era of the Slave Trade* (Madison, 1967), 158-59. Abu Bakr recounted his family history for the late eighteenth century, and while his family were *shurf*, descended from the Prophet, his grandfather's commercial partnership through marriage into a Katsina family demonstrates the relationship between the Hausa cities and the Volta basin at Buna. Arrangements such as theirs may have been made in earlier periods as well. See also Joseph Dupuis, *Journal of a Residence in Ashantee* (London, 1824), 97, 109; and accounts of Alhaji Muhammad Lawan Barmo of Katsina, Malam Muhammadu Abubakar and Malam Halilu of Sokoto, and Alhaji Abubakar Gambo of Katsina (Lovejoy Collection, Tapes 10, 16).
 70. Barth, *Travels*, I, 479.
 71. Lovejoy, *Caravans of Kola*; and Yusufu Bala Usman, "The Transformation of Katsina: c. 1796-1903. The Overthrow of the Sarautu System and the Establishment and Evolution of the Emirate" (Ph.D. thesis, Ahmadu Bello University, 1974).
 72. Hunwick ("Songhay, Bornu and Hausaland," 212-13) provides one of the latest, standard interpretations that the Wangara were Juula with a far-western orientation, and Sanneh ("Clericalism," 68-71), although he identifies a Jakhanke connection and denies the importance of commercial relations, still fails to appreciate the position of Songhay. Similarly, Perinbam's survey of the Juula only recognizes the classical understanding of "Wangara" as gold traders with a Manding connection who are synonymous with Juula: see "Dyulas in Western Sudanese History."
 73. Smith, "Early States," 196-99; Adeleye, "Hausaland and Bornu," 486-97; and Hunwick, "Songhay, Bornu and Hausaland," 212-23. Besides using Wangara as a surname, these immigrants also maintained their distinctiveness with at least one cultural trait. They ate frogs, whereas most Hausa people consider frogs inedible. See accounts of Malam Muhammadu Bello, Alhaji Ibrahim Umaru, and Malam Musa Husaini (Lovejoy Collection, Tapes 7 and 8). See also Al-Hajj, "Wangarawa Chronicle," 9.



Salaga Market, 1880s

L.-G. Binger, *Du Niger au Golfe de Guinée par le pays de Kong et le Mossi* (Paris, Hachette, 1892), vol. 2, 97

6 | **ISLAM AND THE NINETEENTH CENTURY HAUSA KOLA TRADE¹**

The close connection between Islam and long-distance trade is widely recognized as a major theme in the history of the northern savanna of Africa. Islam provided a framework within which long-distance trade could operate, and at the same time the expansion of international commerce extended Islamic influence into new areas. A number of studies have explored the relationship between trade and Islam in detail. Abner Cohen's study of Hausa communities in Yoruba towns emphasizes the role of Islam in consolidating stranger communities in the face of economic and political rivalry from a host society.² Similarly, Ivor Wilks's research on the organization of the Juula commercial network stresses the importance of Islam in maintaining ties between dispersed trade settlements.³ This article analyses the relationship between Islam and the nineteenth century kola trade between Asante and the Sokoto Caliphate. A distinction is made between residents of the trade communities along the route to the middle Volta basin and the professional merchants based in the Caliphate who monopolized the kola trade. The role of Islam in the dispersed trade centers is first examined, and then the influence of Islam on the principal commercial groups is considered.

In the nineteenth-century, Hausa merchants traveled overland from the Sokoto Caliphate through Borgu, Dagomba and Gonja to the markets of Asante, where they exchanged textiles, salt of various kinds, leather goods, dried onion leaves (*gabu*), and other products for kola nuts.⁴ The caravan trip was long and arduous, taking from six months to one year to complete a round trip from Kano to Asante. Caravans consisted of one to two thousand people, including men, women, and children, and an equal number of donkeys and mules. The merchants followed two routes, one which passed north through Sansanne Mango, Mamprussi, and Yendi to Salaga

and other Asante-dominated markets, and the other which went further south through Bussa, Nikki, Kilir-Wanagara, and Dedaure. Traders sold some of their kola en route from the Volta basin, but most of the crop was brought back to the Hausa cities and was sold from traders' compounds and in local market-places. The complete cycle of this trade pattern also included Borno markets, where the merchants journeyed to exchange their remaining kola for Chadic natron and trona. The natron and trona were in turn taken on the next year's expedition to Asante.⁵

Although Hausa trade to Asante originated in the early eighteenth-century, the trade was not fully developed until after the *jihad* of Shehu 'Uthman dan Fodio (1804-08). By the 1810s Hausa immigrants had founded a number of trade centers in response to commercial expansion in northern Asante. In Gonja, Hausa settlers established Salaga as a commercial depot near the divisional capital of Kpembe. Malam Chediya and his followers arrived from Katsina shortly after the *jihad*, and by 1817 they and other Hausa settlers had transformed Salaga into "the grand emporium of Inta [Gonja]."⁶ Three years later the town was reported to be "twice the size of Coomassy."⁷ Further north, Yendi developed as a major commercial center at the same time. A Hausa settlement at Gamaji, Yendi's twin town, eclipsed the earlier Hausa settlement at Kamshegu. In 1817 Yendi-Gamaji was "beyond comparison larger than Coomassie," and its markets were described "as animated scenes of commerce, constantly crowded with merchants from almost all the countries of the interior."⁸ Other Hausa settlers founded smaller communities elsewhere in Dagomba and Gonja in the same period.⁹ In the early years of the expansion, Muslim commercial activity extended across the Volta to markets contiguous to the kola production areas. One observer in 1820 noted "the great influence of Moslems" in Akeyah (between Mampong and Kumasi), the Brong region, Ejura, Nkoranza, and Yobati between Atebubu and Yeji), where "they sojourn [ed] in great numbers."

The Muslims were particularly numerous in Yobati, and in all the provinces to the east and west of north: they live in political societies governed by their respective princes, who are vassals to the king, but who enjoy prerogatives exceeding those of any other class of subjects.¹⁰

All these trade communities were located between the kola production region in the forests of Asante and the Volta River, and they

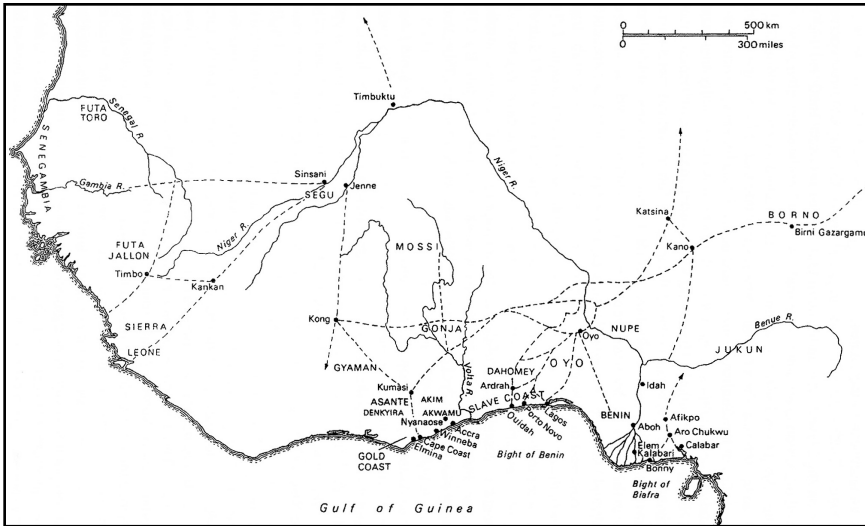
enabled Hausa traders to buy kola directly from Asante farmers.¹¹ By the 1830s when Hausa caravans of over one thousand merchants were traveling to these markets, the Kumasi government introduced restrictions that confined the Hausa traders to Salaga and the markets north of the Volta. This action limited Muslim influence on internal Asante affairs and resulted in prices more favorable to Asante state and private traders.¹² The policy lasted until the British-Asante war of 1873-74 and set a trade pattern that covered most of the period under discussion.

The long-distance kola trade depended upon the Hausa commercial settlements located along the major trade routes. A common faith in Islam and the use of Hausa as a *lingua franca* unified these dispersed communities into a commercial network within which long-distance exchange could take place. Each community had landlords (*mai gida*) and brokers (*dillali*) who provided passing merchants with accommodation, knowledge of local market conditions, short term credit, interpreting skills, storage and packing facilities, and other intermediary services.¹³ Resident Muslims also served as diplomatic and commercial representatives of the trade network to local states. Each community was largely independent of non-Muslim society; usually the commercial settlement was a twin town to an indigenous administrative center. Officials of the local states presided over the trade settlements, although the leaders of the Muslim communities selected their own *imam* from among their more prosperous residents or invited a distinguished Muslim to settle and assume the position.

Before the development of the Hausa trade, three other commercial networks were already operating in Borgu and the middle Volta basin. Each of these trading systems was Muslim and each had its own trade language. Juula merchants, historically connected with Jenne and the gold trade, lived throughout the Volta region, and related groups with Mande patronymics settled as east as far as Borgu, the Hausa states, and Borno. This network dated from the early fifteenth-century, although strong connections with the Hausa cities did not emerge until later.¹⁴ The Yarse developed the second trading system in the sixteenth-century. It was centered in the Mossi states and radiated southward to Asante, where Yarse traders exchanged livestock and slaves for kola.¹⁵ Further east, Dendi-speaking immigrants from Songhai, known locally as Wangara, may have founded communities in Borgu during the period of the Songhai Empire before 1600. This Dendi or Wangara

diaspora controlled the external trade of the Bariba states and dealt primarily in slaves, textiles, kola, salt, and natron.¹⁶ When Hausa merchants first began trading to Asante, they moved easily within these established trading systems because of the common faith. Hausa immigrants settled in the existing trade centers and shared the mosques and imam of the other Muslims. The communities absorbed the Hausa settlers with little difficulty since political and social leadership was based on economic success, Islamic learning, and religious piety. The establishment of predominantly Hausa communities at Salaga, Yendi, and other places did not alter the nature of the commercial centers. Hausa traders and settlers were preponderant, but each new settlement included wards for non-Hausa Muslims. Consequently, the development of the Hausa trade fused the earlier commercial systems into a larger Muslim network.

The distinguishing feature of the Muslim trade communities was their international connections with other settlements; ties which were crucial in maintaining the autonomy of individual settlements. The Islamic educational system and the practice of pilgrimage to Mecca were the key institutions that prevented isolated communities from being assimilated into non-Muslim states and societies.¹⁷ As early as 1740, at least six Gonja Muslims had been on pilgrimage.¹⁸ They traveled north-east through the Hausa cities and helped keep the trade communities in contact with the larger Islamic world. Besides the pilgrimage, Muslims often traveled to other communities, not only on business but also to study and to teach. Muhammad "Baba" al-Ghamba of Kumasi, for example, was the son of the imam of Gambaga and was born in Mamprussi. He traveled throughout Borgu and the Volta region first as a trader and then as a student. After he was introduced to the Qadiriyya, he moved to Kumasi, where he became the head of the Muslim community in the 1810s. Muhammad Kamati, another Kumasi Muslim, was related to the imam of Gbuipe and had studied in one of the Hausa cities.¹⁹ Salaga rapidly developed into the cultural and educational center of the Muslim communities in the Middle-Volta region. Men such as Alfa Saba of Wangara, who moved to Salaga to teach and study, helped transform the town into a scholarly center.²⁰ Another Salaga cleric (s. *malam*, pl. *malamai*) Alhaji Idrisu, taught Muslims who were important figures at Kilir-Wangara and Sinende. The most famous Salaga *malam*, Al-Hajj 'Umar b. Abu Bakr al-Kabbawi, emigrated from Kano in the 1870s. He wrote over forty works in Arabic and Hausa



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and was later responsible for the spread of the Tijaniyya among the Muslim communities.²¹ Yendi, Dedaure, Kilir-Wangara, and Nikki were other centers of Islamic learning along the trade routes.²²

Itinerant *malamai* from the Hausa cities were an important unifying influence on the dispersed trade settlements. They strengthened the Muslim nature of the trade communities by checking the tendency of the stranger settlements to become assimilated to non-Muslim societies. The *malamai* were aware of the latest controversies and ideas in the Sokoto Caliphate and promoted orthodox beliefs throughout the Volta region. Sherif Ibrahim al-Barnawi, in Kumasi from 1815 to 1818, was highly critical of resident Muslims because they attended human sacrifices and other Asante ceremonies which he considered incompatible with Islam.²³ The presence of stranger *malamai* such as Ibrahim, forced diaspora Muslims to avoid practices condemned by Islam. Although this placed local Muslims in a difficult position, it tied the diaspora Muslims more closely to the world of Islam.

The itinerant Hausa *malamai* also played a major role in Islamic proselytization in the regions between the Niger and the Volta. The earliest Hausa *malamai* known to have traveled as far west as the Volta River were those who converted the Na of Mamprussi and Dagomba in the early eighteenth-century.²⁴ The major impact came after 1800, however. Between 1815 and 1820, for example, numerous

Hausa *malamai* visited Kumasi. The most famous, Sherif Ibrahim al-Barnawi, was in Kumasi for three years before he left at the head of a group of pilgrims in 1818. One Katsina *malam*, in Kumasi at the same time, had stayed earlier at Yendi, Borgu, Yauri, Oyo, and Dahomey.²⁵ As an account of *malams* in Oyo in 1830 suggests, the Hausa Muslims were dedicated to the extension of their religion into the regions through which the trade routes to Asante passed. The observer noted:

several Hausa mallams, who, notwithstanding the irksome restraint to which they are subjected by the jealousy of the king and his people, are content to remain so far from their native country, and reside among strangers and pagans as long as they live. Whether the priests have taken this step purely from religious motives, or which is the more likely reason of the two, that they have exiled themselves from their home and families, for the mere purpose of being enriched at the expense of the credulity and ignorance of the inhabitants, we have been unable to discover. At all events, the intentions of these missionaries are effectively cancelled [sic] under a cloak of piety and devotion; and thus they are tolerated by the common consent of the monarch and his subjects.²⁶

In spite of the anti-Muslim bias, the quote demonstrates that the itinerant *malams* were primarily concerned with their religious activities and not trade or other occupations.

Hausa *malamai* owed their influence largely to their skill in making charms. Today, Hausa *malamai* are widely respected for this ability as far to the east as the Republic of Sudan and at least as far west as Bobo Dioulasso.²⁷ The emigration of large numbers of religiously motivated Hausa from the Caliphate in the nineteenth and early in the twentieth century accounts for the renown of Hausa *malamai* in Sudan. In the west, *malamai* influenced by the *jihad* of ʿUthman dan Fodio extended Islamic reformist influence into Borgu, Oyo, and the Volta basin. From the beginning *jihad* leaders were concerned with the supernatural, both in the form of miracles attributed to the Shehu, Islamic charms, and disapproved non-Muslim spirits. The Caliphate leadership wrote a number of works concerning the remedial use of Islamic formulae, specifically as an alternative to non-Islamic magic current in the Caliphate. The only protective magic which was condoned was the use of charms comprised of holy words and names, attributes of Allah, and special prayers.²⁸ To

popularize the Muslim revival, Hausa *malamai* followed the trade routes west towards Asante and in the process introduced Islamic charms of Caliphate origin into the regions along the way. A strong demand for Islamic charms existed before the influx of Hausa *malamai* into the Volta region, however. In 1807 Asante soldiers all wore charms made of "a little square cloth, inclosing some sentences of the Alcoran."²⁹ Most known correspondence between the non-Hausa Muslims of Kumasi and the northern trade communities in the early nineteenth-century concerned charms and magical formulae. The Kumasi Muslims themselves produced many other charms used in Asante.³⁰ *Malamai* from the Caliphate only added their knowledge to an existing demand for Islamic supernatural protection. Nevertheless, the Hausa Muslims became especially famous for their skill. In the crisis before the Asante-British war of 1873-74, for example, the Asantehene sent a special delegation to Salaga to seek a Hausa *malam* who could make charms, and the Asantehene insisted that only a *malam* born in the Sokoto Caliphate would be acceptable.³¹

The network of commercial centers and the itinerant *malamai* both demonstrated the close connection between Islam and the long-distance kola trade. The dispersed settlements relied on Islam as a unifying ideology. Islam encouraged social connections between trade centers that buttressed economic links. Islam provided a status system, which supplemented the emphasis on wealth since education and religious piety were respected more or as much as commercial success. Furthermore, Islam and its status orientation furnished a religious rationalization for the hospitality, which landlords extended to passing traders for economic motives. Beyond the importance of Islam to the trade communities, the commercial network also served as an avenue into non-Muslim areas for *malams* interested in propagating their religion. *Malamai* in part financed their religious activities as petty traders, but unlike the residents of the trade settlements and the professional traders from the Sokoto Caliphate, their nonreligious undertakings were irregular and small-scale. The *malamai* financed themselves primarily through the sale of charms, but this only enabled them to spread Islamic doctrine. Many towns invited *malamai* to establish mosques and remain in the local communities as the Friday *imam*. Non-Muslim rulers wanted their own imam to supplement their other religious advisers and to encourage long distance trade. The settlement of *malamai* as imam could result in the growth of a small

commercial center and the expansion of the long-distance trade network. Consequently, the actions of the itinerant *malamai* and the interests of the commercial system reinforced each other on both economic and religious grounds.

Islam was less important to the professional Hausa traders who monopolized the long-distance kola trade than to the commercial centers along the trade routes to Asante. The professional merchants needed the dispersed trade settlements, and they moved freely within the commercial network as Muslims who respected its Islamic unity. Furthermore, the traders traveled with the itinerant *malamai* and considered themselves active adherents of Islam. Nevertheless, the traders were not openly concerned with propagating their religion nor did they rely on Islamic ties as the basis of their economic and social organization. The merchants journeyed to Asante for economic reasons and their organization reflected a corporate structure much more limited than the mere adherence to a common faith.

The professional Hausa kola traders were organized into endogamous commercial descent groups, each of which had a different origin. They maintained an independent identity through individual facial and body markings, repetition of stories concerning origins, and marriage arrangements, although the traders formed an integral part of larger Hausa society. These trading groups were centered in the Sokoto Caliphate at Jega, Sokoto, Gummi, Katsina, Zaria and above all in and near Kano City. They dominated the kola trade because they possessed the necessary capital, knowledge of kola marketing, and a social organization, which facilitated long-distance operations. I will discuss briefly the three main groups, the Agalawa, the Tokarci, and the Kambarin Beriberi. A number of other groups, including the Sherifawa, Wangarawa, Beriberi, Katsinawa, and Adarawa, also traded in kola, but the main groups accounted for the majority of the nineteenth-century kola traders.³²

The Agalawa, Tokarawa and Kambarin Beriberi defined themselves as long distance kola traders. In the nineteenth century all long-distance merchants were called *fatake* (s. *farke*) in Hausa, and those who specialized in kola were referred to as *fataken Gwanja* (Gonja traders) or *fataken goro* (kola traders). To be a member of one of these groups excluded participation in all other occupations except farming in the rainy season. The individual names of the

three groups had even greater significance than as occupational labels, however. Each referred to a common origin (*asali*) and indicated certain characteristic facial and body markings. The Agalawa and Tokarawa, for example, were both Buzu in origin, that is, both were originally slaves of the Tuareg camel nomads. The distinction between the two related to a difference in facial markings, settlement patterns, and date and method of immigration from the north. Both were connected with Kano and Katsina Emirates and were closely associated. The Kambarin Beriberi, on the other hand, were Kanuri (*Beriberi* or *Barebare* in Hausa) in origin but settled at Gummi in the Zamfara River valley around 1800. Their facial markings differed from the Kanuri because of their settlement outside Borno. They were at least in part of slave origin, and D'an Toga, the first leader of the group, decided to use new markings, which would facilitate their recognition as a distinct commercial group.

Although each trading group classified itself by occupation, emphasized its common origin, and maintained distinct facial markings, all the traders were Hausa speaking, Muslim in allegiance, and culturally similar to other Hausa speakers in the Sokoto Caliphate. Group identification was situational; at times the traders referred to their occupation and origin, but at other times they used their place of residence, Islam, or the Hausa language as their distinguishing feature. In the diaspora identification by place of residence, language, and religion have been considered more important than origins. Unfortunately, the study of Hausa communities in Yoruba towns and in Ghana has often failed to recognize the significance of origins for group identification.

The Islamic basis of long-distance trade provided the framework in which the Agalawa, Tokarawa, and Kambarin Beriberi entered international commerce, but initially the groups were not active proponents of Islam. They did not take part in the reform movements, which swept the Hausa states in the late eighteenth, and early nineteenth-centuries, nor were any of the identifiable *malamai* and *imams* within the trading diaspora from the main commercial groups.³³ In detailed interviews with several hundred Agalawa, Tokarawa, and Kambarin Beriberi, I was unable to uncover a single example of men who had famous *malam* or *alhaji* among their nineteenth-century ancestors. Today, a large percentage of all three groups are *alhaji* and are at least locally known for their Islamic learning and devotion, but this development dates to this century. Being a *malam* or *alhaji* represents high social status,

and if a person had an ancestor who qualified for either title, the ancestor would not have been forgotten. In early nineteenth-century Hausa, Tuareg, and Kanuri societies, Islam was closely associated with political and religious elites, and groups such as the Agalawa, Tokarawa, and Kambarin Beriberi lacked high social status and had little direct interest in Islam. All entered the kola trade because of its commercial prospects, and their success was primarily a consequence of their ability to expand upon an existing trade.

At first the reliance of the trade groups on Islam was only incidental to their economic ambitions, but as the nineteenth century progressed, the Agalawa, Tokarawa and Kambarin Beriberi assumed a more personal interest in Islam. They operated within a trade system, which constantly exposed them to Islamic influence. Wangarawa, Asbenawa from Agades, and Kanuri traders, all of whom operated from Katsina in the eighteenth century, and who were responsible for the early growth of the trade to Asante, considered Islam and Islamic education important. Significantly, their genealogies include ancestors who were *malamai* and had made the pilgrimage. It was from these traders that the Agalawa, Tokarawa, and Kambarin Beriberi learned the kola trade. Furthermore, within the trade diaspora itself, the Agalawa, Tokarawa, and Kambarin Beriberi were exposed to communities, which emphasized Islam. The organization of the caravans was also based on established Muslim commercial practice. Caravan leaders sought the advice of *malamai* for the best time (*sa'a*) when caravans should depart, and traders used Muslim charms for their own protection. Equally important, Agalawa, Tokarawa, and Kambarin Beriberi often settled in places where they were in close contact with learned *malamai*. Hungumawa ward, the location of the Kambari in Sokoto, was situated adjacent to the Caliph's palace and the Friday mosque. A major Agalawa settlement in Kano was in Madabo ward, the home of the Kano Wangarawa and the site of the oldest or second oldest mosque in Kano city. The Wangarawa have been famous for their Islamic learning since their arrival in the 1490s.³⁴ Other Kano Agalawa and Tokarawa lived in Dalla ward, in which many North African and other stranger Muslim traders resided.

The increasing importance of Islam to the main kola trading groups was directly related to contacts with their own customers. Since kola was a luxury, the principal consumers were the aristocracy and learned classes of the Sokoto Caliphate and Borno: in both cases they were the most Islamic elements within Hausa and

Kanuri societies. This association of the traders to the aristocracy was especially clear with the Kambarin Beriberi. When Kambarin Beriberi merchants moved to Katsina and Kano in the mid-nineteenth century, the Sokoto government intervened to secure accommodation for them. In Kano local officials not only provided sites but also constructed houses for them in Mararaba and Madigawa wards. With all traders gifts to officials (*gaisuwa*) and to malamai (*alheri*; *kyauta*) were frequent. *Gaisuwa* literally means "greetings" and should be seen less as a form of taxation than as an obligation of clients and subordinates to their superiors. *Alheri* and *kyauta* in this context meant a gift out of kindness and was a form of alms. Traders profited both socially and economically from the identification with the aristocracy. Status within the Caliphate was connected with political power, Islamic learning, and wealth, and the kola traders increased their own social standing at the same time that they fostered their commercial interests. This association did not transform the kola traders into a learned class, but *malamai* did receive the financial support of the traders. As the nineteenth century progressed, increased contact with the political and religious elite intensified the traders' commitment to Islam.

Islam had an important influence on the main commercial groups of the nineteenth century kola trade, but unlike the commercial settlements along the trade routes, Islam was not essential to their economic and social organization. Within the trade diaspora, Islam unified people of different background, prevented their assimilation to non-Muslim societies, and provided international links, which assisted long-distance exchange. The trade network in turn served as a base from which Hausa *malamai* extended Islamic influence. For the main trading groups this commercial system facilitated their operations and at the same time strengthened their commitment to Islam. Nevertheless, the principal force, which intensified their faith, was their contact with *malamai* and the political elite of the Sokoto Caliphate. Within Caliphate society Islam was closely associated with social status, and as the Agalawa, Tokarawa, and Kambarin Beriberi became prosperous, they increasingly sought to raise their standing within Hausa society. The connection between the professional trade groups and Islam was less related to their commercial operations than with their desire for social mobility.

Notes

1. Originally published in the *Journal of the Historical Society of Nigeria*, V:4 (1971). An earlier draft was read at the annual meeting of the African Studies Association, Boston, 23 October 1970.
2. Abner Cohen, *Custom and Politics in Urban Africa. A Study of Hausa Migrants in Yoruba Towns* (London, 1969).
3. Ivor Wilks, "The Transmission of Islamic Learning in the Western Sudan," in Jack Goody (ed.), *Literacy in Traditional Societies* (Cambridge, 1968), 162-97.
4. For an analysis of commodity flow between Asante and the Hausa cities, see my *Caravans of Kola*.
5. For a preliminary discussion of these routes and the development of the trade between Asante and the Hausa cities, see N. Levtzion, *Muslims and Chiefs in West Africa. A Study of Islam in the Middle Volta Basin in the Pre-colonial Period* (London, 1968). The origins of the trade are discussed in Lovejoy, *Caravans of Kola*.
6. This point is also argued by Ivor Wilks, in "Asante Policy towards the Hausa Trade in the Nineteenth-Century," in Claude Meillassoux (ed.), *The Development of African Trade and Markets in West Africa* (London, 1971). In addition to the evidence provided below for the growth of Hausa settlements in Dagomba and Gonja, also see L-G Binger, *Du Niger au Golfe de Guinée par le pays de Kong et le Mossi* (Paris, Hachette), I, 187-88.
7. Mahmud b. cAbdallah, *Qissat Salagha*, as translated by Mahoud El-Wakkad, in *Ghana Notes and Queries*, III (1961), 25-26; K.Y. Daaku, *Oral Traditions of Gonja* (unpublished), Institute of African Studies, University of Ghana, 1969; see especially the interview with Hajj Imoru, the Imam of the Salaga Friday mosque, p. 113. Also see J. Dupuis, *Journal of a Residence in Ashanti* (London, 1824), x; and T.E. Bowdich, *A Mission from Cape Coast Castle to Ashantee* (London, 1819), 341.
8. Malam Alhasan, *Tarihin Dagwamba*, translated by J. Withers Gill as *A Short History of the Dagomba Tribe* (Accra, n.d.), 6. Bowdich learned that Muslims had "settled there [at Yendi] in great numbers" (*Mission*, 178). Ivor Wilks, "A Note on the Early Spread of Islam in Dagomba," *Transactions of the Historical Society of Ghana*, 8 (1965), 89, discusses the origins of the Hausa community based on information he gathered in Yendi. Levtzion provides further genealogical material to support an early nineteenth-century growth of the Hausa community in both Yendi and at other Hausa settlements in Dagomba; *Muslims and Chiefs*, 115-16, 119.
9. Levtzion provides further evidence for this chronology and also dates the arrival of Hausa settlers at Kusawgu and other places in Gonja to the same period; *Muslims and Chiefs*, 28, 67, 68. Also see Wilks, "Asante Policy."

10. Dupuis, *Journal*, xxxiv-xxxvi and xxxiii, lviii, cxxvii-cxxviii. Muslims were also found in Baboso, "the land on the banks of the river Volta."
11. For the organization of the Asante side of the kola trade, see K.Y. Daaku, "Gold, Guns, and the Gold Coast: A Study of the Organization of Trade among the Akan in the Precolonial Period," in Meillassoux, *Development of African Trade*; Kwame Arhin, "Aspects of the Ashanti Northern Trade in the Nineteenth-Century," *Africa*, XL (1970), 363-73; and Arhin, "Market Settlements in Northwestern Ashanti: Kintampo," in Jack Goody and Kwame Arhin (eds), *Ashanti and the Northwest*, Institute of African Studies, University of Ghana, *Research Review*, Supplement, I (1965), 143-47.
12. Wilks, "Asante Policy," for a description of a caravan in 1826 with an estimated one thousand people, see H. Clapperton, *Journal of a Second Expedition into the Interior of Africa* (London, 1829), 76. The Lander brothers saw one caravan of four hundred people in 1830 but heard of another twice that size which they had just missed; see Richard and John Lander, *Journal of an Expedition to Explore the Course and Termination of the Niger* (New York, 1858), I, 141.
13. For a discussion of the landlord system, see Polly Hill, "Landlords and Brokers: A West African Trading System (With Notes on Kumasi Butchers)," *Cahiers d'études africaines*, VI:23 (1966), 349-66.
14. Ivor Wilks, "The Early Dyula Towns" (unpublished seminar paper, School of Oriental and African Studies, University of London, 1969). Also see Levtzion, *Muslims and Chiefs*, 3-14.
15. Michel Izard, "Les Yarse et le commerce dans le Yatenga pré-colonial," in Meillassoux, *Development of African Trade*; and Levtzion, *Muslims and Chiefs*, 164.
16. A reference in Mahmud Kati, *Ta'rikh al-fattash* (ed et trad. par O. Houdas et M. Delafosse Paris, 1913), 67, suggests that kola may have been reaching the Songhay Empire through Borgu in the sixteenth century. The Dendi communities could have developed in connection with this trade and Songhay slave-raiding activities in the area. The first definite reference to Muslim communities in the Bariba states is in the mid-seventeenth century Wangarawa chronicle, see Muhammad A. Al-Hajj, "A Seventeenth Century Chronicle on the Origins and Missionary Activities of the Wangarawa," *Kano Studies*, 1:4 (1968), 9. J. Lombard suggests that Muslim settlement in the Bariba states dated to the fifteenth or sixteenth century; see *Structures de type "féodal" en Afrique noire. Etude des dynamismes internes et des relations sociales chez les Bariba du Dahomey* (Paris, 1965), 38, 44. 82. The Muslim traders called "Malais" dealing in slaves at Whydah in 1704 were probably Dendi merchants; see quote from Chevalier des Marchais in Paul Marty, *Etudes sur l'Islam au Dahomey* (Paris, 1962), 5-10.

17. Wilks argues this point persuasively for the Dyula system; see "Transmission of Islamic Learning," 162-97.
18. *Kitab Ghunja*, as translated in Jack Goody, *The Ethnography of the Northern Territories of the Gold Coast, West of the White Volta* (London, 1954), 40-41.
19. Dupuis, *Journal*, 97; Ivor Wilks, "The Position of Muslims in Metropolitan Ashanti in the Early Nineteenth Century," in I.M. Lewis (ed.), *Islam in Tropical Africa* (London, 1966), 323; N. Levtzion, "Early Nineteenth Century Arabic Manuscripts from Kumasi," *Transactions of the Historical Society of Ghana*, VIII (1965), 113-14.
20. Mahmud b. cAbdallah, *Qissat Salagha*, 28.
21. Marty, *Islam au Dahomey*, 180-81, 187. For a biographical sketch of Al-Hajj 'Umar, see Ivor Wilks, "The Growth of Islamic Learning in Ghana," *Journal of the Historical Society of Nigeria*, II:4 (1963), 416; Thomas Hodgkin, "The Islamic Literary Tradition in Ghana," in Lewis, *Islam in Tropical Africa*, 453-56, and B.G. Martin, "Two Poems by Al-Hajj 'Umar of Kete-Krachi," in J.A. Braimah and Jack Goody, eds., *Salaga: The Struggle for Power* (London, 1967), 189-93.
22. For individual accounts of the connections between Muslims of the various centers along the trade routes, see Marty, *Islam au Dahomey*, 182-85, 187-88, 193. For a discussion of the various centers, see Levtzion, *Muslims and Chiefs*, 119 fn.; L. Wolf, "Dr Ludwig Wolf's letzte Reise nach der Landschaft Barbar (Bariba oder Borgu)," *Mitteilungen aus den Deutschen Schutzgebieten*, IV (1891), 1-22; and R. Buttner, "Reisen im Togolande," *Verhandlungen der Gesellschaft für Erdkunde zu Berlin*, XIX (1892), 254-55.
23. Sherif Ibrahim "was the only Moor who dared to refuse to be present at human sacrifices;" see Bowdich, *Mission*, 205. Also see Hutchinson's diary (Bowdich, *Mission*, 397) for an account of friction between Ibrahim and the Kumasi Muslims because of Ibrahim's position.
24. I. Wilks, "Islam in Dagomba", 89; Levtzion, *Muslims and Chiefs*, 124, 197.
25. Dupuis, *Journal*, xv, 137; Levtzion, "Arabic Manuscripts from Kumasi," 113-14. Other examples include Malam Salifu, a Hausa Muslim at Nikki, who was born about 1840, and who had studied under his father, Mahama; and Malam Aloufa Kano, who died at Sinende in 1908; see Marty, *Islam au Dahomey*, 182, 195.
26. Landers, *Journal*, I, 172.
27. Personal communication from Dr Hasan Abdin, University of Khar-toum, and from Lucy Quimby.
28. Muhammad Bello was particularly interested in the legal uses of charms and other nonphysical remedies, and he wrote several books on the subject. 'Abd al-Qadir b. Gidado also addressed himself on the topic, while Muhammad Tukur wrote his *Qira al-ahibba* especially for

- Bello. Last suggests that Bello's concern for medicine, astronomy, and divination was "partly due to a desire to replace non-Islamic magic current in Hausaland with practices sanctioned by Islam." Also note Gidado Wan Laima's account of the miracles attributed to the Shehu; see Murray Last, *The Sokoto Caliphate* (London, 1967), 209-10. Last deals with the subject of the supernatural more fully in his "A Note on the Attitudes to the Supernatural in the Sokoto Jihad," *Journal of the Historical Society of Nigeria*, IV:1 (1967), 13-31; see especially p. 8.
29. Wilks, "Muslims in Metropolitan Ashanti," 331; quoting a letter by Governor Torrane written on 9 October 1807.
 30. Levtzion, "Arabic Manuscripts from Kumasi," 101; also see Bowdich, *Mission*, 90; and Dupuis, *Journal*, xi.
 31. Krause ms., translated in Jack Goody and T.M. Mustafa, "Salaga in 1874," Institute of African Studies, University of Ghana, *Research Review*, 11:2 (1966), 24.
 32. Information for the remainder of the article was collected in oral interviews in Nigeria between August 1969 and July 1970. Copies of the original taped interviews are on deposit at the Centre for Nigerian Languages, Abdullahi Bayero College, Kano, the Northern Nigerian Research Scheme, Ahmadu Bello University, Zaria, and the Harriet Tubman Resource Centre on the African Diaspora, York University. See Lovejoy, *Caravans of Kola*. For a discussion of the continued importance of the main trading groups in the late twentieth century, see my article, "The Wholesale Kola Trade of Kano," *African Urban Notes*, V:2 (1970), 129-42.
 33. Malams with identifiable origins include: Al-Hajj 'Umar b. Abu Bakr of Kebbi and perhaps *shurfa* or Sherifawa in origin (Wilks, "Islamic Learning in Ghana," 416); Malam Alhasan, who wrote histories of Dagomba and Mossi and translated a history of Salaga into Hausa, was of Gobir origin (Hodgkin, "Islamic Literary Tradition in Ghana," 444); a Katsina shaikh in Kumasi in 1820 was of Fulani origin (Dupuis, *Journal*, 137, cxxxii); Malam Chediya of Katsina, who settled at Salaga in c. 1810, could not have belonged to any of the major nineteenth century trading groups because of the chronology; he was perhaps Katsinawa in origin (Mahmud b. 'Abdalldh, *Qissat Salagha*, 25); Sherif Ibrahim al-Barnawi was Sherifawa of Borno origin (Levtzion, "Arabic Manuscripts from Kumasi," 114); A Muslim on the Gold Coast in 1807 who had the complexion of an Arab was perhaps Sherifawa or Larabawa (Arab) in origin (H. Meredith, *An Account of the Gold Coast of Africa* (London, 1812), 157-58); in the Kandi area of Borgu, Alazi was the first Muslim. He came from Massina and was Fulani (Marty, *Islam au Dahomey*, 198); and finally both the families of Malam Ahmadu Coomassie of Katsina and A.B. Umaru of Ahmadu Bello University were of origins other than Agalawa, Tokarawa and

Kambarin Beriberi. Umaru's family is Fulani in origin, while Malam Ahmadu's family came from Katsina (personal communication).

34. Muhammad Al-Hajj, "Wangarawa Chronicle," 7-16; also see Lovejoy, "Notes on the *Asl al Wangariyin*," *Kano Studies*, n.s., 1:3 (1978): 46-52.

7 | THE KAMBARIN BERIBERI, A SPECIALIZED GROUP OF HAUSA KOLA TRADERS'

The emergence of professional merchant communities that dominated continental exchange networks has been a major theme in the economic history of large parts of Africa. For many of these commercial systems, particularly those in the region stretching from the Senegambia to the Ethiopian highlands, Islam has provided a unifying ideology that has helped overcome the problems of long-distance trade. As a social "blue print" for isolated communities, Islam has buttressed the common economic interests of dispersed settlements along trade routes. The various studies of Abner Cohen, Ivor Wilks, and several participants at the Freetown conference on the development of indigenous trade and markets in West Africa, have contributed greatly to a historical understanding of the growth of Muslim trading systems.² Cohen, in particular, has offered a theoretical framework within which to view the cultural strategies in the organization of trading diasporas, a concept that most economic historians now accept as an appropriate one to describe the dispersed commercial settlements along trade routes which catered for itinerant merchants. The related communities of a diaspora have been characterized by cultural homogeneity, a feature which Cohen labels "ethnic control, or monopoly" of trade.³ Ivor Wilks, in his study of the Juula commercial network in the Volta region, has demonstrated how the maintenance of an autonomous diaspora culture depended upon the conscious exploitation of Islamic educational and social links between distant communities, a strategy, which helps to explain the important role of Muslim clerics in the Hausa communities in Yoruba towns as well.⁴

This chapter contributes to our knowledge of the origins and development of commercial networks. While some research has concentrated on studying merchants in diaspora, this one focuses on origins. To understand the methodological problems involved

in the present approach, commercial systems can be considered to consist of two parts: the dispersed settlements of the diaspora, which extended services to passing merchants; and the homeland, where most of the professional traders of a commercial network maintained their residency. In some cases, such as the Juula trading system, the diaspora became divorced from the society of its origin, and the diaspora residents became the principal merchants in the trade network. However, Hausa continental trade more closely approximated to the model outlined above. The majority of traders lived in or near one of the Hausa cities, and the diaspora inhabitants concentrated primarily on the extension of services to visiting caravans. In the Hausa case, moreover, "ethnicity" is a concept that clouds historical analysis. The nineteenth-century Hausa diaspora in the Volta basin, for example, included people who traced their origins to Nupe, Borno, and elsewhere in the Central Sudan, but who came to identify themselves as Hausa. "Ethnicity" was not a static concept but an evolving relationship between immigrants who developed a "diaspora culture," as Cohen terms the process, which supported economic interests.⁵ But since most important merchants were not diaspora residents, the establishment of dispersed trade centers was only one aspect of commercial development. As the study of the Hausa kola trade revealed, the interaction between diaspora and homeland cannot be explained in "ethnic" terms without distorting the historical perspective, as Cohen has unfortunately done.

The professional traders who controlled much of the external trade of the Hausa economy lived in and operated from the Hausa towns and villages. These merchants were specialists who concentrated on specific commodities and regular markets. The various Hausa diasporas, to the east of Lake Chad, in Adamawa, in the Yoruba cities, and along routes to the Volta, developed in conjunction with the emergence of the mercantile class, but the personnel of the two parts of Hausa commercial organization were usually distinct. For the Hausa kola trade, for example, three groups of traders monopolized the nineteenth-century trade between the Sokoto Caliphate and the Volta basin. The Kambarin Beriberi, Agalawa, and Tokarawa were immigrant communities who absorbed Hausa culture and, in the process, became specialists in kola marketing. The history of each group demonstrates the dynamics of commercial growth in the pre-industrial conditions of Africa and adds a new

dimension to the understanding of the organization of continental trade patterns. Only the Kambarin Beriberi are considered here.

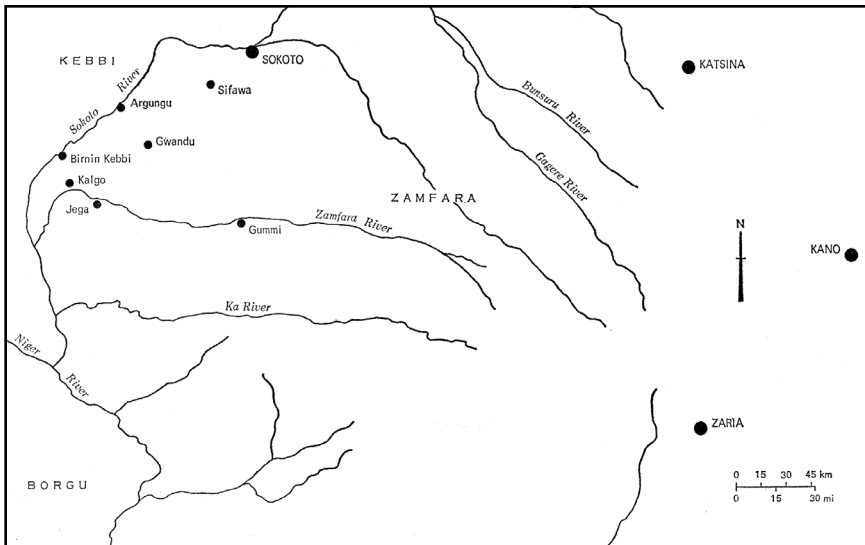
Immigrant communities have played a major role in the economic development of the area centred on the Hausa cities, and nowhere has this trend been more evident than in the history of the long-distance Hausa kola trade in the eighteenth and nineteenth centuries. Almost all the professional merchants who traveled between the nineteenth-century Sokoto Caliphate and the kola-producing region in the forests of Asante were descendants of immigrants who had settled in or near Hausa cities. The history of the kola trade fits into a pattern that has occurred frequently in the Hausa states. For centuries the Hausa country attracted immigrants from other parts of West Africa. Sometimes individuals fled their homelands under pressure, but more often people settled among the Hausa in order to take advantage of greater opportunities. Their settlement has accounted for numerous political, social and economic developments that have profoundly influenced the course of Hausa history. The introduction and early spread of Islam is one example of this impact. Muslim immigrants of Mande origin and North Africans connected with the famed Islamic scholar, al-Maghili, formed the nuclei of several early Muslim communities in the Hausa states. Both groups arrived in the last two decades of the fifteenth century and became influential in the establishment of Islam as a court religion. The early introduction of Islam to Kano and other cities was an important precondition for the *jihad* of 'Uthman dan Fodio, for the call to revolution depended upon a foundation of earlier Islamic teaching. Emigrant Hausa in turn helped extend Hausa political and social influence beyond the frontiers of the early Hausa states. Such dynasties as the royal family of Yauri and the Kanta family of Kebbi were immigrant Hausa from Katsina. The consolidation of their rule was part of a general expansion of Hausa culture and the Hausa language. A similar process associated with the creation of towns and villages among non-Hausa operated in the region to the south of Zaria.⁶

Borno, the Agades confederation, and numerous alien communities, which were involved in long-distance commercial operations to North Africa and other parts of West Africa, were the original homes of most of the kola traders. The immigrants became Hausa, that is they learned the Hausa language, settled in the area inhabited by other Hausa-speakers, adopted the same customs, and were practicing Muslims. Nevertheless, the traders maintained a separate identity that facilitated economic advancement within their adopted

society. The use of distinct facial and body markings and the reliance upon common traditions of origin facilitated cooperation in the formation of caravans and in the mutual extension of hospitality and assistance to fellow merchants. Endogamous marriage ties helped reinforce commercial links, so that traders from one Hausa town always found a place to stay when away from home.

Borno was particularly important as the home of people who emigrated to the Hausa country. Some did so for commercial purposes, particularly in connection with the trade in natron. Others moved for political reasons. One Kanuri group arrived in Kano sometime in the fifteenth century. It may have been an administrative or diplomatic corps, which was part of Borno expansion in the west, but, more likely, it was an exiled force which fled in the wake of a political crisis. No matter what the reasons for the emigration, the group was influential at Kano and may have been responsible for the introduction of such Borno titles as Galadima and Chiroma into the Kano administrative structure. Other Borno settlers established themselves elsewhere, although most were not as important as the Kano immigrants. In all cases the number of settlers was small. Many undoubtedly were unimportant economically or politically and only added to the population of local communities. Nevertheless, they represented a feature of Hausa history which helps explain why the region between Borno and the Niger developed into an area of relatively homogeneous culture and dense population. All the groups were easily and rapidly assimilated into Hausa society, and in many cases the immigrants went on to contribute to the expansion of the economy and politics centered in the Hausa-speaking region. The head of the Borno immigrants at Kano in the fifteenth century was Dagaci, who came with "many men and mallams."⁷

The Kambarin Beriberi were one of the endogamous commercial groups which specialized in the kola trade to the Volta basin. They were descendants of Kanuri immigrants who settled at Gummi, a town in the Zamfara River Valley. As their name suggests, they originally came from Borno. Beriberi is the Hausa word for the Kanuri, and Kambari is an additional nominative to distinguish them from the Kanuri proper. After the group had settled at Gummi, its members were rapidly assimilated to Hausa culture, and their descendants were not distinguished from the larger Hausa society. For commercial purposes they referred to themselves by the same name, used similar facial and body markings, and emphasized their common origin. They practiced no other occupation except long dis-



Kambarin Beriberi Settlements, Nineteenth Century

tance trading in kola, although, like all other Hausa, they also farmed in the rainy season. Group identification was situational, however. Along the trade routes, the Kambarin Beriberi used their occupation, their Muslim allegiance, their knowledge of the Hausa language, and sometimes their place of residence as the most significant identifying features. Only within the Caliphate itself did the merchants distinguish themselves from other Hausa by the use of the term Kambarin Beriberi.⁸

The Kambarin Beriberi claim that their ancestors arrived in Hausa country shortly before the *jihād* of 'Uthman dan Fodio (1804-08). Kambari traditions recount the emigration of a Kanuri prince, nicknamed Dan Toga, who left Borno because he was dissatisfied with the choice of a successor to the Borno throne. Dan Toga led his family and followers westward in search of a new home and eventually settled at Gummi, on the Zamfara River. At Gummi, Dan Toga became a principal advisor to the local ruler, while his sons and slaves became involved in the long-distance kola trade to the Volta basin.⁹ Each aspect of Kambari tradition demonstrates the importance of initiative in the group's history. The emigration from Borno was a crucial decision, the outcome of which was uncertain, while the settlement at Gummi was the first response to a major opportunity. The town needed to increase its

population, and the local ruler made D'an Toga an official in order to encourage his settlement. These were the first of the important decisions ultimately leading to the establishment of the Kambarin Beriberi in the long-distance kola trade.

All Kambari traditions insist that Dan Toga was of royal birth. One tradition even claims he was a king, although historically this was impossible. Efforts to identify the ancestors of a community with an aristocratic background are common in history, but often they only indicate a group's wish to legitimize its position or to increase its prestige. In the case of the Kambarin Beriberi, both these desires were in evidence, for a more prestigious background could be converted into commercial profit. The connection with the Borno aristocracy implied a greater commitment to Islam than a more humble origin would, while the royal tradition also provided a special connection with the principal consumers of kola, the aristocracies of the Sokoto Caliphate and Borno. The Kambari claim to a royal heritage could be true, however. Dan Toga may not have been a prince, and he definitely was not a Borno *mai* (king), but he could have been of aristocratic origin. In 1791 a new *mai* succeeded to the throne in Borno, after the long reign of Mai Ali (ca. 1750-90). Mai Ali reputedly had some 300 sons, and, while most had no chance of becoming the next ruler, some may still have been disaffected with the choice of a successor. The transfer of office was peaceful, but some of the sons probably had little to gain through cooperation with the new *mai*.¹⁰ Dan Toga could have been one of these.

Several other factors support the Kambari traditions. Dan Toga arrived in the Zamfara Valley with a large following. The traditions conflict on the size of his group, but one states that there were 200 people. The immigrants settled first at the small village of Kali, located a few miles west of Gummi on the Zanifara River, although one account also claimed that they were at Alkalawa in Gobir for a time. They stayed at Kali for three years and then intended to move further west to Kebbi. Their plans were altered when the ruler of Gummi induced D'an Toga to settle permanently at Gummi. Dan Toga agreed, and his new home became the center of Unguwar Beriberi, the ward of the people of Kanuri origin. The Kambari claim that before they built their homes in the town, Gummi was a very small place and their numbers added significantly to the population. Few individuals except the aristocrats could have commanded a large enough following to have made an impact on the population of a town. The royal origin is further supported by the claim that

Dan Toga was a Muslim and served as an intermediary between the forces of the jihad and the Gummi state. Dan Toga's Borno origin probably meant that the Muslim revolutionaries considered him a better Muslim than the indigenous Hausa of the Gummi region. A commitment to Islam may also have been another reason that Dan Toga became an important official at Gummi. He was not a *malam*, however. No tradition claims extensive religious training or special devotion. But an attachment to Islam is asserted on the basis of the Borno tie.¹¹

At the time of Dan Toga's arrival in the Zamfara River Valley, Gummi was the capital of the small state of Zoma, located between Zamfara and Kebbi. Its ruler was Waru, who ruled in the last years of the eighteenth and the first decade or more of the nineteenth century. Zoma was founded in the middle of the eighteenth century and never included more than a few towns and villages within its domain. Its influence extended no further than 40 miles down the Zamfara River in the west. In the east only Birnin Tudu, ten miles from Gummi, was part of Zoma. Gummi itself was equally unimportant, so the arrival of a few hundred immigrants must have been a major event. Waru himself was an immigrant, who founded the town of Gummi, and he is credited with most of the major achievements in the early history of the town. Perpetually in the shadow of larger states, Zoma struggled to maintain its autonomy for the last half of the eighteenth century and the early years of the nineteenth. It managed to do this primarily through a policy of recognizing the strongest state in western Hausa country as its overlord. Initially, Gummi paid allegiance to Kebbi. Later it switched its loyalty to Zamfara, and, at the end of the eighteenth century, it came under the hegemony of Gobir.¹² The efforts of Gummi to appease each of its neighbors left the town free from harassment and invasion. The town and its dependent villages were allowed to pursue a quasi-independent existence as long as tribute and obeisance were paid.

The policy led to the involvement of Gummi in the events precipitating the *jihad* of 'Uthman dan Fodio in 1804. On behalf of Gobir, Sarkin Zoma Waru attacked a group of Dan Fodio's supporters as they were traveling north of the Zamfara River. The zeal of Waru in pleasing Gobir placed Gummi in a difficult position as the *jihad* progressed, and the town avoided destruction only through its pleadings for clemency. Dan Toga, with his Borno origins and his better Islamic credentials, presented the Gummi case before the Shehu. Traditions imply that the immigrants were living in the

town when the *jihad* erupted, but the outbreak of the war could have induced Dan Toga to move. The relative safety of the small walled town offered some protection, while Waru needed men in case it was necessary to defend the town. Because of the early attack on the supporters of 'Uthman dan Fodio, Waru had every reason to believe that his town was in danger. He also needed someone to represent Gummi before the Shehu, and Dan Toga was the most suitable candidate for the office. The Kambari claim that the Shehu encouraged Dan Toga to emigrate to the camp of the Muslims, but this only reflected the general call of the Shehu for all Muslims and supporters of the *jihad* to join in the struggle. Dan Toga stayed at Gummi, although some of his sons or dependants moved to the Shehu's early camp at Sifawa.¹³ As a sign of their support of the *jihad* and their acceptance of the emerging Muslim Caliphate, the Gummi townsmen helped build the defenses around Sifawa. The Muslims accepted the support of Gummi. They had no desire to destroy the town, since it was of minor importance and presented no military threat. Such offers of loyalty were often welcomed, especially if they came from a representative who claimed to be a Muslim. Dan Toga assisted Gummi, therefore, in continuing the established policy of recognizing the strongest force in the Zamfara-Sokoto river basins and thereby retaining the autonomy of the small state. The cooperation of Dan Toga in offering Gummi's submission to the Shehu was a further opportunity that the immigrant community exploited to improve its position. The group was now ready for even greater opportunities.

The disruption caused by the *jihad* produced a fluid situation throughout the area of the old Hausa states. The creation of the new Caliphate ushered in a period of political adjustment that strongly influenced the economy of Hausaland in general and of western Hausaland in particular. The major city of Alkalawa did not survive, and Zamfara was isolated from the center of political power in the Rima-Sokoto-Zamfara river basins. The Zamfara towns continued to be centers of textile manufacturing, but few professional traders were located there. The withdrawal of the Kebbi forces to Argungu isolated the Kebbawa, and any commercial importance Birnin Kebbi may have had in the eighteenth century was undermined. Birnin Kebbi was incorporated into the Caliphate as a Muslim town, but it never developed commercially. The local market for imported goods was supplied through the temporary residence of long-distance merchants who were centered elsewhere in the Caliphate. The destruc-

tion of the urban centers and the movement of armies through the rural areas led to the dispersal of many people as individuals either joined the *jihad*, retreated to defensible positions, or sought safety elsewhere. New towns were founded after the success of the *jihad* was assured, but trade, agriculture, and urban life were in turmoil. Not until a decade or more after the *jihad* had begun did Sokoto and Jega emerge as new commercial centers.¹⁴

The changes resulting from the *jihad* created new opportunities which Dan Toga and his immigrant community at Gummi were quick to appreciate. In building the wall at Sifawa, the people from Gummi could see the potential commercial demands that the Muslim camp created. The Shehu's forces were preoccupied with military and religious affairs and were not concerned with trade. Opportunity existed for any group of individuals prepared to take the initiative. There is no indication in the traditions as to why Dan Toga settled on the kola trade, but it was a wise choice. The demand for kola was great, especially since Muslims encouraged the consumption of kola and prohibited the use of other stimulants. Kola became the symbol of hospitality and the sign of Islamic and political status. Alms to pilgrims, gifts to Quranic students, and presents to important travelers were the principal uses of kola. Kola nuts had many of the same functions before the *jihad*, but, with the creation of the Muslim Caliphate, the demand for kola increased.¹⁵ The suggestion that the Kambari might engage in kola marketing may have come from the supporters of the Shehu. Kambari tradition insists that there was no trade in kola until the Shehu miraculously appeared with the nuts and showed the Kambarin Beriberi where they could be obtained. The story fits with other accounts attributed to divine influences and reflects Muslim encouragement of kola consumption.¹⁶ The tradition provided the Kambari with a prestigious connection with the Shehu and an etiological explanation for their entry into the trade.

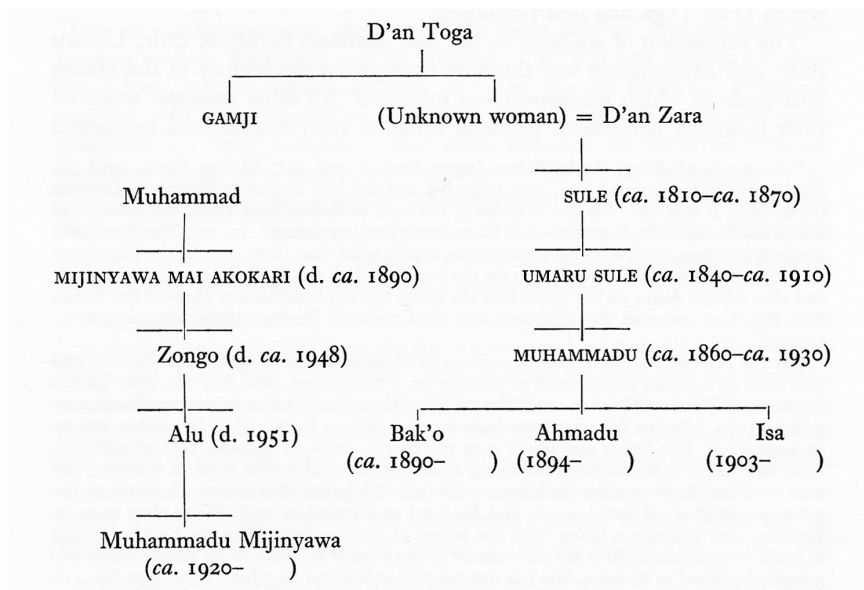
Despite Kambari claims that they initiated the kola trade under the miraculous guidance of the Shehu, Dan Toga was aware of the established trade patterns at the beginning of the nineteenth century. The commercial pattern that connected the middle Volta basin with the Hausa cities and Borno was already in existence in the eighteenth century, and, since Dan Toga was probably of aristocratic origins, he would have consumed kola in Borno before he emigrated. Kanuri traders and people of Kanuri origin were operating to Asante, and many other kola traders centered in Katsina and

Kano included a trip to Borno as part of their commercial activities. Natron and trona were purchased in Borno through the sale of kola for export to the Volta basin. Dan Toga and his associates must not only have been acquainted with this exchange system, but may also have been in contact with Beriberi or Kanuri merchants in Kano, Katsina, and Borno.

