The *Kel Azjer* Tuareg Culture: Public and Private Space in Ghat

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October 2008

A thesis submitted to McGill University in partial fulfillment of the requirements of the degree of Doctor of Philosophy in Architecture

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Your file Votre référence
ISBN: 978-0-494-66552-7
Our file Notre référence
ISBN: 978-0-494-66552-7

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To whom I wouldn't reach this level without

My mother Sultana
My husband Salhin
My children Anas and Mira

Résumé

Cette thèse présente une étude de la forme urbaine de la vieille ville de Ghat, le sultanat historique des Touaregs *Azjer*. Une analyse des espaces, public et privé, de cet artefact collectif y est présentée afin de comprendre et de documenter la relation entre l'architecture de cette ville saharienne et la société Ghatienne. Cette étude illustre comment l'architecture vernaculaire de Ghat représente un éventail de significations et de valeurs culturellement distinctes, et la manière dont cette architecture reflète la vie Ghatienne. Afin d'analyser l'environnement bâti de Ghat et le mode d'emploi des espaces public et privé, cette thèse étudie la culture des Touareg *Azjer* et en documente les différentes typologies de logements existants, nomades et semi-nomades, en Libye. Elle examine non seulement la contribution des pratiques socioculturelles de cette culture à la façon dont les espaces ont été, configurés, organisés et utilisés, mais aussi les routines de la vie quotidienne et saisonnière du peuple Ghatien, ainsi que leurs diverses activités sociales et économiques.

Cette thèse explore, à trois niveaux de l'environnement urbain, les espaces de Ghat: la maison (domestique), le voisinage (communal), et la ville (public). Elle met l'accent sur la relation entre les aspects sociaux de la culture Ghatienne et la formation et l'emploi des espaces de la ville. Elle s'interroge également sur l'effet du commerce transsaharien, de la colonisation et, de l'histoire des régnants du Vieux Ghat sur sa formation et / ou la croissance et la création des domaines spatiaux, public et privé, pour tenter de comprendre les significations imprégnées dans l'environnement bâti de Ghat. Cette étude examine également le rôle du climat dans la formation du Vieux Ghat, l'ingéniosité de l'architecture et la structure de ses logements. Enfin, cette architecture reflète les techniques locales de construction, la nature et les limites des ressources disponibles, qui donnent par conséquent un sens spécifique au type d'architecture de Ghat.

Abstract

This dissertation presents a study of the urban form of the Old Town of Ghat, the historical sultanate of the *Azjer* Tuareg. An analysis of the public and private spaces of this collective artifact is presented in order to comprehend and document the relationship between this Saharan town's architecture and Ghatian society. This study illustrates how Ghat's vernacular architecture represents a range of culturally distinct meanings and values and how this architecture reflects Ghatian life. In order to analyze the built environment of Ghat and the pattern of use of public and private spaces, this dissertation investigates *Azjer* Tuareg culture and documents the various existing nomadic and semi-nomadic *Azjer* Tuareg housing typologies in Libya. It investigates not only the contribution of the socio-cultural practices of this culture to the way spaces were configured, organized, and used, but also the Ghatian peoples' daily and seasonal life routines as well as their various social and economic activities.

This dissertation explores Ghat's spaces at three levels of its urban environment: the home (domestic), the neighbourhood (communal), and the town (public). It focuses on the relationship between the social aspects of Ghatian culture and the formation and use of the town's spaces. It also investigates the affect of trans-Saharan trade and the colonization and ruling history of Old Ghat on its formation and/or growth and the creation of public and private spatial domains in an attempt to understand the embedded meanings of Ghat's built environment. This study also investigates the role of climate in the formation of Old Ghat and the ingenious architecture and structure of its dwellings. This architecture reflects local construction techniques and limited local resources, consequently imparting distinct meaning to the built form of Ghat.

Acknowledgements

My gratitude and praise is first and always to Allah.

I would like to extend my deepest gratitude to my advisor, Professor Robert Mellin, for his guidance, continuous encouragement, constructive criticism, and sincere support throughout my work on this dissertation. I cannot thank him enough for his quick responses to my phone calls and e-mails, for being there whenever I needed help, and for lifting my spirits when the pressure seemed overwhelming. I learned much from him and I am honored to have had him as my advisor.

I would also like to thank my mentor Professor Jeanne Wolfe, who was not only my advisor but also my caring supportive friend throughout my masters and my PhD. Her comments and suggestions at various stages of this dissertation were most helpful.

I also extend my deep appreciation to Professor Ricardo Castro, whose interest in the topic of my study and intellectual curiosity about Ghat and Tuareg culture kept me motivated throughout my research.

I would like to thank Professor Annmarie Adams, who participated in the first stage of my research, for her invaluable comments regarding theories and literature related to my dissertation.

I am indebted to Professor Bernard Herman, chair and Edward and Elizabeth Rosenberg Professor of the Department of Art History at the University of Delaware for his valuable comments, and for taking the time and effort to spend over an hour and a half going over the first stage of my work, during a long-distance call at his own cost. He was a model of kindness in this regard.

I received great support and encouragement to pursue this study from Dr. Mohammed Said Al-Qashshāt, head of the Center of Studies and Research of Saharan Affairs in Libya. Besides the many phone calls that he made on my behalf in order to facilitate my travel and stay in Ghat, he also offered a private car with a driver for the entire period of my stay. I am also grateful for the support I received from Giuma M. Anag, Chairman of the Department of Archeology of Libya, who presented me with two publications on the archeology of the Libyan Sahara and assisted me by contacting the head of the Southern Cities Archeology Department on my behalf. Further support for my

study was offered by Dr. Ali Abdassalam, former head of the Archeology Department of the Southern Cities of Libya and former consultant for the Historical Cities Administration Board.

Words are not enough to thank Ghat officials for making my fieldwork not only possible but also extremely enjoyable. Their support for my study included providing transportation, daily escorts, and free accommodation, and covering all living expenses. My particular gratitude is extended to Haj Mahmoud Ali, coordinator of the Social Popular Leadership in Ghat, who was the first to introduce me to the people of Ghat and to my wonderful informants; to Housain Al-Koni, head of the Popular Congress of *Sha'biyet* Ghat; to Mohammed Al-Sheikh, assistant head of the Popular Congress of *Sha'biyet* Ghat, for facilitating my free accommodation in Ghat and providing letters supporting my topic of study to the ministry of education in Libya; to Ibrahim Bousha Al-Koni, head of the Basic Popular Congress of Tahala, for escorting me day and night on almost all of my field interviews in El-Barkat, Essaien, and Ten Kawya, as well as for introducing me to the *Azjer* Tuareg culture and people; to Al-Sanussi Goudya, head of the Basic Popular Congress of El-Feuat, who, besides escorting me on field visits to the Old Town and the town of El-Feuat and introducing me to the former residents of Ghat, assisted me in some of my interviews by interpreting the Hausa language; to Ahmed Moulay Ali Al-Shereef, founder and head of the Tunein Heritage Society, who helped me to recognize and differentiate between the synonymous Hausa and Tuareg terms in use in Ghat; to Milad Al-Hadiri from the Department of Tourism in Ghat for his valuable information about the yearly festival and the cultural activities in Ghat; to agriculture engineer Housain Hammadi, head of the Basic Popular Congress of the town of Ghat, for his illustrative sketches and clear explanation of the farming techniques and tools that were used in Ghat in the past; to Ramadan Ounallah, for escorting me to the farms surrounding Tunein and showing me, among other things, some of the irrigation techniques in these farms; to Abd Elqader Ibrahim Al-Mowafaq, who drove me up and down in Ghat, including in the most extreme weather conditions, without any reluctance; to Ramadan Azom Abdallah, who provided unlimited copying services free of charge, and to the administrative staff at Acacus Hotel. In particular, I would like to thank Hashim Ounallah, who made my accommodation and that of my family so comfortable.

I also extend my warmest thanks to engineer Mohammed Ali Mohammed, head of the Urban Planning Office in Ghat; to engineer Al-Arbi Mohammed Al-Arbi Al-Anssari, head of the Engineering Syndicate of *Sha'biyet* Ghat; and to Mohammed Wafa, from the National Surveying Department of Libya, for supplying me with the 1984 aerial maps of Ghat and its surrounding villages.

I could not have completed this work without the active co-operation, participation, kindness, and hospitality of the people of Ghat and El-Barkat, who worked as a hidden team in this research work. My great respect and gratitude is extended to my informants, in particular to those eyewitnesses who spent long hours narrating and explaining the story of Ghat, and whose testimonies helped me to understand the hidden meanings in Ghat's built environment. My special thanks are to Haj Ibrahim Abdarrahman Al-Anssari, sheikh of Tunein and the Al-Anssari families; Haj Mohammed-Al-Mahdi Basheer Abd Elhameed; Haj Mohammed Baba Abd Alkarim Engoni; Haj Mohammed Danda, chairman of the Ghat Archeology Department; Oukhannd Hassan Barkah; Ovanight Al-Koni; Rajab Othman Al-Masrī, chairman of Higher Education in *Sha'biyet* Ghat; Rahma Abd El-Maowloud Abderazeq; Al-Hassan Sakielell Dbamati; Zahra Al-Koni; Fayza Al-Faqee Ingadazen; Aisha Basheer Abd Elhameed; Fatma Basheer Abd Elhameed; Al-Sedik Abdarrahman El-Kenndy; Essa Al-Khamees Mousa; Istamasn Abou-Jepreel; Imgher Abou-Kaleyah; Ahmed Mohamed Aya; Mohammed Mohammed Al-Ghati; Mohammed Sidi Ali Mohammed; Nasser Ali, and Moukhtar Abdo Wad Yuosn.

I am indebted to Anna Ezekiel, my editor, without whose encouragement, assistance, insight, patience, and valuable comments, both critical and supportive, I could not have produced this work.

I am also grateful to Luciana Adoyo, Ph.D., History and Theory Program Administrator; Davied Krawitz , Administrative officer of School of Architecture, and Marcia King Post Professional Master's Program Administrator at School of Architecture for their help, friendly attitude, and unlimited kindness.

I wish to extend my great appreciation and deep thanks to my friends: to my long time friend Mohammed Abd Elqader Saeed, who accompanied me on my first visit to Ghat in 2005 and provided unlimited and unconditional support to my research, and to

Mehran Gharaati who, although busy himself with his PhD dissertation, offered me his computer expertise and insightful comments.

Words are not enough to express my gratitude to my mother Sultana and loving sister Hanan, whose pride in me gave me the fuel to finish this dissertation. I would not have reached this point without their constant encouragement, generous practical support, prayers, and love. I extend my gratitude also to my sister Ibtisam, my brothers Akram and Ashraf, my mother-in-law Hawa, and sisters-in-law Fatma, Anwar, and Um Al-Khair for their encouraging words through out my graduate studies

Finally, I am indebted to my beloved husband, Salhin, who was my partner during my research by providing a suitable atmosphere in which to accomplish this work. His belief in me and tremendous unlimited practical and moral support helped me through rough times and his sound advice and wisdom showed me the way to overcome all the obstacles I encountered during this dissertation and kept me motivated. I owe him my deepest gratitude. I also wish to convey my appreciation to my children Anas and Mira for their love and understanding, which was exceptionally strong for children at their young age, and for providing a relaxing work environment during stressful times. It would have been impossible to finish this work without my little family warm support. To God and them I owe my success and to them I dedicate this dissertation.

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Introduction

This research provides an in-depth analysis of public and private spaces in the Libyan Old Town of Ghat. I investigate the relationship between architecture and society through the study of Ghat's urban form as a collective artifact. My goal is to determine how Ghatian life is reflected in public and private spaces and to understand aspects of the indigenous and dominant urban Tuareg culture present in the town. My particular interest is in the urban form and architecture of the town and in how its spaces have been configured, organized, and used. My research investigates how the people of Ghat used space to signify social relationships and reflect Ghatian identity and values.

I chose to study Ghat because of its status as the capital of the former sultanate of the *Kel Azjer* Tuareg, which makes it a particularly valuable site for the documentation of this people's past way of life, and because of its architectural features, which have not yet been comprehensively documented. The fact that since the 1970s the people of Ghat have been displaced into modern settlements makes it important to document Ghat's architectural forms and the ways of life of its former inhabitants before they disappear forever.

Old Ghat is the historical capital of the *Kel Azjer* Tuareg sultanate (see Appendix I).[1] This oasis town, inhabited by a blend of Arabs, Africans, and a Tuareg majority, is situated at the very heart of an area that has been dominated and inhabited by the *Kel Azjer* Tuareg for hundreds of years.[2] Ghat is important from a geo-historical standpoint because of its location on a major trans-Saharan trade caravan route in the Fezzan region of southwest Libya, on the Libyan-Algerian border. Ancient cultures thrived there, and the city has experienced both foreign rule and non-demographic colonization over several

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[1] Johannes Nicolaisen indicates eight groups of Tuareg, dividing these into Northern and Southern Tuareg. The *Kel Azjer* (he refers to them as *Kel Ajjer*) is one of the Northern Tuareg groups. They live in the mountains of Tasilé-n-Ajjer (*Azjer*) in the north-east, towards Tripolitania and the great sandy desert known as Eastern Erg, around the Ghadames oasis. This tribe's name has been written various ways in the literature, but predominantly as *Ajjer*. In Arabic it is pronounced *Al-Azjer* and in the Tuareg language *Kel Azjer*. Johannes Nicolaisen, *Ecology and Culture of the Pastoral Tuareg, with particular reference to the Tuareg of Ahaggar and Ayr* (Copenhagen: National Museum, 1963), 7.

[2] Currently, Ghat represents one of the most important indigenous oasis towns in the Libyan Sahara. The Libyan census does not recognize the Tuareg as an ethnic group distinct from the rest of the population. For this reason, there is no local census for them and they are counted as Libyans.

periods in its history.[3] As a result, Ghat has been exposed to infusions of ancient Garamant, Arab Muslims, Othmanian (Turks), Italians, and French, as well as of people from neighbouring oases (Ghadames and Murzuk), and from nearby African countries (Algeria, Sudan and Niger). Currently, this historic town is deserted except for five or six Tuareg families from neighboring Niger. The town is presently a tourist attraction associated with New Ghat.[4]

The history and geography of the Tuareg and of Ghat have been the focus of several studies over the years,[5] but the town's architecture and its relationship to the dominant culture of the inhabitants has so far been neglected. The urban form and

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[3] By 'non-demographic colonization' I mean that no settlers from colonizing countries established themselves in Ghat, as was the case in Tripoli and Benghazi and other coastal towns of Libya. According to the Britannica Online Encyclopedia, "In the 1920s and 30s the Italian government expended large sums on developing towns, roads, and agricultural colonies for Italian settlers. The most ambitious effort was the program of Italian immigration called 'demographic colonization,' launched by the Fascist leader Benito Mussolini in 1935. As a result of these efforts, some 150,000 Italian settlers were established in Libya (about 18 percent of that country's total population) by the outbreak of World War II (1939-45)." Britannica Online Encyclopedia, "Libya: Italian Colonization," http://www.britannica.com/eb/article-46562/Libya (accessed March 27, 2008).

[4] Most of the Tuareg population in Ghat now live in a sedentary life in a new modern publicly built settlement and no longer pursue the nomadic and semi-nomadic life of the desert. This is because their habitat has changed and circumstances have obliged them more than before to settle in villages and towns. They are actively engaged in the regional and national changes taking place in contemporary Libya.

[5] Including: Henri Duveyrier, *Les Touâreg du Nord* (Paris: Challamel aîné, 1864); Gottlob Adolf Krause, *Proben der Sprache von Ghat in der Sahara* (Leipzig: F. A. Brockhaus, 1884); G. Bourbon del Monte Santa Maria, *L'Oasi di Ghat e sue Adiacenze* (Città di Castello: Tipografia dell'Unione Arti Grafiche, 1912); Dugald Campbell, *On the Trail of the Veiled Tuareg* (London: Seeley Service & Co. Ltd, 1928); Reale Società Geografica Italiana, *Il Sahara Italiano: Fezzan e Oasi di Gat*, vols. 1 and 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937); Emilio Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat," *Rivista Geografica Italiana* 44 (1937) and "Descrizione delle Oasi e Gruppi di Oasi," in *Il Sahara Italiano: Fezzan e Oasi di Gat*, vol. 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937); Gabriel Gardel, *Les Touareg Ajjer (1912-1914)* (Alger : Institute de Recherches Sahariennes, L'Université d'Alger, 1961); Agnes Newton Keith, "The Tuareg," in *Children of Allah* (Toronto: Little, Brown and Company, 1965); Heinrich Barth, *Travels and Discoveries in North and Central Africa in the Years, 1849-1855*, 3 vols. (London: Frank Cass & Co. LTD., 1965), originally published as *Reisen und Entdeckungen in Nord und Central Afrika in den Jahren 1849 bis 1855*, 5 vols. (Gotha: Justus Perthes, 1857); Francis Rennell Rodd, *People of the Veil* (Oosterhout N. B.; the Netherlands: Anthropological Publications, 1966); James Richardson, *Travels in the Great Desert of Sahara: In the Years 1845 & 1846*, vol. 2 (London: Frank Cass & Co. Ltd, 1970); Abd-Elkader Jami, *Men Trabls Al-Gharb ela Al-Sahra Al-Kubra*, trans. Mohammed Al-Ousta (Tripoli: Matbaat Al-Mesrati, 1974); Paolo Cuneo, "The Ghat Oasis in Libyan Fezzan," *Art, Archaeology Research Papers* 14-17 (December 1978); Imad Al-Deen Ghanem, *Al-Tabeeb Al-Almani Erwin von Barry 1877-1846 wa Rehlatouh ela Ghat wa Belad Al-Ayer.* (Tripoli: Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhya, 1995) and *Al-Dawkhel Al-Leebeya fi Majmouat Dirasat Lell Rahala Al-Almani Gottlob Adolf Krause* (Tripoli: Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhya, 1998); Johannes Nicolaisen and Ida Nicolaisen, *The Pastoral Tuareg: Ecology, Culture and Society*, ed. Ida Nicolaisen, vol. 1 (New York: Thames and Hudson Inc., 1997); Najmi Rajab Deyaf, *Madenat Ghat wa Tejart Al-Qawafel Al-Sahrawya Khelal Al-Qarn Al- Taseasher Al-Miladi* (Benghazi: Dar Al-Kotob Al-Wataniyah, 1999); Jamie Bruce-Lockhart and John Wright, eds., *Difficult and Dangerous Roads: Hugh Clapperton's Travels in Sahara and Fezzan 1822-1825* (London: Sickle Moon Books, 2004).

development of Old Ghat has also never been comprehensively studied or documented. A thorough investigation of the Ghatian *Kel Azjer* Tuareg culture calls for an analysis of the existing *Kel Azjer* Tuareg nomadic, semi-nomadic, and rural sedentary dwelling typology in Ghat. This analysis is especially pertinent given that comprehensive architectural documentation of these dwellings has never been performed. Works that briefly cite the dwellings of the Tuareg of Libya include Emilio Scarin's *Les Oasi del Fezzan: Ricerche ed Osservazioni di Geografia Umana*; "Insediamenti e Tipi di Dimore"; "L'Insediamento Umano della Zona Fezzanese di Gat"; *L'Insediamento Umano nella Libia Occidentale*; and Jean Despois' *Géographie Humaine*.[6] These records are mainly human geography studies in which the *Kel Azjer* Tuareg and their dwelling typologies and architecture are not the focus.[7] Generally, these brief texts focus on the construction and building materials of the dwellings, rather than on the dwelling as material culture, or on its organization and use of space. They also do not address the significance of naming conventions within the Tuareg culture.[8]

Unfortunately, because progress on restoration work has been erratic, buildings in Ghat are in an alarming state of deterioration and are gradually falling into ruins. On my field visits during the summers of 2005 and 2006, my research revealed that this town's vernacular architecture has been deteriorating steadily since the early 1980s, when its inhabitants moved to newly built public housing nearby. Moreover, a lack of understanding of this town's importance in terms of cultural heritage has led to hasty and thoughtless decisions about the use of the site, which have resulted in the elimination of considerable parts of the urban form, such as the latest sections that were built in *Kalala* neighbourhood (see Appendix II). This took place before it was possible to fully document the magnificent wall decorations of some of the partially collapsed dwellings in this neighbourhood. During my summer visit in 2006, I photographed some of the last remaining wall decorations in the ruins of *Kalala* neighbourhood. Since then, the

[6] Emilio Scarin, *Les Oasi del Fezzan: Ricerche ed Osservazioni di Geografia Umana*, vol. 1 (Bologna: Nicola Zanichelli Editore, 1934); "Insediamenti e Tipi di Dimore," in *Il Sahara Italiano: Fezzan e Oasi di Gat*, vol. 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937); "L'Insediamento Umano della Zona Fezzanese di Gat"; and *L'Insediamento Umano nella Libia Occidentale* (Verona: Ufficio Studi del Ministero dell'A.I, Off. Grafiche A. Mondadori, 1940); Jean Despois, *Géographie Humaine* (Paris: La Librairie P. Lechevalier, 1946).

[7] They include mainly a few descriptive texts and observations about some of the Tuareg dwellings' main characteristics, sketches, and a few photos.

[8] Tuareg terminology and linguistics metaphors, especially in relation to architecture.

demolished quarters of the Old Town have been invaded by new modern structures which threaten the overall look and historical value of the old site. It is clear that unless comprehensive documentation of this town's unique vernacular architecture and traditional urban form is undertaken, the outstanding cultural heritage enshrined in its streets and walls will be lost forever and the town will become an archeological site. In the worst-case scenario, the town may be completely demolished. I hope that this research will form a first step in providing that essential documentation.

This dissertation is organized into eight chapters, as outlined below.

In the first chapter, I introduce the objectives (including research questions), scope, and scholarly significance of this study, and provide some background on the literature surrounding the Tuareg in general and Ghat in particular. I also provide an account of the theoretical background for this research, as well as describing my conceptual framework and methodology. My description of the theoretical background for this study presents the main theoretical approaches that helped me to interpret Ghat's vernacular architecture as an artifact system, drawn from architectural history, social studies, and recent material culture studies.

In the second chapter, I review the concepts that are most important to this research, in three parts. In the first part, I review concepts of culture and cultural transformation,[9] and provide an account of how symbolic meanings relate to the built environment and to people's identity, with particular reference to Ghat and Tuareg culture. In the second part, I review definitions of private and public spaces and their extensions and limits, and briefly outline the concept of public and private spaces according to which Ghat was first built and developed. This information is elaborated upon in Chapter 7 in relation to the Ghatian concept of public and private spaces. In the third part, I investigate privacy, which is one of the most important aspects for the interpretation of social meaning in Ghat's public and private spaces. I examine the way that privacy is conceptualized, its use as a regulatory mechanism of social interaction in various spaces of human activity, and its culturally specificity in both its manifestations

[9] The latter is important for understanding the extent of the influence of the various periods of colonization on the built structure of Old Ghat.

and its demands. I argue that the role of privacy in regulating social boundaries between people and in creating a sense of belonging is crucial for the sense of identity and well-being fostered in a given community. The consideration of privacy supports and frames the importance of the relationship between the need for human interaction and the way in which a given space is actually structured and used, and how spaces may signify social meanings.

In the third chapter, I review and evaluate the geographical and socio-historical literature, documents, maps, plans, and travelers' accounts that I use to provide a general analytical description of Ghat and of Tuareg culture.[10] This chapter will equip the reader with an appropriate framework for understanding the broader context of Tuareg culture which, since Tuareg culture is dominant in Fezzan in general and in Ghat in particular, will facilitate comprehension of the meanings enshrined in the spaces of Ghat. I review the historical and anthropological literature on the history and culture of the Tuareg in general[11] and the *Azjer* Tuareg (Sunni Muslim) in particular, focusing on the literature that deals with the social and architectural aspects of their culture.[12] I also describe the geo-historical setting of the Fezzan region in which Ghat is located, in order to understand Ghat's history and its geographical classification within the Saharan oases.

In the fourth chapter, I present the first documentation and detailed architectural study, classification, and analysis of the various nomadic and semi-nomadic *Azjer* Tuareg rural housing typologies in Libya, accomplished through my 2006 survey. This study is important for the investigation of the influence of nomadic and semi-nomadic traditions on the urban dwellings of Old Ghat.

In the fifth chapter, I provide an account of Ghat's geographical, architectural, and historical background. I describe Ghat's geo-historical location,[13] origin and evolution,

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[10] This review also assisted me in cross-referencing the material I collected. For example, my historical literature review helped in my assessment of Ghat's built environment for traces of the influence of ancient Garamant (the ancient inhabitants of Fezzan region in which Ghat is located) or other foreign colonizing cultures and whether there were any traces or adaptation of non-indigenous building designs or techniques, particularly in domestic architecture.

[11] It should be noted that although the geographically dispersed Tuareg have a common culture, local differences exist as a result of, among other things, varying local geographical and ecological factors. For this reason, publications and information about non-Libyan Tuareg will be used judiciously.

[12] The available literature that discusses the architectural aspects focuses on existing nomadic Tuareg housing typology in neighbouring countries.

[13] For example, the location of Ghat in the Fezzan region and its proximity to the ruins of ancient Garamant cities.

urban morphology,[14] and provide information on nearby villages and suburbs. I also outline the role played by trans-Saharan trade caravans in Ghat's survival over the years.[15] The analytical description presented here goes beyond architecture and examines the entire built landscape of Ghat and the integral logic of its urban form, as well as the relationship between the various components of the town. I show how the physical form of Ghat corresponds with social forms, documenting not only architectural elements and building construction, but also Ghat's urban aspect – i.e., how people historically thought of the town. In particular, I present various narratives related to the origin of the town, as told by the inhabitants and passed down through generations.

In the sixth chapter, I review the development of Ghat's urban form in the period from 1875 to 2006, and the influence of the various ruling periods of military non-demographic colonization. This takes place in two steps. First, I provide a brief account of Ghat's colonization history in relation to the colonization history of the whole nation, illustrating the extent of colonial influence on Ghat's formation and growth, and consequently on the meanings of Ghat's built environment. Second, I map and analyze the changes in Ghat's urban form over the various ruling and colonial periods. This section is divided according to the three clear historical phases since Ghat's colonization by the Othmanians (Turks) in 1875,[16] each of which has left its mark on Ghat's built environment. The first phase, before independence, extends from 1875 to 1951, and can be broken down into three colonization periods: the Othmanian,[17] Italian, and French. The

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[14] This includes the urban form of the town, the patterns and hierarchies of its streets' and open spaces, building sizes and shapes, visual and non-visual aesthetics, and spatial qualities of the town, as well as the town's population and its housing density. With regard to censuses, the available information on Ghat is very limited. Some demographic information is roughly indicated or estimated by travelers in their publications. However, the main available official censuses collected so far were found in some limited historical Italian publications on the Fezzan region and Ghat. These are found in: Corrado Gini, "Condizioni Demografiche," in *Il Sahara Italiano: Fezzan e Oasi di Gat*, vol. 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937); Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat."

[15] In particular, the African slave trade and its later abolition.

[16] In 1551, the Othmanian Government invaded Libya. In 1711, Ahmed Karamanly, an Othmanian cavalry officer, seized power and founded the Karamanly dynasty. In 1835, the Othmanian government declared for the second time their direct authority over Libya. Not until 1875 did Ghat fall under Othmanian control.

[17] The Othmanians (spelled in some publications as 'Ottoman') are Turks. Following the defeat of the Othmanian Empire by the Allies in World War I and the subsequent ocupation of the country, Mustafa Kemal Atatürk, a military commander who later became the first President of Turkey, led the Turkish war of independence and defeated the Allied forces, liberated the country, and established the Republic of Turkey on October 29, 1923. Embassy of the Republic of Turkey, "Mustafa Kemal Atatürk ,"

second phase (after independence and before the revolution), known as the Kingdom Period, runs from 1951 to 1969. The third phase begins with the revolution in 1969 and extends to the time of my research in 2006, comprising the governing system of the Republic and the subsequent, current Jamahiriya governing system.

The seventh chapter provides an account of the overall architectural landscape of Ghat and the concepts and lifestyles that wove together its public and private spaces. I discuss Ghat's public and private spaces, based on an analysis of spaces at three hierarchal levels: home, neighbourhood, and town. I seek answers to particular object-centered and object-driven questions that address, among other things, the symbolic content of Ghat's spaces and how Ghatians projected the relationship between private and public life onto private and public spaces in a sustainable, integrated town fabric. I demonstrate how Ghatians divided their built environment into two realms (public and private), and inquire into the cultural significance of selected public and private spaces. This chapter provides definitive answers to most of the questions raised by my specific objectives (see section 1.1), including those questions relating to Ghatians' everyday routines of living and experiencing, and the aspects of these routines that informed the built form of the town. I also address the role of Tuareg culture, trans-Saharan trade, and the various ruling periods in the construction of Ghat's built landscape.

This chapter also briefly compares the town of Ghat with Ghadames, another Saharan oasis town. I chose Ghadames because, although its history, geographical location, climatic conditions, and culture are similar to those of Ghat, its built environment has developed differently.

The eighth chapter contains my conclusion and an assessment of my findings. I provide here a detailed account of the attributes of the dominant Tuareg culture and its contribution to the architecture of the town of Ghat, as well as to the meanings of Ghat's various social spaces. Following this account, I analyze various other influences on Ghat's formation and growth, investigating the extent and nature of colonial influences,

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http://www.turkishembassy.org/index.php?option=com_content&task=view&id=300&Itemid=317 (accessed on September 13, 2008). Some western publications such as those written by Italians and French use the terms 'Turks' or 'Turkish' instead of 'Othmanian' or 'Othmani.' In my dissertation, I use mainly the latter terms, because these were the terms used during the period of Ghat's colonization. However, where necessary and for purposes of clarification and comparison in the legends of the maps illustrating the town of Ghat, I use the term 'Turkish,' as written in the Italian and French sources.

the influence of trans-Saharan trade, and the role of climate, building materials, and construction methods. This chapter also provides an analysis of the nature and importance of public and private spaces in Ghat and the influence of socio-cultural forces on Ghat's built landscape. Finally, I suggest opportunities for further research.

Chapter 1
Background and Framework

1.1 Dissertation Objectives

This dissertation investigates selected public and private spatial domains, urban and architectural forms, and the material culture of Old Ghat. In this research, I document and interpret how spaces are configured, organized, regulated, used, and related to one another or to the town's spatial organization. I also document and interpret the visual, aesthetic, and spatial qualities of selected spaces as well as how these spaces are used to signify cultural meanings and reflect Ghatian social life. This requires an exploration of various socio-cultural aspects of life in Ghat (these social aspects will be elaborated on in section 1.6). This examination addresses, among other things, Ghatians' everyday routines of living and experiencing, and aspects of these routines that informed the built form of the town. I ask: How did people live in Old Ghat? What was the nature of their social life, relationships, classes, customs, and traditions? What kinds of work did Ghatians do in the town? What were the main occupations and where were they practiced? Were some occupations seasonal? What was the significance of socio-economic and cultural factors in the architecture and development of Ghat? What did Ghatians consider sacred or taboo, and how were the values of the permissible and the prohibited manifested in public and private spaces? How did Ghatian religious and social ceremonies and events promote social interaction? What forms of social interaction existed and where were they practiced?[18] What were the control mechanisms underlying these interactions, and how were they performed?

In order to help place Ghat's built environment in context, and to more fully understand the meanings embodied in its material culture, I investigate the Libyan *Azjer* Tuareg rural dwelling typology and assess what aspects of Tuareg culture (its representative customs, way of life, social relationships, meanings and shared values) have informed the urban form and architecture of public and private spaces in Ghat and invested them with social and cultural meaning. I also examine the influence of both

[18] In private domestic courtyards, or in communal or public domains.

trans-Saharan trade and the various ruling periods, which may have affected the physical and spatial organization of Ghat, and the consequent formation of public and private spatial domains.

1.2 Scope of the Dissertation

My research concentrates on an exploration of the town of Ghat at three levels of its urban environment: home (domestic), neighbourhood (communal), and town (public). The scope of my research is therefore limited to selected examples of dwellings that are architecturally and historically representative of Ghat and Ghatians (mainly well preserved ones with the owners still living), major squares and communal seating areas (*Aishelly*[19] Square and its *majales* and *Tafouk Nabaraj* Square), and the public markets of Ghat, which are the women's market (*kaswa*) and *Tafghaghat* gate market (*al-souq*). I use these examples to focus on the relationship between the social aspects of Ghatian culture and the formation and use of the town's spaces.

1.3 Scholarly Significance and Contribution

This dissertation contributes to the research on vernacular architecture by presenting a thorough study of Ghat that aims to highlight the richness of its built heritage. My hope is that this will encourage Libyan officials to initiate steps to save one of the country's most important historic sites. My research provides material that may enable Ghat to obtain protection by UNESCO through designation as a World Heritage Site;[20] a move that would safeguard it from the ravages of the rapid modernization of Libya. Preserving Ghat would allow continued access to the social meanings of its indigenous built heritage as manifested in Ghat's unique and outstanding urban form and architecture. My wish to preserve Ghat's unique architectural heritage is shared by the

[19] Pronounced 'Aish-shell-lly,' with the 'Ai' like 'ay' in 'hay.'

[20] Five archeological historical sites in Libya have already been added to the UNESCO World Heritage List between 1982 and 1986. These are Cyrene, Sabratha, Leptis Magna, Ghadames, and the Rock Art sites of Tadrart Acacus (Acacus Mountain). World Heritage Center, "Cultural Sites in the Libyan Arab Jamahiriya," *The World Heritage Newsletter* 9 (1995), http://www.geocities.com/Athens/8744/unesco.htm. On February 1st, 2005, the Libyan Authorities signed an agreement with UNESCO through which the UNESCO Development Program will supply the Libyan government with experts to rehabilitate the Old Town of Ghat; however, this does not yet entitle Ghat to UNESCO protection. Unfortunately, until now and for unknown reasons, this agreement has not been activated.

local people, including many Ghatian officials, and various people showed support for my attempt to document the material culture of Ghat and to make better known its role in the history of the Tuareg people.

Little is known about the origin and evolution of Ghat,[21] and its built environment seems at first sight to be like that of any other old Saharan town. However, a closer look reveals that it in fact contains a unique indigenous architecture that was informed by particular cultural aspects and principles. The distinctiveness of Ghat's architecture is evident when compared to the physical structure and form of Ghadames, a nearby Libyan Saharan oasis town. Like Ghat, Ghadames has been privileged to be located on a major trans-Saharan caravan route in the Fezzan region, which was dominated by the *Azjer* Tuareg. Nevertheless, although Ghadames is exposed to almost the same climatic, historical, and cultural conditions, it differs architecturally from the town of Ghat. Based on my library research work[22] and my exploratory visit to Ghadames in the summer of 2005, the architectural difference between these two Saharan towns is most evident in the enclosed, multi-storey town structure of Ghadames, its gendered and vertically separated pedestrian movement, and the configuration of its residential quarters. The difference is also evident in the concept of domestic space, specifically in the gendered public and private spaces of Ghadames and in its dwellings' intensive interior decorations. In Ghat, by contrast, the common practice was to construct one- to two-storey houses with only ground level pedestrian movement, and less intense wall decoration. These differences suggest underlying cultural differences that may be articulated through an examination of the way traditional practices and architecture interact.

My understanding of Tuareg culture is based on, among other things, decoding the metaphors inherent in the intangible spaces of Ghat. Considering Tuareg linguistic metaphors that relate to the built environment may lead to future comparative, cross-cultural studies not only with the town of Ghadames, but also with other Saharan towns and Tuareg settlements in neighbouring African countries. The knowledge extracted from the remarkable collective artifact of Ghat could also be used to examine the utility of cultural studies in preparing, evaluating, and improving future planning and design

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[21] Mohammed Nahleel, *Dirasat fi Lahjat Ghat* (Rabat, Morocco: Safaprint, 2005), 6.

[22] Amal M. Hassan Jamal, "Ghadames the Pearl of the Libyan Desert" (Unpublished paper, McGill University, 2005). This paper was presented as part of a PhD seminar on housing.

policies of Libyan Saharan villages and towns, or of other similar towns around the world. My research also lays a foundation for future investigation, helping prospective researchers to negotiate the key problems of cultural and architectural interpretation that lie ahead.[23]

1.4 Dissertation Background

1.4.1 Literature on the *Azjer* Tuareg

Arab historians and geographers of the Middle Ages were the first to study the Tuareg,[24] referring to them in their texts as the *Mulathameen,* which is the Arabic word for 'veiled.' During the 14th century, the Arab historian Ibn Khaldun was the only writer to provide a precise description of this people, through his attempt to narrate the ancient history of the North African Berbers.[25] During the 16th century, Leo Africanus published a study of the African Sahara,[26] while in the 17th century Es-Sa'di contributed additional information on the Saharan Tuareg.[27] In 1803, F. Hornemann provided a more systematic description of the Tuareg in his book *Voyage de F. Hornemann dans l'Afrique Septentrionale,*[28] in which he narrated his travels from Cairo to Murzuk in 1798. Since then, and throughout the 20th century, many disciplines have contributed to our knowledge of the Tuareg in a number of different languages.[29]

However, while the published literature on the Tuareg is voluminous, some critics argue that many of these works do not make a substantive contribution to the field.[30]

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[23] Although Tuareg culture seems to present an integrated complex of information for the purposes of research, various political, economic, and environmental forces have created substantial local differences in the expression of that culture, which are ultimately reflected in the distinctive settlement patterns and dwelling types they have produced. This is especially evident in the differences in urban form and architecture that mark Ghadames and Ghat, which are the most important oasis towns in the Saharan territory dominated and inhabited by the Libyan Tuareg.

[24] Ibn Hawkal reported on the Tuareg in the 10th century; the Arabic traveler, El-Bekri, in the 11th century; Edrisi, in the 12th century; and finally, the Arab geographer, Ibn Batutah, in the 14th.

[25] Ibn Khaldun, *Histoire de Berbères*, 4 vols., trans. M. de Slane (Alger, 1852-56).

[26] Leo Africanus, *The History and Description of Africa*, 3 vols., trans. John Pory. (New York: B. Franklin, 1963).

[27] Abderrahman ben Abdallah ben Imran Es-Sa'di, *Tarikh es Soudan*, ed. and trans. John O. Hunwick (Leiden; Boston: Brill, 1999).

[28] Friedrich Labaume A. G. Hornemann, L. Langlès, and James Rennell, *Voyage de F. Hornemann, dans L'Afrique Septentrionale: Depuis le Caire Jusqu'à Mourzouk, Capitale du Royaume de Fezzan*, 2 vols. (Paris: Dentu, 1803).

[29] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 31.

[30] Ida Nicolaisen argues that "a number of these publications are of limited value." Ibid.

Starting in the 20th century, most of the literature concentrated on the southern Tuareg such as Ayr,[31] and some northern Tuareg groups such as the Ahaggar of Tasilé-n-Ajjer (*Azjer*) in Algeria. As Nicolaisen and Nicolaisen point out, however, studies made during the first half of the 20th century on the southwestern Tuareg located along the Niger River and around Timbuktu are sparse. Although our knowledge of the Tuareg increased during the first half of the 20th century, many authors dealt with this people in a cursory or overly general manner. As Nicolaisen and Nicolaisen state, "none of these many authors had offered in-depth descriptions of Tuareg social organization by the early 1960s."[32] They claim that Horace Miner was the only writer to describe the culture and social life of the Tuareg of Timbuktu and to examine the complex matrix of family relationships informing the kinship system.[33] Nicolaisen and Nicolaisen point out, however, that because Miner carried out his examination by studying the Bella, the former slaves of the Tuareg of Niger, he was not able to employ the correct classificatory terms in his pioneering work.[34] Studies on the Tuareg, and particularly those devoted to their social organization, were largely quite superficial until the mid 1960s, when one of the most interesting of all the studies conducted so far was published: *Ecology and Culture of the Pastoral Tuareg*, by Johannes Nicolaisen himself.[35] From the 1970s onward, the literature on the Tuareg grew steadily in bulk, and the foundations of a deeper enquiry into Tuareg society were laid. Ines Kohl's 2007 book *Tuareg in Libyen: Identitäten zwischen Grenzen* provides a socio-anthropological study of the Libyan Tuareg in Ghat Oasis (which includes several towns and villages). This study focuses on one aspect of Tuareg culture: Tuareg identity and strategies of belonging in contemporary Libya. Kohl does not here discuss the architecture and built environment of the Libyan Tuareg, nor the urban forms of Old Ghat. Instead, she examines how the Tuareg engage with broader influences, primarily globalization. She also discusses the use of state power in Libya and describes the impact of territorial and socio-cultural boundaries.[36]

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[31] Also written in some sources as *Aïr* or *Air*.
[32] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 32.
[33] Horace Miner, *The Primitive City of Timbuctoo* (New York: Anchor Books, Doubleday, 1965).
[34] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 32.
[35] Johannes Nicolaisen, *Ecology and Culture*.
[36] Ines Kohl, *Tuareg in Libyen: Identitäten zwischen Grenzen* (Berlin: Reimer, 2007).

It is significant that the literature, such as it is, comprises publications written from the Western traveler's point of view. Many of these analyses are inaccurate, due to the lack of a detailed understanding of Tuareg culture, and because of misinterpretations of the inhabitants' language. As Jeremy Keenan reports in his book on the Tuareg, "the large corpus of literature compiled during the colonial periods poses more questions than it answers, and has been the main reason for the perpetuation of so many misconceptions about Tuareg societies."[37]

Although there is a substantial body of literature on the Tuareg people as a whole, there exist no studies dealing in detail with all aspects of the Libyan *Kel Azjer* Tuareg culture. Nor have there been any attempts to research or provide concrete and comprehensive documentation on the evolution, development, or architecture of Libyan *Kel Azjer* Tuareg nomadic and semi-nomadic housing typology and towns, which is the concern of this dissertation. The sparse amount of published information on the Libyan Tuareg and their culture is general in nature, forming parts of studies on the Fezzan region or historical studies of the town of Ghat (cited in section 1.6.2). This information is primarily concerned with specific, specialized aspects of the culture, such as their economic, social, and political systems, and is in most cases overridingly descriptive rather than interpretive or analytical. None of these studies deals with the extraordinary built environment of the Libyan Tuareg. Most significantly, these studies do not address the Libyan *Azjer* Tuareg specifically, nor the question of whether the settlement plan and architecture of the Old Town of Ghat mirrors meanings and values stemming from the dominant culture of the Libyan Tuareg. Finally, these studies do not tell us whether and to what extent the Tuareg adopted to the influences of other cultures in relation to their built environment. This dissertation aims to redress these lacunae.

1.4.2 Literature on the Old Town of Ghat

Scholars have cited Old Ghat in a number of publications over the years, and research into the Saharan Tuareg has proceeded at a steady pace. Old Ghat and the Libyan *Azjer* Tuareg are, however, only cursorily described or cited in scattered textual

[37] Jeremy Keenan, *The Tuareg* (New York: St. Martins Press, 1977), 10.

references,[38] as is the case in Dugald Campbell's *On the Trail of the Veiled Tuareg*, Francis Rennell Rodd's *People of the Veil*, and Nicolaisen and Nicolaisen's *The Pastoral Tuareg*.[39] Among the rare publications containing one or more chapters dedicated to information about the Old Ghat community are Walter Oudney's "Excursion to Westward of Mourzuk"; Henri Duveyrier's *Les Touâreg du Nord*; Gottlob Krause's "Aufzeichnungen über die Stadt Chāt in der Sahara" and *Proben der Sprache von Ghat in der Sahara*; G. Bourbon del Monte Santa Maria's *L'Oasi di Ghat e sue Adiacenze*; Enrico De Agostini's "La Conca di Gat"; the Reale Società Geografica Italiana's *Il Sahara Italiano: Fezzan e Oasi di Gat*; Emilio Scarin's "L'Insediamento Umano della Zona Fezzanese di Gat"; Gardel Gabriel's *Les Touareg Ajjer (1912-1914)*; Heinrich Barth's *Travels and Discoveries in North and Central Africa in the Years, 1849-1855*; Agnes Newton Keith's "The Tuareg"; James Richardson's *Travels in the Great Desert of Sahara 1845-1846*; Abd-Elkader Jami's *Men Trabls Al-Gharb ela Al-Sahra Al-Kubra*; Paolo Cuneo's "The Ghat Oasis in Libyan Fezzan"; Imad Al-Deen Ghanem's *Al-Tabeeb Al-Almani Erwin von Barry 1877-1846 wa Rehlatah ela Ghat wa Belad Al-Ayer* and *Al-Dawkhel Al-Leebeya fi Majmouat Derasat Lell Rahala Al-Almani Gottlob Adolf Krause*; and Jamie Bruce-Lockhart and John Wright's *Difficult and Dangerous Roads: Hugh Clapperton's Travels in Sahara & Fezzan 1822-1825*.[40] While the descriptions in these works offer some limited information on the structure of Ghat, they do not reveal the distinctive architecture and characteristics of the town as a collective artifact, nor the quality and meaning of the spaces that are contained within it.

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[38] With the exception of the recent study by Ines Kohl mentioned earlier which, as I have already noted, focuses on Ghat oasis as a whole, not specifically on Old Ghat, and deals with one aspect of Libyan Tuareg culture, that is, their identity and strategies of belonging.

[39] Campbell, *Trail of the Veiled Tuareg*; Rodd, *People of the Veil*; Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1.

[40] Walter Oudney, "Excursion to Westward of Mourzuk," in *Narrative of Travels and Discoveries in Northern and Central of Africa*, ed. Dixon Denham (London: John. Murray, 1826); Henri Duveyrier, *Les Touâreg du Nord*; Gottlob Adolf Krause, "Aufzeichnungen Über die Stadt Chāt in der Sahara," *Zeitschrift der Gesellschaft fur Erdkunde* 17 (1881) and *Proben der Sprache*; G. Bourbon del Monte Santa Maria, *L'Oasi di Ghat*; Enrico De Agostini, "La Conca di Gat," *Bollettino Geografico: Governo della Tripolitania, Ufficio Studi* 5-6 (1933-1934); Reale Società Geografica Italiana, *Il Sahara Italiano*, vols. 1 and 2; Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat"; Gardel, *Les Touareg Ajjer*; Barth, *Travels and Discoveries*; Keith, "The Tuareg"; Richardson, *Travels in the Great Desert*; Jami, *Men Trabls Al-Gharb*; Cuneo, "Ghat Oasis"; Ghanem, *Al-Almani Erwin von Barry* and *Al-Almani Gottlob Adolf Krause*; Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*.

In 1999, Najmi Deyaf published the first historical study dedicated to Old Ghat, entitled *Madenat Ghat Wa Tejart Al-Kawafel Al-Sahrawya Khelal Al-Karn Al-Taseasher Al-Miladi.*[41] Deyaf's study focuses on the desert trade caravans during the 19th century and includes a simple, non-architectural description of some of the town's components and its surrounding villages. However, it is not concerned with the dynamics of the traditional built environment, built forms and urban pattern, enshrined meanings, or the unique characteristics of this indigenous architecture and historic centre.

In 2002, at the request of the Department of Archeology in Libya, Khalil Abdel Hadi, the director of the Italian mission to Ghat and the president of the Italian mission of The International Center of Architectural and Historical Studies of the Mediterranean Sea CISAME,[42] along with his team, began a comprehensive architectural technical survey as a prelude to restoration work in Old Ghat. However, the contract was suspended before the completion of the mission due to technical and administrative reasons, according to Giuma Anag, the chairperson of the Department of Archeology in Libya. In 2006, I received from the president of the Italian mission an outline of the survey work they have done so far, and written permission to use the documents that they have already produced for the purpose of my dissertation (see Appendix III).[43] However, as a result of the suspension of his contract by the Department of Archeology in Libya, and pending the resolution of the issue, Khalil Abdel Hadi has withheld his entire survey, including architectural drawings, even from the Department of Archeology in Libya. At the time of writing, his contract is still suspended. The only document that Ghat officials and the national Department of Archeology have received is a brief preliminary outline of the Italian mission's accomplished work, work still to be done, and the mission's immediate goals. This outline contains significant mistakes, which suggest a lack of an adequate preparatory literature review, historical study, or investigation of the people's oral tradition. The document presents assumptions that contradict not only the testimonies of local people but also written and pictorial documents. For example, in his brief report submitted to Ghat officials and the outline he sent to me, Khalil Abdel Hadi made

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[41] Deyaf, *Madenat Ghat.*

[42] 'CISAME' stands for Centro Internazionale Studi Architettura e Storia del Mediterraneo.

[43] According to the outline, the physical documents include a master plan, and detailed architectural and constructional drawings of almost every single building of the town.

mistakes in writing the names of squares. In addition, he claimed that the building currently being converted into the Ghat Museum was originally a hotel (*khan*), even though it was originally a large house, partially demolished and altered into a *caserma* by the Italians during their colonizing period, as I will later explain in detail (in Chapter 6 section 6.1.2.2). This outline also contains exaggerated claims: for example, Khalil Abdel Hadi claims the discovery, during the survey of Al-Atiq mosque, of a hidden old *mehrab*[44] that predates the one currently used, even though this *mehrab* was depicted by Emilio Scarin[45] and is known to the people of Ghat, as I will explain in Chapter 5 section 5.3.3.4. Finally, the outline of the work accomplished thus far that was submitted to Libyan officials is far shorter and less comprehensive than the outline sent to me by CISAME, which could indicate that the document sent to me by the center includes work still to be accomplished.

1.5 Theoretical Background

Vernacular architecture is a subject that crosses many disciplines besides architecture, such as history, cultural anthropology, sociology, human geography, folklore and folk-life, and material culture studies. My work is informed by a number of theoretical approaches drawn from architectural history, social studies, and material culture studies. In particular, my research is influenced by studies of material culture that have emerged from ethnographic research. These studies investigate historical cultural interaction and narrate the architectural history and social experience of dwellings (the ways people have anchored their lives in spaces). They provide the theoretical framework for my research and inform my understanding of the town of Ghat as an artifact.

1.5.1 Influence of Related Disciplines

The methodologies of architectural history and social studies provide useful concepts and approaches for my investigation of the vernacular architecture of the Old Town of Ghat.

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[44] The *mehrab* is an essential architectural element of mosque design that articulates the direction to the *qebla* in Makka.

[45] Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat": 39.

I am inspired by Aldo Rossi's affirmation, in *The Architecture of the City*, of the necessity of thinking of the city in its totality as an artifact and examining its total architecture in terms of its parts. He also advocates studying the city through the classification and analysis of social content, which provides a full picture of the city.[46] Rossi believes that the classification of a city according to its function is superficial, because this assumes an equal value for all types of functions.[47] Following Rossi's lead, and using the town's built form, I have studied the town of Ghat as a collective artifact composed of both public and private spaces (see section 7.1 for information about the concept of public and private spaces in Ghat). I based my analysis on a study of an architecturally and historically representative[48] intact sample drawn from each of these two spatial domains (public and private) – for example, dwellings, seating areas (*al-majales*), and market areas (*al-souq*). My study takes into account the relationship between the physical nature of Ghat's built spaces (their setting, configuration, spatial organization, ornamentation, building material and local construction methods) and the spatial experience of these selected cases (their use, perception, and meanings).[49]

I supplemented these case studies by investigating collective memory and the social framework of memory. Drawing from the work of Maurice Halbwachs,[50] my research explores people's memories of Ghat as the thread that connects the people and their culture to the built environment. Accumulated oral histories, particularly personal stories, are useful as social charts or cognitive maps situating the town's inhabitants in a particular context, defining their relationships, and clarifying the meanings enshrined within public and private spaces. They provide the key to deciphering the ideas, feelings, and thoughts that inspired those who built the town of Ghat.

In light of the shortage of written material about Old Ghat, oral history helped me to understand and interpret Ghat's private and public spaces. However, oral history is not the only method that I employ for the interpretation of relationships between inhabitants

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[46] Aldo Rossi, *The Architecture of the City* (Cambridge: The MIT Press, 1982), 35, 48.

[47] Ibid., 47.

[48] Representative of different periods. Dwellings in old core neighbourhoods differ from more recently built dwellings.

[49] These examples, as mentioned in section 1.2, have been selected at three hierarchical levels: the home, the neighbourhood, and the town.

[50] Maurice Halbwachs, *On Collective Memory*, ed., trans., and introduced by L. A. Coser (Chicago and London: Univ. of Chicago Press, 1992). Halbwachs explains how memory is transposed into symbol and takes on a meaning that is transmitted through time and space.

and their built environment. As Dorothy Duncan states, oral history, which depends on memory and oral tradition, may be biased.[51] Consequently, I corroborate oral history with the help of related historical, geographical, anthropological, and archeological records, where available and as necessary.

1.5.2 Recent Approaches to Material Culture

As I stated earlier, my study of Ghat's vernacular architecture using qualitative spatial interpretation is mainly informed by the discipline of material culture. Several theoretical approaches have recently invigorated material culture studies, emphasizing different aspects of artifacts – for example, their function, structure, beauty, or relationship to society. In the text that follows, I present studies that I found to be particularly helpful in my own research. I am particularly motivated by material culture scholars who investigate meanings and social relationships encoded in landscapes, architecture, and artifacts.

Thomas Hubka's studies read buildings as cultural artifacts as well as historical documents, and demonstrate that architecture can signify particular aspects of a culture.[52] These studies place buildings in context by binding architectural expression to the times and ways of life of the people. Hubka's analysis of the relationships between interior and exterior spaces is important for the study of Ghat, contributing to my investigation of the relationships between private and public spaces. Furthermore, as with Hubka, in my investigation and analysis the very limited number of old photographs and plans, particularly those found in historical documents, form an additional invaluable source of information vital to cross-referencing materials I collected.[53]

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[51] Dorothy Duncan, *The Artifact: What Can it Tell us about the Past?* (Toronto: Ontario Historical Society, 1981), 3.

[52] Thomas Hubka, *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England* (Hanover, N.H.: Univ. Press of New England, 1984) and *Resplendent Synagogue: Architecture and Worship in an Eighteenth-Century Polish Community* (Hanover, N.H.: Univ. Press of New England, 2003).

[53] The main plans used in this dissertation are those drawn up by traveler G.A. Krause in 1881 in scale 1:40000; by Abd-Elkader Jami (governor of Ghat at that time) in 1909 in scale 1:15000; and by Italian Lieutenant (triangulator) Giuseppe Tschon in scale 1:2500, published by Enrico De Agostini 1933-1934. All these documents are site plans, which do not show any details of the town's physical structure or the location of main buildings. Much more detailed plans used in this study were drawn by Emilio Scarin in 1934, Paolo Cuneo in 1978, and FINNMAP Company in 1984. According to Scarin, the map drawn by

Similarly, Dell Upton examines the relationship between artifacts and society.[54] He portrays architecture as the physical representation of a certain time and society. Analogously to Upton's approach, and in order to present an overall portrait of the cultural landscape of Old Ghat, in my study the spatial analysis and interpretation of public and private spaces addresses both the architectural form and the structural elements of selected examples, and the spatial experience, perception, and meanings they transmit.

Bernard Herman goes beyond architecture and interprets town houses as lived experience. In *The Stolen House*, he highlights the need "to understand the importance of objects as historic evidence and as the points around which certain modes of social discourse turn."[55] Likewise, in *The Town House*, he examines urban domestic buildings in order to understand not only how these homes were used, but also what they meant to their dwellers, why people built their dwellings the way they did, and how their houses reflect social identity and the day-to-day life of their inhabitants. He writes: "Through a material culture approach to history, objects are not relegated to the status of simple illustrations but move to the fore as key elements for deciphering and writing the past."[56] Building on Herman's argument, in examining the different spaces of selected examples in Ghat, my research shows not only how spaces were used in Ghat, but also what they meant to their users. I accomplish this by studying examples of dwellings individually and then in relation to their neighbourhoods, and finally in relation to the town and traditions that shaped them. This strategy is supported by Herman's statement that "the symbolic content of any one dwelling is understood only in light of its relationships to its larger environments."[57]

In "Architectural Definitions," Herman turns his attention to metaphoric and intangible architectural spaces. In his interpretation of quilt-making, for example, he argues that spaces are not only those constructed, contained, and mapped, but also those spaces subject to action and perception. He says, "space is always subjectively defined

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Giuseppe Tschon, which was published by De Agostini in "La Conca di Gat": 22 is adapted from his map made in 1934 and published in "L'Insediamento Umano della Zona Fezzanese di Gat": Appendix.

[54] Dell Upton, *Holy Things and Profane: Anglican Parish Churches in Colonial Virginia* (Cambridge: The MIT Press, 1986).

[55] Bernard Herman, *The Stolen House* (Charlottesville and London: The University Press of Virginia, 1992), 3.

[56] Bernard Herman, *Town House* (Chapel Hill: The University of North Carolina Press, 2005), 1.

[57] Ibid., 4.

and strategically engaged according to the circumstances that bring people together. Space is individually variable within the contexts of shared experiences."[58] The metaphor of intangible space is particularly important to my research, especially with regard to the linguistic metaphors in the Tuareg language as they relate to the architecture of their dwelling-places (linguistic metaphors will be discussed in Chapter 4).

The built environment, particularly the house, serves not only as shelter, but also as a medium for communication. It mirrors and encodes elements of the social structure and represents not only the individual creators of this environment, but all those who share their perspective. In "Home", Henri Glassie connects the people of Ballymenone to their stories and their culture, and provides a model for my own work on the ability of the built spaces of Ghat to embody and transmit information about community life and history.[59]

In *Material Culture*, Glassie links cultural receptivity and the aesthetic ordering of experience to memory and learning.[60] He accomplishes this by employing a general theory of material culture based on the artifacts of the built environment in relation to vernacular architecture. This informs the methodological framework for my dissertation research. Glassie focuses on how the study of material culture can be connected with history and art, and examines the related issues of human significance and human excellence in a relativistic and existential context, rethinking and reformulating traditional problems. He also notes the connections between people, their stories, memory, and culture, whilst emphasizing the biographical, historical and cultural swings in meaning that invite us to think about objects as conveying meaning in the same manner as language. In *Folk Architecture in Middle Virginia: A Structural Analysis of Historic Artifacts*, Glassie claims that meanings can be embodied in an enduring form in artifacts and, in particular, that "of all classes of artifacts, architecture would be the most efficient guide to past culture because of its universality, tenacity, complexity and fixedness."[61] Dorothy Duncan lends support to this statement: "Because the artifact reflects the values

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[58] Bernard Herman, "Architectural Definitions," in *Gee's Bend: The Architecture of the Quilt* (Atlanta: Tinwood Books. 2006), 214.

[59] Henri Glassie, "Home," in *Passing the Time in Ballymenone: Culture and History of an Ulster Community* (Bloomington: Indiana University Press, 1995).

[60] Henri Glassie, *Material Culture* (Bloomington and Indianapolis: Indiana Univ. Press, 1999).

[61] Henri Glassie, *Folk Architecture in Middle Virginia: A Structural Analysis of Historic Artifacts*, (Knoxville: University of Tennessee Press, 1975), 14.

and influences which were important to the individual who made it and the society and time in which it was manufactured, it can be viewed as making an important cultural and historical statement. Both oral and written history may reflect judgments that are inaccurate and biased; the artifact does not lie."[62]

In *Material Culture*, Glassie, like Halbwachs, uses another source besides physical artifacts in order to extract the meanings of the built environment. He sets much stock in wisdom that is unrestrained by academic convention, and reveals how much he has discovered by listening to and collecting oral histories from local non-academic historians and intellectuals whose work constitutes a disruption in the linear progressive order of academic history. Although Glassie admits that, due to its dependence on memory and the oral tradition, this non-academic history cannot compete with the written record of academic history, he maintains that it responds more adequately to people's need to understand their lives, including their past. Taking into consideration Duncan's and Halbwachs's statements, and building on Glassie's approach in *Material Culture*, I have determined it to be more fruitful to turn first to the resources of material culture and then to use oral histories and written historical documents to comprehend its intangible meanings. As an artifact, Ghat's vernacular architecture is used in this dissertation to reveal coded human thoughts and actions, relationships to nature, and the builder's or maker's intentions. Following Glassie's lead, I consider the urban form and architecture of Ghat as texts, or as structured sign systems, through which different relationships can be decoded.

Glassie argues that "Texts have limits, meanings do not, and the analyst on the hunt for meaning will gather as much information as possible to construct as many contexts as possible. Then as the text is located in context after context, associations will assemble and multiply. The reading becomes rich. The artifact swells with meaning and accomplishes its mission."[63] In order to determine and decode the meanings of the relationships between built spaces that have emerged from various social contexts, I use selected examples and trace their patterns of use, regulation, and the beliefs and behaviors they express. I schematize the various social contexts of artifacts and arrange the various

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[62] Dorothy Duncan, *The Artifact*, 3.
[63] Glassie, *Material Culture*, 48.

kinds of information gathered during my research by visualizing these social contexts as a series of occasions that belong to two aspects that sum up Ghat's story. These are the formation of Ghat's spatial domains, and their use and meaning. I try to determine how the customs, meanings, values, social structures, and social relationships of Ghatian culture informed the urban form, architecture, and material culture of Old Ghat.

Although the linguistic is not my main theoretical approach in this research, I have examined terminology and proverbs relating to the Ghatians' built environment that explain or transmit spatial meanings and values. I consider these to be important sources of information confirming the importance, or clarifying particular aspects (for example, customs or rituals), of the culture. Although I disagree with some of his interpretations of the relationship of particular proverbs to architecture, Pierre Bourdieu's "The Kabyle House or the World Reversed"[64] is a useful guide to the analysis and interpretation of the relationship between moral values in traditional proverbs and riddles and the *habitués*, culture and structure of houses. Bourdieu portrays *habitués* as a system of sturdy dispositions, perceptions and thoughts, which produce the basis of structured, neutral, and unified practices that make up social life. In order to uncover the meanings in Ghat's architecture and detect cultural traces in its built forms, it is helpful to know how the social and symbolic significance of locally-used proverbs [65] is articulated through configurations and patterns of use, for example, by setting a private space such as the house in geographical and social space[66] and considering its internal organization.

This survey of the work of key scholars in architectural history, social studies, and material culture studies provides the interpretive approaches through which I explore and analyze Old Ghat and the essential aspects of the dominant culture of the inhabitants. In particular, these approaches assist me in interpreting the social attitudes of the people and the relationship between family and community in Ghat. They help to reveal the way in which public and private spaces are structured and used in the town. I found them to be invaluable in my search for, and interpretation of, the cultural values and social meanings which generated the built forms of Ghat and created a distinctive town structure.

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[64] Pierre Bourdieu, "The Kabyle House or the World Reversed," in *Algeria 1960*, trans. Richard Nice (Cambridge; New York: Cambridge University Press, 1979).

[65] These could be Arabic or Tuareg proverbs.

[66] For example, proximity to water sources, building orientation, and social structures that require families to live in close proximity to each other.

1.6 Conceptual Framework

This study is based on a socio-cultural and spatial analysis of Old Ghat. To investigate the social meanings of public and private spaces in Old Ghat and to examine how spatial configuration, organization and use convey cultural behavioral codes of social practice and social values, I explore and document several social aspects of life in Ghat. These are: the connection between activity patterns and use of space (working, visiting, playing, cooking, eating, praying, sleeping, etc.),[67] as well as the frequency and duration of this use. I also investigate the concept of family and the structure of families according to gender and age;[68] the position of women with regard to gender and status in Ghatian society; social intercourse, with reference to the effects of time on spatial patterns; and the role of the Ghatians' concept of privacy in relation to social identity, social structure and the built environment. I investigate the role of privacy as a primary, culturally specific regulatory mechanism that defines and controls social boundaries and interaction within public and private spatial domains. Ghatian society reflected a unique concept of privacy, which stemmed mainly from the Libyan Tuareg culture. As I will show, the entire town was thought of by its inhabitants as an extended private space and its people as an extended family.

The influence of gender and age is another important consideration in my research. I analyze spatial organization in relation to use of space in relation to gender and cultural norms. I investigate gender in relation to the types of activities performed by men and women, the time spent on such activities, and the place in which the activity is performed (for example, in Ghat women would spend more time than men at home, and most of their activities would be performed within the domestic realm). I also investigate gender in relation to the size of space allocated for the use of men and women at home. This reflects women's position and their influence and status in Ghatian culture, which affects the spatial organization of the dwelling as well as their share of space.[69] Moreover, I examine the interaction between various age groups in order to discover whether this

[67] These activities could occur on a daily or seasonal basis, in private and/or public spaces, and be performed by different gender and age groups.

[68] In Ghat, the family is conceived of as an extended family.

[69] The amount of time spent on activities and by men and women at home, as well as where these activities are performed within the home, are important considerations in claims about space. Generally, how much space men and women claim for themselves reflects cultural rules, norms, and values. Based on my fieldwork, women in Old Ghat had the larger share of responsibility for housework, including childcare,

interaction is evident in spatial patterns, organization, configuration, and use of space. Separation or integration of spaces according to age can happen as a natural result of changing needs as individuals move through the age cycle. It can also occur through an imposed specific cultural control mechanism to regulate social interaction, such as the use of a physical boundary to satisfy the need for privacy.

The social intercourse and habitability of a specific environment is related to, and can be controlled by, the concept of time and its relation to life's routines (e.g. daily, weekly, and seasonal routines, and occasional events and ceremonies), and this process influenced the spatial configuration of the town's spaces. As a result, the same spaces could be used at different times for various types of activities by different age or gender groups without causing them to mix or meet together. In domestic space, for example, the analysis of daily routine in relation to time, gender, and organization of dwellings reveals the rooms or areas that were used most of the day and those that were least used, and by whom. This type of analysis plays a significant role in my research in understanding the meanings hidden in Ghat's spaces.

Another social aspect important for the above analysis is privacy. As a controlling mechanism of social boundaries, privacy frames the relationship between the need for human interaction and the way in which a given space is actually configured, organized, and used. Privacy control is expressed differently in different societies.[70] It can be presented visually (by facial expressions and body language: see section 2.3.3), physically (for example by spatial boundaries which can be emphasized using relationships of proximity, remoteness, hierarchy, or transition between spaces, as well as division of spaces, as in Arabic city houses and neighbourhoods), behaviorally, verbally, temporally, or symbolically. For example, in Arabic, which is the second spoken language used in

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food preparation, and some occasional maintenance work, which is reflected in their larger share of dwelling space and its use most of the day.

[70] Amos Rapoport, *House Form and Culture* (Englewood Cliffs: Prentice-Hall, 1969), 66-69; Robert Gutman, "Social Function of the Built Environment," in *The Mutual Interaction of People and their Built Environment: Cross Cultural Perspectives* (The Hague: Mouton Publishers, 1976), 37-40; Irwin Altman, "Privacy Regulation: Culturally Universal Patterns or Culturally Specific?" *Journal of Social Issues* 33, no.3 (1977): 66-84; A. Worsley and W. R. Finighan, "Some Conceptions of Domestic Privacy," *Architectural Science Review* 20, no.3 (September 1977): 73-77; Abubaker Shawesh and Aderenal Awotona, "The Attitude of Libyan Families to their Traditional and Contemporary Houses," in *Housing Provision and Bottom-Up Approaches: Family Case Studies from Africa, Asia, South America* (London: Ashgate, 1999), 117-143; Paul Oliver, *Dwellings: The Vernacular House World Wide* (London: Phaidon Press Limited, 2003), 157, 163, 166, 230, 253.

Ghat, the expression 'injured privacy' is used when privacy is invaded in a number of ways.[71] The word 'injured' is in Arabic associated with various other words in phrases such as 'injured feelings' and 'injured dignity,' and has connotations of pain and suffering. When associated with privacy, this word suggests a disrespect for privacy that can be manifested through a wide range of social interactions. The presence and use of such compound expressions in the Arabic vocabulary shows the importance of privacy in Arab society, and explains why this importance is transmitted into the physical environment and spaces.

There are other factors responsible for giving the built environment its particular form and meaning, such as climate, construction technology, economy, and materials. Although these factors are not the main focus of this research, a discussion of them is necessary to explain how the built environment signifies social meanings. For example, the use of different kinds of building materials may be interpreted as an indication of the economic and ecological relationships between people and nature, or as a representation of their various skills and occupations. Camel skin, for instance, is a valuable and expensive material for Ghatians. In order to be useable in construction, it must undergo a manufacturing process. Thus, in investigating the use of camel skin as a building material, we should ask: Who manufactures it, how and where? Who can afford to use it? Where has it been used in the structure of buildings, and how? The answers to these questions yield a complex matrix of social meanings held within the architecture of the town.

1.7 Methodology

In *Cultural Studies as Critical Theory*, Ben Agger warns against an overly determined approach to cultural studies: "cultural studies resist programmatism – a definitive methodology and a list of critical topics [...]. There is no pre-given methodology of cultural studies."[72] Nevertheless, some analytical tools are required. I studied and documented Ghat using a qualitative spatial interpretation and analytical

[71] Arabic is the language of the Qur'an, which calls among other things for the respect and protection of privacy. Although Ghat is a small town, it includes several religious buildings (it includes five mosques, four *zawaya*, and several religious schools). Reading the Qur'an is an essential part of every social and religious ceremony in Ghat. The Libyan Tuareg, as Sunni Muslims, speak Arabic in addition to their own *Tamashaq* language. In addition, some Ghatians, including the Tuareg, speak Hausa. For this reason, I had a limited need for an interpreter to translate Tuareg to formal Arabic.

[72] Ben Agger, *Cultural Studies as Critical Theory* (London: Falmer Press, 1992), 2.

methods of research and evaluation informed by an understanding of the *Azjer* Tuareg culture, as well as an integrated approach from material culture, architectural history, and social and anthropological studies. This dissertation is the result of a synthesis of existing written materials and information that I have gathered through fieldwork. The theoretical study provides a literature review and an informed background for research, and establishes the necessary framework for my investigation, analysis, and interpretation, as well as providing a foundation for processing and refining future sources of information. My review of the literature covers theoretical approaches regarding material culture in relation to vernacular architecture presented by renowned material culturalists, anthropologists, sociologists, and experts in vernacular and nomadic architecture and the built environment. I review concepts of culture and privacy, and present scholars' views regarding socio-cultural aspects in relation to the built environment. I also refer to accounts and narratives by European and Arab travelers and incorporate archeological, geographical, and historical studies of Fezzan and Ghat.

My study includes a contextual, social, and spatial analysis of Old Ghat. The primary sources for the study are the built form of the town itself, oral histories,[73] and explorers' accounts and written documents (including old photographs and maps).[74] Local tribal leaders and elders were my primary informants on Old Ghat and its inhabitants'

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[73] I use the term 'oral history' mainly to refer to spoken memories drawn from interviews that I conducted in Ghat during the summer of 2006. I searched in my interviewees' memories for the social aspect of their cultural heritage and practices: for example, beliefs, myths, and information about building methods, herding, trading, growing, food preparation, clothing, childcare, furniture, utensils, water resources, and notions of protection against contamination. This helped me to build an analytical argument regarding the extent to which this culture informed Ghat's architecture and urban form. According to Qashshāt, who lived thirty years of his life with the Tuareg, the Tuareg oral tradition (proverbs, riddles, poetries, stories) was never collected and compiled in chronicles or documented. Instead, this oral tradition has been transferred verbally from one generation to the next. Mohammed Said Qashshāt, *Al-Tawāriq: Arab Al-Sahrā Al-Kubra* (Cagliari: Editar, 1989), 125.

[74] The most important accounts for this dissertation are: Oudney, "Excursion to Westward of Mourzuk"; Ibn Khaldun, *Histoire de Berbères*, vols. 1-4; Duveyrier, *Les Touâreg du Nord*; Krause, *Proben der Sprache von Ghat* (Leipzig: F. A. Brockhaus, 1884); Ibn Batutah, *Travels in Asia and Africa, 1325-1354*, trans. H. A. R. Gibb (London: George Routledge & Sons, Ltd., 1929); Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat" and "Descrizione"; Barth, *Travels and Discoveries*; Muhammad Ibn Uthman Hashaishi, "Ghat wa Al-Tuareg," in *Rehlat Al-Hashaishi ela Libya fi 1895: Jalaa Al-Karb 'n Traboulis El-Gharb*, ed. and introduced by Ali El-Mesrati (Beirut: Dar Lebnan, 1965); Jamal Al-Deen Al-Dnasouri, *Goghrafiat Fezzan: Dirasa fi Al-Goughrafya wa Al-Manhajeia wa Al-Eklemeya* (Benghazi: Dar Libya Lellnsher wa Al-Tawzee,1967); Richardson, *Travels in the Great Desert*; Jami, *Men Trabls Al-Gharb*; Ghanem, *Al-Almani Erwin von Barry* and *Al-Almani Gottlob Adolf Krause*; David Mattingly, foreword to *Difficult and Dangerous Roads: Hugh Clapperton's Travels in Sahara and Fezzan 1822-1825*, ed. Jamie Bruce-Lockhart and John Wright, (London: Sickle Moon Books, 2004); and Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*.

former lives. During my visit in 2006, I found that the older generation possesses abundant memories, and is passionately interested in the past and its stories. This generation feels a sense of responsibility for providing authentic information, as if they are the guardians of their tradition. In return for the opportunity to preserve the past, they supplemented my research with a wealth of information. This does not mean, however, that stories from younger adults are unacceptable or unimportant; in fact, during my fieldwork in Ghat I discovered that some young informants were as knowledgeable as older informants.

I employed basic data collection and the anthropological techniques used in qualitative research studies, such as participant observation, interviewing of key local informants, field notes, drawings, photographs, and video and audio taping, in my fieldwork in 2005 and 2006. According to H. Russell Bernard, "participant observation, or ethnographic fieldwork, is the foundation of cultural anthropology. It involves getting close to people and making them feel comfortable enough with your presence so that you can observe and record information about their lives."[75] In view of the fact that Old Ghat is no longer populated, the participant observation method was of most assistance in producing detailed descriptions of whatever else I observed on site. This method also served in collecting oral history from local informants at 'the scene of the past,' and in observing the current Ghatians' nomadic, semi-nomadic, and settled Tuareg way of life in the old settlements close to Old Ghat.[76] Many of the informants with whom I spoke are capable of engaging in profound philosophical dialogue. Transcribing these dialogues provided the basis for understanding their linguistic metaphors, as related to architecture and built forms, and this helped me to avoid formulating possibly superficial interpretations.

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[75] Harvey Russell Bernard, *Research Methods in Anthropology: Qualitative and Quantitative Approaches* (London: SAGE Publications, 1994), 136.

[76] As explained above, the observation of current practices of Tuareg culture; particularly their ceremonies, rituals, social events and way of life, is used to provide a better understanding of these people, and helps in visualizing oral memories of both common and significant events or social practices that occurred in the past. Importantly, this source of information is reliable, because the socio-cultural life of the local Tuareg has not changed significantly over time, despite the major socio-economic transformations that occurred after the Libyan revolution of 1969. As Sebba states, "cultural core values [that have an impact on the built environment] of a specific society tend to persist even when the circumstances which created them no longer exist." Rachel Sebba, "The Role of the Home Environment in Cultural Transmission," *Architecture and Behavior* 7, no.3 (1991): 226.

Tying the material evidence to spoken memories and the documentary record enriches the interpretation of Ghat's built form. The use of the built form as evidence of material culture makes any argument visible and tangible, while the same argument can be made or supported through the other two sources. The collective knowledge extracted from my personal experience and fieldwork in Ghat, as well as from these three sources, has also been invaluable in reconstructing the outlines of past daily life within the Old Town, helping me to scrutinize how Ghatians used architecture to signify social meanings.

Chapter 2
Culture and Built Environment

The primary conception guiding this research is that, as a collective artifact, the town of Ghat is a cultural phenomenon. Its form and organization are greatly influenced by the cultural milieu from which it emerged. For this reason, it is of great importance to understand the Tuareg culture specific to Ghat's inhabitants in order to examine the influence of its various aspects on their built environment. However, before discussing the culture of the people of this town, it is also important to review some theoretical accounts of the strong influence of culture on the built environment. In this chapter, I will relate this theoretical discussion as appropriate to the Tuareg and to Ghat; however, both Tuareg culture and the town of Ghat will be discussed in further detail in the next chapter.

2.1 Culture and Identity

Architects who choose to ignore the bond between built environment – particularly housing – and culture are likely to overlook aspects crucial to the understanding of built forms. However, culture has principally been the preoccupation of anthropologists and sociologists. It was not until the 1960s that architects and planners recognized the significance of cultural factors in architectural and urban design. Since then, many researchers and scholars have argued that the key consideration in housing design and construction should be a deep understanding of the interrelationships between people as users of built spaces and socio-cultural environments.

The literature that focuses on the link between the concept of culture and the housing environment contains a wide spectrum of definitions of culture, and diverse approaches to the interrelationship between culture and housing. These variations depend on the field of research in question (e.g. anthropology, architecture, or sociology) and the theoretical perspectives employed. Although culture is a complex term and has been defined variously in the literature, there are key points of agreement. Most significantly, there is a consensus that the main elements in the definition of culture are those that give meaning to individuals who share things in common.

Culture can accordingly be viewed as the social property that defines a group and gives meaning to the individuals within it, and that consequently defines a complex network of social relationships. Amos Rapoport maintains that "Culture is the property of groups which distinguishes among them and identifies them."[1] He conceives culture as "an ideational concept, which cannot be understood in isolation, but rather, in relation to more concrete notions such as values, lifestyle, social structure, social networks and social relationships."[2] Rapoport considers lifestyle, which consists of manners, rules, choices, and roles, to be a clear expression of culture and of the notion of the ideal human being employed by that culture. According to him, this approach is most valid when dealing with ethnic groups whose specific culture is expressed in a particular lifestyle.

In "Vernacular Architecture and the Cultural Determination of Form,"[3] Rapoport describes three major categories through which culture can be defined: as the way of life of a specific group; as a group of symbols, meaning, and 'cognitive schemata' that has been translated into symbolic codes; and as the combination of survival strategies related to ecology and resources. A more thorough examination of these categories reveals that they are, in fact, complementary rather than different.

In the "Cross-Cultural Aspects of Man-Environment Studies,"[4] Rapoport argues that culture is a system of shared values, lifestyles, perspectives, and images possessed and employed by a specific group of people, by which a system of normative rules and habits is constructed. In the same sense, James Duncan[5] and Roy Wagner[6] view culture as a distinct way of life for a particular group of people that can be characterized in terms of common perspectives, a shared history, a common language or dialect, and an implicit understanding of meanings, practices and beliefs that have not necessarily been codified.

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[1] Amos Rapoport, foreword to *Housing, Culture, and Design: A Contemporary Perspective*, ed. Setha M. Low and Erve Chambers (Philadelphia: University of Pennsylvania Press, 1989), xiii.

[2] Ibid., 78.

[3] Amos Rapoport, "Vernacular Architecture and the Cultural Determination of Form," in *Building and Society*, ed. Anthony D. King (London: Routledge and Kegan Paul Ltd, 1980), 286.

[4] Amos Rapoport, "Cross-Cultural Aspects of Man-Environment Studies," in *The Mutual Interaction of People and their Built Environment: A Cross Cultural Perspective*, ed. Amos Rapoport (Mouton: The Hague, 1976).

[5] James Duncan, "The House as a Symbol of Social Structure," in *Home Environment*, eds. Irwin Altman and Carol M. Werner (New York: Plenam Press, 1985).

[6] Roy Wagner, *The Invention of Culture* (Chicago: University of Chicago Press, 1981).

A number of studies reveal that socio-cultural forces are decisive in shaping the housing environment. In *Culture, Architecture and the Urban Form*, Eltayeb Elhag Ahmed Adam argues that "people in the same place, at the same time, and under the same physical conditions displayed different solutions and forms."[7] For example, as I stated earlier (in section 1.3), although Ghat has been exposed to almost the same climatic, historical, and cultural conditions as the neighbouring town of Ghadames, the two towns display markedly different architecture. This means that a thorough understanding of cultural issues is critical for understanding and interpreting the built environment.

Moreover, based on an understanding of the impact of social and cultural forces, scholars have come to realize that the urban structure is not just an artificial physical mechanism. They have begun to develop ideas to conceive and define culture as a social system, noting the importance of human physical attributes in shaping the built environment, and the subjective nature of the concept of culture as it relates to the processes of historical transformation. In this regard, a considerable body of research views culture as something largely material in nature and, as such, as something that relates to the physical attributes and material circumstances that are characteristic of a given way of life.

From the perspective of material culture, Bill Risebero conceives culture as a dynamic concept: in other words, he perceives individuals and their manifold relationships to the social system as essential to an understanding of culture. He argues that the concept of culture is subject to change and re-evaluation in response to the transformative forces that exist in the material conditions of society.[8]

In contrast to the proponents of material culture, other researchers view culture as a combination of ideas, concepts, and worldviews that can be characterized in terms of cultural evolution. The proponents of cultural evolution believe that cultures modulate to accommodate both the geographic and physical environment through the complex interaction of social influences over time. They also believe that the gradual process of evolution should not be interfered with through the imposition of external constraints. For

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[7] Eltayeb Elhag Ahmed Adam, "Culture, Architecture and the Urban Form: With Special Reference to Privacy, Omdurman, Sudan" (Phd diss., University of York, 1990), 46.

[8] Bill Risebero, *Modern Architecture and Design: an Alternative History* (London: The Herbert Press, 1982), 11.

example, according to Ghader Afshari-Mirak, A. Murdock, a proponent of cultural evolution, argues that as new needs arise, cultural adjustment is required and, as a result, traditional forms cease to provide the expected satisfactions that they were once designed to fulfill, and are gradually eliminated.[9] However, Sebba contests this argument, claiming that "Cultural core values [that have an impact on the built environment] of a specific society tend to persist even when the circumstances which created them no longer exist."[10] Amos Rapoport presents a similar argument to that of Sebba, positing that the values and culture of traditional homogenous communities, which are characterized by shared ideas and meanings, are protected by the power of law and are respected by everyone through a form of collective assent.[11]

Evaluations of housing from a cultural studies perspective reveal that, in order for any cultural transformation and evolution to be successful and reflect positively on the housing environment, it should provide some form of reconciliation between the basic and highly valued elements of both the new and traditional cultures, and should not be based on restoring the imitative or standardizing procedures that have so far held sway. Thus, Rapoport states that "change should be some form of cultural syncretism or creative synthesis."[12] He explains that in Latin America, for example, even under the conditions of a brutal Spanish military conquest, the synthesis was highly selective, and syncretism, rather than mimesis, was the result. He states that "each Indian group retained certain characteristics of its traditional technology, and incorporated certain selected features of the new Spanish technology, to create a very different and new technology which varied from group to group for hundreds of years."[13] However, I argue that this is not always the case. In Old Ghat, for example, the long Othmanian military governing period that extended for thirty-six years, which was followed by Italian and French military colonization periods of a total of approximately twenty one years, did not leave evident

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[9] Ghader Afshari-Mirak maintains that Murdock claims this in Florence Rockwood Kluckhohn and Fred Strodtbeck, *Variations in Value Orientations* (New York: Row, Peterson and Company, 1962), 12. However, when I checked the reference I could not find this statement. Ghader Afshari-Mirak, "Cultural Approaches to Native Canadian Housing: An Evaluation of Existing Housing Projects in Cree Communities in Northern Quebec" (M. Arch. thesis, McGill University, 1994), 8.

[10] Sebba, "Home Environment": 226.

[11] Rapoport, *House Form and Culture*, 6.

[12] Amos Rapoport, "Development, Culture Change and Supportive Design," *Habitat INTL* 7, no.5-6 (1983): 255.

[13] Ibid.: 255.

prints on the dominant local culture, people's way of life or, in particular, on their built environment, building techniques and domestic architecture, as it did in the towns and cities on the sea coast. This is mainly because this long colonization of Ghat was not a habitual (demographic) colonization. Ghat was just a military frontier located in the harshest part of the country, climatically and geographically. In fact, the colonizers incorporated the local Ghatian traditional building techniques and skills into their own advanced techniques, creating a new style for their administrative and military buildings, such as the *caserma* building for their *carabinieri*. Trans-Saharan trade, on the other hand, had much influence on the built environment and people's way of life through, for example, the slave trade and the construction skills that the slaves brought with them. Tangible changes in some aspects of the people's culture and improvement in their living conditions and built environment occurred only when it came from within the country itself and by the people themselves, following independence and as a result of oil discovery, accelerated political and socio-economic change, and the new openness to the outside world. However, this change was not completely positive, since western technical standards that were alien to the people, and unsuitable for their built and ecological environment and the history of this area, were either imposed (in the modern settlement built to replace the Old Town) or permitted (in the Old Town). For example, pipes for drinking water were allowed to be extended into the Old Town. This action not only failed to consider the fragility of the Old Town structures, but also contributed to the collapse of some of its parts.

The shift from collectivism to an individualistic social structure can be considered one of the most important forms of cultural transformation, and this plays an important role in shaping the housing environment. The concepts of collectivism and individualism provide a key to understanding the different attitudes toward housing found in different cultures. James Duncan highlights the relationship between 'collectivistic' and 'individualistic' social structures, and the unique attitudes towards housing in different societies throughout the world. He notes that "many collectivistic groups are becoming more individualistic due to increasing contact with western goods and ideas [...] shifting social relations produce changing attitudes towards the house and less segregation of men

and women."[14] He also argues that individualism can be regarded as the main attribute of Western societies, and that the shift from collectivism to individualism is "one of the most fundamental social transformations in history."[15] He emphasizes this argument in "The House as a Symbol of Social Structure,"[16] in which he classifies societies on the basis of their collectivistic or individualistic social structures. He argues that traditional Third World societies were once highly collectivistic, yet are now moving toward individualistic forms of expression and face a difficult structural and psychological choice, one implicated in the relentless process of Westernization.

In most traditional cultures the emphasis is placed on group and collective identity rather than on individual identity, which tends to be either unimportant or totally absent. Duncan maintains that the collectivist attributes of traditional society, such as kinship, provide basic organizing principles, while the individual's identity is intimately tied up with membership in the group. Moreover, kinship is related to the concept of the extended family, and is considered a basic component of certain societies in which a specific type of housing is required, including nomadic ones such as the Tuareg. In Ghat, collective identity is evident in the compact structure of its neighbourhoods and in their names, which refer to particular families or tribes, as well as in their dwellings' unified architectural style. However, individual identity can be expressed and confirmed in the home environment. As Duncan states, "the house, for most people, is the largest and costliest private object whereby individuals can assert their identity. It is used to display to others who one is, what one's class, lifestyle, and tastes are, in other words to help others situate the potentially free-floating individual within the social structure."[17]

It is important to note that, within the built environment, the link between the house and the various modes of identity are powerfully interrelated. The question of identity is inextricably bound up with the criteria used to establish the identity of groups and individuals; to distinguish groups and individuals from one another within a given community; to help identify the social space which they occupy; and to understand the

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[14] James Duncan, ed., "From Container of Women to Status Symbol: The Impact of Social Structure on the Meaning of the House," in *Housing and Identity: Cross Cultural Perspectives* (New York: Holmes & Meier Publishers, 1982), 55.

[15] Ibid., 56.

[16] James Duncan, "House as Symbol."

[17] Ibid., 135.

different ways in which people identify with their houses. Rapoport considers identity to be a difficult concept to define, and explains how even dictionaries assign multiple meanings to it. However, in "Identity and Environment: a Cross-Cultural Perspective" he argues that those definitions that describe identity as "the condition of being one thing and not another" are broader and more useful than those based on individual identity.[18] He further explains how, among nomads, mobility itself can be a form of identity and can lead to a notion of identity conceived through purely negative definitions. He explains how the absence of a permanent house is one of the reasons for the negative view taken of nomads, gypsies, and hobos. In this sense, one can conclude that within a built environment, the phenomena of place and dwelling are important, and while these are strongly linked to the concept of identity, their absence can give rise to negative stigmas.

The built environment, which, as I stated earlier, is a cultural phenomenon, encodes elements of the social structure and plays a significant role in the dynamics of the social process. Furthermore, symbols are evaluated within a social and environmental context, and used to communicate the meanings that people attribute to their surroundings and the human being's place within them. Some scholars consider that the built environment is a text that can be decoded only by those who know the particular language of the built form.

Rapoport defines the built environment as the result of interactions between human beings and nature, as represented in their aspirations, social organizations, perspectives, distinctive way of life, and their nature, and extending to the variety of their different needs, as well as the particular circumstances of climate and technology that determine their choices.[19] In *Human Aspects of Urban Form*, Rapoport recognizes spatial and social behavioral spaces, which are important aspects of the built environment, as important factors in cultural contact and, as such, as related to the idea of cultural space.[20] He provides a list of categorized spatial terms through which many traditional settlements, houses and high cultures (such as China and India) can be understood. The

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[18] Amos Rapoport, "Identity and Environment: A Cross-Cultural Perspective," in *Housing and Identity*, ed. James Duncan (London: Croom Helm, 1981), 10.

[19] Amos Rapoport, *The Meaning of Built Environment: A Non Verbal Communication Approach* (Beverly Hills: Sage Publications, 1969).

[20] Amos Rapoport, *Human Aspects of Urban Form: Toward a Man-Environment Approach to Urban Form Design* (Oxford; New York: Pergamon Press, 1977).

terms proposed by Rapoport to define his distinctive concerns are 'human' and 'non-human,' 'designed' and 'non-designed' space, and 'abstract geometric' and 'sacred' spaces. He also argues that the physical or geographical built environment is composed of three important aspects of, and approaches to, the environment: the operational environment, the perceptual environment and the behavioral environment.

Cultural space has been defined by various groups in terms of varying categories and approaches, and other definitions have also been proposed, for example by Christian Norberg-Schultz,[21] making clear the formidable complexity of the concept. However, the various attempts to define culture agree that different groups build up a perceived spatial environment whose elements constitute a unique mix, leading to specific cultural characteristics. As Paul Oliver says, "each culture has different expectations of its dwellings, and makes demands on them which are related to its social structure and the ways in which its members organize their daily lives."[22]

Reading in history of architecture shows that the way that people define spaces differs based on their cultural values. For example, in Ghat, the thatched hut dwellings of the *Imgrrghessan* nomadic tribe of the *Azjer* Tuareg, who I surveyed in 2006, commonly comprise more than one circular hut organized within an unenclosed wide space. Each hut has a particular function. Although this compound system, which is composed of separate units arranged within defined open space, is flexible and comfortable for its users, the same arrangement and method of organizing spaces and functions might not be suitable to another society where, for example, the familial relationship works better under one roof.

Furthermore, some kinds of symbolic system and aspects related to house design and arrangements and relationships of space are peculiar to one culture and reinforced through its myths and legends, which include the values of this particular society. For example, the semi-nomadic Tuareg of Ghat organize the sleeping area of their thatched circular hut (*tekabar*)[23] so that the sleeping person is always oriented north-south, with the head to the south, toward Makka, which is the preferred burying position for the Tuareg and Muslims in general. They believe that if someone dies in his sleep he will be in the appropriate position.

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[21] Christian Norberg-Schultz, *Existence, Space and Architecture* (New York: Praeger, 1971).
[22] Paul Oliver, *Dwelling: The House across the World* (Austin: University of Texas Press, 1987), 128.
[23] *Tekabar* is masculine and refers to the larger hut; *tekabart* is feminine and refers to the small hut.

Other kinds of symbolism are also peculiar to particular cultures. For example, in some cultures the zones of activity in the dwellings are defined by astrological associations, as is the case with the Sakalava tribe, which lives on the west coast of Madagascar. This tribe uses the dwelling plan as an astrological, zodiac calendar. Paul Oliver describes these dwellings:

> A simple rectangular plan house with a central pole supporting the ridge, the Sakalava dwelling is oriented north-south. The months are identified with the corners and two points on each side of the house, commencing at the north-east with *Alahamady*, or Aries. Each corner has three days associated with it; each wall point has (twenty-eight in all) so that the zodiacal calendar is also a daily one. The points of the zodiac determine the position of household articles: *Adaoro* for example (Taurus) is the household head's sleeping place; *Asombola* (Virgo) is related to the Arabic *as-sumbula* (grain) and is the site of rice mortar and winnowing pan.[24]

Rapoport provides a useful formula for analyzing the human-environment interaction, and stresses the importance of built environment properties which he categorizes as the organization of space, meaning, time, and communication. He argues that space is "the heart of the built environment" and that the organization of space, which reflects the needs, values, and desires of various groups or individuals, is the key element and the most useful for comparing environments and studying the results of their organization.[25] However, he does not deny the importance of the shape, proportions and distinctive qualities of spaces, including their enclosing elements, as well as their symbolic meanings, which all have significance within the spatial framework. He describes the significance of this spatial framework as follows: "consider a village with dwellings surrounding a central space. The shape and materials of the house and even the shape of the central space might be changed without basically changing the nature of the organization. However, by arranging the traditional houses along streets, a fundamentally different settlement results."[26]

Furthermore, Rapoport reveals how the organization of meaning, through which materials, forms and details become important indicators of social situation and identity, is expressed in the various components of the built environment: "meaning is frequently

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[24] Oliver, *Dwellings: Vernacular House*, 182.
[25] Rapoport, *Human Aspects*, 10.
[26] Ibid., 9.

expressed through signs, materials, colours, forms, landscape, and the like."[27] This argument is taken further by James Duncan, who states that meaning may coincide with spatial organization or may represent a separate symbolic system within which different locales become indicators of social position and point to a new way of asserting social identity.[28] Donald Royse argues that this indicates that physical elements in the environment vary considerably in their meanings and influence, and that their significance and implications for behavior change accordingly.[29]

Rapoport also argues that the environment can be seen as simultaneously reflecting and determining the organization of time. He explains that the environment is temporal and affects the organization of time, which refers either to a large-scale 'cognitive structuring' of time, as with linear flows, or cyclic time, or to "the tempos and rhythms of human activities and their congruence or incongruence with each other."[30] He also notes that "People may be separated in time as well as, or instead of, by space, so that groups with different rhythms occupying the same space may never meet."[31] With this example, Rapoport clearly indicates how spatial and temporal aspects interact with, and influence, one another. Finally, he concludes that the spatial organization of the built environment is greatly influenced by, and is reflected in, the organization of communication. He conceives communication as being mediated by both the environment and the people within the environment. Communication, he argues, is a matter of "who communicates with whom. Under what conditions, how, when, where and in which context, is one important way in which the built environment and social organization are linked and related."[32]

With regard to housing within the built environment, Norberg-Schulz argues that 'to dwell' means to be at home in a given environment. For Norberg-Schulz, the home acquires qualitative and social meanings by virtue of its place in the continuum of the built environment, which he claims involves four domains: "settlement, urban space,

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[27] Ibid., 11.

[28] James Duncan, "Landscape Taste as a Symbol of Group Identity," the *Geographical Review* 63 (July 1973).

[29] Donald C. Royse, "Social Inferences via Environmental Cues" (PhD diss., MIT Department of Planning, 1969).

[30] Rapoport, *Human Aspects*, 12.

[31] Ibid., 12.

[32] Ibid.

institution and house constitute the total environment, where natural, collective, public and private dwelling take place."[33] This argument concerning the social meanings ascribed to the home is similar to that developed by Rapoport in *House Form and Culture*[34] and in his foreword to *Housing, Culture and Design: A Comparative Perspective.*[35] Rapoport regards housing as a form of the built environment that comprises the behavioral relationships between man and his made environment. He concludes that socio-cultural factors are the most important and influential determinants in evaluating the housing environment (compared to other factors, such as climate, building materials etc.).

Rapoport's study suggests that the housing environment is not just a product, but also a process, and that the domestic built environment strongly relates to the cultural life of its users. Rapoport argues that "Home environments are part of larger, culturally variable systems of settings and are themselves best understood as that system of settings within which a particular set of activities takes place."[36] Consequently, he concludes that the nature of a given home environment cannot be decided *a priori* but must be discovered. He adds that an understanding of the home environment will eventually allow for many valid cross-cultural comparisons.

In the creation of the housing environment, two key factors should be considered: choice, and cultural values. Rapoport argues that choice and cultural values are not merely subjective, but are made concrete in the built environment: "all man-made environments are designed in the sense that they embody human decisions and modify the world in some purposeful ways."[37] In this context, and in relation to the dweller's control and decisions over the housing process, John Turner states that:

> When dwellers control the major decisions and are free to make their own contribution to the design, construction or management of their housing, both the process and the environment produced stimulate individual and social wellbeing. When people have no control over, nor responsibility for, key decisions in the housing

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[33] Christian Norberg-Schulz, *The Concept of Dwelling: On the Way to Figurative Architecture* (Milan: Electa; New York: Rizzoli, 1985), 13.

[34] Rapoport, *House Form and Culture* .

[35] Rapoport, foreword to *Housing, Culture, and Design.*

[36] Amos Rapoport, "Thinking about Home Environments: A Conceptual Framework," in *Home Environment*, ed. Irwin Altman and Carol M. Werner (New York: Plenum Press, 1985), 264.

[37] Rapoport, "Vernacular Architecture," 291.

process, on the other hand, dwelling environments may instead become a barrier to personal fulfillment and a burden on the economy.[38]

Turner does not suggest that the dwellers should build their own houses, but rather that they should be in a position to influence the process. In Ghat, some of the inhabitants built their homes by themselves, while others hired masons from Tawàt in Algeria, and others had their homes built for them by their African slaves. However, even those who hired masons to build for them provided clear lists of requirements and gave straightforward instructions for how they wanted their house to be. The masons used their technical skills to the requirements of the individual customer, the budget, and with consideration for the prevailing architectural style of the town.

All these studies focus on the complex of related issues that have an impact on built environment. We have seen that, while some scholars provide definitions and analytical descriptions of the term 'culture,' others discuss the relationship between culture and the built environment, while still others discuss the housing environment as a site of cultural transformation and identity.

2.2 Private and Public Space

Traditionally, two types of spaces are recognized: private and public. Understanding the concepts of private and public space is important to this research. The distinction between private and public spaces forms the lens through which I interpret Ghat's built environment. As a broad general guideline for this theoretical review, I will take the home to be connected to private space, while the rest of the town will be associated with public space. However, at some points the borderline between these two kinds of space may be flexible, creating a transitional space, referred to according to its use and degree of privacy either as 'semi-public' or 'semi-private' communal spaces. The type (private, semi-private, semi-public, public) and size of each space in the town, its uses, users, and meaning for its users, differs from one society to another based on the people's social values, traditions, and ways of life. Ghatians, for example, consider spaces

[38] John Turner, *Housing by People: Towards Autonomy in Building Environments* (London: Marion Boyars Publishers Ltd., 1976), 6.

that would usually be classified as public as an extension of private spaces (this will be discussed further in Chapter 7).

When connected to a way of life, the word 'private' can be given negative or positive connotations, based on the perspective of the scholar. The negative denotation can be seen in Hannah Arendt's harsh interpretation of private life in *The Human Condition*,[39] in which she maintains that the private person 'does not exist,' because his or her actions have no meaning or implications for others, and because the life lived in confined space, withdrawn from public life, deprives people of human contact and community. She defines privacy as being *deprived* of other people. Opponents to this point of view provide a positive interpretation of private life, and present it as a fundamental component of human life: "Privacy permits people to share intimacies and ideas on their own terms, and thus establish those mutual reciprocal relinquishments of the self that underlie the relations of love, friendship and trust....The right to privacy is thus an inescapable aspect of our humanity."[40]

Defining private space starts with understanding the meaning of the word 'private,' which has Latin roots; however, it is helpful to relate it to the word 'public,' derived from the Latin word *populus*, meaning 'people.' In most definitions the word 'private' is coupled with and dependent on the meaning of the word 'public.'[41] According to the Oxford English Dictionary, the word 'private' can describe people, places, or activities. In accordance with the dictionary description, Ali Madanipour defines private space as "a part of space that belongs to, or is controlled by, an individual, for that individual's exclusive use, keeping the public out."[42] The private space is often defined by the family and represented by private property[43] such as the house, which constitutes a spatial form of an individual's area of control. Through control of the house boundaries, households regulate their life and social interaction within and outside the home realm. Home is not only a symbol of family, but is also a strong materialization of private space. According

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[39] Hannah Arendt, *The Human Condition* (Chicago: University of Chicago, 1958), 58.

[40] Krattenmaker, cited in Ali Madanipour, *Public and Private Spaces of the City* (London: Routledge, 2003), 40.

[41] Madanipour, *Public and Private Spaces*, 39.

[42] Ibid., 41.

[43] This does not necessarily mean legal ownership.

to Madanipour, home is a key node of the socio-spatial; it is "the private intimate space that is separated, and protects its members, from the public impersonal outside."[44]

According to this definition, the home is a spatial unit and a symbol of privacy. Its private realm provides a personal space, as well as a place that satisfies the individuals' psychological needs. This conception of the home is corroborated by my fieldwork. Al-Sedeek Abdarrahman El-Kenndy,[45] a former inhabitant of Old Ghat, told me while he was showing me his parents' old house that his mother refused to move to the newly built settlement with them and stayed in this house until she died. "She loved this mud house," he said. "Every time she comes to visit us in the new modern house she does not feel comfortable and asks us to take her back to her house. It is the place that she is familiar with, shaped her identity and witnessed her happiness and sorrows and holds images of the past and where all of her memories are rooted." For Al-Sedeek Abdarrahman El-Kenndy's mother, home was not only a physical shelter protecting her from natural conditions; its meaning transcended the geometrical space and signified a psychological space, her point of reference in this world, and her safe haven built over the years.

It is important to explain that the house is not entirely a private realm. This is because it includes within its territory forms of interpersonal spaces and a combination of semi-private or even semi-public spaces. The rooms for individual household members are the most private, while shared spaces take on different degrees of privacy. Moreover, the home is not an isolated unit. In fact, the public realm finds its way into the home through the most public point of the house, which is the dwelling's entrance, in the form of visitors. According to Madanipour, "both these internal and external contacts and relationships mean that the dwelling is not an entity entirely cut off from the outside world. It is possible to trace a continuum of relationships from the most private to the most public, all within a realm that is often considered private."[46]

As I stated earlier, in order to make sense of the meaning of the word 'private' it is important to explore what lies beyond the private domain, and relate the word private to the word 'public.' However, the word 'public' also has a wide range of meanings.

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[44] Madanipour, *Public and Private Spaces*, 71.

[45] Al-Sedeek Abdarrahman El-Kenndy, a local informant who lived and owns a house in *Kel Tekadut* neighbourhood in Old Ghat, interviewed by the author, Ghat, July 25, 2006.

[46] Madanipour, *Public and Private Spaces*, 76.

According to the Oxford English Dictionary, it means "in general, and in most of the senses, the opposite of PRIVATE."[47] Another definition provided by this dictionary is: "of or pertaining to the people as a whole; that belongs to, affects, or concerns the community or nation[.]"[48] Similar definitions are provided in the Compact Oxford Canadian Dictionary: "of or concerning the people as a whole"; "open to or shared by all the people"; "done or existing openly"; and "provided or heavily subsidized by, or concerning a government[.]"[49] Another meaning is expressed by Richard Sennett, who claims that "by the time the word 'public' had taken on its modern meaning [...] it meant not only a region of social life located apart from the realm of family and close friends, but also that this public realm of acquaintances and strangers included a relatively wide diversity of people."[50] These meanings, which refer to a sizeable number of people who are conceptualized either as a society or as a nation, are echoed in various definitions of public space. For Carr *et al,* public space is "the common ground where people carry out the functional and ritual activities that bind a community, whether in the normal routines of daily life or in periodic festivities."[51] It is "the stage upon which the drama of communal life unfolds."[52] Francise Tibbalds claims that public space is the domain where human interaction is intensified, describing it as "all the parts of the urban fabric to which the public have physical and visual access. Thus, it extends from the streets, parks and squares of a town or city into the buildings which enclose and line them."[53] Michael Walzer perceives the public space as the "space we share with strangers, people who aren't our relatives, friends, or work associates. It is space for politics, religion, commerce, sport; space for peaceful coexistence and impersonal encounter."[54]

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[47] James Augustus Henry Murray and R. W. Burchfield, *The Oxford English Dictionary; Being a Corrected Re-Issue with an Introduction, Supplement, and Bibliography of a New English Dictionary on Historical Principles* (Oxford: Clarendon Press, 1933), 1558.

[48] Ibid.

[49] Katherine Barber, ed., *Compact Oxford Canadian Dictionary* (Don Mills: Oxford University Press, 2006), 813.

[50] Richard Sennett, *The Fall of Public Man* (New York: Alfred A. Knopf, 1977), 17.

[51] Stephen Carr, M. Francis, L. Rivlin and A. Stone, *Public Space* (Cambridge: Cambridge University Press, 1992), xi.

[52] Ibid., 3.

[53] Francise Tibbalds, *Making People-Friendly Towns: Improving the Public Environment in Towns and Cities.* (Harlow, Essex: Longman, 1992), 1.

[54] Michael Walzer, "Pleasures and Costs of Urbanity," *Dissent, Public Space: A Discussion on the Shape of Our Cities* 33, no.4 (Summer 1986): 470.

These definitions suggest that public spaces emphasize open access to the space and the activities within it, which are in turn permitted by this inherited aspect of open access. In addition, the previous discussion of private and public suggests that they are opposites that complement each other. In this sense Richard Sennett states that the public "corrected a deficiency of nature which a life conducted according to the codes of family love alone would produce: this deficiency was incivility."[55]

The meaning and concept of private and public space as well as the form and degree of the relationship between the private and public varies from one culture to another. Ghatian society had a unique concept of privacy, stemming from Ghat's collective social structure, that affected social and spatial relationships. In the following quotation, engineer Mohammed Ali Mohammed describes the traditional Ghatian concepts of public and private, and illustrates the distinction between both spaces:

> The courtyard is for toddlers. When they grow up and learn how to walk, they are allowed to go outside the house. Outside the house is a familiar environment. Their neighbours are their aunts and uncles. Therefore, the streets cannot be considered as a public place, but it is considered as an extension for the house [private space] no strangers pass by their streets only aunts and uncles. Even though the street is occasionally used by others to go to the *jameh* [the mosque] or to the *as-souq* [market], it is still considered a private area. One feels that s/he is in a public space only when s/he leaves the town walls.[56]

The identity of public and private spaces depends greatly, if not entirely, on the boundaries that distinguish and separate them. Furthermore, the relationship between individuals and society is regulated not only by the creation of these two distinct spatial identities but, even more importantly, by the construction of boundaries between them. As Sennett states, "people are more sociable, the more they have some tangible barriers between them [...] Human beings need to have some distance from intimate observation by others in order to feel sociable."[57] By defining a space with boundaries, social relations take a spatial form. Social relationships entail social interaction, which eventually requires a controlling mechanism. In this research, the role of privacy as a regulatory mechanism of social interaction is one of the important variables I use to interpret the

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[55] Sennett, *Fall of Public Man*, 91.

[56] Mohammed Ali Mohammed, head of the Urban Planning Office-Ghat, interviewed by the author, Ghat, 23 July, 2006.

[57] Sennett, *Fall of Public Man*, 15.

relationship of Ghatians to their built environment. In other words, I treat the intended signification of this mechanism as important in interpreting the hidden meanings of the Ghatians' built environment.

2.3 Privacy in Relation to Social Interaction and Built Environment

2.3.1 The Concept of Privacy

A number of studies have pointed out that the concept of privacy is one of the most important variables through which to interpret the relationship of human beings to their environment. For example, Irwin Altman argues that privacy is the central concept that links personal space, territory, and other forms of social behavior.[58] It provides the regulatory boundaries by which a person or group of people can become more or less accessible to each other. In other words, it is the prime mechanism that regulates social interaction between people.

The complexity of the issues surrounding privacy make it unusually difficult to define. In fact, there are considerable differences in the various definitions of privacy across the entire spectrum of disciplines, and sometimes even within the same discipline. It is immediately apparent that the extraordinary range of different definitions developed across different disciplinary frameworks makes it impossible to offer a total or comprehensive definition of the concept of privacy. In each particular instance, definitions will necessarily take on the specific glosses, emphases, and interests of a given field of enquiry. Although a review of the literature in the various disciplines reveals the lack of an overall theoretical and/or systematic approach through which to understand and explain the concept of privacy, its nature, and its implications for the built environment, there are some basic similarities underlying the concept of privacy common to all fields of research.

Traditionally, academic discussion of the concept of privacy and related issues has been limited to the fields of political science, law, and philosophy. However, since the late 1960s there has been a growing interest in the subject, and it has consequently been refracted through the prism of a wider and more diverse range of disciplines such as

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[58] Irwin Altman, *The Environment and Social Behavior: Privacy, Personal Space, Territory, and Crowding* (Monterey, Calif.: Brooks/Cole Pub. Co., 1975), 6.

sociology, anthropology, social psychology, planning and architecture, as well as related design professions.

Although the need for a more specific and detailed study of the nature of privacy has been widely recognized, and its significance in housing design has been emphasized in the literature, there has been little development and exploration of the concept of privacy in relation to architecture or to culture and basic human living requirements. As Shahram Vaziritabar argues, "privacy has rarely been treated as the main theme or focus of a study. Most often it has emerged in relation to other factors, or has been treated under other terms or headings which depended on how privacy was defined or what aspect of it was examined."[59]

Only in the last forty years have researchers in the field of architecture and planning recognized the importance of privacy and its functions for creating successful housing environment, and of an understanding of the concept of privacy for cultural studies. It is now widely recognized that privacy plays a strong and even decisive role in facilitating positive social interactions. A more adequate sense of what privacy entails can have a crucial impact on the built environment, particularly in relation to the domestic environment. As a result, illuminating the significance of privacy in regulating social interaction is important in understanding the urban form of the Old Town of Ghat, particularly its dwellings.

2.3.2 Privacy as a Regulatory Mechanism in Social Interaction

A number of researchers have dealt with the role of privacy as a control mechanism in social interaction. While some consider privacy to be a control mechanism that indicates appropriate levels of accessibility, openness and closeness, and a desired level of social interaction, others consider that it can provide a measure of selective control only over accessibility. Irwin Altman and Martin M. Chemers state that "privacy is [...] a changing process whereby people attempt to regulate their openness/closeness to others." Altman and Chemers also argue that, in order for people to develop and regulate their desired levels of interaction, there is a need to define a series of behavioral

[59] Shahram Vaziritabar, "Design and Privacy in Modern and Traditional Housing in Iran" (PhD diss., Oxford Polytechnic, 1990), 78.

mechanisms such as "personal space and territory along with verbal and nonverbal responses and cultural practices."[60] They explain that the unsuccessful use of these behavioral mechanisms can lead to a failure to protect individuals or groups from undesirable interactions and to enable the attendant possibility of achieving their desired levels of privacy. When the desired degree of privacy becomes less than might be expected, a state of 'crowding' occurs. Alternatively, if the behavioral mechanisms regulating privacy are overused and go beyond their desired limits, then an undesirable state of isolation results. Based on Altman's framework for ensuring privacy in "Privacy Regulation: Culturally Universal Patterns or Culturally Specific?"[61] the optimal situation occurs when the achieved degree of privacy equals that which is desired.

Furthermore, Altman and Chemers point out that privacy regulation is "a 'boundary control' process" and that "privacy means *changing* boundary control, not merely 'keeping out' others or shutting off stimulation. Privacy is a dynamic process whereby people vary in the degree to which they are accessible to others."[62] In this respect, Altman and Chemers urge the consideration of the extremes of openness and closeness in the use of the term 'privacy.' These two ostensibly opposed perspectives on privacy bestow a certain unity on the phenomenon since, in practical terms, one cannot examine openness without also considering closedness, and *vice versa*: "To be with or to be without interaction are not separate processes; they are part of the same phenomenon, 'two sides of the same coin.'"[63]

Haluk Pamir provides a theoretical definition of privacy regulation and control mechanisms, describing this regulatory mechanism as "the control applied by persons singly, jointly or communally, over the boundary relationships of the self or the social unit operating in psychological, social, and physical environment space."[64] Altman provides an operational definition, arguing that privacy is "the selective control over

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[60] Irwin Altman and Martin Chemers, *Culture and Environment* (Monterey; California: Brooks/Cole, 1980), 75.

[61] Altman, "Privacy Regulation": 69.

[62] Altman and Chemers, *Culture and Environment*, 77, 78.

[63] Ibid., 78, 79.

[64] Haluk Pamir, "Privacy and the Use of Space in Adolescence" (PhD diss., University of Surrey, 1978), 7.

access to the self or to one's group."[65] Altman highlights the idea of 'selective control' as a fundamental aspect of the definition of privacy. Selective control over privacy implies that the boundaries of privacy must be renegotiated as part of an ever-changing process. It does not entail a permanent shutting off of the self from others.

The above definitions are mutually complementary rather than contradictory. They all emphasize that privacy is strongly related to the need for social interaction. While they have this in common, control patterns for regulatory mechanisms of social interaction such as privacy are culturally specific and related to readily observable cultural norms. Each culture applies mechanisms for the regulation of privacy differently, using either behavioral or physically regulative mechanisms.

2.3.3 Culturally Specific Patterns of Privacy Mechanisms

People around the world use a variety of verbal and non-verbal behavioral mechanisms to control social interaction. For example, facial expressions and body language can be used to signal a welcoming invitation or a friendly overture, indicating possibilities of social interaction or withdrawal. The objects in our environment can also be used to reflect our degree of accessibility or inaccessibility to others. For example, closed or open doors can be interpreted as a signal to welcome people or to discourage them from entering our personal territory.

Altman argues that, although privacy is a universal process and occurs in all cultures, privacy regulation patterns and mechanisms are culturally unique.[66] This is due, he maintains, to the specific forms of behavior, and the availability of techniques used to control interaction, in a given culture. This is particularly evident in the level of importance attached to social interaction by different people, since their required or desired levels of interaction, as well as the way in which they relate to each other in space and their need to identify private territory within such a space, vary considerably, depending, among other factors, on their respective cultural backgrounds and individual needs. As Robert Gutman argues, "The size of this area [private territory] apparently varies among the inhabitants of different cultures as well as among individuals in the

[65] Irwin Altman, "Privacy: A Conceptual Analysis," in *EDRA5: Part 6; Privacy*, ed. Margulis (Environmental Design Research Association Inc., 1974), 6.