Dan Toga himself never traveled to the Volta basin, nor does tradition credit him with the direct handling of kola marketing in the Caliphate. He was not a caravan leader, but remained preoccupied with his political office at Gummi. He retained his position as advisor to Waru and continued to represent Gummi in Muslim circles. Nevertheless, he made the major decisions that affected the evolution of his community into the endogamous commercial group, which called itself Kambarin Beriberi. He introduced new facial markings for the sons born at Gummi, which differed from the *askar* of the Kanuri. Whereas Kanuri facial markings were numerous long incisions from the temple to the mouth, the Kambarin Beriberi broke the lines into shorter segments.¹⁷ The new markings facilitated the recognition of the Kambarin Beriberi as a distinct group, and permitted the continued cohesion of the traders as they dispersed to found commercial communities in a number of Caliphate cities.

The use of "Kambari" in the name for the Kambarin Beriberi also reflected the early efforts of the group to concentrate on trade as its occupational specialization, for the term was derived from a Kanuri word for trader. In his vocabularies of languages collected in the 1850s, Barth defined "Komboli" as a Kanuri word for "travelling slave dealer." He equated it with the Hausa "mai-falki," *farke* or *falke* in the modern orthography. The Hausa term means "long-distance trader." The more recent Kanuri dictionary by P.A. Benton (1911) defined *kombali* as a "trader with a fixed residence, esp. a slave-trader," while Lukas (1937) noted that "komboli" meant an "itinerant market-trader." Barth believed that the word was "evidently derived from the B. [Bagirma] *fintboli*, by adding the characteristic Kanuri individual prefix *ke*," and he defined the Hausa equivalent as not only a slave-trader but also a "travelling dealer in natron, guro-nuts [kola], etc. with pack-oxen and asses."¹⁸ The Kanuri immigrants at Gummi apparently called themselves by this Kanuri term, although "komboli" changed to "kambari," since "r" is easily substituted for "l" in Hausa. The "-n" is the normal Hausa genitive copula that connects two nominals. The term, there-

Table 7.1: Geneaology of D'an Toga's Family and the Major Kambarin Beriberi Madugai



fore, initially meant “the traders of Kanuri origin.” The Kambarin Beriberi today do not know the etymology of their name, but it is clear that the early Kambari leaders adopted a distinctive name for commercial purposes as well as new facial markings.¹⁹

The first concrete move of D'an Toga and his followers to enter the kola trade was their decision to establish a commercial settlement at the capital of the new Caliphate. An early community at Sifawa, the first headquarters of the Shehu, provided both diplomatic and commercial links which were later consolidated. A few traditions claim that D'an Toga visited Sifawa after the *jihad*, but the Kambari leader primarily stayed at his home. He may have reached an advanced age by 1810 or so, and probably had to delegate authority to his sons. Gainji, the most important son, became the first Kambari *madugu* (caravan leader), and he handled the commercial end of the group's operations. Another son or associate headed the nascent trade community at the Caliphate capital. This man, who is remembered by the name of Hungumi, moved to Sokoto at about the time the Shehu transferred the seat of government to that city. The relationship between Hungumi and Dan Toga is not known, and it is possible that Hungumi and Gamji were the same person. Traditions claim that “Hungumi” meant the “man from Gummi”

in Fulani, but this has not been confirmed linguistically. Hungumi was the head of the Kambarin Beriberi immigrants at Sokoto, and the ward where he settled became known as Hungumawa.²⁰

The creation of Kambarin Beriberi settlements at Sifawa and Sokoto was a crucial decision in the efforts of Dan Toga to secure a position in the long-distance kola trade, for the political and religious capital of the Caliphate expanded rapidly as a market for kola. The location in Sokoto placed them in a position to exploit the growing market, and was a further example of the initiative that the group demonstrated in taking advantage of new developments.

After the Kambarin Beriberi were established at Sokoto, they formed new trade communities at every major market town and urban center in the Hausa heartland of the Sokoto Caliphate. The Kambari never monopolized the kola trade in any town other than Gummi, but the conscious policy of creating communities at Jega, Kano, Katsina, and Zaria assured them of a foothold in the largest markets. Under the direction of the Kambari leadership, small groups of traders left Gummi or Sokoto and settled in the other cities. These later immigrants maintained close connections with their parent communities and served as agents through whom the Kambari expanded their operations. Endogamous marriage arrangements helped link the Kambari communities together, since visiting merchants often stayed with friends and relatives (*yan uwa*). "Yan uwa" literally means "children of the same mother," but the term was applied to close friends as well as kinsmen. The resident Kambari understood local market conditions and provided storage facilities, brokerage services, and accommodation. As landlords (*mai gida*) they received compensation for their assistance, but since transactions occurred between members of the same group, the exchange furthered the prosperity of the Kambarin Beriberi as a whole. This method of commercial expansion took advantage of social links based on the cohesion of the Kambarin Beriberi, and was directly related to the ability of the Kambari leadership to respond to changing demands and opportunities.

Any sustained success in the kola trade required the foundation of a Kambari community at Kano. As the commercial metropolis of the Sokoto Caliphate, Kano was the largest single market for kola and the home of many other merchants. Consequently, by the last decades of the nineteenth century, the Kambari had established four settlements at Kano. The first two dated to the late 1850s, although

Kambarin Beriberi were trading to the city before then. Madugu Sule, the most important Kambari caravan leader in the middle years of the nineteenth century, built a home behind Dalla hill early in the reign of Sarkin Kano Abdullahi (1855-82). The ward in which he stayed took the name Madigawa to signify the place where "the people of the *madugu*, or caravan leader," lived. Other Kambarin Beriberi homes were built in Mararraba, Dalla, and Sabon Sara wards.²¹ All four wards provided landlord and brokerage services to visiting Kambari traders, and by the last several decades of the nineteenth century these wards were the homes of the most prosperous Kambari merchants in the Sokoto Caliphate.

As the center of their activity in Kano, Madigawa Ward succeeded Gummi as the headquarters of the Kambarin Beriberi. The Madigawa inhabitants were predominantly Kambari, and the major caravan leaders all lived there after the 1850s. Its residents were related to the family of Madugu Sule, who was the first in a series of *madugai* (caravan leaders). His son, Umaru Sule, and his grandson, Muhammad, succeeded him as important leaders. Umaru practised *maduganci* in the 1870s and 1880s and perhaps earlier, while Muhammad managed the caravans to Asante in the last years of the overland trade in the 1880s and the first decade of the 1890s. Umaru died around 1910, so that his father, Sule, probably died in the 1870s. Other residents of the ward included the servants, slaves, and relatives of the Sule family.²² The concentration of Kambari leadership in one ward in Kano city maintained the corporate solidarity of the group, which D'an Toga had first promoted.

The succession of *madugai* in the one Kambari family of Sule, Umaru Sule, and Muhammad was the only example in the history of the Hausa kola trade in which *maduganci* was inherited. All other *madugai* achieved their positions because of personal skills. A man had to be a successful merchant, but, more important, the other traders had to recognize the man's leadership potential and promote his candidacy. The considerable prestige associated with the position attracted ambitious men, but not every aspiring merchant could secure the loyalty and trust of the other traders. An over-eager man was not the person to whom the success of a trading venture could be entrusted. Therefore, a *madugu* or potential *madugu* could not appear too willing to accept the responsibility of organizing an expedition, but, at the same time, he had to judge when the moment was ripe to announce a date of departure. The *madugu* consulted *malamai* for the correct time (*sa'a*), but he could not do this unless

he was certain that the largest merchants who travelled with him were ready. Diplomacy mitigated against the emergence of many new leaders: established men maintained the continued support of a following, and aspiring *madugai* only received their opportunity upon the death or retirement of a famous *madugu*.²³

Considering the mode of succession to *maduganci*, the line of *madugai* in the one Kambari family of Sule is striking. The continuation of leadership stretched back even one more generation beyond Sule to Gamji. Sule was Gamji's nephew and the grandson of Dan Toga.²⁴ Apparently Gamji had no sons who qualified to succeed him, or at least they have been forgotten. The chain of *madugai* therefore covered four generations and the whole of the nineteenth century (see genealogy). This continuity reflected the cohesiveness of the Kambarin Beriberi as a commercial group. Leadership was inherited, a by-product of the conscious decision by Dan Toga to weld his immigrant community at Gummi into a corporate commercial unit.

The only other Kambari *madugu*, Mijinyawa Mai Akokari, probably was linked into the genealogy, but the line of transmission remains unknown because members of Mijinyawa's family do not know who the *madugu's* grandfather was. Mijinyawa's father was Muhammad, and both were direct descendants of Dan Toga. Mijinyawa lived at Kano in Dalla ward, a major commercial centre close to Madigawa ward, where many other kola traders and Arab merchants in Kano lived. He practiced *maduganci* at the same time as Madugu Umaru Sule and was closely connected with the Sule family through marriage. It is even possible that Mijinyawa's family was the first Kambari group to settle at Kano. The office of *madugu* did not pass to Mijinyawa's son, for Mijinyawa died prematurely when his son was still a boy. The *madugu* himself was killed around 1887 in Borgu when his caravan was ambushed. His death demonstrated the hazards of long-distance trading and specially the dangers facing a caravan leader.²⁵

The number of Kambarin Beriberi was always relatively small. At no time in the nineteenth century were there more than a dozen principal Kambari traders, who owned more than twenty donkeys and ten slaves each. In the last two decades of the nineteenth century when information is most complete and the Kambari were most numerous, there were no more than six large Kambari merchants in Kano. These men included Malam Ibrahim of Mararraba ward, who may have owned as many as forty donkeys and twenty slaves;

Madugu Umaru Sule of Madigawa ward, who may have been even wealthier than Ibrahim; Muhammadu Mai Danda, another resident of Madigawa ward, who owned more than twenty donkeys and ten slaves; Madugu Mijinyawa Mai Akokari of Dalla ward, who had sixty-two donkeys in his last expedition, and perhaps a few other individuals. Umaru Sule owned a number of farms around Kano City on which were settled upwards of 500 slaves, but this investment was beyond the means of most Kambari. In addition to the wealthy Kambari at Kano, there were probably one or two men in Sokoto and one each in Katsina and Zaria. The traders at Jega and Gummi generally had less capital, although the size of the Gummi community was relatively large.²⁶ A guess for the total number of Kambarin Beriberi operating to the Volta basin in the last two decades of the nineteenth century would place the number of males, including merchants, assistants and slaves, between 250 and 300 persons, while the number of donkeys was probably around 500. If these estimates are roughly correct, the Kambari would have had difficulty forming caravans entirely on their own, especially since Umaru Sule and Mijinyawa each led separate expeditions. Traders from the other commercial groups, however, joined the Kambari caravans and swelled their size. The Kambarin Beriberi, therefore, formed a small but influential percentage of the total number of kola traders.

Partly because of fewer numbers, the Kambarin Beriberi were more closely knit than the other kola merchant groups. Such groups as the Larabawa, Sharifai, and the Beriberi were involved in other trade besides kola, and their social contacts were not exclusively with people involved in the trade to the Volta basin. The two most important kola trading groups, the closely related Agalawa and Tokarawa, were widely scattered throughout rural Kano and neighboring parts of Katsina and Zaria Emirates. Although these two groups shared similar origins, neither traced its *asali* to a single ancestor or specific point of dispersion. Nor have they maintained developed traditions beyond the brief explanation of their servile origins and emigration from the north. The Agalawa and Tokarawa intermarried and cooperated in their commercial activities, but their social structure was relatively diffused. The Kambarin Beriberi on the other hand recounted more detailed stories of their past and their relationship to the *jihad*. There were comparable variants in Kano, Gummi, Jega, Sokoto and Katsina, although some accounts included information lacking in other traditions. The uniform nature of Kambari testimonies, in contrast to those of the Agalawa

and Tokarawa, reflected the tighter social structure of the Kambarin Beriberi. They identified with a single founder, D'an Toga, and with a common town of origin at Gummi. Unlike the Agalawa and Tokarawa, the Kambari traced their social and commercial leadership through direct kinship ties to an ancestor. All the Kambari *madugai* were related to Dan Toga, while *maduganci* among the other two major kola trading groups was open to personal achievement and individual initiative. Economic advancement for the Kambari was associated with the maintenance of more compact social ties within the group and with the commercial leadership of the agnatic descendants of Dan Toga. The conscious decision by Dan Toga to establish close economic and social links determined the policy of the Kambarin Beriberi for the whole of the nineteenth century.

The cohesiveness of the Kambarin Beriberi permitted the group to concentrate its resources on the demand for kola in the cities of the Sokoto Caliphate. This urban orientation of most Kambarin Beriberi stood in marked contrast to the rural concentration and origins of the Agalawa and Tokarawa. Most of the wealthy Agalawa and Tokarawa were located in Kano City, but they maintained close connections with the great number of kin who lived in the countryside. The Agalawa of Kano City married their rural cousins and established farms and slave villages away from the city. In contrast, every Kambari community, except the hometown of Gummi, was in a major city or market-town. Nowhere did the Kambari found extensive farming villages, nor did they cater for the relatively minor rural demand for kola. Their activities were confined to the web of cities stretching from Jega to Sokoto, Zaria, Katsina and Kano.

The commercial success of the Kambarin Beriberi raised their status in Hausa society. Individuals were able to purchase luxury goods, build large homes, and attract and buy many dependants from the proceeds of their labors. One man at Gummi noted that only the Kambarin Beriberi wore the flowing gowns and long trousers characteristic of Hausa Muslims in the nineteenth century, for none of the other townsmen could afford this clothing. In the cities of the Caliphate, this observation did not apply, but the urban Kambari were a part of the relatively prosperous commercial elites of the cities. As such, their standard of living was greater, and they received the respect that most Hausa reserved for the wealthy. The Kambari also transferred their success into higher status by a close association with the Sokoto aristocracy. They studied under respected clerics and scholars, and, while no Kambari became

a famous *malam*, the group did increase its prestige through the presentation of alms to Muslim leaders. The identification with the Sokoto politico-religious hierarchy has been so close that it has lasted until the present. Most kola traders today have accepted the *wird* of the Tijaniyya, but the Kambari in Kano and elsewhere continue to be associated with the Qadiriyya of the Sokoto aristocracy.²⁷

In general, however, the Kambarin Beriberi reinvested most of their profits. The Kambari say of themselves "*Na Toga ba su da gwaino*," a proverbial statement which means that the people of D'an Toga are not happy unless they have 1,000 kola nuts. Rival merchants point to the saying as proof of the parsimonious nature of the Kambarin Beriberi, but the Kambari proudly note that only through careful management and savings can capital be accumulated. As such, the praise-name accurately reflects the struggles of the group to achieve a prosperous position within Hausa society.²⁸

The continued importance of the Kambarin Beriberi in the kola trade demonstrates the cohesiveness of the group and its ability to maintain its position within the trade in spite of the many changes that have occurred in kola marketing over the past seventy years. In 1970, Kambarin Beriberi constituted 10.7 per cent of the kola wholesalers in Kano City, and it is doubtful whether they have ever exceeded this amount. Nevertheless, the twelve largest Kambari wholesalers own sixty lorries, an indication of the capital, which they command, and these sixty lorries represent 22.2 per cent of all trucks owned by kola traders at Kano. Since there are only twenty-one Kambari wholesalers in the city, over half of their numbers own lorries. This percentage exceeds that of any other group of Kano wholesalers.²⁹

By the 1960s, individual traders acted without reference to the Kambari as a group, but their position in the trade was still a direct outgrowth of their previous unity. The initial decision of Dan Toga to enter the kola trade and the continued cooperation of his descendants and dependants enabled the Kambarin Beriberi to take advantage of commercial opportunities continuously for almost two hundred years. Instead of remaining poor immigrants in an unimportant Hausa town, the group exploited economic opportunities, and many individuals became prosperous urban residents. Kambari history reflects both the ability of an immigrant community to accommodate itself to Hausa society and the impor-

tance of personal and group initiative in the economic history of the nineteenth-century Sokoto Caliphate.

The origins of the Kambarin Beriberi and their conscious development of a corporate identity provide a valuable insight into the emergence of a Muslim mercantile class in the northern savanna region of Africa. Theoretical studies by Abner Cohen and others have drawn attention to the maintenance of economic and social diasporas which have permitted the creation of commercial monopolies, but the explanation that these diasporas have been "ethnic" organizations has obscured a fundamental feature of their historical development. Not all Hausa have participated in the kola trade, nor have the majority of professional merchants resided along the commercial avenues outside of the Hausa homeland. As the case of the Kambarin Beriberi well documents, the origins of many traders who became identified as Hausa were as immigrants from other parts of Africa, and any understanding of the formation of commercial diasporas must consider the possible distinction between the various components of a trading system. Only then can a fuller understanding of the interaction between the different commercial segments be reached. The diasporas which Cohen has documented for the Hausa, and which others have analyzed for the several Mande networks, represent but one level of commercial cooperation in the continental trade patterns of Africa. The fusion of such disparate groups as the Kambarin Beriberi and other Hausa merchants into a confederation of traders with common interests remains an important aspect of commercial development.

Notes

1. Reprinted from *Journal of African History*, xiv, 4 (1973), 633-51. An earlier draft of this paper was presented at the University of Ghana conference on Innovation in African Economic History, Legon, Ghana, December 14-20, 1971.
2. Abner Cohen, *Custom and Politics in Urban Africa. A Study of Hausa Migrants in Yoruba Towns* (London, 1969); Ivor Wilks, "The Transmission of Islamic Learning in the Western Sudan," in J. R. Goody (ed.), *Literacy in Traditional Societies* (Cambridge, 1968), 162-97; and Claude Meillassoux (ed.), *The Development of Indigenous Trade and Markets in West Africa* (London, 1971), see especially Meillassoux, "Introduction," 49-86; Michel Izard, "Les Yarse et le commerce dans le Yatenga pré-colonial," 214-27; Philip D. Curtin, "Pre-colonial Trading Networks and Traders: The Diakhanke," 228-38; Jean-Louis Boutillier, "La

cité marchande de Bouna dans l'ensemble économique Ouest-Africain pré-colonial," 240-63; and Jean-Loup Amselle, "Parenté et commerce chez les Kooroko," 253-63. Also see Paul E. Lovejoy, "Long-Distance Trade and Islam; The Case of the Nineteenth Century Hausa Kola Trade," *Journal of the Historical Society of Nigeria*, V, 4 (1971), 537-47; M. Abir, "Southern Ethiopia," in Richard Gray and David Birmingham (eds.), *Pre-Colonial African Trade* (London, 1970), 120-37; and Lars Sundstrom, *The Trade of Guinea* (Uppsala, 1965), 45-50.

3. Abner Cohen, "Cultural Strategies in the Organization of Trading Diasporas," in Meillassoux, *Trade and Markets in West Africa*, 266. The term "blueprint" is Cohen's.
4. Wilks, "Islamic Learning," 162-97; and Cohen, *Custom and Politics*, 161-80.
5. Lovejoy, "Long-Distance Trade and Islam," 537-47; and Cohen, "Cultural Strategies," 271.
6. For the Muslim immigrants at Kano in the fifteenth century, see Muhammad A. Al-Hajj, "A Seventeenth Century Chronicle on the Origins and Missionary Activities of the Wangarawa," *Kano Studies*, I, 4 (1968), 8-16; and Paul E. Lovejoy, "Notes on the Wangarawa Chronicle," *Kano Studies*. For Yauri and Kebbi, see Mahdi Adamu, *A Hausa Government in Decline: Yawuri in the Nineteenth Century* (M.A. thesis, unpublished, Ahmadu Bello University, 1968), 47, 57-58; and Muhammad Bello Alkali, *A Hausa Community in Crisis: Kebbi in the Nineteenth Century* (M.A. thesis, unpublished, Ahmadu Bello University, 1969), Chapter I.
7. See "Kano Chronicle" in H. R. Palmer, *Sudanese Memoirs* (Lagos, 1928), III, 108-10. Other examples of Borno immigrants in the Hausa country include an immigrant community at Dallol Maouri (M. Chatelain, "Traditions relatives à l'établissement des Bournouans dans le Dallol Maouri et le pays Djerma," *Bulletin du comité d'études historiques et scientifiques de l'Afrique Occidentale Française* [1917], 358, 361), and the Burmawa of Sokoto claim Kanuri origins (H.A.S. Johnston, *A Selection of Hausa Stories* [London, 1966], 14).
8. A distinction should be made between the residents of the towns along the trade routes and the professional traders from the Sokoto Caliphate. See Lovejoy, "Long Distance Trade and Islam," 537-47.
9. The oral data from which most of this paper is drawn are on deposit at the Northern Nigerian Research Scheme, Ahmadu Bello University, and at the Harriet Tubman Resource Centre on the African Diaspora, York University. The principal accounts of Kambari history are the testimonies of Malam Basharu na Malam, aged 80, interviewed at Gummi on 7 March, 1970 (tapes 20, 21); Malam Umaru Musa, aged 76, interviewed at Gummi on 8 March, 1970 (tape 21); Alhaji Audu Ba'are, aged 100, interviewed at Kano on 1 Jan., 1970 and 18 Jan., 1970

- tapes 9, 12); Alhaji Bak'o Madigawa, aged 82, interviewed at Kano on 1 Dec. and 7 Dec., 1969 and 17 Jan and 18 Jan., 1970 (tapes No. 6 and 12); Malam Muhammadu D'an Turmi, aged 60, interviewed at Sokoto on 22 Feb., 1970 (tape 18); Malam Muhammadu and Malama Hauwa, aged 54 and over 80 respectively, interviewed at Kalgo on 27 Feb., 1970 (tapes 19, 20); Malam Muhammadu D'an Amarya, aged 78, interviewed at Gummi on 5 Mar., 1970 (tape 18); Malam Sa'idu, aged 78, interviewed at Sokoto on 22 Feb., 1970 (tape 18); and Marasa Ulu, aged 55, interviewed at Sokoto on 22 Feb., 1970 (tape 18). All ages are in Muslim years.
10. List of Mais of Borno down to A.D. 1808 with approximate dates, in Palmer, *Sudanese Memoirs*, III, 45. For the Kambari traditions, see the accounts of Malam Basharu na Mahu (tapes 20, 21); and Malam Umaru Musa (tape 21); Alhaji Bak'o Madigawa (tape No. 6). Also see S. Lucas, "Mr Lucas' Communications," *Proceedings of the Association for Promoting the Discovery of the Interior Parts of Africa* (Robin Hallet, ed.), (London, 1967), 153.
 11. Malam Basharu na Mahu stated that D'an Toga had 200 slaves (tape No. 20). He accounted for the movement of the immigrants into Gummi because of the danger of attack from a nearby town, Birnin Tudu. Malam Musa Umaru stated that Waru wanted to build up Gummi because the town was so small (tape 21). Malam Muhammadu Dan Amarya also stated that Waru wanted to increase the population of Gummi town. Dan Amarya said that Dan Toga had "many people" with him, and they stayed at Kali for three years (tape 20). Also see the account of Malam Audu Lamu, aged 42, interviewed at Gummi on 5 March, 1970 (tape 20).
 12. For the history of Gummi, see T.G. Harris, *Sokoto Provincial Gazetteer* (Kaduna, typescript, 1938), 129, 142, 314, 316, 318-19. Also see H. S. Edwardes, *Assessment Report*, Gummi District, Sokoto Province, Nigerian National Archives, Kaduna (NAK), SNP 10/5, 542p/1917; Kurt Krieger, *Geschichte von Zamfara, Sokoto-Provinz, Nordnigeria* (Berlin, 1959), 92-93; and personal communication from Malam Muhammad Bello Alkali, 23 Feb., 1970.
 13. Malam Bashru na Mahu and Malam Umaru Musa (tapes 20, 21). Also see Alkali, *Kebbi*, 139; A. Mischlich and J. Lippert, "Beitrage zur Geschichte der Haussastaaten," *Mittheilungen des Seminars für Orientalische Sprachen*, vi (1903), 210-11; Murray Last, *The Sokoto Caliphate* (London, 1967), 14-15.
 14. *Ribats* were built along the Kebbi frontier in 1821, and Jega was one of these. This policy stabilized the region. Sokoto was initially the site of Muhammad Bello's camp and only later became a capital. For the events of the *jihad*, see Alkali, *Kebbi*, 156-68, 169, 173; Last, *Sokoto*

- Caliphate, 23-40; and H.A.S. Johnston, *The Fulani Empire of Sokoto* (London, 1967), 47-59.
15. See Lovejoy, *Caravans of Kola*.
16. Alhaji Audu Ba'are (tape 9); Alhaji Bak'o Madigawa (tape 6). Also see Sule Ilorin, *Tarihin Goro* (Zaria, 1958), 2; and Lovejoy, *Caravans of Kola*.
17. Alhaji Audu Ba'are (tape 12); Alhaji Bak'o Madigawa (tape 6); and Malam Musa Umaru (tape 21).
18. Heinrich Barth, *Collection of Vocabularies of Central African Languages* (Gotha, 1862-6), 240-11; P. A. Benton, *The Languages and Peoples of Bornu* (London, 1968), II, 98. Johannes Lukas, *A Study of the Kanuri Language* (London, 1937), 217. The Yoruba and Bariba of Borgu call the Hausa *gambari*, probably because the first Hausa they knew were traders. A relationship between the Kanuri term *kombali* and the Yoruba *gambari* seems possible. For the word *gambari*, see Harold D. Gunn and F. P. Conant, *Peoples of the Middle Niger Region, Northern Nigeria*, 21 (London, 1960); Paul Marty, *Etudes sur l'Islam au Dahomey, Le Bas Dahomey – Le Haut Dahomey* (Paris, 1926), 179. It should also be noted that Gambarawa is a ward in Katsina City and appears to have been a centre of foreign trade since before the *jihād*. The significance of the ward's name has yet to be explored.
19. The Kambarin Beriberi were not related to the non-Muslim Kambari people who lived between Kontagora and Yauri to the south of the Zamfara River Valley. The Kambarin Beriberi point to their relatively recent arrival at Gummi, the incorporation of "Beriberi" in their *asali*, and their facial markings as proof of the distinction. Alhaji Audu Ba'are (tape 12) tried to explain the similarity in names through the assertion that his ancestors and the Kambari people of Yauri were both of Borno origin but that the Yauri Kambari abandoned Islam and such alleged attributes of Muslim civilization as clothing when they settled to the south of the Zamfara River. This explanation cannot be accepted as anything more than an attempt to rationalize the existence of similar names. For a discussion of the Kambari of Yauri and Kontagora, see Gunn and Conant, *Middle Niger Region*, 21-29. The authors note "The exact relationship between the names Kambari and 'Kambari(n) Beriberi,' and that between the peoples so termed, is not known precisely. The latter term is generally applied to peoples widely scattered, but generally in the Niger and Benue Valleys, who emigrated from Borno somewhat over a century ago...." (p. 21). Gunn and Conant further note that another group of people in Lafia Emirate, in Benue Plateau State 50 miles north of the Benue, called themselves Kambari Beriberi. There does not seem to be any connection with the Kambarin Beriberi of Gummi (p. 113). O. Temple and C.L. Temple (eds.), *Notes of the Tribes, Provinces, Emirates, and*

- States of the Northern Provinces of Nigeria* (London, 1922, 1965), 199, 218, also accept the distinction between the Kambari of Yauri and Kontagora and the Kambarin Beriberi. One of these accounts is based on a tradition collected by E.J. Arnett. Also see Mahdi Adamu, *Yawuri in the Nineteenth Century*, 31-35; and A.B. Matthews, "Anthropological and Historical Report on Kamberri" NAK, SNP, 17/8, K. 2105. Matthews also accepted the distinction between the Kambarin Beriberi of Gummi and the Kambari of Yauri. For an account of the Kambari of Yauri in 1830, see Richard and John Lander, *Journal of an Expedition to Explore the Course and Termination of the Niger* (New York, 1858), I, 299. Another tradition collected earlier in the century claimed that "kambari" was an archaic Hausa word meaning "partly" or "half," so that the *asali* Kambarin Beriberi indicated people who were partly of Beriberi origin. The tradition is from H.R. Palmer, *The Bornu Sahara and Sudan* (London, 1936), 108-10, and it may represent nothing more than his own speculations: "There is another class of people in the regions which extend as far west as Sokoto, called Tozer, or Tozamawa, who further east are called Tazar...who originally worked the salt, called mangul.... Later, when they began to spread west to Katsina, their chief was a Bornu [man].... During the time when the Katsina kingdom was powerful ... the Tazar spread greatly and became the chief agents in the trade to Gwanja (Gold Coast) [sic]. As they settled down and intermarried with the Katsinawa and other Hausa peoples they acquired the name Kam-bari, i.e. persons of partly Bari-Bari (Kanuri) descent. Trade to the west was so entirely in their hands that Kambari (Gambari) [sic] in the west came to mean 'Hausa'." The possible connexion with *mangul* salt miners bears further investigation, but many of Palmer's conclusions and suggestions cannot be considered seriously. Palmer's dating for the movement of the Gummi immigrants is too early, while the Kambarin Beriberi were never so numerous for their name to be adopted by the Bariba and Yoruba as a general term for all Hausa. Nor did the Kambarin Beriberi play such a major early role in the development of trade to Gonja and Asante.
20. For Gamji, see the accounts of Alhaji Bak'o Madigawa (tapes 6, 12); Malam Audu Lamu (tape 20); and Malam Umaru Musa (tape 21). On Hungumi, see Malam Basharu na Mahu (tape 21); Marafa Ulu, Hakimin Hungumawa, who is Fulani, claimed Hungumi meant the "man from Gummi" (tape 18). Malam Muhammadu D'an Turmi (tape No. 18) claimed Hungumi was a *madugu*, hence the possibility that Garoji and Hungumi were the same person.
 21. Accounts of Alhaji Audu Ba'are (tapes 9 and 12); Malam Bawa, aged 70, interviewed at Kano on 2 1 Jan., 1970 (tape 12) and Mai Unguwar Mararraba Ibrahim (tapes 9, 12). For the Kambarin Beriberi in Sabon Sara ward, see account of Alhaji Garba, aged 67, interviewed at Kano on 2 1 Jan., 1970 (tape 13). The Kambarin Beriberi in Sabon Sara ward

belonged to the family of Malam Bawa, but Alhaji Garba was unable to provide much information on the family. Alhaji Bak'o Madigawa (tape No. 12); and also Alhaji Audu Ba'are (tape 12) could not explain the way (*hanya*) the Sabon Sara Kambari came to Kano, except that all Kambarin Beriberi ultimately came from Gummi. For the Katsina Kambari, see the account of Malama Zainabu, aged about 80, and who was born in Katsina, interviewed at Katsina on 3 Feb., 1970 (tape 16). Also see the accounts of Malama Mairamu and Malam Sule (tape 16), interviewed at Katsina on 5 Feb., 1970. Malama Mairamu was born around 1882 in Borno while her father was on an expedition. Her father and uncle were the first to settle in Katsina. Her grandfather, Auta Mai Gari, is remembered as being an important trader who lived at Gummi, and who sent her father to live in Katsina. Malama Mairamu also knew the name of her great-grandfather. It was Usman, and he lived at Gummi as well. When they came to Katsina, they brought a letter from the sultan of Sokoto instructing the Sarkin Katsina to build them a house. Also see the account of the elderly Malama A'isa, whose father and grandfather lived in Katsina. She was interviewed at Katsina on 5 Jan. 1970 (tape 11). Malam Muhammad Maikaka, aged 75, recounted the story of another Kambari family at Katsina. The family had come from Gummi as well (tape 11). For Zaria, see the accounts of Alhaji Isa Madigawa (tape No. 9); Alhaji Bak'o Madigawa (tape 12).

22. The main accounts for the Madigawa Kambari are those of Alhaji Bak'o Madigawa, Alhaji Ma'azu, and Alhaji Sule (tapes 6, 12). Also see Alhaji Isa Madigawa (tape 9).
23. For a complete discussion of *maduganci*, see Lovejoy, *Caravans of Kola*.
24. Alhaji Bak'o Madigawa (tapes No. 6 and 22); Malam Audu Lamu (tape 20); and Malam Umaru Musa (tape 21).
25. See account of Malam Muhammadu na Kalgo, whose father married Mijinyawa's daughter. The chief sources, however, were Malam Muhammadu Mijinyawa and his mother, Malama Hauwa (tapes 19, 20). Malama Hauwa was married to one of Mijinyawa's sons and knew the *madugu's* widows. She is related to the Kambari of Madigawa ward in Kano, and she stated that at least two of Mijinyawa's sons married daughters of the Madigawa Kambari. For the possible connexion between Mijinyawa and D'an Toga, see the manuscripts concerning the destruction of Mijinyawa's caravan in Borgu, in M. Heepe, "Gottlob Adolf Krauses Haussa-Handschriften in der Preussischen Staatsbibliothek, Berlin," *Mitteilungen des Seminars für Orientalischen Sprachen*, xxxi, 1928, xliii-xliv. The manuscript begins "Mijinyawa baban d'an D'an Toga ne," or "Mijinyawa was the big [i.e., important] son of Dan Toga." This implies a direct genealogi-

cal connection with D'an Toga, although Mijinyawa could not have been a son of the Kambari founder. Since Mijinyawa was a contemporary of Madugu Umaru Sule of Kano, Mijinyawa could have been the great-grandson of D'an Toga. For another account of the death of Mijinyawa, see "Labarin Madugu Mijinyawa-maiakokari, da Madugai Duka," in Frank Edgar (ed.), *Litafi na Tatsuniyoyi na Hausa* (Lagos, 1924), I, 239-41.

26. All these people were in close personal as well as commercial contact. Three examples demonstrate this. Both Alhaji Gago, aged 72, and his father were born in Hungumawa ward at Sokoto, but Gago's grandfather was born in Madigawa. ward in Kano (interviewed in Sokoto on 22 Feb., 1970, tape 18). Malam Basharu na Mahu of Gummi was born in Sokoto in Hungumawa ward, and his family stayed with the Kambari of Mararraba ward in Kano when they traveled to that city (tapes 20, 21). Malam Audu Lamu, aged 42, was born in Gummi along with his father, but the family had a house in Mararraba ward in Kano (tape 20). Marriage ties also linked the various communities together. Audu Lamu was related to Madugu Umaru Sule of Madigawa ward, since the madugu was his mother's grandfather. These kinds of marriage connections could be cited indefinitely. For Mijinyawa's donkeys, see Krause manuscript, xliii.
27. Malam Umaru Musa noted that the Kambari even wore *alkyabba*, a type of expensive gown, which only the aristocracy could afford (tape 21).
28. Alhaji Bak'o Madigawa (tape 6) and Malam Audu Lamu (tape 20).
29. The average was five lorries per Kambari owner, a figure which was higher than the average for any other group. The breakdown on lorry ownership for the Kambarin Beriberi was as follows: two individuals owned one lorry each, three individuals owned two lorries each, one individual owned three lorries, two individuals owned five lorries each, two individuals owned six lorries each, one individual owned ten lorries, one individual owned sixteen lorries. The only other group where close to half its members owned at least one lorry was the Agalawa. Twenty-six of fifty-three Agalawa owned a total of 105 lorries, an average of four each. These figures revise the preliminary findings published in Lovejoy, "The Wholesale Kola Trade of Kano," *African Urban Notes*, V, 2 (1970), 139. The statistics are based on a survey of 196 kola wholesalers at Ujili, the wholesale kola market at Kano, during March and April 1970.

8 | *GRADATIONS IN SERVILITY AT THE DESERT EDGE*

Tuareg social institutions were characterized by gradations of status.¹ At one end of the scale were slaves with little freedom, and at the other, a class of aristocratic leaders with nearly exclusive control of wealth and power. In the Central Sudan, the Tuareg were primarily pastoral nomads, but their economy straddled the ecological frontier at the southern edge of the Sahara, and they invested in many aspects of trade and production throughout the region. In order to understand the functions of social stratification in this environment, it is useful to view the Tuareg network as a whole and to examine the interaction between desert and savanna, an interaction that cut across ethnic boundaries. Expansion and contraction of economy and society at the desert edge were tied to shifts in climate, and to a lesser extent to political disturbances and warfare, both of which disrupted the fragile balance between nature and human activities in the arid lands. By examining the northern, nomadic sector of the desert-side economy in the context of the larger economic region of which it was a part, it is possible to isolate some crucial dynamics of the multi-tiered social system.

The chronology of droughts has been presented in Chapter 2, and can be summarized briefly. A seven-year drought hit Borno in the middle of the sixteenth century, an eleven-year famine in Kano in the seventeenth century may have been related to drought, and a seven-year famine in Borno in the turn of the eighteenth century may also have been. The dates of these crises are tentative, since chronology based on reign lengths remains to be worked out, but the impact on the desert edge was probably dramatic. Information on the eighteenth and nineteenth centuries is more complete. Another seven-year drought hit Borno between 1690 and 1720, but it is not reported in the Hausa country, although it could have coincided with the famine among the Tuareg in the late 1690s. The major

development of the eighteenth century was the drought of the 1740s and early 1750s, which struck all of West Africa. Another drought occurred in the 1790s, and although it was not as devastating as the great drought of mid-century, it did force the evacuation of Agadez, caused the depletion of grain stores at Kano, and is probably to be identified with a drought that hit Borno within the decade after 1793. The nineteenth century is remarkable for the absence of any prolonged droughts, and only one severe drought of a single year's duration, that of 1855, is reported. Years of localized shortages or inadequate rainfall are reported occasionally in the period 1860-90, but severe famine occurred again only after the turn of the twentieth century, when a worsening climate, exacerbated by colonial demands, culminated in the drought of 1913-14.

These climatic cycles were among the chief determinants of economic fluctuations and population shifts on the desert edge of the Central Sudan. Droughts, especially those lasting several years, set limits on the growth of the desert-side sector, which was always more severely affected, since rainfall, even in good years, was marginal. Risks of drought increased the attractiveness of the southern edge of the desert, and this factor helps account for the present distribution of the Tuareg, over 90 per cent of whom are concentrated along the sahel.² Since the desert economy could not grow beyond a certain point, the forging of close links between desert and savanna was inevitable. The integration of the desert-edge sector into a larger economy permitted people to survive periodic droughts and to recoup their fortunes in good times.

Desert and savanna were bound together by commerce, for the Tuareg secured a living from the harsh desert environment through specialization in animal husbandry, trade, and transport.³ Although their mobility and skill in warfare enabled them to dominate the relatively fertile areas of the sahel, they also relied on trade in their relations with both sahel and savanna. For the Tuareg of the Massif, Adar, Azaouak, and Damergou, this meant the areas centering on the Hausa states. These Tuareg could live on milk from their animals for extended periods of time, but they required grain to supplement their diet. Millet consumption averaged as much as 150 kg per person per year, a quantity much larger than could be supplied by the scattered and highly unreliable grain production of the Air or desert oases.⁴ The concentration of Tuareg along the southern fringes of the desert placed most of them in close proxim-

ity to farming villages and savanna markets, where they bought millet, clothing, other manufactures, kola nuts, and tobacco.

The income needed to purchase grain and manufactures was largely derived from the sale of animals (goats, sheep, camels, cattle, and horses), through the provision of services dependent on livestock production, and through involvement in the grain, date, and salt trade.⁵ The requirements of the herds set limits on Tuareg settlement and economic activity, and the pattern that predominated was of seasonal transhumance that provided a framework not only for animal husbandry but for trade as well.⁶ During July and August, when some rain fell in the southern desert, herders took their animals to areas with the best pastures. Rainfall in the Aïr Massif was greater than in the surrounding regions, so that pastures there held up long enough for a large contingent of the Aïr Tuareg, as well as others from the south and west, to make an annual trek across the arid Ténéré in late October and November to Bilma and Fachi oases, where they purchased salt and dates and sold grain. Profits from this trade, together with earnings gained from services given to trans-Saharan, were important supplements to Tuareg income. In December, after the return of the salt caravan, most Aïr Tuareg left for the south, selling salt, dates, and animals along the way, and pasturing animals being bred. The Tuareg of Adar and Azaouak, areas west of the Aïr Massif, also moved south during the dry season, although they were less involved in the salt trade. Some people moved as far south as Sokoto, Kano, and Katsina, although many others used pastures slightly farther north, just within the territory of the sedentary states along the desert edge. In June, when the rains began again, they left for the north, since the excessive dampness of the savanna at this time of the year endangered the health of the camels, and the return of land to cultivation hindered the free movements of herders.

One of the principal north-south corridors of trade and transhumance in the nineteenth century extended from Agadez through Damergou and Damagaram, and ended at Kano. The Kel Ewey confederation ("Kel Owi" in many sources) dominated this route, and its members invested considerable capital in trade and production along the corridor. Sections of the Kel Gress confederation dominated the route that began at Teguidda n'tesemt in the Azaouak, extended south through Adar, and ended in the western Hausa cities.⁷ But not all Tuareg in the Aïr, Azaouak, and Adar were as fully or directly involved in the economy of the savanna. The

Kel Ferwan and Kel Fadai, for example, seem to have concentrated almost entirely on animal husbandry and had few direct contacts with their sedentary neighbors. They bought grain and other goods at Azadez and other northern market towns and rarely traveled into the savanna, but their animals were often exported south by livestock dealers from the savanna or sahel. Such purely nomadic Tuareg, specializing almost entirely in livestock, were less numerous than the Kel Ewey and Kel Gress, and they were less wealthy and not as powerful. But even these people had to participate to some extent in the pattern of trade and transhumance described for the Kel Ewey and Kel Gress. Otherwise, they could not have satisfied their requirements for grain and manufactures.

The Tuareg, particularly the Kel Ewey, Kel Gress, and their associates, maintained an elaborate commercial infrastructure in the savanna to handle their business, and they invested heavily in real estate, slave labor, grain production, and such other opportunities as presented themselves.⁸ All savanna towns had immigrants from the north who provided accommodation, brokerage, banking, and storage facilities for Tuareg merchants. These communities, which included craftsmen and other immigrants, formed the core of a commercial diaspora similar to other networks in West Africa.⁹ Such communities were located not only in the major urban centers of Kano, Katsina, Sokoto, and Zinder, but also in lesser towns such as Bichi, twenty miles northwest of Kano, which developed as a commercial center primarily because of its proximity to dry-season campgrounds and pastures. Similar communities existed at Zirmi in Zamfara emirate, in the Sokoto area, and elsewhere. The town of Kura, twenty miles south of Kano, became a major textile center, largely because it catered for Tuareg demand for turbans, veils, and other dark blue textiles.¹⁰ As in Bichi and other towns, the population of Kura included many northern immigrants.¹¹ In many instances, Tuareg merchants financed leather workers and other craftsmen by providing the raw materials needed for production.

The Tuareg also invested in farming estates throughout Katsina and Kano emirates and in the sahel, including Damagaram, Maradi, southern Adar, and Tessaoua.¹² These estates paid tribute in grain, which supplemented millet obtained from trade and other investments. More importantly, the sedentary communities provided a safety valve for nomads in times of scarcity. These dependent communities were bound to accommodate their patrons, and the estates along the north-south corridors of trade and transhumance

provided resting places for the wealthy in good times and places of retreat in bad times.

An examination of the Tuareg economy within its wider regional context demonstrates the diversity of Tuareg activity, the complete disregard of ethnic boundaries for investment purposes, and the close integration of Tuareg society and economy with the savanna. The Tuareg protected their ecological niche in the north by maintaining a monopoly of camel transport and by their military might; but from this position on the frontiers of the Central Sudan they became an important source of capital and trained personnel for the region as a whole. This not only contributed to the general prosperity but also offered insurance to the nomads in times of scarcity.

This far-flung system enabled the Tuareg to adjust to changing economic and climatic conditions. When the sahel received adequate rainfall, income from animal husbandry and trade could support a large population. In good times, the exploitation of the desert economy required the services of many herders, guides to accompany caravans, and farmers to till the soil on the desert-edge and savanna estates. Herding in particular was labor intensive, since camels, cattle, sheep goats, and horses had different pasture and water requirements, and consequently the Tuareg often divided their herds among followers who went in several directions. But when rainfall was inadequate, the large number of personnel became superfluous. The desert was suddenly unable to support its population, and competition over resources became acute. During a severe drought of several years, most Tuareg had to flee the desert for the savanna, where the effects of deficient rainfall were less pronounced. However, a hierarchical system of access to resources assured the survival of the system in bad times and its regeneration when climatic conditions improved. Indeed, Tuareg social stratification guaranteed that the power to make economic decisions remained in the hands of a few.

Political power in this desert society was fragmented. At the lowest level was the camp, which consisted of not more than five or six families of four or five members each, along with their dependents. There were perhaps half as many dependents as free Tuareg. The next largest grouping was the section, or *tawchitt*, which might include as few as two or three or as many as ten or twenty camps. Male household heads of the noble clan of the section chose chiefs from the members of their own clan, but the election was usually

confirmed by all the component clans of the section, since tenure as chief depended on the willingness of all free members of the section to pay a small tribute to the chief each year.¹³ At the next highest level was the drum group, or confederation, a group of sections recognizing a common leader. At the turn of the twentieth century, confederations numbered as many as ten thousand people in the case of the Kel Ewey, or as few as two or three thousand in the case of the Kel Fadai.¹⁴ Together the noble clans of the confederations of the Aïr Tuareg elected the *amenokal*, or sultan, of Agadez, but this leader had no control over the people nominally under his command. His chief function was to conduct peaceful relations with outsiders or to lead expeditions against enemies, and in this respect his position resembled that of chiefs of confederations and sections. In this segmentary society, no leader had power over his followers solely by virtue of a position in the political hierarchy.

Wealth was enough to guarantee influence. Nobles (in Tamashek, *amajer*, pl. *imajeren*) in effect acted as managers of large firms and controlled most resources, although they constituted less than 10 per cent of the nomadic population. They alone decided on war and peace; from their ranks came the political leaders; and they were the main patrons of Muslim clerics.¹⁵ Indeed, the Tamashek language served as a specialized tongue of this elite and its immediate dependents, so that the nomadic sector of the desert-edge economy was kept distinct from the larger region and maintained its monopoly over resources.

The careers of several important nineteenth-century Tuareg merchants and financiers illustrate the power of the noble class. Two brothers, Annur and Elaiji, dominated Kel Ewey operations in the 1840s and 1850s. Annur was the most influential leader and in effect the titular head of the Kel Ewey confederation, while Elaiji ran the annual caravans to Bilma and Fachi. Between them they controlled thousands of camels, and owned estates at Kazaure, Gezawa, Zinder, Tessaoua, and in Damergou and Aïr. In the 1870s and 1880s, Alhaji Bilhou became preeminent among the Kel Ewey.¹⁶ He financed merchants trading to Adamawa, controlled the movements of numerous nomadic dependents, and received tribute from sedentary villages, particularly in Damergou. A distant relative of his, who was a native of Ghât, in the northern Sahara, acted as his agent in Kano. Another wealthy man was Muhammad Boro from Adar, who received the title Sarkin Turawa in recognition of his importance in the Kel Gress and Itesan caravan trade to Bilma in

the 1840s and 1850s; in this capacity, Boro received a percentage of each camel load, a source of capital which financed other investments in the savanna and sahel. Even deposed sultans of Agadez, where political leadership changed frequently in response to shifts in the balance of power among the Tuareg sections, operated extensive commercial networks of their own. One man in the 1850s, for example, maintained commercial outlets in Sokoto, Agadez, Zinder, Kano, and Katsina.¹⁷ These are the best-known examples of Tuareg nobles and other important northerners who were involved in stock breeding, transport, trade, grain production on servile estates and villages, craft financing, and commercial brokerage. In other cases, however, individuals did not stand out so prominently, for many Tuareg sections also acted as corporations, in which investments were managed collectively, though even here wealthy men could emerge.¹⁸

Thus, within the north-south corridors of their confederations and spilling over in the savanna, Tuareg nobles, individually and as corporations, controlled large networks of resources and people in varying degrees of servility and dependence. Below the aristocracy were various dependents, including agents, tenant farmers, herders who worked on contract, and slaves. The status of each of these depended on the position in the larger desert-edge system, and each was attached to a specific noble or noble section. Dependents, whether slave or not, had varying degrees of freedom; they could be attached to a noble camp directly or they could nomadize in separate sections of their own. All these factors influenced the types of servility found among the Tuareg.

The assimilation of outsiders in Tuareg society took several forms. Tuareg took captives when they participated in wars between sedentary states, or during raids on sedentary people. Kel Ewey captives were often exchanged for those of the Kel Gress; by doing this, the Tuareg reduced the necessity of keeping a close watch on newly acquired slaves, who found themselves not only in an unfamiliar environment but also several hundred km from the north-south transhumance corridor that led to their former homes.¹⁹ Once acquired, slaves became fully assimilated into Tuareg society, and their status began to evolve. Inter-marriage between Tuareg men and servile women helped this process. The presence of many darker-skinned Tuareg in all social categories, especially among the Kel Ewey and Kel Gress, confederations with strong ties to the Sudan,

suggests the historical importance of recruitment from the people of the savanna.

At the bottom of the status hierarchy were slaves called *iklan* (sing. *akli*); these were the newly purchased or captured people. Some were attached directly to their masters and accompanied him on his travels; some were semi-sedentary; others farmed for three or four months of the year and resumed transhumance after the harvest.²⁰ While farming, they kept their masters' animals and were allowed to keep proceeds from the sale of milk. They owed their masters a fixed annual payment in millet and a portion of the increase in their own herds, and they had to give them additional millet when needed.

In contrast to slaves who lived independently, *iklan* who were directly attached to the camps of their masters were integrated into Tuareg society as the level of the family. Slaves were fictive children and kinship terms were used in addressing members of the master's real family. The owner assumed responsibility for bridewealth payments, just as he did for his real offspring. His behavior toward the wives of his male slaves was similar to the way he behaved toward real daughters-in-law. A man could marry a female slave even though she was considered his "daughter" – a practice that conformed to other situations in which men could marry classificatory daughters. If a noble married his own slave, their children took on the father's status; if he married a slave belonging to another man or woman, he could claim nobility for the children by paying a high bridewealth to the original owner. These practices followed the injunctions of Islamic law.²¹

In spite of the use of kinship analogies, the position of slaves was very different from the position of real children. *Iklan* did most of the hard work that need to be done at or near the campsite. Male slaves tended animals and drew water from wells, while female slaves cooked, brought firewood to the campsite, and fetched water.²² The standard of living of the slaves was in sharp contrast to that of the nobles. Nobles wore fine clothing and owned decorated weapons, and noble women possessed expensive jewelry. Conspicuous consumption by the aristocracy simply reflected their control of productive resources – animals and the labor of slaves and other dependents.²³

Rights to the ownership of *iklan* were vested in individuals. Both men and women could own slaves, although in fact most owners

were men. The ownership of slaves was inherited within matrilineages, and newly acquired slaves were often included in bridewealth payments. Once acquired, slaves were rarely sold, since the main purpose in acquiring them in the first place was assimilation into the lineage. The relatives of the owner were considered the relatives of the slaves.²⁴

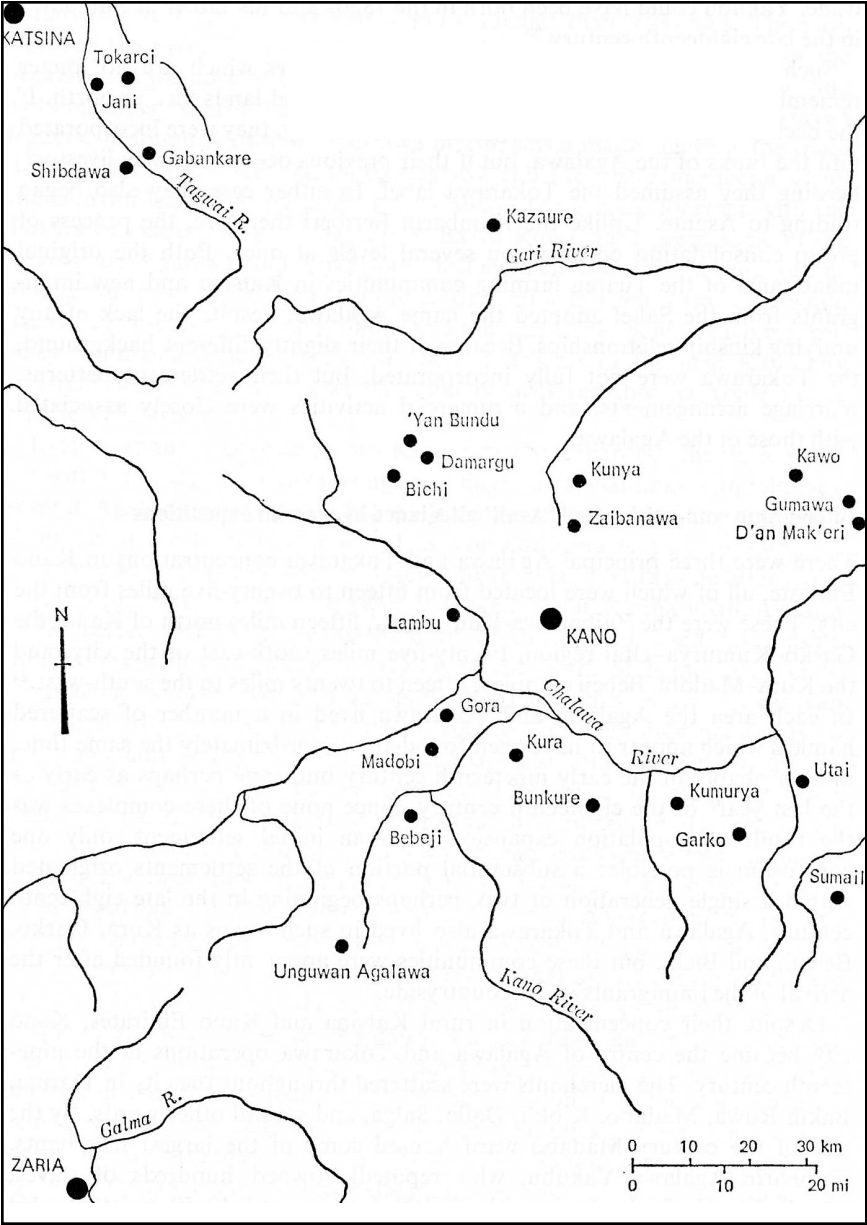
In contrast to these nomadic and semi-nomadic slaves in the north and west, the slaves of Damergou were permanently settled. Damergou, located just within the limit of rainfall agriculture, about 250 km south of Agadez, was for centuries the principal granary of the Aïr Massif and the surrounding desert. Nobles belonging to the most important sections of the Kel Ewey confederation had estates there and sometimes competed for control of sedentary farming populations. Two of the most powerful factions at the end of the nineteenth century were the Kel Ewey (whose leader, or *anastafidet*, had several estates near Oléléwa) and the Imezureg, whose wealth derived from their control of the collection of ostrich feathers for the trans-Saharan trade. Iklan belonging to the *anastafidet* of the Kel Ewey lived separately in their own villages near Oléléwa: not far away were the estates worked by the *iklan* of the western Imezureg, whose capital was at Gangara.²⁵

Most inhabitants of estates farther south, in Damagaram, Kano, Katsina, Tessaoua, and other sedentary locations, were apparently *irewelen*, or people of servile ancestry.²⁶ Since they were in effect descendents of freed slaves, their status was higher than that of *iklan*, although their daily life and material well-being differed only slightly. Like *iklan*, these people owed a portion of their harvest to Tuareg nobles, but otherwise they only had to lodge their former masters during the dry season or during droughts. The *irewelen* of Katsina and Kano had a special name in Hausa, Agalawa. Over several generations they became fully assimilated into Hausa society, recognizing only a traditional connection with Tuareg lineages. Many of their descendents became successful savanna merchants specializing in importing kola. Their name was derived from the Tamachek term for south, *agali*, and their adoption of a corporate identity, indicated by special facial and body markings, helped maintain a social cohesion that proved useful in business.²⁷ In Kano, Katsina and Damagaram, at least, the descendents of northerners were represented in trading networks of the savanna far in excess of their proportion in the population at large.²⁸

In a different category were nomadic *irewelen*, whose life differed radically from that of sedentary Tuareg dependents. They engaged primarily in herding and trade, working involving higher prestige than the domestic tasks or farming assigned to *iklan* and sedentary *irewelen*. They were attached to their former master's camp, but herding and running caravans on their master's account could take them far away for extended periods. It is not clear whether or not the passage from the status of *iklan* to *irewelen* was marked by a ceremony or other formal recognition, but fragmentary evidence from Zinder suggests that it may have been.²⁹ In any event, *iklan* underwent a gradual upward evolution in status, with length of service, reliability, initiative, and other personal qualities playing a critical role in the process. Dependents tended to rise in status almost as soon as they entered the service of a Tuareg family, in part because master and servant increasingly shared common interests.