[66] Altman, "Privacy Regulation": 66, 69, 70.

same culture."[67] He states that people's behavior in defending this space and territory from outside invasion is noticeably different in each instance, based on differences in background, values, culture and religion. While some people are threatened by the invasion of their territory, others are markedly less so. Thus, the diverse requirements of individuals in relation to the arrangement of their spatial environment can depend on a variety of different factors, ranging from the communal orientation of specific localities to the particular cultural and social values that prevail.

In this respect, Mike Davis provides an interesting example of community control over privacy and protection of their social territory in what is considered a public space. He shows how traditional luxury enclaves such as San Marino increasingly restrict access to their public facilities, such as parks, using the invisible boundaries of laws and regulations. Gibson states that "San Marino, which may be the richest, and is reputedly the most Republican (85 percent), city in the country, now closes its parks on weekends to exclude Latino and Asian families from adjacent communities. One plan under discussion would reopen the parks on Saturdays only to those with proof of residence."[68] People's ways of defending and controlling their privacy and their private territory varies greatly. Gated residential areas and walled-off communities, especially for rich people, are another way of expressing community control, not only of security, but also of social interaction, using a non-verbal mechanism and physically visible boundaries. The same can be said for the mega-structures and super-malls where social interaction with a wide diversity of people, and accessibility to these privatized public realms, is controlled by time and specific hours of the day.

An interesting example of a culturally specific behavioral mechanism used to control and regulate privacy can be observed in the traditional dwellings of old Ghadames, a sub-Saharan town in Libya, where the people use a small oil lamp to politely regulate their own need for privacy. Abubaker Shawesh and Aderenal Awotona describe the observance of this custom.[69] The entrance door of the Ghadamesian dwelling leads to an entrance hall called the *saqifa*. In this entrance hall, close to the main door,

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[67] Gutman, "Social Function ," 40.

[68] Mike Davis, *City of Quartz: Excavating the Future in Los Angeles* (London, New York: Verso, 2006), 246.

[69] Shawesh and Awotona, "Attitude of Libyan Families," 122.

there is a particularly interesting feature in the form of a small niche. This small but significant architectural detail reflects the sensitivity of Ghadamesian builders to local traditions and customs, where respect for privacy is taken for granted as an essential element of their community. The different placements of a small oil lamp placed in this niche signify a range of possible meanings. For example, if the lamp is placed in the middle of the niche this means that the family is open to visitors on this day. If the lamp is placed to the right of the niche this means the family is celebrating a marriage or a new birth. Death in the family or grief is communicated by placing the lamp to the left. If the lamp is turned off then the family wishes to be left alone.

In addition to behavioral and social mechanisms to facilitate or control social interaction, the built environment provides further possibilities by which privacy and social interaction can be enhanced or controlled. Since the built environment expresses the physical manifestation of privacy, and thus defines and regulates the patterns and limits of accessibility between people, then housing form, design, spatial organization, physical properties and attributes have a considerable impact on human behavior and, consequently, on reproducible patterns of social interaction.

The selective control of access in the achievement of privacy is strongly related to cultural considerations, as manifested in the built environment. Rapoport argues that cultural differences in relation to privacy have a tremendous and tangible impact on the organization and use of buildings.[70] Likewise, A. Worsley argues that buildings can be used to regulate human interaction. He gives a series of examples demonstrating how different cultures use the built environment in different ways, comparing, for instance, "traditional Japanese communal bathing and the solitary European bathing practices."[71] He suggests that before attempting to establish standards regulating privacy, one should aim to obtain an answer to the following questions, which relate directly to the cultural dynamics of the built environment: "For whom is the home built environment an important means of regulating social interaction? What forms of social interaction do different people wish to regulate? What different aspects of privacy are important to different categories of people?"[72] Answering these questions involves acquiring an

[70] Rapoport, *House Form and Culture* , 66-69.
[71] A. Worsley and W. R. Finighan, "Some Conceptions of Domestic Privacy,": 73.
[72] Ibid.: 73.

understanding of the way in which people's backgrounds and cultural requirements dictate their perception of their needs

Worsley claims that, in order to define acceptable levels of privacy in the home environment, one should pay particular attention to this last question. In order to obtain an answer to this question, Worsley conducted a field survey in a central South Eastern suburb of Melbourne. In his analysis of his findings he concluded that "humans are individuals who differ from one another; thus these differences have to be evaluated in order to understand what meanings the built environment has for them."[73] He found that privacy had a different meaning for each of the people he surveyed. For example, people defined privacy variously in terms of territory and possession, noise intrusion, and the quality of their relationships with their neighbours. Given the wide range of definitions of privacy articulated by different people within a single community one can readily understand why there are notably different aspects of privacy to be considered in determining the needs of different people.

Knowledge concerning the subjective or relative nature of various desiderata in designing for privacy is important for this study. Such knowledge helps my investigation of how the built environment of Ghat, particularly its dwellings, has been organized to satisfy the needs of Ghat's different social groups for privacy and social interaction. Among other things, I investigate how similar are the privacy-needs of different gender, social and age groups in Ghat, and inquire into the behavioral and physical mechanisms used by different groups to control or enhance social interaction.

Rapoport argues that past studies have over-simplified the complex actual practices of how people use and arrange space and otherwise take advantage of its principal features.[74] Other studies focus only on the strong relationship between built forms and social interaction patterns, and overlook the importance of the quality of the created spatial form in creating or encouraging such interaction. In other words, while some argue that the creation of opportunities for people to see and meet each other is essential for promoting social interaction, others stress the importance of the intrinsic spatial qualities of the built environment, which can afford opportunities for communal

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[73] Ibid.: 77.

[74] Amos Rapoport, "The Ecology of Housing," *Ekistics* 35, no.213 (August, 1973): 174.

interaction. For example, Jerry Finrow indicates three common bases for interaction in offices (one form of the built environment). These are: the professional requirement to exchange information and share tasks; the relative proximity of the offices to each other and the consequent possibilities for fortuitous encounters; and the degree of provision for the casual meeting of workers in office corridors. Finrow then discusses the creation of central nodes within the work environment, such as entrances, elevators and lobbies, and how these can enhance the possibilities of interaction between workers.[75]

Walter Moleski focuses on the quality of such spaces and how to enhance this quality. He argues that corridors, which can be either central or non-central, provide a good place for casual meetings, especially if they are designed wide enough to include side alcoves equipped with seats, wherein a limited and temporary control of space can be achieved. He believes that such a provision can provide an invaluable opportunity for social interaction.[76] This idea has been supported, with the idea of implementation, by Jon Lang. Lang argues that people's perception of corridors as meeting places for interaction might be enhanced if seats were provided, but concedes that this can be difficult to accomplish since using corridors as seating areas can interfere with safety regulations enforced in institutional buildings.[77] Although these claims relate to a modern environment (offices) they are also helpful in considering traditional environments. In the case of Old Ghat, they suggest the following questions: How important is social interaction in Tuareg culture? What encourages it? How is the need for social interaction expressed in Old Ghat's private and public spaces? What are the spatial qualities that enhanced Ghatians social interaction?

The concept of privacy that has been developed in this section emphasizes the extent to which privacy is critical in regulating the boundaries that control interaction with other individuals or groups. It is, consequently, clear that the possibilities of social interaction in the built environment are crucially dependent on recognition of the need for privacy and a corresponding need for social communication. An awareness of the

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[75] Jerry Finrow, "Urban Human Contact: 1. A Limited Theoretical Overview; 2. Two Cases," *Man Environment Systems* (July: S33, 1970): 1-2.

[76] Walter Moleski, "Behavioral Analysis and Environmental programming for offices," in *Design for Human Behavior; Architecture and Behavioral science*, eds. Jon T. Lang *et al* (Stroudsburg, Pa.: Dowden Hutchinson and Ross, 1974), 302-316.

[77] Jon T. Lang, *Creating Architectural Theory: the Role of the Behavioral Sciences in Environmental Design.* (New York: Van Nostrand Reinhold Co., 1987), 158.

significance of the concept of privacy, in all its aspects, indicates the necessity of investigating how it has been achieved and expressed in the Ghat built environment, in particular in its dwellings.

Chapter 3
History, Geography, and Cultural Landscape of the Region

This chapter explains who the *Kel Azjer* Tuareg of Libya are and provides a brief overview of their geographical territory, origin, history, and culture as well as the geography of the region they inhabit. This description allows an understanding of the economy and way of life of the Libyan Tuareg and their relation to Ghat's built environment.

3.1 The *Kel Azjer* Tuareg of Fezzan

The Tuareg are, in general, a largely nomadic people; however, in some cases, such as in Libya, they are mainly semi-nomad pastoralist and sedentary. In Libya, the Tuareg speak a Berber dialect called *Tamashaq*, and also Arabic (the Tuareg language is explained further in section 3.1.3).[1] The most striking outward peculiarity in Tuareg culture is that men, but not women, wear veils that cover the head, ears, neck, and part of the face.[2]

In Libya, there are thousands[3] of Tuareg, who live scattered in the southwest desert oasis towns and villages such as Ghat, Ghadames, and Murzuk. The Libyan Tuareg adhere to a form of Sunni Islam, and claim a close relationship with the much larger Tuareg population in neighboring Algeria and with other Tuareg elsewhere in the Sahara. Like other Saharan people, they formerly earned their livelihood by conducting long-distance trading and extracting protection fees from caravans and travelers. In the later half of the 19th century, however, the end of the desert caravan trade[4] largely deprived this people of their livelihood, and reduced many, especially in Mali and Niger, to poverty and ensuing famine.[5] In Libya after 1969, government development projects targeted all population groups, including the Tuareg, who were considered full Libyan citizens. Due

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[1] Arabic is the only official language recognized in Libya, and the new generations of the Libyan Tuareg use it almost equally to *Tamashaq*.

[2] Women also wear veils, but these cover the head and not the face.

[3] Until now, there has been no official census for the total number of Tuareg who live in Libya.

[4] Francesco Coro, *Libya Athnaa Al-Ahd Al-Othmani Al-Thanee*, trans. Khalifa Mohammed Al-Tellissi (Tripoli: Al-Mounshaa`Al-Amah Lellnsher wa Al-Tawzee wa Al-E-Alan, 1984), 123-124.

[5] Qashshāt, *Al-Tawāriq*, 266.

to economic and political factors most, if not all, the Libyan Tuareg left the nomadic way of life for a sedentary one. From its inception, the 1969 Libyan revolution has pursued the following slogan: "adequate and healthy housing for everyone." In order to meet the target indicated by this slogan, several housing programs have been adopted. Some of these projects have been implemented in deep Saharan oases where Tuareg people live, such as Ghadames and Ghat, turning most of these Tuareg into sedentary nomads.

3.1.1 Geographical Territory

The Tuareg have long been known to populate remote parts of the Sahara desert,[6] and to wander in the general vicinity of its scattered oases in southern Algeria, south-west Libya, and northern Niger, Mali, Mauritania, Chad, and Senegal. In *People of the Veil*, Lord Rennell of Rodd describes the Tuareg domain "as extending from the eastern edge of the Central Sahara, which is bounded by the Fezzan-Murzuk-Kawar-lake Chad caravan road, to the far edge of the western deserts of North Africa before the Atlantic zone begins, and from Southern Algeria in the north to the Niger and the Equatorial belt between the river and Lake Chad in the South"[7] (see fig. 3.1).

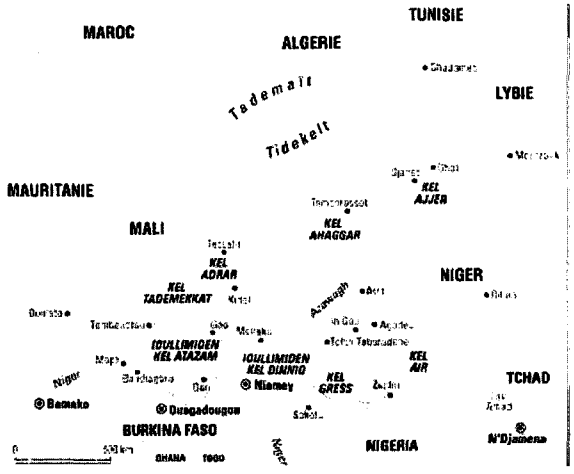

Fig. 3.1. Geographical Territory of the Tuareg. Reproduced from Air Voyages.

[6] According to *Al-Atlass Al-Watani*, the term 'Sahara' is derived from Arabic and refers to a particular type of stony desert. It is also a geographical name for the entire interior of North Africa extending from the Nile Valley to the Atlantic Littoral, and from the south of the Mediterranean coastland to north of the Equatorial belt. Secretary of the Planning-Surveying Department, *Al-Atlass Al-Watani of Socialist People's Libyan Arab Jamahiriya* (Stockholm: Iselet, 1978).

[7] Rodd, *People of the Veil*, 8.

The *Kel Azjer* Tuareg, who represent one group of Tuareg, populate south-eastern Algeria and south-western Libya (Tuareg groups and political units will be explained next). In this research I focus on the *Kel Azjer* Tuareg in Libya, whose territory and traditional boundaries have always been within the south-western Fezzan region[8] up to Ubari, Sabha, and Ghadames (see figs. 3.2, 3.3; Fezzan borders and administrative system will be discussed and illustrated in section 3.3). However, Fezzan was and still is considered a meeting point of several societies, since several different ethnic groups (Arabs, Tabou and Tuareg) lived, and still live, in separate areas within this region. While the Arabs inhabit the northern parts of Fezzan, the Tuareg are found in the western parts and the Tabou in the eastern parts. These societies center around a group of oases and villages where water levels are shallow, which facilitates drinking and agriculture watering.

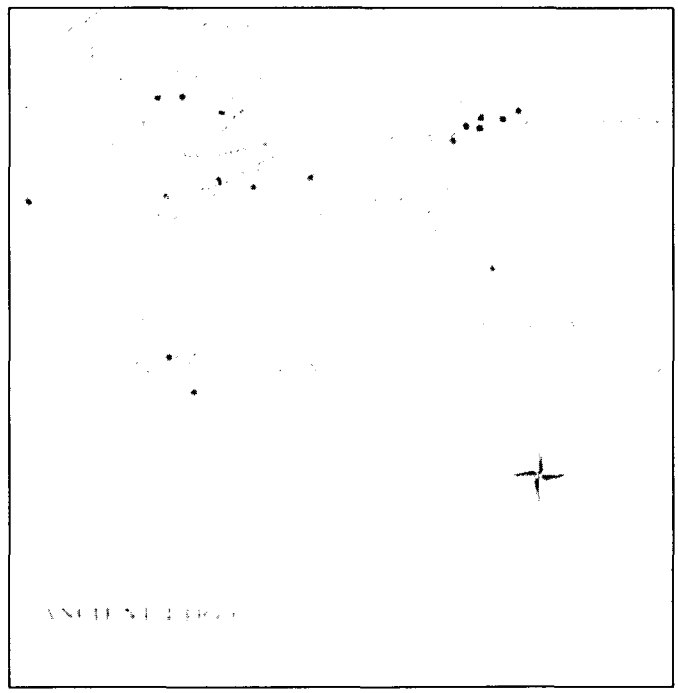

Fig. 3.2. The regions of ancient Libya.
Reproduced from John Wright (1969, 33).

[8] Fezzan is one of three ancient regions later called 'states' (*welayat*; singular *welaya*). The other two ancient regions are Tripolitania and Cyrenaica.

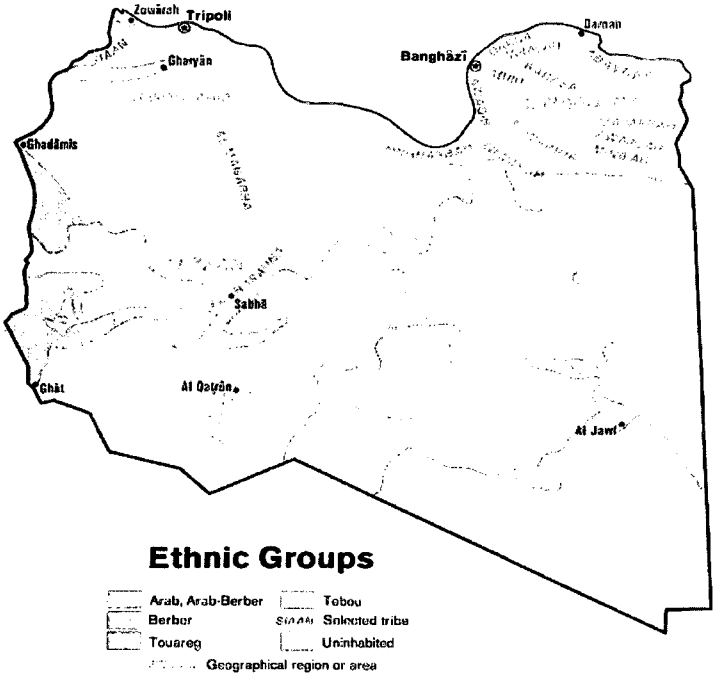

Fig. 3.3. The location of the *Azjer* Tuareg agglomerations. Courtesy of the University of Texas Libraries, the University of Texas at Austin.

3.1.2 Origin and History

3.1.2.1 The Berber: The Ancestors of the Tuareg

J. P. Roset suggests that the palaeoberbers (the first wave of Berber immigration) arrived in northern Ayr. He bases this claim on evidence such as rock carvings in the Ayr massif.[9] As Marianne Cornevin documents, the Berbers are considered the ancestors of the people we now call the Tuareg. She says, "This earliest dating of a rock site in Air [Ayr] constitutes a considerable advance in the history – documented solely by rock carvings – of the appearance of the Tuareg in the massifs of the central Sahara."[10] However, some scholars argue that the Tuareg first appeared in the Sahara in the 7th century as nomadic herders of camels, goats, and sheep.

The origin of the Berbers, who inhabited the whole of North Africa from the western Nile region in Egypt to the Atlantic Ocean, is also widely disputed. Although

[9] J. P. Roset, "Nouvelles Donnees sur le Probleme de la Neolithisation du Sahara Meridional: Air et Tenere au Niger," *Cahiers de L'ORSTOM* 13, no.2 (1983).

[10] Marianne Cornevin, "New Data Concerning the Air Massif (Niger) and its Surroundings," in *Libya Antiqua*. (Paris: UNESCO, 1986), 107.

agreement has been reached as to their having originated from the Arabian Peninsula, the exact place from which they migrated before coming to the Maghrib region is still disputed. Some historians maintain that they came from Palestine, others that they came from Yemen, while another group argues that they came from Syria. M. El-Fasi states that "None of these theories is backed by irrefutable scientific evidence, but the fact that recent linguistic studies have shown that the Berber language is undoubtedly a Semitic language suggests the Arabian origin of this people whom the Arabs have called 'Berber.'"[11] He also claims that the name 'Berber' is unconnected with any idea of savagery. He explains that it is a classical Arabic term that was used by the Arabs arriving in the Maghrib region, who found people speaking an incomprehensible language described as 'barbaring,' which means "to emit sounds which are devoid of sense."[12] However, the Berbers call themselves *Imazighen* (see section 3.1.2.3 for the origin and meaning of this name).

3.1.2.2 The Ancient Civilization of Fezzan: The Garamant

Throughout the Punic and Greek colonization of the coastal strip of Libya, the area known as Fezzan was dominated by the Garamant,[13] who were the ancient inhabitants of the Fezzan Region. This region is in southern Libya, and is where the most important indigenous Tuareg oases towns, such as Ghat, are located. According to Herodotus, the Garamant were a numerous people who herded cattle and hunted the 'Ethiopian Troglodytes,' or cave-dwellers, who lived in the desert, to make them their slaves.[14] According to Mario Liverani, "the rise of the Garamantian state from its beginnings during the 6th century BC, to its apex in the 1st to 3rd centuries AD, marks a

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[11] M. El-Fasi, "The Berber Migrations to North Africa," in *Libya Antiqua* (Paris: UNESCO, 1986), 75.

[12] Ibid.

[13] F. El-Rashedy, "Garamantian Burial Customs: Their Relation to those of other Peoples of North Africa," in *Libya Antiqua* (Paris, France: UNESCO, 1986), 77.

[14] Herodotus, *The Histories*, 4 (Penguin, 1954), 183-184. According to an explanation on the website Metrology the Forgotten Science, "The primitive Troglodyte Ethiopians of Herodotus are probably Tibu of the Tibesti mountains, south of the Fezzan. Travelers of the last century describe how the inhabitants of the surrounding oases used to organize each year a military expedition in order to capture slaves in the valleys of the Tibesti." Metrology the Forgotten Science, "The Sahara," http://www.metrum.org/mapping/sahara.htm (accessed September 22, 2008).

tremendous increase in the political and socio-economic organization of the Fezzan."[15] The Garamant established a powerful kingdom astride the trade route between the Western Sudan and the Mediterranean coast (see fig. 3.4). They left numerous inscriptions in *Tifinagh*, the ancient Berber form of writing that was, and still is, used by all the Tuareg groups. In Libya only a few *Azjer* Tuareg, mostly elderly women, still know how to read and write in *Tifinagh*.

Garamant's political power covered a group of oases about 400km long in the Wadi Al-Ajal (Al-Ajal Valley) in the Libyan Sahara. Their capital, Germa, controlled the desert caravan trade from Ghadames south to the Niger River, eastward to Egypt, and west to Mauritania (see fig. 3.4). Geographically speaking, Fezzan provided an important position from which to control trade, and particularly caravan routes, to "Ethiopian Troglodytes in the Sahara."[16]

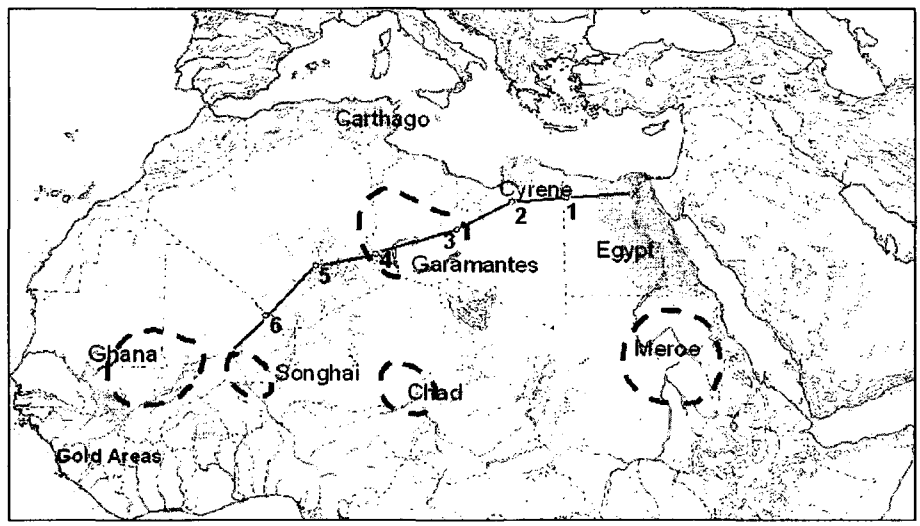

Fig. 3.4. The Libyan Caravan road according to Herodotus. Reproduced from Liverani (2003a, 34).

The Carthaginians, who dominated Africa west of Syrtes[17] before the Romans, and who were interested in establishing contact with the peoples of the interior, employed

[15] Mario Liverani, "Aghram Nadharif and the Southern Border of the Garamantian Kingdom," in *Arid Lands in Roman Times*, ed. Mario Liverani. *Papers from the International Conference held in Rome, July 9th - 10th 2001* (Firenze: All'Insegna del Giglio, 2003), 23.

[16] El-Rashedy, "Garamantian Burial Customs," 102.

[17] In some sources 'Syrtes' is spelled 'Cirta.' It is the capital of Numidia (later called Constantine and then Constantineh), which was part of the Carthaginian Empire. Leonhard Schmitz, *A Manual of Ancient*

the Garamant as carriers of goods and slaves from the deep desert to their depot on the Mediterranean coast. As El-Rashedy says, "The Garamantians were in an important position as middlemen in whatever trade in carbuncles, gold and, probably, ivory existed. They also inhabited an area of fertile *wadis* [valleys] in prosperity and ultimately, wealth."[18] The occupation of Saharan trading, practiced by the Garamant, was continued by their successors, the Tuareg. According to Liverani, "Through the long millennia of trans-Saharan trade, the oasis of Ghat, in the middle of the Wadi Tanezzuft, has been one of the most important key-points in the entire network of caravan roads. Our excavation demonstrates that such a role was already fulfilled in Garamantian times."[19]

The Garamant, who were also known as horse breeders and herders of long-horned cattle, inhabited fertile valleys in the Libyan Sahara and succeeded in cultivating parts of their arid lands using an irrigation system that employed *foggaras,* which are vast subterranean aqueducts: networks of stone-lined water channels. According to David Mattingly and Andrew Wilson, "the *foggaras* were a major landscape feature, with more than 600 now known in Fezzan [...]. They clearly facilitated large-scale and extensive cultivation of the valley floor oasis area."[20] Mattingly and Wilson challenge the accumulated Greco-Roman records which suggest that the Garamant were a semi-nomadic tribe of pastoralists with a minor interest in agricultural activities. Using botanical evidence discovered in Fezzan, they demonstrate the agricultural nature of the Garamant economy.[21]

Nicolaisen and Nicolaisen link this ancient history to the northern Tuareg groups and particularly those who lived in Fezzan in an indirect reference to the *Azjer* Tuareg, stating that "Irrigation agriculture has been practiced since ancient times within certain territories now inhabited by the Northern Tuareg [...]. A few Tuareg in the northern groups practice irrigation agriculture, although it does not seem to be one of their

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Geography (Philadelphia: Blanchard and Lea, 1857), 392, 393. According to Nicolaisen and Nicolaisen, the Garamant played an important role in spreading the 'Syrtic culture' which was a greatly influential 'Old Mediterranean Culture' in North-Western Africa long before the advent of Islam. Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 395, 399.

[18] El-Rashedy, "Garamantian Burial Customs," 102.

[19] Liverani, "Aghram Nadharif," 23.

[20] David Mattingly and Andrew Wilson, "Farming the Sahara: The Garamantian Contribution in Southern Libya," in *Arid lands in Roman Times*, ed. Mario Liverani, *Papers from the International Conference held in Rome, July 9th-10th 2001* (Firenze: Edizioni All'Insegna del Giglio, 2003), 37.

[21] Ibid., 37, 39.

traditional occupations. Tuareg irrigation farmers are found mainly in the Fezzan."[22] Liverani links Garamantian technological achievements to the rise of irrigated farms around Ghat.[23] He believes that during the Garamantian Kingdom, the sudden increase in and concentration of population around the historical sultanate of *Kel Azjer* Tuareg in Ghat "could not have taken place without the introduction of intensive horticulture based on date-palms and irrigation (namely *foggara*)."[24] He also maintains that "the rise of the trans-Saharan trade in the 6th century BC was based on the existence of chiefdoms or proto-states in the Fezzan."[25] This argument, in addition to the research of Mattingly and Wilson and Nicolaisen and Nicolaisen, could indicate that the survival of Old Ghat was due not only to trans-Saharan trade, but also to farming activities, and that the existing date-palm farm lands around Ghat have their roots in ancient Garamant.

Late in the first century A.D., after several punitive expeditions against the Garamant, the Romans concluded lasting commercial and military alliances in the region. This suggests that the Garamants were more than merely Saharan barbarians controlling a few villages and oasis towns, as had long been thought by many scholars. Garamant was a great civilization that made the desert bloom. Due to the decline of the Roman Empire and a water crisis caused by severe drought, by the 6th century Garamant civilization was declining, and by the end of the 7th century, the Garamant Empire dissolved, and most of its former territories fell under Islamic domination.[26] Ghat, however, remained outside Islamic control, and the Tuareg only converted to Islam in the 13th century.[27]

The above historical review suggests that Garamant culture was influential, and this is in fact evident in the Tuareg adoption of their ancestors' irrigation technique (*foggaras*), the remains of which are still found around the oasis of Ghat.[28] I believe that,

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[22] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 253, 255.

[23] Mario Liverani here seems to refer not to Ghat the town, but to *Sha'biyat* Ghat, which includes within its jurisdiction several towns and villages.

[24] Liverani, "Aghram Nadharif," 32.

[25] Ibid., 36.

[26] Jacques Thiry, *Tarikh Al-Sahraa Al-Libiya fi Al-Usoor Al-Westa* (Mesratah: Ad-Dar Al-Jamahiriya Lellnsher wa Al-Tawzee wa Al-E-Alan, 2004); Liverani, "Aghram Nadharif."

[27] Ibid., 110, 113-120, 491-498.

[28] The oasis of Ghat includes the Old Town and the surrounding villages. According to David Mattingly and Andrew Wilson, based on data from Scarin 1934, and the Reale Società Geografica Italiana, based on 1930s census data, "No foggaras are known near Ghat." According to these sources, in the area of Ghat/Tannezuft, the total number of springs was 74, wells 217, irrigated gardens 240, palms 21,150, and *foggaras* zero. They add that "in no case were these still fully functioning in the 1930s" (2003, 40). They

besides the Saharan trade and its role in creating major stop agglomerations, irrigated agriculture was one of the most important reasons for the shift in lifestyle of some Tuareg from a nomadic to a sedentary way of life, and that it influenced the style of their built environment from temporary or mobile to permanent structures. Thus, this review undermines the stereotype that the Tuareg at that time were nomads, that their economy was based only on pastoral and caravan trade raiding or taxation, and that they never built or lived in permanent settlements, or in mud and stone dwellings (see Chapter 4: *Kel Azjer* Tuareg rural dwelling typology, for further evidence to the contrary). Based on the above evidence, it appears that some *Azjer* Tuareg groups practiced irrigated agriculture, whether by themselves, by using their slaves, or by hiring true agriculturists to cultivate for them, which eventually implies the presence of permanent Tuareg settlements.

Garamantian cultural wealth and skills are evident not only in irrigation techniques, but also in the remains of their stone-built towns, such as Germa and those towns near Ghadames and Ghat, and the remains of the differently shaped tombs (cylindrical, quadrangular, pyramid, and mausoleum) of the Wadi Al-Ajal (see fig. 3.5). The existence of these remains near the indigenous oasis towns and villages of the Libyan Tuareg suggests another possible form of influence of Garamantian culture on the Tuareg way of life and their built structures. My 2006 survey of the rural Tuareg dwelling typology in Ten Kawya (a suburban area of the town of Ghat) discovered possible evidence of this influence on the built structure, and an adaptation of Garamantian building techniques, in stone houses with thatched, conical roofs, called *derb*. These permanent rural dwellings use the same material and building techniques as those used in the nearby Garamant site called Aghram Nazarif[29] (the *derb* will be further discussed in section 4.1.1).

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further add that the "the abandonment of the foggaras and the transition to irrigation based on wells had clearly occurred long before the 19th century [...]. The post-Garamantian condition of relative decline of Fazzanese agriculture marks both changing hydrological conditions and a lesser scale of exploitation of human labour." Mattingly and Wilson, "Farming the Sahara," 48, 49. This indicates that the remains of the *foggaras* that can be seen today fell into disuse some time ago, probably as a combined result of the loss of slaves to cultivate the land, population decline, and climate change.

[29] Aghram means 'city' in the Tuareg language. In western publications, *Nazarif* is written *Nadhrif*. In formal spoken Arabic is written *Naẓarif* نظاريف. However, the Tuareg pronounce the Arabic ظ(ẓ) as a ز, (z) نزاريف. In this dissertation, in writing formal spoken Arabic words (with the exception of some names of people, authors, or books), I have used the scanned Arabic text of the 1997 edition of the *ALA-LC Romanization Tables: Transliteration Schemes for Non-Roman Scripts*, approved by the Library of Congress and the American Library Association and posted on the following link: The Library of Congress,

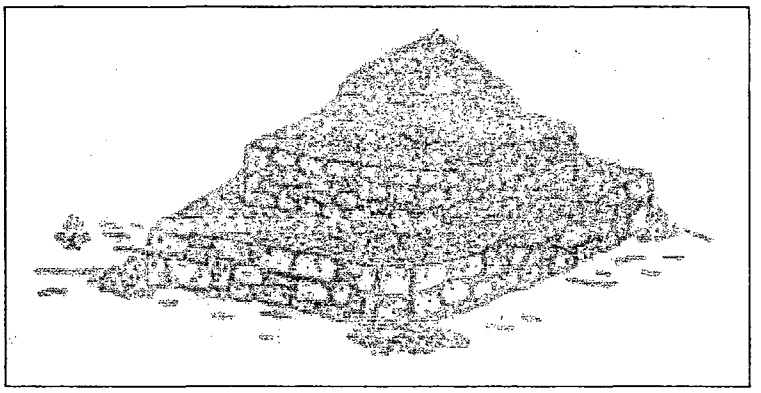

Fig. 3.5. Stepped Square Tomb in Wadi Al-Ajal. Reproduced from F. El-Rashedy (1986, 82).

3.1.2.3 The Term 'Tuareg' and its Origin

'Tuareg' (in Arabic pronounced *Twahreg*, ending with 'g,' or *Twarek,* ending with 'k')[30] is a term used to identify diverse groups of people who share a common language and a common history. The term 'Tuareg'[31] is unknown in the language of the people to whom it refers; however, it is widely used by both foreigners and Arab scholars.[32] The origin of the term is disputed and explanation is mostly based on hypothetical analyses of the meaning of the word itself, based on how it is pronounced and its derivatives.

According to Mohammed Abdarrahman Abd Allatif, a Tuareg from Niger, during the middle ages the Tuareg were known as *Esjjlmasan.*[33] After the spread of Islam and, consequently, the spread of the Arabic language, this word was translated into Arabic as *Al-Moulaththamon*[34] and used to refer to the Berber tribes of the Sahara.[35] Abd Allatif indicates that the word Tuareg (*Twahreg* or *Twarek*) later appeared as a name for the tribes living in the area of Azawagh near the kingdoms of Songhy and Hausa, but that no-one knows its origin or when it began to be used to refer to the *Al-Moulaththamon* of the Sahara. However, Abd Allatif believes that the term may have been derived from the Tuareg word *tarka,* which means 'valley' or 'stream' (in Arabic, *wadi*) and originated

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"Romanization Tables: Arabic," http://www.loc.gov/catdir/cpso/roman.html (accessed September 19, 2008).

[30] Spelled in some publications as *Touareg* and *Tuarick.*

[31] Tuareg is plural; the singular is *Targee* (masculine) and *Targia* (feminine).

[32] Currently, however, the new generation of these people use this term to refer to themselves.

[33] They were referred to as *Kel Tagilmus*, meaning 'people of the veil.' Rodd, *People of the Veil*, 15.

[34] *Al-Moulaththamon* means 'the veiled people.'

[35] Mohammed Abdarrahman Abd Allatif, "Al-Tawāriq Shab Al-Sahrā Al-Kubra" (Tripoli: A manuscript, collections of Dr. Mohammed Said Qashshāt), 6.

with *Al-Moulaththamon* tribes living in Wadi Drraah south of Marrakech in the north of Morocco. He explains that the word *Tarek*, referring to a person (plural *Twarek*), is derived from the *tarka*, referring to a place.[36]

Mohammed Qashshāt supports this argument; however, he spells the term for a *wadi* as *targa*, with a 'g,' not a 'k.'[37] He also claims that, since these tribes migrated from the north of the Sahara to the south,[38] the *wadi* in question is Wadi Al-Ajal in the Ubari area to the south of Libya, and that the Tuareg were originally residents of southern Libya, before they migrated. To support his argument he claims that:

> In the north [of the Tuareg lands], there is no area called by the name *Al-Wadi* [the valley] but the area of *Wadi* Al-Ajal, in the south of Libya (currently called Wadi Al-Aml wa Al-Haiyah), where some Tuareg groups still live in the *wadi* [valley], in the Ubari area. Also, there are still many Tuareg names, *Tifinagh* script prints, and drawings from the past in the mountains in this area, existing as living evidence, which testify for the long existence of the Tuareg in this area.[39]

Another argument is provided by Abd-Elkader Jami, who claims that the word 'Tuareg' originated from the name of a tribe called *Targha*. He states that "the word Tuareg is given to those people by the Arabs in connection to the name of one of the Berbers tribes called *Targha* which lived in the Sahara area extended from the [Atlantic] ocean to Ghadames [in Libya] during the 9th century Hejjri."[40]

In support of the main idea presented in these arguments, Nicolaisen and Nicolaisen maintain that the origin of the word 'Tuareg' "may be related to the word *Targa* (Ayr) or *Targa* (Ahaggar and Tasilé-n-Ajjer [*Azjer*]), which name is used by the Tuareg to designate the part of Sahara generally known to us by the Arabic word *Fezzan*."[41] They support this claim by referring to Arab authors of the Middle Ages, who said that the word *Targa* was used as a name for important Tuareg groups that inhabited that area and neighboring regions.[42]

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[36] Ibid., 7.

[37] Qashshāt, *Al-Tawāriq*, 29.

[38] Historically, the Tuareg migrated from the north to the south and deep into the Sahara in order to protect their freedom and to escape from the Roman, Wandal, Burtogies, Spanish, and French armies which were attacking the northern parts. Ibid., 17-18.

[39] Ibid., 29.

[40] Jami, *Men Trabls Al-Gharb* 162.

[41] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 47.

[42] Ibid., 74.

A totally different viewpoint is presented by some European researchers, who claim that, while the Arabs were the originators of this word, it holds a negative connotation, meaning 'abandoned by God' or 'abandoned their religion' (*tareku dinihem*). This standpoint is based on an interpretation of the word as pronounced *Twarek* or *Tuarick*, ending with 'k' ('ك'); and not *Touâreg* or *Twahreg*, ending with 'g' ('ق'). Henri Duveyrier claims that the Arabs named these Saharan tribes *Touârge,* which is derived from the Arabic *târek,* and named their language *târguïa.* According to Duveyrier, the word *Touârge* means "les *abandonnés* 'de Dieu'" ('those abandoned by God' or 'those who abandoned God') and is based on the notion that the Tuareg rejected Islam for a long time before their conversion.[43]

Another interpretation is presented by Dugald Campbell, who states that "in matters religious he [the Targian] has developed from fetishism, animism, and polytheism to Monotheism and Christianity. He was then forcibly Islamized by the conquering Arabs."[44] Campbell claims that Tuareg were a Christian people, basing his assertion on the Tuareg use of what he believes is the cross as a symbol in every aspect of Tuareg life. He states that "The letter T of Tifinagh script is also a cross."[45] For this reason, he relates the phrase *tareku dinihem* to the Tuareg having abandoned the *Christian* faith. He states:

> The true meaning of the name Tuareg, which was given to the veiled people[46] by their enemies the Arabs, has not yet received satisfactory explanation. The Arabs call them Tuareg or Targui, and consider them as Apostate Moslems who have abandoned their faith. They say of them, *tereku dinihum*, meaning "they abandoned their faith"; but it is a question whether they refer to their having apostatized from the Christian faith long ago.[47]

In opposition to this argument, Qashshãt mentions that the Tuareg used to brand their camels with the letter '+' (T) which refers to the first letter in the word *Tamashaq* (see Appendix IV). He reveals that the Al-Nwael Muslim tribe of Bani Saleem, which migrated from the Arabian Peninsula to North Africa in the 4th Hejjri century, also used

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[43] Duveyrier, *Les Touâreg du Nord*, 317, 318.
[44] Campbell, *Trail of the veiled Tuareg*, 254.
[45] Ibid., 260.
[46] In some publications the Tuareg were referred to as the 'people of the veil,' which is a translation of the Arabic word *Al-Moulaththamon.* They are also referred to as the 'blue people,' in reference to the preferred color of their clothes, whose dye discolor their skin, turning it blue.
[47] Campbell, *Trail of the veiled Tuareg*, 261.

this letter to brand their camels. Qashshāt maintains that this disproves the notion that this letter is related to Christianity.[48] However, early western travelers and scholars, such as Campbell,[49] interpreted this letter as a cross, and claimed that the Tuareg adhered to Christianity before Islam.

According to Rodd, "The name 'Tuareg' is not their own: it is a term of opprobrium applied to them by their enemies, and connotes certain peculiarity possessed by a number of tribal confederations which have no common name for themselves as a race."[50] He reveals that Duveyrier's statement was based on an account of the Tuareg's delay in their conversion to Islam and "the numerous apostasies which occurred, or else because of their evil and violent habits of life."[51]

We might ask why, in explaining the origin of meaning of the term 'Tuareg,' these European scholars have connected this terminology to religion and not to any other aspect of Tuareg life and culture. In this regard, although Rodd agrees that this name is not their own, he finds the etymology unsatisfactory and maintains that its attachment to religion could be misleading: "In its original usage it seems to have referred rather to a section of the Muleththemin than to the whole race: if this observation is correct the religious flavour attaching to the word is misleading, and it becomes simply a proper name belonging to a section analogous to that of the Sanhaja and Hawara."[52]

In the absence of any supportive historical or other strong evidence, a religious interpretation of the term 'Tuareg' seems shaky, possibly revealing a serious misinterpretation of the meaning of the term, which European travelers and scholars based on a specific form of pronunciation or spelling. The interpretations of these European scholars lack cultural sensitivity and raise suspicions regarding the motives behind them. Today's Tuareg resent such negative interpretations and totally reject these explanations. Ibrahim Bousha Al-Koni[53] says that the negative etymologies imagined by early writers are abusive, unfounded on solid and unquestionable proof, and stem from a

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[48] Qashshāt, *Al-Tawāriq*, 34.
[49] Campbell, *Trail of the veiled Tuareg*, 31, 254, 259, 260.
[50] Rodd, *People of the Veil*, 14.
[51] Ibid., 274.
[52] Ibid.
[53] Ibrahim Bousha Al-Koni, interviewed by the author, Ghat, 23 July and August 10, 2006. Ibrahim Bousha Al-Koni is the head of the Basic Popular Congress of Tahala and a noble *Azjer* Tuareg from Ghat, who holds a bachelor degree in history.

failure to understand both Tuareg-Arabic history and culture, and Islamic religion and practices.[54]

Investigating the true origin and meaning of the term 'Tuareg' is beyond the scope of this research; our main purpose in providing this review is to comprehend Tuareg history and its material legacy. Moreover, it is important to draw the reader's attention to the risk of superficial analysis, false interpretation, and incorrect reference to the meaning of words in the Tuareg language, especially in the absence of any logical explanation, sufficient supportive historical record, or oral evidence, in either archived or non-archived tradition.

As I mentioned earlier, the 'Tuareg' do not recognize this term in their language, and do not use it to identify themselves. According to Qashshãt,[55] quoting from a script written by Mohammed Abdarrahman Abd Allatif,[56] "the Tuareg tribes call themselves *Imazighen* [or the alternative plural forms *Imozagh* or *Imohagh*, singular *Amazigh*.]"[57] Abd Allatif maintains that the roots of this name go back "to their grandfather Imazigh Ben Ham Ben Nouh."[58] However, according to Harry T. Norris, the Tuareg name is pronounced *Imashaghen* or *Imohagh*, and signifies "the noble and the free."[59] This term is spelled and pronounced differently by different Tuareg groups. The *Azjer* Tuareg in Ghat, Ghadames, and Murzuk in Libya, and the *Ahaggar* Tuareg in Tamanghasat in Algeria,

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[54] Dugald Campbell claims that the Tuareg do not adhere strictly to Islam. He states that "Tuaregs [sic] are usually remiss in their religious observation, and ignore, or neglect altogether such important ceremonies as ablutions [...]. When I have seen them do so, it has always been with sand, or dust." Campbell, *Trail of the veiled Tuareg*, 255. This supposed fact, which was copied from one European researcher to another and which may have been based on isolated incidents, it expresses an ignorance of Islamic rules on the part of those researchers. For example, 18th century European researchers maintained that the Tuareg did not regularly fast or pray; however, Islam allows non-fasting (*iftar*) for specific reasons, permitting the performance of ablutions using clean dust, sand or rocks when water is scarce, as well as permitting some prayers to be cut short or combined with others.

[55] Qashshãt, *Al-Tawãriq*.

[56] Abd Allatif, "Al-Tawãriq Shab Al-Sahrã Al-Kubra," 6, 7.

[57] Ibid., 7.

[58] Ibid., 6.

[59] Harry T. Norris, *The Tuaregs: Their legacy and its Diffusion in the Sahel* (Warminster: Aris & Phillips, 1975), 12.

call themselves *Imohagh*, which originates from *Imozagh*, the plural of *Amazigh*.[60] The people of these groups replace the 'z' in *Imozagh* with 'h' in their pronunciation.[61]

Another term that these people use to identify themselves is *Kel Tamashaq*: the people of the Targian language *Tamashaq*, or the people who speak Targian. As presented by Mohammed Ahmed Al-Shafeeh[62] (of the Niger Tuareg), who is quoted by Qashshāt, "These people call themselves *Kel Tamagq*, as pronounced by Niger Tuareg, or *Kel Tamashaq*, as pronounced by Mali Tuareg, or *Kel Tamahq*, as pronounced in Libya and Algeria. The difference is in the pronunciation of the letter before last of this word. In Niger is pronounced 'g'; in Mali 'sh'; in Libya and Algeria 'h.'"[63] The term *Kel Tamashaq*, consists of two parts; *Kel*, which means 'the people of' and *Tamashaq*, which is the Targian language (Tuareg language will be dealt with below).

It is worth noting that in both terms used by these people to identify themselves, their identity is not related to any religious aspect or reference to their system of beliefs, as western writers have suggested in relation to the word 'Tuareg.'

3.1.3 Language

The Tuareg language, which is a Berber language, goes back to 3000 B.C. Berber is considered by some Orientalists to be a Semitic language, which is considered to have Arabic as one of its branches.[64] The standpoint of many scholars is that the alphabetic transcription system of the Tuareg, called *Tifinagh, or Tifinar*,[65] is known to all Tuareg groups and has been borrowed from the Phoenician alphabet,[66] which suggests a Semitic origin for the Tuareg language (Phoenician is counted among the Canaanite languages

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[60] Other Tuareg groups pronounce it as *Imoshagh*, replacing the 'z' in *Imozagh* with 'sh,' or *Imajaghen* or *Imajagh*, replacing the 'o' in *Imozagh* with 'a' and the 'z' with 'j.' In other Western literature it is also spelled as *Imuchar* and *Imochar*, with the 'r' pronounced 'gh,' ('ɣ') as in French, and replacing the 'o' with 'u' and the 'sh' with 'ch.'

[61] Qashshāt, *Al-Tawāriq*, 28.

[62] Mohammed Ahmed Al-Shafih, "Articles on Tuareg" (Tripoli: A manuscript, collections of Dr. Mohammed Said Qashshāt), 7.

[63] Qashshāt, *Al-Tawāriq*, 28.

[64] Ibid., 30.

[65] Recently, alternative transcription systems include Latin and Arabic adaptations of *Tifinagh* representations. This term is spelled by Nicolaisen as ending with 'r,' pronounced as in French, which is equivalent in pronunciation to 'gh' ('غ') in Arabic.

[66] Othman Es-Sa'di, *Ouroubat Al-Gzaer Abra Al-Tarikh* (Algeria: Al-Shareka Al-Watania Lellnsher wa Al-Tawzee, 1982), mentioned in Qashshāt, *Al-Tawāriq*, 30.

within the Semitic family). This explanation validates the suggestion of some scholars that the Tuareg language has Arabic roots, and influences this dissertation with regard to the interpretation of some words.

According to Qashshāt, "the word *'Tifinagh'* means in the Tuareg language 'the letters that relate to the Phoenician' and the Phoenicians are Arab Shamion[67] who migrated to North Africa. The Tuareg language has many classic Arabic words that exist in the core words of their language and not newer additions."[68] He argues that the Tuareg language (*Tamashaq*) "is one of the old Arabic dialects. It was eliminated by Islam through uniting the Arab language with the Qurish[69] language in which the Qur'an was revealed, and it [*Tamashaq*] is the only dialect in the African languages that has the letter 'ض' ['dt'], which characterizes the Arabic language."[70]

Dugald Campbell provides another meaning for the word *Tifinagh*. He says, "The *Tamachek* [*Tamashaq*] tongue is used by all Tuaregs [sic]. It is one of the oldest, and therefore one of the most interesting of all African languages [...]. It possesses a peculiar form of script called *Tifinagh*, which means 'signs' [...W]ritten characters are called *asekkil*; [the] plural of this is *isekkilen*."[71]

Nicolaisen and Nicolaisen describe the limited influence between Tuareg groups, indicating that although the Tuareg have associated with each other for centuries, their influence on each other linguistically, as well as culturally, has been surprisingly small. Nicolaisen and Nicolaisen relate this 'conservatism' to "Tuareg class division and the many endogamous marriages contracted in some tribes."[72] They claim that cultural distinctions between the Tuareg led to the use of different *Tifinagh* alphabets. In support of Nicolaisen and Nicolaisen's statement concerning cultural distinctions between Tuareg groups, I would like to add that such distinctions are evident not only in the alphabet, but also in Tuareg ways of life and their dwelling typologies. Based on a comparison of my 2006 summer fieldwork and my survey of different examples of urban and rural dwellings of the *Azjer* Tuareg of Libya, with Nicolaisen and Nicolaisen's research on

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[67] Shamion means 'from Al-Sham,' currently known as Lebanon and Syria.
[68] Qashshāt, *Al-Tawāriq*, 31.
[69] The Qurish were a major Arabic tribe in the Arabian Peninsula.
[70] Qashshāt, *Al-Tawāriq*, 30, 31.
[71] Campbell, *Trail of the Veiled Tuareg*, 267.
[72] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 43.

non-Libyan Tuareg dwelling typology, I found that the distinction is evident in the dwellings' typology, forms, skeletal structure, building techniques, spatial organization, and the terms used to refer to architectural elements. The southern Tuareg appear to have been influenced more than the northern Tuareg by the local traditions of the African tribes.

The widespread conception of the Tuareg as having a single culture and lifestyle as nomadic pastoralists has largely emerged from western scholars' work on, and travelers' narratives about, southern Tuareg groups, who I believe are more influenced by the traditions and languages of African tribes, as well as living in a different geographical environment. I formed this opinion based on my knowledge of African architecture, my fieldwork with Libyan *Azjer* Tuareg in Ghat (a northern Tuareg group), and on speaking to members of the new wave of Nigerian Tuareg (southern Tuareg groups) immigrants, who came to settle in southern towns in Libya, including Ghat.[73] The distinctive rural *Azjer* Tuareg dwellings' structural vocabulary, architectural form, and typology (nomadic and semi-nomadic, permanent and portable) will be discussed in Chapter 4.

In 1960, Prasse divided the Tuareg language into seven main dialects[74] (some scholars refer to them as 'branches') based on regions.[75] Although grammatically related, these dialects contain differences in pronunciation and vocabulary. According to Nicolaisen and Nicolaisen, these seven dialects are:

> (1) *tahaggart* spoken by the *Kel Ahaggar* and the *Kel Ajjer* [*Azjer*]; (2) *tadrak* spoken by the Tuareg of *Adrar-n-Foras*; (3) *tensart* spoken by the *Kel Inteser* (or *Kel Ensar*) (very much a kin to *tadrar*); (4) *Tawellemmet* spoken in two variants by the *Iwellemmeden* and other Tuareg of the Meneka and Tahoua regions;(5) *tayert* spoken by the *Kel Ayr*; (6) *tamesgerest* spoken by the *Kel Geres* (very much a kin to *tayert*); (7) the dialect of Djanet and Ghat. In north-eastern Burkina faso the nobel Udalen speak a dialect close to *tawellemmet* and their vassals a dialect close to *tensart*.[76]

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[73] In addition, I derived information on this topic from watching documentary films of Ghat's yearly festival (the festival takes place from 29th-31st December), for which all the Tuareg groups of the Sahara gather.

[74] According to Charles de Foucauld, in *Textes Touareg en Prose: Dialecte de L'Ahaggar* (Paris: 1922), there were four branches. Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 42.

[75] Karl. G. Prasse, "Notes sur la Langue Touarég: D'un séjour á Tamanrasset," in *Acta Orientalia* 25, nos.1-2 (Copenhagen, 1960).

[76] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 42.

Based on the above account, although Ghat is located within the region dominated and inhibited by the *Azjer* Tuareg, and is the capital of their historical sultanate, it has a distinctive dialect. This indicates cultural differences within the same group based, among other things, on geographical location. As I mentioned earlier, the *Tifinagh* or *Tifinar* alphabet is known to all Tuareg groups; however, tribes of the same group do not always use the same letters, and slight distinctions may exist in the characters of the alphabet (see Appendix IV).[77]

3.1.4 Political System: Sultanates

Although the Tuareg are extensive in territories that are geographically close and connected to each other,[78] they "have not at any time formed a single politically united kingdom, state, or federation, but comprise several major groups which seems to correspond to politically autonomous units of federation."[79]

Tuareg political units, widely refereed to as 'federations,' have been classified and documented differently in the literature, in terms of their number, units' names, or spelling. These differences in documentation are also found in the classification of the drum-tribes (*ettabel*),[80] which form each political unit. I review this information briefly, in order to indicate the location of the *Azjer* Tuareg within the Tuareg federations; however, it is beyond the limits of this research to determine the most accurate classification of all Tuareg political units, or the organization of their tribes.

Qashshāt mentions only seven groups among the Tuareg, which he refers to as 'sultanates,' and indicates the drum-tribes that fall under the control of each sultanate.[81] He indicates that the *Kel Azjer* sultanate is made up of seven drum-tribes: *Uraghen, Managhasaten, Ifoghas, Ilamteyen, Imenan, Kel Wallee, and Imgrrghessan*. These tribes, says Qashshāt, are not associated with specific places, and mix with each other and with

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[77] Ibid., 43.

[78] They are found in southern Algeria, south-west Libya, Niger, Mali, Northern Burkina Faso, and a few other peripheral areas such as south-east Mauritania.

[79] Keenan, *The Tuareg*, 5.

[80] The drum (*ettabel*) is, for the Tuareg, the symbol of ruling power and supreme leadership, and is also used, among other things, as a tool to announce the start of a war or to warn against raids. The term *ettabel* is used to refer to tribal groups constituting the sultanate (federation).

[81] Qashshāt, *Al-Tawāriq*, 39-47.

other Arabic tribes in the lands dominated by the *Azjer* Tuareg. They readily unite in cases of war.[82]

On the other hand, Johannes Nicolaisen identifies eight groups of Tuareg.[83] These groups are frequently classified into two groups: the Northern and Southern Tuareg. The Northern Tuareg include the *Kel Azjer*[84] and the *Kel Ahaggar*. The Southern Tuareg include *Kel Adrar, Kel Ayr, Kel Geres (Gress), Iwellemmeden Kel Dennek* (*E-Iwellemmeden*), *Iwellemmeden Kel Ataram* (W-*Iwellemmeden*), and *Kel Tademaket* (see Appendix V).[85] According to Nicolaisen and Nicolaisen, these groups "constitute the largest political units."[86] However, it is important to clarify that Nicolaisen and Nicolaisen's use of the term 'group' or 'federation' to describe the eight Tuareg groups is not as accurate as the term 'sultanate,' derived from the word 'sultan,' used by Qashshāt, since these groups have historically been independent sultanates composed of several tribes or groups.

Although linguistic and cultural differences exist between the various Tuareg tribes or groups within the sultanates and, historically, wars have occurred between the various Tuareg groups of these sultanates, the groups are closely related and have the sense that they are one people, who unite to face any attack by an outsider, as was the case when the *Kel Azjer* Tuareg supported the *Kel Ahaggar* Tuareg in Algeria in their war against French colonization.

In addition to the groups recognized by Nicolaisen and Nicolaisen, there are other undocumented Tuareg groups that fled their homelands to Sudan after French penetration into Ayr. Immigration also occurred to Northern Nigeria in 1917 after the Tuareg revolted against the French. According to Rodd, "as many as 30,000 veiled people left Aïr [Ayr]; most of them settled in the Emirates of Kano and Katsina."[87]

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[82] Ibid., 39, 40.
[83] Johannes Nicolaisen, *Ecology and Culture,* 7.
[84] In the source, this is spelled *Ajjer.*
[85] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg,* , vol. 1, 41.
[86] Ibid., vol. 1, 501.
[87] Rodd, *People of the Veil,* 361.

3.1.5 Governing System

A brief explanation of the political system of the *Azjer* Tuareg is of great importance in understanding its adaptation in the governing system of the Old Town of Ghat, and consequently for my investigation of whether political power has been signified in the town urban form and, if it has, how. The governing system of the Tuareg is the same in all Tuareg sultanates.[88] It consists largely of three positions: the sultan (*amanukal*), the sheikhs (*imghars*)[89] of drum-tribes, who act as deputies, and the *imam* (religious council).[90]

3.1.5.1 The Sultan (*amanukal*)

According to Mohammed Al-Sheikh,[91] each Tuareg sultanate was commanded by an independent supreme chief or Sultan, called an *amanukal*. This position was held by the sheikh (*imgher*) of the strongest of the several drum-tribes forming the sultanate. The sultan, says Al-Sheikh, was the highest authority in his sultanate, with superior judicial rights.[92] An assembly of deputies, constituted by the sheikhs of drum-tribes, assisted the sultan in his rule.[93] Those sheikhs, called *imghars*, had under their control a group of tribal sheikhs, also called *imghars*. Mohammed Al-Sheikh describes a peculiar mode of succession. He says that the *amanukal* was always succeeded to the throne by his sister's son, and not by his own sons, brothers, or brothers' sons. This was in order to protect the purity of the royal blood, since a child of the sultan's sister would definitely be a blood-

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[88] Information concerning the political situation and group relations of the Libyan *Kel Azjer* Tuareg is limited, partly due to the complications involved in acquiring information from a now annulled system and un-archived oral materials, as well as the lack of historical documentation of the Libyan Tuareg in general. In this section, I depend mostly on oral testimonies and travelers' accounts, as well as material collected by Duveyrier, Qashshāt, and Nicolaisen and Nicolaisen, who were among the few authors who visited the Northern Tuareg in the 19th century, and by far the most important. Their description of, and scholarly work on the *Kel Azjer* group is of particular value. See Duveyrier *Les Touâreg du Nord*; Qashshāt, *Al-Tawāriq*; and Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1.

[89] Singular *imgher*.

[90] A new position introduced with the advent of Islam.

[91] Mohammed Al-Sheikh, a noble from the *Uraghen* Tuareg tribe and the assistant head of the Popular Congress of *Sha'biyet* Ghat, interviewed by the author, Ghat, 23 July, 2006.

[92] The leadership of the *Kel Azjer* Tuareg sultanate was originally in the hands of the noble tribe called *Imenan*, before they lost their power in rebellions led by another noble tribe, called *Uraghen*, and passed the leadership to them.

[93] The term 'sheikh' could be used to refer to an old man, a tribal leader, or a religious person. In this dissertation, clarification will be made as necessary regarding the intended reference. I use the spelling common in western literature in both the singular and plural form; however, the spellings *achchikh* or *ashshikh* (singular) and *acheyoukh* or *asheyoukh* (plural) better reflect the pronunciation in formal Arabic.

relation of the sultan.[94] The *amanukal* of any sultanate was at the same time the chief of a specific drum-group within his sultanate.[95] Moreover, the *amanukal* of all the *Kel Azjer* Tuareg was, at the same time, the *amanukal* governing the town of Ghat. However, his position in Ghat was more nominal, since the head of the assembly (the governor or ruler, called locally and in Arabic *al-ha-kem*, plural *al-hokkam*), who assisted the *amanukal* in his rule, actually governed Ghat. The governing assembly in Ghat was not the same assembly as the national-level assembly, which was formed by the leaders of all the nomadic and semi-nomadic *Azjer* Tuareg drum-tribes who did not reside in Ghat. In Ghat, the assembly was formed only by the leaders or sheikhs of the settled Ghat drum-tribes. Because of his powers in the town, the head of this assembly (*al-ha-kem*) is mistakenly referred to in some old narratives as the sultan or king; but he is not the actual sultan of all the *Kel Azjer* Tuareg, mentioned above.[96]

According to Ibrahim Al-Koni, the word *amanukal* is composed of two words: *iman* and *akal*, with the replacement of the 'i' in *iman* with the vowel 'a.'[97] He explains that *iman* signifies 'soul' or 'spirit' in the Tuareg language, while *akal* means 'country' or 'city' (in Arabic *al-balad* or *al-madina*). Thus the word *amanukal* means 'the soul or spirit of the country or the city.'[98] Western scholars have spelled the term *amanukal* and interpreted its meaning differently. According to Nicolaisen and Nicolaisen, Henri Lhote and Claude Blanguernon, who followed the interpretation of the word *amenukal* suggested by Duveyrier,[99] *amenukal* means 'the owner of the land.'[100] On the other hand, Nicolaisen and Nicolaisen cite Charles de Foucauld on this matter, claiming that the latter does not interpret the word's meaning, but states that *amenukal* is the title of "a chief who

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[94] This Tuareg tradition is also mentioned in travelers accounts, such as Richardson, *Travels in the Great Desert*, 65, 66; Qashshāt, *Al-Tawāriq*, 49.

[95] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 585.

[96] Ghanem, *Al-Almani Gottlob Adolf Krause*, 85. This book includes a list of Ghat rulers (*hokkam*), referring to them as kings of Ghat. Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 138. In this book, Hugh Clapperton mistakenly refers to Sheikh Bal Kassim, who governed Ghat at that time, as the sultan, and describes his humble dwelling.

[97] One of the most prominent Arab novelists, from the noble *Uraghen* tribe of the Libyan *Azjer* Tuareg. His work won him prestigious literary prizes, and some of his novels, stories, and aphorisms have been translated into all the major languages.

[98] Ibrahim Al-Koni, *Bayan fi Lughat Al-Lahut: Lughz Al-Twahreg Yakshif Lughzay Al-Far'inah wa Sumar*, vol. 2 (Beirut: Dar Al-Moultka 2001), 28, 29.

[99] Duveyrier, *Les Touâreg du Nord*, 331.

[100] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 502; Henri Lhote, *Les Tuareg du Hoggar* (Paris: Payot, 1955), 189; Claude Blanguernon, *Le Hoggar* (Paris, 1955), 47.

is not subjected to any other chief."[101] Different interpretations drawn from previous scholars' perspectives on the meaning of *amenukal* are suggested by Karl G. Prasse.[102] He argues that *amenukal* is a composite of *amenu* and (*a*) *kal*, and that *amenu* is the extinct singular form of *imenan*, the name of a royal tribe. However, unlike Al-Koni, whose interpretation is based on his understanding of the Tuareg language as a Targian himself, Prasse bases his interpretation on a superficial connection between the terms.[103]

Nicolaisen and Nicolaisen interpret the second part of the word, *akal*, as meaning 'land,' which is close to Al-Koni's interpretation, since 'land' can refer to the country; however, Nicolaisen and Nicolaisen doubt that this part of the word implies ownership, as interpreted by Duveyrier, Lhote, and Blanguernon. They refer to Lloyd Briggs'[104] argument: "it is evident, as pointed out by Briggs, that an *amenukal* as a supreme chief does not own the land in any ordinary sense, but rather owns it as a representative of the whole community."[105]

Neither the literature dealing with the *Azjer* Tuareg nor that dealing with Ghat provides a description of the residence of the sultan of the *Azjer* Tuareg. Based on local people's testimonies it seems that the sultan of the *Azjer* Tuareg has never owned a house within the walls of Old Ghat, the capital of his sultanate. According to Ovanight Al-Koni,[106] the sultan's residence was always a temporary hut or tent built in the open countryside, for protection and defensive purposes, and he never put himself in walled place such as a town. This testimony agrees with the account of James Richardson who indicates that, upon the arrival of the Sultan of Ghat, named Mohammed Safou Ben Seed, from the country districts to his town residence at Ghat, he resided quarter of a mile

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[101] Charles de Foucauld, *Dictionnaire Touareg-Français. Dialecte de l'Ahaggar*, vols. 1-4 (Paris: 1951-52), cited in Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg* vol. 1, 502.

[102] Prasse, cited in Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 2, 502.

[103] The term *amanukal* became connected to the *Imenan* because the *Imenan*, "whose leader was the supreme chief of all Tuareg of Ahaggar and Tasilé-n-Ajjer until about AD 1650 or perhaps somewhat later in the 17th century," retained their titles of *imanukalen* (singular *amanukal*, or sultan) for all their descendants, even after they lost their power to the *Uraghen*." Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 501; Ghanem, *Al-Almani Gottlob Adolf Krause*, 82. The retention of this title signifies their former situation as royalty (sultans), and is not the origin of the term *amanukal*.

[104] Lloyd Cabot Briggs, "L'Anthropologie des Touareg du Sahara," in *Mémoires de la Société d'Anthropologie de Paris* (Paris: Société d'Anthropologie: Masson, 1955), 88.

[105] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 2, 502.

[106] Ovanight Al-Koni, a noble Tuareg, interviewed by the author, Tripoli-Montreal, 15 December, 2006.

outside the town.[107] However, Richardson does not indicate precisely the location or its name, or even whether this place was the sultan's permanent residence. The only conclusion that we can draw from Richardson's description is that the sultan's residence had a humble, primitive appearance. Richardson states that "we found His Highness, at about a quarter of a mile's distance out of the town, sitting down by himself alone upon the sand, aside of a large *hasheesh* [grass] house, or hut of date-palm branches [...]. In this primitive way and Desert style he had been receiving various personages ever since his arrival this morning."[108]

Based on this description of the site and appearance of the *Kel Azjer* sultan's residence, it seems that the sultan's political power was never signified in a fancy permanent dwelling or building within the walls of his capital, the Old Town of Ghat. However, other possible ways to signify this power in the town form and structure may have occurred, as will be explained later in this research in relation to the use and users of *Aselly/Aishelly*,[109] the main square of the old town.

3.1.5.2 The Drum-Tribes' Sheikhs (*imghars*)

The *imghars* were the sheikhs, or leaders, of drum-tribes. Together they formed an assembly (deputies) which helped the sultan in his rule. Each sheikh looked after the internal affairs of his tribe, regulating relationships between people and protecting their rights, and represented his tribe in public meetings. During wars, the sheikh was also responsible for collecting taxes or levies and tribute from his tribe to supply the sultan's war budget. In peaceful times, sheikhs had the right to receive dues from all trade caravans passing through their lands.

Each drum-tribe was made up of several clans, which were further divided into groups of families. As I mentioned above, there were two assemblies to assist the *amanukal*, one on the local level and another on the national level. Usually, these assemblies did not interfere with each other. According to the testimonies of the *Azjer*

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[107] Richardson, *Travels in the Great Desert*, 56, 57.

[108] Ibid., 57.

[109] The name of this square is Targian. However, the people of Ghat pronounce it in two ways. It is pronounced *Aselly* in the Tuareg language, and *Aishelly* according to the Hausa language. Both languages are used in Ghat. However, these days, *Aishelly* is more commonly used; for this reason, in this research I use the spelling that reflects this pronunciation.

Tuareg with whom I spoke, the assembly of the sheikhs of the urban Tuareg tribes was considered a lower class of the nomadic and semi-nomadic tribes' sheikhs, due to their being urbanized. The meetings of the sheikhs of the urban tribes were always held in *Aishelly* Square in Old Ghat, while nomadic Tuareg meetings were always held in a place agreed upon in open country. The residences of the most powerful Ghatian Tuareg sheikhs were usually located in the suburban areas outside the town walls. As recorded by Richardson, very few sheikhs may have had a house within the town walls.[110]

3.1.5.1 The *Imam*: Religious Council

A religious person, also known in Ghat as a *faquieh*, held the position of *imam*. The *imam* was responsible for giving religious consultation to the sultan, taking care of education and mosque affairs, and making decisions regarding tribal problems. He was the monitor, says Rajab Othman Al-Masrī,[111] of the judicial system and authenticated the rulings of judges. The *imam* was always chosen from the *Ineslemen*, which is a religious Tuareg class,[112] and because of this was always held in high esteem. The *imam* held his judicial meetings with tribal judges mainly in *Aishelly* Square, the main square of Ghat; however, the preferred venues for other religious and educational meetings were mosques or *al-zawaya* (singular *al-zawia*) of the town.[113]

3.1.6 Demography

As stated earlier in this research, in Libya the census does not recognize the Tuareg as a distinct group. For this reason, they are counted as Libyans and there is no local census specific for them as an ethnic group.

In the period 1933-38, Henri Lhote estimated the number of *Azjer* Tuareg to be 1,508 inhabitants, out of a total of approximately 240,000 Tuareg living in the Sahara of

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[110] Richardson, *Travels in the Great Desert*, 9.

[111] Rajab Othman Al-Masrī, chairman of the Higher Education office in *Sha'biyet* Ghat, interviewed by the author, Ghat, 24 and 31 July, 2006.

[112] This class was added to Tuareg class hierarchy after the introduction of Islam.

[113] *Al-zawia* is an Arabic term referring to a religious lodge, which functions mainly as a religious center and religious school.

Algeria, south Niger, and Sudan.[114] Table 3.1 illustrates how the Tuareg population was divided between the various groups.

Table 3.1: Tuareg Group population (1933-38)

Kel Ahaggar	4,254
Kel Aijer [Azjer]	1,508
Kel Adrar	4,223
Kel Ayr and Kel Geres	27,765
Iwellemmeden	161,160
Tengerregif	40,00

Reproduced from Nicolaisen and Nicolaisen (1997, 42).

According to Nicolaisen and Nicolaisen, the figures indicated by Lhote are not very accurate: some are high; others are low. They claim that the *Kel Azjer* Tuareg were more numerous than indicated, because the Libyan Tuareg of that group were not included in this figure. They add that the figure for the *Iwellemmeden* Tuareg was relatively high because it included about 94,000 slaves, or former slaves, of the Tuareg, who should be deducted from this figure. In 1950, the Tuareg appeared to number less than 300,000.[115] Karl Prasse indicates that by 1995 the number of Tuareg had increased to 1.2 million.[116]

3.1.7 The Tuareg Social Structure

The Tuareg have a complex socio-economic hierarchy, which is as important and relevant to this research as the political system. They are classified in some of the literature into 'noble' and 'vassal'; in other works into 'class' and 'caste,' which preserve the same social meaning. Nicolaisen and Nicolaisen use the terms 'class' and 'caste' to define Tuareg social categories. In their opinion, this method is less problematic sociologically than the terms 'noble' and 'vassal.'[117] Nicolaisen and Nicolaisen use the word 'class' to refer to different tribal divisions of the 'true' Tuareg who, among the

[114] Lhote, *Les Touaregs du Hoggar*, 157.
[115] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 42.
[116] Karl G. Prasse, *The Tuareg – The Blue People* (Copenhagen: Museum Tusculanum Press, 1995), 9.
[117] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 45.

Northern Tuareg, are known collectively as *Imuhar*.[118] However, they maintain that such a collective term appears not to exist among the Southern Tuareg. The 'true' Tuareg group, they claim, is comprised mainly of fair-skinned people, who "fall into classes of different statues but they all have political influence." On the other hand, Nicolaisen and Nicolaisen use the word 'caste' to refer to other groups of Tuareg-speaking people, which are comprised mainly of darker-skinned people who have no political influence. They explain that the slaves form neither a class nor a caste but are integrated into Tuareg tribes on a kinship basis.[119] Furthermore, Nicolaisen and Nicolaisen do not consider *Ahaggar* agriculturists as a caste, while they do consider blacksmiths to possess some of the characteristics assigned to castes. Blacksmiths are largely endogamous and considered by many Tuareg tribes as 'unclean,' but they are, Nicolaisen and Nicolaisen say, "never considered unclean in the same way as certain castes in India."[120] In the following sections, I provide an account of the five social categories among the *Azjer* Tuareg,[121] arranged from the highest to lowest ranking, based on my summer fieldwork and Qashshāt's classification.[122]

3.1.7.1 The Nobility (*Ihaggaren*):[123] The Supreme Tuareg Class

The noble Tuareg, who are found in most Tuareg groups, are those who maintain and protect the inherited Tuareg tradition, and who have political power and influence derived from years of winning various wars and from their extreme wealth. The Northern Tuareg, including in Ghat, call them *Ihaggaren*, while in Ayr and among the Sudanese Tuareg they are called *Imajeren*.[124] The noble *Azjer* Tuareg tribes include *Uraghen*,

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[118] *Imohagh* is spelled *Imuhar* in western literature, replacing the 'o' with 'u' and pronouncing the 'r' as 'gh,' as in French.

[119] According to the testimonies of local people, in Tuareg culture, although slaves form neither a class nor a caste, they were treated as part of the family. For example, the slaves ate from the same family pot and slave children were allowed to mix with the masters' children, playing together and, if space allowed, sharing the same sleeping area.

[120] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 45.

[121] There are some slight differences between the social categories of Tuareg groups, mostly in the form of classes additional to those listed above. Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 46.

[122] Qashshāt, *Al-Tawāriq*, 65-72.

[123] This term is used only by the Northern Tuareg; however, Southern groups use the terms *Imajeren* and *Imuchar*. Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 45.

[124] Also spelled *Imajaghen*, replacing the 'er' with 'agh' and pronouncing the 'r' as 'gh,' as in French.

Managhasaten, Ifoghas, Ilamteyen, and *Imenan.*[125] According to Mohammed Al-Sheikh,[126] the *Imenan,* whose leader was once the supreme chief of all the *Azjer* Tuareg tribes, were not only considered a noble tribe, but were also highly regarded because they are *Eshcherifen*: a title used by the Tuareg to refer to descendants of the Prophet Mohammed.

3.1.7.2 The *Ineslemen*

The *Ineslemen* is a class of *Mrabetin* or *Marabouts.* It is a religious class established after the introduction of Islam, who teach the Qur'an and spread Islamic education among the Tuareg. There are *Ineslemen* tribes in most Tuareg groups; however, their political positions vary greatly from one group to another. In certain groups, they have the status of vassals; in others they have the status of noble Tuareg, but do not have vassals, as is the case for the *Ineslemen* tribes of the *Kel Azjer.* Any Tuareg can be trained to be *Aneslem* (the singular of *Ineslemen*) by educating him in Islam. The people of this class do not carry weapons and they are always protected by the noble class. The term *Echchikhen* (singular *Echchikh*) is of Arabic origin and is used to refer, among other things, to a religious person. This term is used synonymously with *Ineslemen* to refer to people who have religious status. *Echchikhen* does not have the same meaning as *Eshcherifen,* which refers to descendants of the Prophet Mohammed.[127]

3.1.7.3 The Vassals (*Imghad*)[128]

The class of vassals, or *Imghad,* is the most numerous in most groups, and is represented in all groups except the *Kel Geres.* Nicolaisen and Nicolaisen state that some groups, such as the Northern Tuareg and the *Iwellemmeden,* use the word *Kel Ulli* (*Kel Wallee*) as synonymous with *Imghad.*[129] However, *Kel Ulli* is the name of one of the tribes classified as *Imghad,* but is not a synonym for this term. Examples of the *Imghad* tribes of the *Azjer* Tuareg are *Kel Wallee* and *Imgrrghessan.* The *Imghad* were the ancient servants of the noble Tuareg and later became their warriors, but this does not give them

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[125] Qashshāt, *Al-Tawāriq,* 65, 66.
[126] Al-Sheikh, interview.
[127] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg,* vol. 1, 46.
[128] In the western literature, this is spelled *imrad,* based on French pronunciation.
[129] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg,* vol. 1, 47.

any prestige. The relationship between the *Imghad* and the nobles (*Ihaggaren* and *Imajeren*) constitutes the basis of the Tuareg political system described earlier. In particular, the sultan must be a noble Tuareg.

3.1.7.4 The Blacksmiths (*inadhen*)

The Tuareg say that the roots of this social class go back to ancient times. The *inadhen* (singular *inadh*)[130] are skilled smiths, jewelers, makers of household implements, and crafters of wood, who are found in all Tuareg political units. Nicolaisen and Nicolaisen say that "If it were not for these the Tuareg material culture would indeed be a poor one."[131] They maintain that "The few blacksmiths of Northern Tuareg country live in permanent settlements and only occasionally travel to visit the camps of the pastoral Tuareg."[132] The Tuareg claim that the blacksmiths are tiresome, since they insist on getting gifts on every possible occasion.[133] They are thought by the Tuareg to posses mystic powers, and it is believed that if they ask for a gift and are given nothing then they will cause harm. For this reason, the Tuareg never marry into this caste, who can thus in general be considered to be endogamous, and avoid associating with them except during festivals (since the blacksmiths number among themselves artisans, dancers, singers, and musicians).[134] The distinction of this social category is expressed in the built structure of Old Ghat. The blacksmiths lived in permanent dwellings in both urban and rural areas, and in Ghat they lived in a separate village called Tadrumt, outside the town walls, as will be explained further in section 5.4.1. The *Azjer* Tuareg *inadhen* include the tribes *Ikanwan* (who are specialized, among other things, in making brick, poetry, cooking pots, and water jars) and *Ikadmt* (who are skilled in making mats, carpets, and different furnishings required for the tent).[135]

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[130] *Inadhen*, with the 'dh' pronounced as ذ in Arabic. It is also pronounced as *inadten*, with a 'dt' as ض in Arabic.

[131] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 57.

[132] Ibid.

[133] Qashshāt, *Al-Tawāriq*, 71.

[134] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 60, 61.

[135] Qashshāt, *Al-Tawāriq*, 70.

3.1.7.5 The Slaves (*iklan*)

This category consists mostly of dark-skinned people, largely of Sudanese origin, who were Tuareg slaves before slavery was abolished. The freed slaves are called *attara* (masculine singular *attree,* feminine *attrah*). They were taken during wars and raids in Sudan or bought from slave markets in Sudan. The slaves in Tuareg society performed the various domestic tasks and took care of their masters' herds and flocks.[136]

3.2 Fezzan Geography

Fezzan is a desert region in the south-west of Libya. Roman sources call it *Phazania,*[137] and Heinrich Schiffers maintains that the name 'Fezzan' is derived from *Phazania,*[138] which was the nucleus of the ancient Garamantian civilization.[139] Another explanation of the origin of the name is provided by Jamal Al-Deen Al-Dnasouri, who believes that the name *Phazania* goes back to an ancient term in the Tuareg language, *Tafassena,* which means 'edges.' This refers to the many edges that characterize Fezzan topography. Ghatians pronounce the word *Tafassana* or *Tafassasna.*[140]

3.2.1 Land Configuration: Topography

Fezzan is a vast desert area cut through by two valleys running east-west. These are Ashati valley and Al-Ajal valley, which both include several oases.[141] Another two important valleys, the Tanezzuft and Taharamat valleys, cut north-south. These start as one valley close to the Algerian border before branching off at Essaien and running towards Ghat. They border Ghat from the east and west sides and end at two different points around the village of Tahala, about 60km from Ghat.

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[136] Ibid., 71, 72.

[137] Al-Dnasouri, *Goghrafiat Fezzan,* 11.

[138] Heinrich Schiffers, *Die Sahara und ihre Randgbiete,* vol. 2 (München: Weltforum Verlag, 1973), 235.

[139] According to Mohammed Soliman Auob, the Garamant were first present in Fezzan around the 10th century B.C. and remained there until they were defeated by the Romans. Mohammed Soliman Auob, *Moukhtaser Tarikh Fezzan Mondho Aqdam Al-Usoor hatta 1911 B.C.* (Tripoli: Al-Matbaa Al-Lebeyah, 1967), 131.

[140] Ibid., 11.

[141] Fabrizio Mori, *Tadrart Acacus: Alfan Alsakhree wa Thaqafaat Alsahra qabl Altarikh,* trans. Omar Al-Baroni and Fouad Al-Kahbazee (Tripoli: Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhya, 1988), 23.

The land inhabited by the *Azjer* Tuareg in the south-west of Fezzan, where Ghat is located, is dry, mostly barren desert. This arid land consists of rocky, pointed mountains, sandy dunes, and flat plains of stone and gravel. The south-western part of this region is famous for the Tadrart Acacus Massifes Mountains (with an altitude of 1428m above sea level),[142] the mountain *Kaf Al-Jinoon* (also called *Idinan* in the Tuareg language and *Jabal Al-Jinoon* or *Kasar Al-Jinoon* in Arabic, meaning 'Mountain of the Genii' or 'Palace of the Genii'), and Wadi Tanezzuft (west of Acacus). The latter is a fluvial valley which forms a connection between Acacus and the Algerian Tassili Mountains. Wadi Tanezzuft has been and still is the object of investigation devoted to mortuary archeology.

The Acacus Mountains are formed of Paleozoic sandstone, with basalt rocks covering some parts. They are characterized by this dark sandstone and by rugged ranges and pointed peaks in some parts. Mauro Cremaschi and Savino Di Lernia claim that "The rough and rugged western Acacus cliff represents an important morphological barrier [especially for Ghat oasis], and it marks, also visually, the valley edge for dozens of kilometers."[143] Water is abundantly available in these mountains and is of great importance to the few nomadic Tuareg who still live close to these mountains. The impermeable base of the mountain makes for several natural rock waterholes (*agelmam/gueltas*) which, although often not more than a few feet in depth, are rarely totally dry. Soil is totally absent in these mountains, and erosion and the steep slopes have precluded any chances of providing cultivable land. Besides the above, the geography of this part of Fezzan consists largely of isolated sandstone peaks and flat plains, which are covered in some parts with sand dunes and in others with gravel and stone.

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[142] Secretary of the Planning-Surveying Department, *Al-Atlass Al-Watani of the Social Public Libyan Arab Jamahiriya* (Stockholm: Iselet, 1978), 44.

[143] Mauro Cremaschi and Savino Di Lernia, "A Territorial Approach to the Study Area: Landscape, Geomorphology, and Problems," in *Sand, Stones, and Bones: The Archeology of Death in the Wadi Tanezzuft Valley (5000-2000 BP)*, eds. Savino Di Lernia and Giorgio Manzi (Firenze: All'Insegna del Giglio, 2002), 7.

3.2.2 Climate

During the summer months, the Saharan region in general is very hot during the day and cool at night. The average temperature is 30-35 degrees centigrade; however, the temperature may exceed 50 degrees centigrade during the day. The temperature of sand and rocks rises to 60-70 degrees centigrade, and strong, dry, sandy windstorms are very common. These harsh conditions make traveling extremely hard, and people's water consumption increases to 8-10 liters a day.[144] The *Kel Azjer* Tuareg consider their comparatively cold winters, in which the average temperature is 10 degrees centigrade, to be worse than the hot summer. Frost is common in the northern parts of the Sahara during winter nights, and snow may fall in the higher parts of the mountains. However, in Fezzan, a northern region, frost is rare and snow is unknown. Generally, the southern regions of the Sahara have a milder temperature during winter than the northern regions.

Although limited or varying from year to year, there is always enough precipitation in the Sahara to permit the regeneration of desert vegetation: the herbs, grass, and perennial plants required for the survival of the Tuareg and their livestock. Table 3.2 illustrates the differences in annual precipitation from 1931 to 1945 in the territories inhabited by seven Tuareg groups.[145] This table shows that the annual precipitation ranges from 11.4mm in the northern Sahara, particularly in Ghat, to more than 500mm in the south. This creates a significant climatic distinction between the northern and southern regions inhabited by the Tuareg, which may have influenced the lifestyles of the northern and southern Tuareg groups, and eventually led to the creation of distinctive patterns of their built environment (see sections 4.1, 4.2, and 7.2.1 for information about the influence of climatic conditions on Ghat's built environment).

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[144] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 67.

[145] These were the only years prior to the abandonment of Ghat for which information on precipitation was available.

Table 3.2: Annual precipitation from 1931-1945.

Kel Ahaggar		***Kel Aijer [Azjer]***	
Iwallen	18.6	Ṛat [Ghat]	11.4
Édeles	18.9	Ft. Flatters	13.7
Tamanṛaset	18.9	Ft. Polignac	17.6
		Ġanet	17.8
		Ṛadames [Ghadames]	37.8
Kel Adrar		***Kel Ayr***	
Aġelhok	75.0	Iferwan	74.1
Kidal	75.0	Agadez	179.3
Iwellemmeden Kel Ataram		***Iwellemmeden Kel Denneck***	
Burem	172.0	Tawa	351.4
Meneka	221.5		
Gao (Gewgo)	233.9		
Kel Geres			
Tessawa	525.0		

Reproduce from Nicolaisen and Nicolaisen (1997, 68).

3.2.3 Vegetation

According to Nicolaisen and Nicolaisen, the regions inhabited by the Tuareg fall into three distinct vegetation zones, each with different conditions for stock breeding. These are the true desert zone, the sahel zone, and the savannah.[146] The true desert zone comprises the territories of *Kel Ahaggar* and *Kel Azjer*, where irregular precipitation, and consequently irregular growth of annual vegetation for animal pasture, occurs (see Appendix VI for more information on the other zones). The Libyan *Azjer* Tuareg lands are in the true desert zone within Fezzan.

According to Rodd, the greater part of the Sahara "is capable of supporting animal and vegetable life in some degree. Absolute desert where no living thing can exist does not on the whole form a very large proportion of the surface."[147] The Saharan desert region contains a number of oases (*wahat* in Arabic). As Rodd explains, "an oasis is not necessarily a patch of ground with two or three palm trees and a well in the desert. It is simply an indefinite area of fertility in a barren land. [...] 'oasis' is a term with no strict

[146] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 73.
[147] Rodd, *People of the Veil* , 2.

denotation, it connotes attributes which render animal life possible."[148] There are many oases scattered in the desert in Fezzan, with thousands of palm trees of different species, some of which contain permanent settlements, while others have no water, are uninhibited, and are only good for pasture.

Generally, the main livestock of the nomads of this true desert zone are goats. Sheep breeding is very limited and there is no cattle breeding. However, camels and donkeys are bred by almost all Tuareg.

3.3 Fezzan Borders and Administrative System

The administrative borders of Fezzan have been reported variously in the literature. This is partly due to frequent changes in the borders over the years, and partly to inaccuracy in recording. Al-Dnasouri indicates that the accounts of travelers and historians in ancient times used the Latin word *Phazania* or *Phasania* to refer to the area extending from Tripoli in the north to Tebesti in the south.[149] However, according to Mohammed Soliman Auob, Fezzan includes all the lands extending from south of Gheryan to Oujelah in the east, and from Al-Koufra oasis and Al-Awaynat (a mountain) in the east, to Ghadames in the west, and includes in addition the lands extending from Ghadames to Ghat.[150] According to the maps presented by the Secretary of the Planning-Surveying Department, during the 1940s and 1950s Fezzan was the area extending from the line connecting Ghadames, Wadan, and Zallah in the north, to the borders of Niger and Chad in the south, and from Waw al-Namous and Tebesti in the east to the Algerian and southern Tunisian borders in the west (see Appendix VII A).[151] Dirk Vandewalle shows the northern borders of this region differently. According to his map the northern borders were further south, excluding Wadan and Zallah (see Appendix VII B).[152] Inaccuracy in recording the borders of Fezzan can be seen in the last two records. Although both records were published long after the elimination of the three ancient regions of Libya (Fezzan, Tripolitania, and Cyrenaica) they display different borders of

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[148] Ibid., 6.
[149] Al-Dnasouri, *Goghrafiat Fezzan*, 13.
[150] Auob, *Moukhtaser Tarikh Fezzan*, 11.
[151] Secretary of Planning-Surveying Department, *Al-Atlass Al-Watani*, 20.
[152] Dirk Vandewalle, *Libya since Independence: Oil and State-Building* (London: Cornell University Press, 1998), xii.

the region. Proving the accuracy of the records of the borders of Fezzan is beyond the scope of this research; however, the most important thing to note is that, according to all these records, Ghat has always been within the administrative area of Fezzan.[153]

Moreover, the classification of Fezzan within the national administrative division system has changed several times during the different ruling and colonizing periods, from region (*eqleem*), to group of *mutassarifiat*,[154] to a state (*welaya*), to group of provinces (*mouhafaẓat*),[155] to group of municipalities (*baladiyat*),[156] and finally to group of public congresses (*sha'biyat*).[157] These changes resulted from frequent changes in the country's governing conditions, political system and ideology, which occurred during the Othmanian, Italian, and French colonization periods,[158] and during the periods of Kingdom, Republic, and Jamahiriya.[159] The changes in Fezzan's administrative division system were accompanied by several other changes involving the size of this administrative division. In other words, the number of villages and towns under the control and jurisdiction of each administrative division (*mutassarifia, welaya, mouhafaẓa*, etc.) changed along with the type of administrative unit.

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[153] However, according to Enrico De Agostini, Ghat has always been geographically and historically outside Fezzan region. Enrico De Agostini, "Organizzazione Amministrativa," in *Il Sahara Italiano: Fezzan e Oasi di Gat*, vol. 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937), 661. De Agostini probably means that, although Ghat has always been within the administrative borders of Fezzan region, its remote geographical location, as well as its involvement with Sahara trade caravans and its position as the sultanate of the *Kel Azjer* Tuareg, who for a long time protected Ghat from falling under the control of colonial governing systems (as will be explained in Chapter 6) has meant that Ghat was distinct from the rest of Fezzan.

[154] The *mutassarifiat* (singular *mutassarifia*) is part of an Othmanian administrative classification established in 1843. It comes second in the administrative hierarchy after the state (*welaya*). The *mutassarifia* includes several districts called *qadtaa*, which are each governed by a *qaimmaqam* (governor). Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 26-28. The terms *mutassarifia* and *welaya* continued to be used until the early Kingdom period.

[155] The *mouhafaẓat* (singular *mouhafaẓa*), also translated 'governorate.' This administrative unit was used during the Kingdom and Republic ruling periods.

[156] The number and jurisdiction limits of the *baladiyat* changed several times before the system changed into *sha'biyat*. These administrative units were used during the Kingdom and Republic periods and under the current Jamahiriya system.

[157] *Sha'biyat* (singular *sha'biya* or *sha'biyet*). The singular form, ending with 'et,' is used when accompanied by the name of a town or village, for example *Sha'biyet* Ghat; otherwise the singular form is spelled *sha'biya*. *Sha'biyat* is a democratic governing system built based on the principles and concepts of the Green Book, by Muammar Al-Gaddafi, the leader of Libya, which calls for the people to govern themselves by themselves and to make decisions on how to run their country.

[158] In 1943, the Allies' expulsion of Germany and Italy from North Africa led to the creation of a British Military Administration in Tripolitania and Cyrenaica, and a French Military Administration in Fezzan." Dirk Vandewalle, *A History of Modern Libya* (New York: Cambridge University Press, 2006), xiv.

[159] Meaning 'stateless society.'

When the *mouhafaẓa* administrative division system was initiated, the use of the name 'Fezzan' was eliminated and replaced by the different names of the *mouhafaẓat*, and later by the different names of the *baladiyat* that covered the former Fezzan area. However, despite all these changes in the administrative divisions, this area is still referred to in publications and locally as 'Fezzan.'

As a result of these changes in the administrative division, Ghat's position in the administrative system changed too. Francesco Coro claims that during the Othmanian period in the second half of the 19th century, Fezzan was considered a *mutassarifia* (also called *sanjaq*) under the control of the state (*welaya*) of Tripoli.[160] This *mutassarifia* consisted of four districts called *qadtaa*. These were Murzuk, Ashati, Soukna, and Ghat.[161] However, although the *welaya* and the *mutassarifia* administrative division were initiated in 1843, Ghat was not effectively part of this administrative system, having independent status as controlled by the *Azjer* Tuareg tribes until the middle of 1875.[162]

According to Al-Dnasouri, in 1935, during the Italian period, the administrative boundaries of Fezzan changed as a result of separating the then so-called 'military area of the south of Libya' from the north of Libya.[163] At that time Fezzan consisted of four *mutassarifiat*: Brak, Ghat, Murzuk, and Alkoufra. Each *mutassarifia* consisted of several districts called *mouderiyat* (singular *mouderiya*). Later, this system changed. Based on the 1954 census, Al-Dnasouri claims that the federal system in effect at that time considered Fezzan as a *welaya* consisting of five *mutassarifias*. These were Sabha and Ubari, Ashati, Murzuk, Aljoufra, and Ghat. Al-Dnasouri also maintains that the Federal system was later annulled, and Fezzan was referred to as the 'southern part,'[164] consisting of two provinces (Sabha and Ubari) called *mouhafaẓa*. Each *mouhafaẓa* was composed of several *mutassarifias*, and each *mutassarifia* was composed of several *mouderiyat*. Ghat was one

[160] As a state (*welaya*), Tripoli was divided into four *mutassarifias*: Tripoli (the capital), Al-Khoums, Al-Jabel A-Gharbi, and Fezzan. Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 26, 27.
[161] Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 28.
[162] Ibid., 26; Ghanem, *Al-Almani Gottlob Adolf Krause*, 19.
[163] Al-Dnasouri, *Goghrafiat Fezzan*, 59.
[164] Meaning the south-western part of the country.

of the *mutassarifias* in *mouhafaẓat* Obari.[165] The *mutassarifia* of Ghat consisted of three *mouderiyat*: the towns of Al-Awaynat, El-Barkat, and Ghat.[166]

Currently, the former Fezzan region is divided up into several *sha'biyat*. The Popular Congress of *Sha'biyet* Ghat is one of these, and has under its jurisdictions the towns and villages of Al Awaynat, Tahala, Ghat, El-Feuat, El-Barkat, and Essaien. The Old Town of Ghat represents the old core of the current town of Ghat.

[165] The letter 't' is added in the pronunciation of this word when the town name comes next, as is also the case with the word *Sha'biyet* mentioned earlier.

[166] Al-Dnasouri, *Goghrafiat Fezzan*, 60- 62.

Chapter 4
Kel Azjer Tuareg Rural Dwelling Typology

The purpose of this chapter is to provide detailed documentation and analysis of what I classify as Tuareg permanent and semi-permanent dwellings.[1] As I stated in the introduction to this dissertation, understanding Tuareg rural dwelling typology is essential for understanding the architecture of the *Kel Azjer* Tuareg sultanate of Old Ghat, and in particular for understanding the influence of nomadic and semi-nomadic traditions on the urban dwellings of Old Ghat. This will facilitate understanding the meanings hidden in the spaces of Ghat, in light of the fact that Tuareg culture is dominant in Fezzan.

There is a great diversity of architecture and dwelling types in the land dominated by the Tuareg. Although scholars have described the culture and dwellings of some of the Tuareg groups, none have dealt with the *Azjer* Tuareg of Libya and their architecture. Nicolaisen and Nicolaisen provide an excellent comprehensive description and illustrated study of Tuareg culture and history; however, they do not cover all Tuareg groups of the Sahara, and do not include the *Azjer* Tuareg of Libya. Their research focuses mostly on Tuareg in Algeria, Niger, and Mali, with particular reference to the *Kel Ahaggar*, *Kel Ayr*, and Western *Iwellemmeden*. Chapter XIV of this book provides a description and categorization of the dwelling types of some Tuareg groups; however, this is limited to dwelling structure, construction methods, and building materials, and lacks reference to the dwellings' interior spaces – their function, use, organization, and meaning.[2] An analysis of the interior of dwellings is provided in Labelle Prussin's *African Nomadic Architecture: Space, Place, and Gender*;[3] however, even Prussin, who includes a chapter on nomadic Tuareg architecture, focuses on only two Tuareg groups: the *Kel Ahaggar* and *Kel Ferwan*, and on one typology, which is their tent.

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[1] My analysis and classification of the Libyan Azjer Tuareg dwellings were inspired by Norbert Schoenauer lectures and books, in particular *6000 Years of Housing* and *History of Housing*. Norbert Schoenauer, *6000 Years of Housing*, vol. 1 (New York: Garland STMP Press, 1981); *History of Housing* (Montreal: McGill University Press, 1992).

[2] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vols. 1 and 2.

[3] Labelle Prussin, "The Tuareg: Kel Ahaggar and Kel Ferwan," in *African Nomadic Architecture: Space, Place, and Gender* (Washington: Smithsonian Institution Press, 1995).

Since no-one has studied or documented the way of life and architecture of the *Azjer* Tuareg of Libya, and because understanding the *Azjer* Tuareg culture and dwelling typology is essential in order to understand the architecture of their historical sultanate, Old Ghat, I provide in this chapter a preliminary documentation and analytical description of what I classify as their rural dwelling typology.[4]

Based on my 2006 fieldwork in Ghat and its surrounding towns and villages, and with consideration of building materials and structure, I classified *Azjer* Tuareg dwellings (*éhen*)[5] as permanent and semi-permanent dwellings. I then classified the permanent dwellings into non-portable and portable typologies. The non-portable thatched conical roofed stone house, called *derb*, is mainly used by sedentary rural Tuareg and, in some cases, pastoralists. The portable skin tent dwelling, called *éhekyet*, is mainly used by nomadic and semi-nomadic pastoral Tuareg. On the other hand, the semi-permanent dwelling typologies are mainly the winter and summer thatched huts called *tekabrayen* (singular *tekabar* or *tekabart*), used mainly by semi-nomadic pastoral Tuareg and the urban sedentary Tuareg of Ghat in their farms.

Before explaining these typologies it is important to clarify a common misunderstanding by European scholars, including Nicolaisen and Nicolaisen and Labelle, with regard to the meaning of *éhen* and their use of the term as a name to refer to a particular type of dwelling.[6] Based on my 2006 survey, the term *éhen* is similar to the English term 'house,' and refers to a shelter of any type (*tekabart*: hut, *éhekyet*: tent, or *derb*: stone dwelling), which gathers under its roof married couples and their families. According to Ibrahim Bousha, a noble *Azjer* Tuareg, the term *éhen* means 'marriage'[7] and is also used to refer to the building that envelops two people bonded by marriage, whether this is a tent, a hut, or any other dwelling type. Bousha adds that dwellings used by

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[4] The Targian terms used in this chapter to describe various dwelling components, architectural elements and furniture are based mainly, but not exclusively, on the testimonies of local informants Azza Mohammed Othman, Fayza Al-Faqee Ingadazen, and Oukhannd Hassan Barkah. Azza Mohammed Othman, a noble Tuareg woman from Ghat, interviewed by the author, El-Barkat, 30 July, 2006; Fayza Al-Faqee Ingadazen, a noble Tuareg woman from Ghat whose grandfather is the last amanukal for the *Azjer* Tuareg, interviewed by the author, El-Barkat, 1 August, 2006; Oukhannd Hassan Barkah, a member of the *Imgrrghessan Azjer* Tuareg tribe and the owner of the surveyed dwelling, interviewed by the author, Tahala, 31 July, 2006.

[5] I used the French letter 'é' in this text to ensure correct pronunciation.

[6] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 433; Prussin, "Kel Ahaggar and Kel Ferwan," 91.

[7] *Éduben* is another term which means marriage.

singles are not referred to as *éhen*, but are referred to according to their typology.[8] In that sense, the term *éhen* is a metaphor for the institution of the family. This term is also connected to several expressions related to marriage. For example, when someone asks a man or a woman if s/he got married or is married, they would say: *tekrasaid éhen*, which means "have you built an *éhen*?" In this sense, marriage is perceived by the Tuareg as a building and symbolizes a construction which requires care to survive.

Traditionally, young people feel shy to use the term *éhen* in front of old people to say that they are married. Instead, they use the term *tamukrsat*, which means literally 'built a house,' and indirectly means 'got married.' This is similar to the Arabic language, where the particular term for marriage is *zwajj*; however when, for example, a man marries a woman this fact can be referred to in either a direct or indirect way. To be direct, one could say either *tzawaja behha*, meaning 'he got married to her,' or *motazwej* meaning, 'he is married.' The indirect way is to say *banaa aliha*, meaning 'built upon her,' or *banaa biet*, which means 'built a house.'

Accordingly, both the Tuareg and Arabic languages use the word 'built' as an indirect way to refer to the bond that marriage creates. According to Zahra, Boucha's wife, the term *éhen* is derived from the Arabic ward *hanaa*, which means 'happiness and settling,' which is what, in this culture, marriage is supposed to produce or mean. This term is one of many other terms that form part of the *Tamashaq* vocabulary and are of Arabic origin.[9] Interestingly, in Arabic a house is called *sakan and maskan*. The verb is *yasskoun* (singular masculine), *tasskoun* (singular feminine) and *yasskouno* or *tasskouno* (plural), and means 'to dwell.' The morphological meaning of the term *sakan* should be sought in the noun *sakinah*, from which *sakan* is derived. *Sakinah* means 'tranquility,' 'serenity,' and 'peacefulness,' all of which are causes of happiness (*hanaa*). In this way, the meaning of the derivatives (*hanaa*, *sakinah*) of the terms *éhen* and *sakan* in the Tuareg and Arabic languages is similar. However, unlike *éhen*, *sakan* does not refer to the shelter that covers married people only, but to the shelters for everybody, married and unmarried. Moreover, there is an association between the meaning of marriage, as a sacred bond that envelops couples and provides them with tranquility (*sakinah*) and the

[8] Ibrahim Bousha Al-Koni, interview (see chap.3, n.53).

[9] Zahra Al-Koni, a noble Tuareg woman from El-Barkat village, interviewed by the author, El-Barkat, 30 July, 2006.

sakan, which enclose such sacred relationships. This acquaintance is evident in the Qur'an, which says: "And among His Signs is this, that He created for you mates from among yourselves, that ye may *dwell in tranquillity*[10] with them, and He has put love and mercy between your (hearts): verily in that are Signs for those who reflect."[11] The *sakan*, which provides a shelter within which people can find tranquility, resembles the relationship between couples, who find shelter in each other through care, love, and understanding. In addition, the term *éhen* can be used more broadly and in a genealogical sense to refer to a person's roots and family. For example, to say someone is from *maqarnanen éhen* literary means 'he comes from a great house,' meaning that he is descended from a well-known and powerful family.

4.1 Permanent Dwellings

4.1.1 Permanent Non-Portable Dwellings: Thatched Conical-Roofed Stone House (*derb*)

The *derb* dwelling that I have surveyed is more than 45 years old and owned by Al-Hassan Sakielell Dbamati, a blacksmith (*inadhen*) of the *Iaheidmen* Tuareg tribe.[12] It is built in a place called Ten Kawya. This village is located several kilometers from the town of Ghat and very close to the main Garamantian site, Aghram Nazarif, in Wadi Tanezzuft. This site includes ancient Garamantian citadel ruins and a large burial site: Aghram Nazarif necropolis, which consists of one thousand ring-shaped graves. As I stated in Chapter 3, based on the archeological records represented in the ancient ruins at Aghram Nazarif, it appears that an older version of this solidly built type of house was first introduced in Fezzan in late pre-Islamic times, specifically during Garamantian times. Considering that the Tuareg are descendants of the Garamants, it seems that this form is the latest adaptation by the Tuareg of ancient Garamantian building techniques, and so could be evidence of an ancient cultural influence. Such an influence can be traced in the layout plan and construction techniques of the *derb* dwelling. The *derb* layout is a combination of a circular and rectangular plan, both of which can be found in the nearby

[10] My emphasis. The phrase 'dwell in tranquility' is read in Arabic as *le tasskouno*.
[11] Islamic City, "Qur'an, Sourat Al-Roum (the Romans), verse number 21," http://www.islamcity.com/mosque/QURAN/30.htm (accessed March 15, 2008).
[12] Al-Hassan Sakielell Dbamati, interviewed by the author, Ten Kawya, 2 August, 2006.

ancient ruins. In addition, the *derb* walls are built exactly in the same layered way as the nearby ancient Garamantian ruins, using the same building materials as those used to build the ancient Garamant citadel and its adjacent burial site, which are thin, black-brown slices of stone and mud mortar (see figs. 4.1, 4.2, 4.3).

Fig. 4.1. The layered structure of the wall and the building materials of the *derb*. Photographs by the author, 2006. Unless stated otherwise, all photographs and figures are by the author, 2006.

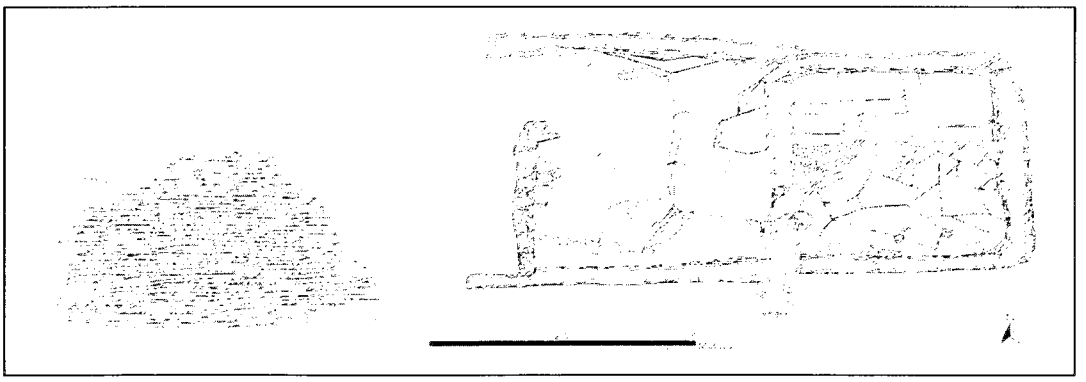

Fig. 4.2. Ancient Garamantian ruins in Aghram Nazarif: the layered structure of the walls and rectangular plan of the rooms.
Reproduced from Liverani (2003a, 26, 27).

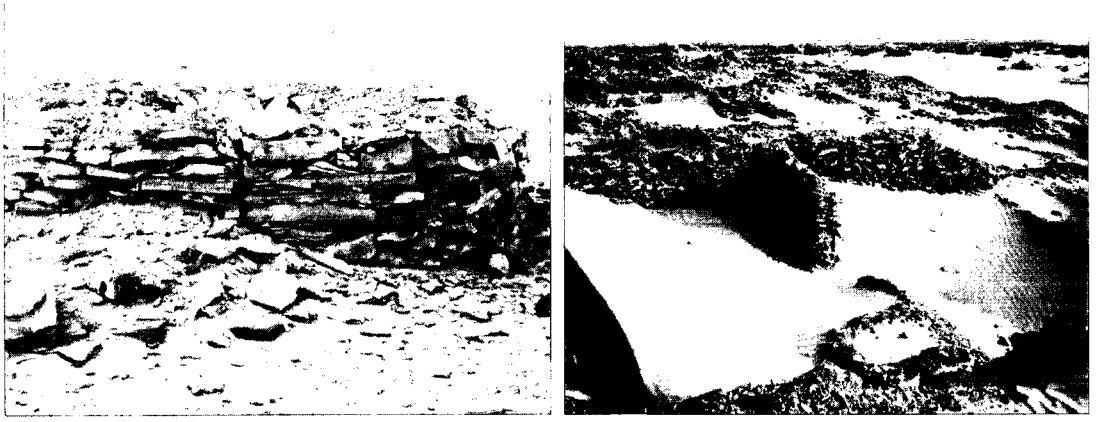

Fig. 4.3. Ancient Garamant ruins in Aghram Nazarif: the built structure of the ring graves and the rectangular rooms of the citadel.

The stone dwelling (*derb*) that I surveyed consists of four differently sized rooms (*teghemhien*), which are basically huts, and two court-like terraces (see figs. 4.4, 4.5). In the plural, the huts are referred to as *tekabrayen*, meaning 'huts,' but they have different names in the singular depending on the hut size. The singular feminine of *tekabrayen* is *tekabart*, which refers to a small hut, while the singular masculine is *tekabar*, which refers to a bigger hut. The *derb* is organized so that the kitchen hut (*ekadeone tekabart*) is located on the north side with its own terrace, while the bedroom hut *(taghahamat n-idhass tekabar*),[13] the grain storage (*esgofarr*), and the shaded outdoor seating area (*tafalkat*) are located on the south side. The kitchen and the outdoor seating area each have their own courtyard. This arrangement provides an architectural understanding of this Targian family, who emphasized distinctions between dwelling spaces on the basis of domestic functions, represented by separating the working kitchen space from the most private and tranquil family resting spaces of the dwelling.

[13] At the time of my survey of this dwelling, the roof of this room had collapsed.

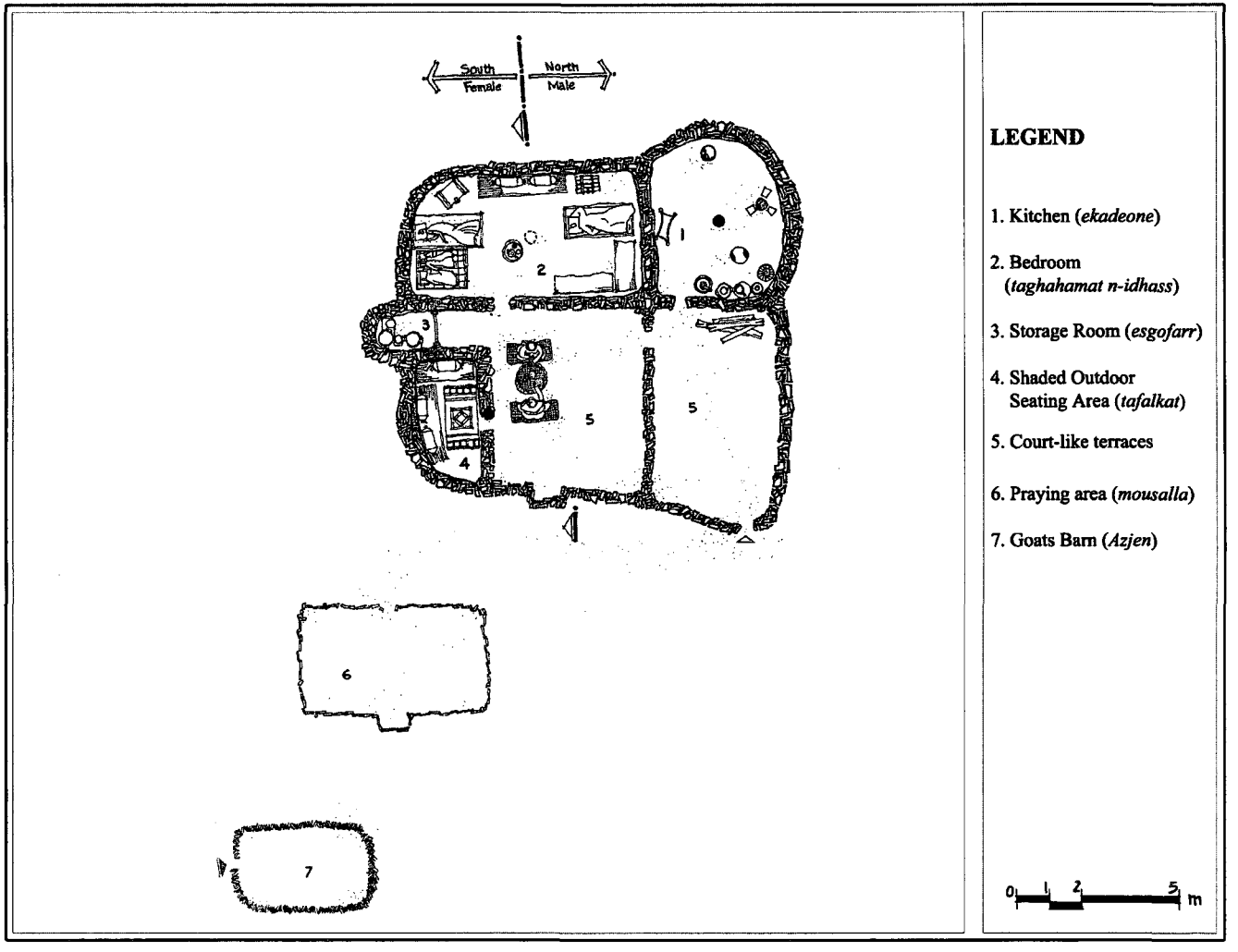

Fig. 4.4. The layout plan of the *Azjer* Tuareg permanent non-portable dwelling: thatched conical-roofed stone house *derb* in Ten Kawya.

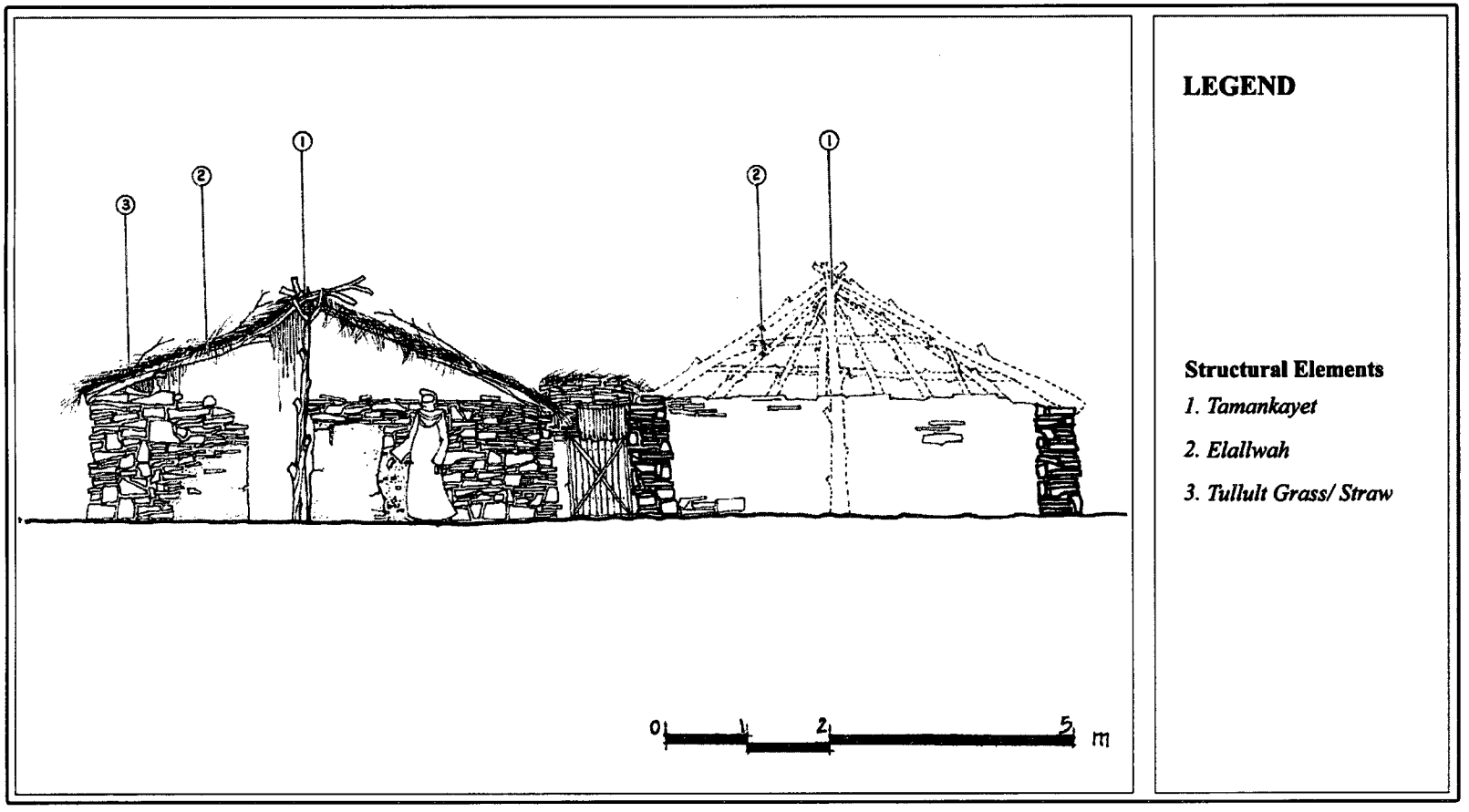

Fig. 4.5. Cross-section of the *derb* dwelling.