Marriage also affected status. In theory, the offspring of a marriage between free and servile Tuareg inherited the status of their mother, but in practice, children of freemen and servile women were also free.³⁰ Offspring of marriages between persons of different servile categories were known as *ibureliten* (sing. *abureli*). *Abureli* referred not only to a person's personal status, but might also denote membership in a collectivity. *Ibureliten* sections were transitional groups evolving toward the status of free Tuareg.³¹ There were servile sections known as *Tamjert*, which had received freedom after courageous fighting with Tuareg enemies from the Ahaggar Mountains.³²

A special category of nomadic *irewelen* and *ibureliten* were those who had to abandon livestock herding or who chose to take advantage of other opportunities in the savanna and consequently became sedentary savanna inhabitants. In Kano and Katsina, these people adopted a separate identity through the use of common facial markings and a corporate name, *Tokarawa*. Like the *Agalawa*, they invested in kola importing and over several generations became incorporated into Hausa society. Their previous servile status was indicated by the fact that they continued to call themselves *bugaje* (sing. *buzu*, fem. sing., *buzuwa*), a Hausa term for all low-status Tuareg. But, like the *Agalawa*, they achieved complete emancipation from all servile obligations and severed all meaningful links with desert-side society and economy.³³



Agalawa and Tokarawa Settlements, Nineteenth Century

Another category of Tuareg dependents, the *imrad* (sing. *amrid*), can be roughly described as "clients." Most *imrad* lived in independent nomadic sections, and although their exact origins are not always clear, it can be hypothesized that they were Tuareg or other nomads who had submitted to noble sections after losing their herds or suffering defeat in battle.³⁴ *Imrad* paid tribute to noble sections and in return the nobles were bound to protect their charges from enemies.³⁵ Unlike the other dependents, *imrad* participated in political life, though without the full political rights of the nobles. *Imrad* confirmed the election of the confederation chief, but their participation in the election was optional.³⁶ Apparently, rights to tribute from *imrad* sections were vested only in groups, not individuals, in contrast to ownership of *iklan* by individuals.³⁷ The symbolic tribute that *imrad* paid to nobles was not nearly as important as the services *imrad* provided. They took charge of surplus animals and in return were entitled to a portion of the increase of the herd. Nobles could reclaim the original loan at any time. Relationships between *imrad* clients and their noble-section patrons could change in time, people being no more fixed in the *imrad* status than they were in the other dependent categories.

Tuareg dependents were not necessarily Tuareg themselves, nor were those people attached to the Tuareg economic network. In Damergou, for example, free farmers lived in villages near Tuareg-owned estates. They were the descendents of Kanuri-speaking people called themselves Dagera, and of Hausa. Both groups moved north in the late eighteenth and nineteenth centuries to exploit frontier regions where game was plentiful and agricultural settlement was sparse. Since unattached sedentary people were in danger of being raided or captured by the Tuareg, they freely submitted to a Tuareg section, agreeing to pay tribute in return for protection.³⁸ In this respect, they were not very different from neighboring *iklan*. Although, unlike *iklan*, they were technically free, they fitted into the same niche in the salelian network of trade and production, which spanned ethnic boundaries and extended from the desert far into the savanna.

To the outsider, the Tuareg seemed to make little distinction between their various types of dependents and all seemed to be well treated. All, for instance, shared the same basic diet, and all but those of the lowest status wore similar clothing.³⁹ Status was fluid and social distinctions were not always apparent to outsiders. Hausa-speaking people, for example, referred to all Tuareg of low

status as *bugaje*, thus lumping together people of most dependent categories, slave and free, nomad and sedentary. This shows a lack of familiarity with the hierarchical system but accurately reflects their impression that the Tuareg treated most dependents alike. The nineteenth-century scholar Heinrich Barth was struck by the freedom of slaves at the Tessaoua estate of the Kel Ewey leader Annur:

The estate is very extensive, and consists of a great many clusters of huts scattered over the fields, while isolated dum-palms give the whole a peculiar feature. The people, all followers and mostly domestic slaves of Annur, seemed to live in tolerable ease and comfort, as far as I was able to see, my companion introducing me into several huts. Indeed every candid person, however opposed to slavery he may be, must acknowledge that the Tawarek in general, and particularly the Kel owi, treat their slaves not only humanely, but with the utmost indulgence and affability, and scarcely let them feel their bondage at all. Of course there are exceptions....⁴⁰

Furthermore, a servile nomad could easily change masters by cutting the ear of a camel belonging to a noble other than this master. Since a master was responsible for the actions of his slave, compensation had to be made for this symbolic transgression – and the slave was handed over to the person who had been “wronged.”⁴¹

Desert life prevented close surveillance of dependents, and such good conditions were closely related to the ease of escape; for, once Tuareg owners left, mistreated individuals could flee south to join existing communities of immigrants from the north. A more important factor, however, was the possibility of drought in the sahel: people had to be free to emigrate to save themselves. This was true of nomadic and sedentary dependents alike, as well as the free farmers of Damergou and Adar.

The treat of periodic droughts in the sahel imposed the need to shift population relatively easily within the Tuareg north-south network. Rigid control over dependents would have prevented such movement from the desert to estates in the savanna in bad times, and their return in the opposite direction in good ones. As it was, movement within the network was automatic, assured by the system of priority of access to resources maintained by the stratification of status. The distinctions between different kinds of dependents – which had little importance in prosperous times – came into play

in periods of scarcity, when they provided a pattern of sloughing off excess population. The social system offered a clearly delineated blueprint of the order of precedence, from nobles down to *iklan*.

The operation of hierarchical claims to resources becomes clear through an examination of the drought-to-recovery cycle, when the social organization first contracted, then expanded, as the desert economy was able to support a smaller or larger population. Drought in the desert brought about a mass exodus of people trying to save themselves. Among the first to move south were the sedentary people living at the edge of the desert, whose crop failures gave them warning of disaster.⁴² Servile nomads attached to a noble's camp were affected later, for they were treated as members of the family and were provided for as far as possible. *Imrad* and *irewelen* sections were in a worse position, since many of the animals in their herds belonged to nobles, who reclaimed them as soon as the magnitude of a crisis became clear. Consequently, servile nomads whose herds were too small to support them fled the desert to save what they could. If the drought lasted longer than one year, many turned to farming. Evidence from the early twentieth century suggests that the spillover from prolonged drought was large indeed. As a result of the drought of 1913 and the Tuareg revolt of 1916, many immigrants from the north were permanently lost to the pastoral economy through sedentarization.

As their resources shrank, nobles, with their families and retinues, claimed the hospitality of their dependents in the savanna, both in the many Agalawa villages and in the servile villages and farms close to Tuareg grazing camps. Nobles remained at the southern end of their network until the end of the drought, when the herds began to increase. These southern communities in effect acted as a safety valve in times of scarcity. When rainfall returned to normal, nobles called together a few dependents who had been temporarily sedentary and together they returned to the desert.⁴³ As the herds recovered sufficiently to support a large population, they enlisted more dependents. Surplus animals were distributed from their herds, although the nobles retained ownership of these animals and could claim them again if conditions worsened. New slaves were acquired by purchase or, more commonly, by raiding and through participation in wars in the savanna. Also, farmers and hunters from the south joined the Tuareg in a dependent capacity of their own free will. The repopulation of Damergou by Hausa and Kanuri speaking immigration in the nineteenth century, when

climatic conditions were favorable, is an example of this kind of movement.

The establishment of Tuareg-related communities in the savanna eventually resulted in a permanent population in the south, which, even while providing a certain reservoir for population shifts back toward the desert, became increasingly rooted in the savanna, growing through natural increase and providing a ready niche for individual as well as group movements into the savanna.

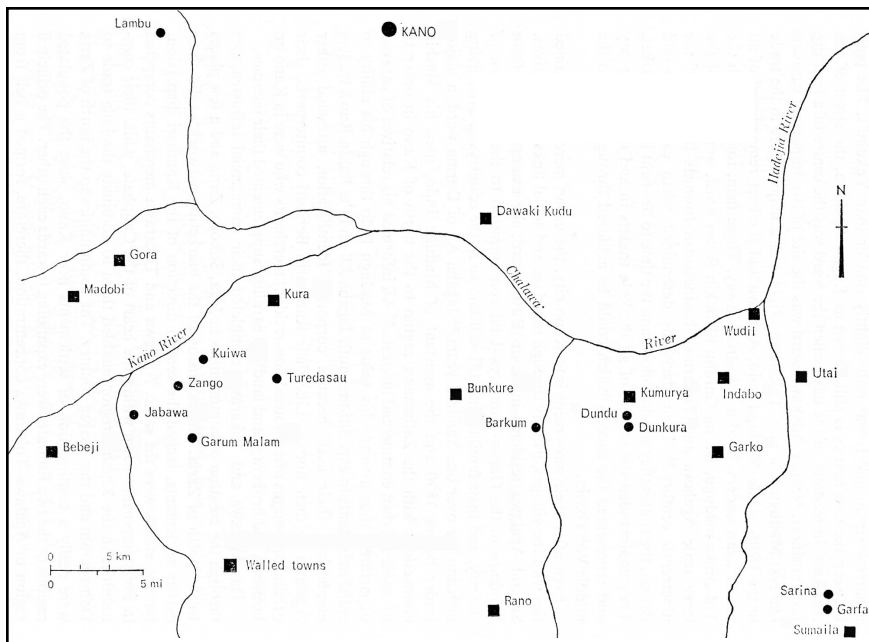
It was not only in times of drought that a southward population movement occurred. A constant, if less dramatic flow away from the desert edge took place in prosperous times as well, partly as a result of individual success in the desert. The desert-side sector entailed many risks for investors, be they merchants, farmers, hunters, or pastoralists, but its potential profits were sufficient to attract people. In time, those who prospered in the desert might reinvest their accumulated capital in the savanna – to expand their activities, or to withdraw after minor crop failure or loss of animals, or as an insurance against potential disasters in the riskier desert. In brief, the desert provided profits could then be invested in safer economic ventures in the savanna. Such movements to the south, in addition to those impelled by drought, resulted in the foundation of communities in the savanna that were tied to the Tuareg network and settled by servile people from the north. Each maintained a separate identity that depended upon the pattern of immigration and occupational specialization. Many were merchants, particularly the Adarawa (people from Adar) in Sokoto, the Agadesawa and Asbenawa (people from Agadez and Aïr, respectively), in Katsina and Kano. Others were craftsmen at the Kura textile center, processed dried, spicy meat (*kilishi*) in Kano and Katsina, or were leather workers in Kano and Zinder.⁴⁴

The Agalawa and Tokarawa perhaps provide the most dramatic example of people connected with the Tuareg network who prospered in the savanna.⁴⁵ They were so successful as kola traders that their names became synonymous with the kola-importing business, and they accounted for as much as half of the professional class of merchants who dominated the trade with Asante, the middle Volta basin, and Borgu. The first Agalawa concentrations were near Katsina, the most important eighteenth-century Hausa commercial center, but after 1804-08, many people left these early settlements for the Kano area, where an economic boom attracted immigrants.

There were at least fifty villages and towns in which Agalawa and Tokarawa were to be found, often living in the same communities, by the last third of the nineteenth century. By the middle of the century, a majority of both groups were living in Kano city and its immediate environs.

The related villages of Shibdawa and Gabankare, twenty miles southeast of Katsina, were typical of early Agalawa settlements. In the 1850s these belonged to Sidi Ghalli al-Hajj Annur, "one of the first men of Agadez" and an influential "war-chief" from Adar, who mediated a dispute between the Kel Ewey and Kel Gress sometime before 1850.⁴⁶ Their inhabitants traded extensively in kola nuts, Borno salts, and other goods, and many moved to Kano Emirate, where they founded autonomous communities and severed their servile ties. The most prosperous Shibdawa offspring was Tambarin Agalawa Yukubu of Kano City, one of the wealthiest Hausa merchants in the last third of the nineteenth century. He owned many slaves settled in villages around Kano, maintained a business residence that could accommodate 120 dependents, and imported as much as eighty to one hundred donkey loads of kola each year, equivalent to four or five tons. He was related to people in a number of villages in the Kano countryside, including some at Lambu, west of Kano, and others at Zaibanawa, north of the city. Not many Agalawa were as prosperous as Yakubu, least so those who stayed in the villages: but kinship and friendship relations provided the ambitious with useful contacts in business, especially in the formation of caravans. Most Kano communities included settlers from the Katsina area and from farther north who had moved to Agalawa locations, adopted the same corporate name and body markings, and invested in kola, although all Agalawa also farmed in the rainy season.

Despite their nomadic origins, the Tokarawa followed a pattern of settlement similar to that of the Agalawa, often living in the same communities. Many Tokarawa had relatively humble backgrounds and built up modest businesses in kola importing, and in some cases individuals became very wealthy. The fathers of two of the most important nineteenth-century caravan leaders were successful cattle dealers who reinvested in kola. Their sons, Madugu Isa na Zarahu and Madugu K'osai, were among the wealthiest Hausa commoners, operated extensive business establishments in Kano City, and owned large estates of their own in the countryside.⁴⁷ Within only a couple of generations, these and other Tokarawa



Agalawa and Tokarawa Settlements in Southern Kano

and Agalawa transformed their status from one of dependency in Tuareg society to one of prosperity and independence in Hausa society. Their movement suggests a pattern that was probably followed by many other immigrants.

The gradations in servile status that characterized Tuareg social structure had both a spatial and a temporal dimension. Temporally, servile institutions altered according to the drought-recovery cycle. Spatially, they operated within the wide region that encompassed the desert edge and included the savanna regions of the Central Sudan. Two main patterns emerged. First, both servile and free people were recruited in the north during good times, merging, in time, into the general population of Tuareg dependents. Second, a reverse emigration, to the south, took place in different ways: the first and most striking was the mass exodus during bad times, which led to poverty and sedentarization, while the second involved a steadier but smaller emigration in good years as a consequence of localized famine or the desire to take advantage of opportunities in the savanna. This smaller emigration led in most cases to a rise in status within the host Hausa society and a weakening of ties to Tuareg society. The dynamics of both the spatial and temporal gra-

dients were made possible by the existence of a regional economy in the Central Sudan, of which the desert edge was only a part, albeit an important part whose diversification involved the exploitation of opportunities in both the desert and savanna. The regular movements of people across ecological and ethnic frontiers indicate that the boundaries between Tuareg and Hausa societies reflected their respective regional specializations, and served to enhance the interaction between them rather than to isolate the one from the other. Hence, the gradations in servility in Tuareg society have to be understood both historically and regionally. Viewed statically, Tuareg society might appear rigidly stratified, but considered in the larger context of the Central Sudan, the stratification emerges as a flexible strategy that assured the continued domination by a small class of aristocratic Tuareg of important sectors of a highly competitive regional economy.

Notes

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2. E. Bernus, "Les Touaregs du sahel nigerien," *Cahiers d'Outre-Mer*, 19 (1966), 11n; Johannes Nicolaisen, *Structures politiques et sociales des Touaregs de l'Aïr et de l'Ahaggar* (Paris, 1962); Henri Lhote, *Les Touaregs du l'Ahaggar* (Paris, 1955), 157; J. Clauzel, "Les Hierarchies sociales en pays Touareg," *Travaux de l'Institut des Recherche Saharienne*, 21 (1962), 124.
3. Nicolaisen, *Touaregs de l'Aïr*; Nicolaisen, *Ecology and Culture of the Pastoral Tuareg* (Copenhagen, 1963); Nicolaisen, "Political Systems of the Tuareg of Air and Ahaggar," *Folk*, 1 (1959), 67-131.
4. Nicolaisen, *Pastoral Tuareg*, 209, 213.
5. H. Gadel, "Notes sur Bilma et les oases environnantes," *Revue coloniale*, 7 (1907), 361-68; Stephen Baier, "African Merchants in the Colonial Period: A History of Commerce in Damagaram (Central Niger), 1880-1960," (Ph.D. dissertation, University of Wisconsin, 1974), 106-17; P. Grandin, "Notes sur l'industrie et le commerce de sel au Kowar et en Agram," *Bulletin de l'I.F.A.N.*, 13 (1951), 488-533.
6. H. Gaden, "Notice sur la résidence de Zinder," *Revue des Troupes Coloniales*, 2, (1903), 626-28, 650; Dunbar, "Damagaram," 203ff, Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 279-90, 389-93.

7. Pierre Bonte, "Esclavage et relations de dépendance chez les Touaregs Kel Gress," in Claude Meillassoux, ed., *L'esclavage en Afrique précoloniale* (Paris, 1975); Bonte, *L'élevage et le commerce du bétail dans l'Adar Douthi-Maiya* (Paris: Etudes Nigériennes, 1967), 46ff; Grandin, "Kawar et Agram," 534; Gaden, "Résidence de Zinder," 626-28; Gadel, "Bilma et les oases environnantes," 374; Djibo Hamani, "Adar, the Touareg and Sokoto. Relations of Sokoto with the Hausawa and Touareg during the Nineteenth Century" (unpublished paper presented to the Sokoto Seminar, Sokoto, January 1975).
8. Lovejoy and Baier, "Desert-Side Economy of the Central Sudan;" Lovejoy, *Caravans of Kola*; and Baier, "African Merchants in the Colonial Period."
9. Curtin 1975; Cohen, 1971; Lovejoy, *Caravans of Kola*.
10. Lovejoy and Baier, "Desert-Side Economy of the Central Sudan;" and Philip Shea, "The Development of an Export Oriented Dyed Cloth Industry in Kano Emirate in the Nineteenth Century" (Ph.D. thesis, unpublished, University of Wisconsin, 1975).
11. Barth, *Travels and Discoveries*, I, 359, 377, 481, 486.
12. Lovejoy and Baier, "Desert-Side Economy of the Central Sudan;" Barth, *Travels and Discoveries*, I, 438, 526, III, 73, 564; James Richardson, *Narrative of a Mission to Central Africa* (London, 1853), II, 170, 179, 194; Lovejoy, *Caravans of Kola*.
13. L.C. Briggs, *Tribes of the Sahara* (Cambridge: Harvard University Press, 1960), 146; C.-C. Jean, *Les Touareg du sud-est: leur rôle dans la politique saharienne* (Paris, 1909), 175-76.
14. Jean, *Touareg du sud-est*, 102-11; Nicolaisen, *Touaregs de l'Aïr et de l'Ahaggar*, 28; Lhote, *Touareg du l'Ahaggar*, 157.
15. Bernus, "Touaregs du sahel nigérien," 12-15; Nicolaisen, *Touaregs de l'Aïr et de l'Ahaggar*, 100-07; F.J. Rennell, *People of the Veil* (London, 1926), 135-40; Clauzel, "Hierarchies sociales en pays Touareg;" Richer, 1924, 3-5; Lhote, *Touareg du l'Ahaggar*, 191-208; F. Nicolas, "Notes sur la société et l'état chez les Twareg du Dinnik," *Bulletin de l'IFAN*, sér B, 1 (1939), 558-82. The orthography used here for Tamashek is from Courtade, 1967, and the spellings are those given for the Aïr dialect in Clauzel, "Hierarchies sociales en pays Touareg."
16. Erwin de Bary, *Le dernier rapport d'un Européen sur Ghâet les Touareg de l'Aïr (journal de voyage d'Erwin de Bary (1867-1877))* (Paris, trans., H. Schirmer, 1898) 101, 112, 116, 119, 126; Rennell, *People of the Veil*, 436, 440.
17. Lovejoy and Baier, "Desert-Side Economy of the Central Sudan;" Lovejoy, *Caravans of Kola*; Barth, *Travels and Discoveries*, I, 321, 323, 338, 343, 370, III, 129; Heinrich Barth, quoted in August Petermann, "Progress of the African Mission, Consisting of Messrs. Richardson,

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 19. Gaden, "Résidence de Zinder," 651.
 20. E. Bernus, "Les Touaregs du sahel nigérien," *Cahiers d'Outre-Mer*, 19 (1966), 5-34, 14-16; Lhote, *Touareg du l'Achaggar*, 207; F. Nicolas, "La transhumance chez les Iullemmeden de l'est," *Travaux de l'Institut de Recherches Saharienne*, 4 (1947), 113; G. Mainet, "L'élevage dans la région de Maradi," *Cahiers d'outre-mer*, 69 (1965), 32-72; and J. Renard, "Etude sur l'évolution des Kel Gress vers la sédentarisation," *Bulletin de la Comité Etude Historique et scientifique Afrique occidentale française*, 2 (1922), 252-62.
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 22. E. Bernus and S. Bernus, "L'évolution de la condition servile chez les Touaregs sahéliens," in Claude Meillassoux, ed., *L'esclavage en Afrique précoloniale* (Paris: Maspero, 1975); Nicolaisen, "Slaveri hos Tuaregerne i Sahara: Foreløbig analyse af dets struktur," *Kuml* (1957), 91-113.
 23. Bonte, "Touaregs Kel Gress," 66.
 24. Nicolaisen, *Touaregs de l'Aïr et de l'Achaggar*, 100-06; Nicolaisen, "Political Systems of the Tuareg;" Lhote, *Touareg du l'Achaggar*, 194-95; Rennell, *People of the Veil*, 140-41.
 25. Baier interviews with Atari Madiguburi (October 14, 1972), Fokondo Mala (October 13, 1972), Wuru dan Tambari Mayaki (October 12 and 14, 1972), Baier Collection, Center for African Oral Data, Archives of Traditional Music, Indiana University; Baier, "African Merchants in the Colonial Period;" Richardson 1853, II, 164-65.
 26. Gaden, "Résidence de Zinder," 632; Rennell, *People of the Veil*, 135-36; Clauzel, "Hierarchies sociales en pays Touareg," 143-45; interview with Wuru dan Tambari Mayaki, Baier Collection.
 27. Lovejoy, *Caravans of Kola*.
 28. Baier, "African Merchants in the Colonial Period;" Lovejoy, *Caravans of Kola*.
 29. Interview with Cillo Alassan, October 20, 1972, Baier Collection.
 30. Nicolaisen, *Touaregs de l'Aïr et de l'Achaggar*, 105.
 31. Clauzel, "Hierarchies sociales en pays Touareg," 149-50; Lhote, *Touareg du l'Achaggar*, 203-04.
 32. Lhote, *Touareg du l'Achaggar*, 208.
 33. Lovejoy, *Caravans of Kola*.
 34. Rennell, *People of the Veil*, 136-38; Briggs, *Tribes of the Sahara*, 136-37; Henri Duveyrier, *Les Touaregs du Nord* (Paris, 1864), 334-35.

35. Lhote, *Touareg du l'Ahaggar*, 194-95.
36. Nicolas, "Twareg Dinnik," 580.
37. Nicolas, "Twareg Dinnik," 581; Lhote, *Touareg du l'Ahaggar*, 194; Duveyrier, *Touaregs du Nord*, 335. The ethnographic literature is vague on the nature of the relationships between owners and any of the many categories of dependents. Nor is information available detailing the evolution of these relationships during and after the transition to freedom. See Rennell, *People of the Veil*, 140-41; Gaden, "Résidence de Zinder," 632; P. Gamory-Dubourdeau, "Étude sur la création des cantons de séderitisation dans le cercle de Zinder, et particulièrement dans la subdivision centrale (arrondissement de Mirria)," *Bulletin du Comité des Études Historiques et Scientifiques de l'A.O.F.*, 8 (1924), 241ff; Lhote, *Touareg du l'Ahaggar*, 194, and interviews with Kelilan Gaja, April 18-19, 1972, and Fokondo Mala, October 13, 1972, Baier Collection.
38. Baier, "African Merchants in the Colonial Period;" A. Salifou, "Rivalités tribales et intervention française au Damerghou" (unpublished, 1971).
39. Nicolaisen, *Touaregs de l'Aïr et de l'Ahaggar*, 102.
40. Barth, *Travels and Discoveries*, I, 439.
41. Nicolaisen, *Touaregs de l'Aïr et de l'Ahaggar*, 101-02; Nicolas, "Twareg Dinnik," 582; interview with Cillo Alassan, Baier Collection.
42. Interview with Haruna Biriam, October 14, 1972, Baier Collection.
43. Far more is known about the movement of desert people toward the savanna than the movement in the opposite direction. One reason is that the sedentarization accompanying the drought of 1913-14 was so extensive that it attracted the attention of colonial administrators; see Gamory-Dubourdeau, "Séderitisation dans le cercle de Zinder," 239-58. In addition, the studies that have been made have not been researched from the northern, desert side of the Tuareg regional network. With the exception of Nicolaisen ("Slaveri hos Tuaregerne i Sahara," 91-113; *Touaregs de l'Aïr et de l'Ahaggar*; and *Pastoral Tuareg*), most ethnographers pay little attention to links between desert and savanna.
44. Lovejoy and Baier, "Desert-Side Economy of the Central Sudan;" Lovejoy, *Caravans of Kola*.
45. Lovejoy, *Caravans of Kola*.
46. Lovejoy, *Caravans of Kola*; Barth, *Travels and Discoveries*, I, 340, 371, 481.
47. Lovejoy, *Caravans of Kola*; Lovejoy and Baier, "Desert-Side Economy of the Central Sudan."



Gobiran Mosque, Katsina, 16th Century

photograph in Gretchen Dihoff, *Katsina: Profile of a Nigerian City* (New York: Praeger, 1970), 47.

9 | **MERCHANTS, PORTERS, AND TEAMSTERS IN THE NINETEENTH- CENTURY CENTRAL SUDAN¹**

In the central Sudan long-distance trade (*fatauci*) was a highly specialized occupation that involved a large proportion of the population of the two states that dominated the region in the nineteenth century – the Sokoto Caliphate and Borno. Merchants fell on a continuum from the large-scale entrepreneur who needed the services of many different kinds of workers to petty traders who sometimes operated on their own account, but other times found themselves in the employment of more successful merchants. In terms of numbers, a majority of traders in most caravans (*ayari*) were drawn from the ranks of petty traders – those who traveled unaccompanied, carrying their own loads (*yan gurumfa*), who drove their own pack animals, or who traveled with a “wife,”² a son, a junior brother or some other dependent member of the household. These small-scale traders, like all merchants, needed the services of caravan leaders (*madugai*), brokers (*dillalai*), and landlords (*fatomai*), but they did not require professional porters (*yan alaro*)³ or those who hired out pack animals and their own services as drivers (*yan sifiri da bisashe*). Furthermore, these small traders did the greater part of the work of assembling goods and all the work of preparation and packing.

The wealthy merchants (*attajirai*) who operated from the major market centers were the ones who required professional porters (servile or free), teamsters, specialist assemblers, and packers of goods. The German traveler Passarage testified to the labor-intensive nature of the transport system upon which long-distance trade depended on the basis of his experience in Adamawa and Mandara in the 1890s:

The means of transport are very defective. Apart from the canoes on the large rivers no other vehicles are known. The wagon, indeed even the cart, remains unknown to

the Africans. Camels are met with in Kuka [Kukawa] and Kano in the northern most part of the Sudan, pack horses rarely at any time, pack oxen ... only in the North. In Adamawa only the donkey is used on a large scale; however the most important means of transport is man himself. Either the merchant travels with his slaves or he hires professional porters.⁴

The majority of *attajirai* actively participated in long-distance trade themselves: that is, they traveled and worked hard at the business of buying and selling both at home and in distant markets. Very few operated on such a scale that they could be classed as sedentary merchants with sufficient capital and business acumen to spread their risks over several trading ventures at a single time. Those who could entrusted their goods to agents or partners, who traveled to and did business in distant markets, while they remained at home acting as bankers, brokers, importers, wholesalers, and distributors.⁵ Undoubtedly many *attajirai* aspired to the role of sedentary merchant, but the risks associated with an attempt to enter the elite of this trading system were considerable. An aspiring merchant could easily be ruined by the dishonesty of agents or the importunity and rapaciousness of a ruling class, which could at will either give or withhold favor and protection, and besides there were disasters on trading journeys, the vagaries of markets and competition from other traders. The accumulation of sufficient capital and credit to transform business from single trading ventures to more complex transactions depended upon such factors as a willingness to take great risks, the making of a fortunate marriage, the securing of political patronage, dishonest dealing with clients and customers, as well as astute and energetic trading. Most long-distance traders, excepting only the greatest and most wealthy sedentary merchants, had virtually all their own liquid capital and often much borrowed capital invested in the ventures they personally undertook, and a disaster such as a market collapse could ruin them and their creditors.⁶

Participation in long distance trade was regarded as a sure way to acquire wealth and escape from the poverty and shame that were the lot of many Hausa commoners (*talakawa*).⁷ For this reason and notwithstanding the risks, long-distance trade exerted a strong influence on the imagination of many young men in the Sokoto Caliphate and Borno. In Hausa folklore, which reflects the prevailing ideological system, emphasis was placed upon trade, including

long-distance trade, as the way to win fortune and gain prestige. The existence of such an element in the prevailing ideology was sure to have had some influence on the attitudes and probably upon the behavior of all those who voluntarily entered long-distance trade as porters and pack animal drivers.⁸

As the career of Madugu Mohamman Mai Gashin Baki serves to show, young men became merchants in a small way, hoping that as a result of diligent trading and good fortune they would become wealthy and respected. Mai Gashin Baki became a merchant as a young man and gradually built up his contacts with other merchants, acquiring knowledge of distant markets from southern Adamawa to Bagirmi and Borno. Eventually he became a caravan leader who headed expeditions 5,000 strong. His success is representative in that most wealthy traders began in a modest way, but in this endeavour few succeeded and many fell by the wayside. As Passarge recognized during his travels in Adamawa in 1893-1894, "the Hausa is like a gypsy who is at home everywhere and nowhere and who roams throughout the whole Sudan as a porter, when he possesses nothing, and as a trader, when he has made some money."⁹ Passarge's comment brings out the permeable nature of the interface between wage labor and entrepreneurship and also serves to confirm an emphasis in Hausa folklore on trade as a means to wealth and power. Though Mohamman enjoyed considerable good fortune and was a hard working trader and caravan leader, his career also shows how easy it was to fail. He was caught embezzling the funds of a caravan he was leading and faced the wrath of the caravan merchants. Mohamman was fortunate in that his involvement first with E.R. Flegel and later with the Royal Niger Company gave him the opportunity to reverse his ill fortune, and he subsequently acquired some wealth as a broker in the important town of Bakundi.¹⁰ This was the ambition of many long-distance traders, a comfortable income from investment in slaves and land and the opportunity to function as a broker and a wholesale purchaser and distributor of commodities.

Madugu Mai Gashin Baki was far from being the only merchant who operated on a large scale. Indeed every town in the Central Sudan had its merchant community with varying numbers of large merchants. A substantial list of these traders could be constructed for all the major towns of the Caliphate and Borno. There were numerous commercial landlords (s. *fatoma*, pl. *fatomai*) who dominated the trade in natron, salt, livestock, and other goods. Some

fatomai operated hostels that could accommodate as many as 150 merchants at a time. Usually these *fatomai* did not travel, but they often invested in trade and therefore required the employment of workers.¹¹

THE LABOR OF TRADE: CARAVANS AND TOWNS

Caravans required the leadership and direction of professionals and were generally led by experienced travelers, who were also traders on their own account. The caravan leader (*madugu*) was assisted by a staff consisting of a guide (*jagaba*), an assistant in charge of the caravan on the march (*uban dawaki*), caravan scribe (*malamin ayari*), and drummer (*mai gangan madugu*). Large caravans also had assistant caravan leaders in charge of sections of the caravan. This delegation of authority was necessary as the largest caravans (2000-5000 people with animals) were spread out over several miles of the route. The task of the leader, who usually took up the rear, was to see to it that the caravan reached its destination safely and expeditiously. It was a difficult job calling for leadership qualities of a high order. The caravan leader not only had to know the route and its dangers; he was also responsible for negotiating the price of passage and the price of entry into markets. He organized the defense of the caravan on the march or at halting places (*zongo*) against the attacks of highway robbers (*yam fashi*). He was also responsible for maintaining order within the caravan and settling disputes between members of the caravan. Though he could delegate some part of his responsibilities, for instance route finding and leading the line of march were the responsibilities of the guide, there was truth in the Hausa saying, "Jaji, shi ne sarki" (*jaji* = *madugu*), "the caravan leader is a chief."

The *madugu* and his staff formed what might be termed a loosely organized business corporation or firm. The staff were in the regular employment of the leader and were sometimes members of his household. Their prosperity depended upon the leader's success and reputation. The leader in turn was dependant upon the efficiency and loyalty of his staff. Caravan leading was a demanding occupation and a risky one, but a *madugu* who was able to combine it with successful trading could become rich and influential. The caravan leader did not charge his clients a fee, though it was the practice for members of the caravan to give the leader presents before journeys and upon the safe completion of a journey. The caravan leader and his staff did not contribute to

the tolls (*garāma*) demanded by rulers through whose territory the caravan passed or whose markets the caravan's members desired to enter. This exemption amounted to a substantial subsidy to the caravan leader and his staff since, effectively, the rest of the caravans paid their share of the toll. Since it was the responsibility of the leader assisted by his staff to negotiate the amount of the toll with the local ruler or his representative and it was also their responsibility to apportion the contribution of each trader in the caravan, there was opportunity for deception and fraudulent dealing. A dishonest caravan leader could enrich himself and his staff at the expense of other members of the caravan, and it seems to have been a fairly frequent occurrence. However, such dishonesty depended upon collusion between the leader and his subordinates, especially the caravan scribe. Discovery or betrayal could result in disgrace, humiliation, and loss of professional reputation, as the career of Madugu Mohamman Mai Gashin Baki demonstrates.¹²

When caravans halted for the night there was much work to be done by teamsters, porters, servants – free or slave – of the wealthy merchants, and the women who accompanied the traders. Indeed all members of the caravan, other than the wealthy merchants who took their ease reclining on undressed sheepskins, prepared the camp. Pack animals had to be unloaded, hobbled, fed, and watered, which occupied the attention of the teamsters. Merchants with sixty or more pack animals in a single caravan required approximately twenty teamsters, and an important merchant with that number of pack animals was accompanied by other servants, including women, plus any porters he required in addition to the pack animals.¹³

After the animals had been unloaded and hobbled, the majority of the labor force prepared shelters for themselves and their masters, while some few attended to the needs of the animals and the remainder, especially the women, prepared food. Those engaged in the preparation of shelters unpacked equipment such as axes, sickles, and hoes, and made off into the bush to collect supple branches, canes, thatching grass, and fencing material. Since caravans often stopped in the same places on a given route, shelters were often in relatively good condition and only had to be repaired. While the teamsters, porters and others built grass huts (*bukkoki*) for themselves, the *attajirai* had superior shelters (*adadai*) constructed for their own use. These had a framework of branches covered by tanned ox-hides (*kilagat*), which were then tied down. Round the

adadai and the *bukkoki* of those who had women with them, a fence or screen was constructed.¹⁴

Brokers and landlords needed assistance if they were to cater adequately to the needs of their clients and customers.¹⁵ Their *yara* ("boys" or servants) delivered messages, carried loads, and ran errands. Female servants, usually slave girls, prepared food, cleaned apartments, and performed other services for the guests. Grooms and ostlers tended the mounts and pack animals of the itinerant merchants and also cared for animals brought for sale, while guards and night watchmen protected the property of the clients. It is obvious that a landlord with a lodging house (*masauki*) needed a substantial staff, most of which was drawn from within the household, including and especially domestic slaves, who were often employed in agricultural production either on farms or plantations in the rainy season. Brokers, who usually specialized in particular commodities, did not require as many employees as landlords, though they did need the services of agents, who toured the country round the market center buying and selling on their behalf, especially when brokers became wholesale dealers or when they invested in manufacturing.

Most loads were prepared and loaded by household labor belonging to the trader or by teamsters and porters. Awkward loads including raw cotton and hides and skins required special preparation, packing, and loading. Kola nuts, though not an awkward load, needed careful packing and frequent inspection on the march to remove infested nuts. The preparation, packing and loading of goods for camel transport in the trans-Sahara trade also required the labor of specialists. When Krause estimated the average costs of transporting goods from Tripoli to Kano in 1882, he reckoned packing of goods (materials and labor) as 14.7 per cent of total transport costs.¹⁶ Loads leaving Kano or Kukawa by camel for the north also required careful preparation. Large tusks of ivory, for example, had to be cut up before they could be loaded onto camels.¹⁷

The tasks of caravan trading and market exchange clearly involved the labor of large numbers of people, and the nature of trade in the Central Sudan invariably meant that most of these people operated on a small scale, even if some merchants were wealthy and employed workers to run their firms. The commercial vocabulary of the Hausa includes a fair number of words describing the purchase of goods for resale and local trading by hawkers

and pedlars. The purchase of goods for resale, including livestock, grain, cotton, and other goods, was connected with long-distance trade. Similarly local peddling tied in with long-distance trade if the commodities hawked were goods brought to a market center by long-distance traders. Stockholders played an important role in the assembly of goods for export, and peddlers were necessary for the distribution of imported goods. The existence of a pool of small merchants and others who could move into and out of trade on their own account facilitated the development of a labor market, which clearly functioned in the Sokoto Caliphate and Borno in the nineteenth century.

The demand for labor was met in a variety of ways. Merchants attracted apprentices and assistants from among their sons and other junior kin and neighbors.¹⁸ These workers (*yara*) did not receive a wage but were treated as members of the household who received clothing, food, and shelter at the discretion of their *mai gida* (head of the house). All their needs were met. In return for their labor, they gained experience, contacts, and access to credit. Trusted slaves could and often did receive the same treatment as junior kin, even to the point of supervising commercial operations and of serving as trustees to estates upon the death of a master whose surviving sons were minors. This household labor satisfied many of the needs of merchants, particularly with regards to agency, but many tasks were menial that could be undertaken by slaves and hired workers.

Traders who relied on their sons and other kin often began their careers as apprentices themselves.¹⁹ Profitable expeditions enabled these individuals to buy a slave or two, who then contributed to the business establishment of their master. These slaves – purchased early in the careers of successful merchants – were those most likely to become trusted agents. The household establishment of Madugu Isa na Garahu, an important kola merchant at the end of the nineteenth century, included thirty house slaves, thirty farm slaves, numerous kin, and other dependents. And he had slaves at his houses in Sokoto and Kalgo. He drew upon their labor in a variety of ways, taking many with him on trading expeditions.²⁰ Slaves were essential to the operations of most large merchants. By the time a merchant achieved a sufficient level of success to delegate responsibilities to junior kin and trusted slaves, he required more labor than his household could supply, especially since large-scale

operations were more subject to the vagaries of the market than those of independent traders.

Besides their access to household labor, merchants had recourse to several other categories of labor; they could hire porters who were either freemen or slaves owned by other people; they could engage teamsters with their livestock; or they could force trade slaves on the march to carry loads. All three categories of labor were common; freemen, domestic slaves, and trade slaves supplemented household labor and appear to have offered competitive advantages that resulted in the purchase of additional slaves or the recruitment of extra free dependents.

THE ROLE OF PORTERS

The entrepreneur who required labor and pack animals beyond the resources of his own household was in a position in many markets to pick and choose among the strongest and healthiest men, women, and beasts readily available for hire. The Hausa merchants who employed these porters also used slaves and livestock to carry goods; invariably livestock died and could not always be replaced at a reasonable price, transport needs varied as goods were bought and sold, and trusted slaves could not be supplemented on the road. Hired labor was, therefore, essential to the operations of these merchants. It is clear from a legal opinion of Abdullahi, brother of 'Uthman dan Fodio and emir of Gwandu, that porters were being hired at least as early as the first part of the nineteenth century.²¹ The experience of the German officer, Kling, who traveled in the area between the Caliphate and Asante in 1890, confirms that hiring continued throughout the century. Kling reported that "Hausas are the cheapest, most satisfactory and best porters of the western Sudan."²² Whether or not Kling exaggerated, his comments do establish that portage was a professional activity that was widespread.

On the southern route to Lagos, which became well traveled in the 1880s, porters were used whenever merchants needed them. Usually traders took donkeys as far as Agege, outside of Lagos, even through the mortality rate was high for donkeys that far south. As Alhaji Nagudu Abdullahi remembered it,

if traders lost their donkeys on the trip to Lagos, they hired porters. A good porter could carry as much as a donkey. Before one was hired they had to bargain over the price which would be paid. When the porter reached Kano, it was a big event; all the people would rush out to marvel

at the tremendous loads they could carry. Most porters were Hausa; for example the Sarkin Zongo at Agege [in the early twentieth century] had been a porter.²³

Early colonial officials found that porters were easy to recruit, although not always at wages that were advantageous:

Many thousands, probably twenty to thirty, of native carriers work caravans on their own account through the Hausa states and even to Lagos. This service has been maintained for many years. The native, valuing his own day's work at a low figure and carrying only the richest products, such as potash [natron], or kola nuts, salt, cotton goods, and matches, remains months on the road.²⁴

The estimate for the total number of porters must be treated with caution, but Governor Girouard, who made the estimate in the context of planning the construction of the Lagos-Kano railway, had undertaken a detailed study of transport needs.

In European travelers' accounts there are numerous descriptions of the bargaining that went on between caravan leaders and porters; indeed porters often recognized their own headman, who consulted his fellows during the bargaining process. Of these accounts that by Passarge is one of the most interesting because it reveals some of the customary features of portering work and the expectations of the porters. The German expedition of which Passarge was a member had a number of Hausa porters from Lokoja whom the Germans considered undisciplined and difficult to manage on the march, the basic reason being that the German concept of good order conflicted with the norms of the porters. With Prussian thoroughness Von Uechtritz, the leader of the expedition, insisted on close order marching in file with a rest stop of ten minutes every hour. These orders did not suit the Hausa porters who were conditioned to another work regime. Normally, a group of porters would contract to deliver goods between Yola and Ngaundere, for example, in a specific time – seventeen days – but they would determine when and how they marched, either by day or night. They would decide the pace, the length of breaks and when they were taken. German attempts to alter this pattern of work inevitably led to disagreements, although the Germans went to some length to impose their work discipline:

Whoever stepped out or left the line or set down his load or tagged behind was driven on with a stick and if the

offence was repeated the man concerned was punished by the withdrawal of the day's ration allowance, the most severe punishment for the negro, for the stomach comes before everything else. The Hausa only gradually and unwillingly accustomed themselves to the discipline of the march.²⁵

Although Passarge thought that the Germans were imposing discipline, in fact they were only altering an established routine. Passarge learned what one Hausa merchant arranged with porters for the same journey from Yola to Ngaundere. The merchant had paid the porters in advance and set their wages according to the weight and difficulty of the load. A porter carried a 50 to 57 kilogram load, for which he received 40,000 cowries (£1.00), or 2,353 cowries (about £.05) per day and a food ration of 200 cowries per day.

The Germans bargained with the porters over the ration allowance. The porters demanded 100 cowries per day; the Germans offered 30 cowries and after much haggling they agreed on 40 cowries with 10 cowries extra for the headman of the porters and for the interpreter.²⁶ The variation between local practice and the arrangement with the Germans demonstrates that bargaining was a key element in the employment of porters. Porters had to maintain some degree of corporate identity in order to engage in these negotiations, and hence it is possible to say that the consciousness of porters as workers had become a factor in the organization and conduct of trade. Passarge recognized this crucial development in his observations of the porters in his caravan.

In 1891 Monteil also learned that porters shared a sense of identity as workers, although he was not as perceptive as Passarge. Monteil's party, which consisted of 10 donkeys, 4 oxen, and 50 porters, was traveling with a large Hausa caravan that was returning from Asante to Sokoto with kola nuts. On his way from Wagadugu to Dori, Monteil had trouble with his porters, and in Yaga, between Dori and Say, many of the porters deserted. One night 30 of the 50 porters left "*sans que j'eusse les moyens de les faire joindre; les deux seuls chevaux, celui de Badaire et le mien, qui restaient, étaient incapables de se porter eux mêmes; nous avions dû pour cette raison faire bonne partie de la route à pied.*"²⁷ The porters included 25 who had been recruited by capitaine Quiquandon and ten recruited in Bobo Dioulasso. Unfortunately, Monteil did not record whether the deserters and either of the two groups corresponded. "*Quelles raisons les protèrent à s'enfuir? Je n'ai jamais pu me l'expliquer;*

mais, s'ils m'emportaient cinq fusils, ils m'enlevaient aussi le souce que j'ai signalé d'avoir à les nourrir." The firearms had been distributed among the porters in order to reduce the size of the loads; as it turned out this measure was naive. As was the case in Passarge's caravan, the porters were willing to take corporate action in their own interests. The reasons for their walkout are unknown, but at least momentarily they were conscious of themselves as workers.

The Sudan Interior Mission also found the recruitment of carriers difficult because porters acted in their collective interest. Between Bida and Kano in 1895, Walter Gowans not only had trouble employing porters but also experienced "the continual danger of losing them."²⁸ According to another missionary, Rowland Bingham,

Carriers knew how to conduct a strike as effectively as any labour union at home [in Canada]. They would get about 20 miles from anywhere and then every man would put down his load and say, "White man, we cannot go any farther unless you double our pay." Because of these labour problems it sometimes took six weeks to go a six days' journey.²⁹

Bingham and Gowans were probably naive in the way they treated carriers, since they saw in these workers potential converts to Christianity, but they quickly learned that porters were workers who knew how to bargain for higher wages. As had been the case with Monteil's carriers far to the northwest, the SIM carriers temporarily at least were behaving as conscious members of a working class. It must be stated, however, that this consciousness was probably temporary because portering was seldom a full-time occupation. When caravans disbanded, individuals went their separate ways, but while they were working for others they could not escape the inherent conflict that derived from relationships of employment based on wage labor. Employers, whether they were missionaries or Hausa traders, wanted to minimize wage payments and maximize the work load, while the priorities of the porters were centered on obtaining the highest wages possible for the least amount of work. Such a conflict of interest inevitably involved struggle.

Women were used as porters, although it is not clear how extensive their employment was. At Kulfo, the Nupe town between Zaria and the Niger River, Clapperton observed "a great number of fine women [who] hire themselves to carry loads on their heads."³⁰ They came from Borgu and were employed between Kulfo and the Bariba

towns at least. In Adamawa, Passarge met a large ivory caravan, carrying thirty tusks, between Garoua and Ngaundere, which had both male and female porters. The owner of the caravan was from Zaria; most of his porters were women "who work more cheaply in Africa than men do."³¹ They carried loads of 50 kilograms each.

Often professional portering seems to have been regarded as an occupation fit only for slaves or for those driven to take it up as a result of extreme poverty and ill-fortune. Portering was a dangerous occupation; journeys were long and often arduous, and caravans were frequently attacked and their personnel killed or enslaved. It was not unknown for traders who employed free porters to sell them into slavery at the end of a journey or in other ways to exploit or defraud them. The hazards associated with portering and its association with slavery or extreme poverty may well have served to limit the extent to which hired labor was available, particularly in good agricultural years or when craft activity was buoyant. If this was the case it may partly explain the use of trade slaves as porters and also the formation of specialized groups or companies of professional slave porters (*'yan bojuwa*). It may also explain the relatively high wages porters could earn. Caliphate authorities do not appear to have regulated wages, but they took an interest in the labor of porters to the extent of defining their liability. A hired porter who accidentally damaged goods, according to Abdullahi dan Fodio, "is not liable to make good the loss. However, he will not be entitled to his wages."³²

On the road from Kano to Sokoto in 1827 when he had trouble with his livestock, Clapperton had to employ five men to carry the equivalent of a camel load of goods – at a cost of 2000 cowries for a day's work.³³ This charge was high because of the situation; Clapperton was on the road and needed to keep moving, but surely this kind of problem faced merchants on a regular basis. A day's employment and a contract for a whole journey involved a different wage scale. Ogunremi reports figures for the Yoruba/Nupe area that suggests that professional porters received wages considerably higher than that for day laborers.³⁴ At mid century, porters received 1200 cowries per day (1s 2½^d), while laborers were paid 400 cowries per day (4½^d). Porters carried loads of 65 to 70 pounds at twenty miles per day, for a cost of about 14.6^d per ton/mile. By the 1890s, Robinson had to pay 1500 cowries per day between Lokoja and Kano, which at that time was worth 9^d. From Keffi to Zaria, about 180 miles. Robinson paid each porter 20,000 cowries, plus a

food allowance of 300 cowries. In 1907, Girouard complained that head portage had become a problem because "the remuneration invariably paid was and is high, much above the current rate of wages in the country, [and] increasing difficulty in obtaining head transport has been felt."³⁵ By that time wages were approximately 2/- per ton/mile.

Most of the labor force involved in the long-distance transportation of goods, whether free or slave (but excluding trade slaves), took up the occupation or were compelled to undertake it for readily understandable economic and social reasons. Some people needed to supplement household income during a season when there was comparatively little farm work to be done. Slaves who in the wet and harvest seasons worked the land engaged in transport for their owner or for others under *sufuri* or *murgu* arrangements, which provided the owner with the means of securing a return on his investment. The owner carried the costs of his slave's subsistence if the slave worked for him on a trading expedition, just as he did if he hired free labor or the labor of other men's slaves, but in *sufuri* and *murgu*, arrangements, the costs of the slave's subsistence were transferred to the hirer.

Other people became porters or teamsters because of the opportunity presented by travel and such petty trade as they could arrange on journeys to distant markets to accumulate sufficient capital to be set up as independent traders. No great amount of capital was necessary to enable an individual to establish himself as a petty merchant, from which position he might succeed, given good fortune, in rising to the status of a more substantial trader, caravan leader or broker. Slaves (other than trade slaves) required to labor as porters and pack animal drivers also sought whatever opportunities they could to engage in petty trade on their own account. From the proceeds of such petty trade they might hope to accumulate and secrete the basis of a ransom (*fansar kai*) and have something left over to allow them to start a farm, engage in a craft or enter trade on a larger scale.

Slaves and members of the "lumpenproletariat" that existed in all the major Hausa towns and cities were the human resources from which professional porters were drawn. According to Staudinger porters were recruited from the poorest classes, a fact that was observable in their behavior and character.³⁶ There are cases of freemen being sold into slavery to pay gambling debts; portering

was considered viable employment for such “riff-raff.”³⁷ Other social and political pressures contributed to the entry of free labor into employment in long distance trade. Travel to distant places offered a means of escape for criminals and those under severe forms of social and economic pressure, not to mention those under threat of political persecution. And slaves used the possibilities of travel as a means of escaping. One fugitive slave who fled from Bauchi in the 1880s was re-enslaved in Keffi when his disguise as a Hausa merchant was disclosed. H. Johnston, who recorded this tale, accepted the claim of the slave that he tried to pass himself off as a merchant, but portering probably offered a more likely cover in similar cases.³⁸ In any event, many “Hausa” porters did not in fact speak Hausa as their first language, but their acquisition of the language allowed them, albeit at a humble level, to participate in the Hausa commercial system. Long-distance trade was an important agent of acculturation and socialization.

Porters, whatever their background, rose above the ranks of the under- and unemployed, however temporary their employment. Although porters might become merchants or drift back into the “lumpenproletariat,” they still came together as a recognizable and conscious group of workers. As Passarge observed, “indeed they are not a special caste – since anyone can be a porter – but there are definite usages and customs regarding the regular conditions of hire between porter and master.” Passarge specifically compared his porters with the Nyamwezi and Swahili porters of East Africa; in both the central Sudan and East Africa he thought that a “class” of porters had emerged as a result of the expansion of trade. Passarge’s confusion over “caste” and “class” should not cloud the significance of his experience. He found that porters identified as workers and had to be dealt with on that basis.³⁹

Since portering as an occupation required little skill but plenty of strength and endurance, there was little scope for the emergence of specialized grades or categories of labor. However it is known that as a result of demand for high value goods, such as the first kola nuts of the season’s harvest, entrepreneurs moved in to satisfy this demand and created a rapid transport service. In the process they brought into being a differentiated category of porters, *‘yan bojuwa*, who specialized in the carriage of light high value loads. Adamu Bagwanje, for example, began his career in a team of *‘yan bojuwa*. Born in Gonja on a trading expedition, as his name indicates, Bagwanje traveled to Lagos as a young man at the turn of the

century.⁴⁰ Most merchants employed only two to four porters, as Bagwanje remembered, and went in groups of about thirty. They took textiles, sandals, and hides and skins south and brought kola and textiles back. The porters received one-third of the profits as wages.⁴¹ Nonetheless, there is no indication that *'yan bojuwa* and other porters differed in the degree of their consciousness as a group. All porters recognized their status as workers, and that recognition – occupational in its basis – could, at least in theory, have become a foundation stone in a developing consciousness of class position and class antagonism. At best consciousness of class solidarity was rudimentary in this economy and society and depended on social relations of production, distribution, and exchange that were never dominant. Occasional manifestations of collective action by porters and others cannot be interpreted as providing evidence for the existence of some “proto-working class.” All that can be said in the present state of knowledge is that there was some potential for developments along these lines. The potential was weak and in any case it was to be aborted by political developments –the colonial conquest – and subsequent technological and economic changes.

TEAMSTERS

Teamsters constituted a second category of workers in the structure of long-distance trade. There was always a large reservoir of donkeys and donkey drivers (if not of other pack animals – oxen, hinnies, and mules) in the countryside round the major towns and cities. Camels were also available for hire. Pack animal driving, though just as hazardous as load carrying, was not as physically demanding. The occupation – mainly a dry season one – tended to be taken up by those who had the resources to put together a team of pack animals or by those who had some experience and skill in pack animal driving.

Generally one man could handle three donkeys or oxen or three to five camels. The owners of pack animals hired them out with the services of a driver, who might be the owner himself, a member of his household or hired labor, for both local and long-distance work. Some of the larger merchants and caravan leaders maintained their own teams and no doubt used members of their household, including slaves, as drivers, only hiring labor when they did not have sufficient household labor. Pack animals and their drivers do not seem to have been in short supply, particularly not in the major centers of trade such as Kano or Kukawa.

The role of hired camel transport in the trans-Saharan trade was noted by Clapperton in 1824: "The merchants of Ghadamis and Tuat never keep camels of their own, but hire them from this singular people [Tuareg], who carry their goods across the desert to Kashna [Katsina] at the rate of ten dollars a load, and likewise convey slaves at twenty-five dollars a head."⁴² Heinrich Barth, who used this service when he crossed the desert in 1849-1850, amassed a debt of 55,000 cowries "for the carriage of...merchandise from Tinteggan to Kano," and he owed an additional 18,000 cowries to a merchant who had rent him a mare and a bullock. A similar method of transport operated at the end of the century.⁴³ Monteil reported in 1891 that the Kel Ewey Tuareg "se chargent des transports pour un prix convenu a l'avance, et la plupart du temps les Arabes n'accompagnent pas les caravanes."⁴⁴ Merchants also hired camels, together with their drivers, in the Bilma salt trade.⁴⁵

The presence of camels in the savanna made it possible for the Tuareg to sell transport services to local merchants and to buy agricultural products on their own account which they then moved to market for sale. There is no way of telling the relative importance of the two roles. Tuareg camel owners probably filled both functions, sometimes speculating in produce and other times hiring their animals out to local merchants. Nonetheless, their position in the transport system is clear, as Baier has noted:

Transport work during the dry season (called *sufuri* in Hausa) fitted nicely into the transhumance cycle of the nomads. Herders came south towards the savanna in December and January, grazing camels on southern pasture, and hiring them out for transport duties. When the rains began in May or June, they returned north.⁴⁶

Camels were used extensively during the boom in peanut exports after 1911, but camels were available for hire long before then.

In the dry season those with a team for hire or seeking work as teamsters flocked into the towns and cities looking for employment in both long- and short-distance transport work. Such a labor market was not particularly conducive to the development of specialized animal transport business with the teamsters organized into effective guild-like organizations to regulate and improve returns to labor. However, the same development that took place in portering also took place in teamstering. The *'yan burabura* were a specialized

class of teamsters who engaged in the rapid transportation of high value goods on lightly loaded donkeys.

Although it is not possible to estimate the total number of animals available for hire, figures gathered by the early colonial regime indicate that the number was considerable. In 1908 it was noted "in the Northern Provinces, there is an increased tendency on the part of owners of pack animals to place them at the disposal of the Government for hire."⁴⁷ In 1907 over 3000 animals were so employed. The implication that livestock owners were being drawn into a newly created market for livestock should be dismissed, however. Certainly colonial demand for livestock was a new development, but livestock had long been available for hire. Clapperton, on his second journey to the Sokoto Caliphate in 1827, entered into long negotiations with Madugu Abdullah, the head of a Hausa caravan returning from Asante to Kano. After protracted discussions, Clapperton arranged for the hire of fifteen oxen and donkeys to carry his goods. He signed an agreement with Abdullah that was written in Arabic "by which he was bound to carry my baggage and presents from Boussa to Kano; and for which I was to pay him, the day after my arrival in the latter place, two hundred thousand cowries."⁴⁸ The negotiations probably took longer than usual because Clapperton was not able to put any money up front; he had to insist on paying in Kano. Nonetheless, Clapperton's deal is revealing. It is the earliest known example of such an agreement for the transport of goods, even though there are many details of the arrangement that are not clear. Clapperton chose to deal directly with the caravan leader; perhaps Abdullah owned the livestock but it is more likely that he acted as an agent for one or more merchants in his caravan. The terms of employment for the teamsters required to tend the livestock are not known. It is not even clear if they were employed for wages or were part of the personnel engaged by the merchants who supplied the animals.

Monteil was more impressed than frustrated with the credit arrangements that were available in the Caliphate. In Sokoto he was able to make arrangements for transport that would be payable in Kano.

Affluèrent immédiatement des gens, qui avec des bourriquets, qui avec des chevaux, pour me proposer leurs animaux *payables à Kano*. Moyennant des recoinnaissances de la somme convenue pour l'animal, payable à Kano, je pus remonter en quelques jours une très belle caravane.

Mes créanciers devaient faire la route avec moi ou me retrouver à Kano.⁴⁹

Unfortunately, Monteil did not provide details of such arrangements, so that it is not possible to analyze the methods of labor mobilization involved in hiring animals. Monteil either had to employ teamsters on his own, or they must have come with the animals and hence were the responsibility of the owners. A few days later, at Kaura Na Moda, he was able to “profite de la presence a Kaoura d’une caravane qui se rend a Kano, pour acheter, toujours contre du papier remboursable a Kano, les animaux qui me sont necessaires. Nous nous y arretons deux jours, pendant lesquels je suis en proie a une rechute du mal qui m’avait deja terasse a Zebba.”⁵⁰ Animals could be purchased or hired on credit that could be collected in another town.

Clapperton’s arrangement for fifteen oxen and donkeys between Bussa and Kano suggests a rate of 13,300 cowries per donkey or oxen for the trip; approximately fourteen cowries per kilometre. Later he rented an oxen to carry his goods from Kano to Sokoto for what appeared to be an excellent rate of 5000 cowries for the trip; less than seven cowries per kilometer, or half the cost of hiring livestock further south.⁵¹ Unfortunately for Clapperton the ox was sick and did not get very far. Nonetheless, the rates are instructive of the kinds of decisions facing the traveler. On the road in the southern savanna region, Clapperton had to pay more than in Kano, where far more livestock were available. Clapperton not only had to compete with the needs of the caravan, which was returning from Asante heavily loaded with kola nuts, but he also had to contend with the fact that donkey and oxen prices were higher the further south one traveled. While Clapperton did not provide information on the cost of hiring men to tend the livestock, it is likely that these costs were included in the rent for the livestock. In 1898 and 1899, British officers arranged for the transport of goods to Gambaga by donkey as a means of eliminating the portage system that was in use.⁵² It was estimated that transport costs could be cut in half. In 1898 H. P. Northcott reported:

The first caravan, consisting of 40 donkeys, leaves to-day for Kintampo, and each donkey is to carry two loads of those arranged for human transport. On these being delivered in good condition at Gambaga, the Hausa High-Priest [Sarkin Zango?] who is the contractor, will

receive 10s. per load, but from the sum due will be subtracted the pecuniary equivalent of any loss or damage. The price compares very favourable [sic] with the cost of transporting a load from Kintampo to Gambaga under existing arrangements. The round trip occupies, on an average, 36 days, the pay and subsistence of a carrier amount to ls. 6d. per diem, and it therefore costs £2 6s. per load.... It has only been with difficulty, and by a menace of drastic measures that I have been able to get the Imam to provide the donkeys for the use of the Hausa High-Priest, but I anticipate that all obstacles will disappear when payment is made for the first consignment.⁵³

Although the trade to Gambaga was outside the Caliphate, it was located along the main commercial axis that connected the Asante kola markets with the Central Sudan, and hence transport arrangements along this route are an indication of the kinds of services that were available to Hausa merchants. In this case, the services of teamsters were associated with the hiring of livestock, which suggests that this was the usual arrangement. What was perhaps unusual was the role played by the "Hausa High-Priest," the Sarkin Zongo.

TRADE SLAVES

The third category of labor for use in long-distance trade was trade slaves who carried loads as they themselves were being moved to market for sale. At times in certain places and on certain routes it may have been difficult for long distance traders to obtain professional porters or pack animals and their drivers. In such circumstances trade slaves were sometimes used as porters, although some merchants regularly used trade slaves as carriers. According to Clapperton, trade slaves "are strictly guarded on a journey, and chained neck to neck; or else tied neck to neck in a long rope of raw hide, and carry loads on their heads consisting of their master's goods, or his household stuff; these loads generally from fifty to sixty pounds weight."⁵⁴

The fifty to sixty pound weight (23-27 kg) carried by these slaves was approximately half a normal load for a professional porter. Slaves that were intended for sale could be used to move light loads, but not at the expense of risking the health and hence the potential profits from these slaves. Trade slaves offered a merchant something like a ballast advantage. They were moving anyway and could carry goods at low, virtually marginal, cost, as long as they

were able. But trade slaves were not a reliable substitute for live-stock or professional porters. As Passarge observed

We came upon two Fulani accompanied by four slave women. One of them was an elderly and infirm woman who could hardly drag herself forward with a stick, the other three were bound by a rope round their necks and marched in train one behind the other. They also carried loads on their heads. This sad procession reminded us that we were in the land that is the principal supplier of slaves to the whole of the central Sudan. Earlier we have encountered such slave columns mainly in conjunction with cattle transport to Yola and Maroua. They were not a pleasant sight. Old, feeble, emaciated skeletons, men in fetters laden with bales, feeble and wretched little children, who with bundles on their heads trotted along beside their unladen master, the pace of the march being too much for them unless they ran. Next the unlucky ones in iron fetters, sometimes five of them fastened to one fetter by the same foot. The least valued slaves were those who came from Baia-land. Already weak and unable to take the unfamiliar Guinea corn food many of them died during transport. By comparison the Lakka slaves were much stronger and had more endurance. In the transport of their slaves the masters must be very watchful lest they run away or lest they furtively pick and eat the poisonous leaves of a certain bush in order to end their tormented existence. This bush is known as "gotska" in Hausa and is common in the bush. The Fulani use it as an oracle to ascertain the guilt of thieves.⁵⁵

Trade slaves, often recent captives, were seldom used to traveling great distances. They became lame and, unlike professional porters, were not motivated to work willingly. The prospects of escape and suicide limited their usefulness even more.

Eduard Vogel observed similar problems with the employment of trade slaves as porters in the trans-Sahara trade in the 1850s.

Two days after we had encamped in Gertruhn there arrived a caravan from Bornu with about 4-500 slaves. Then I saw for the first time what slavery and the slave trade is! The Tiboo, forced their unlucky prisoners, mostly girls and boys under 12 years old, to carry loads of up to 25 pounds on their heads and in consequence nearly all had entirely lost their hair and the skin of the head was all

rubbed off. By this means the drivers save on the number of camels employed and there were only some 35 camels accompanying the whole train. As far as Tedgerri all the slaves are fettered with an iron round the neck to which the right hand is bound with a leather thong. Adult men – of whom I only saw at most 15 brought in – remain in fetters until they reach Murzuq.⁵⁶

Fully loaded trade slaves, especially if shackled, slowed the pace of the average caravan. If trade slaves reached market in an exhausted or weakened condition observable to possible buyers, their value was lowered so that it was necessary for them to be rested, fed well, and perhaps given medical treatment before being put on the market. This extra care added to the slave trader's costs. Slave traders still found it expedient to use trade slaves as porters, particularly in the carriage of fairly light to medium loads of high value or in the carriage of foodstuffs and camping equipment, thereby relieving professional porters and pack animals of part of their loads and making it possible for them to carry larger quantities of trade goods.

The use of trade slaves as porters retarded the development of specialized professional transport services but did not prevent the emergence of *'yan bojuwa* and *'yan burabura*, who were able to offer a service for high value goods that was significantly better than that offered by the typical slow moving caravan with its usual complement of trade slaves. Trade slaves were relatively inefficient porters, and traders in slaves stood to gain more by getting their slaves to market in good condition than by giving them heavy loads to carry. Such profits as the traders could earn were likely to have been small when set against the profit margins on prime slaves.

LIMITATIONS ON THE DEVELOPMENT OF WORKER CONSCIOUSNESS

A labor force recruited from slaves, the "lumpenproletariat," petty entrepreneurs, and their dependents was most unlikely to develop anything remotely resembling an effective corporate solidarity as an occupational guild, let alone any more advanced form of class solidarity. Those engaged in portering or teamstering on their own account wanted to improve their status, while the aspirations of slaves lay in the direction first of freedom (or at least of wardship)⁵⁷ and with it the opportunity to labor or trade for oneself. The strategies perceived by free commoners and slaves were predominantly individualistic, not collective.

It would, however, be quite wrong to conclude that hired porters and teamsters were incapable of collective action to improve their conditions, although there was generally a surplus of labor available for hire and as a result labor stood in a poor bargaining position vis-a-vis the traders and merchants. On the march, though, the trader and his goods were vulnerable, and dissatisfied porters and teamsters could give the traders and the caravan leader a lot of trouble if they modified working conditions.⁵⁸ Awareness of the trouble that dissatisfied porters and teamsters could cause gave merchants a further reason for making the maximum possible use of household labor. A merchant with a large proportion of loyal dependents in his train was in a better position to counter threats from dissatisfied porters and teamsters than one who relied on the labor market.

Porters and teamsters had to exercise some discretion in the way in which they brought pressure to bear on traveling merchants or the agents of sedentary merchants. In extreme cases they risked the possibility of a summary trial by the caravan leader for endangering the lives and property of members of the caravan. Alternatively they could find themselves being handed over to the authorities for trial when they reached their destination. Rather than face these prospects dissatisfied porters and teamsters were more likely to desert, though this in its turn risked enslavement. Occasional collective action by porters and teamsters to defend or advance their interests is really no more than one should expect given the nature of the labor market and prevailing economic and social conventions. What would be surprising in this context would be evidence for sustained collective action to improve conditions.

A major obstacle to the development of class solidarity among porters and teamsters lay in the existence in long-distance trade of loosely structured but powerful associations based upon ties of kinship, culture and common residence. The well-assimilated communities of alien origin, such as the Agalawa, Tokarawa, and Kambarin Beriberi, came to occupy a major role in certain branches of long distance trade.⁵⁹ Vertical solidarity within these trading associations cross-cut any potential for conflict between the interests of the merchants on the one hand and the interests of the porters and teamsters on the other when porters and teamsters were members of the same community as the merchants. Young men began their trading experience as humble load carriers or teamsters but with time they gained seniority and rank within the association. Because

they acquired contacts and capital through inheritance, they could hope to achieve not only a respectable position in the community but wealth as well. Porters and teamsters from these communities had little or no interest in maximizing short-run returns to themselves as laborers while working for or with other members of the community. Their interest lay in the long-term prosperity of the trading association as a whole and in particular that of the *gidaje* (houses) of which they were members. By contrast, effective occupational solidarity came to characterize the labor of the specialists in the rapid transport of high value goods, the *'yan bojuwa* and *'yan burabura*. When these specialists were able to monopolize rapid transit on certain routes and prevent competition, they were in a relatively strong position vis-a-vis merchants needing to hire their services.

An examination of the labor of long-distance trade in the central Sudan reveals that trade was labor intensive, as indeed were other sectors of the economy. There were few economies of scale in the organization of transport. Livestock could carry more than porters, but the number of teamsters per livestock only reduced the labor input by a third to a fifth, depending upon the type of livestock employed. While draft animals reduced the number of workers necessary to transport a given quantity of goods, the difference was relatively marginal when compared with the impact of the railways and lorries that replaced porters and teamsters in the twentieth century. The limitations on transport capacity invariably meant that large numbers of people were involved in trade, especially since such staples as grain, salt, and metal goods, as well as luxuries, were exchanged. Many people participated in the market economy – as porters, teamsters, and merchants – but the market economy was imperfectly developed, in part because of the transportation bottleneck.

The porters and teamsters of the Central Sudan were highly motivated individuals who willingly undertook the long and dangerous journeys of caravan trading because they hoped to become independent, small-scale merchants on their own account. People considered commerce a means of improving social and economic status, even though the labor requirements of long-distance trade were such that new workers had to be recruited to replace those who successfully transformed their position in trade from that of porter or teamster to that of entrepreneur. Individuals might stop being workers, but the work still had to be done. Indeed the expansion of trade in the nineteenth century suggests that the number

of workers actually increased, even though no class of workers evolved. The attitudes of most porters and teamsters seem to have been directed towards attaining self-employment, and with the possible exception of 'yan bojuwa and 'yan burabura collective action and group identity were confined to specific expeditions. The extent to which workers perceived themselves as workers was temporary and expedient.

The alternate means of mobilizing labor through slavery and through the household also undermined the ability of workers to identify as a collectivity. Slaves who hired themselves out under *murgu* arrangements occupied an ambiguous position in the class structure; they were slaves but worked for wages, less, of course, the amount paid to their masters. Household labor – both free and slave – did not rely on a wage system at all. Slave and free alike were treated as members of a family firm and were allotted food, shelter and clothing as needed. They were not independent workers alienated from the work place. The heads of commercial households could act arbitrarily, dismiss kin and other apprentices, and sell slaves, but the interests of the firm could mitigate against such behavior. It was far better to encourage cooperative attitudes than risk the development of class antagonisms. Those masters who allowed slaves to work on their own account in return for a *murgu* payment risked the development of corporate interests among these slaves, but employment was usually seasonal and slaves returned to the bosom of the household during the rainy season. The step toward the creation of an independent work force was only partial and hesitant; the bonds of slavery prevented the evolution of a distinct class.

In the final analysis, free professional porters and teamsters, household laborers, and slaves who worked on their own constituted an amorphous group of workers. There was relative ease of movement between the three categories, as indeed there was between that of worker and merchant. Young men could leave their homes and join an expedition as a porter or teamster and still return home to engage in the business of the family firm. Slaves who worked for themselves behaved in a manner similar to free porters and teamsters. They wanted to maximize their wages. And anybody could trade if he had some capital, as Resident Goldsmith of Sokoto complained in an early report on the difficulty of controlling the slave population of the capital district in 1906. Slaves could no longer be kept in place after the British conquest of 1903. They wandered

about the countryside selling a piece of cloth or a goat and caused trouble when they had nothing to sell.⁶⁰ The advent of the British altered the conditions of employment; slavery was under attack, primarily because of pressure from the slaves themselves in a situation in which political authority was shaky, and a greatly expanded “lumpenproletariat” emerged as a result. The colonial era ushered in new class relationships, but there was already a mass of under- and unemployed individuals in the nineteenth century. Porters and teamsters – both slave and free – filled the pool of labor that had to supplement the labor of the household. The ease with which people slipped into or out of the ranks of the small merchants reveals the strain in this social formation. Whether slave or free, the desire was to escape wage employment, but while individuals might be successful in doing so, at least for a time, the reality of business was that not everyone could be one of the *attajirai*.

Notes

1. Originally published, with M.B. Duffill, in Catherine Coquery-Vidrovitch and Paul E. Lovejoy, eds. *The Workers of African Trade* (Beverly Hills: Sage Publications, 1985), 137-67.
2. Travelers' marriages (*auran matafi*, *auran zaure*) were common. According to J.S. Trimingham, *Islam in West Africa* (Oxford: Oxford University Press, 1959) 168-69, “If a trader already has four wives but does not wish to take any one of them with him on his travels for fear of inciting jealousy or because they are strictly *kulle* (secluded), he will arrange a temporary marriage with a fifth. He informs a cleric that none of his wives can travel with him and he wishes to take a temporary wife. He arranges for the cleric to be in the *zaure* or entrance hut of his compound at the time he leaves it to commence his journey and is married for the period of the journey. The clerics connive at the practice for, they say, ‘he has renounced his wives for that period,’ interpreting literally the ambiguous Qur’anic passage in *Sūrat an-Nisā*, verse 28. On his return the divorce is automatic when, at the *zaure* he hands her the previously stipulated *muta* (consolatory gift), though it is always called *sadaki*.”
3. *alaro* (1) A carrier or porter (= *d’anl’yan alaro*), or (2) Carrying a load a distance for payment. The word is of Yoruba origin: *aláàru* = porter: derived from *aaru* = porter’s work; see R.C. Abraham, *Dictionary of the Hausa Language* (London, 1962), 3. The Hausa words *d’anl’yan dako* were also used to refer to porters and carriers but in a somewhat restricted way. They referred to those who carried loads short distances for payment, for example, within an urban area. The words

had a related or additional meaning, at least in Sokoto and Zaria, where they referred to young slave lads. It may be legitimate to conclude from this that at least in these two cities young male slaves undertook urban portage.

4. S. Passarge, *Adamaua: Bericht über die expedition des Deutschen Kamerun-Komitees in den jahren 1893-94* (Berlin, 1895), 479.
5. Partnership was certainly known in nineteenth-century trading activities in Hausaland. *Terayya*, *tarme*, *turewa*, *gamayya* (Katsina dialect) are all words meaning partnership. The word *gamade* (which Bargery equates to *gamayya*) has the more specific meaning of combining for purposes of trade. A partner was referred to as *abokin taraya* (and presumably a trading partner was called *abokin gamadel/gamayya*). There is another word, *guria*, derived from Arabic, that Bargery equates to *gamade*, with the following meaning: an investment in something bought conjointly by two or more persons. See G.P. Bargery, *A Hausa-English Dictionary and English-Hausa Vocabulary* (London, 1934).
6. M.B. Duffill, ed., *The Biography of Madugu Mai Gashin Baki* (Madison: African Studies Program, 1984).
7. Several Hausa texts collected in the late nineteenth and early twentieth centuries emphasize trade as a means of gaining wealth and prestige. See the discussion by I. Sellnow, "Der Handel in der Hausa Literatur des ausgehenden 19 und beginnenden 20 Jahrhunderts," *Mitteilungen des Institut für Orientalforschung* 9 (1963), 410-32. There is an important poem on the subject of "Poverty and Wealth" in which the connection between long-distance trading and wealth is firmly emphasized. Sellnow did not make use of this poem, which comes from a collection made by A. Mischlich, "Religiöse und Weltliche Gesänge der Mohammedaner aus dem Sudan," *Studien zur Auslandskunde: Afrika* 2:3 (1943), 129-97. The English translations by S. Pilaszewicz, "'The Song of Poverty and Wealth: A Hausa Poem on Social Problems.'" *Africana Bulletin* (1974), 67-115; and I. Tahir in Jack Goody, *Cooking, Cuisine and Class* (Cambridge: Cambridge University Press, 1982 193-209) suffer from a lack of annotation and critical analysis.
8. Sellnow, "Handel in der Hausa Literatur," 410-32; Mischlich, "Religiöse und Weltliche Gesänge," 129-97.
9. Passarge, *Adamaua*, 31.
10. Duffill, *Madugu Mai Gashin Baki*.
11. Paul E. Lovejoy, *Caravans of Kola* (Zaria: Ahmadu Bello University Press, 1980); Lovejoy, *Salt of the Desert Sun. A History of Salt Production and Trade in the Central Sudan* (Cambridge: Cambridge University Press, 1986).
12. Lovejoy, *Caravans of Kola*; Kurt Krieger, "Kola-Karawanen: Ein Beitrag zur Geschichte des Hausahandels," *Mitteilungen des Institut für Ori-*

- entforschung* II:2 (1954): 289-323; A. Mischlich, *Ober die Kulturen im Mittel-Sudan* (Berlin: Dietrich Reimer, 1942), 181-86.
13. Ferguson learned at Yendi that Hausa kola traders used "slaves, horses, donkeys and oxen" to carry loads; see George Ferguson to Governor, 18 August 1894, C.O. 879/41, #479.
14. Mischlich, *Ober die Kulturen im Mittel-Sudan*, 181-86; P.L. Monteil, *De Saint-Louis à Tripoli par le Lac Tchad* (Paris: Felix Alcan, 1894), 210-11.
15. Polly Hill, "Two Types of West African House Trade," in C. Meillassoux (ed.) *The Development of Indigenous Trade and Markets in West Africa* (London: Oxford University Press, 1971), 308-18; Hill, "Landlords and Brokers: A West African Trading System," *Cahiers d'études africaines*, 23 (1966), 349-66; Abner Cohen, *Customs and Politics in Urban Africa. A Study of Hausa Migrants in Yoruba Towns* (London, Routledge & Kegan Paul, 1969).
16. G.A. Krause, "Aufzeichnungen über die Stadt Chat in der Sahara," *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, XVII (1882), 313.
17. E.R. Flegel, "Der Handel in Nigerbeit und seine voraussichtliche Zukunft," *Mitteilungen der Afrikanisches Gesellschaft in Deutschland*, 4 (1883/85), 134-35.
18. Works, *Pilgrims in a Strange Land*, 63-79; Stephen Baier, *An Economic History of Central Niger* (Oxford, 1980), 177-81.
19. Alhaji Muhammad Lawan Barmo, 5 January 1970, Katsina (Lovejoy Collection, Northern History Research Scheme Library, Ahmadu Bello University, Zaria, and Harriet Tubman Resource Centre on the African Diaspora, York University). Also see Lovejoy, *Caravans of Kola*, 91; Baier, *Economic History of Central Niger*, 251-52.
20. Muhammadu Isa Indole, 18 January 1970, Kano (Lovejoy Collection).
21. M.M. Tukur, "Values and Public Affairs: The Relevance of the Sokoto Caliphal Experience to the Transformation of the Nigeria Polity" (Ph. D. dissertation, Ahmadu Bello University, Zaria, 1977), 369.
22. E. Kling, "Bericht des Hauptmann Kling über seine letzte, von Lome über Kpandu, Salaga und Naparri nach Bismarckburg ausgeführte Reise," *Mitteilungen aus den deutschen Schutzgebieten*, 3 (1990), 145; and Kling, "Über seine reise in das Hinterland von Togo," *Verhandlungen der Gesellschaft für Erdkunde zu Berlin*, 17 (1990), 353; Passarge, *Adamaua*, 31; and Pigott report, 20 October 1896, C.O. 879/45, No. 506.
23. Interview with Nagudu Abdullahi, 25 October 1969, Kano (Lovejoy Collection).
24. E.P.C. Girouard to Secretary of State, Report on Transport Policy of Nigeria, 30 May 1907, Zungeru. Nigerian National Archives, Kaduna.

25. Passarge, *Adamaua*, 64-66.
26. Passarge, *Adamaua*, 31-33.
27. Monteil, *De Saint-Louis à Tripoli*, 156, 178.
28. Walter Gowans, *Sudan Witness*, 1963, 3.
29. Rowland Bingham, *Sudan Witness*, 1963, 3.
30. Hugh Clapperton, *Journal of a Second Expedition into the Interior of Africa* (London, 1829), 137.
31. Passarge, *Adamaua*, 255.
32. Tukur, "Values and public affairs," 369.
33. Clapperton, *Second Expedition*, 179.
34. G.O. Ogunremi, *Counting the Camels. The Economics of Transport in Preindustrial Nigeria* (New York: Nok, 1982), 84-87.
35. Girouard, Report on Transport Policy, 1907. Also see Ogunremi, *Counting the Camels*, 89-90.
36. Paul Staudinger, *Im Herzen der Haussaländer* (Berlin, 1889), 141.
37. Duffill, "Madugu Mai Gashin Baki."
38. H. Johnston, *The History of a Slave* (London: Kegan, Paul, Trench, 1889), 109-10.
39. Passarge, *Adamaua*, 65.
40. Adamu Bagwanje, 18 August and 10 September 1969, Kano (Lovejoy Collection).
41. Bak'o Madigawa, 1 December 1969, Kano, and Gambo Turawa, 5 January 1970, Katsina (Lovejoy Collection).
42. Dixon Denham, Hugh Clapperton, and Walter Oudney, *Narrative of Travels and Discoveries in Northern and Central Africa in the Years 1822, 1823 and 1824* (Cambridge: Cambridge University Press, E. W. Bovill, ed., 1966 [1826]), 709.
43. Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 489.
44. Monteil, *De Saint-Louis à Tripoli*, 290.
45. Lovejoy, *Salt of the Desert Sun*; Baier, *Economic History of Central Niger*, 62, 71.
46. Stephen Baier, "Local Transport in the Economy of the Central Sudan, 1900-1930" (unpublished paper presented at the conference on the Economic History of the Central Savanna of West Africa, Kano, 1976); Baier, *Economic History of Central Niger*, 130.
47. Northern Nigeria Annual Report, 1907-08, cited in Ogunremi, *Counting the Camels*, 108.
48. Clapperton, *Second Expedition*, 76, 77, 88.
49. Monteil, *De Saint-Louis à Tripoli*, 252-53.
50. Monteil, *De Saint-Louis à Tripoli*, 260.
51. Clapperton, *Second Expedition*, 77, 88, 179.

52. Henry P. Northcott to Colonial Secretary, 28 May 1898, enclosed in Hodgson to Chamberlain, 20 July 1898, C.O. 879/54 No. 564. A. Morris to Colonial Secretary, Gambaga, 1 October 1899, enclosed in Hodgson to Chamberlain, 23 November 1899, C.O. 879/58 No. 585.
53. Northcott to Colonial Secretary, 28 May 1898.
54. Clapperton, *Second Expedition*, 138.
55. Passarge, *Adamaua*, 261-62.
56. Eduard Vogel, "Dr. Eduard Vogel's Reise nach Central Afrika," *Petermann's Geographische Mitteilungen* (1855), 251.
57. The description of the status of a slave who has received the grant of freedom as a "ward" rather than a "client" departs somewhat from the usual description of this status position. In the text on slavery collected by Adam Mischlich the relationship of the former master to his former slave is described by the use of the term *wakili*, steward, representative, guardian. The last term describes the relationship, and in English the usual object of a guardian's attention is described as a ward; see Mischlich, "Über Sitten und Gebrauche in Hausa," *Mitteilungen des Seminar für Orientalische Sprachen*, 11 (1909), 215-74.
58. There are a number of Hausa proverbs that suggest that porters had little respect for those who hired them and were unconcerned about the safe arrival of the goods they were hired to carry; see (a) *Mai kaya ke tsoron fashi, dan alaaro sai an ba shi magana*: The owner of the load fears robbers (he acts cautiously for fear of losing his property); the carrier does not care (all you can do is warn him) (Merrick, *Hausa Proverbs*, 64). (An alternative reading is possible – The owner of the load fears delay/breakage; for the carrier it is only talk.) (b) *'Yan alaro ba ka asara sai gammo* ("Porter, you have nothing to lose but [your] head pad.") From the collection of Major Edgar, National Archives, Kaduna. These proverbs can be interpreted in several ways, but one feature stands out clearly; the porters, *'yan alaro*, were a distinctly identifiable group of laborers who had no personal stake in the goods that they carried.
59. Lovejoy, *Caravans of Kola*, 75-100.
60. Goldsmith, Sokoto Province, Report for December 1906, SNP 7/8 1643/1907.

10 | *TRADE BETWEEN SALAGA AND KANO IN THE NINETEENTH CENTURY*

This chapter addresses issues relating to the economic development of West Africa in the nineteenth century, and specifically the role of trade as an engine of economic growth. It is sometimes contended that African economies failed to experience sustained growth for some inherent weakness in the economic structures of African societies.¹ Specifically, Karl Polanyi posited a theory of economic stagnation that attributed to political administration as the reason why West African economies were incapable of responding to market forces that might otherwise have led to sustained development. If this were the case, then it should be possible to examine the economic relationship between two of the most important states in West Africa in the nineteenth century – Asante and the Sokoto Caliphate – in a manner that would demonstrate how administered trade hampered economic growth. These states sustained commercial relations that were largely independent of the European-dominated Atlantic economy in the nineteenth century, and hence an examination of this trade allows the possibility of explaining why these states failed to forge economic links that could have resulted in sustained economic growth. The study has theoretical importance for the study of the economic history of Asante, virtually coterminous with modern Ghana. Moreover, the study extends the analysis of Adu Boahen, whose work on the Sahara first raised the issue of the diplomatic interaction between European and African states, via the Sahara crossing, and the economic consequences of such interaction. This study extends that analysis beyond the Sahara to examine the relationship between Asante and the Sokoto Caliphate, one tied to the Atlantic and European economic change, and the other to the Sahara and the Islamic world.

In examining the question of economic change, this chapter reviews the theories of Karl Polanyi, who has had an important

influence on the study of African economies. A leading proponent of the substantivist school of economic anthropology, Polanyi was interested in contrasting modern, "capitalist" societies and economies with pre-modern or "archaic" economies. Polanyi used the Kingdom of Dahomey as a test case to explore issues that relate to economic development and change. He argued that the trade between Dahomey and the European merchants at the coast was administered; prices were determined artificially, and exchange occurred beyond the pull of the market. While specialists such as Robin Law have rejected his analysis of Dahomey,² the idea that African states somehow had the ability to restrict trade and thereby retard economic development remains compelling; the approach shifts the focus from how Europe "underdeveloped" Africa, to cite Walter Rodney, to how African states undermined themselves.³ The case of Asante and the Sokoto Caliphate is further interesting because these two states virtually surrounded Dahomey. Hence if Polanyi's theories have had some currency in the study of Dahomey, they should have equal value in looking at neighboring polities. The fact that Asante and the Sokoto Caliphate were connected by one of the most important caravan networks in Africa should be noted.

Karl Polanyi once wrote, however, that the caravan trade of the western and Central Sudan was administered in a fashion incompatible with neo-classical economic theory. Caravans moved between "ports of trade" where goods were exchanged through administered procedures with fixed prices. The "port of trade" was the negation of a free market. Caravan trade – indeed virtually all trade and marketing from classical antiquity until very recent times – was imbedded in social and political institutions which were not influenced by supply and demand factors or the desire to maximize profits, according to Polanyi. In his paradigm, there were other kinds of administered exchange besides caravan trading; economic interchange also occurred on the basis of reciprocity and redistribution. Local market-places or bazaars also served as a forum for exchange, but such bazaars were not structurally autonomous and hence not integrated with caravan trading. Each method of exchange occupied a separate sphere, which Polanyi understood only with reference to the sociopolitical structure of each society. He argued that an analysis that placed trade in the context of its natural and social environment recognized the structural basis of economic interchange. Because economic behavior was administered through reciprocal relationships, through the redistribution of goods via political structures

or through the exchange of goods in bazaars where items were not priced according to their relative scarcity, Polanyi held that formal economic theory was not relevant.⁴ In short there was an absence of the price mechanism of supply and demand.

At one time the substantivist-formalist debate was a lively exchange among economic anthropologists and some historians. Polanyi's model challenged scholars to develop theories that did not rely on a simple application of neo-classical economics to non-western and non-industrialized societies. To some extent, this influence continues. A few archaeologists and anthropologists still turn to Polanyi for an explanatory model of trading towns.³ Other aspects of Polanyi's theory – reciprocity and redistribution – were in fact borrowed from earlier anthropologists, and these concepts continue to be used in anthropological and historical analysis.⁵

In the context of Africa, the substantivist tradition reached its zenith with the publication of *Markets in Africa* in 1962, a collection of essays by George Dalton and Paul Bohannon,⁶ and with the posthumous publication of Polanyi's study of Dahomey in 1966.⁷ The approach also influenced Richard Gray and David Birmingham, whose collection *Pre-Colonial African Trade* (1970), continued the study of commercial networks, although by then there was only a passing nod to substantivism, not a convincing commitment.⁸ The decline was evident by the time Claude Meillassoux's collection, *The Development of Indigenous Trade and Markets in West Africa* (1971).⁹ A.G. Hopkins, Philip Curtin, and Patrick Manning, among many others, proceeded to challenge the substantivist argument further, and for historians at least Polanyi's influence had waned.¹⁰ There is now a consensus among economic anthropologists and economic historians – at least with respect to Africa – that economic behavior must be correlated with the social and political institutions structuring the economy.¹¹

Why then discuss Polanyi's "ports of trade" in the context of the caravan trade of the western and Central Sudan? Why resurrect a model that others appear to have successfully dismantled? I would suggest that Polanyi's main contribution was not his theory as such but the reactions to it. By showing why Polanyi's model does not apply, it is possible to reach a better understanding of past economic behavior. Precisely because Polanyi's model bears some relationship to specific historical situations, his theory has the appearance of coherence. This apparent coherence is particularly

clear with respect to his concept, "port of trade," a term used to describe centers of exchange on the political frontiers of states and empires. How better to describe the "ports" at the southern edge of the Sahara or along the ecological divide between savanna and forest? With some mischievous intent, I propose to consider two such towns that should fit Polanyi's model but do not.

The "port of trade" was the keystone to Polanyi's analysis of administered trade in primitive and archaic societies. According to Polanyi's theory, the "port" was a neutral site, militarily secure, where exchange could take place. The state guaranteed civil protection for foreign traders; judicial authorities maintained an impartial commercial court; and anchorage, debarkation, and storage facilities were available. Prices were fixed under such circumstances, in contrast to market situations where prices fluctuated depending upon supply and demand. Furthermore, there was a sharp distinction between the local market places or bazaars in such towns and their foreign trade, which did not pass through the market place but carried on independently. Polanyi claimed that government agents set exchange equivalencies, usually for very long periods, or traders themselves agreed on fixed prices. One state or another could control the "ports of trade," or the "ports" could be located between states. In either situation, merchants were guaranteed free and safe.

For the historian, the basic problem with Polanyi's model is its static quality, as George Dalton readily admitted in his defense of Polanyi.¹² On the one hand, a crucial aspect of the model is that prices are fixed for long periods – and specifically fixed by the government in a systematic way. On the other hand, the analysis does not attempt to explain change over the same period. S.C. Humphreys has argued that administered "trade is strictly supervised and confined to official channels,"¹³ but the static problem is again apparent. Tight administration may only appear to have operated; over time, even over relatively short spans, such practices usually collapsed, at least the evidence from West Africa suggests as much in the several centuries before 1900.¹⁴ The lack of an historical dimension may appear to be ironic, since Polanyi's concern is to analyze historical situations, but he did so ahistorically. A comparison of Salaga and Kano, two of the most important cities in West Africa in the nineteenth century, reveals these flaws in Polanyi's framework.

SALAGA AND KANO

Salaga, a new center that developed in the nineteenth century, and Kano, which had been an important city for centuries, were closely associated commercially, despite their very different histories. Salaga, a northern province of Asante, was a bustling town largely inhabited by Muslim immigrants and located near the administrative center of Kpembe in eastern Gonja. The town was the gateway to the north and northeast for kola nuts from the Asante forests, and to a limited extent gold from the Asante gold fields and re-exports from the Gold Coast.¹⁵ Kano, in contrast to Salaga's frontier status, was located in the heart of the Sokoto Caliphate, the largest state in West Africa during the nineteenth century. This ancient Hausa town was well situated in a prosperous agricultural and industrial region, with trade links in many directions.¹⁶ Kola nuts were a major import for Kano, although kola was not as important to its economy as it was to that of Salaga. These two cities, connected by trade, represent contrasting types of commercial centers. Salaga rose to prominence as a result of government policies, and consequently it might well appear to correspond to a "port of trade."¹⁷ Kano arose organically within an economic region; political security was a factor, but there were no administrative decisions similar to those affecting trade at Salaga, other than government encouragement of trade and industry. Kano's economy was well developed and prosperous.

Salaga and Kano were similar in a number of respects that enhance the value of a comparison.¹⁸ The towns were approximately the same size, 30,000 to 50,000 people; both were provincial capitals but were not the capitals of the larger states in which they were located; and the period of their greatest importance overlapped. Salaga was founded in the first decade of the nineteenth century; at the same time, Kano expanded as a result of the *jihad* and the formation of the Sokoto Caliphate after 1804. The towns also experienced civil war late in the century Salaga in 1892¹⁹ and Kano in 1893-95,²⁰ although these crises had far different effects on the two cities. For Salaga, war came after nearly two decades of decline and never recovered its former commercial position. The strife at Kano temporarily disrupted trade but otherwise had little economic impact, and indeed with the imposition of colonial rule became even more important. Kano continued to be a center of trade and production, while Salaga declined further as other towns in the middle Volta region usurped Salaga's position.

A number of commercial institutions and practices were common to both places.²¹ The *lingua franca*, for example, was Hausa, although merchants often spoke other languages at Salaga and even at Kano. The currency was based on cowrie shells, gold equivalencies, and silver coins. The principal commodities were reciprocal; Salaga exported kola nuts to Kano and other places, while Kano provided goods for the Salaga market, particularly textiles, leather goods, salt, spices, and re-exports from North Africa. Islam was the dominant religion in both towns, although again Salaga was somewhat different in that large numbers of non-Muslims also resided there or nearby at Kpembe. Nonetheless, for the Muslim majority at Salaga and virtually everyone at Kano, cultural life was similar, especially with respect to public ceremonies, education, marriage, naming customs, and childrearing practices. The Islamic heritage influenced commercial procedures: letters of credit and written accounts in Arabic were used, and Muslim law, prohibiting usury, encouraged a variety of methods to avoid the direct collection of interest. Other features of the Islamic background were also shared, including attitudes towards women and slaves. Women were relegated to the trade in cooked foods if they were married; otherwise, they were prostitutes until they were too old to attract men. In either case they did not usually participate in the major branches of trade. With respect to slavery, Islamic tradition was paternalistic, encouraging the conversion of slaves to Islam and recognizing emancipation as a pious act on the part of slave masters. In practice, some male slaves were used as agents and caravan assistants, while some female slaves were taken as concubines. Many other slaves, male and female, were settled on plantations around both Salaga and Kano, where they grew foodstuffs for their masters.

Polanyi concentrated on the most obvious examples of "ports of trade," viz., seaports, but since he included inland centers in his model, Salaga and Kano most certainly would have been acceptable examples of the "port of trade" concept.²² That their trade was almost entirely directed within West Africa, despite links with the coast and the trans-Saharan trade, would not have affected his analysis. To the extent that these towns were "ports," they were so for caravans and not ships.

SALAGA: GATEWAY FOR ASANTE

Hardly a day passed during December, January and February without donkey caravans moving into Salaga in search of kola nuts,

which as noted above was a popular stimulant among Muslims of the savanna, and in effect was the “cash crop” of nineteenth-century Asante. Exported from the Akan forests for centuries, the nuts assumed a new importance after 1800 when the shipment of slaves from the Gold Coast to the Americas declined dramatically and then ended.²³ Asante was forced to promote other exports to minimize the economic impact of European abolition of the trans-Atlantic slave trade. These other products included gold and kola, although kola is important here because it was the main item exported north through Salaga. In turning toward the north, Asante relied in large measure on increasing demand for kola in the savanna that arose with the spread of Islam after the *jihad*. Salaga became the export point as a result of Asante administrative measures designed to restrict the movement of foreign merchants and to protect the commercial interests of the Asante government. Hence it seems that it might well have been a “port of trade.”

For centuries, Muslim merchants had been driving their beasts southward from the Mossi states in the upper Volta basin, the Bariba towns between the Volta and Niger Rivers, Wa, Kong, Jenne and other towns in the northwest, and the Hausa cities far to the northeast.²⁴ They crossed dangerous frontier regions where highway robbers waylaid stragglers, and well-organized bandits attacked even the largest caravans. For these merchants, the journey to the Akan forests for gold and kola offered tremendous profits well worth the risks of travel. Before 1800 they journeyed into the forest zone, stopping at Bighu, Nkoranza, and other towns adjacent to the kola and gold producing regions. Although donkeys and other livestock could not be bred in the forests southwest of the Volta River, and while livestock suffered increasingly higher death rates from disease in proportion to the time spent in the forest zone, savanna merchants incurred the losses as a necessary risk in order to maintain their transport advantage over the inhabitants of the forest. Despite relatively high losses in livestock, it was still desirable to buy kola and gold as close to the production zone as possible in order to benefit from the lower prices available there. Kola producers could head-load kola some distance north of the forest, but they were at a disadvantage unless northern caravans were restricted in their movements south.

The consolidation of the Asante state in the eighteenth century led to the restructuring of the kola trade, thereby altering the pattern of commerce in the middle Volta basin. In the process of northern

expansion, Asante acquired dominion over most of the kola and gold region; the destruction of Bighu in the 1720s was particularly significant, for Bighu had been the southern terminus of the kola and gold trade since the fifteenth century.²⁵ Its Muslim merchants were forced to move elsewhere. The effect was to decentralize the marketing network, which had previously been concentrated in the heart of the gold and kola zone. Among the towns, which replaced Bighu, were Bonduku, Kafaba, and Gbuipe. Bonduku assumed the role of gateway to the northwest, inheriting the position long held by Bighu in the trade to Wa, Kong, and Jenne.²⁶ Kafaba and Gbuipe, located on the Volta River, became the main centers in the trade to the northeast and were the immediate predecessors to Salaga.²⁷ Foreign traders regularly visited numerous other towns between the Volta River and the kola forests, southwest of Kafaba and Gbuipe, since at this time there were few restrictions on the movement of merchants.²⁸

This situation changed dramatically around 1800, as Ivor Wilks first demonstrated. The Asante government instituted a policy that led to the development of Salaga as its only outlet to the northeast.²⁹ Three factors influenced the adoption of this restrictive policy. First, the Asante share of the trans-Atlantic slave trade had declined, never to revive. It was a time to seek alternate sources of revenue for the state. Secondly, relations with Kong, the strongest state to the northwest of Asante, deteriorated. In the long run, Bonduku assumed an increasingly important role in the trade to the northwest, but temporarily around 1800 this caravan route was blocked. Thirdly, Gbuipe, which had become the most important town on the Volta River, rebelled in about 1802, and its destruction by Asante left a vacuum in the commercial infrastructure of the region and the trade to the northeast. There were other towns, including Daboya further north in Gonja, and Yendi even further north in Dagomba, but they were too far from central Asante to be controlled adequately and were beyond the range of Asante traders who now were head-loading their kola north.

As a result, Salaga was established as a twin town adjacent to Kpembe, the provincial capital of eastern Gonja, in the first decade of the nineteenth century, and in effect was the successor to Gbuipe and Kafaba. Kpembe may have had a resting stop (Hausa: *zongo*) for caravans in the eighteenth century, but there was no twin town at that time.³⁰ Located 25 kms from the Volta River crossing at Yeji, the site near Kpembe was an excellent choice strategically. Through

careful controls of the fording points along the Volta, Asante confined all foreign merchants to Salaga. Occasionally, visitors were allowed to proceed to the Asante capital at Kumasi and even through to the Gold Coast, but in such instances travelers required an official escort denied ordinary merchants.³¹ At Salaga, the Asante government maintained an outpost with officials in charge of trade, public safety, and judicial appeals.³² The provincial government at Kpembe paid regular tribute to Asante and was responsible for regional security, but foreign merchants and their resident agents monopolized trade.

Salaga was hardly an attractive town, other than being a safe place to trade. Located in savanna country stripped of its trees and bushes for use as firewood, the town was crowded and dirty. In the 1850s, according to Heinrich Barth, it was "a most miserable town, where even water is very scarce and can only be purchased at an exorbitant price."³³ At the height of the trading season, the few wells were almost dry, and it was necessary to transport water from a stream several kms away. Accommodation was a serious problem too. Large caravans of 1,000 to 2,000 people and comparable numbers of livestock often disbanded a few days before reaching Salaga, so that smaller sections of 100 or 200 might arrive at least a few hours apart and thereby ease the difficulty of finding space.³⁴ Even so, all rooms were taken well before the last merchants came. Some caravans tried to complete their business and leave as quickly as possible, but most merchants were stuck in Salaga for months resting from the long trip, selling their goods, buying kola, and preparing for the return home. The full season lasted about six months, with 50,000 people or more temporarily lodged in the town. By contrast, during the rainy months of June, July, and August the population dwindled to a few thousand residents, and even many of these people spent their days outside the town on their farms and plantations. Little trade was carried on at this time; instead, Salaga resembled a deserted summer resort, ready to revive when the next cycle of business began.

Asante commercial policies ultimately worked to the advantage of the state, although private citizens also benefited. Indeed, it might be said that official policy was nothing more than the ordinary effort of a government to bring a monopoly element to bear in its own interests. The government prevented Asante traders and farmers from going to Salaga until after state traders and officials took their kola to market, which gave officials and the state a price advantage.

By closing the roads temporarily, the government effectively set the price for the first kola supplies. Furthermore, government stocks were not subject to transit duties which private merchants had to pay once the roads were open. The confinement of foreign traders to Salaga protected prices in general, so that even after the state took its share of early profits, other producers also benefited, although not as much as the government.³³ The restrictions that were placed on the travel of merchants wanting to buy kola did not seriously affect the commercial position of the foreign merchants, however, since the restriction covered all merchants equally. Greater costs from higher kola prices were ultimately passed on to consumers in the savanna.

Salaga was organized into wards, each the home of a different ethnic community.³⁵ Immigrants came from the Mossi states, other places in the middle Volta basin, the Bariba towns, and the Sokoto Caliphate. They identified accordingly, although Hausa became the commercial tongue in recognition of the primacy of trade with the Sokoto Caliphate. The various wards recognized their own officials who represented the interests of their different communities in an informal town council. The principal citizens of the various Muslim wards included the chief merchants and the religious figures (*imam*) responsible for leading the community in prayer. The Asante government had its own representatives and maintained a tight rein on its own nationals, although there were native Gonja also in residence who responsible to the divisional government at Kpembe. Officials attempted to adjudicate internal disputes and maintain public order within each ward; the town council acted only when people from two or more wards were involved in a disagreement that could not be arbitrated privately.

The resident merchants were primarily brokers who arranged transactions between the foreign caravans and the Asante officials and merchants. There were two market-places in the town, but the bulk of the foreign trade took place outside these bazaars at the establishments of the brokers. Itinerant traders lodged with brokers, who also served as hotelkeepers and bankers. David Asante, who visited Salaga in 1877, provided details of this business:

Strangers are invited to accommodation in a hospitable way even outside the gate: this indeed arises from a custom of the inhabitants, which is not all bad, that the guest must give his landlord a percentage on all goods sold in the market.... The Salaga people are occupied

exclusively with commission business. The foreign merchants give to their landlord their entire goods and fix the price. The sale is then effected by the landlord, who takes charge of all payment for the foreigner. The landlord also looks after the purchaser at the expense of the merchant, and gets a percentage on that too.³⁶

Accommodation was free in the sense that there was no charge for food, room, storage space, pasturage, and related services. But each merchant was expected to present his broker-landlord with a gift of some value, which was known as *gaisuwa* in Hausa, besides arranging business through the broker for a commission.³⁷

These brokers (Hausa: *mai gida*, *dillali*) were the key to the cross-cultural exchange that characterized the Salaga market.³⁸ They knew local prices and had access to water, fodder, firewood, and food, which were otherwise relatively expensive. Because of their acquaintance with brokers elsewhere in the town, they were a source of credit, which was essential in the complicated exchanges that could involve a variety of buyers and sellers in a single transaction. Merchants had to dispose of their wares at the same time that they purchased goods, since it was difficult and expensive to transfer capital except in the form of commodities. Brokers provided storage facilities where clients could keep their wares until sold and the kola that was purchased. The importance of this service was reflected in the value of land, as noted by L.-G. Binger in 1889, "This speculation has given rise to property in real estate – houses and stables, which are let at higher prices as they are closer to the market."³⁹ This observation is particularly instructive, for it was made when Salaga no longer was as important as it had been during the height of its prosperity as an apparent "port of trade." Even so, the legacy of its commercial preeminence lived on well after decline had set in.

The Salaga market began to disintegrate in the 1870s, the consequence of a serious crisis in 1873-74. At that time Britain defeated Asante in war, occupying the capital at Kumasi and enabling the subjugated provinces to assert their independence.⁴⁰ The local Gonja people rebelled, killing hundreds of Asante residents and officials. This uprising, sparked by discontent from many decades of Asante rule and tight administration, proved disastrous for Salaga. Short-term vengeance undermined long-term prosperity. There were efforts to continue trading as usual, without the heavy hand of Asante, but it became apparent within a decade that Asante

administration had been crucial to the commercial position of the town. By 1889 the town had declined considerably:

Built very irregularly in quarters separated from each other by waste areas dotted with excavations full of stagnant water or by enclosures for cultivation, Salaga offers the traveller the sad sight of a village almost in ruins. Nothing is so sad as these houses without roofs and sections of wall half crumbled away. The lanes, very narrow, are nothing but a mass of filth and dirty water, and the waste spaces and little squares at night and up to 6 in the morning serve as latrines for the inhabitants.⁴¹

A few years later, in 1893, civil war tore the remains of the town apart.⁴² Despite a slight revival as a local center on the northern route after 1893, Salaga had reverted back to the status of *zongo*, a resting stop for caravans. It was no longer a major exchange point. Instead, new towns arose to take its place: Kete-Krachi on the Volta to the south, Atebubu across the Volta to the southwest, and Kintampo on the edge of the kola forests.⁴³ This then was the evolution of Salaga, from *zongo* in 1800 to apparent "port of trade" for Asante from c. 1805 to 1873, and then decline and ruin by the 1890s.

This discussion of the rise and fall of Salaga demonstrates the inadequacy of the "port of trade" concept as originally conceived by Polanyi. In Polanyi's framework, Salaga and other towns such as Bighu all would have been considered "ports of trade," but it is clear that the historical context of each town differed considerably. Bighu was important for perhaps 250 years, without the existence of a strong, centralized state that could administer trade. Its location was in the heart of the producing zone, where it was unhealthy for livestock. Nonetheless, merchants traveled to Bighu because of the relative advantage over producers. This example establishes that merchants were attempting to maximize their profits. The increased expense resulting from the loss of livestock was obviously passed onto consumers. Producers invariably had to accept a lower price for kola; they had no alternative but to sell to the merchants who had come to Bighu and its neighborhood. By contrast, trade at Salaga was centralized through state intervention. Asante decreed that merchants from the north and northeast must stop there, which meant that livestock losses were reduced significantly but kola was correspondingly more expensive. Asante producers and traders had to assume the cost of transport from the producing zone to Salaga, but this cost was passed onto the merchants, who in

turn passed it onto consumers. More to the point, Asante producers and traders benefited from the confinement of merchants to a single market town because the price for kola could be – and was – raised accordingly. The price differential was almost certainly greater as a result of shifting transport costs from savanna merchants to Asante merchants. In this case, Asante government intervention enabled the people of the forest to maximize their advantage, and most especially benefited the state.

If Salaga was a “port of trade” in Polanyi’s sense of the term, it was so only briefly, and not for the reasons Polanyi proposed. Salaga was an important center for less than seventy years, from c. 1810 to the 1870s, and only at its peak in the two or three decades before 1874 did the town approximate Polanyi’s model. This rather brief tenure as an archetypal “port of trade” was the result of a conjuncture of historical and economic circumstances, particularly the political climate that allowed, however restrained, the entrepreneurship of Hausa and other Muslim merchants, hardly a typical situation, as Polanyi’s model would require. Asante may well have wanted to administer trade much more carefully and for a longer period, but in actual practice administered trade in Polanyi’s sense was difficult to establish and even more difficult to maintain. Asante took advantage of a political and economic situation as long as possible, but such government actions are based on common sense, not some inherent structural necessity of an “archaic” economy.

KANO: COMMERCIAL CENTER OF THE SOKOTO CALIPHATE

Many of the caravans at Salaga came from Kano, whose merchants could claim to be the entrepreneurs of the kola trade. They were from the most prosperous province in the largest empire in nineteenth-century West Africa; they organized the biggest caravans and dominated the important Kano market, which was the largest wholesale center for Asante kola outside the Volta basin. As these merchants traveled across the savanna, others joined their caravans, as much for commercial opportunity as security. Furthermore, the Kano traders engaged in other activities, including trade with Borno, northeast of Kano, and other parts of the Sokoto Caliphate. From their homes in Kano, these businessmen were at the heart of a vast economic region stretching from Asante in the southwest to Lake Chad in the east.⁴⁴

Although Kano and Salaga seemed similar, Kano was located further north in the savanna than Salaga. Its population was esti-

mated variously from 30,000 to 80,000 people,⁴⁵ roughly comparable to Salaga. Kano too was a commercial center; the market lay astride a polluted stream, which overflowed its banks during the rains and drained the market of its refuse in the dry months. The streets of Kano were narrow and crowded, with wards separated by huge stagnant ponds from which the residents took the earth needed to build and repair their adobe houses, and also had an appearance like Salaga. This pox-like appearance and ward structure were not only characteristic of Kano and Salaga but also many other savanna towns.

The differences between Kano and Salaga were even more striking. Whereas Salaga was separated from the political center of Kpembe, Kano was both the administrative capital of a large and prosperous emirate and a commercial center. Kano did not have a twin town. On the south side of the city were the palace and the large compounds of the aristocracy. On the north and west were two uninhabited flat hills breaking the evenness of the savanna parkland surrounding the city. The western hill, Goron Dutse, lay amidst fields within the walls, which were planted as insurance against siege. The eastern stump, Dalla, rose above the oldest part of the town, once providing the iron ore for local blacksmiths. Behind the palace (a village was contained within its massive walls) were the mosque and its broad, open square. Further still, on the way to Dalla hill and through the crowded wards of the commoners was the market, significantly providing a focal point for the many craftsmen and merchants who inhabited the city.

Unlike Salaga, Kano was an important center of production, both in the city itself and in the emirate surrounding the city. Textiles, leather goods (shoes, bags, cushions, horse gear, etc.), silver and iron ware, basket and mat weaving, and pottery supplied a large domestic market and provided many of the goods needed for export, including the trade to Asante but also to many other places. Whereas Salaga was important only as a gateway for the export of Asante kola and the import of goods brought in exchange, Kano was an outlet for the production of many commodities and the bulking point for trade in all directions. Kano was a transit center where imported goods were redirected to other markets. Far from being on the frontier of a state, it was at the heart of an empire. Nonetheless, Polanyi's analysis makes no allowance for such a distinction: in his analysis, Kano too was a "port of trade," for the Sahara as well as Asante.

The textile industry of Kano City is a particularly revealing example of the productive function of the city, even more so because there were other centers of textile production twenty to thirty km south of the city, which greatly exceeded the output of Kano City.⁴⁶ Nonetheless, textile production in the city was impressive. Near one of the gates of the city and buried elsewhere in the recesses of its wards were numerous indigo dye works, each of which consisted of ten to thirty dye pits sunk into the ground. These pits were several meters deep and permitted the dying of large quantities of cloth for local consumption as well as export. Near the pits were beating houses where craftsmen pounded additional indigo into the dyed textiles to give the cloth a glossy sheen. Tailors used some of this dyed cloth as well as cloth that had not been dyed to sew gowns and make other clothing, which were often embroidered with elaborate designs. Kano cloth was exported in all directions – across the Sahara, to Timbuktu, throughout much of what are modern Nigeria, Cameroon and Chad, as well as to Asante and the markets along the trade routes to Asante.