4.1.1.1 The Kitchen (*ekadeone*)

The kitchen is almost circular in plan and its roof high enough to allow a grown man to stand upright easily in it. It is 4.6m in diameter, with a forked pole in the center, 2.5m high and 15cm thick and made of the *athel*[14] tree, called a *tamankayet*. This main pillar supports the thatched conical roof, and is a feature common to all the rooms in the dwelling. The kitchen furniture is simple and mainly consists of a couple of water jars called *bagoal*, two bread-baking implements called *bagoal* and *tannour*, some earthen cooking pots called *térirt* or *alekkin*, grinding stones called *tehunt* or *rahaa*, and a couple of serving dishes and other small kitchen utensils (see Appendix VIII). The bread-baking *bagoal* looks like a jar with small and large open ends. It is made of rare, locally available black clay, which gives it its black colour. This heavy and fragile piece of kitchen equipment is an essential element of the kitchen. It is used to bake a very thin and crunchy type of bread called *tamasaih*, which forms the basis of several traditional dishes.

The *bagoal* is usually placed in the kitchen corner away from draughts of air. Since baking using the *bagoal* takes time and needs tending, in order to oil its exterior surface every time the thin dough is stuck to it and to keep the fire burning, there is a special ritual to be followed to accomplish this job. This ritual affects the organization of the kitchen space. First, the Targian woman clears enough space around the *bagoal* for the dough dish, the oil container, and the bread basket. She brings a bunch of dry, easy-to-light branches of Nerium Oleander shrub closer to her sitting place to use as a fuel, and then she sits to bake with crossed legs or kneeling with one knee on the ground. This arrangement of cooking materials in the corner of the kitchen creates a protected peaceful working zone. Although *bagoal* is portable, its location in the kitchen is fixed by the woman's choice of a suitable place, which creates a familiar environment and an identity for the kitchen of each family (see fig. 4.6).

[14] The botanical name of the *athel* is *Tamarix Articulata*.

Fig. 4.6. The *bagoal* is used to bake a very thin and crunchy type of bread called *tamasaih*.

The other type of traditional bread-cooking implement, the *tannour*, is non-portable. It looks like a large cylindrical clay (earthen) open-ended jar built into the ground with the top opening, almost 45cm wide. The *tannour* is used to bake a thicker type of bread than *tamasaih*, called *tamasseen*. The *tannour* is usually built by the woman in the innermost part of the kitchen. To be ready for cooking, a bunch of dry branches is lit in the bottom of the *tannour*, in order to warm it up before the woman sticks the dough onto its sides. She then covers the top of the *tannour* to allow maximum heat for cooking. It requires less working space to cook with the *tannour* than with the *bagoal*, because the cooking time for *tamasseen* is longer than for *tamasaih* bread, and the women does not need to sit tending it or frequently oiling the inner cooking surface of the *tannour*, as is the case in the *bagoal*. The *tamasseen* is later stored in traditional baskets to keep it fresh.

Another important element in the kitchen is the set of earthen cooking pots, which have different sizes and shapes. A pot is placed on three stones called *sefrad* beside the *tannour* and the *bagoal*. Wooden fuel is placed between the *sefrad*, which form the

hearth. In order to solve the problem of smoke and vapor produced by these traditional cooking implements, a small ventilation opening is made in the roof to allow the air to escape. Since grains and cereals, such as wheat, barley, peas, and some wild seeds, are essential ingredients in Tuareg meals, the *Azjer* Tuareg woman uses two implements to crush these into small pieces or make grains, cereals or other dry vegetables into flour. These are the mortar (*tindé*) with its heavy pestle (*éheren*) and the volcanic grinding stones called *tehunt* or *rahaa*.[15] The latter equipment consists of two naturally differently sized and shaped stones. The upper stone is small and called *aẓẓed*; the lower one is larger and called *tehunt*. Based on archeological evidence discovered in Aghram Nazarif, *tehunt* seems to be another adaptation of ancient Garamantian culture, since tools exactly like this are found in 'huge numbers' in the excavation of the Garamantian citadel in Aghram Nazarif (see figs. 4.7, 4.8).[16]

Fig. 4.7. The *tindé* with its pestle (*éheren*) and the volcanic grinding stones (*tehunt*).

[15] This Tuareg word may come from the Arabic word *tahuna*, meaning 'mill.' However, another word in Arabic used to refer to such equipment is *rahaa*, meaning 'grinder.'

[16] Liverani, ed., "Aghram Nadharif," 28.

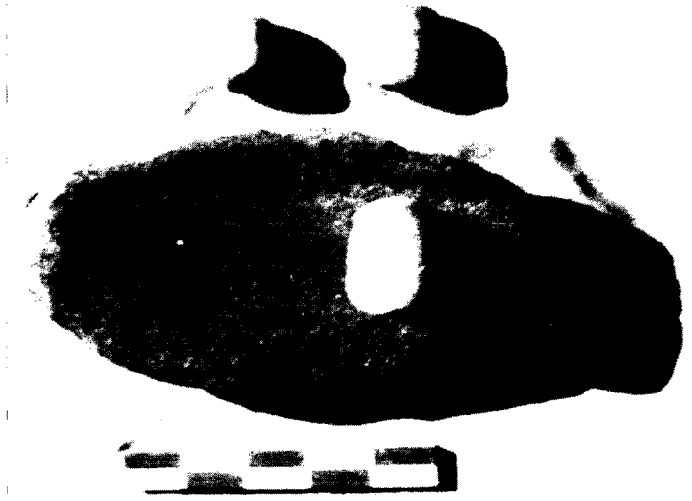

Fig. 4.8. Ancient Garamantian grinding stones. Reproduced from Liverani (2003a, 30).

Although these implements are kept in the kitchen, due to the noise produced by using the wooden tub, Targian woman use it in the terrace area in front of the kitchen, away from the interior family comfort and rest zone. The best times to finish this chore are early morning and *kilola* time, which is the afternoon family naptime (between 2:00 and 4:00pm).[17] Based on the above explanation, the kitchen working area extends, occasionally or as needed at specific hours of the day, outside the kitchen domain towards the front terrace area. This means that the front terrace, which is the most public zone of the house and connects the interior to the outside world, turns at specific times into a private working space. This is possible because this type of dwelling is not found in clusters (i.e. villages), but scattered in the desert at some distance from each other, and also because social visits traditionally take place after 4:00pm, which means that visits are relatively infrequent.

These tools and their use provide an account of parts of women's daily chores, which influence the configuration of the kitchen space and the arrangement of furniture. The frequency and time of use of the kitchen depend mainly on the type of meals (some meals take longer to cook than others) and the routines of each family; however, it is common for the family to have three main meals per day (breakfast, lunch, dinner). The woman starts her day by milking goats kept in an animal shed (*azjen*; in local colloquial

[17] Usually the women prepare ahead of time for the next day's meals.

Arabic *zeriba*) close to the dwelling, before she warms the milk in the kitchen and either cooks fresh bread or serves previously prepared bread. Tea, which forms an essential part of the breakfast meal, is never prepared in the kitchen. The tea set is treated with great care and always kept in the bedroom, and is made either in the inner courtyard-like terrace or in the bedroom. The hearth over which the tea is made can be a small portable clay pot called, in colloquial Arabic, *ka-noon*, or it can be a non-portable hearth called, in Tuareg, *imkhawel*, which is a small hole in the ground filled with wood or dry cattle, goat or camel excrement. In addition to making tea, the *imkhawel* is used as a heating source for rooms. The breakfast meal is sometimes as heavy as lunch, which requires the woman to spend longer working in the kitchen. There is no fixed rule for this, since it relates to the particular needs or customs of each family and their financial abilities with regard to the limited food resources in the desert.

Tuareg families never eat their meals in the kitchen. On summer mornings, the family gathers in the courtyard-like terrace (*taa-wkh*) to have their breakfast. Lunch and dinner are usually taken in the outdoor shaded seating area called *tafalkat*.[18] During the winter, meals are taken in the bedroom. Meals are an important family time, since every member must attend on time. No one can afford to miss his share in the absence of a fridge. In a small family, family members form a circle around one dish. In a large family, such as the Sakielell family that I surveyed and that is composed of twelve people, the members sit in two groups close to each other, around two separate dishes, with the youngest members in a separate group. As a result, meal routines and family size influence the use and organization of dwelling spaces.

In Tuareg tradition, it is considered dishonorable for the man to enter the kitchen. Thus, the kitchen is a private space and is exclusively the domain of the woman.

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[18] *Tafalkat* is a sunshade. It can be a large or small structure with a high or low roof. It is composed of a platform made of branches and dry plants supported by several posts (the number varies according to the size of the *tafalkat*). The *Tafalkat* can be part of the dwelling structure, attached to it, or a completely separate structure, depending on its use. When the *tafalkat* is part of the dwelling structure as an outdoor shaded room, it is usually walled on three sides with a roof height similar to that of the dwelling rooms. However, if it is built as a detached structure in order to shade water and milk skin containers, it is always built with low roof and either walled on two sides or left wall-less. In Haj Al-Hassan Sakielell's house a solid fence-like wall was added in recent years on the fourth side, in order to provide more enclosure and privacy for the Haj Al-Hassan, who refuses to totally abandon his old house to the new one built close by, and spends most of his day in this shaded area.

4.1.1.2 The Bedroom (*taghahamat n-idhass*)

The bedroom is a spacious rectangular room, 6m x 4.6m in dimension, with rounded corners, attached to the kitchen at the north side. Although from the outside it looks conical, due to the thatching method, from inside, the thatched roof of this rectangular room has a pyramid-shaped skeletal structure. The room is divided into three sleeping zones. The husband's bed is located on the right side of the room in the north direction. The beds of the women and children are located on the left side in the south direction. The bed for the guests (*énaftagh*),[19] if there are any, is placed on the west side of the room, along the brightest wall facing the door and the direction of sunrise. This interior arrangement provides an architectural understanding of a family that stresses distinction on the basis of family identity (status and sex).

The few humble furniture pieces are distributed along the room walls. These are mainly small boxes for personal belongings and occasional clothes. The woman's clothes box may include smaller boxes for valuables and jewelry. Daily clothes and bed-covers, on the other hand, are hung away from sandy floors on ropes. These ropes extend along the walls from one corner to the other and are fastened to a small wooden branch that crosses the rounded corners and is part of the built structure. In the center of the bedroom is a forked pole (*tamankayet*). At the foot of this pole and under the ventilation opening in the roof, a non-portable hearth (*imkhawel*) is built into the ground. This little hearth is an essential feature of the Tuareg dwelling. Its social value is vested in its indirect social role in encouraging family to gather anywhere in the dwelling, which far exceeds it function as a producer of warmth. During long summer nights, the family gathers around this central *imkhawel*, resting after a long working day, drinking tea and telling fairy tales or stories of the past. Teatime, says Rahma Abd El-Maowloud Abderazeq, is also the best time for parent-children talk, in order to provide advice and direction.[20] The *imkhawel* creates an ambience suitable for conversation; a metaphorical relaxing sphere in which to discuss and deal with family issues. In winter, the warmth of the *imkhawel*, beside the soft light radiating from the small oil lamp, creates an invisible sphere uniting the individual

[19] The word *énaftagh* signifies someone for whom the bed and bedding must be prepared. This refers to a guest, and usually the guest is given the best of everything.

[20] Rahma Abd El-Maowloud Abderazeq, interviewed by the author, Ten Kawya, 2 August, 2006. Rahma Abd El-Maowloud Abderazeq is the wife of Al-Hassan Sakielell, the owner of the surveyed dwelling.

spheres of thoughts of the users of the room, surrounded by the smell released from burning *athel* wood and the boiling of green tea flavored with mint, before it escapes through the smoke hole in the roof.

4.1.1.3 The Storage Room (*esgofarr*)

In addition, the dwelling includes a small circular storage room located between the *tafalkat* and the bedroom. This storage room is characterized by a very low dome-like thatched roof that is not sufficient to allow a person to stand upright, unlike in the other two rooms. This room is used to store grains in large *bagoals*, as well as extra kitchen utensils that are used on certain occasions (see fig. 4.9).

Fig. 4.9. The storage room (*esgofarr*).

4.1.1.4 The Outdoor Seating Area (*tafalkat*)

The dwelling includes on its south side a semi-rectangular shaded outdoor room or seating area called *tafalkat*. This area is surrounded with four walls as high as the dwelling walls with a middle entrance (see fig. 4.10; see Appendix IX for other types of *tafalkat*). The exterior southern wall of this outdoor room is rounded, whereas the interior is flat (see figs. 4.4, 4.5). The roof is a half-cone, supported in the middle by a forked pole (*tamankayet*), as is the case in all the rooms of the dwelling.[21] The roof is attached to only

[21] In some cases, the fourth wall, which includes the doorway, is not built, uniting the outdoor room space with the front terrace, which is open to the sky.

three walls of this outdoor room. It seems that the fourth wall was added later to enclose this space (see fig. 4.10).

Fig. 4.10. Outdoor seating area (*tafalkat*).

The *tafalkat*, which faces north, is used for guest reception and as an outdoor room for the family for eating, sitting, and sleeping during the hot summer days. This seating area faces two terraces, which are open to the sky. These terraces are partially separated by a wall as high as the dwelling walls. A small opening in this dividing wall provides access between the terraces. The interior terrace, in front of the *tafalkat*, which is a more private space than the other terrace, has an alcove engraved in its east side: a small *mehrab* which indicates the direction of the *qebla* (towards Makka). This architectural element, which is an essential part of the design of mosques, is a powerful indication of the transmission of Islam and its basic requirement of five daily prayers into the dwelling architectural form. The *mehrab* is situated so as to be away from cross movement. It creates, in this part of the terrace, a private and intangible sacred spiritual sphere, as in the mosque. This spiritual sphere overlooks a larger sacred area called *mousalla*,[22] which is used for collective prayers. This area is located a few steps from the dwelling, and is cleared of stones and carpeted with clean sand, while its edges are marked with stones.

The terrace by the front door is less private and works as an entrance hall as well as a kitchen service area where piles of wood are kept. The main entrance of the dwelling

[22] *Mousalla* is any land, place, or built structure, covered or uncovered, that is reserved for prayers, but that is not a mosque.

is located in the middle of the east wall of this terrace, facing the kitchen door. Schematically, the covered spaces attached to the dwelling are organized to form an L-shaped structure enclosed with low, fenced, courtyard-like terraces.

4.1.1.5 Building Materials and Construction Methods

These types of dwellings are usually erected by men. They often take two to three months to build; however, they can take less if somebody helps, says Rahma Abd El-Maowloud Abderazeq. She adds that, with the help of relatives or friends, it could take as little as one week to build one room.[23] The best season to build is the summer. This is because the mud dries quickly, as do the other plants used as materials for roofing. The heavy walls of the house are 30cm thick and 1.5m high, and are built of thin slices of stones found in the open country, attached by a thin layer of mud mortar. The walls are plastered from the inside only with a thin layer of mud, in order to fill the gaps between the layers of stones and to give the wall a smooth surface before being white-washed with *abafa*, which is a natural, locally available chalky rock that the women dig from the ground. This raw material must be soaked overnight in water before use. Then, with the help of a small bowl, the women splash the soaked *abafa* on the walls. The exterior walls are left untouched, showing the texture of the layered stone (see fig. 4.11).

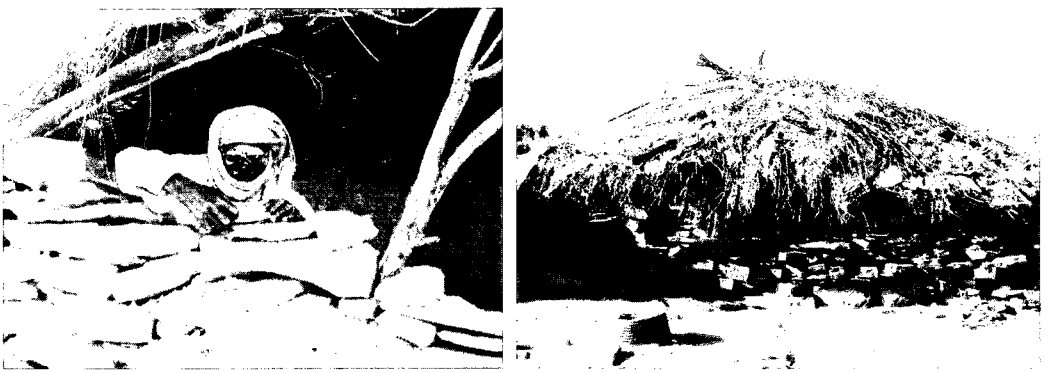

Fig. 4.11. Building materials and construction methods: Al-Hassan Sakielell repairing his house.

The *tamankayet*, which forms an important structural feature of all the dwelling's rooms, supports the roof's conical skeletal structure. It reaches up to 2.5m high and 15-

[23] Abderazeq, interview.

20cm thick. This central column holds up several main rafters called *elallwaten* (singular *elallwah*) of thinner (7-10cm thick) *athel* branches. These branches are fastened to the apex of the *tamankayet* using strings of goat hair or ropes of camel skin, with their ends resting on the walls. Much thinner and lighter branches are then used to fill the spaces between these rafters, with their ends also resting on the exterior walls, in order to provide support to the roof. Two rings of branches are then arranged around and fastened to these rafters. Finally, the whole wooden skeletal structure is thatched with bunches of *diss* and/or *sbat* (in Tuareg *tullult*),[24] or other available plant material, such as straw or palm leaves.

The term *tamankayet*, which in the Tuareg language means 'the main pillar or support,' is also used symbolically to refer to women, and particularly to the wife, since the woman's role in the family is as important as the *tamankayet* is to the dwelling structure. The Tuareg, like Arabs, use the phrase "she is the pillar or *tamankayet* of the house" to show their respect for a woman and to emphasize her important position as the main protector of family unity. The plural of *tamankayet* is *tamankayeen,* which can be used symbolically to mean 'the sheikh of the town' when followed by the word *n-akal*,[25] i.e., *tamankayeen n-akal.* Therefore, the morphological meaning of the term *tamankayet,* which comes from its physical and structural meanings of 'supporter' and 'protector,' also symbolically reflects a moral meaning.

My analytical study of the *derb* dwelling indicates that this type of stone dwelling is very different from the southern Tuareg stone houses of Ayr as described by Rodd[26] and by Nicolaisen and Nicolaisen (see figs. 4.12, 4.13, 4.14).[27] The main differences are evident in the dwelling's form, spatial organization, wall dimensions, and its structure and construction methods (the latter depending on the type and form of stones used). Based on drawings and photos from Rodd and Nicolaisen and Nicolaisen, the southern stone house seems to consist of a single rectangular unit with a flat thatched roof, while the *derb* is a compound of several units, attached to each other and different in plan and

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[24] The botanical name for *diss* is *Imperata Cylindrica* and for *sbat* is *Aristida Pungens* (*diss* and *sbat* are Arabic terms. *Sbat* is *tullult* in the Tuareg language).

[25] The word *akal* in the Tuareg language means 'town' or 'country,' and the consonant *n* signifies 'of the.'

[26] Rodd, *People of the Veil*, 244.

[27] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 408-410.

function, with thatched conical roofs. Wall decorations are part of neither the interior nor the exterior of the *derb*, which differentiates this type of dwelling from the type described and classified as 'A-Type' by Rodd, although similar decoration can be found in urban Tuareg dwellings in nearby Old Ghat. Moreover, the *derb* dwelling is windowless, unlike the stone house of Ayr described by Rodd. Rodd maintains that the 'A-Type' stone houses are "rectangular in plan and have two rooms, a larger one with two or three outer doors, and an inner one with one door in the partition wall and no outer doors. All the houses of this type and most of the later houses in Air are oriented in the same direction, namely, within a few degrees of north and south, with the smaller room at the northern end."[28] The following figures illustrate the core differences between the *derb* and the southern Tuareg form of stone built houses.

Fig. 4.12. *Azjer* Tuareg thatched conical-roofed stone house (*derb*) in Ten Kawya.

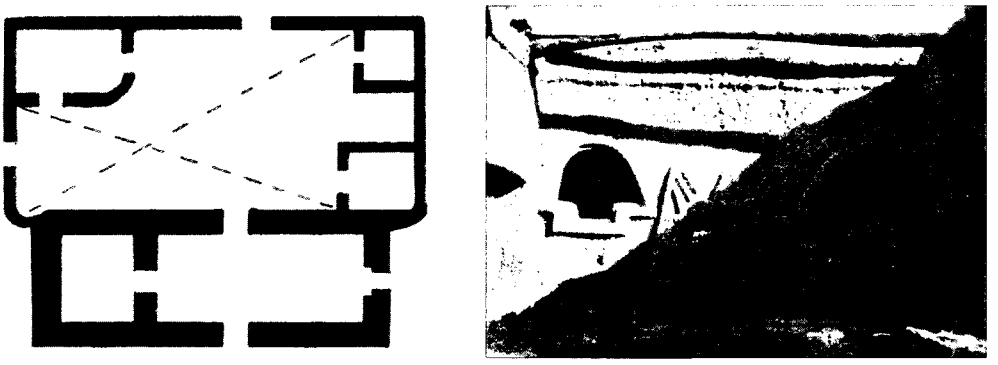

Fig. 4.13. A-Type rectangular house in the Tabello valley in Ayr. Reproduced from Rodd (1966, Appendix, plates 28, 29).

[28] Rodd, *People of the Veil*, 244.

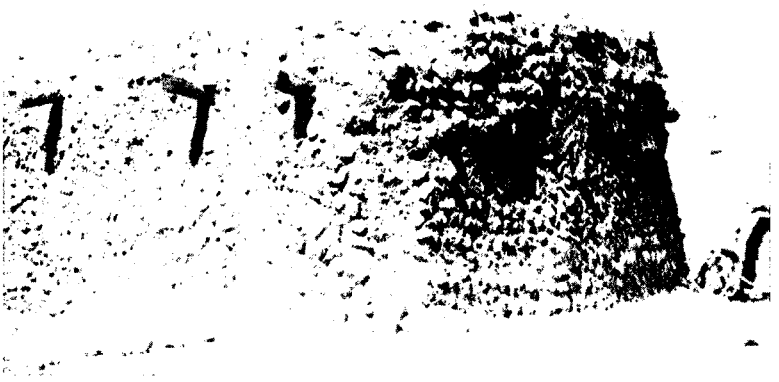

Fig. 4.14. Rectangular flat-roofed stone house, Ayr. Reproduced from Nicolaisen and Nicolaisen (1997, 408).

The differences between the *Azjer* Tuareg stone house (*derb*) and the stone houses of Ayr suggests the peculiarity of the *derb* stone built dwelling to this part of the Sahara. It also suggests that it was not an adaptation of any type of stone house of the southern Tuareg groups. Based on my historical review of the Berber and Tuareg origin (sections 3.1.2.1 and 3.1.2.3), which suggests that the Tuareg, as a Berber group, immigrated from the north to the south, I believe that this type of dwelling was introduced to the southern Tuareg of Ayr by northern Tuareg immigrant tribes, and not *vice versa*. In other words, I believe that this type of housing, characterized by its use of a permanent building material (stone), was originally rooted in the northern parts of Tuareg territory before the stone techniques were adopted by the southern Tuareg, with modifications in the architectural form and the type of stone used based on local climatic and cultural requirements. This assertion is supported by Robert Capot-Rey's claim that there is a connection between the stone house and the Berber tribes of the north. He believes that this type of house displaced the straw hut typology of what he calls 'Negroes.'[29] Further support for my claim can be derived from Rodd's explanation, which indicates that the oldest type of solidly-built house in Ayr was built of stone and was first introduced to the Ayr region by the Northern Berber Tuareg tribe called *Itésen*[30] and, furthermore, that all Ayr Tuareg

[29] Robert Capot-Rey, *Le Sahara Français* (Paris: Presses Universitaires de France, 1953), 233.

[30] According to Nicolaisen and Nicolaisen, "the arrival in North Africa of the Arab Bedouin known as *Beni Hilal and Beni Sulaym*, who invaded the Tuareg countries of Tripolitania and the Fezzan [...] resulted in many Tuareg tribes migrating south-wards to Ayr. Among them was group of seven tribes (*Itésen, Ijadaranein* [probably the *Ihadanaren*], *Ifadalen, Tamakwat, Tamga'azellet, Iza'aran*, and *Ibrazwen*), who trace descent from daughters of one and the same mother [...] The tribes were united in a sort of federation

agree in attributing this type to the *Itésen*.[31] A connection between the *Itésen* and the stone houses of the Sahara is also claimed by Nicolaisen and Nicolaisen, who state that:

> I was frequently told by Tuareg of Ayr that originally there was a very close association between the *Itésen* Tuareg and stone houses, and various ruins of houses built of stone or predominantly of stone are ascribed to the *Itésen*. Ruins at Tegidda-n-tagayt of small rectangular houses and a ruin at the same place of a large fort or walled enclosure, measuring about 35 x 35 meters, are said by modern Tuareg to derive from the ancient *Itésen* Tuareg who according to native tradition were among the early Tuareg immigrants.[32]

The *Itésen* originally came from Awjila oasis in Fezzan region, in Libya, a fact that further supports my claim of the Libyan northern roots of the stone built dwelling (*derb*). Nicolaisen and Nicolaisen claim that:

> According to tradition the *Itésen* Tuareg came from the oasis of Awjila in Libya, and we may assume that they have migrated from Tasilé-n-Ajjer [*Azjer*], the Fezzan, or adjacent parts of the northern desert. The group of Tuareg known as the *Kel Geres* are, according to some traditions, related to the *Itésen*. They are said also to have come from Awjila [...] According to Urvoy,[33] they reached Ayr between the 12th and the 14th centuries.[34]

4.1.2 Permanent Portable Dwellings: Skin Tent (*éhekyet*)

Skin tents are used by all Tuareg, and the name *éhekyet* comes from the skin sheets called *éhekyet* that are used as the tent cover. In Libya, the *Azjer* Tuareg permanent portable dwellings are mainly skin tents. They are lightweight, easy to construct, and easy to dismantle and to pack on camels' or donkeys' backs on the move. However, my 2006 fieldwork and interviews suggest that lately, a number of *Azjer* Tuareg (mostly from the *Managhasaten* Tuareg group) have been using during the winter the heavier Arab nomadic tent instead, which is made of woven goat hair and is known in the literature as the 'black tent,'[35] or in Arabic *baiet sha'er* (literally, this means 'hair dwelling'), and in

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also known as *Itésen* because its supreme chief, Arumbulu, belonged to this tribe. The *Itésen* group settled in Central Ayr." Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 2, 536.

[31] Rodd, *People of the Veil*, 244.

[32] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 410.

[33] Yves François Urvoy, *Histoire des Populations du Soudan Central. Publications du Comité d'Études Historiques et Scientifiques de l'Afrique Occidentale Française* (Paris: Marie aimé, 1936).

[34] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 537.

[35] It is called the black tent in reference to the most common colour of goat hair used, which is black.

Tuareg *abrajen*. This Tuareg group lives in the extreme north of the Tuareg lands in Fezzan, near Ghadames, Daraj, and Murzuk, which are adjacent to Arab nomads' territories. According to the explanation provided by the interviewees, only a small number of *Azjer* Tuareg groups seems to have adopted the black tent, mainly those living close to Arabic nomadic tribes' territories, those acquainted with Arab nomads through marriage bonds, or those of partly Arab descent. Nicolaisen and Nicolaisen argue that "black tents are not easily adopted by the Tuareg as the art of proper weaving is unknown to them. It should also be added that Tuareg men rarely marry Arab women, who master weaving, while over the course of time many Arabs have married Tuareg women despite their limited weaving skills."[36] Nicolaisen and Nicolaisen are correct that the Tuareg do not generally weave goat hair in order to construct tents. The few Tuareg who use the black tent purchase the materials from Arab nomads. However, the *Kel Azjer* Tuareg of Libya do weave goat hair in order to make ropes, and also weave baskets, dish-covers, sacks and other items from various other materials, such as straw and palm fronds.

Many Arab tribes adapted the black tents' skeletal structure, which is characterized by T-shaped posts, to the Tuareg skin tents;[37] this, I believe, stems from their marriage to Tuareg women or their migration through and inhabitance of Tuareg territories. Conversely, we know from Duveyrier that the *Kel Azjer* use black tents in addition to skin tents, and that both dwellings have an identical structure.[38] This adaptation of both ethnic groups might cause confusion for someone unfamiliar with both cultures regarding which aspects stem from Tuareg, and which from Arab, influence. It also raises questions regarding who adopted from whom, the extent of adaptation that took place, and which elements have mainly been adopted (i.e., the enveloping structure or the tent's interior arrangement and spatial organization). Moreover, one might question the role of environmental factors in the adaptation of a particular structure or building material. Answering these questions is beyond the scope of this dissertation. However, I highlight as relevant some similarities and connections between Tuareg black tents and skin tents. My decisions in this regard are based mainly on Tuareg testimonies, because

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[36] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 483.

[37] Ibid., 483, 484.

[38] Duveyrier, *Les Touâreg du Nord*, 403, cited in Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 484.

the available studies made on Fezzan (such as those by Duveyrier, Scarin, and Despois)[39] are mainly human geography studies that focus, in particular, on the Al-Ajal area, where huts rather than tents were commonly used. Consequently, none of these studies provides any architectural data on the black tents or skin tents used by nomadic Tuareg.

Due to rapidly modernizing Libya, it is now rare to find *Azjer* Tuareg tents in use. During my 2006 fieldwork and my visits to some parts of Fezzan region, I did not see the adopted version of the Arab black tent. Moreover, the old Tuareg of *Sha'biyet* Ghat with whom I spoke confirmed that the only type known to them in the south-west of Fezzan is the skin tent. They also confirmed that even those few Tuareg who adopted the Arab black tent dwelling, in the extreme north of the region, maintained the same interior and exterior spatial organization of the skin tent. The use of the skin tent was noted in 1822 by Hugh Clapperton in his travel diary of his trip to Ghat that year, in which he briefly highlights the difference between nomadic and urban dwellings in Ghat. He says that "the people of the country live in tents made of the Skins of the Goat, the Wadan & the Ghazal – the houses of the town are in every respect like those in Fezzan."[40] For this reason, this section of my research focuses mainly on the Ghat skin tent, which is a purely Tuareg dwelling typology.

I should add that mat tents, called *asala* or *éwerwer*,[41] were not used by the Libyan *Azjer* Tuareg. Mat tents these days are used only by the southern Tuareg groups;[42] however, according to Duveyrier, in the past these were also used by Northern groups.[43] However, Duveyrier's statement is very general and cannot be applicable to *Azjer* Tuareg of Libya. Based on my 2006 interviews of some *Azjer* Tuareg in Libya, I determined that mat tents have not been used by the *Azjer* Tuareg of Libya at any time, even though the *Azjer* are northern Tuareg; however, another ethnic group in the Libyan Sahara, called *Téda-Tabou*,[44] were known to have used it in the past (see fig. 4.15).

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[39] Duveyrier, *Les Touâreg du Nord*; Scarin, *LesOasi del Fezzan*, "Insediamenti e Tipi di Dimore," and *L'insediamento Umano nella Libia Occidentale*; Despois, *Géographie Humaine*.

[40] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 147.

[41] Differences in names relate to the different types of materials used in making the mats.

[42] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 435.

[43] Duveyrier, *Les Touâreg du Nord*, 403.

[44] Also written in some sources as *Tebu* or *Tubu*.

Fig. 4.15. Tabou mat tent.
Reproduced from Scarin (1937b, 529).

The architecture of the Tuareg skin tent (*éhekyet*) is an aesthetic synthesis of the builder's idea (design) and the materialization or creation of this idea (the construction). It is a physical and spatial manifestation of Tuareg cultural values, shaped by the creator's imagination of the world in which he lives.

Tuareg skin tents vary in size, interior decoration, and quality of furniture. These differences mainly depend on skin sheet size and the number of posts used to form the wooden skeletal structure; family size and social status; gender-specific skills involved in the construction of the tent; and locally available natural resources. The skin tent's structure mainly consists of the covering skin, the mat walls or screens called *éssaber*, a forked pole, called *tamankayet*, which supports the middle of the tent's skeletal structure, and the carved or non-carved cylindrical poles of the tent, called *tijettewin* (singular *tajettiwt*), which hold up the screens and the roof (see fig. 4.16).

According to Azza Mohammed Othman, the women are responsible for making the first two components, while the poles are sometimes carved by women and sometimes by blacksmiths.[45] The level of the individual women's skills, creativity, and competence in producing these components, and the availability of the required materials, play an important role in generating slight but noticeable distinctions. This difference gives personal, femininely produced architectural character to each tent, defines the dwelling interiors, and creates a sense of individuality and identity, within the limits of a single

[45] Othman, interview.

typology. As the above account makes clear, creative elements in skin tent architecture are mainly produced within the domestic realm, and are associated with women. The femininity in skin tent architecture is communicated mainly through decoration, using colours and texture.

Fig. 4.16. The *Azjer* Tuareg transportable skin-tent.

4.1.2.1 The Skin Roof of the Tent (*éhekyet*)

The skins used in making the tent covers come from domestic and non-domestic animals. Goatskin seems to be the most common, while the skin of Barbary sheep (locally called *Al-Wadan*)[46] is considered the best. Gazelle skin, on the other hand, is not favoured, and is rarely used because it is very thin. Based on my 2006 interviews with Tuareg women from Ghat, in order to be used as a tent cover, any skin must go through a long traditional manufacturing process performed by the women, called *asefl*. First, the skin is depilated using a locally available plant called *tashakkat*, which helps to remove the hair.[47] The skin has to be soaked with this plant for 3-4 days in winter or for one day during summer. Then the skin must be removed from the water and sprinkled with powder made of the *alaa* plant, before scraping the skin with a stone to remove the hair. After that, the skins are left to fully dry. After tanning in the sun, the skins are treated with goat butter, then soaked and rubbed until they soften. This treatment makes them waterproof. After that, the women cut and even out the irregular edges to be sewn; however, the outer edges are always left in their natural, irregular, shape. The trimmings

[46] Nowadays, it is rare to find *Al-Wadan* in the Libyan Sahara, and for this reason skin tents are usually made from goatskins.

[47] The botanical name for *tashakkat* is *Pergularia Tomentosa*.

are kept to be used later as thread to connect the skin pieces, as straps to fasten the tent to poles, or as coloured strips of leather to dangle as decoration for the *éssaber*. Finally, the skins are coloured with red ochre (turning them a coppery red) by soaking them with a powder made of the skin of a plant named *gafolee*, or a powder made of a rock called *tamajahwet*. Normally, several skin pieces are sewn together using leather straps made of skin leftovers as thread, in order to make a tent sheet. The stitches take a cross shape, which gives strength to the connections as well as being aesthetically appealing. The final shape of the skin sheet is usually rectangular; however, frequent use and tension on the posts deform this shape until it is almost oval shape.[48]

According to Mohammed Sidi Ali Mohammed, Nasser Ali, and Moukhtar Abdo Wad Yuosn,[49] the number of skin sheets required for a tent varies from 12-24 for a small tent, 35-40 for a medium tent, and 65-80 for a big one used by sheikhs or wealthy noble Tuareg.[50] They also claim that the average size of the tent is 3m x 4m; however, the size is always referred to by counting the number of skin strips, called *tarda*, in the longitudinal direction of the sheet.[51] Each *tarda* consists of several skin pieces, which are usually gathered from neighbours and relatives. The process of gathering the hides requires social visits, which increases the bonds between people and their support to each other. Although the process of preparing the skin for use is the individual task of the women, assembling the skin sheet is collective women's work. The assembling ritual starts when the woman who collected the hides invites all neighbouring women, single or married, by sending a strip of leather to announce the start of the work, which takes place at the hostess' place. The host woman does not participate in this cooperative work, since she is responsible for showing her hospitality by preparing good meals for them. This Tuareg women's collective work is similar to the collective work of Arabic Bedouin women in making tents, who weave goat hair or sheep wool, and attach the woven pieces together.

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[48] A similar description of the manufacturing process of the skin, and of other methods of skin tanning and depilation in Tuareg groups other than the *Kel Azjer* can be found in Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 349-353, 447.

[49] Mohammed Sidi Ali Mohammed, Moukhtar Abdo Wad Yuosn, and Nasser Ali, members of Al-Mahari Club, a camel-racing club named after a breed of fast white camel, interviewed by the author., Ghat, 30 July, 2006.

[50] These ranges are not exclusive, since the number of pieces used depends on the size of the skins.

[51] The practice of indicating the size of the tent by counting the number of *tarda* in the longitudinal direction is also mentioned by Johannes Nicolaisen and Ida Nicolaisen in *Pastoral Tuareg*, vol. 1, 450.

4.1.2.2 The Walls of the Skin Tent (*éssaber*)

The walls of the tent are made of one or two straw mats called *éssaber*. The number of *éssaber* needed depends on their length. The *éssaber* is normally 4-6m long (sometimes longer) and 80cm to 1m high. The *éssaber* is made of the stems of a plant, called *afazo*, which usually grows after floods.[52] Tuareg women weave the *afazo* stems into *éssaber* using a similar weaving technique to that used in plaiting baskets of palm leaf fibers. The women place the straws parallel to each other on the ground and then tie them together with leather strips. Additional reinforcement is always made along the edges using leather bands. In addition, coloured leather strips in dark red and green are used to produce decorative iconographic motifs, or used as hanging strips or border ornaments. It takes one day to complete each meter of the *éssaber*, which is always created by the woman; however, sometimes it takes longer – even up to one year – to finish it, depending on the amount of labor expended on it. When the *éssaber* is made by the housewife herself, without the help of a relative or friend, it will take longer than if done collectively or by women who specialize in making *éssaber*, who work either individually or collectively (see fig. 4.17).

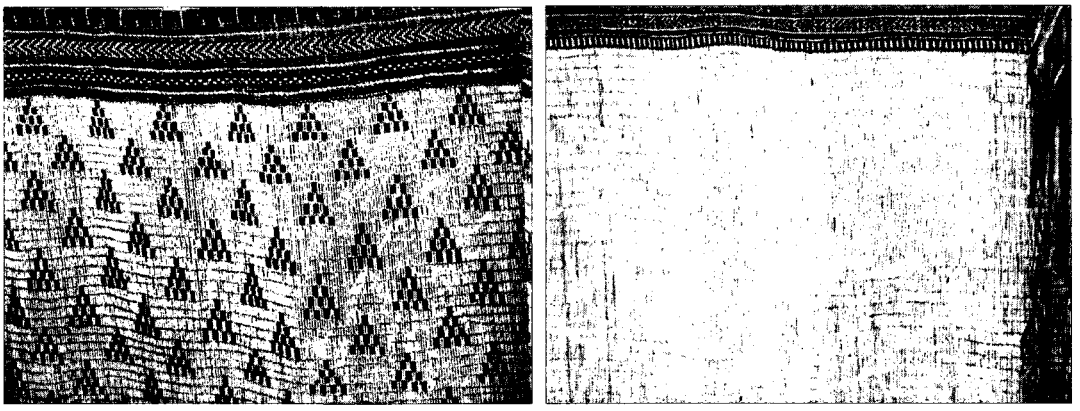

Fig. 4.17. Different motifs of woven mats (*isebran*; singular *éssaber*).

The *éssaber* is an essential part of the skin tent and is placed around the lower part of this dwelling. The *éssaber* can be rolled up horizontally, forming neat packs for moving or, during hot weather, allowing currents of air to cross through the tent, or it can

[52] The botanical name is *Panicum Turgidum*. In some of the literature it is spelled as *afazu*.

be unrolled to provide a setting for tent furniture and protection from the sandy hot summer winds or cold winter winds. The *éssaber* can also be used as a flexible privacy screen which could extend to enclose the whole dwelling, providing a contained and defined private interior space isolated and protected from the harsh surrounding environment and impregnated with colour and texture. It can also be rolled up partially or totally to allow controlled visibility and social interaction, as well as controlled ventilation and sunlight. The two ends of the *éssaber* can be extended outside the tent entrance to form a patio-like area in front of the tent called an *émotayéé*. This *émotayéé* is mainly used for family activities and evening gatherings around the fire, where family members drink sweet green tea and listen to their children recite poems or Qur'an verses that they have memorized, while watching the stars brighten the indigo sky. However, on nights when there is a full moon, Tuareg avoid sitting unsheltered outside the tent, because they believe that moonlight causes headaches. For this reason, on those nights they sit in the darkest area of the *émotayéé*. The *émotayéé* also provides an easily accessible outdoor extension, where toddlers and young children can play safely under the supervision of their mother while she cooks tea, plaits *essaber*, makes leather pouches, weaves robes from goat hair or bridles for her husband's camel, or accomplishes any other handcraft.[53] The *émotayéé* forms an extension of the interior private space of the tent, an outdoor living room with an endless, untouchable, and changeable roof during the day and night. This simply configured and humbly constructed room provides an important social area.

The *éssaber* can also be extended at the back of the tent to form a small enclosure for the outdoor kitchen area. Finally, the *éssaber* can be used as a flexible interior physical divider of the tent living space that changes at different times. For example, the *éssaber* can be used to create more private and well protected (from intruding eyes and fluctuating weather conditions such as blowing winds and sand storms) sleeping spaces by surrounding the bed areas, or used to separate men's and women's spatial domains within the tent, as will be explained later. In other words, as a flexible physical boundary, the *éssaber* controls the habitability of the skin tent's interior space.

[53] According to Tuareg testimonies, noble women find much time to do handcraft because housework is done for them by their servants.

The same architectural interplay of physical, spatial, and symbolic meanings that envelops the *tamankayet* extends to the *éssaber*. Considering the tenuous nature of the natural material from which the *éssaber* is manufactured, I find that its ability to act as a barrier surpasses its physical and structural qualities. The concept of the *éssaber* does not stem from its structural function so much as from its use as a spiritual fence protecting the interior from the demonic human or non-human world beyond. In Tuareg culture, as in Arab culture, the newly delivered mother must remain resting within the *éssaber*-enclosed tent for forty days. The tent is usually partitioned using *éssaber* in order to provide a private compartment where the mother can give birth and rest quietly with her infant until she has fully recovered. If she has to leave the tent sanctuary, especially during the night, she must arm herself with a piece of iron, such as a knife. The Tuareg believe that iron has a protective power against the evil spirits of the void.

Moreover, the term *éssaber* contains a symbolic meaning in its morphology. According to Ovanight Al-Koni,[54] a noble *Azjer* Tuareg, the term *éssaber* is a composite of two words; *éss*, meaning 'braided,' and *(a)ber*, meaning 'shelter,' where the latter cannot be used as a single word to refer to a dwelling as we use the word 'house.' Based on Al-Koni's explanation, the term *éssaber* is also used symbolically to mean 'temporary,' in particular to refer to a temporary marital stage in which the newly wed, according to Tuareg tradition, spend the first year of their marriage with the bride's family. It is said that the new couple 'live in essaber' until they move to their own dwelling. After the year is up, the husband decides whether the couple will join his family camp or stay with his wife's clan. If both are from the same clan, they remain with their people.

4.1.2.3 Skin Tent Construction Method

Erecting the tent is the *Azjer* Tuareg men's work (see fig. 4.18). As with all Tuareg dwellings, the *Azjer* Tuareg skin tent is usually oriented north-south with the entrance open south, or oriented east-west with the entrance opening east. However, a north-facing entrance is a possible alternative in certain cases.

[54] Ovanight Al-Koni, interview (see chap.3, n.106).

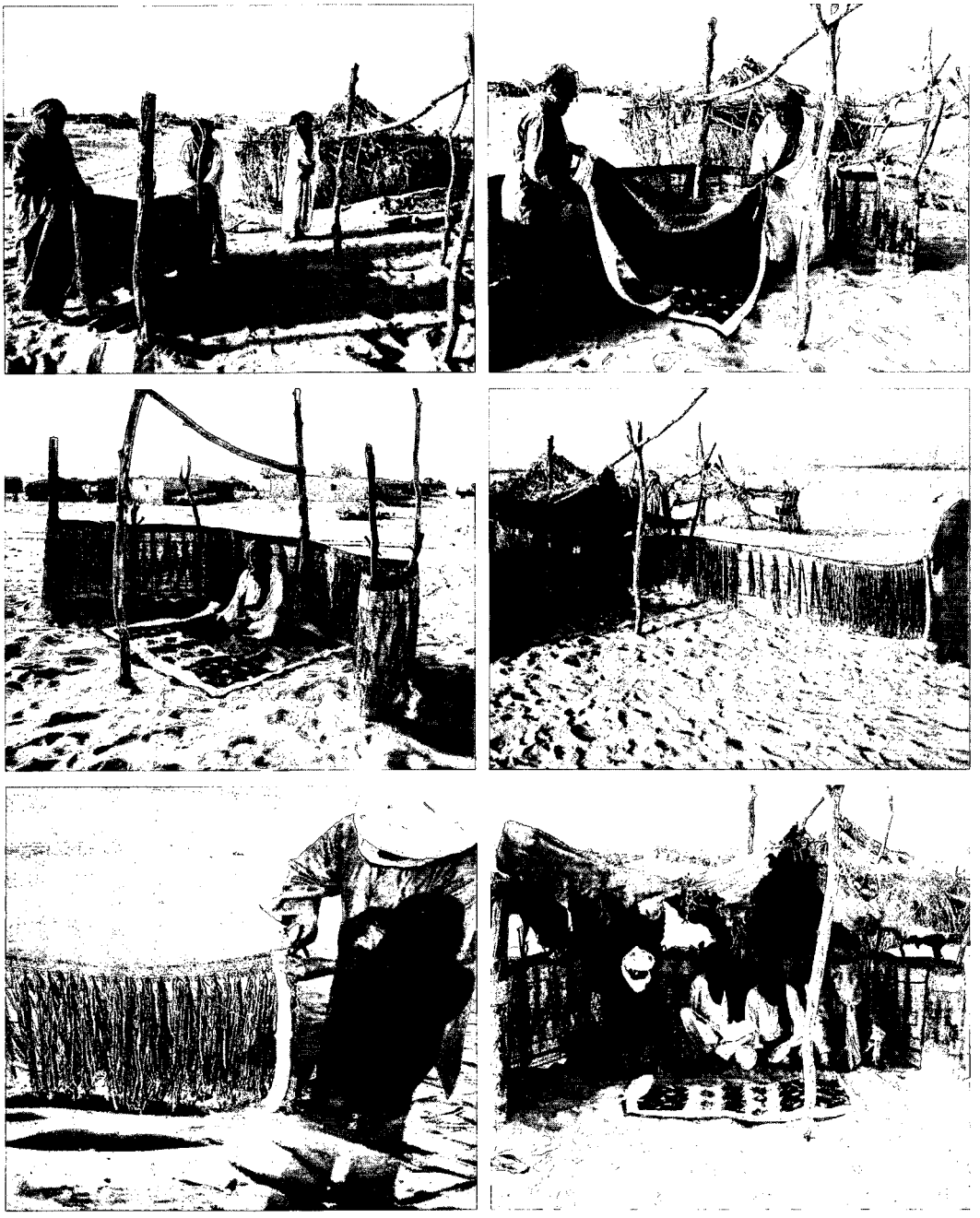

Fig. 4.18. Construction method for the *Azjer* Tuareg transportable skin-tent.

According to Essa Al-Khamees Mousa, Istamasn Abou-Jepreel, and Imgher Abou-Kaleyah, of the *Imgrrghessan* Tuareg tribe, the Tuareg never orient their dwellings' entrances toward the west because they are superstitious and believe that in the short run their day, and in the long run their life, will go badly if they do so.[55] The tent is always set up in an inconspicuous place surrounded by natural barriers such as boulders or sandy dunes, for defense and privacy. It should also be set away from the pasture, especially if the family have slaves (no longer ever the case) or servants who work as herders and carry water for them. During the rainy season, the tent is erected on high ground to avoid risk of flooding. The Tuareg usually move within familiar territory, where they camp at certain times of the year.

The construction process starts with leveling the ground and clearing it of large stones, before digging holes for the poles (if the ground is pure sand no cleaning or digging is required). These poles mark and express the spatial and conceptual rectangular configuration of the tent. Building work begins with the placing a single forked pole, called *tamankayet*, which supports the middle of the tent's skeletal structure. This is left plain without any carved decoration by the women on its cylindrical surface, unlike other Tuareg groups who, according to Prussin extend the protective and supportive function of the *tamankayet* to the spiritual realms as a spiritual guardian of the tent by carving spell phrases in *tifinagh*.[56] Another pole, called *tajettiwt* (plural *tijettewin*), is placed at a certain distance, based on the tent size, behind the *tamankayet*, and is connected to it with a short crossbar. This crossbar is placed in a sloping position with the elevated apex resting on the forked central *tamankayet*, while its lower end is firmly fastened to the *tajettiwt* using cords of woven goat hair, called *haloum*. Fastening should be made whether the *tajettiwt* has a forked shape apex or not. Subsequently, a set of two or three cylindrical posts with carved tops, also called *tijettewin*, are placed on each side of this central pole. Natural non-carved poles can be used too. More elaborately carved posts reflect the user's social status and wealth. The number of poles increases or decreases based on the tent size and the required unrolling of the enclosing *éssaber* (for example, to create a fenced patio).

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[55] Essa Al-Khamees Mousa, Istamasn Abou-Jepreel, and Imgher Abou-Kaleyah, *Imgrrghessan* Tuareg who live in Essaien, south-west of Ghat, interviewed by the author, Essaien, 14 August, 2006.

[56] Labelle Prussin, *African Nomadic Architecture: Space, Place, and Gender* (Washington: Smithsonian Institution Press, 1995), 97.

Extra poles (*tijettewin*) can also be used to support the *éssaber*, dividing the tent's interior space. The poles are erected by sinking them approximately 20-30cm in the sand. Generally, the depth of the posts in the ground depends on weather conditions (strength of wind) and type of ground (sandy or hard and stony).

Next, the skin is stretched over the wooden skeletal structure. Then the leather strips extending from the edges of the skin sheet are used to stretch this roof cover over three sides, with the front left open, before fastening it either to the poles that make up the tent structure, or to the small wooden pegs termed *tisettitay* (singular *tasettiti*). These last are dug outside the structure, and support the tent by pegging down the tent skin using ropes of goat hair.

The *Azjer* Tuareg, unlike their Algerian neighbours the *Kel Ahaggar* Tuareg, do not use stones to peg the skin of their tents. The tent's skeletal structure, which is well fixed in the ground, holds up the tent cover, whereas the tensile roof holds up the structure of the Arabic black tent. In the black tent, the middle T-post (which rests on the surface rather than being partially sunk into the ground) is kept in a vertical position by the weight of the suspended sheet, which is stretched by cords attached to a large number of short wooden sticks or pegs.

4.1.2.4 Skin Tent Spatial Arrangement and Relations

Certain kinds of symbolic aspects related to dwelling configuration, arrangements of space, and spatial relationships, are peculiar to one culture and reinforced through its myths and legends, which include the social values of this particular society. My fieldwork in Ghat shows that the tent has public exterior and private interior spaces. The public space is represented by the unlimited open nature and grazing lands that surround the tent and contains, in proximity to the tent, the animal shed and the well. The private space is represented both by the confined interior of the tent and the outdoor components attached to the tent back, comprising the kitchen (*ekadeone*), the small sun-shade (*tafalkat*), and the shower area (these components will be further described later in this section). On the other hand, the patio-like area (*émotayéé*), which is located in front of the tent and is articulated by the *éssaber*, works as a transition area between the private and public spaces (see figs. 4.19, 4.20).

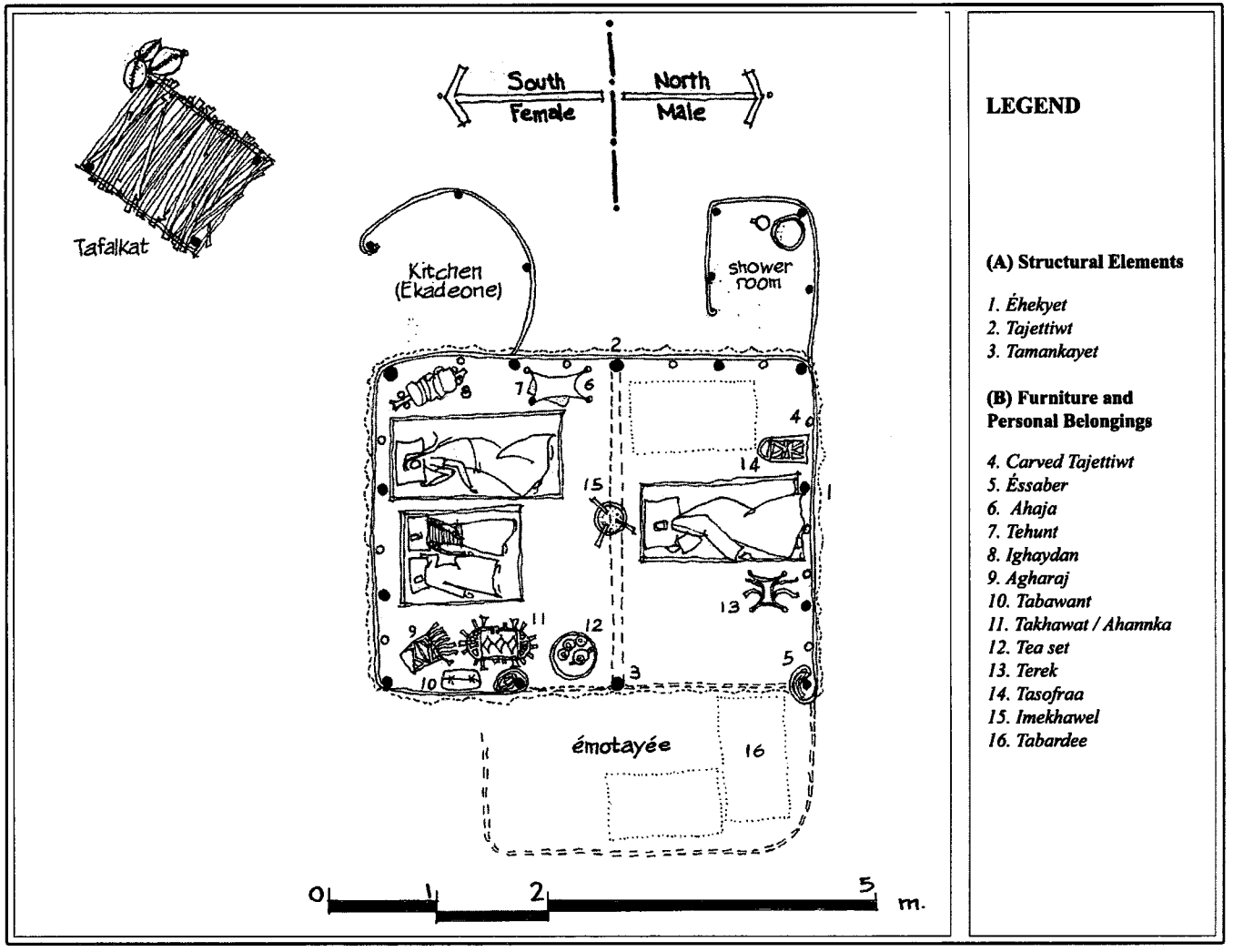

Fig. 4.19. Spatial arrangement of the large *Azjer* Tuareg skin tent.

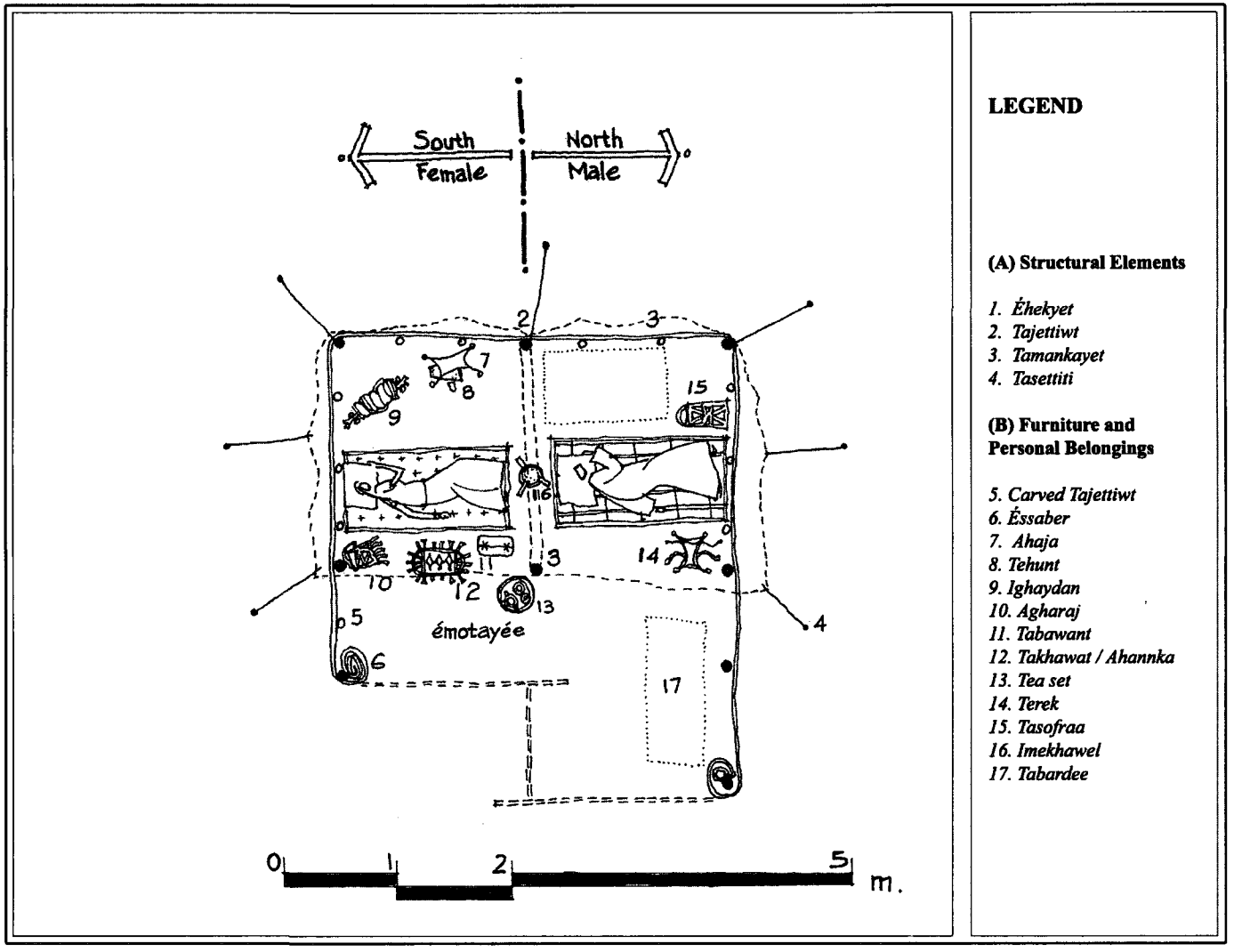

Fig. 4.20. Spatial arrangement of the small *Azjer* Tuareg skin tent.

The skin tent's interior spatial relationships are designated by the organization of sleeping and cooking areas, furniture, and belongings, rather than by the skeletal structure that envelops it. These spatial relationships reflect symbolic meanings, which reflect gendered divisions of labour and space. The tent interior is divided into two spaces along gender lines. The right side is reserved for the husband, while the left is reserved for the wife and children. Both tent orientation and gendered spaces are also traits found in the Arabic black tent, which could indicate a cultural connection.

On the right-hand side are organized the husband's bed and belongings, which reflect his tasks (mainly tending camels and hunting).[57] His camel or horse saddle (*terek*) is always placed close to the entrance and oriented north-south, with the saddle front facing south, while his two bags used for his tools and clothes (called *tasofraa*) are placed at the foot of the bed (see Appendix VIII). His weapons (traditionally a sword, knife, and spear) are placed parallel to his bed. According to *Azjer* Tuareg testimonies, sleeping areas should always be organized so that the beds are oriented north-south, with the head in the southern direction toward Makka, which is the Muslim burial position. The Tuareg strongly believe that any other sleeping position brings bad lack and bad omens.

The husband's side also functions as the reception area for guests. In case the number of guests cannot be accommodated within this area, the reception area extends toward the patio-like *émotayéé,* but never toward the woman's space. This is because the woman's space includes not only her belongings, but also kitchen utensils, and it is considered disrespectful to let the guests sit or sleep beside them. It is like making them sleep or sit in the kitchen, which is a great impertinence in *Azjer* Tuareg culture. If the guest is closely related, or well-known to the family and from *Azjer* Tuareg, the man's and woman's spaces normally remain physically un-separated; however, if the guest is a stranger, though from the *Azjer* Tuareg, a piece of material is used to separate both spaces. If the guest is not from the *Azjer* Tuareg and is a total stranger, a temporary shelter is built for him, which looks like a small windscreen composed of two posts surrounded by an *éssaber* and roofed with a skin cover. This shelter is usually placed at

[57] The Tuareg are warriors too, but this is an inevitable responsibility to the family and the group, not an occupation.

some distance from the main tent. In case of a large number of guests, an unroofed straw hut plaited with skin strips is built at a reasonable distance from the tent.

On the left side of the tent, the woman places her bed and her personal belongings, which comprise two bags for her clothes, pouches, and a palanquin, as well as other household goods. The bag, called *agharaj*, is smaller and more decorative and colourful than the man's bags, and is used by the woman to keep her personal ornaments and other little belongings. The other bag, called *tabawant*, is bigger than the *agharaj* and is used for long-term storage, usually for occasional clothes. The *tabawant* is made of a light skin sheet, which can be hung by its four corners on two short forked poles (approximately 1.5m high each) or kept folded and wrapped using leather strips, and placed it on top of the woman's palanquin (*takhawat*) (see Appendix VIII). The bags and the palanquin are placed close to the entrance, with the front of the palanquin facing east.[58]

The children's beds are placed either beside the mother's bed or along the north side of the tent facing the entrance. The bed, called *edbel*, is simply made by piling and leveling sand approximately 20cm high off the ground. The bed is covered with a sheet, and then a mat is placed on top of it, topped with as many quilts and covers as are needed. Only a few *Azjer* groups who live in skin tents use wooden beds, which are made of palm leaves' ribs fastened together with hide strips. This is due to their heavy weight and the difficulty of dismantling them, which necessitates their abandonment upon moving.

On the bottom of the left side and close to the low-roofed back of the tent, the woman places a hanging rack, called *ighaydan*, to keep her daily clothes and bed-covers off the ground. This hanger is made of two short forked poles connected by a short crossbar. Beside this hanger, a skin holder for kitchen utensils, called *ahaja*, is hung from the tent roof or tied by its four corners to two short forked poles similar to the hanger rack, but without the crossbar. The skin holder is made of camel skin tied either to a wooden ring frame (50-60cm diameter) made of a bent green branch, or to a rectangular wooden frame. Below the *ahaja* are placed a grinding stone, called *tehunt* or *rahaa* (in

[58] I did not find a convincing explanation for the specific orientation of the man's saddle and the woman's palanquin. Some Tuareg said that it is a continuous tradition, while others related it to these implements design and size, which requires specific orientation to manage the interior space.

Arabic), and a wooden tub for grinding,[59] called *tindé*, with its pestle (*éheren*). These implements are different from those used by the *Ahaggar* Tuareg, which are called *tasyart*,[60] and from the Arab nomads' *rahaa*, which are made up of two round millstones. The part of the tent occupied by the woman also contains other implements connected to the milking of goats and sheep, cheese-making, and to leather and basket-weaving work. Generally, the Tuareg tend not to burden themselves with lots of furniture and possessions because they have to move their tent dwellings every few weeks, especially during the dry season, when pasture for their animals is scarce.

In *Azjer* Tuareg culture, out of respect to their parents, children traditionally do not sit or sleep in their parent's places. This social value has been emphasized in the interior spatial organization by designing clearly defined spaces according to gender and status (parents/children). These gendered spaces, as I have explained, are emphasized by the spatial organization and the various types of furniture and its arrangement on both sides, which articulate the division of labour according to sex.

At the center of the tent's interior space is the hearth (*imekhawel*), which is located beside the main pole (*tamankayet*). A traditional tea set is usually located close to the *imekhawel* on the left side of the main entrance. The *imekhawel* is used mainly to prepare tea after meals and to spread warmth. The family and the guests, if there are any, gather in this central area to have their three daily meals: breakfast, lunch (*tarot énkeley*) and supper (*ezozejen* or *amajeyen*).[61] During the summer, the Tuareg prefer to place the fireplace outside the tent in the front patio-like area (*émotayéé*). The *émotayéé*, according to Tuareg testimonies, is used as a working area for the woman and a safe playground for small children, but is not used for cooking meals; however, a particular type of bread called *tajella* or *mellaa* can be cooked there, close to the fireplace, especially when there are guests; otherwise cooking always takes place in the kitchen area.

The cooking area is located outside, attached to the back of the tent on the left-hand side and surrounded by the *éssaber* to provide protection, enclosure, and privacy. This area can also be accessed from the woman's side of the tent. On very cold days only,

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[59] Also called a wooden mortar.

[60] Spelled by Nicolaisen and Nicolaisen as *tasirt*. Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 316, 317.

[61] Supper is called e*zozejen,* which means 'milking.' This is a reference to the time of milking the animals, in the evening.

the cooking can be done close to the tent interior so the woman can shelter herself in the warmth of the tent. The cooking implements are similar to those used in the *derb*: mainly the earthen cooking pots called *térirt* or *alekkin* which are placed on three stones, the bread-making *tannour*, a few wooden and plaited bowls, and colourfully decorated wooden spoons and ladles (see Appendix VIII). However, the Tuareg who dwell in skin tents use additional implements to make two other types of bread. One is called *efetat* or *tasleyet,* and is cooked by placing the dough on a square iron sheet for baking, called a *tasalsalat*, which rests on four stones called *sefrad;* the other is called *tajella* or *mellaa* bread, and is cooked by placing the dough on hot embers and ashes on the sand before covering it with more hot embers and ashes topped with sand. This bread is the only type of bread that can be cooked by the man (though not in the kitchen area), especially on his long travels or upon receiving male guests (see fig. 4.21).

Fig. 4.21. *Tajella* or *mellaa* bread cooked in sand.

Kitchen work is the woman's task and men never interfere in the kitchen area. As I stated earlier in describing the *derb*, it is traditionally considered disrespectful to the man.

A structure complementary to the kitchen, and always located beside the kitchen area, is the *tafalkat*. It is a detached small structure composed of a low platform made of branches supported by four 1-1.5m high posts. The *tafalkat* shades the water skin-bags (*ébayogh*; in Arabic, *gerbah*) and the sour milk skin containers (*tanoarat*; in local Arabic, *shakwah*) and keeps them cold, and its platform is also used to store food and grain containers required for daily use. At cooking times a water skin-bag is always kept hanging on two forked posts close to the cook and handy for cooking and drinking purposes. Another *ébayogh* for easy access for drinking is always kept close to the *émotayéé*, hung on one of the tent posts away from the sand (see Appendix VIII).

A shower area is either constructed within the tent, with temporary extra privacy provided by the *éssaber*, or a small shaded enclosure is provided in the back of the tent for this purpose. However, there is no toilet as part of this dwelling's configuration and there is no specific location for the toilet in the open air, where privacy is achieved by distance from inhabited areas. Nevertheless, orientation in this vast unlimited space is important. Tuareg, like all Muslims, never put their back to Makka when they are using the toilet, even in open nature. Water consumption is very judicious, especially for bathing, and children are bathed more frequently than adults. This is because frequent bathing causes skin dryness, especially for adults, who spend a great part of the day outdoors. Laundry activity usually takes place close to water sources, such as the well or the rain-filled natural basins of Acacus Mountain. Washed clothes are not hung to dry, but are spread on the clean hot sand to dry where they were washed.

Sand is used by the Tuareg not only to dry clothes, but also as a naturally renewed carpet. In tents, most Tuareg sit on the sandy floor, which is covered either with straw mats made of *diss* or colorful quilts or both. Wealthy or noble Tuareg usually add colourful rugs. The tent floor is kept clean by sweeping the sand several times a day and adding a fresh layer of sand from time to time. The floor mats are shaken out of the tent often during the day, to clean them not only of sand, but also of poisonous insects, such as scorpions, that find a cool shelter under the mats and that are more fatal to infants than adults. In the past, this work was done by slaves or servants, but if they are not available, as is the case these days, the work is done by the wife herself. The slaves, if they were males or married couples, would have their own tent at the back of the masters' tent. The

single slave woman may stay in her master family's tent. The class divisions between noble and vassal Tuareg are visible in dwellings, mainly in the distinctively humble interior furniture and decoration of the slaves and servants' tents compared to their masters, but not in the tent structure.

Generally, the severe climate conditions of the desert force the Tuareg, particularly the woman and small children, to stay indoors during the hottest part of the day, which extends from noon until 6:00pm. During the long hot season, *Azjer* Tuareg families must stay close to water sources, since the daily consumption of water increases to up to 10 liters per day and their animals need almost daily watering. However, during the winter season, they tend to move closer to better pasture and depend on water stored in skin-bags. They can stay up to seven kilometers away from water sources, especially when they have servants. The *Azjer* Tuareg tent dwellings are traditionally found scattered and distant from each other and do not form closely organized camps like Arab nomads' tribal tent camps. This tradition gave a strong sense of privacy in the public space, in which the woman accomplished her various outdoor activities, such as milking animals or washing clothes.

The essence of the *Azjer* Tuareg skin tent lies not in the merely physical end product, but in the process of creation, which combines building technology, gender-specific skills, and the rituals to bring the tent into being. It also lies in the spatial meanings invested in the tent's built structure during this process. Analyzing the skin tent interior indicates that the organization of space and furniture did not come from nowhere, but is based on social values. Such cultural values are architecturally articulated in two distinct, gender-related spaces, and attach hidden meanings to the spaces of the tent.

4.2 Semi-Permanent Dwellings: The Straw Huts (*zarieb/tekabrayen*)

The use of straw huts as dwellings by the Libyan Tuareg has been recorded in a small number of old publications and human geography studies made on the region of Fezzan during the 1930s and 1940s. Major publications include Scarin's *Les Oasi del Fezzan: Ricerche e Osservazioni di Geografia Umana* and "Insediamenti e Tipi di

Dimore," and Despois' *Géographie Humaine*.[62] These publications provide brief descriptions of Tuareg straw huts which are insufficient for my purposes. In addition, the authors use different terms and classifications for types of hut that were in use in the same geographical areas without reference to the particular Tuareg tribes or groups that used them or to the origin of these terms (Arabic, Tuareg or Hausa). This practice is extremely confusing and makes comparing the studies difficult (see Appendix X for a brief review of Despois' and Scarin's records of Tuareg huts in the above-mentioned publication).

4.2.1 The Compound Dwelling of Detached Cylindrical and Rectangular Huts (*tekabrayen*)

This type of compound dwelling is now considered the main rural dwelling typology of the Libyan Tuareg still in use (*derb* dwellings and skin tents are not commonly used or built, as they were in the past). The *tekabrayen* is used by both semi-nomadic and sedentary Tuareg, the latter of whom use it on their farms.[63] In the past, the *tekabrayen* was used primarily by the semi-nomadic pastoral Tuareg during the hot season, when they camped around water sources. During the summer, the pastoral *Azjer* Tuareg prefer this type of dwelling to tents made of skins, which are comparatively hot during this season. The hut is deserted upon moving; however, in areas where the *athel* tree is scarce and the building materials required for building the skeletal structure of the hut are not easily found, the posts and branches are transported to the new place. Straw huts are more suitable for the summer season than the tent and, with slight modifications, they can be suitable for the winter too. The modifications include plastering the walls with a layer of mud in order to provide a much warmer interior. Since the annual precipitation in this part of the Libyan desert is very low, the danger of leaking roofs or washed mud plaster is also low. In the past, the cylindrical, conical-roofed hut was built by women, unlike the rectangular or square hut, which was traditionally built by men. Nowadays, both types are built by the man. Women help only by collecting building materials and plaiting *éssaber*.

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[62] Scarin, *Les Oasi del Fezzan*, 111-113 and "Insediamenti e Tipi di Dimore," 515-560; Despois, *Géographie Humaine*, 80-84.

[63] *Tekabrayen* means the same as *zarieb* (singular *zeriba*). The word *zeriba* is also used to refer to an animal shed or barn, known in Tuareg as *azjen*. The word *zarieb* is spelled here as pronounced in local colloquial Arabic. In formal Arabic, it is spelled *az-zara'eb* (singular *zariba*).

The compound dwelling that I observed and surveyed in summer 2006 is 20 years old[64] and occupied by the family of Oukhannd Hassan Barkah of the *Imgrrghessan Azjer* Tuareg tribe (see fig. 4.22).[65] It is built in a place called Essaien, which is located 60km from the town of Ghat and very close to the Libyan-Algerian border. This dwelling consists of four cylindrical huts (*tekabrayen*) of different sizes and functions, with conical roofs, and one rectangular hut (*tekabar*), all of which are thatched with plant material. The spatial arrangement of this compound dwelling takes a crescent shape of detached huts, unlike the confined structures of the *derb* and skin tent dwellings (*éhekyet*). This may relate to the flammable nature of the huts' building materials. Their organization and degree of closeness or remoteness to each other depends on their functions and on Tuareg cultural and traditional social values.

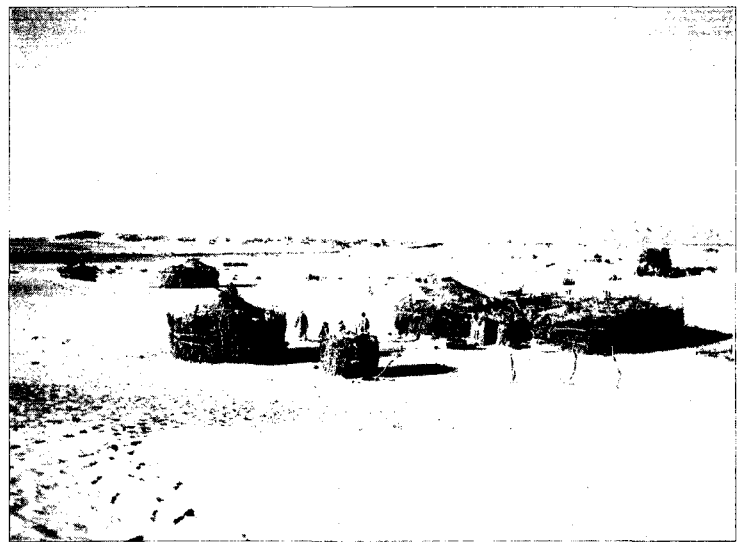

Fig. 4.22. Semi-nomadic Tuareg compound hut dwelling.

This semi-nomadic Tuareg family situated and organized their compound dwelling so that the private space is separated from the public space by remoteness, and by using sand dunes as a natural screen and barrier (see fig. 4.23). The private space is situated on the south side of the compound quite far from the public space in the north,

[64] This is an odd case since normally the pastoral Tuareg are continuously on the move; however, as I stated earlier, the living conditions of the Libyan Tuareg improved tremendously after the 1969 revolution, when pasture stopped being their only occupation or source of income. Nevertheless, Tuareg are attached to their traditional dwellings and their old way of life, as we can observe in this case.

[65] Barkah, interview.

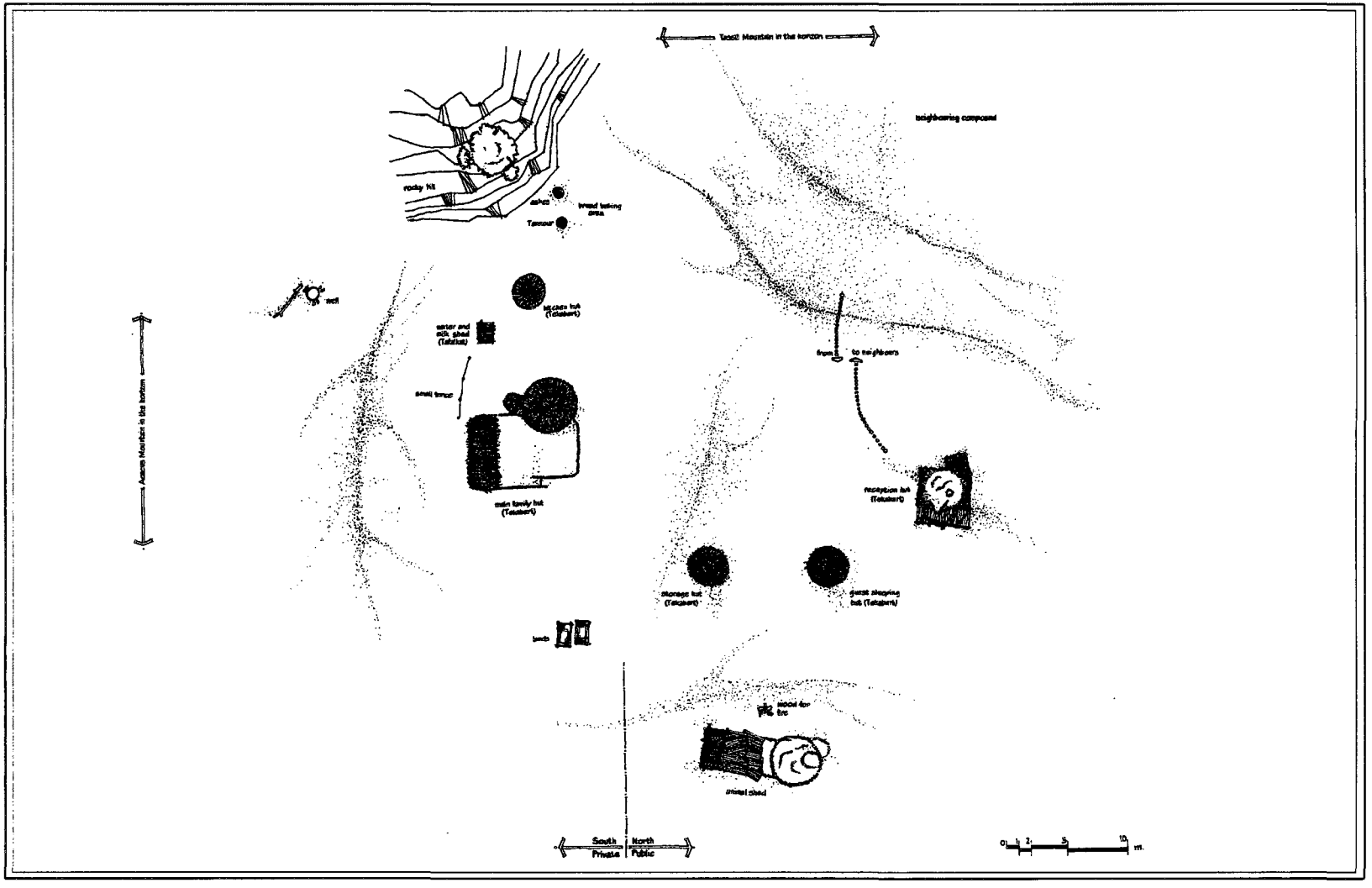

Fig. 4.23. The spatial arrangement of the semi-nomadic Tuareg compound hut dwelling.

and partially hidden by sand dunes. This provides acoustic, and to a certain extent visual, privacy. The private space is composed of the main family hut (*tekabar*), the kitchen hut (*tekabart*), the small shed (*tafalkat*) used to keep skin-bags for water (*ébayogh*) and milk (*tanoarat*) or water plastic containers, and the bread cooking area, marked by the ashes from cooking the *tajella* or *mellaa* bread, and where the bread-making *tannour* is built. The public space consists mainly of the reception hut (*tekabar*) and the guest sleeping hut (*tekabart*).

This family organized their compound huts to function safely and efficiently. This was achieved by situating the food storage hut between the private and public spaces, accessible to and at the same time far from the kitchen and fire sources, and placing the kitchen hut and the water shed (*tafalkat*) close to the main family hut and in proximity to water resources. On the other hand, the animal shed (*azjern*) was placed in reasonable visual proximity to the compound dwelling. In other words, it is close enough to provide easy access, control and protection, and far enough to keep away undesirable smells and noise.

This compound dwelling is built close to a well, which was the main reason for the selection of this site (see fig. 4.24). The water source is shared with a neighbouring compound dwelling, belonging to close relatives (cousins). The well is visually unnoticeable to strangers because it is just a hole in the ground covered with a metal sheet, without any above-ground built structure around it. It is location also visually undetectable from both compounds, since it is hidden by a high sandy dune, which provides a privacy screen to both the users of the well and the private areas of the compound dwellings inhabitants. The well is not the only element shared by the neighbouring compound dwellings; the reception hut and guest-sleeping hut are also shared.

The two neighbouring compound dwellings are approximately 100m apart and are cleverly situated to be separated and screened from each other by a natural barrier in the form of high sand dune. Although the *Azjer* Tuareg culture is highly endogamous, and individuals mostly marry within a specific group, which makes familial relations very close, the *Azjer* Tuareg do not live in closely built camps or settlements as is common in

African tribes. Instead, they prefer to live far from each other, sometimes days apart. This is in order to achieve more privacy and to avoid intruding on each other's pastoral areas.

Based on my field survey I found that the layout plans of both compounds are almost exact replicas of each other, with slight differences in hut organization and the absence of the reception and guest sleeping hut from one compound. I also noticed that in both compound dwellings the animals shed is placed beside a tree, which provides partial shade for the goat shed and for the women while they milk the goats.

Fig. 4.24. Water resource (well).

4.2.1.1 The Main Family Hut (*tekabar*)

The main family hut consists of a cylindrical hut 6 meters in diameter with one doorway opening onto a large enclosed rectangular yard called *efarun*, 5.4m x 8.5m in dimension and almost 1.5m high (see fig. 4.25). This is unusual because usually the *efarun* takes a circular shape. This fenced outdoor extension has a small curved gate which usually does not open directly onto the front yard. The curve prevents visual intrusion into the interior private space, like the spirit wall in the ancient Greek house and the L-shaped entrance in the Arabic-Islamic house. To enhance the use of the *efarun* and its visual privacy, a large *tafalkat* is built on its south side. It is built high enough (almost 2m) to block visual infringement to the *efarun*, in case anyone is standing on the top of the surrounding dunes. This shaded outdoor seating area is common feature of the *efarun* (see Appendix IX).

Fig. 4.25. The main family hut (*tekabar*).

The skeletal structure of the main cylindrical hut consists of a central forked post (*tamankayet*) with a diameter of 15cm and height of 3m, surrounded by a wall made of twenty posts called *tijettewin* (singular *tajettiwt*), which are each 1.6-1.7m high and have a diameter of 7-8cm. The distance between each of these posts ranges from 50-90cm. The posts are erected by sinking them approximately 20-30cm into the sand. Other branches of the same diameter, called *atataie*, are placed horizontally as beams on the apexes of the 20 vertical posts, which surround the *tamankayet*. Two horizontal rows of branches of 4cm in diameter, called *tijettewin* (singular *tajettiwt*) are then fastened to the vertical posts by strips of palm leaves, called *tawaleleya*, or woven goat hair, called *haloum*, in order to provide more support to the wall structure. Another twenty branches called *elallwaten* (singular *elallwah*) of 7-10cm diameter are placed at a slope to connect the prongs of the twenty vertical posts to the central *tamankayet*. Other smaller *elallwaten* are laid in two rings over the 20 inclined *elallwaten*. These branches form the roof's skeletal structure and provide support for the heavy thatched roof. The *elallwaten* are fastened to the *tamankayet* apex and to each other using *haloum*. The spaces between the *elallwaten* are filled with 35-40 thinner branches before the roof is thatched with *tullult* grass and straw (sometimes palm leaves). The skeletal structure of the hut walls, which in its final shape is called *enabutter*, are also covered with bunches of *tullult* grass and straw, or of palm leaves, all supported by smaller and thinner sticks, and bound by long ropes of goats' hair and stripes of palm leaves (see fig. 4.26).

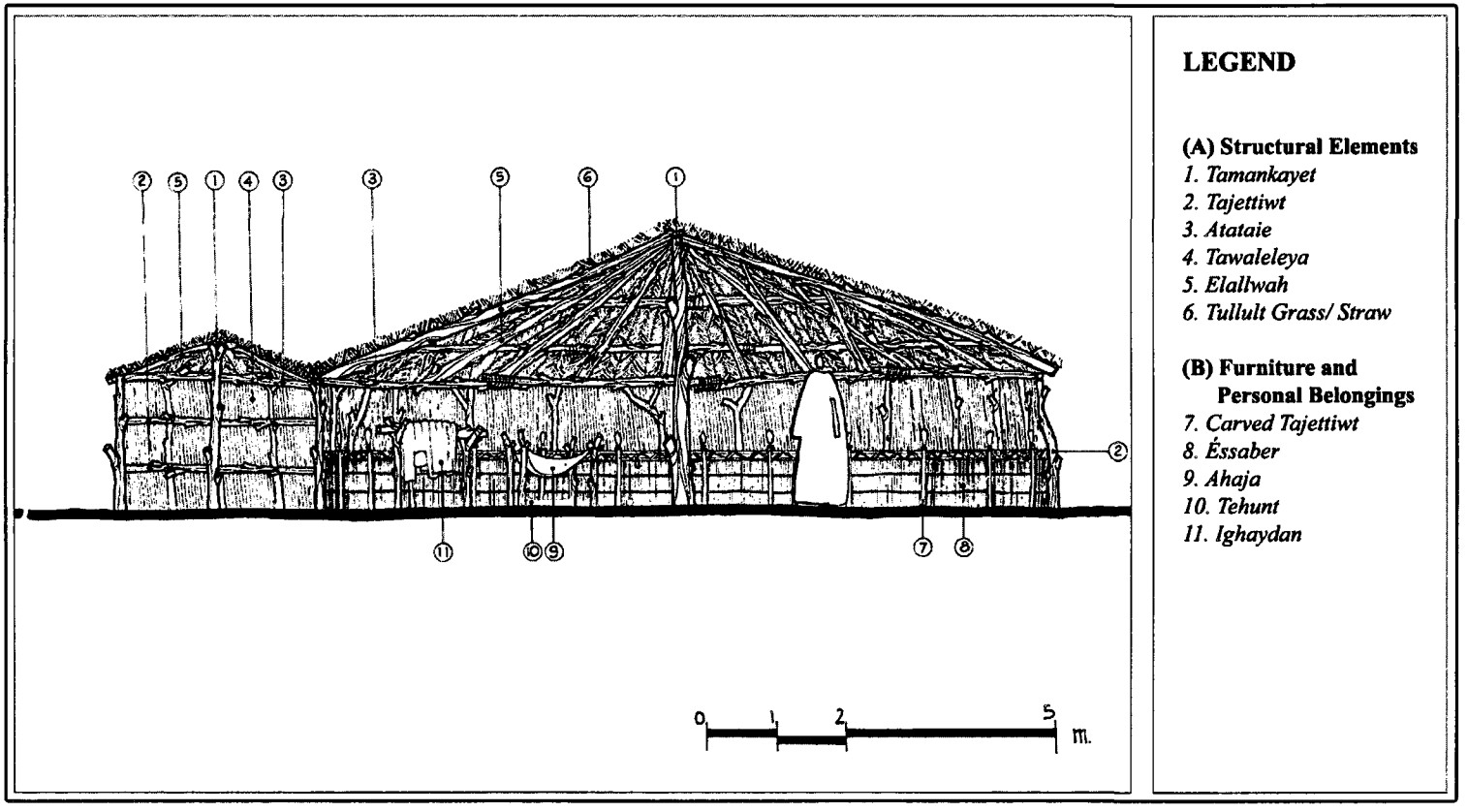

Fig. 4.26. Cross-section of the main family hut (*tekabar*).

The family hut has one entrance. It is 1m wide and 1.55m high. It is always kept open except during the night, on windy days, or in the cold season. The hut entrance is oriented east, towards an open space leading towards the reception hut in the south. This entrance orientation gives the main hut more privacy by avoiding opening toward the reception hut. As I stated earlier, in general the preferred entrance orientation of the *Azjer* Tuareg dwellings is toward the south or east.

The spatial organization of the interior space of the main hut (*tekabar*), mainly the sleeping areas, furniture, and belongings, reflects symbolic meanings and a gendered division of space almost identical to that of the tent. The hut's interior domestic space is a single cell that reflects separate female and male areas without the use of any permanent physical structure. Since monogamy is the most common form of marriage for the *Azjer* Tuareg, there is only one family hut and space is organized to accommodate just one wife (see fig. 4.27). As in the *derb* and the skin tent (*éhekyet*), inside the main hut the sleeping areas are organized so that the man and woman have their particular sleeping spaces with the beds oriented north-south with the head to the south toward Makka. Also like the skin tent, the hut is organized so the man's bed is located on the right side of the entrance door, while woman and children are on the left side. The furniture and belongings are organized along the encircling walls of the hut and articulate the space of the hut. The interior side of the wall is encircled with straw mats (*éssaber*), which are flexible to roll, colourful, and decorated with geometrical patterns. These each have a height of 85cm and a length of 5-6m, and provide a more comfortable, smooth interior and protect the hut users from the harsh wall surface, as well as hot and cold draughts. The *éssaber* is held up by carved apex poles called *tijettewin*, which are fixed in the ground on the interior side. The interior is always is organized so that the man and the woman have their belongings close beside them. The furniture also receives particular attention in placement and orientation. For example, the camel saddle (*terek*) must be placed inside the hut beside the man's bed, oriented in the same direction as the hut entrance (i.e., south or east) and ready to be used in case of emergency. The woman's palanquin (*takhawat* or *ahannka*) is placed beside her bed with the longer sides perpendicular to the hut entrance orientation (e.g. east-west, if the entrance faces south). This position relates to space management and

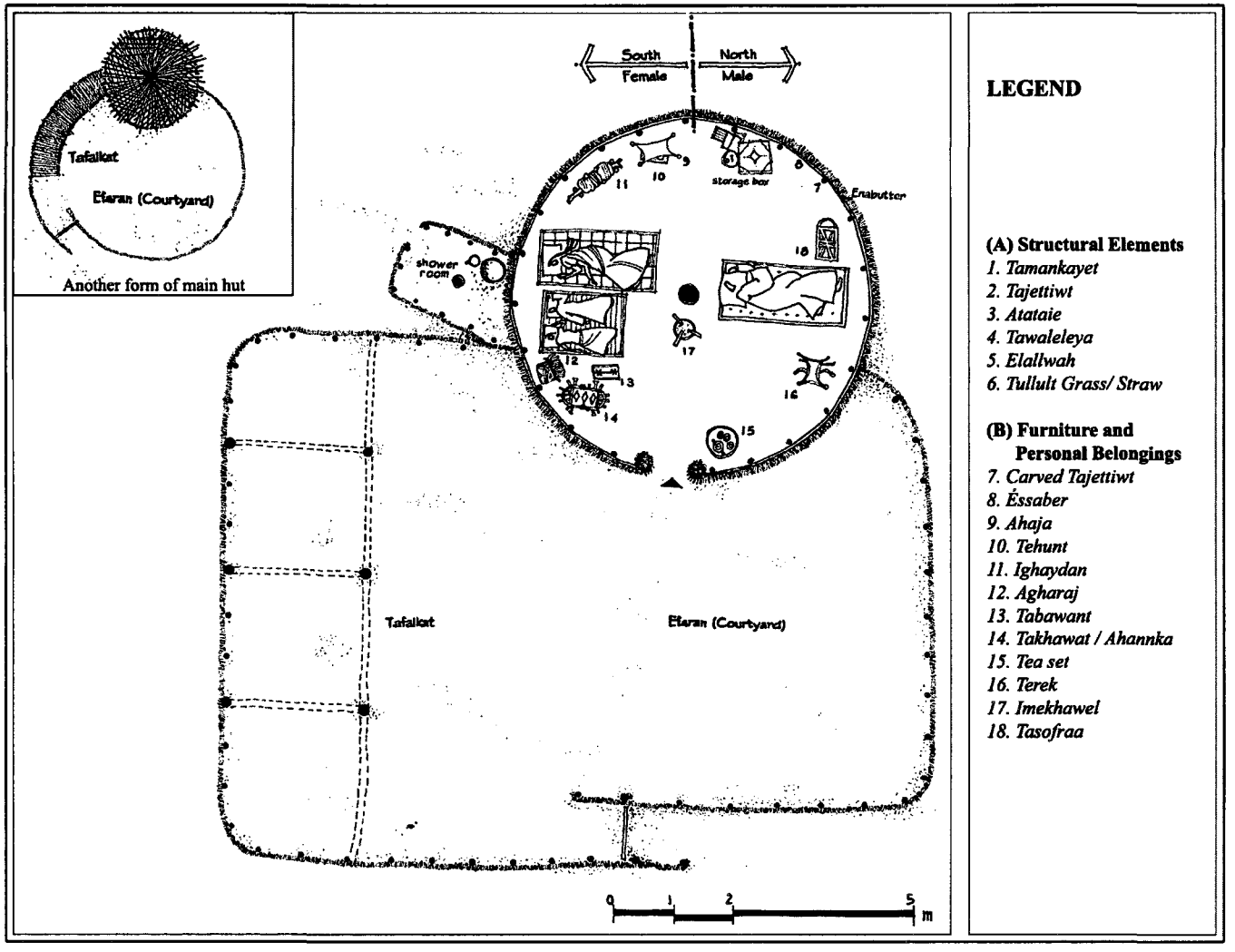

Fig. 4.27. The spatial organization of the main family hut (*tekabar*).

comfortable arrangement since the palanquin is larger than the saddle. The woman's palanquin is a material expression of Tuareg measures for the safety and protection of women when traveling on camels' backs, as well as a symbolic expression of the woman's social status. This movable mini-tent is used by respectable Tuareg women. It is traditionally used in marriage ceremonies and rituals to carry the bride to her husband, similarly to the *karmoud*,[66] which are still used by Arab Bedouin. Over time, the palanquin became an essential metaphor in marriage ceremonies for the bride's journey. The palanquin is multipurpose. In addition to its roles as a sheltered seat and, metaphorically, as a moving room for the bride in the desert, it is used at settling times as a bed for infants, when its fabric canopy becomes a perfect sun shelter for the child.[67]

Interestingly, the compound dwelling that I surveyed is connected to electricity and the main family hut includes, beside the other regular traditional personal belongings such as *agharaj*, *tabawant*, *tasofraa*, *ahaja*, *ighaydan*, *tehunt*, and tea set, a black and white TV and a fan. These new, non-traditional commodities reflect the influence of modernity, and the improved economic conditions after the 1969 revolution, on the Libyan Tuareg lifestyle and their huts' furniture typology.

The main hut is attached at the back to a tiny hut-like extension with a low roof, which does not allow a person to standing fully upright, which is used as a shower area. It is constructed by eight vertical sticks with a diameter of 4-5cm, supported in the centre by a small *tamankayet* with a diameter of 7cm. On the left side of the entrance as you enter the shower hut, a small rope fastened between two sticks is used as a clothes hanger. This shower area is not accessible from the main hut and its entrance, which is screened with a piece of old cloth, opens south-west, facing away from the nearby kitchen hut (see figs. 4.27, 4.28). To prevent cross movement close by the shower entrance, an iron wire that rolled around three sticks of *athel* to form a fence-like is erected in close distance to mark this private area.

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[66] In formal Arabic, *houdaj*.

[67] Similar descriptions and interpretations for other groups other than *Kel Azjer* Tuareg were given by Prussin in "Kel Ahaggar and Kel Ferwan," 107.

Fig. 4.28. The interior space of the main family hut (*tekabar*) and the attached shower area.

4.2.1.2 The Cylindrical Hut (*tekabart*) of the Kitchen (*ekadeone*)

This Tuareg family organized the kitchen into two separate working and cooking areas (interior and exterior), mainly for safety reasons. The kitchen hut is located almost 8 meters from the main family hut, close to the well. A small shed (*tafalkat*), used to store skin-bags for water and milk or plastic containers for water is built close to the kitchen (see figs. 4.23, 4.29) (see Appendix IX). The hut's skeletal structure is the same as that of the main *tekabar*; however, it is smaller (almost 4.5m in diameter). The Tuareg tolerate hot weather better than cold, and the doorway faces east in order to allow the morning sun to warm the kitchen after the cold Sahara night while preparing breakfast. Facing this door, the traditional and modern kitchen utensils, such as dishes and plastic containers, are organized on simple shelves supported by branches, or on a modern dish-rack. A small modern stove is placed on the left side of the hut (see fig. 4.30). In the past, kitchen utensils were all traditionally made and placed on the ground and/or hung on the branches of the hut. In addition to the modern stove, this hut includes a traditional earthen cooking pot (*térirt* or *alekkin*). It is placed on three stones on the right side close to the entrance. Beside the clay cooking pot is placed the *bagoal* that is used for cooking the crunchy type of bread called *tamasaih*. These cooking implements are placed indoors because their fire is exposed and uncovered, unlike the closed-top *tannour*, and could cause a fire when the wind blows, especially in the hot season when balls of dry plants move swiftly and uncontrolled. The non-portable bread-making *tannour* is built into the ground in the back area outside the kitchen hut, quite far from the hut and close to a small hill, which

provides natural shelter and a screen for the women while cooking. Beside this *tannour*, a fixed place to cook the *tajella* or *mellaa* bread in the sand is indicated by the traces of ashes (see fig. 4.31).

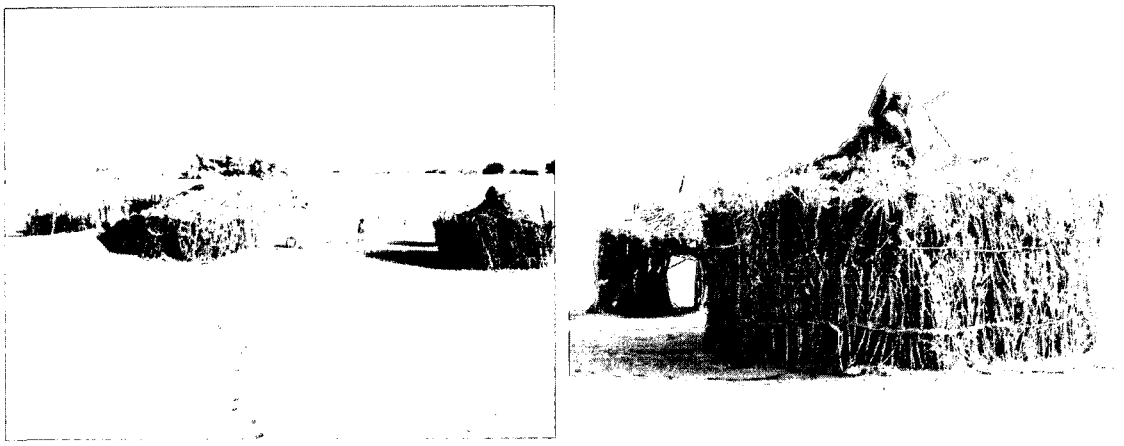

Fig. 4.29. The kitchen, located close to the main hut and the water and milk shed.

Fig. 4.30. The interior of the kitchen (*ekadeone*).

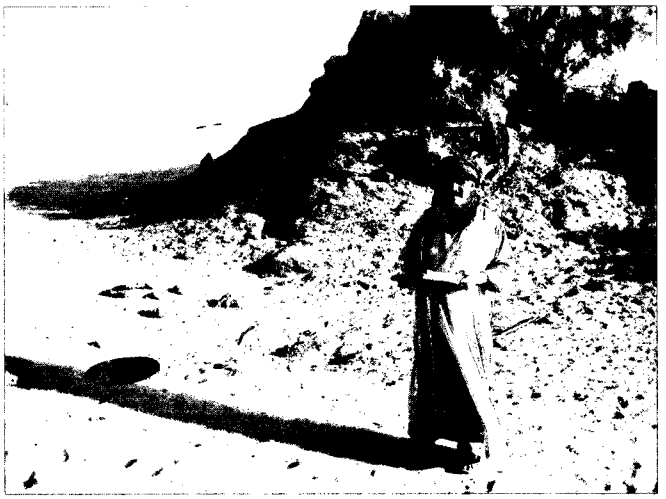

Fig. 4.31. The bread-making *tannour*

4.2.1.3 The Reception Hut

This hut is rectangular in plan with dimension of 4.6m x 6m. The skeletal structure is similar to that of the main family hut; the only difference is that the roof is almost flat. This hut is built around an existing *athel* tree; however, the trunk, which provides central support for the hut, does not serve as a substitute for the *tamankayet*, the middle supporting column and the main feature of the Tuareg hut. The tree's canopy spreads over the hut roof, providing extra protection from the hot sun for the interior space and an interesting colour contrast with the golden colour of the hut (see fig. 4.32).

Fig. 4.32. The reception hut, between the *tafalkat* and the shower room.

Unlike the other huts of the compound, the reception hut has two doorways placed in opposite corners of the hut's shorter walls, oriented north and south. The arrangement of the doors provides excellent cross ventilation. The north-facing door opens toward the central space of the compound, providing easy access to the neighbouring compound as well as direct access for bringing meals from the kitchen to serve to guests (see fig. 4.23). The interior is simply furnished, and the sandy floor is covered with quilts and mats. The tea set, which is an essential element for a reception hut, is placed beside the southern door and close to the *imekhawel* located in the middle of the hut. The other belongings hang on the wall-posts, on forked wooden racks (*ighaydan*) placed close to each other, or on ropes fastened to the branches of the roof of the hut (see fig. 4.33).

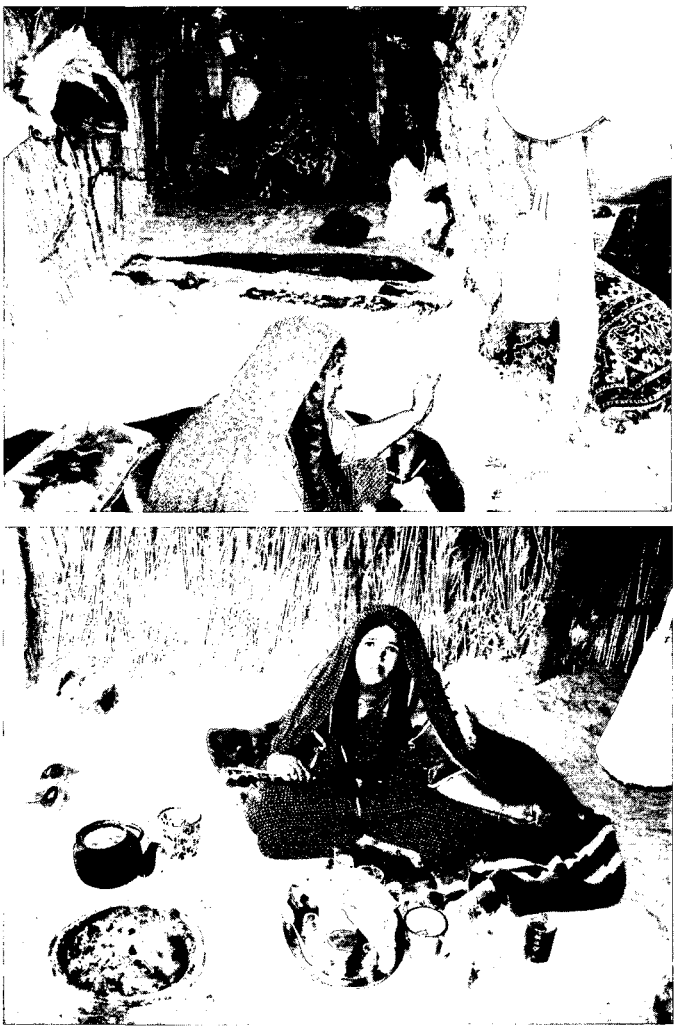

Fig. 4.33. The interior arrangement of the reception hut.

On the west side of the hut, a shower area is attached for guests, similar to that attached to the main family hut. If there are no guests, this shower area is used by the males of the family. The ablutions, which form an Islamic religious ritual prior to praying, are never performed in the shower hut. They are usually performed outside the huts using water carried in a small plastic container or bowl. To the eastern side of the hut is attached a small *tafalkat*, intended as a breezy outdoor seating area for male guests, but occasionally used to park the family truck (see fig. 4.32).[68] If the guests are not strangers, or if there are no visitors, this hut is used by both neighbouring families as a shared living room in which to socialize. Close to this reception hut is located a small (almost 3m in diameter) sleeping hut, used mostly by guests who are strangers.

It is clear from the above description that the arrangement of this Tuareg family compound dwelling strongly emphasizes distinctions between private and public spaces based on domestic function, by separating the reception area from the most private spaces of the dwelling. This emphasis can also be seen in the distinctive rectangular shape given to the reception hut, in order that a stranger will not approach the wrong *tekabar* or come close to where he should not be.

Although this compound system, which is composed of separate units arranged within a defined open space, is suitable for the cultural needs of its users, the same arrangement and method of organizing spaces and functions might not be appropriate to another society where, for example, the familial relationship requires a compact dwelling form.

4.2.2 Barrel-Vaulted Huts

Scarin indicates that this type of hut is used by the Tuareg of Al-Ajal area who, he claims, call it *zeriba cilindriche* or o*capanna semicilindriche.*[69] Nicolaisen and Nicolaisen claim that this type of dwelling "seems to be known in Fezzan area" as well as along the Niger and in Ayr.[70] However, in my summer fieldwork I did not see one vaulted dwelling in Ghat, which could indicate either this typology is not in use any more, or that

[68] The use of trucks by the Tuareg is one of the signs of the improvements that I mentioned earlier in the living conditions of the Libyan Tuareg following the 1969 revolution, when pasture stopped being their only occupation or source of income.

[69] Scarin, *Les Oasi del Fezzan*, 111, 168.

[70] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 432.

it has never been used in this remote part of Fezzan. Nicolaisen and Nicolaisen define the barrel-vaulted hut as "a dwelling with a certain number of parallel arches which form the main support for the rest of the structure" (see fig. 4.34).[71] They say that this type of hut is frequently used as a storage space rather than a dwelling. They also claim that the name of this type of hut is *éhen*; however, as I have already explained, the word *éhen* refers to a shelter of any type.

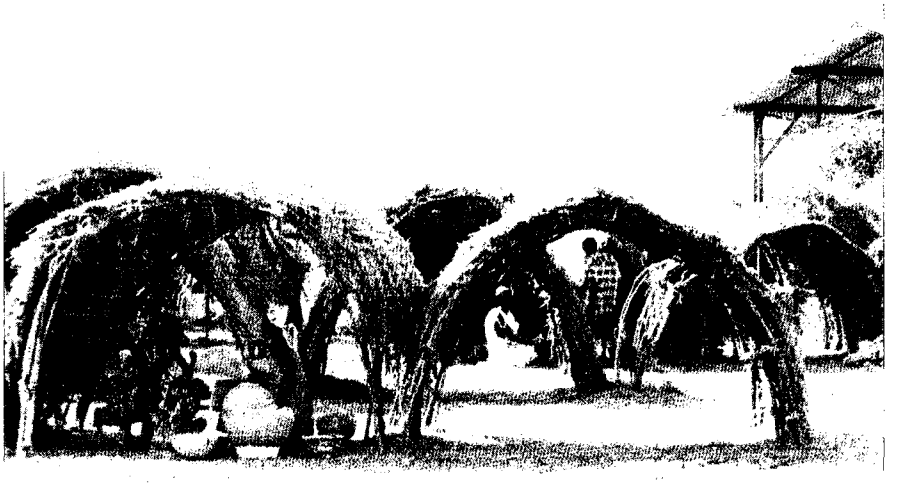

Fig. 4.34. Barrel-vaulted hut.
Reproduced from Nicolaisen and Nicolaisen (1997, 432).

[71] Ibid.

Chapter 5
The Old Town of Ghat

5.1 Ghat's Geo-Historical Location

Old Ghat has a unique geo-historical location. It lies 841km from Tripoli on the sea coast, at a latitude of 25.1°N and a longitude of 10.1°E.[1] It is located at 640m above sea level.[2] This relatively high location is due to its situation at the foot of the southern rocky ridges of the lower hills of Cocaman Mountain, which rises to 667m above sea level.[3] Ghat is surrounded by a group of small towns and villages, the closest of which are Tadrumt and Tunein (see fig. 5.1; (see Appendix I). Historically, Ghat was located on one of the major caravan routes connecting the Mediterranean Sea with Sudan, and was one of the most important stops for trans-Saharan traders. It is an ancient trading center, and was once a vibrant city that flourished on trade and commerce. Francis Rennell Rodd claims that "the two central routes run respectively from Tripolitania by the Fezzan, Murzuk and Kawar to Lake Chad, and by Ghadames, Ghat and Air to the Central Sudan."[4]

Ghat is swathed in the history and environment of the surrounding mountains and valleys. It is famous for the nearby Acacus Massifs Caves,[5] which contain extensive ancient drawings created by people from ancient indigenous cultures. Ghat is framed by the Acacus Mountains and hills and has grown around this mountain oasis, incorporating an intricate maze of alleys and tightly intertwined houses (see Appendix I). Ghat is surrounded to the east by Tanezzuft Valley and to the west by Taharamat Valley,[6] which have their source in the Tassili Mountains. Ghat is also distinguished by the nearby

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[1] Secretary of the Planning-Surveying Department, *Al-Atlass Al-Watani*, 13, 14.

[2] Deyaf, *Madenat Ghat*, 52.

[3] In some publications spelled *Kokaman*. Cocaman Mountain is one of several peaks in the Tadrart Acacus Massifs Mountains, and consists of several hills. Ghat is located on the southern hills, according to Deyaf. Deyaf, *Madenat Ghat*, 52.

[4] Rodd, *People of the Veil*, 7.

[5] The central part of the mountain is almost 200km from Ghat.

[6] Some sources mistakenly refer to this valley as Tanezzuft. Taharamat Valley dried out a long time ago.

Idinan, also called *Kaf Al-Jinoon*[7] or *Kasar Al-Jinoon*, which is an important peak in the Acacus Mountains. The people of Ghat still believe the old Tuareg myths and legends about this black and gloomy mountain. These legends say that the mountain is inhabited by *Al-Jinn*, and that their voices and the flames thrown in their fights from one peak of the mountain to the other can be still heard and seen during the night. Ghatians also maintain that no one who has gone up the mountain has ever come back. Tuareg myths may have their roots in stories from the Holy Qur'an. *Al-Jinn*, a species of invisible being created by Allah from fire, are mentioned in the Qur'an several times, for example in *Sourat* (chapter) *Al-Jinn*, where verse number 1 says: "Say, [Muhammed], it has been revealed to me that a group of the jinn listened and said indeed, we have heard an amazing Qur'an."[8]

Besides being a physical barrier around Old Ghat, like the Acacus Mountains, *Kaf Al-Jinoon* provides intangible protection to the town and its territory from strangers, who do not feel comfortable passing close to the land of the *Al-Jinn*. The Tuareg legends say that this mountain was built by *Al-Jinn* to protect them. As narrated by Richardson:

> There exists a compact between the Genii [*Al-Jinn*] and Touaricks to this effect, a species of *Magna Charta*, and not selling themselves to the Saharan devils: "The Touarick fathers solemnly vowed, alone of mortals, eternal friendship to the Genii, they would never molest them in the various palaces which they (the Genii) had built in their (the Touarick) country, nor use any means either through Mahomet [Mohammed], or the Holy Koran, to injure them or dislodge them from the black turret-shaped hills: and for this devotion on their part, the Genii promised to afford them (the Touaricks) protection at all times against their enemies, more particularly during the night, giving them vision and tact to surprise their enemy during the dread hour of darkness.[9]

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[7] *Al-Jinoon* is plural in local Arabic (in formal Arabic, the plural is *Al-Jinn*, singular masculine *Jinnee*, feminine *Jinneya*).

[8] Saheeh International, *The Qur'an: Arabic Text with Corresponding English Meanings* (Riyadh: Abulqasim Publishing House, 1997), 832.

[9] Richardson, *Travels in the Great Desert*, 436, 437.