The commercial compounds of Kano handled the export of textiles, as well as the many other products made in Kano or imported from elsewhere for redistribution to distant markets. These commercial compounds were especially large, serving as retail stores, warehouses, and hostelrys for visiting merchants. Madabo ward, for example, was an ancient commercial center that dates back to the fifteenth century when Wangara merchants immigrated from the west (perhaps introducing kola at that time). Some compounds in the ward were large enough to house many hundreds of people and handled extensive business. At the end of the nineteenth century, the compounds of Tambarin Agalawa Yakubu and Malam Bawa each had such large storage areas for kola, grain and other commodities that they were warehouses as well as hostels. The two compounds accommodated so many slaves, relatives and clients that the street between the houses was known as Lugun Agalawa, in recognition of the corporate identity of these merchants as Agalawa and their importance in the city's trade.⁴⁷ Another merchant from Utai, a town to the southeast of Kano, had a compound near one of the city gates, and others were in Bakin Zuwo. Many other traders, particularly those who dealt in salt and livestock, were located just outside the city walls in the commercial ward, Fagge, where it was more convenient to handle bulky commodities that were difficult to transport through the narrow gates and crowded streets in the

city itself. These examples, which could be supplemented many times over, particularly with reference to textile brokers and other specialists, are presented here in order to convey an important dimension of the city's commerce. Much trade was carried on in the market-place, but most wholesaling and some retailing were scattered throughout the city at the compounds of merchants.

The government assumed the normal functions of any government in administering public places. Officials oversaw the market, guaranteeing that transactions were entered into honestly (or if not, that bribes were appropriately disguised as *gaisuwa*). They rented stalls and collected duties on most sales, except grain, and they arbitrated disputes. As Hugh Clapperton learned in the 1820s:

The market is regulated with the greatest fairness, and the regulations are strictly and impartially enforced. If a tobe [male robes] or turkadee [woman's body cloths], purchased here, is carried to Bornou or another distant place, without being opened, and is there discovered to be of inferior quality, it is immediately sent back, as a matter of course – the name of the dylala [*dillali*], or broker, being written inside every parcel. In this case the dylala must find out the seller, who, by the laws of Kano, is forthwith obliged to refund the purchase money.⁴⁸

Indeed, this was a principal function of brokers. As intermediaries, they were responsible for the honesty of transactions. While there was ample possibility for manipulation of prices and information to their own advantage, and it is highly likely that such procedures were an important part of the income of brokers, there was still legal recourse to overt exploitation. Brokers may have deceived their clients as a matter of course, and in doing so collaborated with other brokers, but this cannot be classified as "administering" trade. Such practices are more akin to the manipulation of the market in a formal economic sense than to behavior that is understandable from a substantivist perspective.

The role of brokers was as important in wholesale trading as in the normal transactions of the market-place. Indeed, wholesaling and retailing were linked, since itinerant merchants might visit the market-place before a broker took them to the private compounds of local importers. Most wholesaling occurred in shops and stores that were not in the market place, but many wholesalers had agents in the market too. The relationship between wholesaling and retailing is in direct contradiction to Polanyi's model for a "port of trade."

For Polanyi local bazaars and external trade fell into distinct spheres that were not integrated. No such separation existed at Kano.

The kola trade demonstrates the extent to which the market place and the private compounds of wholesalers were linked into a single network of marketing. Kola was retailed in the market and sold from the compounds of the principal Kano importers. In 1851 Heinrich Barth observed:

the chief article of African produce in the Kano market is the "guro" or kola-nut; but while...it forms an important article of transit, and brings considerable profit...large sums are expended by the natives upon this luxury.... The import of this nut into Kano, compris[es] certainly more than five hundred ass-loads every year.⁴⁹

This conservative estimate – for Barth does not convey the impression that he was aware of the house trade – indicates that visiting merchants sometimes bought small supplies in the market. But it is likely that most kola was actually sold from the compounds of merchants, and only kola in relatively small amounts sold in the market. Merchants in Adakawa, Madabo, Bakin Ruwa, Marraraba, Madigawa, and other wards, some of which were across town from the market, kept large stores of kola in one of two types of container, either leather-covered bins or specially constructed facilities that were similar to granaries, very large and immovable.⁵⁰ Clients came to these establishments, or they sent brokers. The nuts that were actually taken to market were more often those that were sorted out from the stores so that they could be sold immediately because they were going bad or needed to be dumped. Otherwise, merchants waited for prices to rise, dispatching their own retailers and agents throughout the countryside and the streets of Kano as well as to the market.

Polanyi's analysis simply does not allow for the behavior of Kano merchants. With a commodity like kola, merchants had to sell nuts that were infested with pests or slightly moldy; otherwise they tried to keep kola off the market in order to take advantage of the rise in price as kola became scarce. The provision of storage facilities to visiting merchants and the extension of brokerage services to facilitate exchange between foreigners and local people alike were logical activities of merchants engaged in maximizing their earnings. If foreign trade was administered, it was by a cartel of merchants. By contrast, the state assumed the responsibility of manag-

ing the market place as a means of promoting the free operation of commerce in general. If there had not been a close link between the market-place and foreign trade, there would have been little reason for the government to interest itself in regulating the marketplace. Furthermore, the government made no attempt to control the movement of merchants, or to restrict their access to markets elsewhere in the emirate. Nor was there any official attempt to manipulate prices, except possibly in the case of slaves or in order to satisfy the personal needs of officials. To put it simply: Kano was not developed as a government-sanctioned commercial center, although the government actively promoted commerce.

CARAVANS AND COMMERCIAL DIASPORAS

The descriptions of Salaga and Kano have identified some key features of commercial organization, including similarities in the system of brokerage, the use of a common language, the importance of Islam, and the overlap of mercantile personnel. Traders were able to form caravans and travel between Salaga and Kano because of these common elements. It was relatively easy to join caravans or find a broker. Long-standing relationships of clientage, marriage, religion, friendship and kinship enabled such cooperation. Polanyi interpreted such practices as proof of "administered" trade, embedded in social relationships rather than governed by market conditions of supply and demand. Caravans were the link between "ports of trade."⁵¹ As George Dalton elaborated further, the organization of merchants into caravans was an administered device circumventing the market mechanism; that is corporate groups of merchants were "organized into guild-like communities who made their living by long-distance trade within larger societies that were predominantly agricultural."⁵² While Dalton allows for variations in the structure of "ports of trade" to explain the existence of towns that provided transit functions in long-distance exchange, he does not explain why such towns did not develop fully into centers for administered trade.

There were indeed corporate groups of merchants, variously called Juula, Maraka, Wangara, and other names. Together, these groups constituted a series of far-flung "diasporas" which dominated the commerce of the West African savanna. According to Abner Cohen, the concept "diaspora" describes a social grouping in which

members are culturally distinct from both their society of origin and from the societies among which they live. Its organization combines stability of structure but allows a high degree of mobility of personnel. It has an informal political organization of its own which takes care of stability of order within the one community, and the co-ordination of the activities of its various member communities in their perpetual struggle against external pressure. It tends to be autonomous in its judicial organization. Its members form a moral community which constrains the behaviour of the individual and ensures a large measure of conformity with common values and principles. It also has its own institutions of general welfare and social security. In short, a diaspora is a nation of socially independent, but spatially dispersed, communities.⁵³

Curtin has extended this concept to characterize the social organization of most commercial exchange, including the structure of European trade along the West African coast.⁵⁴ In the context of both Salaga and Kano, Islam provided a unifying ideology for this diaspora, although as European and other examples clearly demonstrate, the type of organization was not unique to West Africa or to Muslim areas.

Broadly speaking, there were two Muslim commercial networks in the West African savanna, one that is usually referred to as a Juula network and another, centered on the Sokoto Caliphate in the nineteenth century, that is identified as Hausa. In both cases a common commercial language was employed, the Juula dialect of the Mande-cluster of languages in the western Sudan and Hausa in the Central Sudan. In fact, each broad network was subdivided into many smaller sections, so that a "diaspora" was a many-tiered structure of interlocking networks of merchants who maintained a variety of identities. Islam was used on the most general level, so that all Muslim merchants could travel the caravan trails. Language was the basis of identification at the next level down, and fluency in one of the major tongues was a necessity for continuous operation in the region where Juula or Hausa was spoken in the market-place. Below this level, merchants tended to cluster into loosely coordinated associations that dominated particular routes and markets. The Hausa traders who traveled between the Caliphate and Asante called themselves Gonja traders (*fataken Gwanja*), after the province in the northern Asante where Salaga was located and where these

merchants terminated the outward journey of their operations. But there were other networks within this structure.

Merchants maintained social ties through marriage, kinship, and other means that permitted cooperation. They used surnames, facial and body markings, common residence, ethnic origins, and other factors as means of identification. These Hausa traders were subdivided into groups known as Agalawa, Tokarawa, Kambarin Beriberi, Beriberi, and Wangarawa, to list many of the most important. Some surnames, such as Sharafai and its variants, were common among other traders besides Hausa. This term was derived from *shurfa*, indicating a direct kinship relationship with the Prophet Muhammad, even if fictive, and suggesting a connection with Morocco, where the *shurfa* dominated the Saharan trade south from Marrakesh. Each of these surnames had its ethnic connections: Agalawa and Tokarawa conveyed a servile origin associated with the Tuareg nomads of the southern Sahara, while Beriberi and Kambarin Beriberi designated an historic association with Borno.⁵⁵

Members of these corporate groups banded together to form caravans as a means of insurance against robbery, armed assault, and political intimidation.⁵⁶ Temporarily, merchants restrained their competitive instincts, allowing the caravan leader to pay tolls for river crossing, to negotiate taxes at towns along the routes, and to arrange marketing while in transit. These temporary cartels were based on all the social factors identified above; caravans were subdivided into units reflecting the various commercial groups. Caravans disbanded completely at terminal points of regular routes, such as Kano and Salaga in the case of the nineteenth-century trade between Asante and the Sokoto Caliphate. Not all merchants required the safety of a large expedition, since some traders traveled with many donkeys and other livestock, while others carried small but valuable loads on their heads and could move faster, as discussed in Chapter 8. The methods of trade were flexible enough to accommodate both types of merchants, as well as pilgrims, local people who wanted the safety of the caravan for a short distance, and other travelers. The core of commercial operations, however, was the caravan of merchants who comprised the larger diaspora.

In this context, some towns along the trade routes acted as transit markets, places where caravans could subdivide in order to follow different routes and where some bulking and wholesaling could

take place.⁵⁷ Merchants purchased those commodities, such as kola nuts, salt, gold, textiles, leather goods, slaves, and livestock, which were found along the trade routes, and in this way goods were relayed from one town to another. The importance of such towns, besides their function in provisioning the direct caravan trade, was the alternative they provided to the two principal types of trade, i.e., the relatively slow-moving caravan and the speedier, light-weight head portage. Merchants had a choice between staying with a caravan, moving faster than the caravan, or selling their goods at a transit market. All towns, including Kano and Salaga, were transit markets to some extent, although they should be distinguished from the smaller, intermediate points because they were also the final destinations of many merchants.⁵⁸ The transit markets lacked the resources to command trade in the ways that the larger centers did. Merchants could always bypass these intermediate towns, taking alternate routes, which meant that these markets did not fully conform to a model of "ports of trade."

Institutionally, transit markets were the spatial and geographical coordinates for the commercial diaspora. The merchants, who were organized into corporate groups recognizing common bonds that united them into a far-flung social network, moved between these various communities, often staying with resident agents of the larger network. In the sense that these features of commercial organization governed long-distance exchange, the economy was imbedded in social and political institutions, just as Polanyi claims. The problem with Polanyi's analysis is that it fails to account for the rise and decline of transit towns; the model places towns into clear-cut "ports of trade" or an undefined category of other towns. Furthermore, the description of caravan trade is shallow; there is no appreciation of the complexity of commercial networks. Polanyi failed to explore his insight into the relationship between commercial activities and socio-political structures to examine these differences. As a result, he leaves us with a pregnant idea which promises much until examined carefully, when proves to be false.

FIXED PRICES AND "ASSORTMENT BARGAINING"

Polanyi's model of administered trade depends to a great extent on his assertion that prices were fixed in archaic and primitive societies and not regulated by supply and demand. For Polanyi, foreign trade and market-place exchange can be separated for analytical purposes, because the price mechanism he did not consider that

the economy was integrated into a system of general marketing. As might be expected, this aspect of Polanyi's model applies to some extent to Salaga, but almost not at all to Kano, although such a separation should characterize both centers. As he clearly stated, Polanyi intended that his concept of "fixed prices" also applied to caravan trading:

Caravan trade as practiced...between Western and Central Sudan appears to hinge on non-market methods of trading. Again, exchange rates are set not by a market price but by administrative procedure.⁵⁹

Polanyi's static paradigm is least satisfactory on this crucial point. The inherent contradiction in the model should be clear: the concept of "fixed price" can be confirmed only through historical analysis over time; yet the model itself does not allow for such analysis.

Polanyi concluded that prices were fixed through administrative procedures because he confused the method of accounting common in West Africa with the currency system used in trade. Cowries, silver coins, and gold by weight were the basis of the currency system in Asante, the Sokoto Caliphate and other areas, although cowries were not permitted to circulate in the central parts of Asante in the nineteenth century and gold and silver were often in short supply everywhere. Cowries were common in northern Asante, and especially at Salaga, and they were used extensively in trade throughout the Hausa commercial network and beyond. Nonetheless, there were a number of severe problems with cowries as a currency. They were of low unit value, which meant that most items other than small retail purchases required such large quantities of shell that they were not easily transferred. The limited supply of coin and gold meant that there was virtually no circulating unit of account above a single cowrie. Despite these weaknesses of circulation and supply, the currency system was used to price commodities, could be used as a means of payment, and was a store of wealth. The bulkiness of shell and the restrictions on the import of cowries into central Asante nonetheless required accounting procedures that attempted to overcome the weaknesses of the currency.

The most practical accounting method was to estimate the value of commodities in terms of standardized assortments of goods for purposes of bargaining. Such standardized assortments took into account problems of transport, the difficulty of moving currency, and other factors. Specific items still had a price; bargaining was

confined to the nature of assortments, weights and measures, however. At Salaga, for example,⁶⁰ merchants exchanged loads of kola for savanna imports, both of which were assortments of goods.⁶¹ Distinctions were made between various sizes and colors of kola nuts, a load comprising a mixture of these types. Imports included textiles of various kinds, leather goods, different kinds of salt, livestock, and many other goods. Not only were assortments of these commodities exchanged, but also multilateral exchanges involving more than one buyer and one seller at a time were common. For this reason brokers were indispensable because they were the ones to arrange the assortments between the various parties. Rarely, for example, did Asante traders dealing in kola nuts want the range of goods imported by the merchants seeking kola. More often than not Asante traders wanted slaves, and many kola buyers did not have slaves. The typical exchange, therefore, was not kola for textiles, leather goods, and such items but an exchange among slave traders, kola importers, and merchants with a range of craft goods. In this situation, prices for kola, the commodity that can be watched most clearly, fluctuated, despite the existence of a system of artificial pricing by load. Price data are available only for the period 1873-99, after Asante control of Salaga collapsed, but this should not affect the analysis according to Polanyi's model.⁶² For the century as a whole, prices appear to have been relatively stable, with more variation within a given year than from 1815 to 1900.⁶³ A similar situation prevailed for slaves.⁶⁴

The supply of kola nuts, the number of merchants arriving in Salaga, and the transport potential available for carrying kola northward also affected the prices of commodities. Heinrich Barth appreciated the significance of variations in these factors in the early 1850s:

As regards Selga, the district to which the Hausa traders go for their supply of this article [kola], three points are considered essential to the business of the kola trade; first, that the people of Mosi bring their asses; secondly, that the Tonawa, or natives of Asanti, bring the nut in sufficient quantities; and thirdly, that the state of the road is such as not to prevent the Hausa people from arriving. If one of these conditions is wanting, the trade is not flourishing. The price of asses rises with the cheapness of the guro [kola].⁶⁵

There were other variables besides those identified by Barth. Slaves were a major item of trade, and late in the century these came from the upper Volta basin, not the Central Sudan.⁶⁶ Some salt came from Daboya in northern Gonja and from the mouth of the Volta River, and the availability of these supplies affected the price paid for the different types of salt imported from the Sokoto Caliphate. Of course, there were other factors still.

Similar observations can be made about the price structure of various commodities in the Sokoto Caliphate, with the price variations of kola again being the most fully documented. Although price data are few and difficult to compare, units of one hundred nuts varied in cost from 1,000 cowries in the mid 1830s to as much as 20,000 cowries in the 1880s, or 8,000 cowries if the later figure is adjusted for inflation in the cowrie currency.⁶⁷ The fact that merchants stored kola in large containers for months at a time is substantial proof that prices varied in the course of a year. Other evidence is equally convincing. Clapperton learned in 1824 that Sarkin Kasuwa, the market official in Kano, "fixes the prices of all wares, for which he is entitled to a small commission, at the rate of fifty...cowries, on every sale amounting to four dollars or 8,000 cowries," that is, a commission of less than one per cent.⁶⁸ Substantivists might take this testimony as proof of a fixed price, but this was not the case. The official was acting as a notary, and he "fixed" the price only in the sense that he made certain that both buyer and seller were in agreement. This was a means of regulating brokers, who were almost always involved in transactions, in order to protect their clients and the reputation of the Kano market. As has been noted above, merchants withdrew goods to avoid a glut on the market, and hence they were unwilling to agree to a fixed scale. Moreover, the very practice of bargaining precluded the establishment of set prices in an administered fashion.

Assortment bargaining, variation in weights and measures, and other practices provided an illusion that the market mechanism did not operate at Salaga and Kano. In reality, these methods of accounting and price adjustment were the imperfections of this particular pre-industrial economy. Polanyi was so fascinated with the concept of a pure market as described in neo-classical theory (but which virtually never exists in fact) that all imperfections proved to him that prices were administered. He characterized cowries and gold equivalencies as "special-purpose money," and his discussion of their use in Dahomey and Ouidah (Whydah) makes it clear that he

intended his analysis to apply equally to Asante and the savanna country to the north.⁶⁹ He considered the practices that relied on standardized assortments of goods at nominally fixed prices as evidence of administered trade. "Special-purpose money" provided a means of accounting but did not perform all the functions of general-purpose money, i.e., it was not a standard of value, method of payment, and store of wealth. Polanyi used the now classic example of the slave trade on the Guinea Coast, where slaves were sold for "sortings" of imports, based on the calculation of the "trade ounce" of gold, as a means of proving his theory. He attributed this system of trade to European invention, the result of European merchants, coming from places where the market mechanism was in full operation, who were forced to devise schemes to deal with Africans, where the market principal was allegedly not recognized. Polanyi was mistaken with respect to the European impetus and that affected his understanding of cross-cultural trade.⁷⁰

TRADE AND PRODUCTION

As noted above, one significant difference between Salaga and Kano was the importance of Kano as a center of production as well as trade, while Salaga was essentially a gateway for Asante kola. Although Polanyi insisted that trade was imbedded in social and political institutions, his failure to explore the relationship between trade and production not only meant that he did not account for the differences between such towns as Kano and Salaga on the basis of their productive sectors but he tells us little about the social and political institutions with which he was so concerned. Of course all economies are imbedded in social and political institutions; the real issue concerns the relationship between trade and production. Polanyi concentrated on the means of distribution through what he considered to be isolated spheres of human interaction, but he did not relate these spheres to different productive spheres.⁷¹

Again Salaga and Kano provide contrasting examples of how commercial centers catered to different economies. In the case of Salaga, as the gateway for Asante kola, the city was physically removed from the area of production; there were few linkages between where kola was grown and the economy of eastern Gonja other than the fact that the location of the export trade at Salaga offered the area opportunities which otherwise would not have existed. Kano, by contrast, was in the heart of a densely populated province with extensive agricultural and industrial production. The

city provided an outlet for some of this production, but for only a small portion of it. Much trade bypassed Kano because there were no administrative or economic reasons for the city to monopolize exports. The trade of the Kano region was simply too large to be handled through the city.

Barth recognized the essential difference between centers of production and centers of commerce in the 1850s, although he compared Kano with Timbuktu and not Salaga. Nonetheless, Timbuktu and Salaga had a number of similarities as "ports of trade," and the comparison is relevant for our analysis:

The great feature, which distinguishes the market of Timbuktu from that of Kano, is the fact that Timbuktu is not at all a manufacturing town, while the emporium of Hausa fully deserves to be classed as such.⁷²

Like Salaga, Timbuktu was much more a depot than Kano, although geographical factors and not politics determined Timbuktu's importance. Timbuktu, located on the northern bend of the Niger River, was in effect a desert town where camel nomads and river traders could meet to exchange goods. It was a politically neutral "port," while Salaga was a politically sanctioned "port."

Despite the physical isolation of Salaga from the productive heartland of Asante, Salaga provided a vital service to the Asante economy, other than merely serving as an export center of kola. The commercial network focused on Salaga was an important source of slaves who were taken into the central provinces of Asante. Those slaves purchased at Salaga were known in Asante as *ndonko*, slaves of northern origin, who were distinct from slaves who were ethnic Akan.⁷³ As cultural foreigners, they were better suited for exploitation; they came from more distant places and hence could not escape as easily as Akan slaves, and they could not claim kin ties within Akan society, which was essential to the Akan conception of personal identity. *Ndonko* were employed in the production of gold and in agriculture, including the collection and packaging of kola nuts.⁷⁴ Although servile relationships were cast in an ideology based on kinship, people had adjusted to the presence of large numbers of slaves.⁷⁵ Many activities, including gold mining and heavy agricultural work, were not considered fit for freemen. Gold mining was a state affair and particularly conducive to slave labor.⁷⁶ Kola harvesting, however, was more the business of the lineages, since kola trees were on lands belonging to the lineages. Nonetheless, slaves

supplemented family members in the preparation and transport of kola to market. Therefore, Salaga's role as a slave market was essential to the production strategies of state and lineage alike.

Slavery also played a vital part in the operation of the commercial infrastructure at Salaga. Slaves carried water and fetched firewood, which it will be remembered were particularly scarce at the town. Even more crucial, slaves produced most of the foodstuffs needed to feed the itinerant merchants during the trading season. Resident brokers housed and fed their clients without charge, and they obtained their provisions from their own plantations and farms outside Salaga. Hence, brokers were not only landlords and bankers but also planters. Despite the decline that set in after 1874, their plantations were still an important sector of the local economy fifteen years later, as Binger observed in his trip south from Yendi into Salaga. One of these, Dokonkadé was

un village de 400 à 500 habitants et un lieu de culture important. Beaucoup de gens de Salaga y sont installés avec leurs captifs afin de se livrer aux cultures pendant le mois d'hivernage. Il s'y tient un petit marché où l'on trouve à acheter des vivres; les ignames y tiennent naturellement la première place, comme dans toute cette région. Le sorgho ne se vend pas sur le marché, mais il suffit de s'adresser à un habitant pour s'en procurer à loisir et à très bon compte.⁷⁷

He made similar observations at Masaka, Palaga, and Kolibini, noting

De Masaka à Salaga on ne traverse pas de villages, mais on passe à portée Bélimpé ou Bouroumpé, d'Abd-er Rahman-iri, de Gourounsiri et de nombreux petits groupes de culture dépendant de Salaga, villages de captifs se livrant aux cultures sous la surveillance d'une partie de la famille du propriétaire. Ces groupes de culture portent le nom de leur propriétaire, auquel on ajoute iri, sou, pé ou kadé, suivant que l'on parle dagomsa, mandé, ou gondja, cette terminais on signifiait dans les trois langues: "village, habitation."⁷⁸

Binger learned more about Dokonkadé when he was in Salaga, for his landlord and broker had business there; very likely he owned slaves, if not the village itself. This man, Bakari, was Juula by origin and had a thriving brokerage firm.⁷⁹ Binger stayed with him because he was traveling between communities in the Juula diaspora, not

the Hausa network. Nonetheless, the resident Hausa community also invested heavily in agriculture in a similar fashion.

The relationship of Kano to the productive sector was even more direct than was the case at Salaga. Kano's location was not on a political frontier far from the center of production, like Salaga. Kano, as Barth observed, was itself an "emporium" as a result of its own productive activities. In this respect, Kano benefited from government policies, which encouraged economic development.⁸⁰ The Sokoto administration and the various emirate governments, especially Kano, promoted agriculture through the capture and importation of slaves, many of whom were settled on plantations. The Caliphate steadily pushed its political frontiers outward, building walled towns to protect its citizens. These measures resulted in the expansion of agriculture and craft industries, particularly textiles. In this way the government intervened in the economy, not directly affecting trade, as was the case at Salaga but indirectly through the protection and expansion of production. The government also administered the economy to the extent that the state sponsored slave raids and collected tribute in the form of slaves. As in Asante, therefore, slavery was a crucial dimension of production.

The relative importance of plantation and peasant production in the area around Kano is clear, as revealed in various observations on the essential role of slavery in the economy.⁸¹ First, plantations were scattered throughout the countryside. The aristocracy owned the largest, but some merchants also amassed hundreds of slaves. Textile dealers, kola importers, and other businessmen settled slaves on their estates or moved gangs of slaves between their dispersed holdings. In both cases, merchants and aristocrats alike were involved in managing agricultural production. Second, slaves were important as a supplement to the labor requirements of small households. Many families owned a slave or two who worked alongside their masters and their sons in the fields. Third, many masters allowed their slaves to work for wages during the dry season, for which the slaves paid their master the *murgu* fee. This system of employment helped solve bottlenecks in craft production, house repair, and retail trading, among many other activities. Finally, many slaves worked at crafts; in the textile industry, women carded the cotton and spun thread, while men and women wove cloth. Sometimes, slaves performed these tasks for their masters, and sometimes they worked on their own account.

The deployment of slaves in these various activities was extensive not only in Kano City but in the countryside. A belt of densely inhabited farmland, dotted with busy towns stretched outward for 50-70 kms around the city. This belt, sometimes called the "close-settled zone," included over forty walled towns and hundreds of villages.⁸² There were numerous plantations at these villages and towns.⁸³ Clapperton, traveling through the densely populated region around Kano in 1826 observed that his highway passed

through a well-cultivated country, the soil clay and gravel; the villages were numerous, the inhabitants of which were busy in their plantations, dressing up the earth to the roots of the dourra [millet], and hoeing away the weeds. The road was broad and good, thronged with passengers, asses and bullocks loaded with goods and grain, going to and returning from Kano.⁸⁴

The walled towns extended southward into the populous northern part of Zaria Emirate and northwest to Katsina City. Beyond the closely settled zone around Kano, there were pockets of less-dense population, but after these were smaller emirates and other towns, including Kazaure in the north, Jama'are, Katagum, and Hadejia, to the north and east, and southern Katsina and Zamfara to the west.

The countryside had its own marketing network independent of Kano city.⁸⁵ Its agricultural surplus included indigo, cotton, grain, tobacco, pepper, wheat, and onions. Other produce was imported from a region just beyond the circumference of this belt; cotton came from the west and south; grain was carried in from the north, east and south; and indigo came from the southeast.⁸⁶ Local industries were highly developed, particularly textile production centered on dozens of dye-works, many of which were larger than those in Kano City.⁸⁷ This agricultural and craft production sometimes was channeled through the city, but usually foreign merchants went directly to local markets and dye-works and did not visit Kano at all. Perhaps as much kola was sold in the countryside as in the city; certainly as many kola traders lived there as in Kano.⁸⁸

Merchants filled an important function in the movement of commodities throughout the Kano area. Tuareg nomads with their camels, Borno merchants with their oxen and donkeys, as well as the large, local merchant community and its donkeys, mules, and hinnies were available as transporters.⁸⁹ The pattern of trade usually allowed these traders to carry local commodities

over relatively short distances at very low cost. When livestock were not being used on long journeys, it made sense to let slaves and sons travel about the countryside, moving cotton, grain, and other bulky goods to market. The decentralization of commerce in Kano Emirate contrasts with the concentration of trade at Salaga. Kano Emirate encompassed a grid of commercial centers. Unlike at Salaga, there was neither political reason nor economic need to centralize trade. Asante established Salaga away from the center of production because it made political sense to do so, and for seventy years Asante power was sufficient to enforce this centralization. There is no need to resort to a concept like "port of trade" to explain this situation.

CONCLUSION: ADMINISTERED TRADE

The "port of trade" is an unfortunate term, vague in its original conception and difficult to apply. Salaga appears to satisfy the essential features of a "port,"⁹⁰ in that it acted as a political and economic buffer between foreign traders and the state where the products of the savanna were exchanged for the kola of the Asante forest. Government trade was strictly supervised and confined to official channels. Government traders had first access to the market and thereby set prices. Only later did small producers and merchants take their kola to Salaga, whereupon prices varied from the initial, administered scale. Related to the supervision of trade and the setting of prices, foreign merchants were confined to Salaga. These restrictions helped to stabilize prices in terms of the government scale, and consequently local market exchange and long-distance trade were kept relatively separate. The main items found in the Salaga bazaar were foodstuffs available in small quantities. Processed foods, firewood, water, and fodder were also sold in the streets, but the principal merchants did not rely on these sources for their provisions. Resident brokers housed and fed these clients free, which required access to foodstuffs raised on their own farms and plantations.

Kano did not act as buffer, although it served as a bulking and breaking point in long-distance trade. The government did not exercise control over commerce, except in the sale of slaves. Visiting merchants could buy goods in the market place or at the compounds of resident brokers and traders. Merchants could go virtually anywhere, inside or outside the city, in their quest for commodities. Nonetheless, long-distance trade and local market

place exchange were relatively separate for some items at Kano too. Resident brokers pursued practices similar to those at Salaga. They housed and fed their clients free, again securing provisions from their own plantations and farms. As at Salaga, itinerant merchants did not have to purchase food or find accommodation. Their brokers isolated them from the vicissitudes of the local market on all items relating to operating expenses. This service left merchants free to exploit fluctuations in the market for the commodities of long-distance trade.

All trade in reality is administered, although not in the sense Polanyi meant. Asante government regulations did affect trade at Salaga, while the commercial diaspora servicing Salaga and Kano was an institutional response to the problems of organizing long-distance trade in the savanna. Caravan travel encouraged practices that eased the difficulties of communication. This type of cross-cultural trade attempted to fix prices for each commodity and to confine bargaining to the assortment of goods to be exchanged. Although assortment bargaining can be analyzed in terms of formal economic theory when data are available on real prices, such practices do reveal imperfections in marketing. The social structure of trade, based on diasporas, permitted a degree of self-regulation and oligopoly control that differs from a pure market situation in which buyers and sellers meet in the market as equals.

By focusing on brokerage services and commercial diasporas, it has been possible to demonstrate the ways that trade has been imbedded in social and political institutions. As has been shown, brokerage facilities offered numerous services in addition to the function of intermediary. Merchants did not have to worry about food, storage, exchange rates, and similar factors, which were neutralized through the social organization of trade. Caravans evened out taxes en route and temporarily served as moving cartels that could fix prices. The presentation of gifts to brokers rather than the payment of fees also limited the operation of a pure market. Merchants frequently cooperated corporately, despite their private interests, because corporate activity often increased profit margins. As Polanyi maintained, there was a separation between local trade and long-distance exchange; hence there was no fully developed market mechanism. Assortment bargaining and other brokerage practices were procedures of a commercial diaspora which helped separate the external sphere from local conditions. Nonetheless, the price structure was not fixed in the way that Polanyi thought. A

variety of institutions and techniques did affect prices so that they did not fluctuate, as freely as formal economic theory would predict in a fully integrated market, but they fluctuated nonetheless.

An historical analysis, not just a static description of an historical situation, is essential in delimiting the various factors affecting administered trade. Polanyi failed to appreciate this dynamic aspect of history. An understanding of how trade functioned before Salaga was established is as important as a study of Salaga itself. Asante instituted policies to channel trade for its own advantage; it was wise to do so but not an inevitable development. It stopped only with British intervention in 1873-74, with disastrous results for the town. The Sokoto Caliphate allowed trade to function through commercial diasporas, while the government concentrated on the organization of production through control of the institutions of enslavement and the maintenance of various tributary relationships. It too fell to colonialism. A static representation of different economies can easily miss the reasons for such economic and political decisions, and the consequences of colonial conquest.

The question being addressed in this chapter concerns the ability of long-distance trade to serve as an engine of economic growth and development. The trade between Asante and the Sokoto Caliphate was more than "long-distance" trade. In actuality, the exchange constituted international trade between sovereign states, in which one state tried to protect producers and thereby garner income for the state in what might be considered an early "marketing board" arrangement. This attempt to "administer" trade is closer to "modern" economic behavior than "archaic" practices, in which the entrepreneurship of Muslim traders was restricted in the interests of Asante development. The confinement of merchants to Salaga was an effort by the state to counterbalance the transport advantage and distributional networks of savanna merchants, thereby allowing Asante to maintain its economic independence from European influences for a longer period than otherwise might have been the case. Economic constraints still existed that might well have limited economic growth, including the major problem of transportation, the continued reliance on slave labor, and insecurity along the trade routes of the interior. However, the entrepreneurial skills of the Muslim merchant community should not be underestimated, nor the relationship between trade and production in generating resources that could have been used to consolidate economic growth. The missing factor that explains the inability of either

Asante or the Sokoto Caliphate to achieve sustainable growth is the European "scramble" for Africa that terminated such efforts and channeled development through colonial economics.

Notes

1. An earlier version was published as "Polanyi's 'Ports of Trade': Salaga and Kano in the Nineteenth Century," *Canadian Journal of African Studies*, 16:2 (1982), which was modified as "International Trade in West Africa in the Nineteenth Century: Salaga and Kano as 'Ports of Trade'," in Toyin Falola (ed.), *Ghana in Africa and the World. Essays in Honor of Adu Boahen* (Trenton NJ: Africa World Press), 477-512.
2. Robin Law, *Ouidah: The Social History of a West African Slaving "Port" 1727-1892* (London: James Currey, 2004).
3. Walter Rodney, *How Europe Underdeveloped Africa* (Washington, D.C., 2nd ed., 1981).
4. Karl Polanyi, "The Early Development of Trade, Money, and Market Institutions," *Year Book of the American Philosophical Society* (1960), 336; but for a fuller discussion of Polanyi's concept, see his "Ports of Trade in Early Societies," *Journal of Economic History*, 23 (1963), 30-45; "Traders and Trade," in J.A. Sabloff and C.C. Lamberg-Karlovsky (eds.), *Ancient Civilization and Trade* (Albuquerque: University of New Mexico Press, 1975), 133; and "Marketless Trading in Hammurabi's Time," in K. Polanyi, C.M. Arensberg, and H.W. Pearson (eds.), *Trade and Market in the Early Empires* (Chicago: The Free Press, 1975), 11-26. Many of Polanyi's essays have been collected into a convenient volume edited by George Dalton: *Primitive, Archaic and Modern Economies. Essays of Karl Polanyi* (Boston: Beacon Press, 1968).
5. See, for example, G. Dalton, "Karl Polanyi's Analysis of Long-Distance Trade and his Wider Paradigm," in Sabloff and Lamberg-Karlovsky, *Ancient Civilization and Trade*, 63-132. For the use of the concept by other scholars, see C. Geertz, "Ports of Trade in Nineteenth Century Bali," *Research in Economic Anthropology*, 3, 1980; R. Hodges, "Ports of Trade in Early Medieval Europe," *Norwegian Archaeological Review*, 11, 1978, 97-117; and J.A. Sabloff and D.A. Freidel, "A Model of a Pre-Columbian Trading Center," in Sabloff and Lamberg-Karlovsky, *Ancient Civilization and Trade*, 369-408. The annual volume, *Research in Economic Anthropology*, edited by Polanyi's most vocal disciple, George Dalton, offered a forum for studies that in effect test Polanyi's paradigm.
6. See the introduction by Bohannan and Dalton, *Markets in Africa* (Evanston: Northwestern University Press, 1962).

7. *Research in Economic Anthropology* (Greenwich, Conn.: JAI Press, vol. 1-111, 1978-1980). The format for this annual volume is modeled after Polanyi's theories; see Dalton's introduction to vol. I.
8. See the introduction by Gray and Birmingham, *Precolonial African Trade. Essays on Trade in Central and Eastern African before 1900* (London: Oxford University Press, 1970), 1-23.
9. Meillassoux, "Introduction," in *The Development of Indigenous Trade and Markets in West Africa* (London: Oxford University Press, 1971), 59, questions Polanyi's analysis of Dahomey in passing but otherwise ignores the substantivist model.
10. A.G. Hopkins, *An Economic History of West Africa* (New York: Columbia University Press, 1973); Philip D. Curtin, *Economic Change in Precolonial Africa. Senegambia in the Era of the Slave Trade* (Madison: University of Wisconsin Press, 1975); and Patrick Manning, *Slavery, Colonialism and Economic Growth in Dahomey* (Cambridge: Cambridge University Press, 1982).
11. Dalton's impassioned rejoinder to Hopkins, published in 1976, had virtually no effect on the trend against Polanyi's theories; see "Review of A.G. Hopkins, *An Economic History of West Africa*," *African Economic History*, 1, 1976, 51-101.
12. Dalton, "Polanyi's Analysis," 74-75, 79.
13. S.C. Humphreys, "History, Economics and Anthropology: The Work of Karl Polanyi," *History and Theory*, 8, 1969, 192.
14. See, for example, Hopkins, *Economic History of West Africa*, 5-6; Curtin, *Senegambia*; and Paul E. Lovejoy and J.S. Hogendorn, "Slave Marketing in West Africa," in H. Gemery and J.S. Hogendorn (eds.), *The Uncommon Market: Essays on the Economic History of the Atlantic Slave Trade* (New York: Academic Press, 1979), 213-35.
15. For the northern trade of Asante, see N. Levtzion, *Muslims and Chiefs in West Africa* (Oxford: Clarendon Press, 1968); 1. Wilks, "Asante Policy Towards the Hausa Trade in the Nineteenth Century," in Meillassoux, *Trade and Markets in West Africa*, 124-41; Wilks, *Asante in the Nineteenth Century* (London: Cambridge University Press, 1975), 243-78; C. Berberlich, "A Locational Analysis of Trade Routes in the Northeast Asante Frontier Network in the Nineteenth Century" (unpublished Ph.D. thesis, Northwestern University, 1974); K. Arhin, *West African Traders in Ghana in the Nineteenth and Twentieth Centuries* (London: Longman Group Ltd., 1979), pp. 1-68; and Paul E. Lovejoy, *Caravans of Kola. The Hausa Kola Trade, 1700-1900* (Zaria: Ahmadu Bello University Press, 1980).
16. For a discussion of Kano and its trade, see A.M. Fika, *The Kano Civil War and British Over-Rule, 1882-1940* (Ibadan: Oxford University Press, 1978); Mahdi Adamu, *The Hausa Factor in West African History* (Zaria

- and Ibadan: Ahmadu Bello University Press and Oxford University Press, 1978); and Lovejoy, *Caravans of Kola*.
17. See especially Polanyi, "Marketless Trading in Hammurabi's Time," 11-26; "Ports of Trade in Early Societies," 30-45; "Traders and Trade," 133-54; and A. Rotstein, "Karl Polanyi's Concept of Non-Market Trade," *Journal of Economic History*, 30, 1970, 117-26.
 18. The description of Salaga is based on a wide variety of sources, some of which are conveniently collected in Marion Johnson (ed.), *Salaga Papers* (Ligon: Institute of African Studies, 1966), 2 vols.; K.Y. Daaku (ed.), "Oral Traditions of Gonja" (Ligon: Institute of African Studies, unpublished manuscript, 1969); and J.A. Braimah and J.R. Goody, *Salaga: The Struggle for Power* (London: Longmans, 1967). There are no similar collections of primary material for Kano, although see Polly Hill, "The Relationship between Cities and Countryside in Kano Emirate in 1900," *West African Journal of Sociology and Political Science*, 1, 1975, 3-19; Hill, *Population, Prosperity and Poverty Rural Kano 1900 and 1970* (Cambridge: Cambridge University Press, 1977); Hill, "Migration into Densely Populated Rural Areas: The Case of the Kano Close Settled Zone in the late 19th Century," in *African Historical Demography* (Proceedings of a seminar held in the Center of African Studies, University of Edinburgh, 1977), 251-59; Philip Shea, "The Development of an Export Oriented Dyed Cloth Industry in Kano Emirate in the Nineteenth Century" (unpublished Ph.D. thesis, University of Wisconsin, 1975); and Fika, *Kano Civil War*, 15-46. Collections of oral data on the economic history of Kano include the appendix to Shea's thesis, the interviews used in writing *Caravans of Kola* (deposited with the Northern History Research Scheme, Ahmadu Bello University, and the Harriet Tubman Resource Centre on the African Diaspora, York University), and the interviews conducted during the 1975-76 Economic History Project (see Lovejoy and J.S. Hogendorn, "Oral Data Collection and the Economic History of the Central Savanna," *Savanna*, 7 (1978), 71-74).
 19. Braimah and Goody, *Salaga: The Struggle for Power*.
 20. Fika, *Kano Civil War*, 50-83.
 21. Lovejoy, *Caravans of Kola*, 113-35.
 22. Polanyi, "Early Development of Trade," 334-37; "Ports of Trade in Early Societies," 30-45; and "Traders and Trade," 133-54.
 23. For a discussion of the early kola trade, see Lovejoy, "Kola in the History of West Africa," *Cahiers d'études africaines*, 20 (1980), 97-134.
 24. Ivor Wilks, *The Northern Factor in Ashanti History* (Ligon: Institute of African Studies, 1961); and Lovejoy, *Caravans of Kola*, 29-35.
 25. For a discussion of the chronology of Bighu, see Wilks, *Northern Factor*.

26. E. Terray, "Long Distance Exchange and the Formation of the State: The Case of the Abron Kingdom of Gyaman," *Economy and Society*, 3 (1974), 315-45.
27. Wilks, "Asante Policy," 125-27; and Lovejoy, *Caravans of Kola*, 15-17, 35.
28. Lovejoy, *Caravans of Kola*, 36-37.
29. Wilks, "Asante Policy," 178-79; and Wilks, *Asante in the Nineteenth Century*, 243-78.
30. Lovejoy, *Caravans of Kola*, 39.
31. *Ibid.*, 15-18.
32. Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York: Harper and Brothers, 1857-59), III, 364.
33. Lovejoy, *Caravans of Kola*, 101-12.
34. Wilks, "Asante Policy," 136-37; K. Arhin, "Aspects of the Ashanti Northern Trade in the Nineteenth Century," *Africa*, 40 (1970), 363-73.
35. Lovejoy, *Caravans of Kola*, 39-44.
36. N.D. Asante, "Eine Reise nach Salaga und Obooso durch die Lander im Osten des mittleren Volta," *Geographische Gesellschaft zu Jena, Mitteilungen*, 4 (1886), 38-39.
37. Lovejoy, *Caravans of Kola*, 138.
38. *Ibid.*, 127-30.
39. L.-G. Binger, *Du Niger au Golfe de Guinée par le pays de Kong et le Mossi* (Paris: Hachette, 1892), II, 100.
40. Wilks, *Asante in the Nineteenth Century*, 282-87; Lovejoy, *Caravans of Kola*, 116.
41. Binger, *Du Niger au Golfe de Guinée*, 11, 91.
42. Braimah and Goody, *Salaga: The Struggle for Power*.
43. D. Maier, "Competition for Power and Profits in Kete-Krachi, West Africa," *International Journal of African Historical Studies*, 13 (1980), 33-50; Arhin, *West African Traders*, 38-68; Wilks, *Asante in the Nineteenth Century*, 283-86; Lovejoy, *Caravans of Kola*, 116.
44. Adamu, *Hausa Factor*; Lovejoy, *Caravans of Kola*, 58-100; Lovejoy, "Interregional Monetary Flows in the Precolonial Trade of Nigeria," *Journal of African History*, 15 (1974), 563-85; Lovejoy, "Plantations in the Economy of the Sokoto Caliphate," *Journal of African History*, 19 (1978), 341-68; and Lovejoy and Stephen Baier, "The Desert-Side Economy of the Central Sudan," *International Journal of African Historical Studies*, 8 (1975), 551-81.
45. A. Frishman, "The Population Growth of Kano, Nigeria," in *African Historical Demography*, 212-50.
46. For a discussion of the textile industry, see Shea, "Dyed Cloth Industry."

47. Lovejoy, *Caravans of Kola*, 86-87.
48. D. Denham, H. Clapperton, and W. Oudney, *Narrative of Travels and Discoveries in Northern and Central African in the Years 1822, 1823, and 1824* (London: John Murray, 1828), II, 53.
49. Barth, *Travels*, I, 514.
50. Lovejoy, *Caravans of Kola*, 129-30.
51. Polanyi, "Early Development of Trade," 336.
52. A. Cohen, "Cultural Strategies in the Organization of Trading Diasporas," in Meillassoux, *Trade and Markets in West Africa*, 267.
53. Dalton, "Polanyi's Analysis," 105.
54. Curtin, *Senegambia*, I, 59-152.
55. For a fuller discussion, see Lovejoy, *Caravans of Kola*.
56. *Ibid.*, 101-12.
57. J.-L. Boutillier, "La cité marchande de Bouna dans l'ensemble économique Ouest-Africain pré-colonial," in Meillassoux, *Trade and Markets in West Africa*, 240-52.
58. See, for example, Berberlich, "Northeast Asante Frontier;" and Arhin, *West African Traders*, 51-68.
59. See, for example, Berberlich, "Northeast Asante Frontier;" and Arhin, *West African Traders*, 51-68.
60. Lovejoy, *Caravans of Kola*, 119-27.
61. The concept of assortment bargaining is most fully developed by Curtin; see *Senegambia*, I, 248-53.
62. Lovejoy, *Caravans of Kola*, 122-26.
63. *Ibid.*, 120-21.
64. E. Terray, "Réflexions sur la formation du prix des esclaves à l'intérieur de l'Afrique de l'ouest précoloniale," *Journal des africanistes*, 52:1-2 (1982), 119-44.
65. Barth, *Travels*, III, 364.
66. Terray, "Prix des esclaves."
67. Lovejoy, *Caravans of Kola*, 120; and Lovejoy, "Monetary Flows," 563-85.
68. Denham, Clapperton and Oudney, *Narrative*, II, 51.
69. Polanyi, "Sortings and 'Ounce Trade,'" 381-93; and Polanyi, *Dahomey*, 173-94.
70. See, for example, Paul E. Lovejoy and David Richardson, "The Business of Slaving: Pawnship in Western Africa, c. 1600-1810," *Journal of African History*, 42:1 (2001).
71. R.C.C. Law has examined the relative importance of commerce and production in the revenue of states in nineteenth-century West Africa, but he has misjudged the substantivist position. He correctly observes that states were unable to establish or maintain commer-

- cial monopolies, but the central concern of substantivist theory is an analysis of the degree to which the economy is administered. States could administer trade without maintaining monopolies; see "Slaves, Trade and Taxes: The Material Basis of Political Power in Precolonial West Africa," *Research in Economic Anthropology*, I (1978), 37-52.
72. Barth, *Travels*, III, 357. Richard Roberts has made this point with reference to Sinsani, which he compares to Kano rather than to Timbuktu for the same reason: Sinsani was a center of production. See "The Maraka and the Economy of the Middle Niger Valley: 1790-1908," (unpublished Ph.D. thesis, University of Toronto, 1978), 205.
 73. Terray, "Prix des esclaves," and A.N. Klein, "The Two Asantes: Competing Interpretations of 'Slavery' in Akan-Asante Culture and Society," in Paul E. Lovejoy, ed., *The Ideology of Slavery in Africa* (Beverly Hills: Sage Publications, 1981), 151.
 74. Ivor Wilks, "Land, Labour, Capital and the Forest Kingdom of Asante: A Model of Early Change," in J. Friedman and R.M. Rowlands, eds., *The Evolution of Social Systems* (London: Duckworth, 1977), 320-26; E. Terray, "Production d'or, travail des esclaves à l'intérieur de l'Afrique de l'ouest précoloniale," *Research in Economic Anthropology*; Terray, "Prix des esclaves;" and Klein, "'Slavery in Asante," 149-50.
 75. Klein, "'Slavery in Asante," 149-67.
 76. The interpretation followed here is based on E. Terray, "La captivité dans le royaume abron du Gyaman," in C. Meillassoux, (ed.), *L'esclavage en Afrique précoloniale* (Paris: Maspéro, 1975), 389-454; Terray, "Long Distance Exchange," 315-45; Terray, "Classes and Class Consciousness in the Abbron Kingdom of Gyaman," in M. Bloch, ed., *Marxist Analyzes and Social Anthropology* (London: J.M. Dent and Sons, 1975), 85-136; Terray, "Production d'or;" Terray, "Prix des esclaves;" which is supported by Wilks, "Land, Labour and Capital," 520-26; Wilks, *Asante in the Nineteenth Century*, 435-36; and Klein, "'Slavery in Asante," 149-67.
 77. Binger, *Du Niger au Golfe de Guinée*, II, 85.
 78. Ibid.
 79. Ibid.
 80. Lovejoy, "Economy of the Sokoto Caliphate," 341-68.
 81. Paul E. Lovejoy, "The Characteristics of Plantations in the Nineteenth-Century Sokoto Caliphate (Islamic West Africa)," *American Historical Review*, 84 (1979), 1267-92; Lovejoy, "Economy of the Sokoto Caliphate," 341-68; and Lovejoy, "Slavery in the Sokoto Caliphate," in Lovejoy, *Ideology of Slavery in Africa*, 200-43.
 82. F.D. Lugard, Annual Report, Northern Nigeria, 1904 (Nigerian National Archives, Kaduna), 240.

83. See, for example, Paul Staudinger, *Im Herzen der Haussaländer* (Berlin: Oldenburg, 1889), 260-61.
84. H. Clapperton, *Journal of a Second Expedition into the Interior of Africa* (London: John Murray, 1829), 167.
85. Polly Hill's conclusion that the city and countryside were virtually isolated from each other is an exaggeration, however. Although she does not make the point, her analysis suggests that Kano was more like a "port of trade" than was the case. Her argument fails on the following points: First, there was an absentee landlord class that lived in Kano City, although she claims the opposite (Hill, "Cities and Countryside," 3-19; but see S.A.S. Leslie, Report on Kumbotso District, 1932. KanoProf 5/24, No. 764, Nigerian National Archives, Kaduna). Second, the countryside did contain a large number of peasants, as she claims, but there were also plantations (Lovejoy, "Economy of the Sokoto Caliphate," 341-68). Thirdly, despite her denial, there was an hierarchy of administrative and economic functions centered on the city (Fika, *Kano Civil War*).
86. D.E. Ferguson, "Nineteenth Century Hausaland, being a Description by Imam Imoru of the Land, Economy, and Society of his people" (Ph.D. thesis, unpublished, UCLA, 1973), 64-65, 80; Dudgeon, Third Report on Agricultural and Forest Products, 1909. C.O. 446/83, Northern Nigeria, vol. II, Public Record Office, London; and Lovejoy, "Economy of the Sokoto Caliphate," 341-68.
87. For a discussion, see Shea, "Dyed Cloth Industry."
88. Lovejoy, *Caravans of Kola*, 115-16, 129-30.
89. Lovejoy and Baier, "Desert-Side Economy," 551-81.
90. Humphreys, "History, Economics, and Anthropology," 192.

As discussed in the last chapter, the substantivist school of economic anthropology has argued that so-called western economic theory does not apply to African situations. Many economic historians have contested this approach, finding formal economic theory useful in the reconstruction of Africa's past.² Marion Johnson's pioneering work on the gold *mithqal* and cowrie shell, for example, has documented the spread of a common currency over much of West Africa, throughout an area encompassed by Lake Chad in the east, the upper reaches of the Senegambia in the west, the southern Sahara in the north, and the region between the Volta basin and the Niger Delta in the south.³ The study of other currencies, including the copper rod standard of the Cross River basin in Nigeria and Cameroons, and the cloth money of the Senegambia, has demonstrated the importance of other standards besides cowries and gold,⁴ which demonstrates that these economies were not subsistence oriented, non-market directed, and basically static but more complex than often thought.

Philip Curtin carried the debate on African currencies and related problems even further.⁵ He demonstrated that Senegambia, which was to the west of the larger cowrie-gold zone, had a complicated monetary structure based on iron bars, cotton cloth, and at times silver coin, all of which facilitated commercial exchange. Prices often appeared to be fixed in this system, so that in many cases bargaining centered on the assortment of goods to be sold or purchased, while in others the quantity of goods in theoretically standardized weights and measures varied. These practices appear to have been prevalent throughout most of West Africa. As A.G. Hopkins has pointed out, such features can no longer be dismissed or ignored, as scholars tended to do in the past. We ought instead to focus on the process of economic integration and the constraints on market growth.⁶ In

particular, an understanding of monetary structures is necessary to evaluate the extent to which credit institutions and a capital market developed. The issue is no longer whether or not West African currencies were general purpose moneys which acted as mediums of exchange, common measures of value, stores of wealth, and standards of deferred payment, but rather, as Curtin has noted, the extent to which each currency met these requirements.⁷

This chapter focuses on the Central Sudan, the most easterly part of the cowrie-gold zone, in an attempt to explore some of the implications of a common currency, and to provide the foundation for a more detailed economic history of the region. Cowrie shells circulated as small change in the Central Sudan, as they did throughout the cowrie-gold zone, and because of the scarcity of gold and silver, the two major units above the single shell, they were the principal circulating medium. In many ways cowries were an ideal currency: shell was a scarce item; it was nearly indestructible; it could not be counterfeited; and it had virtually no other use, except for a limited demand as jewelry and ornamentation. Since slaves and other high-priced goods could cost over 100,000 cowries, the quantity in circulation had to be considerable. As a result, the movement of shell between regions meant that cowries were an important item in interregional trade. In fact, monetary flow provides a useful indicator for long-distance commerce between the Central Sudan and regions to the south along the Guinea Coast, whose ports became the main source of supply for cowrie imports from the Maldiv Islands and East Africa, replacing earlier and smaller shipments across the Sahara.

It has long been recognized that trade was extensive in the Central Sudan, but the quantities and proportions of various commodities have remained unknown. Because of the lack of quantifiable data, the following discussion must be impressionistic, but, nonetheless, several important conclusions can be drawn: (1) Cowries provide a missing link in the precolonial trade of Nigeria, in which it has been recognized that slaves, livestock, several kinds of salt (often referred to as potash, but in fact, natron), textiles, and other goods were shipped south in exchange for textiles and European manufactures. This analysis suggests that a trade imbalance, which appears to have favored the savanna economies, was met through the export of cowries north. (2) While European merchants did affect the economy of the far interior indirectly, through both the purchase of slaves and vegetable oils and the shipment of cowries to

the Guinea Coast, the general growth of the Central Sudan economy ought to be interpreted primarily as the product of internal changes rather than European influences. (3) The cowrie experienced an inflation of 250 per cent in the nineteenth century, which means that tons of shell were transported inland in the process of which it appears that trade in general expanded. (4) These themes suggest that the integration of the Central Sudan with what is now southern Nigeria was more complete than once was recognized.

The region under study, the Central Sudan, conventionally includes most of northern Nigeria and Niger, that is the area between Songhay on the Niger River in the west, Lake Chad in the east, the southern Sahara or the Air Massif in the north, and the Niger-Benue confluence in the south. Several major states were located in this area before 1900, including Borno, the nineteenth century Sokoto Caliphate, the earlier Hausa city-states, and the Agades Confederation, but the area had no clear boundaries, so that Nupe, the Bariba states of Borgu, and parts of Yoruba country had important links with the more northern countries. Furthermore, within the region were areas that were not well integrated. Some were mountain and hill retreats for people resisting incorporation into the major states, although even these can be considered reserves of potential slave labor. Of the different parts of the Central Sudan, only Borno and the area that came to be known, as Adamawa did not belong to the cowrie-gold zone for several centuries before 1900; Borno participation began in 1848, while Adamawa was drawn in at roughly the same time. Nevertheless, the Borno economy was an essential section of the larger Central Sudan economy long before this time. Indeed, the Hausa cities and Borno together formed a metropolitan region or series of central places from which much economic development radiated.

By the late fifteenth century, such Central Sudan towns as Katsina, Kano, and Birni Gazargamu had become the centers of an expanding regional economy, whose most important sectors were the production of grain and other foodstuffs, livestock breeding, the mining of numerous salts, iron, tin, and other minerals, and the manufacture of textiles, leather goods, iron ware, and other commodities. While towns were crucial to the development of the region, one characteristic of the Hausa heartland was the expansion of the rural population, a feature related to the presence of a relatively high water table and hence the possibility of intensive agricultural production. In the fifteenth and sixteenth centuries, the

Central Sudan, and especially the Hausa cities, was on the periphery of the Songhay Empire, although connections between Borno and North Africa also provided access to the larger world and influenced economic growth.⁸

In this era, cowries were current in at least part of the Central Sudan, a development related to economic ties with Songhay. Shell had been the currency of the earlier medieval empires of Ghana and Mali, as well as Songhay, whose economies had access to North African cowrie supplies. Imports were confined to the far west, with such centers as Sijilmasa dominating trans-Saharan exports to the south.⁹ Difficulties of transport and supply limited the spread of the currency, and it seems likely that cowries initially had greater purchasing power than they later were to have. Gold was also current at this time, but it was scarce in the Central Sudan. Although accepted in later centuries, the supply continued to be miniscule; hence the concentration on cowries here. Developments in the seventeenth century, after the collapse of Songhay, remain obscure, but possibly it was a time of much slower economic growth and perhaps even prolonged depression.

By the eighteenth century, and specifically after the disastrous drought at mid-century, the Central Sudan entered a period of unprecedented growth. Cities became larger and more numerous, rural population increased, foreign commerce expanded in every direction, and all sectors of the economy appear to have prospered. The drought of the 1740s and early 1750s, which hit all of West Africa along with several epidemics, provides a base line from which to measure economic change over the next century and a half. The drought in the 1790s also affected developments, but it was much less serious and appears to have been more localized than the earlier one.¹⁰

Monetary developments reflected the general trend of economic recovery and commercial expansion in the eighteenth century.¹¹ Cowries became so common in the Central Sudan that some oral traditions even claim that they were first introduced at this time, but this clearly refers to the import of cowrie through the ports of the Bight of Benin, replacing the earlier movement of shell across the Sahara. The Kano Chronicle, for example, notes that shell became current in Kano during the reign of Muhammad Sharifa b. Dadi (c.1703-c.1731). Elsewhere, cowries were circulating in Zamfara by the 1760s, and in Gobir at roughly the same time. Shell attained an

equivalency of 1,700 cowries per silver dollar by the last two decades of the century, a value which provides a base for later comparison and which suggests that considerable quantities were in circulation. Equally certain, the shift in source of supply to the Bight of Benin was closely related to the development of the Atlantic trade in slaves and other commodities. Moreover, the import of cowries was both a product of government policy and general commercial intercourse: Gobir, for example, imported at least 500 donkey loads of shell (approximately 25 metric tons, or 25 million cowries) from Nupe in the last two decades of the eighteenth century, and it was noted that Katsina's "merchants procure[d] [the shells] from the southern nations who border on the coast," presumably in connection with their export business.¹²

Cowries had become more accessible with the expansion of the Atlantic trade, especially towards the end of the seventeenth century, for European firms transported shell from the Indian Ocean as one commodity in their exchange with coastal African traders. As early as the sixteenth century the Kingdom of Benin was using cowries as its currency, and by the following century the neighboring Yoruba states and probably parts of the lower Niger valley had adopted the system.¹³ The connection between their use in these southern areas and in the western Sudan remains obscure, although it is known that the means of accounting and terminology differed. Near the coast, for example, cowries were often strung, a practice not found further inland. Nevertheless, by at least the late seventeenth century, both regions of cowrie use were united, and thereafter the coastal ports became the main source for much of West Africa, except the region of the upper Niger, which was supplied from the Senegambia.

The quantity of cowrie imports suggests that the impact on the monetary structure of West Africa, and the Central Sudan in particular, was considerable. As many as 50 metric tons (or about 50 million cowries) per year were sold on the Atlantic coast in the 1680s, and a large portion of this figure accounted for sales in the Bight of Benin. By 1720 the approximate total for cowrie exports to West Africa reached 450 tons (or about 450 million cowries) per annum. Since the Bight of Benin was one of the major slave exporting regions in the late seventeenth and eighteenth centuries, a large part of these shipments were destined for its ports. Despite the absence of complete returns, scattered evidence suggests that the volume of cowrie imports was always large. The 1720 figure,

for example, represented approximately one-third of the value of all goods exported to West Africa. This pattern continued into the first years of the nineteenth century, when British shipments alone amounted to 100 tons (almost 100 million cowries) per year.¹⁴

The vitality of the Yoruba economy, and particularly that of Oyo, largely accounted for increased imports, a development which was also directly related to commercial expansion between the Guinea Coast and the Central Sudan. It is not known if there were direct trade connections between the Hausa country and the coast in the eighteenth century, but Hausa merchants reached there in the early years of the nineteenth century; northern exports such as natron (Hausa: *kanwa*) and slaves were common in coastal markets by the 1790s.¹⁵ Oyo profited from both the sale of slaves to Europeans and the re-export of shell to Nupe and the Hausa states, so that monetary flow was integral to north-south exchange. Oyo's slave exports promoted cowrie purchases, which were then partly used to finance such northern imports as livestock (particularly horses), natron, Hausa and Nupe textiles, slaves, several agricultural products, and leather goods.

The Niger River became another important avenue for the flow of cowries into the Central Sudan by the late eighteenth century. This development built on existing river trade but became increasingly integrated with overland commerce. Cowries may have been current in the western Igbo country in the sixteenth century, in fact, but as with other areas bordering the Guinea Coast, their circulation became more common with the massive influx of shell after the expansion of the European slave trade. For the lower Niger valley, which used Niger Delta ports, this period began after the 1720s. Slave sales to Europeans, especially Britain, then became central to Igbo foreign trade, so that cowrie shipments up the river probably began by the 1750s.¹⁶ Other products in river exchange may have included various salts, ironware, textiles, small livestock, fish, and other foodstuffs.

The increased use of cowries in the eighteenth century Hausa states not only stimulated the Oyo economy and the Niger River trade but also encouraged the expansion of natron production within Borno's economic sphere, promoted the growth of Hausa textile and leather manufacture, and provided an incentive for increased output of cotton, indigo, onions, and perhaps she abutter, pepper, and other agricultural goods as well. Commercial expansion in turn

promoted the development of a Hausa mercantile class, and the movement of traders along routes to Oyo increased the accessibility of many areas to continental trade. Yoruba textile production and Nupe cloth and bead manufacture may have received an important stimulus from this commercial expansion, for these products were shipped north along with cowries. The Atlantic trade with its shipments of cowries to the Guinea Coast, therefore, was closely linked to economic developments as far north as the Hausa cities.

Increased trade with Oyo, the Niger-Benue confluence, and indirectly with the Guinea Coast coincided with the expansion of Hausa trade with the Bariba states and the middle Volta basin. Professional merchants who lived in the Hausa cities, particularly Katsina, traveled to Bussa, Nikki, Yauri, and other places in the Borgu region, where they came in contact with traders from towns in the middle Volta basin. The major attraction was Asante's kola and some gold. Many exports from the Hausa country to the Volta were the same as those shipped to Oyo, and, since the trade routes partially overlapped, the interconnection between both commercial patterns helped integrate the economies from the Hausa states through the middle Volta basin. Cowries were the currency along the trade routes, which crisscrossed the area, while Muslim traders, many of whom increasingly identified themselves as Hausa, dominated most long-distance trade.¹⁷ Hausa and other Muslim merchants transported currency from east to west so that exchange rates were roughly equalized between Oyo and the Volta.

Oyo's position in the development of trade with the Central Sudan paralleled the case of one other major slave-exporting state, Asante. The eighteenth-century foreign trade of Asante depended upon the export of three commodities: gold, slaves, and kola. Kola was the main product sold to the merchants from the savanna, a market that Hausa traders increasingly dominated after 1750. Slaves and gold were exported through the Gold Coast ports and exchanged for European manufactures. The dual orientation of Asante's foreign trade protected its economy from the vicissitudes of both markets, and the economic and political policies of the Kumasi government were closely related to official efforts to promote all of its economic interests. The wisdom of this policy became clear after the 1790s, when the Napoleonic wars and the British withdrawal from the slave trade in 1808 destroyed a major portion of Asante's export trade. Asante then initiated a policy, which protected its kola industry, and the expansion of trade with

Hausa merchants minimized the impact of the decline in European slave purchases.¹⁸ The relationship between Asante and its foreign trade demonstrated the economic integration of the Atlantic trade and continental African commerce, just as Oyo's exchange of slaves for cowries and cowries for northern products reflected the twin orientation of the Oyo economy.

In the early nineteenth century, a series of political changes occurred which reinforced the general trend of economic expansion after 1750 and altered the map of the Central Sudan. The *jihād* after 1804, which consolidated much of the region into the Sokoto Caliphate, erased the political barriers, which had restricted commercial operations. The new Muslim empire came to control most of the Hausa country, Nupe, large parts of Oyo, western Borno, and lands to the south of Borno. The Caliphate was much larger than earlier states in the Central Sudan, and its consolidation involved major demographic changes, as people from peripheral areas were forcibly resettled around the metropolitan Hausa cities and other emirate capitals, or moved there voluntarily in pursuit of opportunities. This policy actively promoted agricultural expansion, increased market demand for foodstuffs, manufactures, and raw materials, and attracted foreign investment and immigrant businessmen. Merchants who traced their origins to commercial networks connected with North Africa, Borno, the middle Volta basin, and the southern Sahara established bases in the major Hausa cities and adjacent countryside.¹⁹ The holy war probably eliminated many established merchants, particularly in Birni Gazargamu and Alkalawa, which were destroyed, and Katsina and Birnin Kebbi, which lost their previous importance, but the rapid emergence of new merchant associations and new cities suggests that economic dislocation for the region as a whole was brief. Economic growth, which had begun after 1750, continued through the nineteenth century, and the steady enlargement of the Caliphate through mid-century facilitated the movement of merchants and led to the economic supremacy of Hausa traders throughout the savanna from Borno to Adamawa, the northern Yoruba country, Borgu, and the middle Volta basin.

The absence of any serious droughts in the nineteenth century, in sharp contrast to the previous several centuries, also contributed to continued economic growth, so that it appears that the century before colonial rule was a time of relative prosperity.²⁰ This pattern is significant because it parallels developments in other parts of

West Africa and suggests that the economic revolution identified with the nineteenth century and the shift from slave exports to so-called legitimate trade in vegetable oils and other goods, began at least half a century earlier and was more closely related to internal West African political and economic developments than European-induced policies and demands.²¹ The dual orientation of Oyo's trade and its effect on the Hausa economy continued into the nineteenth century, despite the growing political crisis within the Oyo heartland after 1817. Slaves, including imports from the Sokoto Caliphate, were sent to the coast. The British withdrawal from the Atlantic slave trade in 1808 only marginally affected the market for slaves in the Bight of Benin, for Portuguese and Brazilian ships, and then Cuban, maintained an annual demand of approximately 10,000 slaves a year from 1800 to 1820. Consequently, cowries still constituted a major import, and Oyo's trade with the north remained important in the growth of Hausa exports. The collapse of Oyo, especially after the Muslim coup d'état at Ilorin in the 1820s, scarcely altered the situation. Ilorin competed as the commercial center in the north-south trade, and, with the final destruction of Oyo around 1835, the Muslim town consolidated its position as the economic and political power in the northern Yoruba country.²²

The decline of Oyo was only one of many important changes in the continental exchange of the region, which today includes much of Nigeria, Dahomey, Togo and Ghana. These changes can be summarized as follows: Muslim, and especially Hausa, merchants assumed a larger and larger share of long-distance trade, so that the Hausa language became the commercial tongue from Borno south through the Niger-Benue confluence and west and south to Oyo, Borgu, and the middle Volta basin, largely achieved by the 1820s. Related to this commercial expansion of the Hausa economy, Muslim clerics spread the doctrine of Islamic reform, so that the extension of Islamic influence, the Hausa language, and Hausa commerce proceeded together.²³ The exchange rates between cowries and silver coin, which was the major monetary unit above the value of a single cowrie by 1800, reached a level of 2,000 cowries per coin throughout the cowrie zone. Silver-cowrie rates in Kano, along the Niger River, on the Yoruba coast, and in the middle Volta basin were uniform by 1820; an indication that supplies of both coin and shell may have been roughly equal throughout the region.²⁴ The period 1820-45 was an era of monetary stability, which may have reflected, reduced cowrie collection in the Maldive Islands. The

gradual decline in slave exports and the transition to palm production as the staple export earner probably influenced this stability as well. Finally, in response to the expansion of Igbo and Yoruba palm oil exports, European firms turned to alternative supplies of cowries from East Africa, so that after 1845 cowries were again imported on a massive scale.²⁵

The major Hausa exports to the Yoruba towns after 1810 continued to include livestock, natron, textiles, slaves, and leather goods. Such agricultural products as dried onion leaves (Hausa: *gabu*), shea butter, and spices may also have been exported, although the proportions and yearly fluctuations of all exports remain unknown. Nevertheless, it is clear that foodstuffs and raw materials were far more important than has previously been thought. Manufactures may have matched or exceeded the value of the primary products, however, a factor, which reflected the industrial development of the Central Sudan. Slaves should be seen as a flow of labor south, a feature of the Central Sudan economy that has continued to the present. This was only part of a much larger redistribution of population, as the governments of the north forcibly moved people to centers of production, whether in northern farming villages, in the Hausa cities, in Borno salt pans, or on Yoruba farms. A final feature of the economy which emerges from examining the implications of this trade is that there were far more bulk products than has been recognized. This means that large numbers of people were involved, and if the conclusions derived from a study of the kola trade are indicative, then there were many firms that employed up to fifty or sixty personnel and occasionally hired more on a temporary basis.

Until the last few decades of the nineteenth century, imports from the south included Yoruba textiles, such European re-exports as firearms, cloth and other manufactures, and cowries.²⁶ Kola of the variety *Cola acuminata* commanded a small market in the savanna, but it was insignificant in comparison with the far more popular *C. nitida* of Asante. Women used *C. acuminata* as a cosmetic to stain their teeth, a demand that was always limited.²⁷ Small quantities of *C. nitida* from Nupe (Hausa: *labuje*) also entered into the trade, along with some palm oil. By far the most important known exports to the north were cowries and textiles. Money and manufactures, therefore, were prominent in the northbound trade.

Along the Niger, numerous and well-attended market-places were located between Raba and Bussa in the north and the Niger Delta in the south. Igbo and Delta merchants commanded a large share of river exchange, but Nupe, Igbirra, and Igala traders were also involved. The major products exported down river in the 1830s, for example, were natron, textiles, leather goods, slaves, small live-stock, beads, and rice, while the commodities, which moved up river, included European textiles, beads, firearms, ammunition, iron products, salt, and yams.²⁸ Cowries, however, headed the list of commodities "most suitable" for the Igbo market and the northern trade, for cowries would "purchase any article from Eboe up to Boosa, and passes current in every part of the interior."²⁹

By the 1840s palm oil exports expanded so rapidly that large quantities of imported cowries flooded the Sokoto Caliphate. The demand for labor in the oil producing regions promoted increased exports of slaves from the Sokoto Caliphate, and a large portion was paid for with cowries. Yoruba palm oil producers and traders carried cowries, along with textiles and other goods, north to Ilorin in order to buy slaves, and since prices ranged from 40,000 to 60,000 cowries or more for each slave, this represented a substantial northward flow of currency, not that slaves were always exchanged for cowries, but sometimes they were. The situation along the lower Niger was similar, as the demand for slave labor continued unabated throughout the period of the palm oil boom. Slaves came from all parts of the Caliphate, although non-Hausa areas accounted for most exports. Nupe, Ilorin, and Kontagora established themselves as viable emirates through the destruction and sale of considerable segments of their opposition, and they fed the Yoruba and lower Niger markets.³⁰

The increased demand for cowries on the Guinea Coast and in the interior was met through the introduction of the slightly larger East African cowrie after 1845.³¹ European firms discovered that these shells satisfied market requirements and began to import them to pay for palm products on a scale, which may have dwarfed shipments during the era of the European slave trade; at least there was inflation. These imports upset the monetary stability of the previous decades and appear to account for the inflation, which hit much of West Africa, including the Sokoto Caliphate, by 1850. Inflation was most severe in the south, where the economy was more sensitive to cowrie imports and where depreciation occurred in three stages. An initial, rapid drop in the cowrie-silver exchange

rate was followed by a period of gradual decline, but the century ended with the final collapse of the currency at Lagos and in its immediate hinterland. According to Hopkins,

The steepest fall was during the first stage, from 1851 to 1865, when the value of one head of cowries [2000 shells] dropped from 4s. 9d. to 1s. 3d., as a result of the increased shipments made by the competing German and French firms. During the second stage, from 1865 to 1879 (and to 1883 in the case of Badagri), the value of the cowrie fell from 1s. 3d. to 1s. per head. This period of relative stability may be explained by the tendency for net imports of cowries to fall; by an upward movement in demand for cowries following the general expansion of trade in the period after the creation of the Colony of Lagos in 1861; and also...as a side effect of speculation in the dollar. The third stage, from about 1880, (or 1884 in the case of Badagri) to about 1895, was a period of renewed upheaval and fluctuating exchange rates, during which the value of one head of cowries dropped from 1s. 0d. to 6d.... The changes in this period were not caused by over-issue, for the import of cowries continued to diminish, but were primarily the result of other monetary innovations, namely the demonetization of the dollar and the introduction of British silver coin, both of which had adverse effects on the value of the already depreciated cowrie currency.³²

Monetary trends can, therefore, be correlated with the onset of European imperialism. Each stage of the inflation corresponded to a new level of European intervention and capitalist development. These included the occupation of Lagos to provide a secure base for British firms, the subversion of the currency system through speculation, and the imposition of currency reforms, which upset exchange rates over an area wider than that which Britain formerly occupied. Combined with British gunboat diplomacy in the Niger Delta, this prepared the way for more drastic economic and political controls. The strategy should be seen in a wider context in which Europe and the United States were annexing territory elsewhere in the world. Often such capitalist techniques as the extension of loans to foreign governments and the investment in agriculture and extractive industries preceded military intervention.³³

Events in the Sokoto Caliphate differed from those in the Bights of Benin and Biafra. Its economy was sufficiently independent to withstand the assaults that subverted the south and brought that

region under European domination. The Caliphate dealt directly with European firms after the middle of the century through commercial contacts at the Niger-Benue confluence, but, unlike the situation at Lagos, the occupation of Lokoja and the pretensions of the Royal Niger Company to territorial sovereignty had no other effect than securing a commercial base in the Caliphate. The final, disastrous inflation of the coast did not spread into the far interior at first. It was not until after the British occupation of the Caliphate in 1903 that effective monetary control was established, and this was not complete until about 1910. The opening of the railroad to Kano in 1912 completed the process and forced the north in line with the south.

Nevertheless, commercial relations were extensive enough that the expansion of the cowrie supply in the Yoruba states and along the lower Niger was immediately registered in the Caliphate economy in every movement of the cowrie-silver exchange rate before the 1870s. Table 11.1 shows the rise in the Central Sudan exchange rate with silver from the 1780s, when silver coin was first being imported into the Hausa area, to the last decade of the nineteenth century, just before the Maria Theresa thaler and the Spanish and American dollar, the most important silver coins in circulation, were demonetized. From an initial value in the 1780s of about 1700 cowries per thaler, a figure derived from the gold mithqal-cowrie equivalent and the sterling-gold exchange rate, the silver-cowrie rate leveled off at 2,000 cowries per thaler by the 1810s, at a time when silver coins became common as a circulating medium. By 1850, this value had increased 25 per cent over the 1819 figure, an upward movement apparently caused by the influx of cowries at Lagos, Badagri, and on the Niger after 1845.

Cowrie imports continued on the Guinea Coast after 1845, but the entrance of Borno into the cowrie zone in 1848, after several decades of government consideration of currency reform to avoid the adoption of the cowrie had failed, reduced the inflationary influence on the Caliphate economy.³⁴ With the adoption of the cowrie, Borno withdrew large quantities of shell from the Hausa country and thereby retarded inflation but did not prevent it. The early 1860s were a period of steep inflation, and the exchange rate doubled to 5,000 cowries per silver coin. This was more than five years after the silver-cowrie rate was upset at Lagos. After the mid 1860s, stability returned to the Central Sudan, although in the 1870s a more gradual decline set in as the price of silver began to drop.

Except for the time lag caused by Borno's entry into the cowrie zone, therefore, events in the interior closely paralleled those on the coast, at least before the 1870s. During the whole of the nineteenth century, the cowrie depreciated approximately 60 per cent, but the major portion of this decline occurred in less than a decade in the late 1850s and early 1860s.

Transportation difficulties lessened the impact of the coastal inflation on the interior, especially in the Hausa region. In 1820, for example, transport costs for cowries along the route between Salaga in the middle Volta basin and Raba or Bussa on the Niger ranged between 0.4 and 0.6 per cent of the value of a load of cowries per day of travel, with an additional 0.2 per cent for the Niger crossing. Total loss in cowrie value along the Salaga-Niger route was over 10 per cent, and if allowance for the additional journey to Kano is made losses probably exceeded 15 per cent. Rates along the more direct route between the Guinea Coast and the Hausa cities were probably about the same. The introduction of the larger cowries from East Africa reduced the number of shells which donkeys carried from 40,000 to 50,000 cowries of the Maldivian variety to 30,000 cowries of the East African kind, so that unless the shells were sorted and only the smaller ones taken north, transport costs increased considerably.³⁵ These figures for a load of cowries were roughly on the same scale as the value of a donkey itself, and consequently the weight of cowries per value limited their spread once their worth depreciated beyond a certain point. The use of the Niger River, where transport costs were cheaper for bulk commodities, partially counteracted increased costs, and river movements probably helped equalize silver-cowrie values.

Differences in the exchange rate between the north and south reflected the transportation costs of moving cowries. Traders from the Caliphate benefited from this difference, for they sold goods at inflated prices in the south and obtained goods at comparative bargains in the north. Hence the transport of cowries carried the inflation inland and probably encouraged the expansion of natron, slave, and textile exports, as merchants invested more in the southern trade. In Nupe in 1857, for example, the exchange rate was 2,500 cowries per thaler, while at Ilorin the rate was 3,000 cowries and in Lagos 4,000 cowries.³⁶ Profits to be realized in 1857 may have been around 35 per cent on cowries alone, a figure that reflects the difference between cowrie-silver rates (60 per cent) and transport costs (15 per cent). Since merchants also profited from price differ-

entials on other commodities, inflation may have been an important stimulant in the north-south trade at the middle of the century. Hausa traders flooded the markets of Nupe and southern Zaria at this time, while even as early as the 1830s Hausa was spoken at Niger River markets as far south as Idah. The consolidation of the Ilorin Emirate within the Caliphate provided political sanction for the spread of Hausa traders into the Yoruba area as well. Some merchants are recorded as far south as the coast in the early 1800s, but within a decade after the inflation hit the interior, they arrived in ever-larger numbers. By the 1880s and 1890s they traveled to Lagos by the thousands.³⁷

Except perhaps along the Niger, shell reached a point where it was no longer profitable to move in the 1870s, a development apparently reflected in the stabilization of the cowrie-silver rate at that time. If more advantage could have been won from further speculation, traders would have still imported cowries to the same degree as in the period after 1845. That the rate did not go higher in the north demonstrates that the transport of currency was no longer economical. As always, perhaps, individuals returned to the Hausa cities with cash only when they were unable to buy something more lucrative.

In the 1870s and especially after the early 1880s, imported kola brought by sea from Asante and Sierra Leone replaced cowries as an easily divisible but bulky product exported north from Lagos, and thus prevented the renewed inflation in cowries on the coast from spreading into the interior. Whereas monetary developments in the Caliphate and the southern Yoruba states closely corresponded before the late 1870s, the sharp drop in the Lagos cowrie market from 1s. per 1,000 cowries to 6d. per 1,000 cowries after 1880 was not reflected in the Hausa economy. The Niger River centers also experienced the final disastrous inflation of the coast, for steamship transport helped maintain equilibrium.³⁸ Traders continued to ship large amounts of natron and other goods south, but they increasingly invested in kola instead of cowries. Kola offered an even higher net return per weight than the transport of currency had during the inflation of 1845-65, so that many established merchants who had previously monopolized the overland trade to the middle Volta basin shifted their activities to Lagos, while many new participants seized the opportunity to enter the kola business.³⁹ Kola imports at Lagos grew from no more than a ton or two in 1872 to at least 15 metric tons in 1882 to 140 tons in 1888.⁴⁰ The expanding

trade averaged close to 500 tons per year during the last decade of the century, an indication of the volume of north-south exchange (Table 11.2). These amounts of kola required the employment of thousands of donkeys and were balanced by comparable quantities of exported natron and other goods. Consequently, the inflation was checked, and cowries retained their usefulness in those parts of the Sokoto Caliphate away from the Niger River. Incidentally, in contrast to the standard picture of savanna trade, merchants took their donkeys right to the coast and risked the high losses inflicted upon livestock in tsetse fly infested regions.

The behavior of the cowrie-silver exchange rate raises a number of questions, most of which cannot be fully resolved at present. While it is clear that the money supply increased in the nineteenth century, the extent of increase must await analysis of available archival sources on the quantity of cowrie imports into Africa. It should prove possible to compare the relative importance of various ports, from Calabar on the Cross River in the east, through the Niger Delta city-states, to the Yoruba and Dahomey coast, and the region of the Volta River. These data could provide relative information on the extent of trade with the far interior. A more serious problem relates to estimates for velocity of circulation. Information on the tax structure of the Caliphate and the spread of cowrie use to Borno both suggest that the number of transactions probably increased dramatically over the nineteenth century, but more precise data do not exist.

The lack of data has also prevented the construction of price series for most commodities, although again it may prove possible to work out rough series for various foodstuffs, livestock, and manufactures. Some data are available for slaves and kola nuts, however, and when these are combined with more impressionistic information on the cost of living, certain tentative conclusions can be drawn. Slave prices for the second half of the nineteenth century, for example, rose approximately one-third over those in the first half-century. This calculation, based on the sketchy information of European accounts, has been adjusted for the cowrie inflation of the mid-century. A study of slave prices in the Central Sudan suggests that labor costs may have been increasing with general economic expansion, perhaps at a rate faster than for cowries. Similarly, data for kola nuts, a luxury product that may indicate the affluence of upper class society, suggest that prices probably doubled or trebled during the century, but again the nature of the sources prevents this

from being anything more than a rough impression.⁴¹ Kola supplies increased over the century, so that a price rise could indicate that demand outpaced supply or that costs were rising or both. This may mean that the number of people who could afford kola was increasing.

This analysis provides a rough indicator to guide future research, but it does not answer questions relating to the general impact of the cowrie inflation on the population of the Central Sudan. The only people who definitely suffered from the drastic inflation at the mid-century were those who held large amounts of cowries. This obviously did not affect the general population, but it may have affected large merchants, aristocrats, and governments. The various emirates within the Caliphate in particular dealt in large quantities of cowries. Authorities encouraged, if they did not require, the partial payment of tribute in currency, especially from the southern emirates. Dependencies of such emirates as Nupe paid their levies in cowries as well, so that the taxation system effectively assured that people participated in the market economy and used the currency, a policy remarkably similar to the one which the later colonial regimes pursued in their efforts to see their own currencies accepted.⁴² In the Hausa emirates, such taxes as those on specialized, non-grain crops (*kud'in shuka*), irrigated crops (*kud'in rafi*), households (*kud'in k'asa*), caravans (*fito*), and craft production were all calculated in cowries. Only the grain tithe was legally assessed in kind, although it is unclear if the other taxes were paid in cowries or kind. In at least some cases levies on caravans from the middle Volta basin were paid in kola nuts, but the extent of this practice is unknown. Fixed tax rates, especially the *kud'in k'asa*, increased over the century in response to the cowrie inflation. In the middle of the century the average payment in Kano was 2,500 cowries per household per year, while a half-century later payments in some districts reached a level of 4,000 cowries. The real value of these taxes may have actually declined.⁴³ It seems likely, however, that fiscal measures helped equalize cowrie values in different areas through the transportation of shell from places with excess supplies to others with shortages. This movement was most commonly one from the southern regions to such northern centers as Sokoto.

Many questions remain unanswered which relate to the operation of the Central Sudan capital market. The functioning of the Caliphate tax structure, for example, suggests that large amounts of cowries were collected in government treasuries and that a futures

market in agricultural produce, particularly grain, must have been important. Indeed one surviving account book which belonged to a Katsina merchant of North African origin establishes that extensive loans were made to government officials in the 1840s and earlier, in this case primarily for such social obligations as weddings.⁴⁴ Nonetheless, this is an important indication that a capital market was well developed. North African and Tuareg merchants also extended credit to craftsmen, particularly leather and textile workers, and hence helped finance manufactures. In one case at the end of the nineteenth century, the head of the Kano leather workers was even taken to court to force repayment of a loan. Further, the larger firms in the Central Sudan operated branches in many towns, and at least in some instances capital was transferred between locations by means of commercial paper. One partnership in the 1790s united a trader operating at Buna and Kong, in the middle Volta basin, with another at Katsina, and the latter even had commercial ties in Borno. This is one of the earliest known examples of a practice, which appears to have been common among many nineteenth century merchants in such places as Zinder and Kano. Finally, brokerage firms in Kano, which handled the sale of various salts, provided banking facilities for their clients. These firms, some of which are still in operation after at least two hundred years of business, stored cowries obtained through salt sales while their Borno clients traveled to neighboring towns to purchase goods. These reserves provided the salt brokers (*fatoma*) with the ability to guarantee short-term credit in the transactions, **which** they managed. In some instances, too, the firms extended goods on credit to distributors who sold salt in the streets and villages.⁴⁵

By pursuing the lead of Marion Johnson and A.G. Hopkins in the study of the cowrie system, it can be seen that an examination of other parts of the cowrie zone and, indeed, other standards, will prove useful in evaluating the extent of continental African trade and the process of market development. The absence of quantifiable data, however, limits attempts to evaluate the movement of other commodities, and this remains one of the most serious problems facing the reconstruction of African economic history. Oral data can tell us much about the means of production and related questions of social organization, but unless there is an unforeseen theoretical or methodological breakthrough, much information needed by economic historians will always be lacking. For this reason, European trade statistics become the major source for quantifiable studies of

African economies in the precolonial era. As Curtin demonstrated in his study of Senegambia and his census of the slave trade, import-export data provide useful indicators for certain aspects of indigenous African economies.⁴⁶ As the Central Sudan case demonstrates, Africa was subdivided into economic regions, within which there was extensive political and cultural interaction. Furthermore, such regions as the Central Sudan dealt with wider spheres; in this instance, the lower Niger valley, the Yoruba country, the Volta basin, and indirectly other parts of the disjointed and fragmented world economy. The cowrie-gold zone demonstrates the limitations of this integration.

Table 11.1: Cowrie Equivalencies in the Sokoto Caliphate

Date	Place	Cowrie value for silver coin	Silver value per 2,000 cowries
1780s	Katsina	1,700 = Maria Theresa thaler ⁴⁷	\$1.18
1819	Katsina	2,000 = thaler ⁴⁸	\$1.00
1824	Kano	2,000 = thaler ⁴⁹	\$1.00
1826	Kano	1,500-2,500 = thaler ⁵⁰	\$0.80-1.33
1826	Oyo	2,000 = Spanish dollar ⁵¹	\$1.00
1830	Yauri	1,500 = dollar ⁵²	\$1-33
c.1835	Katsina	2,000 = dollar ⁵³	\$1.00
1831	Kano	2,500 = thaler or dollar ⁵⁴	\$0.80
1853	Kano	2,500 = thaler ⁵⁵	\$0.80
1835	Bauchi	2,500 = thaler ⁵⁶	\$0.80
1857	Raba, Kano	2,300 = dollar ⁵⁷	\$0.80
1861-62	Kano	2,860 = dollar ⁵⁸	\$0.70
1862	Zaria	4,500 = dollar ⁵⁹	\$0-44
1867	Keffi	5,000 = dollar ⁶⁰	\$0.40
1870	Kukawa	4,000 = thaler ⁶¹	\$0.50
1885	Kano	5,000 = thaler ⁶²	\$0.40
1885	Kano	4,000-4,500 = Spanish \$ American \$, 5 franc piece ⁶³	\$0.40-.44
1891	Kano	5,000 = 5 franc piece ⁶⁴	\$0.40
1894	Zaria	5,000 = thaler ⁶⁵	\$0.40

Table 11.2: Imports of *Cola Nitida* into Lagos, 1888-1900

Year	Metric tons
1888	140
1889	112
1890	86
1891	109
1892	329
1893	416
1894	653
1895	528
1896	605
1897	558
1898	574
1899	698
1900	619

Source: *Colony of Lagos Blue Books, 1888-1900*, as cited in Agiri, "Kola in Western Nigeria," 69.

Notes

1. The earlier version was published in the *Journal of African History*, XV, 4 (1974), 563-85.
2. For a summary of the substantivist approach and some of its critics, see Harold K. Schneider, *Economic Man. The Anthropology of Economics* (New York, 1974), Philip D. Curtin, *Economic Change in Pre-Colonial Africa. Senegambia in the Era of the Slave Trade* (Madison, forthcoming), and A.G. Hopkins, *An Economic History of West Africa* (London, 1973).
3. Marion Johnson, "The Cowrie Currencies of West Africa," parts I and II, *Journal of African History*, XI, 1 (1970), 17-49 and XI, 3 (1970), 331-53 (referred to as "Cowrie Currencies," I, and "Cowrie Currencies," II); and "The Nineteenth Century Gold 'Mithqal' in West and North Africa," *Journal of African History*, IX, 4 (1968), 547-70.
4. A.J.H. Latham, "Currency, Credit, and Capitalism on the Cross River in the Pre-Colonial Era," *Journal of African History*, XII, 4 (1971), 599-605. Also see A.G. Hopkins, "The Currency Revolution in South-West Nigeria in the Late Nineteenth Century," *Journal of the Historical Society of Nigeria*, III, 3 (1966), 471-83; M. Hiskett, "Materials Relating to the Cowry Currency of the Western Sudan," *Bulletin of*

- the School of Oriental and African Studies*, XXIX, 1 (1966), 122-42; XXX, 3 (1967), 340-66; Lars Sundstrom, *The Trade of Guinea* (Lund, 1965), 66-121; C.W. Newbury, *The Western Slave Coast and Its Rulers* (London, 1961), 40-2, 57-9; G.I. Jones, "Native and Trade Currencies in Southern Nigeria during the Eighteenth and Nineteenth Centuries," *Africa*, XXVIII, 1 (1958), 43-54; and Curtin, *Economic Change*.
5. Curtin, *Economic Change*, ch. vi.
 6. Hopkins, *Economic History*, 66-71.
 7. Curtin, *Economic Change*, ch. vi; and Hopkins, *Economic History*, 70.
 8. See Paul E. Lovejoy, *Caravans of Kola*; and Lovejoy, "Notes on *Asl al-Wanqariyin*," *Kano Studies*, n.s., 1:3 (1978), 46-52.
 9. Johnson, "Cowrie Currencies, I," 33; and "Cowrie Currencies, II," 331. The concept of money in the Hausa country may have been imported from the cowrie zone of Songhay and Mali. The Hausa word for money, *kurd'i* or *kud'i*, appears to be of Mande origin and probably is a very ancient borrowing. The proto-Mandekan form for money and silver has been reconstructed as **n-kodi*, with the "n" representing a nasalization which is easily dropped. The proto-Mandekan form for cowries, on the other hand, was probably **kodon*, which looks somewhat similar to the Hausa term but is probably not related (personal communication from Professor Charles Bird, Indiana University). The word for cowrie in Hausa, which is also the singular for *kud'i*, is not connected with these forms at all. The word is *uri*, perhaps *wuri* in its archaic form. It has been suggested that the term is more closely related to the Nupe word for cowrie, *wuri*, and to the Yoruba word, *owo*, which suggests that the term was borrowed in the eighteenth century when large amounts of cowries began to enter the Hausa economy from the south (see Hiskett, "Materials Relating to the Cowry Currency," 352).
 10. For a discussion of Central Sudan droughts, see Paul E. Lovejoy and Stephen Baier, "The Desert-Side Economy of the Central Sudan," *International Journal of African Historical Studies*,
 11. The sources for the eighteenth century are the following: Hiskett, "Materials Relating to the Cowry Currency," 356; Carsten Niebuhr, "Das Innere von Afrika," *Neues Deutsches Museum* (Leipzig), III, October 1790, 1003. Niebuhr learned about the use of cowries in Zamfara from a Hausa slave in North Africa, who had left his home before the destruction of Birnin Zamfara in the mid 1760s. Also see 'Abd al-Qadir, *Raudat al-afkar*, as translated by H. R. Palmer in "Western Sudan History. The Rauthat' ul Afkari," *Journal of the African Society*, XI, 59 (1916), 269; [Henry Beaufroy], "Mister Lucas's Communications," *Proceedings of the Association for Promoting the Discovery of the Interior Parts of Africa*, Robin Hallett, ed. (London, 1967), I, 184. The region of Adar was also using cowries by 1800, see U.J. Seetzen,

- "Über die Phellata-Araber südwärts von Fesan, und deren Sprache, nebst einigen Nachrichten von unterschiedlichen umherliegender afrikanischen Ländern," *Monatliche Correspondenz zur Beförderung der Erd- und Himmels-Kunde*, XXIV (1811), 231. For the use of cowries at Katsina around 1800, see C.A. Walckenaer, *Recherches géographiques sur l'intérieur de l'Afrique septentrionale* (Paris, 1821). For their use in Nupe at about the same time, see M. Menères de Drumond, "Lettres sur l'Afrique ancienne et moderne," *Journal des Voyages*, XXXII (1826), 207. In Oyo in 1826, Clapperton learned that "the medium of exchange throughout the interior is the cowry shell;" see H. Clapperton, *Journal of a Second Expedition into the Interior of Africa* (London, 1829), 57.
12. For Gobir, see 'Abd al-Qadir, *Raudat*, Palmer translation, 269. The quotation is from Beaufroy, "Communications," 184.
 13. Cowries were used at Benin as early as 1515 (Johnson, "Cowrie Currencies," I, 18).
 14. Johnson, "Cowrie Currencies," I, 21-22.
 15. For a discussion of Oyo involvement in the Atlantic slave trade, see Peter Morton-Williams, "The Oyo Yoruba and the Atlantic Trade, 1670-1830," *Journal of the Historical Society of Nigeria*, III (1964), 25-45. For the quantities of slaves exported from the Slave Coast in this period, see Philip D. Curtin, *The Atlantic Slave Trade. A Census* (Madison, 1969), 122, 221, 228. For cowrie imports, see Johnson, "Cowrie Currencies," I, 21-22. For Hausa traders at the coast, see Colin W. Newbury, "Prices and Profitability in Early Nineteenth-Century West African Trade," in Claude Meillassoux (ed.), *The Development of Indigenous Trade and Markets in West Africa* (London, 1970), 97. For Hausa slaves in the 1790s, see Curtin, *Atlantic Slave Trade*, 188. The first mention of natron, probably referring to the 1790s, is John Adams, *Remarks on the Country Extending from Cape Palmes to the River Congo* (London, 1823), 80. The first edition of this book was published in 1821 under the title, *Sketches Taken During Ten Voyages to Africa between the Years 1786-1800*; hence most of Adams's observations applied to the last fifteen years of the eighteenth century.
 16. David Northrup, "The Growth of Trade among the Igbo before 1800," *Journal of African History*, XI, 2 (1972), 221-36; and Kingsley Oladipo Ogedengbe, "The Aboh Kingdom of the Lower Niger, c.1650-1900" (Ph.D. thesis, unpublished, University of Wisconsin), 1971, 325. For Igbo slave exports, see Curtin, *Atlantic Slave Trade*, 221, 244-5, 260. For the argument that Igbo cowrie use developed independently of the larger zone, see Johnson, "Cowrie Currencies," 45.
 17. Lovejoy, *Caravans of Kola*. Cowries were in use in the Volta basin before 1745; see the mid-eighteenth century *Kitab Ghunja*, as translated in Jack Goody, *The Ethnography of the Northern Territories of the Gold Coast, West of the White Volta* (London, 1954), 41. Joseph Dupuis

(*Journal of a Residence in Ashantee* [London, 1824], xli) reported in 1820 that cowries were used in all the kola markets between Kumasi and the Volta as well as in Gonja and Dagomba. Thomas Edward Bowdich (*Mission from Cape Coast to Ashantee* [London, 1819, 330]) had learned three years earlier that the "currency...of Ashantee is gold dust, that of Inta [Gonja], Dagwumba, Gaman [Abron], and Kong, cowries." Also see Johnson, "Cowrie Currencies," II, 338.

18. For Asante and its foreign trade, see Lovejoy, *Caravans of Kola*; Ivor Wilks, "Asante Policy Towards the Hausa Trade in the Nineteenth Century," in Meillassoux, *Trade and Markets in West Africa*, 125-41; Kwame Arhin, "The Financing of the Ashanti Expansion (1700-1820)," *Africa*, XXXVII, 3 (1967), 283-91; Arhin, "Aspects of the Ashanti Northern Trade in the Nineteenth Century," *Africa*, XL, 4 (1970), 363-73; and Kwame Daaku, "Trade and Trading Patterns of the Akan in the Seventeenth and Eighteenth Centuries," in Meillassoux, *Trade and Markets in West Africa*, 168-81. The parallel between Asante and Oyo was first suggested in Peter Morton-Williams, "The Influence of Habitat and Trade on the Politics of Oyo and Ashanti," in Mary Douglas and Phyllis M. Kaberry (eds.), *Man in Africa* (London, 1969), 79-98. However, Morton-Williams exaggerated the importance of Mande trade to Oyo, did not recognize the importance of cowrie re-exports through Oyo, and underestimated the importance of kola in the trade of Asante. Gold Coast slave exports declined from 60,800 in the period from 1781 to 1790, and 67,700 between 1791 and 1800, to 31,300 between 1801 and 1810. Thereafter exports dropped considerably, so that slaves of Gold Coast origin were not significant in the imports of nineteenth-century Cuba and Brazil, the two major slave receiving areas after 1810; see Philip D. Curtin, "Measuring the Atlantic Slave Trade," in S. Engerman (ed.), *Race and Slavery*.
19. Lovejoy, *Caravans of Kola*.
20. Lovejoy and Baier, "Desert-Side Economy."
21. See Curtin, *Economic Change*. This argument does not alter Hopkins's contention that the shift from slaves to other products involved major readjustments in the West African economy (*Economic History*, 124-35), but it does suggest that changes were already taking place well before slave exports declined.
22. For the decline of Oyo, see Robert S. Smith, *Kingdoms of the Yoruba* (London, 1969), 133-54; R.C.C. Law, "The Constitutional Troubles of Oyo in the Eighteenth Century," *Journal of African History*, xii, 1 (1971), 25-44; Law, "The Chronology of the Yoruba Wars of the Early Nineteenth Century: A Reconsideration," *Journal of the Historical Society of Nigeria*, v, 2 (1970), 211-22; J.A. Atanda, "The Fall of the Old Oyo Empire: A Re-Consideration of its Cause," *Journal of the Historical Society of Nigeria*, V, 4 (1971), 477-90; and I.A. Akinjogbin, "Prelude to

- the Yoruba Civil Wars of the Nineteenth Century," *Odu*, 1, 2 (1965), 34-37. Slave exports from the Bight of Benin can be estimated as 142,400 for 1781-1790; 64,600 for 1791-1800, and 53,800 for 1801-1810.
23. Lovejoy, "Long-Distance Trade and Islam: The Case of the Nineteenth Century Hausa Kola Trade," *Journal of the Historical Society of Nigeria*, v, 4 (1971), 537-47; and Michael Mason, "The *jihād* in the South: An Outline of the Nineteenth Century Nupe Hegemony in North Eastern Yorubaland and Afenmai," *Journal of the Historical Society of Nigeria*, V, 2 (1970), 207.
 24. Johnson, "Cowrie Currencies," II, 336.
 25. For the expansion of palm exports from the 1820s, see Hopkins, "Currency Revolution," 478; Johnson, "Cowrie Currencies," II, 340; Northrup, "Igbo Trade," 232-3; Babatunde Aremu Agiri, "Kola in Western Nigeria, 1850-1950. A History of the Cultivation of *Cola Nitida* in Egba-Owode, Ijebu-Remo, Iwo, and Ota Areas" (Ph.D. thesis, unpublished, University of Wisconsin, 1972), 6-42; and M. Laird and R.A.K. Oldfield, *Narrative of an Expedition from the Interior of Africa, by the River Niger...in 1832, 1833, and 1834* (London, 1837), I, 341; Hopkins, "Currency Revolution," 474-75, 477. Also see Johnson, "Cowrie Currencies," I, 23-25; and "Cowrie Currencies," II, 338-42.
 26. Clapperton, *Journal*, 57, 59, 133, 135. Also see Richard and John Lander, *Journal of an Expedition to Explore the Course and Termination of the Niger, with a Narrative of Voyage down that River to its Termination* (New York, 1858), II, 22; the account of Imam Umaru of Kete-Krachi, in Adam Mischlich, *Über die Kulturen im Mittel-Sudan* (Berlin, 1942), 182; and S.A. Crowther and J.C. Taylor, *The Gospel on the Banks of the Niger. Journals and Notices of the Native Missionaries Accompanying the Niger Expedition of 1857-1859* (London, 1859), 211.
 27. Lovejoy, *Caravans of Kola*; and Agiri, "Kola in Western Nigeria," 49-57.
 28. Laird and Oldfield, *Narrative*, I, 271; II, 88-91, 180, 276-81, 322-23; William Balfour Baikie, *Narrative of an Exploring Voyage up the Rivers Kwora and Binue, commonly known as the Niger and Tsadda, in 1854* (London, 1856), 269, 286, 288, 291, 455-56; William Allen and T.R.H. Thomson, *A Narrative of the Expedition Sent by Her Majesty's Government to the River Niger in 1841* (London, 1848), 402-07; Northrup, "Igbo Trade," 221-24; and Ogedengbe, "Aboh Kingdom," 294-327.
 29. Laird and Oldfield, *Narrative*, I, 271, II, 181; and E.M. Chilver, "Nineteenth Century Trade in the Bamenda Grassfields, Southern Cameroons," *Afrika und Uebersee*, XLV, 4 (1961), 238.
 30. Agiri, "Kola in Western Nigeria," 113-16; Michael Mason, "Population Density and 'Slave Raiding' – The Case of the Middle Belt of Nigeria," *Journal of African History*, X, 4 (1969), 558; Laird and Oldfield, *Narrative*, II, 87-88, 322; Baikie, *Narrative*, 317; and Northrup,

- "Igbo Trade," 222-23. If the practice of the 1841 expedition to explore the Niger was any indication of later European ventures, many tons of cowries were introduced into the Sokoto Caliphate up the Niger. This seems especially likely, since most commodities shipped into the interior were less bulky than the ivory, natron, and other goods brought down the river. In 1841 fourteen bags of 20,000 cowries each were given to the Atta of Igala in partial payment for the purchase of land at Lokoja (although in fact Bida claimed the area). With the increase in the number and frequency of explorations and commercial ventures after 1845, several tons of cowries could have been shipped inland in a relatively short period. See Allen and Thomson, *Narrative*, 350-51. The implication from the report of the 1854 expedition suggests that cowries were taken as one item, but there is no indication as to actual quantity (Baikie, *Narrative*, 133, 406). Merchants also brought slaves from the Bamenda plains into the Igbo and Cross River areas in response to increased demand for labor in palm oil production; see Chilver, "Trade in the Bamenda Grassfields," 237.
31. For the effects of increased cowrie imports after the 1840s, see Hopkins, "Currency Revolution," 471-83; and Johnson, "Cowrie Currencies," II, 335-43.
 32. Hopkins, "Currency Revolution," 474-75, 477. Also see Johnson, "Cowrie Currencies," I, 23-25; and "Cowrie Currencies," II, 338-42.
 33. Hopkins has analysed many other economic factors related to the era of the Scramble, see *Economic History*, 124-66.
 34. D. Denham, H. Clapperton, and W. Oudney, *Narrative of Travels and Discoveries in Northern and Central Africa in the Years 1822, 1823, and 1824* (London, 1828), I, 195-96; II, 121-22; and Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 535.
 35. Johnson, "Cowrie Currencies," I, 27-32.
 36. Crowther and Taylor, *Gospel*, 211.
 37. Newbury, "West African Trade," 97; and Lovejoy, *Caravans of Kola*. It should be noted that the argument here conforms to Newbury's hypothesis that an expansion in trade between Europe and coastal West Africa had important linkages with continental commercial patterns.
 38. Hopkins, "Currency Revolution," 476-77.
 39. The established kola traders were the Agalawa, Tokarawa, and Kambarin Beriberi: see Lovejoy, *Caravans of Kola*; and Lovejoy, "The Kambarin Beriberi: The Formation of a Specialized Group of Hausa Kola Traders in the Nineteenth Century," *Journal of African History*, xiv, 4 (1973), 633-51. The new merchants included many individuals who identified themselves as Kanawa, or people from Kano, although cattle dealers and other merchants from elsewhere in the Caliphate

- also traded to the coast; see, for example, Polly Hill, "Notes on the History of the Northern Katsina Tobacco Trade," *Journal of the Historical Society of Nigeria*, IV, 3 (1968), 477-81.
40. Lovejoy, *Caravans of Kola*; Agiri, "Kola in Western Nigeria," 58-59; and Lovejoy, "The Wholesale Kola Trade of Kano," *African Urban Notes*, V, 2 (1970), 129-42.
 41. Scattered data do not contradict this hypothesis. During the 1850s in the Sokoto Caliphate, for example, a dish of *tuwo*, a standard Hausa porridge, cost only 3 cowries, while 25-30 cowries were "a sum which may keep a poor man from starvation for five days" (Barth, *Travels*, I, 446, 464). Prices were roughly the same earlier in the century (Clapperton, *Journal*, 139-40, 193), and oral data for the end of the century suggest a daily living allowance of only a few times these amounts. For slave prices, see David Carl Tambo, "The Sokoto Caliphate Slave Trade in the Nineteenth Century" (M.A. thesis, unpublished, University of Wisconsin-Madison, 1974). For kola prices, see Lovejoy, *Caravans of Kola*.
 42. Mason, "Middle Belt," 556; Mason, "Nupe Hegemony," 205; M.G. Smith, *Government in Zazzau. A Study of Government in the Hausa Chiefdom of Zaria in Northern Nigeria from 1800 to 1950* (London, 1960), 74, 93-94; H.A.S. Johnston, *The Fulani Empire of Sokoto* (London, 1967), 176; Barth, *Travels*, III, 95, 564; and Clapperton, *Journal*, 20.
 43. Barth, *Travels*, I, 523.
 44. The account book is in the Nigerian National Archives, Kaduna. The information here was obtained from a discussion with Professor Abdullahi Smith.
 45. Lovejoy, *Caravans of Kola*; Lovejoy and Baier, "Desert-Side Economy;" and Stephen Brock Baier, "African Merchants in the Colonial Period: A History of Commerce in Damagaram (Central Niger), 1880-1960" (Ph.D. thesis, unpublished, University of Wisconsin, 1974).
 46. Curtin, *Economic Change*; and *Atlantic Slave Trade*.
 47. Maria Theresa thalers were being imported into Katsina in the 1780s, but they were being melted down for their silver or worn as jewelry; see Beaufroy, "Lucas's Communications," 168. The calculation here is as follows: 2,500 cowries were worth one Fezzan *mithqal* of gold; dollars were two-thirds the value of the *mithqal*; 17,062 cowries valued at the English ounce of gold in Katsina; the dollar was worth one-tenth of a gold ounce.
 48. G.F. Lyon, *A Narrative of Travels in Northern Africa in the years 1818, 1819, 1820* (London, 1820), 138.
 49. Denham, Clapperton and Oudney, *Narrative*, II, 51.
 50. Clapperton, *Journal*, 173. Clapperton was forced to accept an exchange rate of 1,500 cowries on the dollar, while he calculated the true rate at slightly over 2,500 cowries. The higher figure does not conform

to the exchange rate he found at Oyo in the same year and must be questioned.

51. Clapperton, *Journal*, 59.
52. Lander and Lander, *Journal*, I, 291.
53. M.J.E. Daumas and Ausone de Chancel, *Le grand désert. Itinéraire d'une caravane du Sahara au pays des Nègres-Royaume de Haoussa* (Paris, 1856), 203.
54. Barth, *Travels*, III, 578. Barth (*Travels*, II, 142) states that both the Austrian and Spanish coins were treated at the same value. This seems to have been true through the nineteenth century.
55. James Richardson, *Narrative of a Mission to Central Africa Performed in the Years 1850-51* (London, 1853), II, 195.
56. The source for this value is a letter from Vogel to Herman, 4 December 1855, in which Vogel states that he received 10,000 cowries for \$40. This is almost certainly in error, and most likely Benton or some other person copied the figure incorrectly from Vogel's handwritten letter or else Vogel himself made the mistake, one which was not corrected in the posthumous publication of his writings. This figure was probably 100,000 K for \$40 or 10,000 cowries for \$4, hence the exchange rate accepted here of 2,500 cowries. (See Vogel, in P.A. Benton, *The Languages and Peoples of Bornu* (London, 1968), I, 284.) Also see Crowther and Taylor, *Gospel*, 211, which confirms this value for Raba.
57. W.J. Hooker, in Charles Barker, "On the Vegetation of Tropical Western Africa," *Journal of the Proceedings of the Linnean Society of London Botany*, IV (1860), 18.
58. This figure is based on a report by Mircher, cited in C. W. Newbury, "North African and Western Sudan Trade in the Nineteenth Century: A Re-Evaluation," *Journal of African History*, 7 (1966), 238, 243, where the exchange rate for the 1861-62 trade year was 5,000 cowries for one gold *mithqal* of 4.17 grams or 10 francs in Kano. Also, 70,000 cowries was worth £5. 6s. Since the thaler was valued at 4/4 in 1857 (Crowther and Taylor, *Gospel*, 211), this is equal to the 2,860 cowries cited here.
59. W.B. Baikie, "Notes of a Journey from Bida in Nupe, to Kano in Hausa, Performed in 1862," *Journal of the Royal Geographical Society*, XXXVII (1867), 96. Baikie's figure also appears to involve a copying error. Again the posthumous editing of Baikie's papers would explain why the mistake was not corrected. In the published form, 450,000 cowries were worth ten doubloons, which would mean that each Spanish dollar was equal to 45,000 cowries. This figure is obviously off by a factor of ten. Marion Johnson ("Cowrie Currencies," II, 341) assumes that the doubloons in Baikie's account were gold coins and that the exchange rate for silver coins would have been about 3,000 cowries per dollar in 1862. But there is no reason to assume this. It is

far more likely that Baikie was talking about silver dollars, for there is no other account in the nineteenth century in which gold coins circulated in the Hausa region. I wish to thank Philip Curtin for referring me to H. Doursther, *Dictionnaire universel des poids et mesures anciens et modernes* (Amsterdam, 1840, 1960) to help clarify this matter. Also see Jones, "Native and Trade Currencies," 52.

60. Gerhard Rohlfs, *Quer Durch Afrika. Reise vom Mittelmeer nach dem Tschad-See bis zum Golf von Guinea* (Leipzig, 1874-1875), II, 125, 155, 159.
61. Gustav Nachtigal, *Sahara und Sudan. Ergebnisse Sechsjähriger Reisen in Afrika* (Graz, Austria, 1967), I, 692.
62. Paul Staudinger, *Im Herzen der Haussaländer* (Berlin, 1889), 260, 618.
63. Staudinger, *Haussaländer*, 618.
64. P.-L. Monteil, *De Saint-Louis à Tripoli par le Lac Tchad. Voyage an travers du Soudan et du Sahara accompli pendant les années 1890-91-92* (Paris, 1894), 282.
65. Charles Henry Robinson, *Hausaland, or Fifteen Hundred Miles through the Central Sudan* (London, 1896), 85.