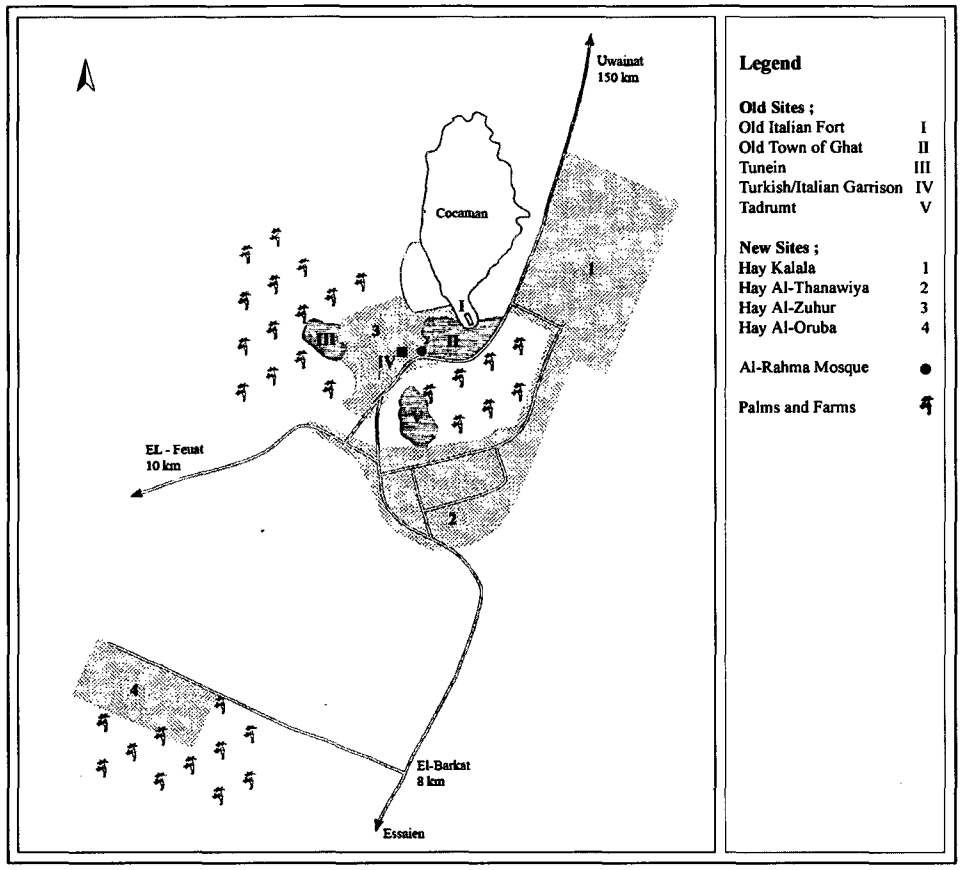

Fig. 5.1. Diagram showing Ghat and its surrounding villages and towns. Adapted from Kohl (2003, 23). Redrawn by the author with modification based on field and research work 2005-2006.

5.2 Ghat's Origin and Evolution

Historical and archeological records indicate that the area in which Old Ghat is located was inhabited in early ancient times,[10] as is testified by the remains of a necropolis of an unknown people on Cocaman Mountain, overlooking the present town of

[10] Jami, *Men Trabls Al-Gharb*, 130; Mori, *Tadrart Acacus*; Liverani, ed., *Arid Lands in Roman Times*. In this book (which was first published in Turkish in 1906 and translated into Arabic in 1974), Jami indicates that the antique graves seen in the area between Ghat and El-Barkat go back to prehistoric times, which suggests that the area around Ghat was inhabited a long time ago. This point of view was proven to be correct in 1955 by the Italian archeologist Fabrizio Mori, from the University of Rome. His archeological discoveries, evidence, and detailed studies of the Acacus Mountain ranges and cave paintings showed that this area has been inhabited since ancient times. His explanation indicates that cave art, including scenes depicting hunting, festivities, and wild and domesticated animals, suggests that there was a higher rainfall and a more temperate climate in this area in the past, which provided the resources to support human life and settlements. He also shows that this area has been continuously inhabited by hunter-gatherers, cattle herders, and nomadic societies despite the major climatic changes and the progressive desertification of the Sahara.

Ghat.[11] However, the ancient history of Ghat is widely disputed, especially since the accounts of old Saharan cities in Libya, such as Ghadames and Zwaila, by early Arab geographers and travelers, do not mention Ghat. The first record of the name 'Ghat' in an Arab traveler's account appeared in Ibn Batutah's documentation of his trip from Takaddà[12] to Tawàt in Algeria in 1353. He says "We journeyed next for fifteen days through a desert which, though uninhabited, contains water-points, and reached the place at which the Ghàt road, leading to Egypt, and the Tawàt road divided. Here there are subterranean water-beds which flow over iron; if a piece of white cloth is washed in this water it turns black."[13] However, this early record of Ghat does not specify whether it refers to the town itself or to the area in which the existing Old Ghat it is located.

During my visit to Ghat I collected several different narratives on the foundation of the town of Ghat and the origin of its name, which are still told by the people of Ghat and passed from one generation to another. According to Rajab Othman Al-Masrī, the first narrative says that Ghat was founded when the people of a Saharan caravan got thirsty in the middle of the desert and pleaded to God to help them.[14] This caravan was accompanied by a dog that saw moisture in the ground in the place where the current *'Ayn Ghat* (Ghat spring) exists, so the people dug there until the water sprang out. This spring was the foundation on which the town of Ghat was built. The second narrative indicates that the name 'Ghat' was derived from a bird voice. It says that a raven was seen landing on a place where water was available and started shouting 'Gha, Gha.' The people took the name of Ghat, which was built later, from this raven voice. The third story says that the town's name was originally 'Ghath,' with a 'th' ('ث') at the end, not 'Ghat' with a 't'

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[11] Ghanem, *Al-Almani Erwin von Barry*, 190; Giorgio Manzi and Francesca Ricci, "Populations of the Roman Era in the Central Sahara: Skeletal Samples from the Fezzan (South-Western Libya) in a Diachronic Perspective," in *Arid lands in Roman Times*, ed. Mario Liverani, *Papers from the International Conference held in Rome, July 9th-10th 2001* (Firenze: Edizioni All'Insegna del Giglio, 2003), 19. The first book, which includes a translation of the work of Erwin von Barry, indicates that in 1876 Barry recorded in his diary that he visited Cocaman Mountain and saw several ancient graves. Most of these were opened and vandalized, and the bones scattered. He claimed to have seen full human skeletons, indicating that the place was inhabited before the foundation of Ghat. Manzi and Ricci referred in their paper to samples of skeletal remains collected from "the Cocaman necropolis of Ghat."

[12] "Tagaddà or Takaddà was at this time the largest town in the Tuareg country." Ibn Batutah, *Travels*, 382.

[13] Ibid., 338.

[14] Al-Masrī, interview (see chap.3, n.111).

('ت '), and that this name is derived from the name of the person who built it and who was called Ghoth.

The above stories suggest that the main reason for the foundation of Ghat was the discovery of a spring; however, none of these stories gives any indication of the time when the town was first built, or the exact location of the earliest settlement there.

The most important narrative describing the foundation of the Old Town of Ghat and its first inhabitants is documented by Gottlob Adolf Krause.[15] Although Krause never visited Ghat, he provided a comprehensive description of the town and sketched a diagrammatical site plan for it based partly on information from caravan merchants, who had traveled to Ghat, but mainly from verbal information and an inscription written, upon Krause's request, by Haj Othman Ben Omar Al-Ghati in Hausa in 1879 (this diagrammatical sketch will be further discussed in section 5.3.3.1) (see Appendix XI).[16] I enhanced Krause's narrative and confirmed its details by reviewing a copy of the original inscription owned by Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhia (Center for Libyan Historical Research Studies) in the summer of 2006, and by interviewing some of the older people of Ghat and those who read Hausa.[17] This narrative demonstrates that the area in which the current Old Ghat exists was originally inhabited by a group of settled Tuareg tribes that had previously lived in separate scattered residential agglomerations before uniting these agglomerations into Old Ghat.

In his narrative of Ghat, Krause states that the name 'Ghat,' mentioned by Ibn Batutah, could have referred to the area and not to the town itself, and he indicates this area to be where the well named *Asiu*[18] was located at that time.[19] Krause states that the

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[15] Krause, "Aufzeichnungen": 271-273. To understand this article by Krause, I depended on a translation into Arabic of the narrative by Ghanem, in *Al-Almani Gottlob Adolf Krause*, 16-18, 72. However, I reviewed the article in German in order to compare the spelling of the various names of tribes and neighbourhoods, dates, etc. to a copy of the original inscription in Hausa.

[16] Haj Othman Ben Omar Al-Ghati was a prince from the *Alijaneen* tribe in Ghat whose his grandfather was the ruler of Ghat at that time. According to Ghanem, the original of this inscription, which was written at Krause's request, is in the *Department of Eastern Collection* in the German National Library, serial number quart 755 Ms. Or. Berlin: German National Library, 1879. Ghanem, *Al-Almani Gottlob Adolf Krause*, 16-18, 72.

[17] Othman Ben Omar Al-Ghati, "Kesat Belad Ghat Bekalam Al-Soudan," in *Department of Documents and Manuscripts,* serial number 119 (Tripoli: Collection of Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhya, 1980), original in *Department of Eastern collection*, serial quart 755 Ms. Or. (Berlin: German National Library, 1879).

[18] This well does not exist any more. It may have dried out long ago, since no-one in Ghat was able to recognize its place.

town may have been built more than two centuries before his study in 1879.[20] While he does not specify upon what information he bases this estimation, I believe it to be based on Haj Othman Ben Omar's story, which will be told next.

The narrative of Ghat's foundation as documented by Krause says that long ago there were four towns inhabited by four Tuareg tribes. These were Heil El-Barass, inhabited by *Almakamaẓen*; Ingheyen (or Inghee), inhabited by *Alesṭafen*; Tanast, inhabited by both *Kel Talaq* and *Kel Tarat*; and Ten El-Koum, inhabited by *Alijaneen* and *Kel Khabsa*.[21] At that time, these tribes represented the settled *Azjer* Tuareg tribes. None of these old towns exists any longer. The town of Heil El-Barass was located north-west of the current Old Ghat, Ingheyen to the south of Ghat, Tanast to the east of El-Barkat,[22] and Ten El-Koum[23] to the south of El-Barkat, across the mountains of Tassili. More than 200 years before he wrote his account in 1879, says Othman Ben Omar, Abdassalam was the sheikh of the *Almakamaẓen* in Heil El-Barass, Hamed was the sheikh of the *Alesṭafen* in Ingheyen, and Idal was the sheikh of the *Kel Talaq*.[24] At that time, a war arose between the *Almakamaẓen* and the *Kel Tarat* on one side, and the *Alesṭafen* and the *Kel Talaq* on the other. This war ended when the *Kel Tarat* escaped to the *Imenan* (a royal Tuareg group) from whom they sought protection, and the *Alesṭafen* escaped to Tawàt (in Algeria). The remaining tribes, *Almakamaẓen* and *Kel Talaq,* found that there was no value in fighting each other any more and decided to end the war, so the sheikhs of both tribes decided to make a peace treaty. However, the youth of both tribes refused such an option and decided to fight until the stronger won and drove out the other.

After more consultation between both tribes, the *Almakamaẓen* suggested that they would place themselves under the control and protection of the Ten El-Koum inhabitants. The *Kel Talaq* accepted this suggestion. Two representatives, one from each

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[19] Krause, "Aufzeichnungen": 273.

[20] Krause, *Proben der Sprache von Ghat*, 7.

[21] Krause, "Aufzeichnungen."

[22] The Old Town of El-Barkat still exists 8km outside Ghat.

[23] This town, which is located on the Libyan-Algerian border, became part of Algeria during the French colonization period of this country and some time after the establishing of the French Military Administration of Fezzan in 1943, as a result of the Allies' expulsion of Germany and Italy from North Africa. Currently, the Libyan-Algerian border is being redrawn, and it is not yet known if Ten El-Koum will again be part of Libya. Generally, the Tuareg do not recognize borders and consider themselves as one nation and the Sahara as their land, but what is most important for this dissertation is the fact that Ghat has always been within Tuareg territory.

[24] Spelled in some sources as *Kel Talak.*

tribe, went to Ten El-Koum where they were well-received by the people of the town, who accepted them under their protection. The people of Ten El-Koum decided on a particular day for two representatives from the town to meet with the sheikhs of the *Almakamazen* and *Kel Talaq* in the valley,[25] and sent two brothers named Sidi Baba (the older) and Hamdoun (the younger) as their representatives. The older brother rode a camel while the younger rode a horse. As they got closer to the meeting place, they stopped and built a tent to rest for the night. The next morning the younger brother woke up early, prepared his horse for traveling, and ordered his men to follow him without waking his elder brother. At the meeting, which took place at the foot of Cocaman Mountain, he was received by a large popular assembly of the two tribes and negotiated the terms of the pact. The elder brother later, but found that the assembly had already selected the younger brother to be their king (*amanukal*). The first accomplishment of the new king Hamdoun was to give the order to build a town near the meeting-place in which he was appointed king. This town was Ghat. The descendents of Hamdoun the *Amanukal* became the *Alijaneen*, while the descendents of his brother Sidi Baba became the *Kel Khabsa*. Along with the *Almakamaẓen* and the *Kel Talaq*, these tribes were the first inhabitants of Ghat. The remaining inhabitants of Ten El-Koum moved to Fezzan and lived there as *Kel Ten El-Koum*.[26]

The above story suggests that Ghat was established on Cocaman Mountain and first inhabited by settled Tuareg tribes, before the arrival of people from within the country (in particular from nearby oases such as Ghadames and Murzuq) and from neighbouring countries. However, it seems that at an unknown point in time the town moved from the top of one of the hills on Cocaman Mountain[27] to its base. This change was documented by the first European travelers to Fezzan and Ghat in 1822. Dixon Denham, Hugh Clapperton and Walter Oudney formed one of the earliest European missions seeking to reach Central Africa from the north across the Sahara; however, only Clapperton and Oudney visited Ghat. Oudney indicates that the town of Ghat was originally built on the summit of one of Cocaman Mountain's lower hills; however, the

[25] The name of the valley was not mentioned; however, it was probably either Tanezzuft or Taharamat valley.

[26] *Kel Ten El-Koum* is a branch of the *Uraghen*, one of the *Azjer* Tuareg drum-tribes, who live in Fezzan and up to Ubari and Al-Ajal valley. Thiry, *Tarikh Al-Sahraa Al-Libiya*, 490.

[27] Cocaman Mountain consists of several hills extending north-south.

people changed its location to its feet after the destruction of their town.[28] Oudney was unable to discover when this destruction occurred, but it resulted from the collapse of the rocks on the summit of the hill, which brought the houses down with them and killed a large number of people. The same story is narrated in a recent publication of the previously unpublished parts of what are referred to as the 'Libyan sections'[29] of Clapperton's personal travel diary of his exploration with Oudney in the Sahara and Fezzan.[30] Clapperton states that the town "is built on the point of a rocky ridge of hills – that come from the Jinoon range."[31] He explains that:

> [T]he town was once on the top of the hill under or on the point of which the new one is built but from the giving way of the rock on which it was built a number of the houses came down with it – and some of the inhabitants in them this made them build their nests where they now are some of which are now in danger should the rocks which over hang them give way.[32]

Over the years, other travelers and scholars have visited Ghat and, combined with the above story, their descriptions of its location could inform us about the early formation of the existing old core of what is now Ghat. Heinrich Barth, who stayed in Ghat for nine days in 1850,[33] describes it as a "little town, situated at the north-western foot of a rocky eminence [Cocaman Mountain] jutting out into the valley, and girt by sand-hills on the west."[34] Erwin von Barry, who visited Ghat in 1876, indicates that Ghat was built around the ruins of an old palace built on the top of a hill that was, by the time he wrote, covered with houses.[35] Abd-Elkader Jami,[36] who was the Othmani governor of

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[28] Oudney, "Excursion to Westward of Mourzuk," lxvi.

[29] Mattingly, foreword to *Difficult and Dangerous Roads* (see chap.1, n.74), ix.

[30] According to John Wright, during Denham's absence from Murzuk in the summer of 1822, Clapperton and Oudney made an enterprising secondary voyage to Ghat. When Denham rejoined the team at Murzuk at the end of October, he was not happy that his companions had gone without him to Ghat. Later, he succeeded in preventing the publication of much of the material written by Oudney about this journey, while Clapperton's travel dairy remained wholly unpublished. John Wright, introduction to *Difficult and Dangerous Roads*: *Hugh Clapperton's Travels in Sahara and Fezzan 1822-1825*, ed. Jamie Bruce-Lockhart and John Wright (London: Sickle Moon Books, 2004), 27.

[31] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 154.

[32] Ibid.

[33] Barth, *Travels and Discoveries*, 207.

[34] Ibid., 193.

[35] Ghanem, *Al-Almani Erwin von Barry*, 80.

[36] Abd-Elkader Jami was an Othmani commander and *qaimmaqam* of Ghat, exiled to Fezzan by the Othmanian government in the period from 1906 to1908. Jami, *Men Trabls Al-Gharb*, 131, 132.

Ghat in 1906, maintains that Old Ghat was not built on the ruins of an ancient Saharan trade center that existed during Roman times.[37] This is supported, he claims, by the fact that most of the irrigation works and antique remains (such as plates, pottery, and silver coins), which were found by the farmers while tilling their lands, were found near El-Barkat, which is located 8km to the south of Ghat. According to Jami, this suggests that the first old town was built there. However, his position has not yet been confirmed by any archeological evidence, and the presence of ancient graves on the top of Cocaman Mountain suggest the reverse.

Jami also states that the farmers who utilize the water sources around Cocaman Mountain built their houses on the 'vertical slopes' of the southern hills to defend themselves from enemy raids. He indicates that the old citadel of Ghat, called *Toughoroft*[38] by the Ghatians, and the ten houses around it, is considered the center of the town around which the town has grown. Jami says that this old citadel had been deserted since a Tuareg attack and siege of an Othmanian army battalion in 1886, in which all the Othmanian soldiers were killed. However, since the main mosque in Ghat was built outside this old core, Jami suggests that the old core was built before the Islamic conquest,[39] while the grand mosque[40] and the rest of the dwellings were built after the spread of Islam. He also indicates that the shops that extended (and which are now demolished) outside the walls to the east, towards the palm gardens and the *Al-Zawia*[41] *Al-Sanussia*, are the most recent buildings.

Documentation by Jamal Al-Dnasouri[42] in 1967 indicated that the town's location had not changed since Jami's narrative. Al-Dnasouri describes Ghat's oldest areas as being built on an elevated area between a deserted house (palace) and an old Othmanian citadel famous for a bloody battle in which the Tuareg killed all the Othmanian soldiers at

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[37] It is more consistent with the historical review in this chapter to date events according to the Garamantian, rather than Roman, times, which were coeval.

[38] *Toughoroft* is a Tuareg word meaning 'rooms' and connoting a palace. Mohammed-Al-Mahdi lived and owns a house in the *Tamalghat* neighbourhood in Old Ghat, interviewed by the author, Ghat, 26 and 27 July and 12 August, 2006. Mohammed-Al-Mahdi Basheer Abd Elhameed.

[39] Islamic armies have never arrived in Ghat; however, Islam spread throughout the Libyan Sahara in the first half of the 8th century. Thiry, *Tarikh Al-Sahraa Al-Libiye*, 110.

[40] The exact date of the building of this mosque is still unknown; however, according to the Ghatians, it is more than 1000 years old.

[41] *Al-Zawia* is a religious lodge which functions mainly as a religious center and school.

[42] Al-Dnasouri, *Goghrafiat Fezzan*, 404.

the citadel. He adds that the area around the citadel is called *Aghram Washaran* in the Tuareg language, meaning 'the old town' or 'the old core.'

Based on 2006 fieldwork, and taking into consideration the oral testimony of the people of Ghat and their stories passed down through the generations, the above descriptions and historical records of Old Ghat are true as well as mutually complementary. When patched together, these descriptions provide enough information to formulate a preliminary theory regarding the origin and evolution of the existing Old Ghat.[43] Based on the above, it appears that Ghat was first built by Tuareg tribes on the top of the southern hills of Cocaman Mountain, which was the best defensive situation. Subsequently, as a result of the collapse of the summit of the hill and the destruction of the town, the people rebuilt the town at the base of the west side of the southern hills of Cocaman Mountain. The houses grew around an old palace, which might have been built for the first king of Ghat, Hamdoun, and which formed the old core, called *Aghram Washaran* by the Tuareg to this day.[44] This old core represents the first ring in the formation of Ghat. The second growth ring could have been built after the increase of population and the spread of Islam in south Fezzan, after the Tuareg became Muslims around the 13th century.[45] This ring is marked by the presence of religious buildings such as the grand mosque,[46] known as *Al-Atiq* Mosque,[47] and *al-zawaya* buildings and their various religious schools. According to the testimony of Ghatians, when Ghat fell under Othmanian control in 1875, the spacious, many-roomed old palace (referred to by Erwin

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[43] This theory could be corroborated or proved inaccurate by future archeological or historical evidence.

[44] The word *Aghram Washaran* is spelled slightly different in European accounts of Ghat.

[45] Thiry, *Tarikh Al-Sahraa Al-Libiya*, 110, 113-120, 491-498. As I stated earlier, Islam began to spread in Fezzan in the first half of the 8th century; however, based on Thiry's historical review of the Libyan Sahara during the Middle Ages and his conclusions extracted from the narratives of Al-Edressi (an early Arabic traveler) and Ibn Said, it seems that the *Azjer* Tuareg became Muslims around the 13th century, and that their territory is where Ghat is located. However, this does not mean that either the current Ghat nor its religious buildings were built at that time. The town could have been built around the 17th century, which was Krause's estimation. In the absence of solid historical or archeological evidence, the dates of Ghat and its buildings formation can only be assumptions.

[46] The building of this grand mosque (*Al-Atiq*) must not be used as an indication of the time that Islam arrived in Ghat since a *mousalla*, which is an open area used for prayers, could have been used instead, especially since, based on the estimations of old records and as suggested by the story of the town's destruction, the population in early times was small and so there may have been no need to build a mosque.

[47] As I stated before, according to local people's testimonies this mosque is 1000 years old, which means that it was built in the 12th century; however, this date cannot be accurate, since the *Azjer* Tuareg became Muslims in the 13th century, and the estimated date of construction of the current Old Ghat (based on Al-Haj Othman Ben Omar's story) was the 16th century.

von Barry) in the old core was modified into an Othmanian citadel named *Toughoroft* (meaning 'rooms') by the Tuareg.[48] This was the site of the bloody battle which occurred in 1886. The third and last ring, which starts at and extends beyond the town walls, may have started later in the Othmanian ruling period. It includes the small shops built during the Othmanian period at the southern gate, the newest neighbourhoods, the Othmanian government buildings at the southern gate, and the new garrison or barracks to the west of the town. The development of the urban form of Ghat since the start of Othmanian rule of Ghat in 1875 is further discussed and illustrated in the next chapter.

5.3 Ghat's Urban Morphology

Social, demographic, political, and economic factors have played a role in changes to Ghat's urban morphology over time, especially during periods of colonization and after independence and the discovery of oil. The following paragraphs provide a preliminary description of the interior and exterior townscape and a detailed account of Ghat's main architectural components, based on my fieldwork in the summers of 2005 and 2006, and supported by travelers' narratives and scholarly records. This section provides necessary background information for Chapter 6, in which I map and discuss Ghat's physical and spatial organization during the different governing periods.

5.3.1 Existing Conditions

The Old Town of Ghat has a near-elliptical plan with projecting angles towards the south, east, and west, but a deep concave curve on the north side as a result of Cocaman Mountain, which overlooks the town and limits its growth in this direction.[49] The organic physical plan of Old Ghat consists of two domains, one inside and one outside the town wall. The separation between these domains is marked by a thin, brownish, and irregular wall formed by the backs of buildings. This wall was recently renovated and rebuilt in some parts as a regular solid fence with decorative triangular trimmings, particularly in the eastern parts, in order to surround some of the town's demolished areas (see figs. 5.2, 5.3).

[48] This word seems to be derived from the formal Arabic word *ghouraf*, which means 'rooms.'

[49] A similar observation was recorded by Scarin in "L' Insediamento Umano della Zona Fezzanese di Gat": 28, 29.

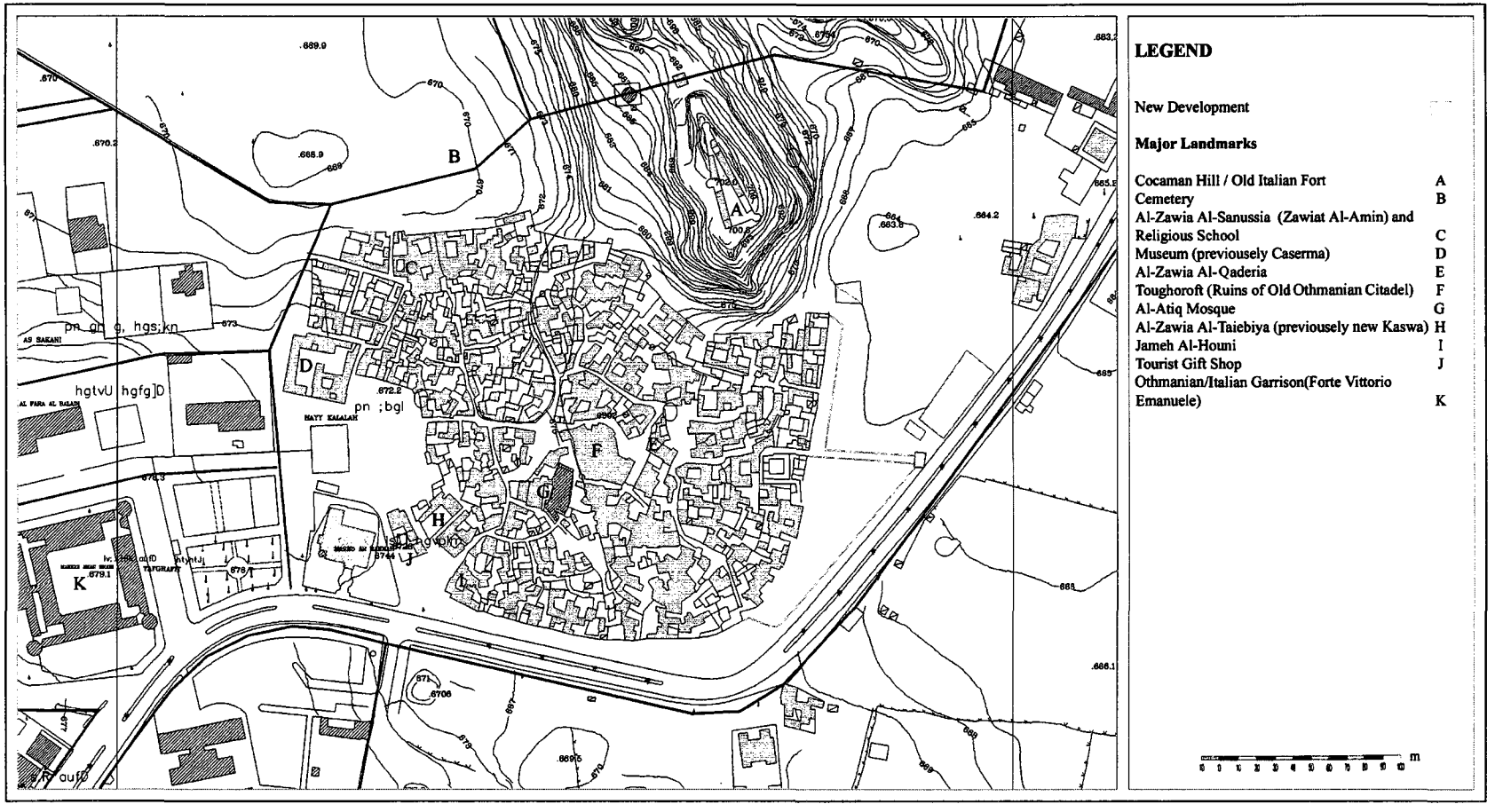

Fig. 5.2. The current morphology of Ghat.
Adapted from the map of Ghat by FINNMAP Company (1984). Modifications by the author based on field and research work 2005-2006.

Fig. 5.3. The new and old town walls.

The town wall has four main, towered gates in the four cardinal directions and a secondary gate on the south side (see fig. 5.4). These are the northern gate (*Bab Al-Khair*), the eastern gate (*Bab Kalala*), the western gate (*Bab Al-Zawiat* or *Al-Zawia*), and the southern gates (*Bab Tafghaghat* and *Bab Tamalghat*). The secondary southern gate, *Bab Tamalghat*, was originally just a door at the end of the street that was used for access to the town by servants and slaves only. There is also a newly built un-towered gate in the west of the town leading to *Aishelly* Square (see fig. 5.5). This gate was built recently to replace the old gate, called *Egef en Kena*, which, according to Haj Abdarrahman Al-Anssari, was built on the west side of town close to the Gnaba house, which was converted and extended to be a *caserma* during the Italian period. According to the literature, this gate has always been closed (the town wall and its gates will be further discussed in section 5.3.3.1).[50]

Based on the testimony of Ghatians, the towers of these gates were not originally part of the gates' structure, and seem to have been added after the use of guns became more common, mostly during and after the period of Othmanian rule. More recently, these gates have either been rebuilt, as is the case with the *Kalala* gate, or repaired and had decorative trimmings added to their upper parts. Superficial maintenance work is always carried out around the yearly Ghat Festival.

[50] Ghanem, *Al-Almani Gottlob Adolf Krause*, 101.

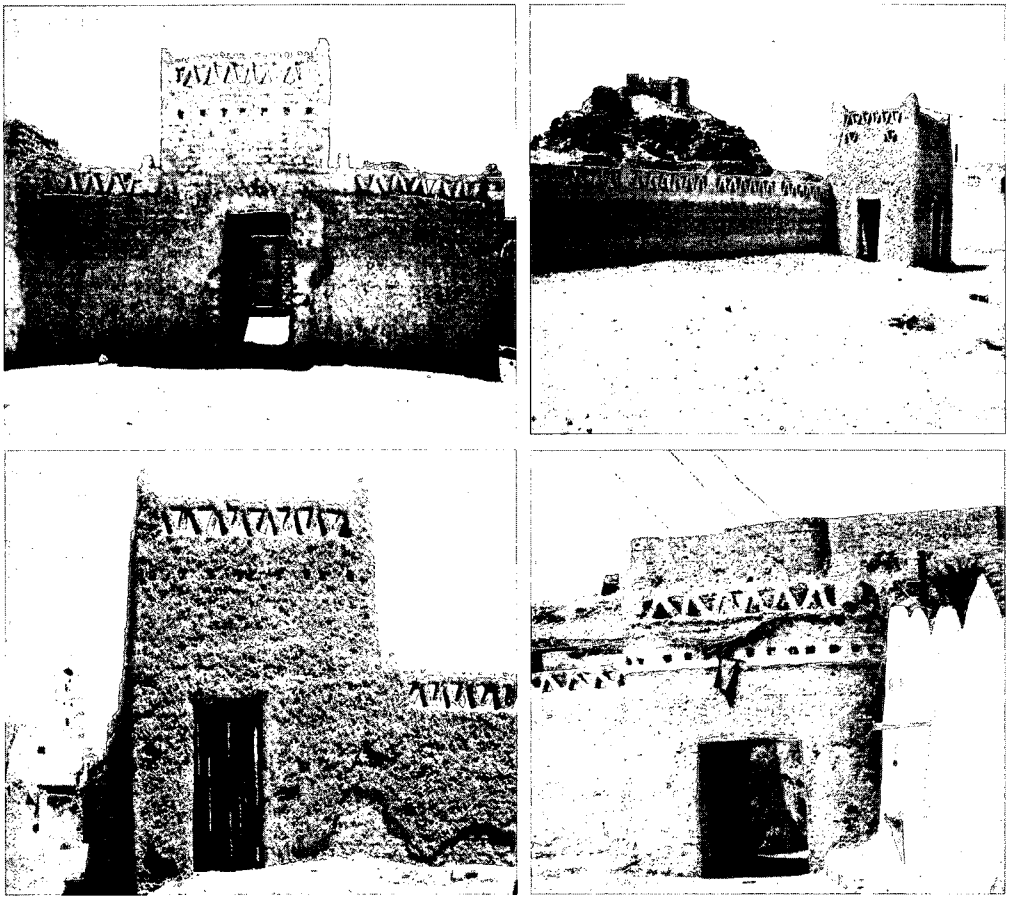

Fig. 5.4. The main towered gates of Ghat: *Bab Al-Khair*, *Bab Kalala*, *Bab Al-Zawiat* or *Al-Zawia*, *Bab Tafghaghat*.

Fig. 5.5. The new *Egef en Kena* gate: the palm tree trunk is used to close the gate.

Currently, the town wall is penetrated in more than one place with recent doors made for easy access to previously existing dwellings by the few families who still live in the town, or by the owners of the abandoned dwellings. This reflects modern values, for which the town gates and wall are not as important for providing security as they were in the past[51] (see fig. 5.6). The town wall is of irregular height, varying from three to ten meters. It surrounds the town's polygonal shape, and embraces narrow, winding, covered and uncovered streets that divide the town into several residential neighbourhoods (Ghat neighbourhoods are discussed in section 5.3.3.2), in which groups of related families lived in one or two storey dwellings. The interior townscape includes several seating areas called *al-majales*, several squares such as *Aishelly*, *Tafouk Nabaraj*, *Bab Al-Khair*, and *Fetchy* for communal activities, public spaces such as the *Tafghaghat* gate market area (called *al-souq* (in local colloquial Arabic *as-souq*) or *Souq Tafghaghat*), some wells, and different public buildings. The latter include the Othmanian citadel (named *Toughoroft*), which crowns the top of the little rocky hill located at the heart of the town, the *Al-Atiq* Mosque, *Jameh Al-Houni*,[52] and several religious schools (*zawaya*) such as *Zawiat Al-Amin Al-Anssari* (formerly *Al-Zawia Al-Sanussia*), *Al-Zawia Al-Issaweya*, *Al-Zawia Al-Taiebiya*, *Al-Zawia Al-Shatheliya*, and *Al-Zawia Al-Qaderia* (see fig. 5.7).

Fig. 5.6. The town wall, penetrated by recently constructed doors to dwellings.

[51] In the past, as noted by Von Barry, the town's general form had a fortified character, since only a few small doors were to be seen in the long mud walls surrounding the town. Ghanem. *Al-Almani Erwin von Barry*, 80.

[52] *Jameh* and *massjed* are the Arabic terms for mosques. In Ghat people refer to *Al-Houni* Mosque using the term *jameh*, while they use the term *massjed* to refer to *Al-Atiq* Mosque.

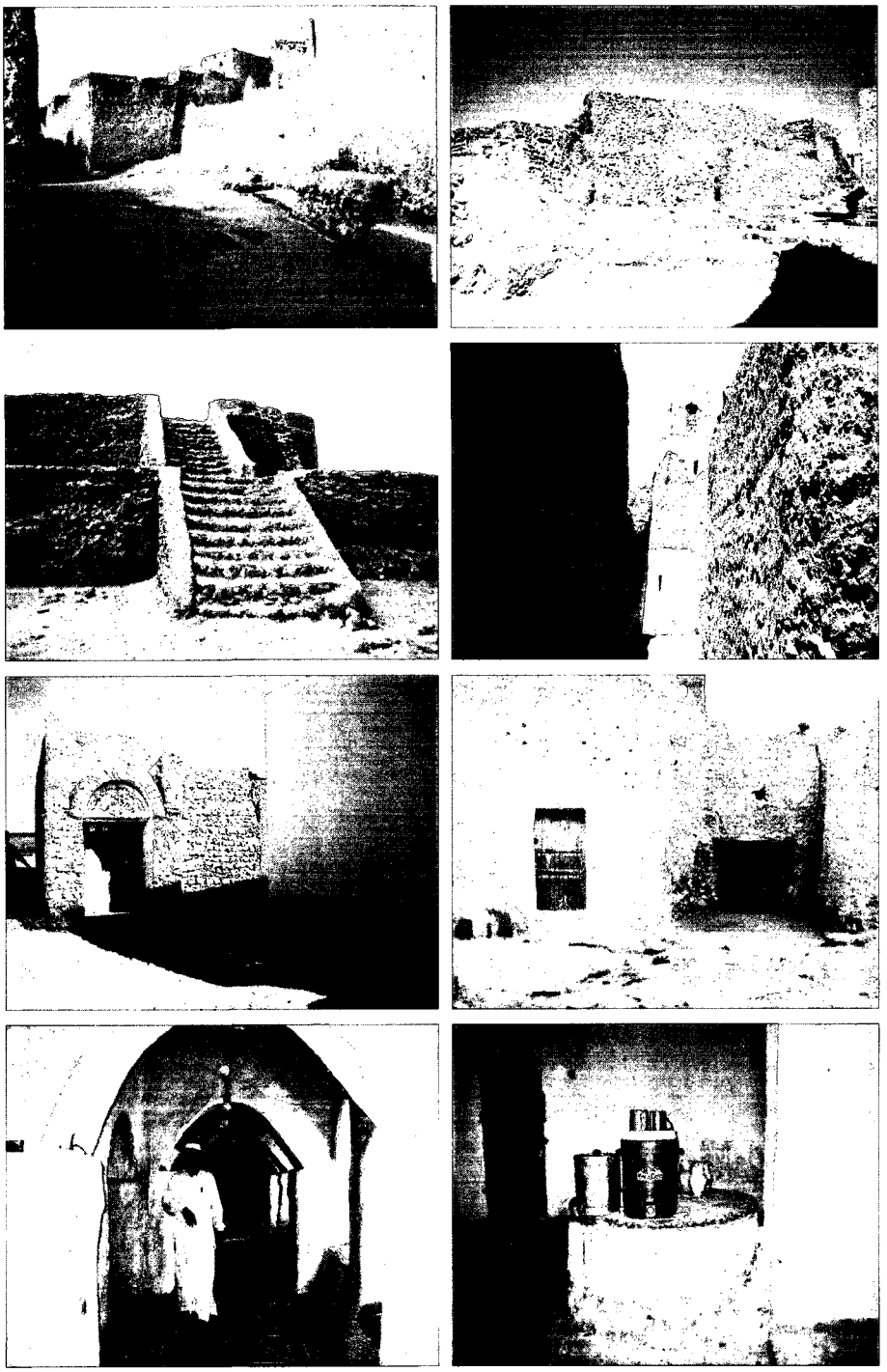

Fig. 5.7. Seating areas (*al-majales*) in *Aishelly* Square, *Tafouk Nabaraj* Square, the Othmanian citadel called *Toughoroft*, *Zawiat Al-Amin Al-Anssari*, *Al-Zawia Al- Shatheliya*, *Al-Zawia Al-Qaderia*, *Al-Atiq* Mosque and its well.

Locations and traces of some previously existing neighbourhoods or commercial areas, such as *Kel Egef en Kena* and the women's market (*kaswa*), can still be seen, while the locations of other previously existing markets or dwellings, which have been totally obliterated, are still easy to identify. In the past, there were separate, uncovered or partially covered market areas (*souq*) for men and women. There was also a group of small shops with small, visibly low entrances at the gate of *Tafghaghat*. Close to these shops was a commercial strip composed of several shops running parallel to the south wall and extending from *Tafghaghat* gate towards the secondary gate called *Tamalghat*. In addition, there were two mosques. One, called *Tamalghat* Mosque, was located close to the southern secondary gate, while the other, *Bab Al-Khair* Mosque, was located near the northern gate. All these neighbourhoods, places, and buildings were demolished and wiped out at different ruling periods except *Bab Al-Khair* Mosque, which collapsed and is blocked up (this part is discussed further in Chapter 6).

The town's fragile structures, which in some parts have been seriously damaged, are made mainly from sun-dried mud bricks, mud mortar, animal skin, the branches of *athel* trees and *barambkh* shrub trees (also called *torah*), and date palm leaves and trunks.[53] However, other materials were also used, but less commonly and in small quantities, mainly in roofing. These include *kernaf* and *diss* (building processes, materials, and construction methods are discussed in section 7.2.1.12. see Appendix XII). In the old core, houses were built mainly of stone, and sometimes the houses engaged with and became part of the rocky side of the mountain on which the central old core dwellings are situated, as is the case with Haj Mohammed Danda's house.[54] The efficient use of these building materials points to the harmonious relationship between the people and their natural environment. In addition, it contributes to the town's specific architectural style and shape. The different building materials used in the dwellings, the carefully designed and manufactured dwelling accessories such as house keys and locks, and the diversity in lots and dwelling sizes, connote social differences and offer clues as to the skills and occupations of the inhabitants at the time of building (see Appendix

[53] *Athel* and *barambkh* are Arabic terms; however, *torha* is a Tuareg term and more commonly used locally.

[54] Mohammed Danda, chairman of Ghat Archaeology Department and the owner of a house in *Kel Tamalghat* neighbourhood, interviewed by the author, Ghat, 26 July, 2006, telephone interview, Ghat-Montreal, 1 March, 2008.

XIII). The exteriors of the dwellings are simple and humble in the case of all the dwellings, and do not reflect the dwelling's size, its interior layout, or the occupants' social class.

Outside the town wall, to the north, is a small old cemetery attached on its eastern side to a *mousalla* (see fig. 5.8). This *mousalla*, which is located at the foot of the western ridge of Cocaman Mountain, which is crowned with an old Italian fort, was and still is used for religious festival prayers (see fig. 5.9).[55] Also outside the town wall are groups of small farms, palm groves, and kitchen gardens as well as wells and springs, many of which have dried out. The most famous are *'Ayn Ghat* (called *ʒeid* or *ʒet;* طيد or طيت ; in the Tuareg language) and *'Ayn Nabus*. These modest green spaces moderate the harsh Saharan landscape where Ghatians and their servants and slaves spent long hours cultivating vegetables, fruit trees and different species of date palms (see fig. 5.10). These contributed to the town's economy. Traces of old irrigation systems fed by springs and wells, such as the *foggaras*, which were used in the past for agricultural and domestic purposes, still exist around Ghat (see fig. 5.11).

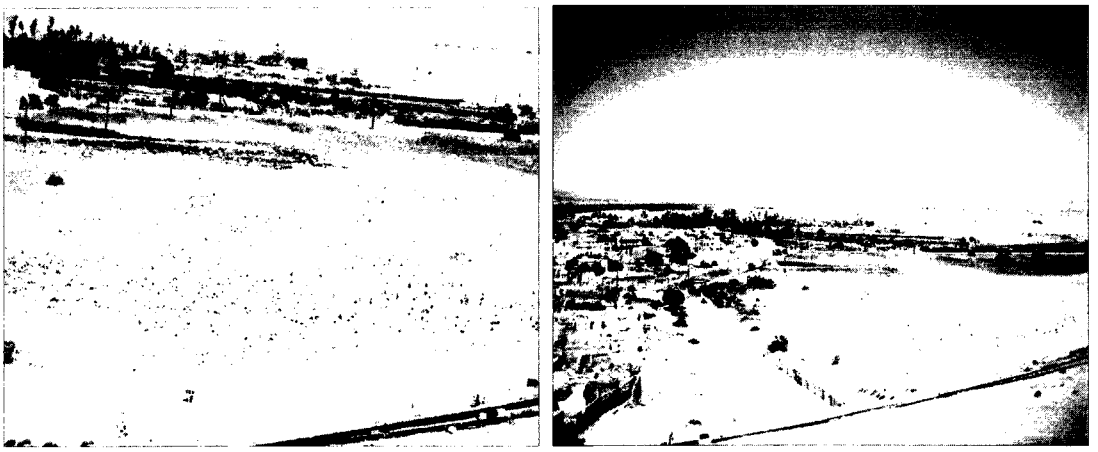

Fig. 5.8. Ghat cemetery.

[55] This very old *mousalla* was also recorded by Erwin von Barry, who visited Ghat in 1876, in his description of the exterior of the town. He indicates that the people use an open area outside the town walls for prayers associated with religious ceremonies. Ghanem, *Al-Almani Erwin von Barry*, 190.

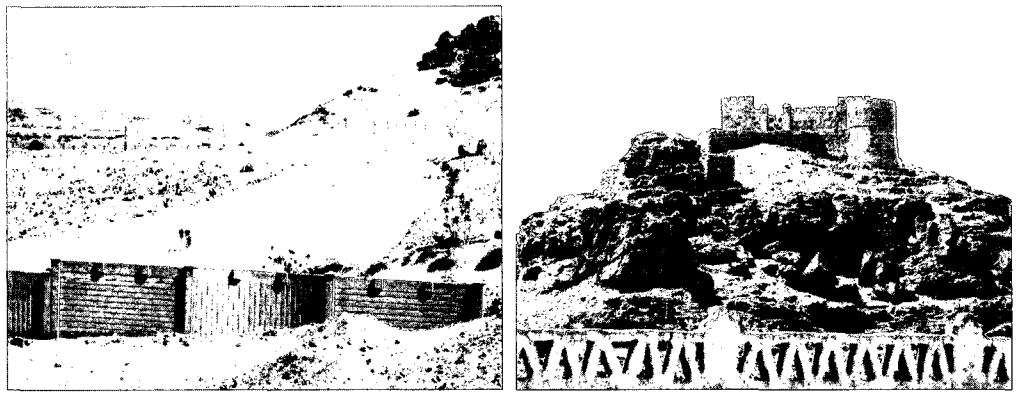

Fig. 5.9. The *mousalla*, located at the foot of Cocaman Mountain crowned with the old Italian fort.

Fig. 5.10. Ghat farms, palm groves, kitchen gardens, and wells.

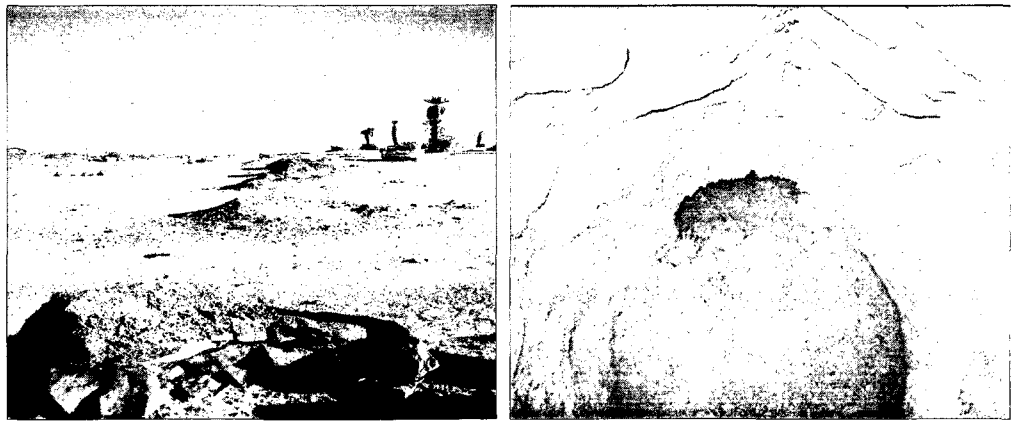

Fig. 5.11. The old local irrigation system (*foggaras*).

Outside the remaining town structure, but within the old town limits, two public buildings stand on the site of demolished old houses, which in the past formed the western part of the *Kel Egef en Kena* neighbourhood. The first was originally a house converted into an Italian *caserma* (military building), but this building's function changed several times during the following (to the Italians) different ruling periods (see fig. 5.12). Currently, it is under renovation to be used as a museum. The second building is a two-storey public building used by *Al-Keyada Al-Sha'biya Al-Igtemaiya* (the Popular Social Leadership authorities). A few meters to the west of this building, in the middle of the triangle that is composed of Ghat and its two suburban villages Tunein and Tadrumt, is an Italian fort which was originally an Othmanian garrison and was subsequently used as a French military camp (see fig. 5.13). Currently, the Italian fort functions as the Ghat police station. Another Italian building, which was the Ghat hospital, stands a few meters from the southern gate named *Tafghaghat*, across the main road (see fig. 5.14). Currently, this building is deserted. Further to the south-west of the hospital is a deserted, partially collapsed Italian electricity station (see fig. 5.15; the existing conditions are further discussed in Chapter 6 section 6.1.4).

Almost 600m to the west of Ghat is Tunein village, and almost 150m from the south gate, called *Tafghaghat*, a small settlement called Tadrumt was built for blacksmiths and the families of the Ghatians' slaves and servants (Tunein and Tadrumt are further discussed in section 5.4). These two residential agglomerations constitute the nearby suburbs of Ghat. El-Feuat, which is 10km west of Ghat, and El-Barkat, which is 8km to the south, form the distant suburbs of Ghat.

Fig. 5.12. The Italian *caserma*.

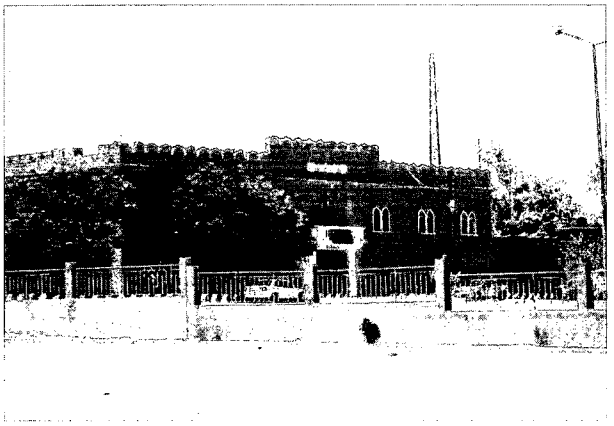

Fig. 5.13. The Othmanian (Turkish) garrison, later the Italian fort.

Fig. 5.14. The Italian hospital.

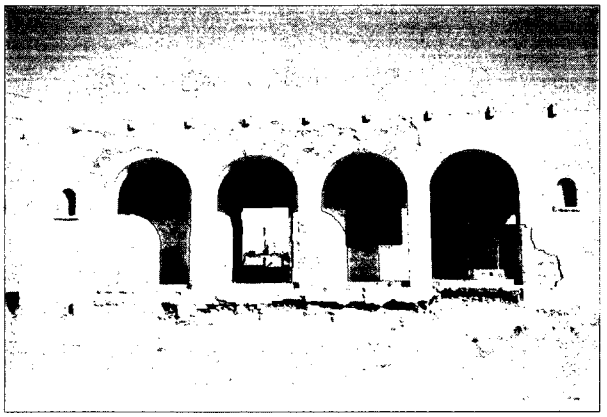

Fig. 5.15. The Italian electric station.

5.3.2 The Population, Number of Dwellings, and Total Area of Ghat

In the period before Italian colonization, the total population of Old Ghat and its surrounding villages and suburbs, as well as the number of Ghat's dwellings, was estimated and recorded at irregular intervals by travelers and scholars.[56] These unofficial old records are more confusing than helpful. This is because of unjustified differences in the records of the population or dwellings, and the incomplete nature of the records of the estimations for the different years, which mainly provide either the population or the dwelling numbers, but not both. Moreover, in the absence of records of the average family size over the years, the population estimates, which are based on the number of dwellings, or the reverse (estimates of the number of dwellings based on the population), will be inaccurate (see table 5.1). Furthermore, the population of Old Ghat temporarily increases by up to 1000 inhabitants during the season when caravans arrive,[57] which could also lead to false estimations by some travelers. In addition, in several cases the census did not state clearly whether it was for Ghat the town or Ghat the oasis, which includes other villages and towns. In conclusion, the incomplete information regarding population and dwellings given by travelers and scholars is not enough to provide a clear idea of the changes in the population and size of the town, the extent of the built-up area, the number of dwellings, state of maintenance, and the living conditions in the period before the Italian colonization of the town.

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[56] Oudney, "Excursion to Westward of Mourzuk," lxvii; Barth, *Travels and Discoveries*, 204; Duveyrier, *Les Touâreg du Nord*, 270; L. Hugo Grothe, "Tripolitanien und seine Zukunft als Wirtschaftsgebiet," *Geographische Zeitschrift* 4 (1898): 546; Krause, "Aufzeichnungen":323; Muhammad Ibn Uthman Hashaishi, *Voyage au Pays des Senoussia à Travers la Tripolitania et les Pays Touareg*, trans. V. Serres et Lasram (Paris: Challamel, 1903); Abd-Elkader Jami, "Ghat and its Surroundings," *The Geographical Journal* 33, no.3 (March 1909): 173; Gardel, *Les Touareg Ajjer*, 366.

[57] Krause, "Aufzeichnungen": 323. Krause indicates that there were 560 dwellings in Ghat, not counting its suburbs Tadrumt and Tunein, and estimates the average family size to be six. Based on these numbers, he estimates the population of Ghat to be 3360. This estimation, he says, does not include the many strangers who visit Ghat in caravan market season and who may number 1000 persons. However, Jami estimates the population of Ghat to be 1300. Jami's estimations, if accurate and without typographical errors, shows a serious decrease in the numbers of the town's inhabitants in the 30 years since Krause's estimation. Jami, "Ghat and its Surroundings": 173.

Table 5.1. Various travelers' and scholars' records of Ghat's population and number of dwellings in the years before Italian colonization.

Travelers/Scholars	Year	Inhabitants	Dwellings	Comments*
Walter Oudney	1822	1000	-	The town of Ghat
Heinrich Barth	1850	-	250	The central oasis Ghat
Henri Duveyrier **	1861	4000	600	-
L. Hugo Grothe ***	1877	6000- 8000	-	-
Gottlob Adolf Krause	1881	3360	560	Estimation based on average family size
Muhammad Ibn Uthman Hashaishi	1893	-	600	-
Abd-Elkader Jami	1909	1300	-	The town of Ghat
Gabriel Gardel	1910	3000- 4000	-	Ghat

* When the record does not say clearly "the town of Ghat" the numbers seems to reflect the town of Ghat and its surrounding villages.
** Henri Duveyrier, who arrived to Ghat March 8th, 1861, was not allowed to enter the town and stayed in the nearby Tunein village, as he noted *Les Touâreg du Nord* (1864, p. 274).
*** L. Hugo Grothe (1898, 546) record, which was based on the Othmanian government estimation "Nach einer Schätzung des türkischen Unterrichtsministeriums von 1877," seems to be for Ghat oasis as a whole not the Old Town only.

Compiled by the author from various records.[58]

Although during the various ruling periods Ghat was either a distinctive territory historically and geographically controlled by the *Azjer* Tuareg or a separate administrative division that included other towns and villages besides Old Ghat, it has been studied historically and geographically as part of the various studies of Fezzan region during the Italian colonization period as well as in recent years.[59] However, to my knowledge, none of these studies has provided a complete demographic history or comprehensive official housing statistics of Old Ghat including, for example, changes in the average family size, dwelling typology, numbers, and living conditions. Such an account, if it had existed, could have shown changes in the number and structure of the population, as well as in the town's size, that would have helped in telling a more accurate story of this town's development.

[58] Oudney, "Excursion to Westward of Mourzuk," lxvii; Barth, *Travels and Discoveries,* 204; Duveyrier, *Les Touâreg du Nord,* 270; Grothe, "Tripolitanien und seine Zukunft": 546; Krause, "Aufzeichnungen": 323; Hashaishi, *Voyage au Pays des Senoussia,* 153; Jami, "Ghat and its Surroundings": 173; Gardel, *Les Touareg Ajjer,* 366.

[59] If there are any, French records are not accessible. According to the Planning-Surveying Department in Tripoli-Libya, the French government refused to hand in any records of Libya.

Emilio Scarin, who visited Ghat in 1932 and in 1934, provides important (though not comprehensive) records of Ghat's population and dwellings as well as the total area of Ghat during the period of Italian colonization. Scarin, who was the first to make a housing survey and draw accurate maps of Ghat, indicates the maximum length of the town to be about 350m, and its maximum width about 210m.[60] He states that the total population of Ghat slightly exceeds 500 inhabitants, and including the residents of the village of Tadrumt the total population amounts to 700 inhabitants.[61] This means that the population of the village of Tadrumt reached almost 200 inhabitants. However, according to Corrado Gini, the population of Ghat, including Tadrumt, was 962 in 1931 and 1009 in 1936.[62] Based on his survey in 1934, Scarin states that the total area of Ghat at that time was 53,000sqm, of which 48,000sqm constituted built areas and 5000sqm constituted open spaces (squares and streets; see Appendix XIV). He adds that the shops, mosques, demolished dwellings, unoccupied dwellings (either because its inhabitants had died or because they were away) and the municipality *Baladya* constituted 2000sqm of the built-up area, while the *caserma* area constituted 2500sqm of the built-up area. The remaining 43,500sqm were for residential use, composed of 227 dwellings unequally distributed over 16 neighbourhoods.[63] Comparing the dwelling numbers with the 1850 record by Barth, the number of dwellings decreased from 250 to 227. This reduction occurred because of the collapse of several dwellings. According to Haj Ibrahim Abdarrahman Al-Anssari, Ghat was flooded in 1934, which caused the fragile mud structure of several dwellings to collapse.[64]

Based on the above numbers, Scarin indicates the average dwelling size to be 190sqm.[65] However, my observations suggest that this average is misleading. Ghat dwellings vary greatly in size, and a simple average does not adequately represent the distribution of dwelling sizes from very small to quite large. Scarin also calculates the residential density (by dividing the total population of Ghat by the total residential area)

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[60] Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat": 26.
[61] Ibid.: 27.
[62] Gini, "Condizioni Demografiche," 411.
[63] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 28, 29.
[64] Ibrahim Abdarrahman Al-Anssari, sheikh of Tunein and the Al-Anssari families, interviewed by the author, Tunein, 24 July, 2006, telephone interview, Tunein-Montreal, 25 September, 2007.
[65] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 28, 29.

to be one person per 87sqm, and the occupancy rate to be just over two persons per dwelling.