12 | *THE TRANS-SAHARAN TRADE AND THE SALT TRADE COMPARED*

This chapter compares the volume and value of the trans-Saharan trade between Tripoli and the Central Sudan with the salt trade of the Sokoto Caliphate and Borno in the nineteenth century. This exercise involves an analysis of the trans-Saharan trade in slaves, ivory, ostrich feathers, and tanned skins, which were the most important exports from the two Central Sudan countries studied here, the Sokoto Caliphate and Borno. The export trade in these commodities is used as an index of the commercial linkages between the Sokoto Caliphate and Borno economies and the world market, dominated by Europe. The Caliphate also traded southward, via the Niger River and overland to Asante and beyond, but it is generally recognized that the trade across the desert constituted a major proportion of its foreign trade. By contrast, the salt trade within the Central Sudan is used as an indicator of the scale and value of the regional economy, which the Sokoto Caliphate dominated. Most of the salt came from Borno, but it was largely sold in the Caliphate and re-exported even further. Salt and the trans-Saharan trade were closely connected, because they were both centered on the southern desert and sahel, which has been described above as the “desert-side sector.”¹ This part of the regional economy was a particularly vital sector. It included livestock production, agriculture, hunting, and transportation services, as well as a raiding sector that cannot easily be incorporated in a general overview of the economy. Nonetheless, an exploration of the trans-Saharan and salt trades allows a greater appreciation of the extent to which the desert-side economy was organized around market exchange.

In order to evaluate the volume and value of both trades, it is necessary to discuss several important contributions to the economic history of the Central Sudan. The most complete study of the major trans-Saharan route to Ghadames and North Africa is

that of Stephen Baier, whose focus on Damagaram at the end of the nineteenth century includes a survey of the trans-Saharan trade. Baier's analysis is supplemented by Ralph Austen's calculations of the volume of the trans-Saharan slave trade, Marion Johnson's discussion of the Kano-Tripoli trade and ivory exports, and Colin Newbury's examination of French sources on the trans-Saharan trade.² The result of this research has seriously modified the earlier conclusions of Adu Boahen and J.C. Anene that the trans-Saharan trade declined in the course of the nineteenth century and further revises Newbury's conclusion that decline set in after 1875.³ Johnson and Baier have demonstrated that there was no such decline at that time, and decline only set in after 1901 and is related to the colonial occupation.⁴ The present analysis differs from that of Johnson, Baier and Newbury in that it attempts to take into account the volume and value of the slave trade and thereby revises their figures for the value of the trans-Saharan trade accordingly. When the value of slaves is included in the analysis, it becomes even more apparent that the trans-Saharan routes from the Central Sudan did not decline until after 1901. Even as late as 1907, British reports from Northern Nigeria show that imports from Tripoli were at least £25,000, not including the value of slaves, which at the time was still a significant amount.⁵

THE TRANS-SAHARAN TRADE

There were four principal routes that connected with the same northern Sahara terminals. These routes were those between Ghadames and Timbuktu, between Ghadames and Kano, between Murzuk and Borno, and from Kufra to Wadai. The main corridor analyzed here is the route from Tripoli through Ghadames and Ghat to Agades, Kano and other cities in the Central Sudan. The Timbuktu-Ghadames route diverted some trade from the Kano-Ghadames corridor, and the route south from Murzuk to Borno still carried some traffic even though it was in decline during this period and hence did not serve as an effective alternative to the Ghadames-Kano route. Instead trade either flowed along the main route between Ghadames and Kano or it was directed further east along the new route between Kufra and Wadai that was only developed in the nineteenth century. For the three routes that passed through Ghadames and Murzuk, Tripoli was the final destination. Some trade flowed to Tunis and Algeria or followed caravan routes overland to Egypt, but the bulk of trade was exported through the port at

Tripoli. Benghazi served as the port for the Kufra-Wadai road, and hence to a great extent this eastern route operated separately from those that funneled trade into Tripoli.

Data on imports into Tripoli, which unfortunately cannot be broken down for the different routes, are usually assumed to include commodities that were primarily shipped north from the Sokoto Caliphate through the Air Massif to Ghadames, i.e., along the Kano-Ghadames road. Data are particularly good for ivory, ostrich feathers, and tanned skins. There is far less information on slave exports, and, for these, information on the Borno-Murzuk route is often better, although data on Murzuk probably includes commodities coming via Ghat too. Unfortunately, few travelers who reported their journeys passed south from Ghadames to Kano after mid-century. We are left, therefore, with reasonably good data on ivory, ostrich feathers, and tanned skins, but with impressionistic material on slaves and salt. The effort at comparison of relative values and quantities has to be equally impressionistic.

The major commodities of the north-bound trade across the Sahara were slaves, ostrich feathers, ivory, gold, and tanned skins, although commodities also included African textiles, senna, civet, gum arabic, wax, indigo and other goods. The major imports were textiles, but beads, mirrors, paper, spices, perfumes, tea, sugar, copper and many other goods were also traded. A number of contemporary observers have provided extensive inventories of this trade, often including prices of goods on both sides of the desert but usually not including much detailed information on volume.⁶ After the mid nineteenth century, consular reports in Tripoli are sufficiently detailed to enable a more thorough analysis of the trade. For our purposes here, however valuable a more complete study would prove to be, only ivory, ostrich feathers, tanned skins, and slaves are considered. These goods always constituted a great proportion of the exports north. Gold, too, was important, but most of the gold probably came from Timbuktu and not Borno and the Sokoto Caliphate.

Because of the nature of the data, the discussion of the trans-Saharan trade to Tripoli must be divided into two parts. The first part assesses the volume of the slave trade, which is excluded from many accounts of the trade, particularly after mid-century. The second part discusses the value of the trade in the other major commodities, ivory, ostrich feathers and tanned skins. These com-

modities figure into the Tripoli consular reports, and they became increasingly important as the nineteenth century progressed. An evaluation of the slave trade is more speculative, but slaves were such an important item that no analysis of the trans-Saharan trade is valid without an effort to account for them.

Before 1870 the value of slaves was often as high or higher than ivory, feathers, and skins, although it should be noted that European preoccupation with the abolition of the slave trade might have introduced bias into the reports. Often merchants withheld information, not only from European observers but also from the Ottoman authorities that were committed, at least publicly, to the abolition of the trade after 1857.⁷ Unlike the other commodities, the sources are often in conflict on the volume of the slave trade. Dickson, for example, who was at Ghadames in the early 1850s, reports an average of only 500 slaves per year in transit,⁸ but several other sources indicate that the figure must have been considerably higher for the trade as a whole, perhaps by a factor of ten. At this time the Borno-Murzuk route may have been more important than the Ghadames route anyway, despite greater dangers from insecure political conditions between Borno and Murzuk. This insecurity resulted in high losses: one estimate of deaths among slaves is 1,600 slaves in 1849 when a large caravan was annihilated, while in 1850, 795 dead slaves are reported in a caravan of 1,770.⁹ Mortality among slaves presents a problem not relevant to the treatment of other commodities. Should export figures for slaves shipped from the Central Sudan be used or should import figures in North Africa be used? And where should the analysis of value be made, in North Africa, Murzuk, Ghadames, Tripoli or some other place? Furthermore, what allowance should be made for slave sales in the desert, which were certainly considerable? Slaves were sold at Bilma and other places in Kavar along the Borno-Murzuk route, and they were sold in the Air Massif and elsewhere along the route north to Ghadames. At Ghadames and Murzuk, and probably elsewhere as well, slave consignments were broken up. Slaves sometimes went overland to Egypt, Benghazi or other places, so that individual figures contain numerous possible errors of omission. The answers to these questions seriously affect the efforts to analyze the value and volume of the trade as a whole. Here slave imports into Murzuk, Tripoli, and Ghadames are used, although it is recognized that individual returns for any of these places are almost always partial returns. Re-exports from Tripoli and exports from the Central Sudan are

also used when available and other data are missing. For those years that exports from Tripoli and imports into Murzuk are available, it can be seen that there was a considerable difference between the two figures, but variations were not uniform, and hence Tripoli export figures must be used with extreme caution. Tripoli figures do not take into account overland slave sales to Morocco, Algeria, Tunisia, and Egypt, or sales in the desert, and hence Tripoli imports and re-exports are correspondingly conservative estimates for the trade as a whole.

The available information on slave imports into North Africa is summarized in Table 12.1. Libyan imports, including those imported from Timbuktu, the Central Sudan, and Wadai, amounted to at least an average of 4,000 per year before 1870. Between 1870 and 1890, the average was 2,000 per year, and in the 1890s this trade declined to 1,000 per year. In fact, these estimates probably have more validity as an indication of the size of the Tripoli trade with sub-Saharan Africa, exclusive of Benghazi, the other major Libyan terminal, than for the Libyan trade as a whole. Certainly, most slave imports came from the Sokoto Caliphate and Borno before 1870, so that the estimates for the first two-thirds of the century probably represent that trade alone, and have been summarized by Austen. For the last three decades, Austen appears to have underestimated the scale of the trade, but then most of the traffic was along the Wadai-Kufra-Benghazi corridor and greatly exceeded 1,000 slaves per year, even as late as 1900. According to Dennis Cordell, as many as 4,000 slaves reached the north from Wadai each year in the 1890s, and 1,500 to 2,000 slaves may still have been imported from 1900 to 1911.¹⁰ When additional sources besides those used by Austen are included in the calculations for the Tripoli-Central Sudan trade, then the following estimates can be made. From 1810 to c.1830, probably 3,000 to 6,000 slaves were exported north each year, including North African imports and slaves incorporated into desert society. Losses on the desert crossing are not included. From c.1830 to c.1870 the average increased to a magnitude of 4,000-8,000 slaves per year. The trade appears to have dropped off dramatically in the 1870s, perhaps down to a level of only 1,000-3,000 slaves per year, and in the 1880s the level may have dropped below 1,000 per year, although the lack of data makes any firm conclusion impossible. These figures take account of Gräberg di Hemsö's estimates for the number of slaves re-exported from Tripoli in 1825, when he learned that 2,000 or 2,500 slaves were imported, down from a level

of 3,000 to 4,000 a few years earlier.¹¹ Such figures are consistent with a trans-Saharan volume of 4,000 or more slaves and fit in well with the estimates provided by Lyon for the transit trade through Murzuk in 1819, when 5,000 to 5,500 slaves passed the route from Borno. A decade after Gräberg di Hemsö's report, Daumas learned that 5,800 slaves were shipped north from the Sokoto Caliphate to Ghadames and Ghat.¹² Some of those slaves probably stayed in the desert, and Daumas did not include exports north from Borno, so that in the mid-1830s the annual total may have been considerably above a level of 6,000 per year.

Estimates for the 1840s, 1850s, and 1860s are the most complete for the century, and the totals are consistent with the assessment that 4,000 to 8,000 slaves were transported across the Sahara each year from Borno and the Sokoto Caliphate. Some reports are for the transit trade through Murzuk, Ghat or Ghadames; others provide data on individual caravans, while still other accounts cover imports or exports for Tripoli. Only Dickson's report from Ghadames stands out as being inconsistent with the general impression.¹³ His figure of 500 slaves per year for 1851-54, when he was in residence at Ghadames as a consular agent for Great Britain, is decidedly on the low side. Other, equally reliable sources for different segments of the trade are in keeping with the general level of 4,000-8,000 slaves, and it is possible that Dickson's published account is inaccurate, perhaps yet another error by a factor of ten? Gaines' estimate for slave exports from Tripoli in 1851 (450 slaves,) is also low, and probably is only a part of the trade. Baier concluded, based on Gaines and Dickson, that the trade was on the order of 500-1,000 slaves, which may be correct, but if so the trade was temporarily depressed.¹⁴ It is more likely that Barth's estimates from the Sokoto Caliphate and consular reports from Tripoli are more accurate, however. These later data reveal that the trade was at relatively the same level as in the 1840s, somewhere between 4,000 and 8,000 slaves per year. The volume of slave exports across the desert appears to have been maintained through the 1860s, perhaps even exceeding 8,000 per year in some years. By 1869, the trade was down, although still probably several thousand a year. Reports in the 1870s show that a decline had finally set in, but reports of 500 to 1,200 per year for parts of the trade suggest that a level of 1,000 to 3,000 was still maintained. Thereafter the figures only indicate that the trade continued, with 500 to 1,000 passing through Murzuk in the late 1880s. Nonetheless, the lack of reports for most of the 1880s and the one low figure of

500 per year in the 1890s make it difficult to assess the trade in the last twenty years of the century. The trade appears to have declined but not to have ended.

Toledano has established that the re-export trade through Tripoli began to decline in the late 1850s, as a result of British pressure on the Ottoman sultanate to end the African trade.¹⁵ A *ferman* was issued in 1857 that had some effect, although the main result of official Ottoman decrees was to prompt merchants to divert the trans-Saharan trade into new channels. Some slaves were re-exported from the northern Saharan oases westward to Algeria, while others were sent overland to Egypt. The net result of Ottoman and British pressure was of little consequence in terms of the export trade from the Central Sudan. The volume of the trade continued to be maintained on a level that was at least as high as that for the 1850s as a whole, and there is considerable information to suggest that the trade reached a peak in the 1860s. Eventually, however, British and Ottoman efforts were better coordinated, so that in the 1870s the trade declined rapidly. It would appear that the trade had fallen off considerably before the British-Ottoman agreements to fight the trade in 1877 and 1880. The general pattern is summarized in Table 12.2.

These estimates of the trans-Saharan slave trade are based on the number of slaves, not their value, and to establish the value of the slave trade, I am relying on a modified price series initially generated by David Tambo, and presented in Table 12.3.¹⁶ Prices varied over time and in different parts of the Central Sudan. Their markup in North Africa also varied. Here a figure of \$80 per slave, derived largely from Tambo's survey, is used, although in fact prices varied. Females were generally worth considerably more than males, and females often constituted 60 percent or more of shipments. From 1810 to 1830, on the basis of 3,000 to 6,000 slaves per year, £54,000 to £108,000 was probably the value of the annual slave trade. From 1830 to 1870, based on an average of 4,000-8,000 slaves per year, the value appears to have increased to £72,000-£144,000. For the 1870s, the annual value seems to have dropped to £18,000-£54,000, based on exports of 1,000-3,000 slaves per year, and then the value possibly dropped below £18,000 per year. Of course, these values must be treated with caution, since slaves varied in price and since the actual number of slaves exported can only be approximated.

Totals based on the average value of slaves and estimates for the volume of the slave trade are perhaps high, but they correspond closely enough with other information on the value of the trans-Saharan trade from the 1820s to the 1850s to suggest that they are worth examining further. When the estimates of £54,000 to £108,000 are checked against Gräberg di Hemsö's estimates of c.1825, a discrepancy appears, for he learned that the value of slave exports from Tripoli was \$140,000 or approximately £31,000. Gräberg di Hemsö's figures were based on the re-export of 2,000 slaves, although he also states that the figure was 2,500 and that exports had been from 3,000 to 4,000, which means that exports alone could have exceeded £60,000, on the lower end of the £54,000 to £108,000 range. If allowance is made for slaves that were retained in the desert and that were re-exported elsewhere in North Africa, Gräberg di Hemsö's estimates for Tripoli slave exports seem consistent with a value based on my estimate of slave shipments across the Sahara in this period. Other totals for the period before mid-century tend to confirm this range of values for the slave trade. Both the consular reports from Tripoli for the 1840s and early 1850s and Richardson's observations on the trade of Ghat in 1845 suggest that the value of trade at Tripoli was in the range of £40,000 per year, and that slaves were by far the most important export. Of course considerable numbers of slaves were distributed to Egypt, Algeria, Morocco, and Tunisia and many were retained in the desert in this period and hence were not registered in the Tripoli export figures.

In the 1860s commodities other than slaves began to become statistically important, although slaves continued to be more valuable. The earlier estimate of approximately £40,000 worth of exports from Tripoli includes many goods other than slaves. Gradually at first and then dramatically three of these other goods (ivory, ostrich feathers, and tanned skins) became very important. Consular reports from the 1860s allow an analysis of this transition. These reports show that the dramatic rise occurred in the 1870s, with a peak reached in the period 1874-1884. There was a rapid drop and a depressed market between 1886 and 1889, but then a modest recovery took place that lasted through 1900 (Table 12.4). Thereafter the trade dropped off, although the trade did not end until about World War I, which coincided with a severe drought and a revolt by the Tuareg against French colonialism. Ivory was important in this trade before 1895, reaching a high in 1874-76. The most prosperous period for the export of ostrich feathers was

from 1874 to 1884, while tanned skins became particularly noticeable in 1893 and perhaps a year earlier, a year for which there is no information. Skins maintained their level even after the general and final decline in the trade as a whole in 1901. Less can be said about the value of many other commodities, particularly African textiles, leather goods, and kola nuts which were distributed in the Sahara and along the North African coast but were not re-exported from Tripoli and therefore do not figure into consular reports. Nor were slaves retained in the desert included. A steady stream of slaves was needed to maintain the desert population, Saharan nomads used textiles and leather goods, and kola was consumed en route crossing the desert. These imports, both in quantity and value, are assumed to have been relatively constant, which in fact was probably not the case.

The data on ivory, ostrich feathers and tanned skins are relatively complete for the last several decades of the nineteenth century. Boahen supplied some scattered data, but his conclusion that the trade entered a period of steady decline after mid-century has now been shown to be incorrect.¹⁷ Newbury, basing his research on French archival material, provided some figures for the 1830s, 1840s, 1860s, 1870s and 1880s, but he, too, was led to believe that the trade began to decline once his data ran out.¹⁸ Johnson, using British reports, added new data to those of Newbury, covering the period 1885-1904, and she compared her findings with those of Newbury to provide a now largely accepted overview of the trade that shows that the decline did not set in until the first decade of the twentieth century.¹⁹ Baier's data, also based on British consular reports, duplicate Johnson's analysis and add new material on the period 1862-1884.²⁰ The result is a series that spans almost five decades. Scattered information from sources not used in the studies of Boahen, Newbury, Johnson and Baier add some detail. The biggest problem with these data is distinguishing the origins of the trade, for the routes that connected Tripoli with Timbuktu, Kano, and Borno are not distinguished, and trade was diverted to Tunis, Gabès, Cairo and elsewhere. The main pattern, however, was the shipment of goods to Tripoli, and for most of the nineteenth century the bulk of imports came from the Central Sudan and not Timbuktu, except for gold. Gold sometimes reached export levels of £8,000 per year, as in the decade from 1877 to 1886,²¹ but little of this probably came through the Central Sudan.

Data from different sources often conflict. French sources, for example, indicate that ivory and feather exports from Tripoli were £74,000 in 1872; British reports show £80,000. In 1880, French figures are higher: £315,000 against a British figure of £186,000. There is no explanation for these discrepancies, although in some years one set is clearly more acceptable than the other. Mircher's detailed report of 1861-62 is one such case. His figure for ivory and feathers is £34,000, as opposed to British reports of only £13,000. The British series is most complete, although the 1877 French figure fills a gap in the British series. As Baier's calculations for the feather trade show, the prices of most goods, other than feathers fluctuated greatly (Table 12.5). Perhaps most useful here is the ten-year totals provided by Johnson (Table 12.6). Her average for 1862-71 should be adjusted to allow for Mircher's report, and this raises the total for the decade. Even with the adjustment, the tremendous expansion in the 1870s appears only slightly less spectacular.

When we combine the estimates for the slave trade with those for ivory, ostrich feathers and skins, we can make the following tentative conclusions (Table 12.7). Slaves were the single most valuable commodity in the trans-Saharan trade for the first two-thirds of the nineteenth century, and only in the last quarter of the century did ostrich feathers, ivory and tanned skins surpass slaves in value. Gräberg di Hemsö's figures from the 1820s, Daumas' information from the 1830s, and later consular reports suggest this conclusion. By the mid-1870s, it would seem, ostrich feathers, and ivory were the most valuable items, and tanned skins joined the list after 1888. When the value of slaves is added to the export figures for ivory, feathers and skins, the sharp rise in the value of exports in the 1870s becomes less significant, at least before 1874. Even if the minimum value of £61,000 for slaves is added to the figures for 1864-66, the trade was worth a total of £81,000 to £91,000 in each of these three years. In 1862, the value was more than £97,000, when it seems that slave exports reached a level of £61,000 or so in the same year. After 1870, when slaves probably occupied a steadily decreasing proportion of the trade, the consular reports for Tripoli become somewhat more accurate as a general index. Nonetheless, the value of slave exports was probably £16,000-£46,000 in any year and thus affected the total export figure significantly.

If Johnson's averages by decade are adjusted, we have a rough estimate for the trans-Saharan trade in the last four decades of the nineteenth century. In the decade 1862-71, exports probably

reached £93,000 annually, and perhaps reached as much as £158,000. From 1872 to 1881, the annual value was probably on the order of £201,000-231,000, falling to an average of about £137,000-146,000 from 1882 to 1891 and about £123,000-132,000 from 1892 to 1901. It should be noted that these figures include the trans-Saharan trade from Timbuktu as well as from Borno and the Sokoto Caliphate and, consequently, the real trade from the Central Sudan would have been less than this, perhaps by a fifth. These estimates suggest that the expansion of the 1870s, based on the dramatic rise in ostrich feathers and ivory, coincided with the decline in slave exports and that the expansion more than compensated for the drop in the slave trade.

While modest in comparison with the total slave trade across the Atlantic before 1850, the slave trade of the Central Sudan was nonetheless of significant proportions and remained so for two decades later than for the Atlantic trade. In the 1850s and 1860s, for example, trans-Saharan exports from the Central Sudan were probably one-half to two-thirds the size of exports from the Bight of Benin during the 1830s and 1840s, when over 183,000 slaves were shipped from the Bight.²² The Central Sudan, in the 1830s and 1840s probably exported 80,000-160,000 north (not to mention exports in other directions), and comparable numbers apply to the 1850s and 1860s. The 1830s and 1840s were a period of adjustment on the coast, as palm oil became a major export. A similar shift in trade occurred in the interior, although two decades later. The volume and value of slave exports declined, while the value of "legitimate" commodities increased substantially. The shift began in the 1860s, during a peak in slave exports. The late 1860s, 1870s, and early 1880s were a boom period in the trans-Saharan trade from the Central Sudan because of this overlap. When slaves finally declined in value, new commodities (ivory, ostrich feathers and tanned skins) had taken their place. The adjustments that were required in this transition cannot be analyzed here; all that is important for the present analysis is the attempt to identify when the transition took place. From the perspective of the decade from 1872-1881, the value of trade declined considerably in the 1880s and 1890s, but if the boom years are ignored, then the last two decades of the century still had a trade that was roughly as valuable as the trade of the 1860s and was probably of greater value than the trade of the 1850s and earlier decades. A synthesis of data on slaves and "legitimate" commodities demonstrates even more strikingly that Newbury's conclusion that the trans-Saharan trade declined after 1875 simply is not true.

Furthermore, this synthesis points out even more dramatically how serious the decline was when it did come after 1901.²³

THE SALT TRADE

Export statistics across the Sahara and across the Atlantic or Indian Oceans can be used as a "window" into the economies of Africa. Although the data are not entirely reliable, they do allow some measure of linkages between the domestic economy of the Central Sudan and its export sectors. It is difficult to estimate the scale of domestic production and interregional trade within Africa, despite the window. The volume of domestic production in one sector – the salt industry – allows some comparison. The salt of the Central Sudan largely came from the Lake Chad basin, various desert locations, and the Benue River basin, and forms the basis of the analysis.

Any effort at quantifying the volume of trade and production in the precolonial and early colonial periods of African history, especially for indigenous sectors like the salt industry, must be treated with caution, even more than the estimates of trans-Saharan trade.²⁴ There is no sure way of determining when figures are representative, and there is almost no possibility of reconstructing series of production figures. Nonetheless, the need for reasonable estimates is clear; the nature of the data, when analyzed carefully, allows some assessment of the relative importance of different salines, a rough idea of the number of man-hours per ton of salt produced, and therefore an indication of which sectors were most important in the commerce of the Central Sudan. There is an added problem. In order to assess the volume of salt production, it is necessary to work backward from early colonial and more contemporary estimates. Fortunately, a number of scientific studies are available which supplement the scattered trade statistics and general observations of earlier observers. These different sorts of data are here combined as a means of establishing preliminary estimates on the scale of production, although it may never be possible to derive more accurate figures.

In general, the salt sources in the sahel and Sahara produced greater quantities of salt than the brine springs of the Benue trough. The usual assumption – based in part on a comparison with the great desert salines of the western Sudan, including Taoudeni and Ijil – is that the production of salt in Kawar and Fachi supplied the bulk of the salt trade. This statement is true with respect to salts with high sodium chloride content, but if all salts are taken into

consideration, far more salt was produced in the sahel than in the desert (Table 12.8). Indeed the Borno sahel alone surpassed all other sites combined, at least in normal years, and if Kanem output of trona (*ungurnu*) is included in the estimate, then the ascendancy of the Borno sectors is even more striking. Since Kawar and Fachi were once part of the Borno state, until the early nineteenth century when their dependence became only nominal at best, the salt industry of the Central Sudan can be considered to have been largely an industry centered on Borno. The output of Teguidda n'tesemt, Amadrar, the western Dallols, the Benue brine springs, and the other, minor sites supplemented the Borno industry, but the combined volume of all these other sites probably amounted to a quarter to a third of the total output of the main salines. The production of vegetable salts would have lowered the Borno share somewhat more, but the dominance of Borno is still clear.

KAWAR AND FACHI

Estimates for Kawar and Fachi production are most complete for the first decade of the twentieth century, but unfortunately at that time the industry was suffering severe dislocation in the wake of Rabeh's conquest of Borno, insecurity in Kanem, and the subsequent European intervention in the area. Although the French began to provide convoys for caravans crossing from Agades to Bilma, the 1890s had been such a chaotic time that it is doubtful if the trade had recovered to its former height. First, Tuareg and Dagera (from Damergu) transporters had fewer camels than they had owned earlier, in part because the French began to commandeer them and in part because of highway robbery in the Kawar and Fachi regions.²⁵ Nevertheless, figures assembled by the French provide an important departure for a quantitative analysis of Kawar-Fachi output (Table 12.9). These data show that the volume of the main caravans alone was on the order of 2,000-2,300 metric tons per year.

French estimates of the annual level of exports just before their arrival range from 10,000 to 25,000 camel loads, but the upper amount seems preferable in light of the first exact figures, which derive from the early customs post at Djadjidouna.²⁶ In the fiscal year 1903-04 it was reported that 17,930 loads of salt and 184 loads of dates paid duty, and because of the ease with which caravan movements could be detected in Damergu, it is reasonable to assume that most traffic passing this way was counted. The main branch

of the salt route passed that way, with a lesser amount going to Kel Gress country in the west. The Djadjidouna figures represent something like 75 per cent of the yearly trade, which suggests a total of 23,900 loads or 2,270 tons.²⁷ In 1907, the French provided armed escorts for caravans; and the amount of salt rose steadily, reaching a peak in 1913, when tax collectors at Bilma recorded a total of 26,017 camels, a figure which translates into about 2,470 metric tons of salt and dates. Since the date trade represented only a fraction of the trade in salt, it can be assumed that the combined figure for both salt and dates is a close approximation for the production of salt. As information from 1907-08 indicates, some salt was transported south to Nguigmi, and some salt was also consumed locally, exported to Kanem, or sold to Tubu nomads.²⁸

Estimates earlier in the nineteenth century are based on the size of the large annual caravans, and they do not take into account the numerous, smaller expeditions, which took place during safe times. Nachtigal, whose 1870 estimate for the two main caravans accords well with later figures, suggests that perhaps as many as 70,000 camel loads were exported when smaller caravans were included.²⁹ This would mean that perhaps 6,300 metric tons were produced, slightly less if allowance for date exports is made. Nachtigal attributed 50,000 camel loads to small caravans which visited the oasis at times other than when the main fall and spring caravans arrived, a figure which Baier considers high by a factor of ten.³⁰ The fall, spring and intervening rainy season are the only times when it pays to take camels, millet, fodder, and water across the Tenere, and in the various French reports, the rainy season expeditions were always small. The 1870s was not a time when conditions were particularly safe, and the main reaction of the Tuareg was to join the annual fall caravan, not strike out on their own in small groups.³¹

The volume of salt actually produced at Bilma, as distinct from other parts of Kavar and Fachi combined, probably varied between 1,000 and 3,000 tons per year. The 1,000 ton figure is certainly low; it represents the amount that could be carried by approximately 10,600 camels, assuming a load of 95 kg. Figures from the last several decades of the twentieth century show that even in the reduced state of production which has prevailed in contemporary times a figure of 900-1,000 tons is easily attained.³² In the past, when Bilma was the main source of salt for the Tuareg caravans – perhaps amounting to two-thirds of exports – the total must have been much higher, although not high enough to fill Nachtigal's guess. Faure's

calculations on the amount of debris at Bilma, the rate of evaporation and the area of the salt works led him to estimate the volume of production at 1,000 tons per year. The average output, as recorded at Bilma, between 1953 and 1960 supports this estimate; 1961 was a bad year with only 545 tons exported.³³

Despite the importance of Faure's scientific study of the Bilma industry, his calculations on volume are open to a number of criticisms. First, his estimates for the amount of debris, rate of evaporation and surface area of production all contain room for considerable error. In order not to over-estimate volume, Faure reached his conclusions on the basis of minimum figures for each variable. Thus he used 250 grams per litre (g/l) rather than 400 g/l for the capacity of production, based on a surface area of 5,000 m². On the basis of these figures, evaporation would result in the loss of 10,000 m³ of water and the precipitation of 3,750 tons of salt and debris. Faure then estimated that the actual production of salt and debris was probably closer to 2,000 tons per year, and he allowed for equal volumes of salt and debris, which accounts for his estimate that 1,000 tons of salt were produced.³⁴ If, however, the debris to salt ratio was significantly different, with a greater amount of salt produced per unit of debris, then the production figure would be higher. Furthermore, if his figure of 3,750 tons is more accurate, then again more salt could be produced. It may also be the case that the salt workers made a slightly less pure salt in the past – thereby producing less debris – which would also increase the volume of salt exported, even if its quality was not as good. Faure's estimate, which reflects the caution of a scientist, may also have been influenced by the official figures for salt exports during the 1950s, when it is known that production was actually lower than in the past.

The Fachi portion of the annual trade was on the order of one fifth to one third of the total. Fuchs, who has undertaken the most thorough study of the salt industry at Fachi, uncovered records (Table 12.10), which show that the production of salt at Fachi varied from a low of 240 tons in 1935 to an estimated 1,500 tons in 1972.³⁵ The earliest figures are for 1907 and 1909, when 635 and 636 tons were exported respectively. Customs returns from the 1930s, when the trade had recovered somewhat from the disastrous aftermath of the Tuareg revolt during World War I, range from 240-540 tons per year, a level which was maintained into the 1960s. During the 1940s, the volume averaged 625 tons per year, about the same level as in the first decade of colonial rule. Output dropped off slightly

in the 1950s, declining to an average of 590 tons per year between 1950 and 1957, although a peak of 900 tons was reached in 1953. Scattered returns since then suggest an average output of 940 tons per year, which indicates what the maximum level of production was in the past, since production techniques have not changed significantly since the nineteenth century. These figures also demonstrate that the desert industry has not collapsed in recent years; rather production has actually expanded. Faure's study of the salt industry at Fachi led him to conclude that output could easily have reached 600-700 tons in peak years, and the returns reported by Fuchs confirm his analysis.³⁶ An average of 600-700 tons per year seems a reasonable estimate, therefore.

Production at the northern sites in Kawar was much less than at Fachi, let alone at Bilma. At some distant time in the past, output may have been considerable, if traditions of the gradual southern movement of the salt industry can be taken to mean that the relative importance of the northern salines has declined to an output of 24 tons in 1936, 10.5 tons in 1937 and 10 tons in 1938,³⁷ but the incomplete report of Barbaste from Djado in 1938 conflicts with the official figures of Périé. Barbaste indicates that production averaged 4-5 tons per month, during the five month production season of 1937 – a total of 20-25 tons. In 1938, output was up considerably. The returns for four of the five months total 49 tons.³⁸ Although this amount is small by comparison with Fachi and Bilma, it does indicate that 50-60 tons of salt could have been produced at Djado in relatively stable times.

In 1961, 75.4 tons of *beza* were produced at Seguidine, in northern Kawar, which only required the labor of six men and their families.³⁹ This figure suggests that with a greater labor input, the volume of salt could be increased substantially, and it may well be that at some time in the past Seguidine production was much greater. Nonetheless, the scattered reports from the nineteenth and the early twentieth centuries do not indicate that production in modern times was ever greater. Firstly, the population of northern Kawar was small. Unless nomads directed their slaves in production, then the labor necessary for a substantially larger output was simply not there. Secondly, there is no indication in the accounts of Denham, Barth, Rohlfs, Nachtigal or others of a substantial export trade.

There are no reports on output at Dirku and other sites in Kawar. Nonetheless, the total production of all the salines in Kawar and

Fachi could have been much more substantial than the early colonial reports indicate. Insecurity invariably kept the actual output well below the potential, but even in moderately safe times it may well have been possible that the total volume of salt production was on the order of 2,000-6,000 tons. Undoubtedly in some years the figures fell below even the 2,000 ton figure, as it did in the twentieth century.

THE BORNO SAHEL

The combined output of the salt industry in the Borno sahel probably exceeded 4,000 tons per year, although geological conditions and the political situation could seriously affect the amount produced. Again, the attempt at quantification will focus on the early years of the twentieth century as the best means of suggesting the possible level of production in the past. Projections backward in time must be treated especially carefully because each of the four sectors of the Borno industry had a different history. The production of trona in Kanem, for example, probably was very old, considering the extensive reserves, which exist and the relative ease of exploitation. Projections for this sector could be lower than the amount actually produced in the past. For the production of *manda* in Mangari, by contrast, the estimates for the early twentieth century are likely to be much higher than was produced a half century or more earlier. Natron may have been collected Mangari and Muniyo in substantial quantities before 1900, so that for this sector estimates may be a relatively accurate indicator of past potential. The problem with natron collection, however, is that it was diffused over a considerable area, and it is impossible to gauge the extent to which the various sources were actually exploited. Finally, *kige* production was relatively constant for a long time into the past. At least it seems to be an old industry that depended upon a relatively fixed number of wells in the sahel. There probably was considerable fluctuation in the amount of *kige* over the short run, but over the past several centuries output was probably not much greater than a few hundred tons per year.

The extraction of trona in Foli could have been extensive in the past. Since the reserves can permit the exploitation of as much as 120,000 tons per year, it is certainly clear that the potential for large-scale extraction was there.⁴⁰ The limiting factors were the availability of labor and transport. The number of potential workers in the region in the late nineteenth century probably totaled 10,000 or

so. Unless Kanembu, slaves, Yedina, or other people were involved in production in the past – for which there is no evidence – then the quantity produced depended upon the *haddad* population – people who belonged to an endogamous caste of artisans, and then only a part of that population, since many *haddad* were engaged in other occupations. It seems reasonable to assume, however, that several hundred – perhaps as many as a thousand – were available. This number of people could have produced as much as 1,000-2,000 tons of trona.

The earliest reports on the volume of the trade date to the first decade of the twentieth century. British customs returns indicate that 400-1,000 tons were imported across Lake Chad each year between 1906 and 1912 (Table 12.11), although the ambiguous nature of the returns may mean that this total is on the low side by as much as 200-300 tons per year.⁴¹ It is also certain that additional supplies were smuggled past the British custom posts. In addition, at least 100-200 tons of trona was exported south from the Lake into the Logone and Chari basins and these amounts would not have been reflected in Borno imports.⁴² Hence it is likely that the amount of trona alone could have reached 1,000 tons, and possibly as much as 1,500 tons. Estimates on the quantity of trona exported to the middle Volta basin, one of its main markets, are in line with these figures. An analysis of the kola trade suggests that at least 200 tons were exported west.⁴³ More recent figures are much higher than those from the first decade of the twentieth century. Mosrin's study of the industry in 1965, based on his experience as an administrator in the region after 1949, revealed that at least 26 depressions were worked on a more or less regular basis in this period.⁴⁴ According to Bouquet's figures for 1961-67,⁴⁵ the average annual output in Foli was 8,552 tons (Table 12.12). Five sites produced 75,352 slabs of trona in 1965, approximately 2,640 tons, while in 1967 eight sites produced 114,475 slabs, about 4,000 tons, and another 5,240 tons of trona pieces, for a total of 9,240 tons (Table 12.13).⁴⁶ The figures for the individual sites do not correspond completely with the totals for 1961-67, but they are close enough to indicate that production was concentrated at relatively few sites, despite the availability of other depressions that were exploitable.

MANDA AND KIGE PRODUCTION

Perhaps the most accurate method of measuring the output of the Mangari *manda* industry is to combine the reports of Ronjat,

made in 1905,⁴⁷ with the information of Browne, Seccombe, Gall and others, completed in 1906. Ronjat reported on 22 *manda* salines, which had 270 furnaces.⁴⁸ He estimated the output of these furnaces at 2,700 tons, based on his observations that each work unit produced salt every three days for five months, an average of 40 cones per unit. He calculated the volume of 540,000 cones at 5 kg each to reach his figure of 2,700 tons of salt. Browne and his associates examined the salines on the British side of the border – there is no overlap in the reports, unless some places had different names or the French and English ear was muddled on the pronunciation of the place names. They reported that 18 salines produced an estimated 289,000 cones of salt; that is 1,445 tons. The combined estimate is 4,145 tons, although it is likely that there is considerable error in the estimate. First, the calculations for the number of salt cones may be too high, since not all the salines produced for the full five-month season. Second, the size of the cones varied because of the different moulds used. In this case it is impossible to tell whether the average of 5 kg per cone is too high or too low. Third, there may well have been other salines, particularly in Goudoumaria and Mainé-Soroa, which were unrecorded in the surveys by Ronjat and the British officials. There were also the relatively minor salines in the area of Ouacha, one of the small Sosebaki states between Muniyo and Damagaram. Figures collected by Battistini in 1916 indicate that Ouacha and Katchibare produced 32 tons of salt in 1914 and 54 tons in 1915, which hardly affects the total for the region as a whole but does demonstrate that not all the salines were recorded in Ronjat's survey.⁴⁹ A figure of 4,000 tons should perhaps be considered as a capacity figure, therefore, in the absence of more reliable data (Table 12.14). Indeed one figure in 1942 placed the figure for *manda* production at 4,000 tons per annum, but the source of this estimate is unknown.⁵⁰ These figures can be checked against a few scattered estimates on the volume of the *manda* trade and later estimates on total output. About 376 tons of *manda* were imported into Kano in 1904, which probably represents Kano City consumption.⁵¹ In 1907, 49.3 tons were recorded. It is known, however, that more of this type of salt was consumed in rural Kano than in the city, because it was cheaper than Kawar salt.⁵² This suggests that total Kano imports may have reached 1,000 tons. *Manda* was also distributed in Borno and to the south, but no figures have as yet been located.

Natron production in Mangari and Muniyo is more difficult to assess, but a good guess seems to be on the order of 1,000-4,000 tons,

and perhaps more. The largest quantities were needed for livestock production, which used vast amounts of powdered *kanwa* (*gari*), but the numerous other uses suggest that production was very large indeed. Barth's 1853 description of natron stores at Keleno, only one of many locations, supports this conclusion:

A large provision of natron, consisting of from twenty to twenty-five piles about ten yards in diameter, and four in height, protected by a layer of reeds; was stored at the northern end of the lake. The whole circumference of the basin, which is called abge by the inhabitants, was one mile and a half.⁵³

Barth met numerous, often small, caravans while traveling between Borno and Kano and between Borno and Zinder; in one day in 1851 he recorded over 500 loads on the road to Gumel from Kano. Some of this probably was trona but much of it must have been from Mangari and Muniyo. Later, in the early 1880s, Flegel reported over 100 tons of natron transported by steamer down the Niger from the confluence, most of it destined for Lagos and points west as far as Sierra Leone.⁵⁴ There are no estimates for the quantities carried by canoe, but it is certain that large amounts were being shipped down river by this means.

Trona from east of Lake Chad and *kanwa* from Muniyo and Mangari also went overland to Ilorin, Lagos and elsewhere. At Ilorin, in 1904, 4,833 tons were recorded, while 654.5 tons were tallied in Zaria in one month, probably much of it for re-export south and west, and 267.7 tons were noted at Kano. For the year ending December 31, 1907, it is possible to follow the trade in natron and *ungurnu* at scattered points. At Kano 608.6 tons of loose natron and 40 tons of trona were recorded. In Nassarawa, 41.7 tons of loose natron, 17.3 tons of stone natron (probably trona), and 81.3 tons of imported European salt were recorded, virtually all through the town of Keffi, but smaller amounts came through Abuja, Loko and Lafia.⁵⁵ These amounts are relatively unimportant in themselves, except as an indicator of local demand for various salts in these towns, but there was undoubtedly a large transit trade as well, if the information from other years is indicative of a general pattern. By 1912, 170.8 tons of natron were shipped down the Niger River past Idah; another 211.8 tons of natron went by rail through Offa; and 345.4 tons were counted going by caravan through Bude Egba, on the Ilorin-Ogbomoso road. This suggests a total southern trade of at

least 728 tons.⁵⁶ The most complete survey, made in 1915, indicates that 743 tons was the level of output: 41 tons from the area west of Muniyo, 500 tons from Muniyo, and 202 tons from Mangari,⁵⁷ but earlier reports establish that the volume of trade was much greater than these figures. In fact, the ease of extraction and great number of depressions from where it could have come made it difficult to estimate output. It must be concluded, therefore, that the magnitude of production was on the order of a few thousand tons.

Sodium sulfate, *gwangarasa*, was available in workable quantities at only a few sites in Mangari, although sodium sulphate crystals could be collected at many places. Its use in tanning meant that there was a steady but relatively small demand, which is difficult to quantify. During World War II, however, the French regime promoted the production of sodium sulphate for use in sanitation among its troops.⁵⁸ Consequently, there are some figures on the amount of *gwangarasa* available in Mangari. The head of the department of pharmacology in the A.O.F. kept statistics which show that 3 tons were procured in 1944, 9 tons in 1945, 16 tons in 1946, 15 tons in 1947, 14 tons in 1948 and 8 tons in 1949.⁵⁹ These figures cannot be taken as an exact equivalent to the amount of sodium sulphate produced for tanning – in part because *gwangarasa* was still needed even during the years when these figures were recorded and in part because the colonial needs may well have stimulated demand to such an extent that the production of Na_2SO_4 increased. Nonetheless, they do indicate the potential for *gwangarasa* production.

Because the salt camps where *kige* was made were widely scattered in Kadzell, Kanem and other areas bordering Lake Chad, an assessment of total output must be based on a projection from the known output of a relatively few salt camps. The most complete survey, conducted by Ravoux in 1932, covers twenty-two camps in Kadzell.⁶⁰ Ravoux estimated that 419 workers were able to make 2,000 cones. Cones were of two sizes, a large one that weighed about 18 kg and a smaller one that apparently weighed about 12 kg.⁶¹ There is no information on the proportions of each size cone. Assuming an average of 15 kg, Ravoux's twenty-two camps would have produced about 30 tons. It is likely that there were another hundred camps which produced *kige*, since Ravoux did not cover all of Kadzell, some salt camps were located in British territory, and others were found in Kanem and on the south shore of Lake Chad.⁶² It may well be that there were many more than 100 camps in the past when the industry was flourishing. Still, it is likely that this

number of the known camps could have produced about 150 tons of salt, an estimate that can be checked against two reports from the 1930s. In both 1935 and 1936 estimates were made on the scale of the *kige* industry; both calculated an output of 150 tons for taxation purposes.⁶³ It seems reasonable to guess that the total production at the turn of the twentieth century may have been on the order of 200-400 tons.

The figures for the total production of *kige*, *manda*, *ungurnu*, and natron from Mangari and Muniyo should be considered as the range of probable outputs in normal years; possibly this range is even a maximum. The period from when some of the figures are derived (1914-30) was a time when the Kawar and Fachi industry was in dramatic decline, which could have encouraged the expansion of output in the Sahel, where transport problems were less serious. It is also possible that the early colonial years were a time of expansion in the production of *manda* and natron, although *kige* production may have begun to fall as slaves and former slaves refused to work in the salt camps. Even with these qualifications taken into consideration, however, it is clear that the Borno Sahel was the center of a large scale industry, probably ranging from 3,700 to as much as 9,000 tons for all types of salt.

THE WESTERN DALLOLS, TEGUIDA N'TESEM, AMADROR AND TAOUDENI

The various estimates on the amount of salt produced in Dallol Fogha indicate a level of output ranging from 500-700 tons per year. Bovill estimated that 700 tons were produced for c.1921, and a report of 1938 records 500 tons.⁶⁴ Faure's survey of the salines in 1963 led him to examine the Dallol Fogha carefully, and he concluded that the southern and northern parts of the valley could each produce 500 tons.⁶⁵ Production in Dallol Bosso was less, but still substantial. In 1935, the five major salt villages made 127.5 tons of salt, while seven natron villages made 172.5 tons of natron cones, for a total output of 300 tons.⁶⁶ Later estimates in Dallol Bosso reveal a greater range in output. In 1949-50, only 87 tons of natron was produced, while in the following year the total was 290 tons.⁶⁷ There is no report on salt made in Dallol Fogha for these two years. It is clear from these reports, nonetheless, that total output for both Dallols was considerable, perhaps exceeding 1,000 tons per year. When compared with other locations in Borno and the Sahara, it can be seen that the Dallols were a major source of salt.

Estimates for the quantity of salt produced at Teguidda n'tesemt range from 100-600 tons per year. Therol, who visited Teguidda in 1909, calculated that 5,000 bars of salt were made each year, the bars weighed 20-25 kg.⁶⁸ There were also smaller pieces, used as money, which he did not include in his calculation. His figure of 100-125 tons per year may well be the figure used later by Mauny, Lambert and Abadie.⁶⁹ Cortier, who was in Teguidda in the same year as Therol, calculated an output of 600 tons, based on bars of 30-35 kg.⁷⁰ He tried to elicit an estimate from the owners of the salt works, but they pretended ignorance since they rightly feared that salt production would be taxed. A report for 1915 indicated the level at 116 tons, although a possible error suggests that this figure should be 139 tons.⁷¹ Faure, who studied the industry in the early 1960s, estimated 700 units of production could produce about 400 tons per year.⁷²

Finally, some salt also came into the central Sudan from Taoudeni, north of Timbuktu, a major source of rock salt, and from Amador in southern Algeria, also a source of rock salt. It is not possible to calculate the proportion of Taoudeni production for the central Sudan market. Total output for Taoudeni was on the order of 1,500-4,800 tons, but only a small fraction of this amount reached the Central Sudan.⁷³ Amador produced relatively modest amounts of salt, perhaps a couple of hundred tons, and much of this may have been taken to Damergu, Agades and other southern points. Regnier estimated 2,000 loads, representing 200-400 tons, as a capacity figure.⁷⁴ More recently Museur estimated that 70-110 tons were exported to Niger each year in the second half of the twentieth century.⁷⁵ In the nineteenth century, 160-200 tons may have been the volume of output.

THE VOLUME OF THE BENUE BRINE SPRINGS

Figures for the Benue sites are comparable to the output of the various sahel and Sahara sources. Early colonial estimates suggest that production was on the order of several hundred tons for Keana, Awe, Azara and neighboring sites. In 1904, Lugard, apparently basing his estimate on geological reports, stated that the amount of salt produced in the area of Awe was about 400 tons per year.⁷⁶ The most complete data are for 1920 and 1941, although the size of the measure used in each year is in question (Table 12.15). The 1920 measure was weighed at 15 lb (6.8 kg) for assessment purposes, but the 1941 measure was calculated on the basis of only 2.5 lb (1.1 kg).

There seems to have been considerable evasion in tax reports for the two years, although there may well have been a decline in output in the 1920s, 1930s and 1940s. The 1920 and 1941 figures represent output, admittedly lower than the nineteenth century potential. By the 1960s reported output had increased dramatically (Table 12.16). The figures, 1967-71, represent output after pumps were in use to drain the sources, although pumps only worked occasionally and were not always a factor. Unless there has been an absolute, and drastic decline in the quantities of natural brine being produced since the nineteenth century, which seems unlikely in light of the geological evidence, then these figures could very well correspond to the maximum level of output in the past.

Unomah estimated production at Awe, Azara, Ribi, Kanje and Abuni at 8,900 tons per year, with a capacity of 22,700 tons per year, but his estimate cannot be accepted. Unomah's figures on the number of salt plots are too high, and he assumed that the plots at all centers had the same yields. He calculated 4,250 drying flats at the various sites: 2,000 at Awe, 1,250 at Azara, and 1,000 at the less important saltings of Ribi, Kanje, Abuni and Akiri.⁷⁷ He estimated that each plot could produce 2-5 tons per year, but it is unlikely that the best plots could produce more than 1.6 tons per year, and since the brine springs at some sites actually went dry late in the season many plots could not have reached maximum output. Only at Awe was the flow of brine not a problem, although the salt content of the Awe brine was relatively low. In order for the Benue saltings to produce the amount of salt calculated by Unomah, it would have required a work force of 224,000 for a five-month season, and this number of people was simply not available. It appears that Unomah's calculations are off by a factor of ten; the Awe complex probably produced an amount closer to 890 tons, rather than 8,900 tons. It seems likely that these sources accounted for an output on the order of 1,000 tons.

In 1939, when production at Keana had apparently declined considerably, only five to six tons were produced, with 33 more from Akwana, and seven from Arufu. This was at a time when other Benue sites produced 376 tons.⁷⁸ Later, in 1951, there were 245 drying terraces in operation in Keana, and these produced an estimated 14,700 measures in six weeks.⁷⁹ Since these measures (*tasa*) weighed 3 lb each, approximately 20 tons were made. The introduction of pumps at Keana may not have had a significant impact, although pumps did compensate for the loss of labor. In the past there was one main pit, approximately 40 by 80 meters, and five smaller brine springs.

Unfortunately, data have not been found for later years, after pumps were introduced. Unomah estimates that Keana accounted for one quarter of Benue area production, which was true for 1920. This would suggest an output of about 250 tons and probably somewhat less at Akwana and Arufa.

One way to estimate the quantity of salt produced at Keana is to calculate an average amount per salt plot based on production in 1982. At that time each plot could yield a maximum of 300 kg per month in a four-month season and a correspondingly lesser amount (100 kg) per month for the less productive four months following the main season. Moreover, at the time not all workers made salt in the least productive months, but it is possible that full capacity was maintained in the nineteenth century. In 1982 about half the total number of plots was in production in the intensive season and perhaps only a third in the less intensive season. Calculating on this basis, the Keana salines could have produced approximately 500 tons. By extrapolating backwards and assuming that all plots were at maximum production, then Keana had a capacity of 1,230 tons.⁸⁰ It is unlikely that such a capacity figure was ever attained, but any estimates exceeding that amount must be discounted. Most especially, Adefuye's figure of 50,000 tons must be rejected, but even Unomah's revision of 3,000 tons is too high.⁸¹ A more realistic figure would be 400-800 tons, depending upon rainfall, political conditions and the ability to mobilize labor, and the actual amount could easily have fallen to a few hundred tons or less. The capacity figure – which must not be used as anything more than a rough guide – almost certainly is high. It is based on the assumption that plots were uniform in size, which they were not, and that output per plot was the same. As is often the case in estimates of this sort, calculations are based on figures from the most productive units, which are then used as averages for all units. It is likely that true capacity was considerably less than 1,230 tons.

The geologists Pheonix and Kiser estimated that all sources in Lafia Division, where the Benue springs are located, probably never produced more than a few hundred tons of salt, but their estimate almost certainly is too low.⁸² Instead, 1,300-2,000 tons must be considered a realistic estimate for the production from all sites. This opinion is supported by a comparison of filtering devices in use at Keana and in Mangari. Keana boiling pots were considerably smaller than those along the north shore of Lake Chad. In Keana two or three small pots were rigged to drain into the boiling pot,

which produced one block of salt at a time. The ovens of the north contained 80-150 moulds, each forming 5 kg cones. At the three Dara ovens or the ten ovens at Mainé-Soraa, boilings took place every 7-10 days for a five to eight month season, for an average of fifteen boilings and a production of 1,200-1,500 cones, weighing 5-7 tons, per oven. This represents potential output, since it is likely that workers were sometimes absent, when they carried salt to market and were otherwise away from camp during breaks between cycles. Nevertheless, it is clear that in places with three ovens, like Dara, or ten ovens, like Mainé-Soraa, more salt was produced than with the comparable filtering and boiling devices of the Benue salines. The huge works at Ngibia, with 40 ovens, may have produced more than many of the Benue sites.⁸³

Hence the Benue basin salts were less important than some of the sites further north. Any of the major locations in the north exceeded or matched Benue output, including Mangari, Muniyo, the Chad basin, Kawar, or Fachi, and the Dallols. Some sites within these large complexes even exceeded output at Awe, the biggest producer near the Benue. Among the northern sites, the Mangari-Muniyo region appears to have processed the most salt, particularly *manda* in Mangari and natron in Muniyo. In terms of capital investment, these two areas exceeded all other locations, although filtering devices – but not ovens – were built along the northern shore of Lake Chad and in the Dallol Fogha. The investment in desert sites (except Teguidda n'tesemt) was less, and at these locations relatively less processing was required.

EUROPEAN SALT

The salt trade as a whole can be compared with the level of imported European salt, which began to spread into the Central Sudan in the nineteenth century and was very large by the first decade of the twentieth century. All along the frontier between the forest and savanna, Central Sudan salt competed with imported European salt. The scale of the import trade at Calabar and in the Niger Delta – some 7,300 tons – suggests that European salt (mostly from Britain and Germany) found a ready market in the interior. The expansion of this market is difficult to assess, but Manning has shown that European salt was a major export north from Dahomey in the 1890s, and European salt was also shipped north through the Yoruba states.⁸⁴ When European salt first crossed the forest-savanna divide is unclear, and it is probable that European salt initially only

displaced sea salt, not salt from the Central Sudan. Hence the penetration of the Central Sudan market with European salt, which began as a trickle before 1862, increased to a steady flow in the 1860s, reaching larger quantities by the end of the century.

Salt was brought up the Niger on the vessels of the various European expeditions, the Royal Niger Company, and the indigenous river traffic. At least 40 tons – perhaps as much as 100 tons – were sold at the confluence in 1862. By 1903, 4,214 tons were transported north between June and December.⁸⁵ In 1906 the total for the river and overland trades accounted for the import of 10,371 tons of salt into northern Nigeria (Table 12.17),⁸⁶ at a time when the total volume of salt imports into all of Nigeria was 32,525 tons.⁸⁷ In a remarkably short period, the volume of imported European salt had risen to a substantial level. The volume of the European trade demonstrates that the Central Sudan market was far from saturated with salt; the local industry simply could not supply the quantities which could be purchased, especially since imports favored those areas most distant from the major sources of Central Sudan salt, i.e., the southern portions of northern Nigeria. The estimates for salt production for all the Central Sudan suggest a range of 8,000-15,700 tons, which is about equal to the volume of European imports by 1906. It is possible that the various calculations for the specific sites are too low, but even so the amount of imported European salt still accounted for a large portion of the total market. Considering that no allowance has been made for the production of vegetable salt, other than *kige*, the total volume of locally-produced salt was probably much higher. Still the impact of European imports was sudden but apparently without dramatic effect on the level of local output. There is no evidence that any of the salt sites began to produce less salt in the first decade of colonial rule, not even the Benue brine springs that were most vulnerable to the invasion of imported European salt.

If the Central Sudan industries had been meeting the full market demand for salt, then, the introduction of large quantities of European salt would have driven some of the local salt off the market. That this was not the case reflects two factors. First, European salt only competed for the culinary market, not the industrial, medicinal and other uses for salt. The market for non-culinary purposes still required the production of large quantities of local salts and thereby served as a cushion for the culinary market as well. Second, many people could not afford European salt, even when adulterated, and

they continued to use locally-produced salts. Culinary tastes also required local salts, which served to maintain the existing market.

There was a large, unsatisfied market for sodium chloride, which the expansion of European imports demonstrates. The fact that local industry could not satisfy this market is worth noting, for it helps substantiate the conclusion that technological limitations deriving from the market situation prevented the evolution of techniques that could have produced better quality salts. Clearly the demand for purer sodium chloride grew very rapidly when European salt became available in large quantities. The Central Sudan industry was not able to develop this demand through the evolution of better production techniques, and by the time the demand was developed it was too late for technological innovation. The modern production of salt in Britain and Germany could fully satisfy any potential demand at a relatively low price. The central Sudan industry was permanently subjected to technological stagnation. It continued to supply the market for industrial, medicinal and other uses, but there was no prospect in the colonial period that technological changes would lead to a modern chemical industry based on the resources of the salt deposits.

PRICES OF SALT

A general guide to price differentials at Kano would value Bilma salt at twice the cost of salt from Mangari, five times the cost of natron from Mangari and Muniyo, and one and one-half times the cost of trona from Foli. This schedule does not cover all types, but it does provide an index for the most important ones. In 1903, at Kano, trona (*ungurnu*) was valued at £18.65 per ton and natron from Muniyo was worth from £4.80-£6.70 per ton.⁸⁸ In 1904, prices were £27/ton for Bilma salt (*kantu*), £18/ton for trona, £13/ton for salt from Mangari (*manda*, *mangoul*), and £5/ton for natron from Muniyo and Mangari (*kanwa*).⁸⁹ In 1908 prices for natron ranged from £10.85 per ton for the cheapest to £19.40 per ton for the highest quality from Lake Chad (*ungurnu*), for an average price in the Kano market of £14.75 per ton.⁹⁰ Here the prices for 1904 are used, when data are most complete and most comparable.

The quantity of salt is based on estimates that can be summarized as follows: The annual output of all types of Borno salt was probably on the order of 5,500-11,000 metric tons, although it is likely that this total varied with political and climatic conditions. Of this figure, the desert sites of Kawar and Fachi probably accounted for

2,300-5,400 tons; *manda* from Mangari country may have amounted to 1,000-3,000 tons; *kige* from Kadzell may have been 200-400 tons; natron from Muniyo and Mangari may have been 1,000-1,500 tons; and trona from Kanem may have reached 1,000-1,500 tons. It is clear from these estimates that more salt, perhaps two or three times as much, was produced in the sahelian locations than in the desert ones. The total for all Borno salts, therefore, could easily have been as high as 10,000 tons, and output from Dallol Fogha, Dallol Bosso and Teguidda-n-tesemt may well have reached another 1,100-1,600 tons.⁹¹

A rough estimate for the value of the salt trade can now be made. Based on Kano prices in 1904 and the estimates for the volume of the trade, between £62,100 and £145,800 of Bilma salt, £18,000-£27,000 of trona from Lake Chad, £5,000-£7,500 of natron from Mangari and Muniyo, £13,000-£39,000 of *manda* from Mangari, and lesser values of salt from Kadzell, Teguidda, Dallol Fogha and Dallol Bosso were sold on the markets of the Central Sudan. These estimates suggest a total of at least £98,000-£219,300 for the major salts alone, and the figure may have been considerably higher. This is meant to be a conservative estimate. The value depends upon where sales are calculated, and since much salt was re-exported further south and west, the Kano prices are often half the final price.

If these figures are taken as a guide to the possible value of the salt trade in the nineteenth century, we can make some comparisons with the trans-Saharan trade. In order to extrapolate backwards, certain assumptions have to be made. I assume that the volume of the salt trade was relatively constant and did not experience as severe annual fluctuations as the trans-Saharan trade. I also assume that prices were more stable, since salt values depended upon a regional market rather than the European-dominated international market with its more pronounced economic cycles. Salt is a commodity that probably was relatively more inelastic than ostrich feathers, ivory and tanned skins, all of which were luxuries and consequently are the types of goods that are usually found to be far more elastic than salt in their economic characteristics. Price data from the first decade of the twentieth century demonstrate the relative inelastic features of the salt market. Prices varied little from year to year at Kano, at least this was so for a six-year period ending in 1913, and since Kano was the major distributional center for all the Borno salts, this price series may well have been characteristic of the trade as a whole.

In order to compensate for the relative elasticity of the commodities exported across the desert, the average value of exports over ten-year periods is taken. The result is as follows: In the first decade of the twentieth century, when trans-Saharan exports still amounted to over £60,000 per year, the salt trade was probably far more valuable; indeed the Bilma trade alone was worth at least as much, if not much more. Even in the 1890s when the trans-Saharan trade was still strong, the salt trade was probably more valuable, although this comparison is based on inference. Scattered data on prices and volume for the salt trade from earlier in the nineteenth century suggest a similar conclusion. The value of salt in the savanna markets probably exceeded the value of Sudan exports to North Africa. It must be remembered that the value of commodities at Tripoli included goods imported from Timbuktu, and although the Timbuktu contribution was less than the Central Sudan share of the trade, it was still a significant proportion. The inclusion of the Timbuktu portion of the Tripoli trade probably compensates for slaves and other commodities retained in the desert along the routes north from Borno and the Sokoto Caliphate. It is likely that even in the peak years of the 1870s and 1880s, the salt trade was more valuable than the trans-Saharan trade, although the trades were probably closest to being at the same level then than at any other time. This conclusion, as tentative as it must be because of the nature of the data, still has considerable significance. It indicates that a relatively low-priced commodity, salt, was more valuable than the luxury trade across the desert.

In order for salt to match, indeed exceed, the value of trans-Saharan goods, a considerably larger volume of trade was necessary; hence many more people were involved in the production and transport of salt than in the enslavement and trade in slaves, elephant hunting and ivory trade, ostrich hunting and the feather trade, or livestock production and tanning for the hide trade. The relative volume of the various sectors was reflected in the size of caravans. For the trans-Saharan trade James Richardson found that 1,050 camels were used in 1845, and there were 500 merchants and personnel and 1,000 slaves, while Mircher reported that 1,625 camels were involved in the trans-Saharan trade in 1861-62. As late as 1897, 2,827 camels left Tripoli on the Sahara crossing; of these 2,345 went to the Sokoto Caliphate, 172 went to Kanem and 310 headed for Wadai. Similar figures, reaching a high of 8,000 camels, could be cited for other years. These numbers are small in comparison with

the salt trade, where as many as 20,000-30,000 camels were used to transport salt from Bilma alone. Some figures even put the number of camels used in the transport of Kawar and Fachi salts at 40,000, 70,000, and even 80,000, figures that are probably too high. In the transport of salt and natron from the Borno sahel and Lake Chad, a trade that very likely was larger in volume than the desert salt trade, many thousands of other animals, mostly donkeys and cattle, were used.⁹² In 1851, for example, Barth estimated that "twenty thousand loads, at the very least, between pack-oxen, Sumpter horses, and asses, of natron must annually pass through the market of Kano," which amounted to about 1,000 tons alone.⁹³ On one day, March 12, 1851, on the road from Kano to Borno, Barth met numerous caravans, totaling some 500 loads of natron, or about 25 tons. In 1904, the British customs post at Zaria counted 8,514 animals and 587 porters carrying 665 tons of natron in one month.⁹⁴ These figures must have included camels, donkeys and oxen, as well as porters.

The number of animals involved in the transport of salt suggests that the salt trade was more significant in terms of the transport services made available to the savanna economy than the trans-Saharan trade. Animals were used to move cotton, grain, and many other commodities over shorter distances within the savanna. The availability of transport animals may well have been the most important feature of the salt trade. There is no way to calculate the value of transport, but it can be noted that this service was a vital aspect of the desert-side economy as a whole.

The comparison of salt with the trans-Saharan trade ignores certain dimensions of commerce along the desert edge. There was a strong interconnection between the trans-Saharan trade and the desert-side trade. Along the Kano-Ghadames route the Tuareg acted as transporters, a role played by the Tubu on the Borno-Murzuk road. Both Tuareg and Tubu also transported salt from Kawar, although the Tuareg carried more than the Tubu and serviced the Sokoto Caliphate, while Tubu traded to Borno. The infrastructure for both the salt and trans-Saharan trades along these two routes overlapped considerably. Caravans traveled together on those stretches that coincided; i.e., south from Bilma to Borno and south from Agades to the Sokoto Caliphate. Both used the same depots in the savanna and sahel, including brokers and middlemen who shared similar interests. The Tuareg infrastructure, at least, relied on slave plantations in the sahel and savanna for some provisions, and the political leadership was interested equally in salt and the

trans-Saharan traffic. Different groups of Tuareg controlled segments of the Saharan crossing, just as one group dominated the Teguidda salt trade and an alliance of other groups maintained the Bilma trade. The sahel salt trade operated separately, although it, too, used the same depots and sometimes the same brokers. Financing was largely kept separate. The trans-Saharan trade traced its credit back through the desert to Ghadames, Tripoli and ultimately Europe. Individual merchants like Malam Yaro of Zinder operated against the general pattern, financing their own operations, but most credit flowed south.⁹⁵ Salt, on the other hand, was a local affair south of the desert, with Tuareg and Tubu financing the desert salt trade and savanna merchants servicing the sahel trade.

The significance of this study relates to the debate over the connection between the internal West African economy and the European-dominated world market, that is, the transition from a relatively isolated, regional economy to the incorporation into the capitalist world system. The data presented here, despite the tremendous room for error in any particular set of data, clearly establish that the regional economy was far more important than the links with the outside world, even as late as 1900. Salt is used as an indicator, and this in itself is significant. By the nineteenth century, salt was hardly as important in the economies of industrial Europe as it had been earlier in European history. Salt continued to be a vital sector of the African economy, which is perhaps an excellent gauge of the relative level of economic autonomy of Africa.

Another conclusion of this survey is that the transition from the slave trade to "legitimate" trade was much later in the case of the trans-Saharan trade than in the trade nearer the Atlantic coast. This is not a new finding, but here it is documented to a degree that has not been possible before. While the export slave trade on the coast declined after the 1830s and was virtually over by the late 1850s, the decline did not begin on the trans-Saharan routes from the Central Sudan until the 1870s, and even then the trade continued for two more decades at least. Even when the decline took effect, on the routes through Ghadames and Murzuk, the trade expanded on the Kufra-Wadai route further east. Slave exports south towards the Guinea Coast had been considerable until the 1850s, and probably continued to be later still. Slaves from the Sokoto Caliphate were an important, although minor, component of exports from the Bight of Benin in the first half of the nineteenth century, and slaves were exported to Asante in the same period. It seems probable that

the trans-Saharan slave trade provided an alternative outlet after Atlantic exports collapsed in the 1860s. A reasonable hypothesis would be that the remoteness of the Central Sudan – the regional focus of its economy – shielded the Sokoto Caliphate and Borno from the initial, serious penetration of European markets for an additional two decades, until the 1870s, and even then the impact was hardly overwhelming. Slave exports could be redirected northward in the 1860s but less so by the 1880s, although slaves were still used domestically, even then. The demands of foreign markets were increasing, but they were not yet crucial. A comparison of salt, slaves, ostrich feathers, tanned skins and ivory establishes clearly that regional demands were still determinant in the economy until the end of the nineteenth century.

Table 12.1: Nineteenth Century Trans-Saharan Slave Exports

Year	Number	Place	Explanation
1808	600	Tunis	imports from Ghadames
c.1810	1,000-2,000	Tunis	imports from Ghadames
1818	1,300	Tripoli	imports
1819	5,000-5,500	Murzuk	total imports
1819	5,000	Murzuk	total imports
early 1820s	3,000-4,000	Tripoli	total exports
1823	under 2,000	Kukawa	total exports north
c.1825	2,000-2,500	Tripoli	total exports
c.1835	5,800	Katsina	total exports north
1839	2,000-2,500	Tripoli	exports to Benghazi
early 1840s	6,000-8,000	Tripoli	total imports
1840	3,000	Tripoli	local trade
1841	2,000	Tripoli	imports, January to June
1842	7,000-8,000	Ghadames	total imports
1843	900	Tripoli	imports
1843	2,200	Murzuk	total imports
1844	1,200	Murzuk	total imports
1845	1,100	Murzuk	total imports
1845	900	Ghat	partial imports
1846	1,000	Ghat	partial imports

1846	800	Ghat	partial imports
1846	130	Murzuk	partial imports
1846	2,500	Tripoli	total imports
1847	over 2,000	Tripoli	total exports
1848	over 2,000	Tripoli	total exports
1849	1,424	Tripoli	total exports
1849	1,600	Borno	Murzuk road
1849	2,395	Murzuk	caravan deaths ¹
1849	975	Murzuk	partial imports
1850	2,708	Tripoli	total exports
1850	1,259	Tripoli	exports
1850	1,500	Tripoli	total exports
1850	2,733	Tripoli	total exports
1850	1,770	caravan	partial trade
1850	2,000	Murzuk	total imports
early 1850s	2,500-3,000	Murzuk	total imports
1850-54	500 per year	Ghadames	total imports
1851	450	Tripoli	total exports
1851	2,000-3,000	Kano	total exports north
1851-7	5,000	Tripoli	total trade
1852	1,001	Tripoli	exports
1852	2,458	Murzuk	imports
1853	858	Tripoli	exports
1853	2,609	Murzuk	imports
1853	400-500	Murzuk	partial imports
1854	472	Tripoli	exports
1854	2,900	Murzuk	imports
1855	1,330	Tripoli	exports
1858	3,000-4,000	Ghat	total imports
1860s	5,000-8,000	Murzuk	total imports
1863	1,200	Murzuk	partial exports
1865	4,048	Murzuk	total imports
1869	1,700-2,600	Murzuk	total imports
1869	1,400	Murzuk	partial imports
1874	1,330	Tripoli	general and Ghat trade

1874-5	500	Ghadames	total imports
1878	1,000-2,000	Tripoli	total imports
1879	2,000	Ghat	total imports
1889	500-1,000	Murzuk	total imports
1890s	500	Zaria	exports north

1. Crowe reported 2,384 slaves; see Ehud R. Toledano, *The Ottoman Slave Trade and its Suppression* (Princeton: Princeton University Press, 1982), 84.

Sources: Thomas MacGill, *Account of Tunis* (Glasgow, 1811), 148; E.W. Bovill, *Missions to the Niger* (London, 1964), III, 541, 568; G. F. Lyon, *A Narrative of Travels in Northern Africa in the Years 1818-1819 and 1820* (London, 1821), 12; Ritchie, in Anon., "The Course of the Niger," *The Quarterly Review*, 23 (1820), 228; Jacopo Gräberg di Hemsö, "Prospetto del Commercio di Tripoli d'Africa, e delle sue relazioni con quello dell'Italia," *Antologia*, XXVII (1827), Gräberg di Hemsö, "Prospetto del Commercio di Tripoli d'Africa, e delle sue relazioni con quello dell'Italia," *Antologia*, XXX (1828), 91; E. Daumas and A. de Chancel, *Le grand désert. Itinéraire d'une caravane du Sahara au pays des nègres (Royaume de Hoassa)* (Paris, 1856), 261, 266; Ehud R. Toledano, *The Ottoman Slave Trade and its Suppression* (Princeton: Princeton University Press, 1982), 82-86, 112, 213; Enrico De Leone, *La Colonizzazione dell'Africa del Nord - (Algeria, Tunisia, Marocco, Libia)* (Padova, 1960), II, 272, 284; E. Subtil, "Considérations politiques et commerciales sur Gadamés, suivies d'un itinéraire de Tripoli a Gadamés," *Revue de l'Orient*, V (1844), 112; James Richardson, *Travels in the Great Desert of Sahara in the Years of 1845 and 1846* (London, 1848), II, 115, 310, 323; Richardson, "Report on the Slave-Trade of the Great Desert," *Anti-Slavery and Aborigines' Friend*, series II, I (1846), 154; Prax, "Carte de la Regence de Tripoli et les principales routes commerciales de l'intérieur de l'Afrique," *Bulletin de la Société Géographique*, XIV (1950), 84; Lucette Valensi, "Esclaves chrétiens et esclaves noirs Tunis au XVIII^e siècle," *Annales*, XXII:6 (1967), 1275-76; A. Adu Boahen, *Britain, the Sahara, and the Western Sudan, 1788-1861* (Oxford, 1964), 128, 151; Stephen Baier, "Trans-Saharan Trade and the Sahel: Damergu, 1870-1930," *Journal of African History*, XVIII:1 (1977), 43; G. Rohlfs, *Von Tripolis nach Alexandrien* (Norden, 1885), 91; Henri Duveyrier, *Les Touregs du Nord* (Paris, 1864), 284; C.H. Dickson, "Account of Ghadamis," *Journal of the Royal Geographical Society* 20 (1860), 260; Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 515; E. Vogel, "Dr. Eduard Vogel's Reise nach Central Afrika," *Petermann's Geographische Mitteilungen* (1855), 25; I. Boudierba, "Voyage A Ghat," *Bulletin de la Société Géographique*, XX (1860), 184; Gustav Nachtigal, *Sahara and Sudan* (London, trans. A. Fisher and H. J. Fisher, 1974), I, 122; G. Rohlfs, *Reise durch Marokko, Ueberteigung des grossen Atlas, Exploration der oasen von Tafilet, Tuat und Tidikett und Reise durch die grosse Wüste Über*

Rhadames nach Tripoli (Bremen, 1868), 7; Allan G. B. Fisher and Humphrey J. Fisher, *Slavery and Muslim Society in Africa* (London, 1970), 170; Victor Largeau, *Le Sahara. Premier Voyage d'exploration* (Paris, 1877), 350; G. Rholfs, *Von Tripolis nach Alexandrien* (Norden, 1885), 83; G.A. Krause, "Aufzeichnungen uber die Stadt Chat in der Sahara," *Zeitschrift der Gesellschaft fur Erdkunde zu Berlin*, XVII (1882), 298; B.G. Martin, "Ahmad Rasim Pasha and the Suppression of the Fazzan Slave Trade, 1881-1896" (unpublished paper presented at the Conference on Islam in Africa: Slavery and Related Institutions, Princeton University, 1976); C.H. Robinson, *Hausaland, Or Fifteen Hundred Miles through the Central Soudan* (London, 1896), 133.

Table 12.2: Annual Trans-Saharan Slave Trade, Summary

Period	Austen's estimates for Tripoli and Benghazi	Revised estimates for Tripoli and Interior
1810-30	4,000	3,000-6,000
1830-70	4,000	4,000-8,000
1870-80	2,000	1,000-3,000
1880-90	2,000	500-1,000
1890-1900	1,000	500-1,000

Table 12.3: Slave Prices for the Nineteenth-Century Trans-Saharan Trade

Year	Place	Price	Sex
1819	Tripoli	\$80-150	Female
1823	Tripoli	\$80-90	Female
1825	Tripoli	\$70	Average Slave
1845	Tripoli	\$70-80	Female
1845	Tripoli	\$50	Average Slave
1850	Tripoli	\$100	Female
1850	Tripoli	\$60-65	Male
1865-6	Tripoli	\$70-90	Young Male
1865-6	Tripoli	\$120	Pretty Female
1879	Tripoli	\$105-130	Pretty Female

Source: G.F. Lyon, *A Narrative of Travels in Northern Africa in the Years 1818-1819 and 1820* (London, 1821), 12; W. Oudney, in E.W. Bovill, *Missions of the Niger* (London, 1966), III, 568; Jacopo Gräberg di Hemsö, "Prospetto del Commercio di Tripoli d'Africa, e delle sue relazioni con quello dell'Italia," *Antologia*, XXVIII (1828), 24; James Richardson, "Report on the Slave-Trade of the Great Desert," *Anti-Slavery and Aborigines' Friend*,

series II, I (1846), 154; Richardson, *Narrative of a Mission to Central Africa* (London, 1853), II, 204; G. Rholfs, *Von Tripolis nach Alexandrien* (Norden, 1885), 91; G.A. Krause, "Aufzeichnungen über die Stadt Chat in der Sahara," *Zeitschrift der Gesellschaft für Erdkunde zu Berlin*, XVII (1882), 298.

**Table 12.4: Sudan Exports in Transit
through Tripoli, 1862-1905 (£000)**

Year	Ivory		Ostrich feathers		Tanned skins		Total	
	British	French	British	French	British	French	British	French
1862	10	25	3	9	2	13	36 ^a	
1863	13	-	6	-	-	-	19	-
1864	17	-	10	-	2	-	29	-
1865	15	-	12	-	2	-	29	-
1866	12	-	7	-	1	-	20	-
1867	-	-	-	-	-	-	-	-
1868	-	-	-	-	-	-	-	-
1869	25	-	12	-	2	-	39	-
1870	25	-	16	-	2	-	43	-
1871	40	-	30	-	8	-	78	73
1872	35	32	45	42	8	-	88	74
1873	30	-	40	-	-	-	40	-
1874	50	28	115	102	-	-	165	130
1875	60	32	125	110	-	-	185	142
1876	60	48	132	168	-	-	192	216
1877	-	64	-	156	-	-	-	220
1878	31	56	187	228	4	-	222	284
1879	21	28	235	268	11	-	267	296
1880	24	24	168	291	8	-	194	315
1881	16	-	153	-	12	-	181	-
1882	14	-	179	-	8	-	201	-
1883	15	35	236	241	11	-	262	276
1884	8	-	184	-	3	-	195	-
1885	12	18	85	87	4	-	101	105
1886	28	-	30	-	4	-	62	-
1887	20	-	15	-	6	-	41	-
1888	25	24	40	50	9	-	74	74
1889	18	-	55	-	15	-	88	-
1890	22	-	95	18	-	135		
1891	30	-	80	17	-	127		
1892	-	-	-	-	-	-	-	

1893	28	-	56	-	38	-	122	-
1894	22	-	48	-	44	-	114	64 ^b
1895	8	-	45	-	51	-	104	-
1896	7	-	55	-	49	-	111	-
1897	7	-	66	-	48	-	121	-
1898	2	-	70	-	65	-	137	-
1899	5	-	58	-	59	-	122	-
1900	6	-	54	-	59	-	119	-
1901	2	-	28	-	49	-	73	-
1902	-	-	-	-	24 ^c	-	24	-
1903	3	-	21	-	43	-	64	-
1904	2	-	23	-	37	-	60	-
1905	-	-	-	-	44	-	44	-

- a. Mircher's total, including other goods, is 1,026,000 fr. or £59,000 (H. Mircher, *Mission au Ghadamas (septembre, octobre, novembre, et decembre, 1862). Rapports officiels et documents a l'appui* (Paris, 1863), 45).
- b. The 1894 French figure includes ostrich feathers and ivory but not skins.
- c. As cited in "Native Leather of West Africa," *Bulletin of the Imperial Institute*, VI (1908), 175. This source agrees with Baier's figures for tanned skins exported from Tripoli for the period 1896-1904, except for 1901, when £44,000 was recorded.

Sources: British series from consular reports, as cited in Stephen Baier, "Trans-Saharan Trade and the Sahel: Damergu, 1870-1930," *Journal of African History*, XVIII:1 (1977), 42; Baier, *An Economic History of Central Niger* (Oxford, 1980), 233; French series from consular reports, as cited in Colin Newbury, "North African and Western Sudan Trade in the Nineteenth Century: A Re-evaluation," *Journal of African History*, VII:2 (1966), 239, and converted on the basis of 25 fr. = 11. The figures used here are at slight variance with those calculated by Marion Johnson, Marion Johnson, "Calico Caravans: The Tripoli-Kano Trade after 1880," *Journal of African History*, XVII:1 (1976), 105 from Newbury's data, and Baier's total for 1891 is corrected.

**Table 12.5: Indices of Ostrich Feather Imports to Tripoli,
1870-1900 (Base = 1871)**

Year	Index of Volume	Index of Price
1870	68.8	77.5
1871	100.0	100.0
1872	129.7	129.7
1873	115.8	115.8
1874	381.8	100.4
1875	379.3	109.8
1876	402.2	109.3
1877	-	-
1878	360.1	173.1
1879	399.6	196.0
1880	281.4	192.4
1881	289.0	175.8
1882	380.3	156.9
1883	554.0	141.9
1884	556.7	110.2
1885	312.6	90.6
1886	117.4	85.1
1887	70.5	70.8
1888	234.6	56.8
1889	389.2	47.1
1890	552.9	57.3
1891	424.7	62.7
1892	-	-
1893	395.1	47.2
1894	327.6	48.8
1895	316.6	47.3
1896	411.9	44.5
1897	487.3	45.1
1898	522.1	44.7
1899	374.1	60.9
1900	352.4	55.2
1901	181.6	52.8
1902	133.8	56.1
1903	100.2	55.8

Sources: Stephen Baier, *An Economic History of Central Niger* (Oxford, 1980), 234 calculated this table on the basis of the value of Tripoli imports

and the prices of ostrich feathers at London from "Statistical Abstract for the United Kingdom, 1870-1884," Parliamentary Papers, 1884-1885, vol. 82; "Statistical Abstract, 1884-1898," Parliamentary Papers, 1899, vol. 104; "Statistical Abstract, 1891-1905," Parliamentary Papers, 1905, vol. 130.

Table 12.6: Exports from Tripoli, Average by Decade (£000)

Decade	Ivory	Ostrich Feathers	Tanned Skins	Total
1862-71	201	117	-	319 (322) ^a
1872-81	381	1,293	88	1,846
1882-91	191	999	93	1,283
1892-1901	99	579	464	1,142

a. Includes an adjustment to allow for Mircher's more accurate figure for the trade in 1861-2.

Source: Marion Johnson, "Calico Caravans: The Tripoli-Kano Trade after 1880," *Journal of African History*, XVII:1 (1976), 105.

Table 12.7: Trans-Saharan Trade in Slaves, Ivory, Ostrich Feathers, and Tanned Skins
(Estimated Annual Value by Decade)

Year	Ivory, Ostrich Feathers, Tanned skins	Slaves	Total
1862-71	£32,200	£61,000-158,000	£93,000-126,000
1872-81	£184,600	£16,200-221,000	£201,000-46,600
1882-91	£128,300	£9,000-146,000	£137,000-18,000
1892-1901	£114,200	£9,000-132,000	£123,000-18,000

Source: Tables IV-VI.

Table 12.8: Estimates of Central Sudan Salt Production

Source	Estimated Volume (tons)
Kawar and Fachi (all types)	2,300-5,400
<i>manda</i> (Mangari)	1,000-3,000
<i>kanwa</i> (Mangari, Muniyo)	1,000-1,500
<i>ungurnu</i> (Kanem)	1,000-1,500
<i>loge</i> (Kadzell and Chad shores)	200-400
Dallol Fogha	500-700
Dallol Bosso	200-300

Benue basin sites (Awe, Keana, etc.)	1,300-2,000
vegetable salt (other than <i>kige</i>)	no estimate, large
Amadrar	100-300
Taoudeni (for sale in the central Sudan)	no estimate, small
Teguidda n'tesemt	400-600

Table 12.9: Volume of Salt and Dates Exported from Fachi and Bilma, 1903-1914

1903/4	2,294 tons
1905	n/a
1906	1,254
1907	1,591
1908	1,881
1909	1,425
1910	n/a
1911	2,232
1912	2,472
1913	2,375
1914	1,900

Source: The tonnage was computed from the number of camels returning from the oases loaded on the average with 95 kg each. The figures for 1903-04, 1911-1914 are from Baier, *Economic History*, 125, 237. The figures for 1903-04 include 17,930 leads of salt and 184 loads of dates at Djadjidouna, which Baier estimates to have represented 75 per cent of the trade; the figures for 1906-08 are from Prévot 1909; the figure for 1907 includes 175 camels taken to Nguigmi, while the 1908 figure includes 80 camels on this route.

Table 12.10: Volume of Salt Exports from Fachi, 1907-1976

Year	Volume	Year	Volume
1907	635	1949	650
1909	636	1950	700
1932	280	1951	550
1935	240	1952	350
1936	225 (partial)	1953	900
1937	460	1954	370

1938	540	1955	500
1939	450	1956	600
1942	640	1957	750
1943	500	1960	600
1944	750	1962	900
1945	650	1972	1,500
1947	440	1974	700
1948	750	1976	1,000

Sources: Peter Fuchs, *Das Brot der Wüste, Sozio-Ökonomische der Sahara-Kanuri von Fachi* (Wiesbaden, 1983), 55; Périé, *Monographie du poste de Bilma*, 1941 (Archives de Bilma); H. Faure, “Inventaire des évaporites du Niger (Mission 1963. Rapport du Bureau de Recherches Géologiques et Minières” (Niamey, unpublished, 1965), 143.

Table 12.11: Volume of Trona Imported into Borno, 1906-1912

Year	Total Slabs (#) ¹	Slabs (15 kg) ²	Slabs (mixed) ³	Total (tons) ⁴
1906	37,996	23,748	14,248 (56 lb.)	718
1907	24,250	15,157	9,093 (84 lb.)	574
1908	21,634	13,522	8,112 (84 lb.)	512
1909	34,379	21,487	12,892 (14 lb.)	404
1910	61,571	38,482	23,089 (14 lb.)	734
1911	58,137	36,336	21,801 (42 lb.)	960
1912	27,351	17,095	10,256 (70 lb.)	582

Source: Borno Provincial Report, for 1912, SNP 10/14 182p/1913.

1. The report lists the total number of slabs of trona, and bracketed figures showing the number of slabs at a specific weights. I assume that the bracketed figures represent odd-sized slabs which were either larger or smaller than the average slab.
2. The report does not indicate the weight of average sized slabs, but on the basis of other reports, 15 kg seems a reasonable estimate.
3. I have left the weight in pounds, as given in the report, but I have converted the total to metric tons. I wish to thank R.J. Gavin for access to this document and for the discussion about its interpretation.
4. I have subtracted the bracketed figure from the total, although it is possible that the bracketed figure refers to additional slabs at odd sizes, and that the figure which I am interpreting as a total only represents slabs at the average size.

Table 12.12: Trona Production in Foli, 1961-67

	Trona slabs (number)	Trona slabs (tons)	Trona in pieces (tons)	Total (tons)
1961	88,828	3,375	2,237	5,612
1962	101,056	3,840	3,484	7,324
1963	102,188	3,883	6,180	10,063
1964	82,668	3,141	4,524	7,765
1965	76,283	2,898	5,779	8,677
1966	171,434	6,514	3,500	10,014
1967	130,675	4,966	5,440	10,406

Source: Christian Bouquet, *Isles et rives du Sud-kanem (Tchad)* (Talence, France, 1974), 133.

Table 12.13: Trona Production by Deposit, 1965, 1967

	1965	1967	1967
Deposit	Trona slabs	Trona slabs	Pieces of Trona(tons)
Liwa	22,262	60,000	500
Bedara	26,713	17,500	1,800
Gadi-Yala	15,000	--	100
Gadi Ndia	6,417	--	--
Kaya	--	16,800	1,240
Diklia	4,960	14,075	1,000
Kaourou Ndia	--	1,600	500
Anjia	--	3,000	50
Fanana	--	1,500	50
Total	79,352	114,475	5,240

Source: Bouquet, *Isles et rives*, 132.

Table 12.14: Manda Production

Year	Tons	Number of cones
1903	1,130	250,000 (10 kg)
1905	2,700	540,000 (5 kg)
1906	2,000-3,000	
1906		2 million
1906	1,310	289,000 (10 kg)
1915	761 (partial)	
1915	1,056	

1936	935	
1937	1,265.2	
1942	4,000	
1959	2,000	
1963	1,000-2,000	6,613

Sources: For 1903: G.C.R. Mundy, Bornu Report No. 5 and No. 8, 1903, SNP 15/1 Acc 48A (Nigerian National Archives Kaduna); for 1905: Ronjat, "Etude faite sur les mares salines du Mounyo. Leur exploitation – leur rapport – les ressources qu'elles peuvent fournir au Cercle du Gouré, 1905," Archives nationales du Niger, Niamey; for 1906 (1): Chambert, Rapport sur une tournée pacifique dans l'est-sudest de Gouré, 23 sept. 1908, Archives Nationales du Niger; 1908; 1906 (2): Vischer 1906; 1906 (3): Browne, "Report of 19 May 1906," in "Salt from Bornu Province," Nigerian National Archives, Kaduna, SNP 7/8 2281/1907; J. Becklesfall, "Salt from Bornu Province," Report of 19 May 1906, in *ibid.*; Wyndham R. Dunstan, "Report of the Results of the Mineral Survey 1906-07," Colonial Reports, Miscellaneous, Northern Nigeria, No.59, 1909 (cd.4719); Public Record Office; for 1915 (1): Janouih, Rapport sur les salines, secteur de Mainé-Soroa, 24 fév. 1916 (ANN); (2): Rapport sur l'exploitation des salines et mares de patron, 1915, A.O.F. 11 G. 16; for 1936: L'administrateur adjoint commandant le cercle du Manga, 12-7-1936 (ANN); 1937: Chazelas to Gouverneur Général, 2 sept. 1938, in Les Salines, 1905, 1936, 1938 (ANN); for 1942: C.R. Niven to food controller, Lagos, 16 January 1942, in Local Salt Production, MaiProf 2/2 3664 (NNAK); 1959: Reignaut, as cited in H. Faure, "Inventaire des évaporites du Niger (mission 1963. Rapport du Bureau de Recherches Géologiques et Minières" (Niamey, unpublished, 1965), 40, 46.

Table 12.15: Salt Production at Some Benue Valley Locations 1920, 1941

	1920		1941	
Place	measures (15 lb.)	tons	measures (2.5 lb.)	tons
Awe	11,400	76	11,244	12(15)
Azara	3,500	37	7,680	9 (51)
Ribi, Kanje				
Abuni, Akiri	3,790	25	3,845	5 (26)
Total	20,690	138	22,769	25 (52)

Sources: Ward's Assessment Report, Awe, 1920 (Lafia Div 2/1 60); and Report on Salt Industry, Awe District, 1941 (Lafia Div 2/1 542). The measure for the 1941 assessment was probably 15 lb., not 2.5 lb. as reported. The preferred figures, in parentheses, are based on a 15 lb. measure.

Table 12.16: Salt Production at Some Benue Valley Locations, Selected Years

Year	Awe	Azara	Ribi, Kanje, Abuni, Akiri	Total
1920	76	37	25	138
1941	75	51	26	152
1967	310	250	211	771
1968	325	240	253	818
1969	380	230	290	900
1970	410	237	311	958
1971	430	240	313	983

Sources: Awe District office file, cited in A. Chukwudi Unomah, "The Lowlands Salt Industry," in Elizabeth Isichei, ed., *Studies in the History of Plateau State* (London, 1982), 173.

Table 12.17: Imports of European Salt into Northern Nigeria, 1903-1907 (tons)

Year	Niger River	Overland	Total
1903 (June-Dec.)	4,214		
1904	--	--	7,863
1905	--	--	7,769
1906	6,267	4,104	10,371
1907	4,350	5,586	9,936

Source: Estimates, Customs Department, 1903; SNP 18/1 G.61; Annual Report of the Customs Department for 1907; SNP 7/9 330/1908; Northern Nigerian Blue Book, 1906, 1907.

Notes

1. Stephen Baier and Paul E. Lovejoy, "The Desert-Side Economy of the Central Sudan," *International Journal of African Historical Studies*, VIII:4 (1975), 551-81; Lovejoy, "The Borno Salt Industry," *International Journal of African Historical Studies*, 10 (1978), 465-80; Stephen Baier, *An Economic History of Central Niger* (Oxford, 1980).
2. Stephen Baier, "Trans-Saharan Trade and the Sahel: Damergu, 1870-1930," *Journal of African History*, XVIII:1 (1977), 37-60; Baier, "A History of the Sahara in the Nineteenth Century," Working Paper No. 4, African Studies Center, Boston University, 1978; Baier, *Economic History of Central Niger*; Ralph Austen, "The Trans-Saharan Slave Trade: A Tentative Census," in H. Gemery and J. S. Hogendorn, eds., *The Uncommon Market: Essays in the Economic History of the Atlantic*

- Slave Trade* (New York, 1979), 23-76; Marion Johnson, "Calico Caravans: The Tripoli-Kano Trade after 1880," *Journal of African History*, XVII:1 (1976), 95-117; Johnson, "The Economic Foundations of an Islamic Theocracy: The Case of Masina," *Journal of African History*, 17 (1976); Colin Newbury, "North African and Western Sudan Trade in the Nineteenth Century: A Re-evaluation," *Journal of African History*, VII:2 (1966), 233-46.
3. A. Adu Boahen, "The Caravan Trade in the Nineteenth Century," *Journal of African History*, III:2 (1962), 349-59; Boahen, *Britain, the Sahara, and the Western Sudan, 1788-1861* (Oxford, 1964), 233-46; J.C. Anene, "Liaison and Competition between Sea and Land Routes in International Trade from the 15th Century: The Central Sudan and North Africa," *Les Grandes Voies Maritimes dans le Monde, XVe-XIXe Siècles* (Paris, 1965), 203.
 4. Johnson, "Masina," 96-97; and Baier, *Economic History of Central Niger*, 79.
 5. C.A. Birtwistle, Report by the Commercial Intelligence Officer for Southern Nigeria on a Tour made in Northern Nigeria, January to April 1907, SNP 7/8 1765/1907. p. 13.
 6. G. F. Lyon, *A Narrative of Travels in Northern Africa in the Years 1818-1819 and 1820* (London, 1821), 152-60, offers one such list for the trade in 1819; Jacopo Graberg di Hemsö, "Prospetto del Commercio di Tripoli d'Africa, e delle sue relazioni con quello dell'Italia," *Antologia*, XXVIII (1828), 23-8, has one for c. 1825; E. Daumas, and A. de Chancel, *Le grand désert. Itinéraire d'une caravane du Sahara au pays des nègres (Royaume de Hoaussa)* (Paris, 1856), 238-42 for c. 1835; Heinrich Barth, *Travels and Discoveries in North and Central Africa* (New York, 1857-59), I, 515-22; James Richardson, "Report on the Slave-Trade of the Great Desert," *Anti-Slavery and Aborigines' Friend*, series II, I (1846), 133-34, 154-55, 181-83; Richardson, *Travels in the Great Desert of Sahara in the Years of 1845 and 1846* (London, 1848), I, 9-11; Richardson, *Narrative of a Mission to Central Africa* (London, 1853), I, 144 for 1845-1850; and H. Mircher, *Mission au Ghadamas (septembre, octobre, novembre, et decembre, 1862). Rapports officiels et documents a l'appui* (Paris, 1863), 39-54, for 1861-62.
 7. Ehud R. Toledano, *The Ottoman Slave Trade and its Suppression* (Princeton: Princeton University Press, 1982).
 8. Dickson, C. H., "Account of Ghadames," *Journal of the Royal Geographical Society*, XXX (1860), 260.
 9. Boahen, *Britain, the Sahara, and the Western Sudan*, 151.
 10. Dennis Cordell, "Dar Al-Kuti: A History of the Slave Trade and State Formation on the Islamic Frontier in Northern Equatorial Africa (Central African Republic and Chad) in the Nineteenth and Twentieth Centuries" (Ph.D. thesis, unpublished, University of Wisconsin,

- 1977), 310-12; Cordell, "Eastern Libya, Wadai, and the Sanusiya: A Tariqa and a Trade Route," *Journal of African History*, XVIII:1 (1977), 34-35.
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12. Lyon, *Narrative of Travels*, 188-89, for the transit trade through Murzuk in 1819; Dumas, and de Chancel, *Le grand desert*, 261, 266) for the second estimate.
13. Dickson, "Account of Ghadames," 260.
14. Baier, "Trans-Saharan Trade and the Sahel," 43.
15. Toledano, *Ottoman Slave Trade*, 201-02, 212-13.
16. David Tambo, "The Sokoto Caliphate Slave Trade in the Nineteenth Century," *International Journal of African Historical Studies*, 9:2 (1976), 187-217.
17. Boahen, "Caravan Trade;" and Boahen, *Britain, the Sahara, and the Western Sudan*.
18. Newbury, "North African and Western Sudan Trade," 241.
19. Johnson, "Calico Caravans," 98-109.
20. (Baier 1978: 39-42)
21. Johnson, "Calico Caravans," 105.
22. Patrick Manning, "The Slave Trade of the Bight of Benin, 1640-1890," in H. Gemery and J. S. Hogendorn, eds., *The Uncommon Market: Essays in the Economic History of the Atlantic Slave Trade* (New York, 1979), 117.
23. Newbury, "North African and Western Sudan Trade," 233-46.
24. The danger of exaggeration is clear in two earlier studies of the Benue valley salts. Thus A. Chukwudi Unomah ("The Lowlands Salt Industry," in Elizabeth Isichei, ed., *Studies in the History of Plateau State* [London, 1982], 166) has claimed that 10,000 tons of salt were produced annually at Awe, 6,700 tons at Azara and 6,000 tons at neighboring sites in the nineteenth century, if not earlier, and Adefuye ("Keana: The Gift of Salt," Kano Seminar, Kano, 1976, unpublished) has estimated over 50,000 tons were produced yearly at Keana. As will be apparent below, it is clear that even 10,000 tons of salt for the whole of the Central Sudan was a lot of salt.
25. For an excellent discussion of this trade, see Baier, *Economic History of Central Niger*, 122-28.
26. Baier, *Economic History of Central Niger*, 125.
27. Rapport commercial, Cercle de Zinder, 2e trimestre 1904, as cited in Baier, *Economic History of Central Niger*, 125. Also see Henri Gadel, "Notes sur l'Air," *Bulletin de la Société de Géographie de l'A.O.F.* (1907), 52. Bilma exported 15,000 loads via Zinder, 800 via Tessaoua, and

- 15,000 by Guidamhado. M. de Jonquières claimed that Bilma exported 40,000 loads per year; loads of 150 kg suggest a volume of 6,000 tons, which seems exaggerated.
28. Prévot, Rapport, 1909; Archives de Bilma: The import of salt from French territory (28,510 cwt or 1,271 tons) in 1907 probably represented part of the Bilma trade (Blue Book, Protectorate of Northern Nigeria, 1907. Nigerian National Archives, Kaduna); also see Barth, *Travels and Discoveries in North and Central Africa*, III, 601.
 29. Gustav Nachtigal, *Sahara and Sudan. Ergebnisse sechsjähriger Reisen in Afrika* (Graz, Austria, 1967), I, 535.
 30. For Baier's criticism of Nachtigal, see Baier, *Economic History of Central Niger*, 125.
 31. Other figures are also too high. Maurice Abadie, *La colonie du Niger* (Paris, 1927), 272-75, estimated that 100,000 loads were produced in Kawar and another 10,000 loads at Fachi.
 32. H. Faure, "Inventaire des évaporites du Niger (mission 1963. Rapport du Bureau de Recherches Géologiques et Minières," Niamey (unpublished, 1965), 106.; also see Baier, *Economic History of Central Niger*, 237.
 33. Faure, "Inventaire des évaporites," 108.
 34. Faure, "Inventaire des évaporites," 107-08.
 35. Périé. "Monographie du Poste de Bilma, 1941," Archives de Bilma.
 36. Peter Fuchs, *Das Brot der Wüste, Sozio-Ökonomische der Sahara-Kanuri von Fachi* (Wiesbaden, 1983); and Faure, "Inventaire des évaporites," 143.
 37. Périé. "Monographie du Poste de Bilma, 1941."
 38. Barbaste. "Rapport: tournée de la Djado, 1938," Archives de Bilma.
 39. Faure, "Inventaire des évaporites," 64.
 40. Mosrin, cited in Christian Bouquet, *Isles et rives du Sud-kanem (Tchad)* (Talence, France, 1974), 132.
 41. Hewby, W.P. Bornu Annual Report, 12 March 1912, SNP 10/182p/1913; Nigerian National Archives, Kaduna.
 42. Henry Moll, "La mise en valeur du territoire du Tchad: le natron et le sel, le blé," *Bulletin du comité de l'Afrique française, Renseignements coloniaux*, 4 (1913), 125; also quoted in Georges Bruel, *La France Equatorial Africaine* (Paris, 1935), 243.
 43. Paul E. Lovejoy, *Caravans of Kola. Hausa Trade with Asante, 1700-1900* (Zaria, 1980), 123.
 44. Mosrin, cited in Bouquet, *Isles et rives*, 132.
 45. Bouquet, *Isles et rives*, 133.
 46. Bouquet, *Isles et rives*, 132.

47. Ronjat, "Etude faite sur les mares salines du Mounyo. Leur exploitation – leur rapport – les ressources qu'elles peuvent fournir au Cercle du Gouré, 1905," Archives nationales du Niger, Niamey.
48. Wyndham R. Dunstan, "Report of the Results of the Mineral Survey 1906-07," Colonial Reports, Miscellaneous, Northern Nigeria, No.59, 1909 (cd.4719); Public Record Office, London. Also see reports and references in SNP 7/8 2281/1907, "Salt from Bornu Province," Nigerian National Archives, Kaduna, especially those by J. Becklesfall, "Salt from Bornu Province," and Browne, "Report of 19 May 1906."
49. Battistini, "Rapport annuel sur les salines, Magaria," 1 mars 1916, Archives nationales du Niger, Niamey.
50. C.R. Niven, 16-1-1942; in Local Salt Production, MaiProf 2/2 3664, Nigerian National Archives, Kaduna.
51. Annual Report, Northern Nigeria, 1904, 297; F. Cargill, Annual Report on Kano Province for 1907, SNP 7/9/1538/1908; Nigerian National Archives, Kaduna.
52. Cargill, Annual Report, Kano, 1907.
53. Barth, *Travels and Discoveries*, III, 63.
54. Barth, *Travels and Discoveries*, I, 530-39; and Robert Flegel, "Der Handel im Nigergebiet and seine voraussichtliche Zukunft," *Mitteilungen der Afrikanischen Gesellschaft in Deutschland*, 4 (1883-85), 139; Paul E. Lovejoy, "Interregional Monetary Flows in the Precolonial Trade of Nigeria," *Journal of African History* 15,4 (1974), 569.
55. Summary of caravan statistics of Nassarawa Province for the Year Ending 32-12-1907; Cargill, Annual Report, Kano, 1907; and *Annual Report, Northern Nigeria, 1904*, 298; Nigerian National Archives, Kaduna.
56. *Northern Nigeria Blue Book*, 1912.
57. Rapport sur l'exploitation des salines et mares de natron au Territoire Militaire du Niger en 1915, # 36, Zinder, 7-4-1916; A.O.F. 11 G.16 (200 mi 862); Archives nationales - Section Outre-Mer, Paris.
58. Leon Soula, "La thénardite de Mainé-Soroa (Niger)" (Thèse de doctorat d'état en pharmacie, Université de Marseille, 1950), 3-4. I have been unable to locate Soula's report of 1946, on which his thèse de Doctorat d'Etat en Pharmacie was later based. Nor have I seen the earlier report of Lt. Aude, "Rapport de mission dans la subdivision de Maine-Soroa," 1942, Direction générale de santé publique, Dakar.
59. Soula, "Thénardite de Mainé-Soroa," 87.
60. Ravoux. "Rapport de Tournée effectuée du 10 au 30 août, 1932, Cercle de Nguigmi," Archives nationales du Niger, Niamey.
61. Assessment Report, Magumeri District, 1934; MaiProf 2/2 18A, Nigerian National Archives, Kaduna. There appears to be an error in this report, which estimates the weight of the cones at 260 lb. I have

assumed that the figure should be 26 lb., or approximately 12 kg. On the southeast of Lake Chad, however, the cones weighed only 5-6 kg; see Moll, "Mise en valeur du territoire du Tchad," 127.

62. See Boyle, "French Circle of N'guigmi, 1911," SNP 6/7/87/1911, Nigerian National Archives, Kaduna; "Monographic du cercle de N'Guigmi," Archives nationales du Niger, Niamey; Moll, "Mise en valeur du territoire du Tchad," 127; Boyd Alexander, *From Niger to the Nile* (London, 1908) I, 341; Fischer. "Rapport de la tournée administrative, cercle dans le Kadzell, 2-12 sept. 1934," Archives nationales du Niger, Niamey; Cagnier, "Rapport de tournée, canton de Komadougou," Riou. "Tournée effectuée du 17 nov. au 1 déc. 1940, dans le canton de la Komadougou," Riou. "Rapport de tournée, Canton de N'guigmi, 1826 jan. 1941," Riou. "Rapport de tournée, Rive ouest du Tchad, Kadzell, Komadougou, Cercle de N'guigmi, 14-18 mais 1941," Riou. "Rapport de tournée: Kadzell et secteur ouest de Komadougou, 2-16 juillet 1941," Riou Rapports, Archives nationales du Niger, Niamey; J.R. Patterson, "Mobber District Notebook, 1919," MaiProf 2/3 Acc 4, Nigerian National Archives, Kaduna.
63. L'administrateur adjoint commandant le Cercle du Manga au Gouverneur de Niger, Gouré, 12-7-1936; in "Les Salines" 1905, 1936, 1938; L'Adjoint des S.C. Chef de la Subdivision de Maine-Soroa au Monsieur l'administrateur Commandant le cercle du Manga, 29-5-1936; in "Les Salines;" Cuvettes de Baboul, Archives nationales du Niger, Niamey.
64. E.W. Bovill, "Jega Market," *Journal of the African Society*, 22, 85 (1922), 57; Tercel (Chef du Subdivision). "Esquisse sommaire sun le Fogha, Gaya, 10-9-1938," Archives nationales du Niger, Niamey. An earlier report gives a figure of 2,900 tons, which seems completely out of line. I assume there has been an error in copying; see "Rapport sur les salines, 20 mars 1916."
65. Faure, "Inventaire des évaporites," 32, 35.
66. Margin. "Rapport sun la production en sel et natron du canton de Birni, Subdivision de Niamey, 30 jan. 1936," Archives nationales du Niger, Niamey.
67. P. Urfer, "Rapport sun le recensement du canton du Tagazar, Cercle de Niamey, Subdivision de Filignue," 1951, Archives nationales du Niger, Niamey.
68. Therol, "Notice sun Teguidda n'Tessoum, 1907," Archives nationales du Niger, Niamey.
69. Raymond Mauny, *Tableau géographique de l'ouest africain au moyen âge* (Dakar, 1961), 333; Abadie, *La colonie du Niger* (Paris, 1927), 277; Robert Lambert, "Les Salines de Teguidda-n'Tessoum," *Bulletin du comité d'études historiques et scientifiques de l'Afrique occidentale française* (1927), 370.

70. M. Cortier, *Mission Cortier, 1908, 1909, 1910* (Paris, 1914), 151.
71. "Rapport sur l'exploitation des salines et mares de natron, 1915."
72. Faure, "Inventaire des évaporites," 55. A 1955 report from In Gall indicates a level of 3,600 tons; very likely this estimate contains a decimal error.
73. J. Clauzel, *Note sur l'exploitation des salines de Taoudenni* (Algiers, 1961), 80.
74. J. Régnier, "Les salines de l'Amador et le trafic caravanier," *Bulletin de la Liaison Saharienne*, 43 (1961), 234-61.
75. Michel Museur, "Un exemple spécifique d'économie caravanrière: l'échange sel-mil," *Journal des Africanistes*, 47 (1977), 259.
76. F. Lugard, *Annual Report, Northern Nigeria, 1904*.
77. Unomah, "Lowlands Salt Industry," 166.
78. Howard Wilkinson, "Salt Rights and Industry, Keana, Lafia Emirate," 26 Oct. 1939; Lafia Div 2/1 351. Nigerian National Archives, Kaduna.
79. Lafia Div 2/1 351 Ado Lafia, 5 Sept. 1951, Nigerian National Archives, Kaduna.
80. Based on the research of Hallad Maymako Keana and the analysis of M.B. Duffill.
81. Unomah, "Lowlands Salt Industry," 166; and Adefuye, "Keana: The Gift of Salt."
82. D.A. Phoenix and R.T. Kiser, "Salt Springs, Lafia Division, Benue Province, Northern Nigeria," Geological Survey of Nigeria, 1942, RPT No.778, Kaduna.
83. Browne, "Report of 19 May 1906," in "Salt from Bornu Province," Nigerian National Archives, Kaduna, SNP 7/8 2281/1907. Also see Abadie, *Colonie du Niger*, 279; and the account of Ba Kamhar in Michael Horowitz, ed., *The Manga of Niger* (New Haven, 1972), I, 162.
84. W.B. Baikie to Lord Russell, Bida, 22 March 1862; F.O. 97/434, PRO, London.
85. Estimates, Customs Department, 1903; SNP 18/1 G.61, Nigerian National Archives, Kaduna.
86. *Blue Book, Protectorate of Northern Nigeria, 1906*, Nigerian National Archives, Kaduna.
87. "Annual Report of the Customs Department," 1907; SNP 7/9/330/1908, Nigerian National Archives, Kaduna.
88. Lugard, *Annual Report, 1903*, 64.
89. Lugard, *Annual Report, 1904*, 297.
90. Hewby, Bornu Annual Report 1912.
91. Lovejoy, *Salt of the Desert Sun*.

92. Richardson reported 1,050 camels in 1845, accompanied by 500 merchants and 1,000 slaves; see James Richardson, *Travels in the Great Desert of Sahara in the Years of 1845 and 1846* (London, 1848) II, 115. Mircher reported 1,625 camels in the transSaharan trade in 1861-62 (Newbury, "North African and Western Sudan Trade," 237). In 1897, 2,827 camels left Tripoli, including 2,345 destined for the Sokoto Caliphate, 172 for Kanem and 310 for Wadai (anon., "Le Commerce des caravannes tripolitaines dans la région du lac Tchad et le Sokoto," *Bulletin du comité de l'Afrique Française, Renseignements Coloniaux*, 8 [1898], 208-11). 8,000 camels were reported in 1893 (G. Méry, "Renseignements commerciaux sur le mouvement des échanges entre la Tripolitanie et le Soudan central," *Bulletin du comité de l'Afrique française, renseignements coloniaux* (1893), 2). Figures for the transport of Kavar and Fachi salts include 40,000 (R. Chudeau, "Etudes sur le Sahara et le Soudan," *Annales de Géographie*, XVII (1908), 54), 70,000 (Gustav Nachtigal, *Sahara und Sudan, Ergebnisse Sechsjähriger Reisen in Afrika* (Graz, 1967), II, 535), and 80,000 (Mohammed El-Hachaichi, *Voyage au pays senoussiya* (Paris, 1912), 210). For a critique, see Lovejoy, *Salt of the Desert Sun*.
93. Barth, *Travels and Discoveries*, I, 515, 533.
94. Lugard, *Annual Report*, 1904, 297-99.
95. Baier, *Economic History of Central Niger*.

GLOSSARY

Agalawa – kola traders, of servile origin, associated with Tuareg

alhaji – a title, having performed the pilgrimage to Mecca, the *hajj*

alkali – a judge, derived from Arabic, '*qadi*

asali – origins, ethnic and geographic

bayi, pl. *bawa* – slave

birni – walls, hence walled town or city

Central Sudan – the region of the “Sudan,” e.g., “Land of the Blacks,” comprising the area astride the Niger below Timbuktu, astride the confluence with the Benue River, and including the basin of Lake Chad, and extending northward into the Sahara to include the Air Massif and Kavar, the major states being the Oyo, the Sokoto Caliphate and Borno

cowries – shells from the Maldiv Islands and the east African coast, used as money, 2,000 shells equivalent to a silver dollar until c. 1845, thereafter appreciating to 5,000 shells to the dollar, Hausa: *k'urdi*

fansa – ransom, emancipation of a slave

fansar kai – self ransom, purchase

fatoma – landlord and broker in the salt trade; wholesale merchant, *mai gida*

gandu – plantation, family lands, based on the concept of kin-based unit of land occupation, and by extension exploitation of a common field

gishiri – salt, predominately of sodium chloride content, but in fact greatly mixed

goro – kola nuts, *Cola nitida*

imam – leader in prayer, specifically the communal Friday prayer

jihad – Muslim holy war

Kambarin Beriberi – specialized group of Hausa kola traders, of Borno origin

kanwa – salts that are predominately sodium sulphates, but mixed with sodium chloride and other salts; used in cuisine and fed to livestock

kola nuts – Hausa: *goro*, *Cola nitida*

madugu – caravan leader

Mahdi – “Rightly Guided One,” a messianic figure in Islam, thought to herald the end of the world and the appearance of ‘Isa, e.g., Jesus

malam, pl. *malamai* – Muslim cleric, honorific title for any free man

murgu – payment of a slave to his/her master for right to work on his/her own account

rinji – large agricultural estate, using slave labor, i.e., plantation

sarki – emir, title associated with specific craft or position in the palace, e.g., *sarkin makera*, chief of the blacksmiths, *sarkin yaki*, chief of staff, but Sarkin Kano, Emir of Kano, and Sarkin Musulmi, Commander of the Faithful, e.g., Sultan.

Tokarawa – members of the specialized group of kola traders, apparently descended from *bugaje*, i.e., slaves of the Tuareg

ungurnu – trona, a type of carbonate of soda from the eastern shores of Lake Chad, used as a medicine and in cuisine, and taken with tobacco

Wangara, Wangarawa – an association of Hausa merchants claiming origins in the western Sudan, among Jahanke and Juula, of Mande and Soninke origin

Western Sudan – the region incorporating the inner delta of the Niger River and the basins of the Senegal and Gambia Rivers

zongo – caravan rest stop, and by extension, ward of a city or commercial center

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