The last demographic data for the old town of Ghat was in 1973. According to the census of this year, the total population of Ghat at that time was 3000 inhabitants.[66] No housing surveys have been done since Scarin's surveys conducted in 1932 and 1934 and published in1937, with the exception of the supposed survey by International Center for Architecture and History of the Mediterranean Studies (CISAM); however, as I stated earlier, as a result of unresolved issues with the Archeology Department in Libya, access to their unpublished information has been denied.

Currently, a great part of the old town has been demolished or has collapsed, and the remaining built structure stands in different stages of deterioration. This makes it difficult to accurately estimate the numbers of existing dwellings, especially taking into account time limitations; however, a rough estimate is that there are currently around 460 dwellings in Ghat (residential neighbourhoods and dwellings will be further discussed in section 5.3.3.2).

5.3.3 The Town's Main Components

5.3.3.1 The Wall and its Gates

The first architectural elements to attract the attention of most travelers to Ghat were the wall and its main gates. The history of the development of these architectural elements can be extracted from travelers' account over the years. Oudney, who visited Ghat with Clapperton for just six days in the summer of 1822, provides a cursory description of the town, starting with its building materials and the condition of its wall. Oudney states that "the town is surrounded with walls, in good repair, formed of sand and whitish clay, that gives a clean and lively appearance to the whole. There is only one gate opening to the east; formerly there were more, that are now blocked up[.]"[67] Hugh Clapperton provides more information in his description of Ghat and its surrounding areas in his travel diary of the same trip in 1822. He says "the town is built of mud & stone and

[66] Cuneo, "Ghat Oasis": 10. As endnoted by Cuneo, his data came from "the 'Italconsult' elaboration (Rome, 1976) that was made for the Ministry of Planning and Scientific Research of the Government of the Libyan Arab Republic: a study that is based on the L.A.R. Population, census, Tripoli, 1973."

[67] Oudney, "Excursion to Westward of Mourzuk," lxvi, lxvii.

walled around the houses kept in good repair and the streets clean – it is about ¾ of a mile in circumference surrounded with high walls having 2 gates one on the south side being walled up – the gate is large and high and in the walls are loop holes for musquetry[.]"[68]

Although Clapperton's observation largely confirms Oudney's account of Ghat's walls and gates, one difference may be noted in relation to gate numbers. Unlike Clapperton, Oudney suggests that at that time there were more than two gates, although some of these were blocked. Neither traveler indicates why the gates were blocked up, or their specific locations, except for the one indicated in the south. Barth, meanwhile, claims that Ghat has four gates, like those in the little town of El-Barkat.[69] These are 'el Chēr' (*Bab Al-Khair*), 'Kelāla' (*Bab Kalala*), 'Tefarh-rhāt' (*Bab Tafghaghat*), and 'Temel-rhāt' (Bab *Tamalghat*).[70]

James Richardson, who visited Ghat from December 15th 1845 to February 6th 1846, states that "The town is walled in with walls not more than ten feet high, but its six gates are miserably weak, and never so closed as to prevent their being opened in the night."[71] Richardson does not indicate the names of the gates or their locations; however, his description could indicate that Ghat had grown in size over the previous quarter of a century, suggested by the increase in the number of gates or the reopening of previously blocked gates. The increase in the number of gates available for use could also reflect an increase in commercial activities, since Ghat was an important Saharan trade center. In addition, the above description might suggest either that those times were peaceful ones, or that security in the town was not fully based on the physical structures of gates. Richardson emphasizes a purpose for the gates other than providing security. He says "No camels or beast of burden are allowed to enter the city gates, all goods and merchandize are carried by slaves in and out."[72] This means that gates were used among other things to control animal access (the exceptional use of some beasts of burden within the town will be discussed in Ghat Street Network and Squares, section 5.3.3.3).

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[68] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 154.
[69] Barth, *Travels and Discoveries*, 210.
[70] Ibid., 260.
[71] Richardson, *Travels in the Great Desert*, 69.
[72] Ibid., 4.

Erwin von Barry, a German doctor who arrived in Ghat in October 9th 1876, provides an somewhat unorganized description of his nine weeks in Ghat.[73] In his dairy, which has been partially translated and annotated in *Al-Tabeeb Al-Almani Erwin von Barry 1877-1846 wa Rehlatouh ela Ghat wa Belad Al-Ayer*, von Barry describes the town wall, almost half a century after Clapperton's visit, to be irregular in shape, built of mud, and dark in colour.[74] He goes on to say that the general form of the town has a fortified character, with only a few small doors in the long mud walls surrounding the town. Von Barry, who arrived in Ghat just after it came under Othmanian control in 1875, mentions that all the gates were guarded by Othmanian soldiers, who took the weapons of anyone entering the town and returned them when they left. This indicates that the gates were used not only to secure the town from strangers and to control the entry of humans and animals, but also to prevent violence within the town walls, mainly against the Othmanian soldiers in the Citadel.

Krause provides the most lucid account both of Ghat's built form and its people, in *Aufzeichnungen über die Stadt Chāt in der Sahara*.[75] His information is confirmed as correct by the testimony of Ghatians and my summer 2006 field survey. As I mentioned in section 5.2, although Krause never visited Ghat, he was the first to draw an accurate diagrammatical site plan of the town (see fig. 5.16).[76] Thirty-one years after Barth's visit, Krause provides the same description of the location and names of Ghat's gates. According to his description, Ghat is surrounded by an irregular brown wall with four gates[77] opening approximately towards the cardinal points.[78] These main gates are: the northern gate, called 'Emi (Bab) el Chēr' (*Bab Al-Khair*), the eastern gate, called 'Emi Kalāla' (*Emi Kalala*), the southern gate 'Emi Tafáchachāt' (*Emi Tafghaghat*), and the

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[73] Von Barry traveled from Ghat to Mehro Vally in the Hoggar lands between October 22th and November 11th 1876. He stayed in Ghat from November 11th 1876 to January 6th 1877. He then traveled from Ghat to Ayr, where he was robbed and faced a lot of difficulties in his trip. He came back, exhausted, to Ghat on October 3rd 1877. The next day he was found dead in his bed, and was buried in the town.

[74] Ghanem, *Al-Almani Erwin von Barry*, 79, 80, 83.

[75] Krause, "Aufzeichnungen": 266-337.

[76] Krause, *Proben der Sprache von Ghat*, appendix.

[77] The word 'gate' in Arabic is *bab*; in the Tuareg language *emi*; and in Hausa *koufa*. The literature commonly refers to *Al-Khair* gate as *Bab Al-Khair* rather than as *Emi Al-Khair*.

[78] This has been translated into Arabic, in Ghanem, *Al-Almani Gottlob Adolf Krause*, 101. My description of Krause's account is based on a translation of his records by Imad Al-Deen Ghanem unless indicated otherwise.

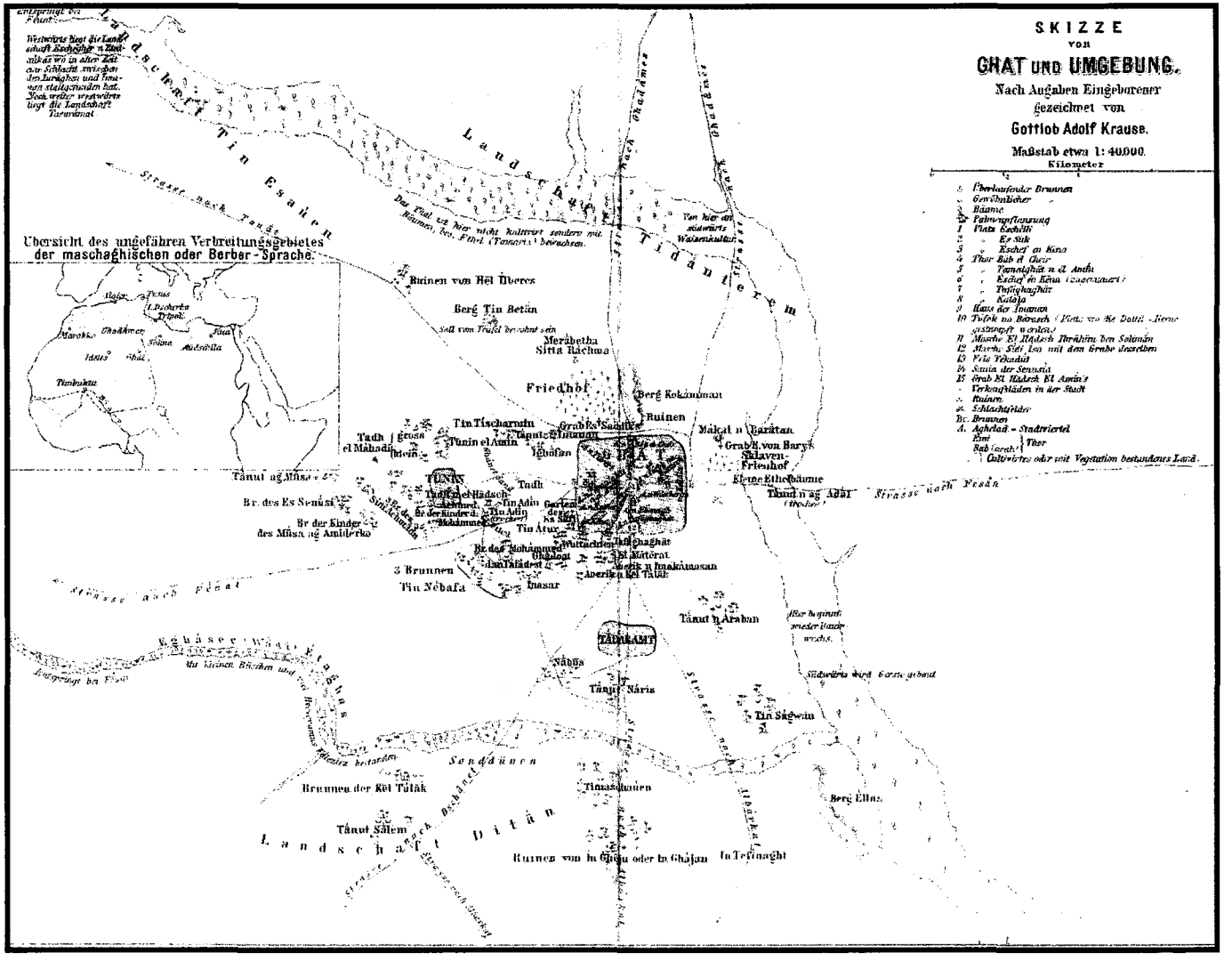

Fig. 5.16. Ghat site plan.
Reproduced from Krause (1884, appendix).

western gate 'Emi Tamalchāt n Lamîn (el Amîn)' (*Emi Tamalghat en Lamin*).[79] Krause refers to another gate called 'Emi Eschef én Kĕna' (*Egef en Kena*) located between the western and southern gates and opening onto a street that leads to *Aishelly* Square; however, he says that it was closed up at the time he was writing.[80]

The names of the gates persisted over the years; the only change being the name of *Bab Al-Zawiat* or *Al-Zawia*, which was formerly called *Bab Tamalghat en Lamin*. According to the people of Ghat, these gates were either named after important tribes or families that inhabited the neighbourhoods where the gate is located (such as *Kel Tafghaghat* and *Kel Kalala*) or an important building close to the gate, such as *Zawiat Al-Amin Al-Anssari*,[81] formerly called *Al-Zawia Al-Sanussia*. In the case of *Bab Al-Khair*, its name stems from its meaning. *Bab Al-Khair* is an Arabic word meaning 'the door or gate of goodness,' and also 'abundance and opulence.' According to Rajab Othman Al-Masrī and Al-Sanussi Goudya, the name *Bab Al-Khair* is a metaphor intended either to reverse a gloomy image right outside the gates (i.e., the cemetery), or to reflect a positive image represented by the abundance the caravans will bring from the north, as will be explained next.[82]

In 1909, Abd-Elkader Jami added another layer of information about Ghat's built structure and its gates. He states:

> The enclosure which now surrounds the actual town has not been constructed expressly for purpose of defense, but is formed in great part by the exterior walls of the houses built side by side, all the small streets being stopped up by walls. There are four principle gates, each protected by small towers and casemates. The caravans from Tripoli and the Sudan stop outside the largest gate, called the Bab-Tfaguet [*Bab Tafghaghat.*][83]

Based on Jami's description, it appears that there is a relationship between the location of the gates and the caravan routes. Based on my field observations and the

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[79] Krause, "Aufzeichnungen": 288. *Emi Tamalghat en Lamin* later changed to *Emi Al-Zawiat* or *Emi Al-Zawia*, while *Tamalghat*, which in the Tuareg language means 'the back door,' began to refer to a secondary southern gate, originally just a back door used by servants, but later a means of access to the town used by everybody.

[80] Ghanem, *Al-Almani Gottlob Adolf Krause*, 110.

[81] *Al-Amin* is locally pronounced 'Lamin.'

[82] Al-Masrī, interview; Al-Sanussi Goudya, head of the Basic Popular Congress of El-Feuat, interviewed by the author, Ghat, 3, 5 and 8 August, 2006.

[83] Jami, "Ghat and its Surroundings": 171.

people's testimonies, the main gates were oriented towards the caravan routes leading to and from the town, which could mean that commercial activity, rather than defense and protection, influenced the development of the town's urban form and the location of its gates. Historical records lend support to my argument, since these indicate that Ghat witnessed an increase in commercial activities and an improvement in its economic situation during the 17th and 18th centuries, when it was an important stop for caravans of slaves arriving from Africa.[84] In addition, based on Scarin's description of caravan routes,[85] which I have enhanced with reference to statements by former residents of Ghat, the northern gate (*Bab Al-Khair*) opens towards the caravan route leading from Ghat to Ghadames. This route passes close to Cocaman Mountain and crosses the valleys of Uareret, Taharamat, and Tarz Ulli. The eastern gate (*Emi Kalala*) opens towards the pastoral areas of Tanezzuft and the route leading to Murzuk and passing through Amsak and Berjiuj. The southern gate (*Emi Tafghaghat*) opens towards the caravan route that leads to Sudan, passing through El-Barkat and Ten Al-Koum. The western gate (*Emi Al-Zawiat* or *Emi Al-Zawia*) opens towards the route leading to Djanet through El-Feuat and across Tassili Mountain.

The abolition of slavery and the introduction of new paved and unpaved transportation routes during the Italian colonization period ended the Saharan caravan trade and changed the use of these routes (the new routes will be discussed in section 6.1.2.2). This new circumstances tremendously reduced the use and importance of the Old Town gates. The culture of the *Azjer* Tuareg of Ghat was interconnected with their control over their Saharan territory and the trade caravans, which they allowed to pass through their land and which were their major source of income and economy. This was eventually reflected in this town's prosperity and may have influenced its development especially, as we have seen, with regard to the location of its gates.

Social factors, rather than economic ones, could also have influenced the choice of the locations for the gates, since the gates provided access to the largest neighbourhoods inhabited by certain groups. For example, *Kalala* gate, which still stands on the eastern plain, opens onto the largest quarter in the town, inhabited by Ghadamesian merchants. It

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[84] Cuneo, "Ghat Oasis": 7.
[85] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 23-25.

also provided access to surrounding agricultural areas (as is also the case with the gate *Tamalghat*). *Tafghaghat* gate opens towards the nearby village of Tadrumt, where the families of the Ghatians' servants and slaves lived, providing them with easy access to the town. On the other hand, *Bab Al-Zawiat* or *Al-Zawia* provided access for the people of Tunein village, who were once residents of *Al-Zawia* neighbourhood and their leaders in Tunein governors of Ghat.

The town gates vary in size, and the largest is *Bab/Emi Tafghaghat*. It seems that this gate was also the most important. This importance was represented and generated by its focal and crucial location, opening directly towards the main market areas of the town (*Souq Tafghaghat* and *Kaswa)* and leading to the main square (*Aishelly* Square) (squares and market areas will be discussed in section 7.2.2 and 7.2.3).

Moreover, it seems that in Ghat the use of these gates was regulated by prayer times.[86] According to Krause, the southern gate closes after *al-isha* prayer time, which is one and a half hours after sunset, while the rest of the gates closed at sunset. Rajab Othman Al-Masrī, who confirms Krause's statement, adds that "even social visits were controlled by *al-isha* prayer time. There were no social visits after *Isha* prayer time; it is a family time and if the husband is late beyond this time the wife punishes him by closing the house doors and makes him spend the night either at the door or on the town's streets."[87] It seems that in Ghat the traditionally acceptable times for social visits stems from Islamic teaching. According to the sayings (*Hadith*) of the Prophet Mohammed (peace be upon him), no social visits should take place after *al-isha* prayer time. This indicates that in Ghat, *al-isha* prayer times are used not only to time and control visitors' access to the town, but also to indirectly announce the end of acceptable times for social activities and consequently regulate the insiders' movement within the town.

5.3.3.2 Residential Neighbourhoods and Dwellings

1) Neighbourhoods

The residential neighbourhoods of Ghat have gone through a series of transformations over the years. Changes have occurred in their names, numbers, sizes,

[86] Daily prayers are an imperative religious practice for Muslims.
[87] Al-Masrī, interview.

and borders. Krause provides the first record of Ghat neighbourhoods;[88] however, although Krause drew a schematic site plan of Ghat, he did not clearly illustrate the location or show the division lines of the different neighbourhoods that he listed. According to Krause, Ghat consisted of 10 neighbourhoods. Based on his understanding of the Tuareg word *aghelad* as meaning 'neighbourhood,' he used this word in front of the neighbourhood names in his list, with 'en' added to the end of the word (*Agheladen*).[89] However, based on the testimonies of Tuareg people, in this context *aghelad* means 'street,' although this word can be used more generally to describe open, uninhabited or empty countryside (and is therefore equal in meaning to the Arabic word *khala*). According to these testimonies, the 'en' is added to *aghelad* to mean 'for' or 'belongs to.' The local Tuareg also said that both sides of a street (*aghelad*) can belong to an extended family or group of families of the same tribe, or it can represent the dividing line of two neighbourhoods inhabited by different tribes or families. Krause listed the neighbourhoods as organized at that time from north to west and from south to east as follows: "1. Achelād n Bāb el Chēr; 2. Achelād n Tūrērt; 3. Achelād n Tamalchāt n Lamîn; 4. Achelād n Eschef én Kĕna; 5. Achelād n Eschélli Andaran[90]; 6. Achelād n Ebenach; 7. Achelād n Tafàchachāt; 8. Achelād n Wóscherem (vielleicht Wóschéran "das alte Viertel"); 9. Achelād n Kalâla; 10. Achelād n Túfok na Barásch."[91]

In 1934, Emilio Scarin drew the first layout plan of the Old Town of Ghat and its different neighbourhoods. He provided a more detailed account of Ghat and its neighbourhoods in his 1937 publication "L'Insediamento Umano nella Zona Fezzanese di Gat."[92] According to his surveys conducted in the years 1932 and 1934, Ghat consisted of 16 neighbourhoods (see Appendix XIV and fig. 5.17). These are 'Kel Aghrém Wesharân,' 'Kel Esheli,' 'Kel Abanâgh,' 'L'Aghalad ne Scet Tbrrakânin,' 'Kel Tekadût,'

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[88] Krause, "Aufzeichnungen." His information is based, as I stated earlier, on information from caravan merchants, and mainly from Haj Othman Ben Omar.

[89] Ibid.: 288. In the original source in German, a*gelad* is written *Achelād.*

[90] Krause noted that the name of this neighbourhood means 'the neighbourhood of the small market.' Based on my fieldwork, I found that in the past, *Aishelly* Square contained two or three small shops (these are now blocked up). These shops were part of the front elevation of the dwellings, which opens onto the square. In other words, the owners of some of the dwellings in *Aishelly* Square used part of the house-fronts as small shops. In caravan season the seating areas surrounding this square were also used as a surface upon which to display merchandize.

[91] Krause, "Aufzeichnungen": 288.

[92] Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat": 22-29.

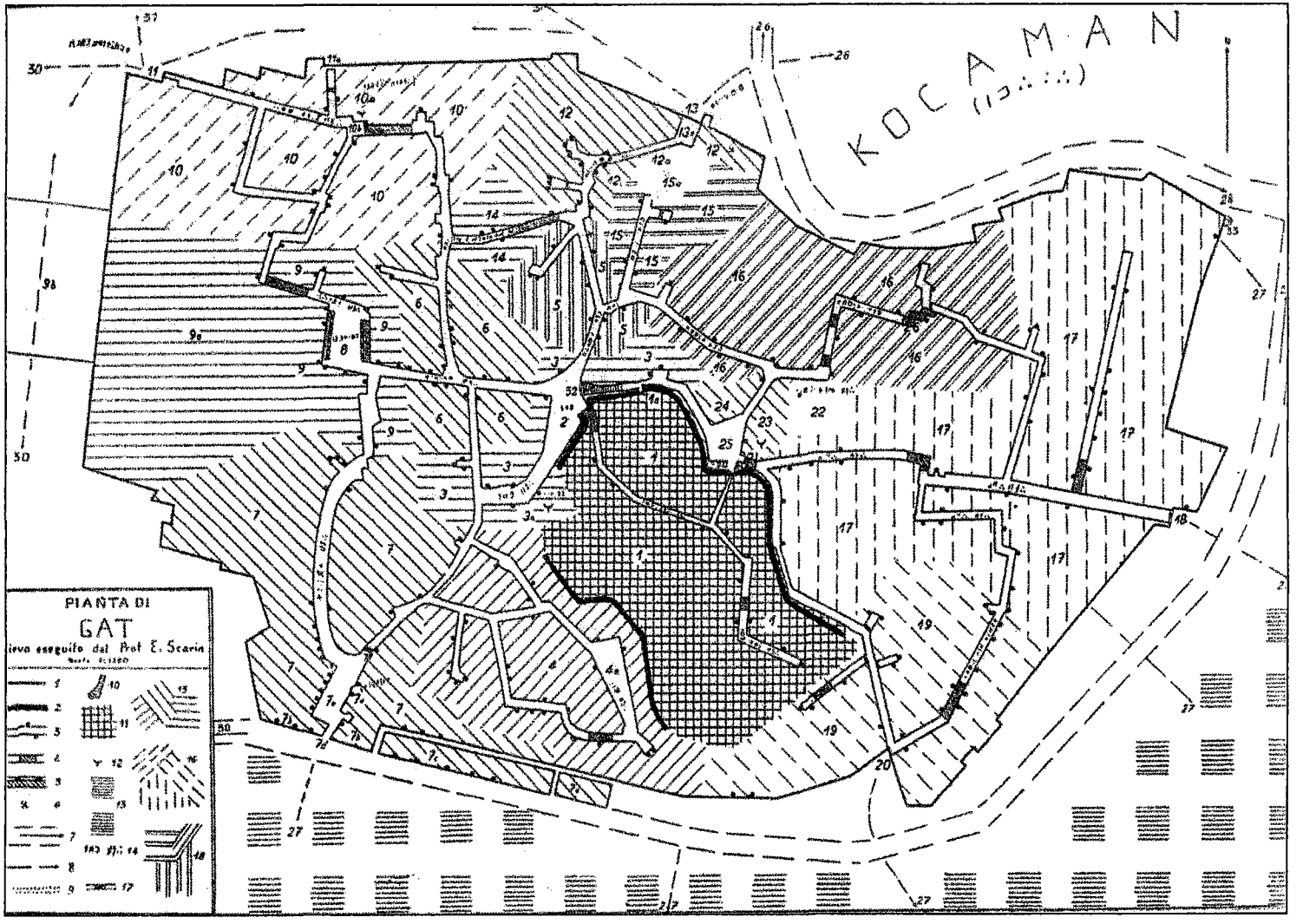

Fig 5.17. Layout plan of Ghat and its neighbourhoods.
Reproduced from Scarin (1937c, appendix).

'Kel Tafghâghet,' 'Kel Egef en Kêna,' 'Kel Abaraqqâ n Ezzâuyet,' 'Kel Bab el Khêr,' 'Kel Ghalad n Elhâjj Omar,' 'L'Aghalad n scet Omar,' 'Scet Turîrt,' 'Kel Kalâla,' 'Tamalghât in Kel Khábsa,' 'Kel Tin Taklîl,' and 'Tafôk n abarâg.'[93]

This increase in the number of neighbourhoods from the time of Krause's list could mean either that Ghat grew in size, as a result of new arrivals or an increase in the existing population (a natural increase seems likely, considering the time elapsed since the last record), or that further subdivision and name-changes occurred in existing neighbourhoods. It is possible that both processes took place. Based on my observations in 2006, confirmed by the testimonies of local people, there are two gates in *Kalala* neighbourhood (the old and new *Kalala* gates) which indicates that the main gate to and from *Kalala* has moved further east, as a result of residential growth on the east side of the town, which is dominated by *Kalala* neighbourhood. The old *Kalala* gate (*Emi Kalala*), which is located beside *Al-Zawia Alkaderia*, still exists as evidence of this growth (see fig. 5.18).[94] This suggests that the first hypothesis of town growth is correct. However, the second hypothesis (further subdivision within the old structure) could also have occurred, either as a result of new arrivals, which is suggested by the presence of new tribal names for neighbourhoods within old areas of the town,[95] or as a result of subdividing neighbourhood lots in order to accommodate newly-weds and extended families,[96] or as a further result of a natural increase in population. A combination of these factors could also have led to the creation of new neighbourhoods. Furthermore, considering the lack of accuracy and consistency in recording population statistics evidenced in table 5.1, it is difficult either to accept or reject the hypothesis of natural population growth (increase in birthrate) in the period between Krause's study and that of Scarin.

[93] Ibid.: 26, 27. The names of Ghat neighbourhoods are quoted as written in the original source.
[94] Scarin recorded both gates in his map of Ghat. Ibid.
[95] In Ghat, it is a common custom to name neighbourhoods after the main family or tribe that inhibits it.
[96] According to the testimonies of Ghatians, if the family house is large enough, it is divided into two in order to create another dwelling to accommodate either a married son or daughter.

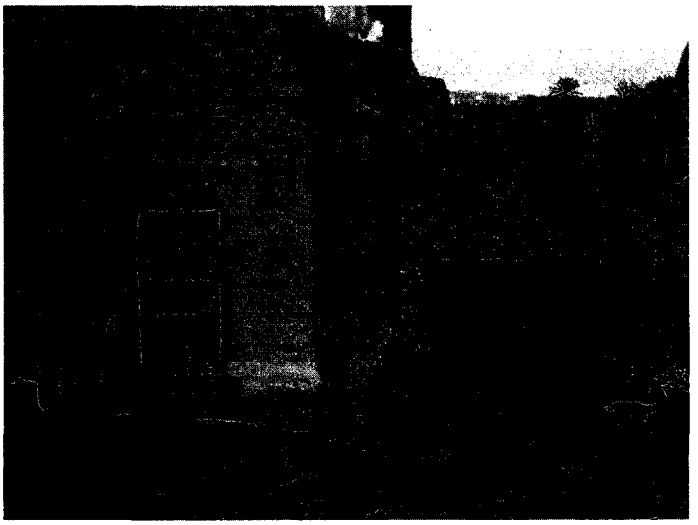

Fig. 5.18. The old eastern gate, *Emi Kalala*.

Ghatian neighbourhoods are not articulated by sharp administrative divisions, and there are great variations in their sizes. Some neighbourhoods consist of just one or two dwellings (for example, *Kel Tin Taklit*),[97] while others are very large (such as *Kalala*). According to Scarin's table, in the year of his visit *Kalala* consisted of 34 newly built spacious dwellings in very good condition, and included several arterial streets.[98] My own observations in 2006 show that the larger neighbourhoods are generally found on the periphery of the town, while around the old core the neighbourhoods are smaller in size and consist of a very small number of dwellings (see Appendix XIV).[99]

Based on my observations, the neighbourhoods' borders have not changed in relation to Scarin's map of Ghat[100] and the updated version by Paolo Cuneo (see fig. 5.19).[101] However, some neighbourhoods have been totally wiped out and many dwellings have collapsed, closing lanes and streets and deforming the townscape. In addition, Ghat officials and some Old Ghat homeowners have blocked off some houses and streets in order to prevent vandalism and intruders, which has made it difficult to access many houses.

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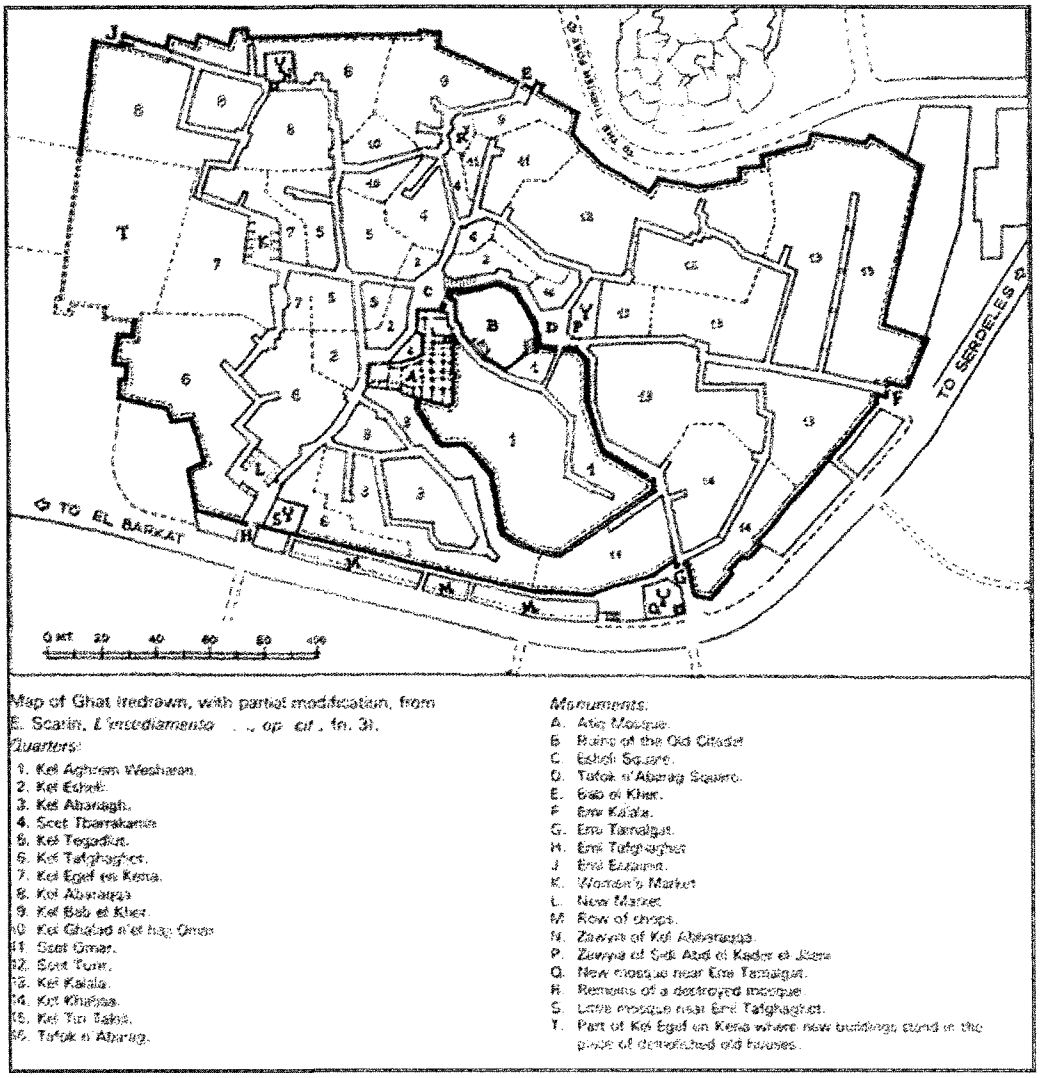
[97] I have spelled this name as pronounced in Hausa because this neighbourhood was inhabited by Sudanese people who spoke Hausa. This neighbourhood is pronounced by the Tuareg *Kel Tchen Taklit*. According to Scarin, it is *Kel Tin Taklîl*. Scarin, "L'Insediamento Umano della Zona Fezzanese di Gat": 27.

[98] Ibid.: 28.

[99] A similar observation is made by Scarin, ibid.: 28.

[100] Ibid.: appendix.

[101] Cuneo, "Ghat Oasis": 9.



Map of Ghat redrawn, with partial modification, from E. Scarin, *L'insediamento . . . op. cit.*, fig. 3).

Quarters:

1. Kel Aghrem Wesharan
2. Kel Echek
3. Kel Abaragh
4. Scet Tharrakamte
5. Kel Tegodin
6. Kel Tafghaghes
7. Kel Egef en Kena
8. Kel Abaraqqa
9. Kel Bab el Kher
10. Kel Ghadad n'el hag Omar
11. Scet Omar
12. Scet Turir
13. Kel Kasala
14. Kel Khabsa
15. Kel Tin Tabit
16. Tofok n Abarag

Monuments:

A. Atic Mosque
B. Ruins of the Old Citadel
C. Eshidi Square
D. Tofok n'Abarag Square
E. Bab el Kher
F. Ere Kasala
G. Ere Tamalgat
H. Ere Tafghaghes
J. Ere Essuna
K. Women's Market
L. New Market
M. Row of shops
N. Zawya of Kel Abaraqqa
P. Zawya of Sek Abd el Kader el Jeni
Q. New mosque near Ere Tamalgat
R. Remains of a destroyed mosque
S. Late mosque near Ere Tafghaghes
T. Part of Kel Egef en Kena where new buildings stand on the ruins of demolished old houses

Fig. 5.19. Ghat and its neighbourhoods in 1978.
Reproduced from Cuneo (1978, 9).

On the other hand, comparing Scarin's list of Ghat neighbourhoods and their location map with the testimonies of Al-Sanussi Goudya, Haj Mohammed Baba Abd Alkarim Engoni, and Haj Mohammed-Al-Mahdi Basheer Abd Elhameed,[102] it appears that the names of some neighbourhoods have changed. For example, *Scet Turîrt* (*Agheladen Turirt*) neighbourhood is referred to now as *Emeze* neighbourhood, *Kel Abaraqqâ n Ezzauyet* is referred to as *El-Zawia* neighbourhood, *Kel Egef en Kêna* is

[102] Goudya, interview; Mohammed-Al-Mahdi Basheer Abd Elhameed, interview; Mohammed Baba Abd Alkarim Engoni, interviewed by the author, Ghat, 3 and 5 August, 2006. Engoni is from *Kel Khabsa*: an indigenous Tuareg tribe living in Ghat.

referred to as *Kaswa* (in reference to the name of the old women's vegetable market which was once in this area), and *Tamalghât in Kel Khábsa* has been shortened to *Tamalghat.*

The origin of the name of *Emeze* neighbourhood, according to Ghatians, is its reference to the existence of the governor's house in this neighbourhood. The Tuareg word *emeze* means 'the one whose job is solving problems,' in reference to the role of the governor in the town. Interestingly, the name of the neighbourhood *Kel Egef en Kêna* has a negative connotation, relating to its poor level of cleanness as a result of the presence of the vegetable market. According to Haj Mahmoud Ali, Ovanight Al-Koni, and Haj Ibrahim Abdarrahman Al-Anssari, the word *egef* refers to a heap of dirt and dead tree branches, open country, or somewhere far away and uninhabited (the Arabic translation of this word is *khala*), while *en Kêna* means 'waste' (mainly domestic garbage).[103] Based on their explanations, it seems either that in the past there was a place close to this neighbourhood for throwing garbage and the vegetable market waste, or that the name derived from the presence of the vegetable market itself and the resulting smell of decaying trash. In a less derogatory fashion the Tuareg word *Tamalghat* refers to the back door of the house, which functions as a secondary door. This suggests that the neighbourhood in which *Kel Khábsa* lived was called *Tamalghât in Kel Khábsa* in reference to the presence of a back door in one of its dwellings, leading outside the town. This door, as testified by Haj Mohammed-Al-Mahdi, was originally a closed door used only by female servants as a short–cut to and from the town, and particularly to this neighbourhood, before the door become a secondary gate called *Tamalghat* gate.[104]

Based on my observations, the old core neighbourhood called *Aghram Washaran* was built on rocky ground that was higher in the north than in the south. *Toughoroft* is located in the higher part. This solid ground was an important reason for the survival of the old core dwellings, in addition to their being built of stone rather than the sun-dried brick of the rest of the town's dwellings. Although *Kalala* neighbourhood is the newest neighbourhood, it was the first to collapse, as a result of the soft clay ground upon which

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[103] Mahmoud Ali, coordinator of the Social Popular Leadership in Ghat, interviewed by the author, Ghat, 30 July and 8 August, 2006; Ovanight Al-Koni, interview (see chap.3, n.106); Ibrahim Bousha Al-Koni, interview (see chap.3, n.53).

[104] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

it is built, which could not sustain rain or water leakage from nearby farm-lands, or flood from the nearby valley (the collapse of *Kalala* neighbourhood will be further explained in section 6.1.4). According to Haj Mohammed Danda, the location of *Kalala* neighbourhood is referred to as *Sakhsar Aman*, which means 'where water rests,' in reference to the natural pools caused by the excess irrigation water from the farms or from floods. In Hausa, this neighbourhood is called *Bayen Qura*, which means 'behind the town,' in reference to being built after the old core and at its back.[105]

Based on my interviews with former resident of Ghat, the town neighbourhoods were inhabited by groups of people of different origin and descent. According to Haj Mohammed Baba Abd Alkarim, the neighbourhoods were classified into two gendered categories.[106] The names of neighbourhoods classified as masculine start with the word *kel*, which in Targian means 'the family of or the sons of,' while the names of neighbourhoods classified as feminine start with the Targian word *shet,*[107] meaning 'the daughters of.'[108] Based on Scarin's map of Ghat, these two groups (*kel* and *shet*) marked their areas of agglomeration by writing the family or tribal name on the streets in *Tifinagh*. Generally, the tribal groups in Ghat were blended and mixed, as were the *kel* and *shet* groups; however, some concentrations of particular ethnic groups can be distinguished in the town's built structure. According to my interviews of former residents of Ghat, the Ghadamesian merchants' families dominated the eastern neighbourhoods,[109] while the families of Tripoli merchants dominated the western neighbourhoods (see fig. 5.20).[110] The north-eastern neighbourhoods were inhabited by black (mostly Sudanese) people who spoke Hausa, as is evident in the street names (streets will be discussed next), while the north-west was inhabited by the indigenous

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[105] Mohammed Danda, interview.

[106] Engoni, interview.

[107] Spelled in Italian by Scarin as *scet*.

[108] The masculine and feminine classifications were also been noted by Scarin, in "L' Insediamento Umano della Zona Fezzanese di Gat": 26.

[109] This group agglomeration was also noted by Al-Dnasouri, in *Goghrafiat Fezzan*, 404.

[110] These two group agglomerations were also noted by Jami, in "Ghat and its Surroundings": 171. He states: "On the eastern side, [...] by the great gate, which still stands, you find yourself on the clayey plain, in the quarter inhabited by the traders of Ghadames. On the western side lies the quarter inhabited by the traders of Tripoli, in which the Zawiat of the Sanussi [*Al-Zawia* Al- Sanussia] was founded forty-five years ago."

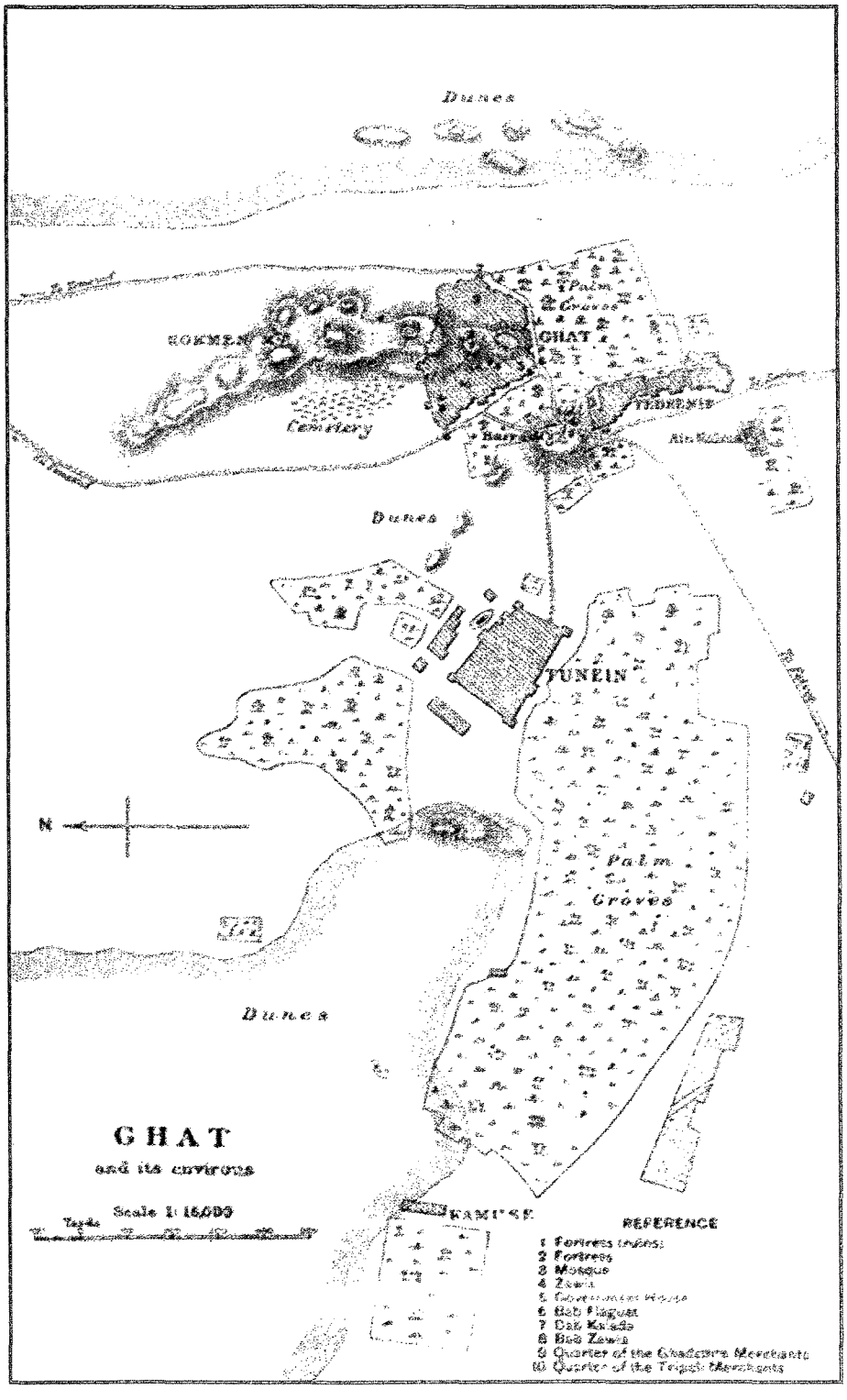

Fig. 5.20. Quarters for merchants from Ghadames and Tripoli. Reproduced from Jami (1909, 172).

settlers (the indigenous Tuareg tribes *Kel Khabsa* and *Almakamaẓen*). Further to the north-west lived the Al-Anssari families, who descended from the *Alijaneen* Tuareg group on the mother's side, and on the father's side were Arabs from Tawàt who originally descended from Arabian Peninsula. The south was in general inhabited by Tuareg tribes such as the indigenous settlers *Kel Talaq* and *Kel Khabsa*.

It seems that number of divisions of neighbourhoods can be attributed to this tribal classification, which is reflected in the urban form by the presence of many divisions for small groups.[111] Ghat's social structure, which consisted of native Tuareg settlers as well as those who came from other oases or cities, influenced the organization of neighbourhoods and the concentrations of different groups in certain areas, as is evident in the particular quarters for Ghadamesian traders and for the traders of Tripoli. However, this did not detract from the compact general town structure and its uniform architecture, or the homogenous urban form of this town, which included private, communal, and public areas (the private, communal, and public spaces in Ghat will be discussed on section 7.1). It appears that the Tuareg culture that was adopted by the different groups in Ghat (as is evident in their sharing of ceremonies, traditional dress, customs, and way of life) played a role in diluting cultural differences between these groups, and formed a common ground upon which the town's inhabitants could unite as Ghatians.

Since a large number of Ghatians were either of honorable descent, property owners, and/or politically influential tribes and families, another classification based on social class existed in Ghat and influenced its urban form. This was evident in the creation of separate quarters for servants' families and blacksmiths (*inadhen*) outside the town walls in a village called Tadrumt, while limited numbers of slaves (*iklan*) and servants (*attrah or attree*) lived within the town walls. The singling out of these social groups can be attributed to the Tuareg social structure, which does not count slaves and servants as either a class or a caste, and in particular considers the blacksmiths to be a lower class with no political influence, who should not be mixed with socially (for further information on the quarters of this social group see section 5.4.1). On the other hand,

[111] Based on Ghat's population and the number of neighbourhoods, Scarin indicates the average number of inhabitants per neighbourhood to slightly exceed 30 persons. However, when one considers the great variations in neighbourhood sizes and the number of dwellings in each neighbourhood, this number, which is based on Scarin's records of Ghat neighbourhoods and its dwellings, is misleading. Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 27, 28.

although servants and slaves were not privileged enough to be considered a class, those who lived with their masters in the town were considered, as I stated earlier, part of the masters' family, and their children were raised with the masters' children.

2) Dwellings

Over the years, travelers have provided accounts of Ghat dwellings that are sometimes complimentary and at other times contradictory to each other. These records could shed light not only on the building materials used and dwelling conditions in the past, but also on the architectural elements that have survived until today. Oudney, who visited Ghat in 1822, provides a brief description of the state of the town's houses and mosques, claiming that they are "neat and clean; and the mosque, finer than anything of the kind in Fezzan."[112] A similar observation was made by Clapperton in his diary of the same trip.[113]

Richardson, who spent longer in Ghat than Oudney and Clapperton, contradicts their comments on dwelling conditions. His statement was made 20 years after theirs, and describes more of Ghat's dwellings, its building materials, and its architectural elements. He states:

> Houses in Ghat have but a wretched appearance, and are as wretched within as without. They are not white washed, or clean and bright and shining as Moorish houses of the coast, and though the city is surrounded with stones, and lime is procurable, they are nearly all constructed of sun-dried bricks and mud. A few days of incessant rain would wash many of them down. The wood of construction is, of course, that of the palm. The Desert furnishes no other available building wood. Only one mosque tower deserves the name of minaret. Besides, there is a huge building higher than the rest, but which is inhabited as other houses.[114]

Considering the above description and based on Richardson's notes, which describe Ghat during the caravan season,[115] it appears that the miserable dwelling conditions he describes may relate to overcrowding. This could have been due to the arrival of caravans and merchants and dealers from neighbouring countries or towns, or to

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[112] Oudney, "Excursion to Westward of Mourzuk," lxvi.
[113] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 152.
[114] Richardson, *Travels in the Great Desert*, 69.
[115] Ibid., 39, 193.

the use of private houses for purposes other than living, such as for storage of caravan goods or as a place for selling small articles, especially those brought from Sudan and Aheer.

Richardson claims that the palm is the only wood used for building in Ghat. However, this is not credible, since beside the wood of the date palm, *athel* trees and *barambkh* shrubs were also used for wood, and were even more commonly in use at that time than the date palm, especially in roofing. This is still evident in the town's oldest dwellings in the old core. In addition, palms are valuable trees in the desert and only dead or unproductive palms are cut down for fuel or construction.

In Ghat, the dwellings generally have a humble look and the exterior does not reflect the level of luxury in the interior. In many cases, the town's compact structure does not allow more than one elevation onto the street, and it is common to find a group of dwellings for an extended family opening onto a shared cul-de-sac which permits only the dwellings' doors to appear on the exterior elevation to mark the various dwellings.

Based on my observations, a considerable number of Ghat dwellings are in various stages of deterioration. Some are so damaged that it is difficult to recognize their various domestic spaces, while others have only partially collapsed and their previous conditions can be discerned. However, a significant number of dwellings are still in good condition. Ghat dwellings can be categorized according to whether they have one or two floors. Of these, the one-storey dwelling is dominant in Ghat.[116] Those dwellings with two floors have either one or two rooms, called *soro*, on the second floor, based on the lot size. The second floor may also include an upper kitchen (this is found most frequently in those dwellings built in the old core, as in the case of Haj Mohammed Danda's house in the *Tamalghat* neighbourhood) or some small storage rooms for crops. These may be roofed, as is the case in Haj Mohammed Danda's house, or unroofed, as is the case in the house of Kalthoum Al-Sanussi Abderazeq in the *Kel Bab Al-Khair* neighbourhood. The number of rooms on the second floor depends on need and on the size of the lot. If the lot is large, then the storage rooms will be on the ground floor, as is the case in Al-Shibani's house in the *Kel Aghram Washaran* neighbourhood. Whether they have one floor or two,

[116] The second floors seem to have been added fairly recently since, according to Von Barry, the second floor was unknown in Ghat during his visit. Ghanem, *Al-Almani Erwin von Barry*, 80.

most of the dwellings have small rooms called in local colloquial Arabic *zeribe* (singular *zeriba*) and in Tuareg *azjen* on their roofs for keeping goats or chicken. These rooms could be either roofed or unroofed (dwellings are discussed further in Chapter 7, section 7.2.1).

Ghat dwellings can be also classified into three types according to their building material. Those dwellings built of stone are mainly concentrated in the central old core, characterized by solid rocky ground. These look taller than other dwellings because they are built on the highest part of the hill on which the town has been constructed. Other dwellings are built of sun-dried brick and stone or sun-dried brick only.

During my fieldwork I noticed that the lot size of the dwellings varies greatly, and that in many cases this reflects the social status or degree of wealth of the owner. Large houses were mainly for wealthy merchants, and are found mostly in the western and eastern parts of the town where merchants from Tripoli and Ghadames once lived. However, house size does not always reflect rank. Many dwellings that are quite humble in size and style of construction were owned by the most influential and powerful people in the town. In his description of his visit to Belghasem, the sheikh or governor (*al-hakem*) of Ghat (incorrectly referring to him in his dairy as the 'Sultan of Ghat'), Hugh Clapperton reveals that the sheikh's way of life was quite modest. His personal prestige as the ruler of the town was not reflected either in the furniture or in the organization and function of the rooms. Clapperton states:

> In the afternoon we went in to the town-accompanied by Hatita to see the Sultan. [...] Hatita led the way to the Sultan House. Hatita called it the castle but I saw no difference between it and the other houses in the town-in one of the inner appartments we found the Sultan or Sheikh-seated upon a piece of blue & white striped cotton cloth and a small carpet being spread we were desired to sit down and following the example of Hatita we sat down with as little ceremony as if we had been in our own tent [...] and to give a slight idea of his grandieur the room nex[t] to the one we sat in was occupied by his horse.[117]

5.3.3.3 Ghat Street Network and Squares

Like other old, traditional Arab and Libyan Saharan towns, Ghat is characterized by narrow, winding streets and differently sized squares with various functions. The town

[117] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 138, 139.

is distinguished, however, by the layout of its streets and squares and the connotations of their names, as well as by their uses and users. Ghat has four major radial streets spreading out from the focal square named *Aishelly* towards the town's four main gates, in the approximate direction of the cardinal points. These radial streets are wider (2-3m wide) and less winding than the other streets of the town, and are mainly uncovered. The covered parts of the streets are called *sakaief* in colloquial Arabic (singular *sakiefa*), and *tesajefien* in the Tuareg language. In both languages this means 'the roofed or shaded area.' These covered parts, especially on main streets, usually indicate the location of covered seating areas called locally *as-sakaief*[118] (in colloquial Arabic) or *al-majales* (singular *al-majles*) in formal Arabic. The major seating areas are usually located in the main streets, which open onto squares, or close to mosques, *zawaya*, and market areas, and as far as possible from the neighbourhoods' interiors.

While the Arabic terms *as-sakaief* and *al-majales* are both used in Ghat to refer to seating areas, the word *sakaief* cannot be used to refer to uncovered seating areas. Based on my linguistic analysis of the etymology of these words, the roots of the word *sakaief* are in the term *sakf* or *maskouf*, which means 'roof' or 'roofed,' in terms of being covered and sheltered, in this case from the hot sun. On the other hand, the term *al-majales* can refer to both covered and uncovered seating areas. The root of the term *al-majles* is in the word *jelos*, meaning 'to sit' (*jalasa*: meaning 'sat' and *yajles*: meaning 'sitting'). The platforms on which people sit in these *majales* is called *jalsat* (singular *jalsah*, meaning 'seat' or 'seating area'). The term *al-majles* also signifies a gathering of people, whether a social gathering or a legal or political assembly, for example, *majles al-qadta*, meaning court assembly.

The most famous covered and uncovered seating areas are located at *Al-Atiq* mosque, where they are attached to the wall of its Qur'anic school, *Aishelly* Square, *Bab Al-Khair*, *Zawiat Al-Amin Al-Anssari* (formerly *Al-Zawia Al-Sanussia*), and *Bab Tafghaghat*. *Al-majales* are used exclusively by men for resting, sleeping, or gathering with male friends, neighbours or relatives. On certain occasions only, such as Islamic religious ceremonies and festivals, women are allowed to use seating areas located in

[118] The word *sakaief* or *as-sakaief* (singular *sakiefa*) is spelled here as pronounced in local colloquial Arabic. In formal Arabic it is spelled *saq'ef* (singular *saqiefa*).

squares (the town square and *al-majales* will be further discussed in Chapter 7 section 7.2.2.1).

From the town's radial main streets stems a network of much narrower and winding streets and lanes, which are mostly covered, as well as culs-de-sac. I observed no clear hierarchy in the streets penetrating Ghat neighbourhoods; however, the narrowest streets are found in the northern parts of *Kalala* neighbourhood. The most famous and the longest narrowest street in *Kalala* is *Ingwa Dafou*, which means, in Hausa, 'the dark street.' It is located in the areas inhabited by the Sudanese and *attara* (freed slaves, who are a dark-skinned ethnic group), who mainly speak Hausa. This explains why the street is named in Hausa, and signifies this ethnic group's desire to mark their territory and to signal its starting point. This narrow street is mostly covered and its uncovered parts are mostly well shaded due to its narrow dimensions and the shadows of the dwelling walls, which contrast strongly with the bright daylight and explain the choice of its name. Based on my own observations and the testimony of Al-Sanussi Goudya, this street is the narrowest street in Ghat, being less than 1 meter wide in some parts (see fig. 5.21).[119]

Fig. 5.21. *Ingwa Dafou* Street in *Kalala* neighbourhood.

Al-Sanussi Goudya, who accompanied me on one of my visits to this town, told me that as a child he saw in *Ingwa Dafou* musicians carrying *al-doufouf* lined up facing each other in this narrow street during the festivals.[120] He expressed his surprise at how

[119] Goudya, interview.

[120] *Al-Doufouf* is a musical instrument like a drum held close to the face with one hand while the other beats it.

this tiny space accommodated such an activity, and the only explanation he offered was that "the feeling of the narrowness was in the real space, but not in the people's hearts and minds that at those moments was full of happiness and joy."[121] This indicates the role of people's feelings in their perception of space, and in particular the way that times and occasions make the most challenging spaces usable for particular purposes for long or short periods.

Other important streets are those leading from *Aishelly* Square to *Tafouk Nabaraj* Square in the east of the town, where the famous *zawia* called *Alkaderia* is located. The first is called *Tefasanawen*, which in the Tuareg language means 'the stepped street' or 'the street of hills,' in reference to its being formed from widely spaced solid rocky steps carved out of Cocaman Mountain, on which the old core is built. It is necessary to climb up these steps and then down again in order to reach *Tafouk Nabaraj* Square. This street is oriented east-west and totally uncovered. The other main street is a partially covered street called *Tesajefien*, meaning 'roofed,' which includes one of the most famous shaded *majles* in the town, adjacent to *Al-Atiq* Mosque (see fig. 5.22).

Based on my fieldwork, some covered lanes and culs-de-sac in the *Kel Bab Al-Khair* neighbourhood, which lead to a group of dwellings, were not illustrated in Scarin's map. Since according to their owners' testimonies these dwellings were built before 1930, they appear to have been overlooked by Scarin.[122]

It significant that Ghat's streets are used only by people. Animals or carts with animals, which could be used, for example, for transportation purposes, were not allowed on the streets, unlike in old, traditional Arab towns in which the streets are built to accommodate the maximum horizontal and vertical dimensions of a fully loaded mature Arabian camel (see Appendix XV). This also differs from African towns built around the same time as Ghat, such as Djenne in Mali, where cows and donkeys are used to drag carts, which are used, among other things, to transport building materials. The only time an animal (a donkey) is allowed inside the town is when cleaning the dwellings' latrines. In that case, the latrine cleaner goes around the town and passes by the houses requiring

[121] Goudya, interview.

[122] Scarin did not pay attention to the different widths of the streets or to their hierarchy in his mapping of Ghat.

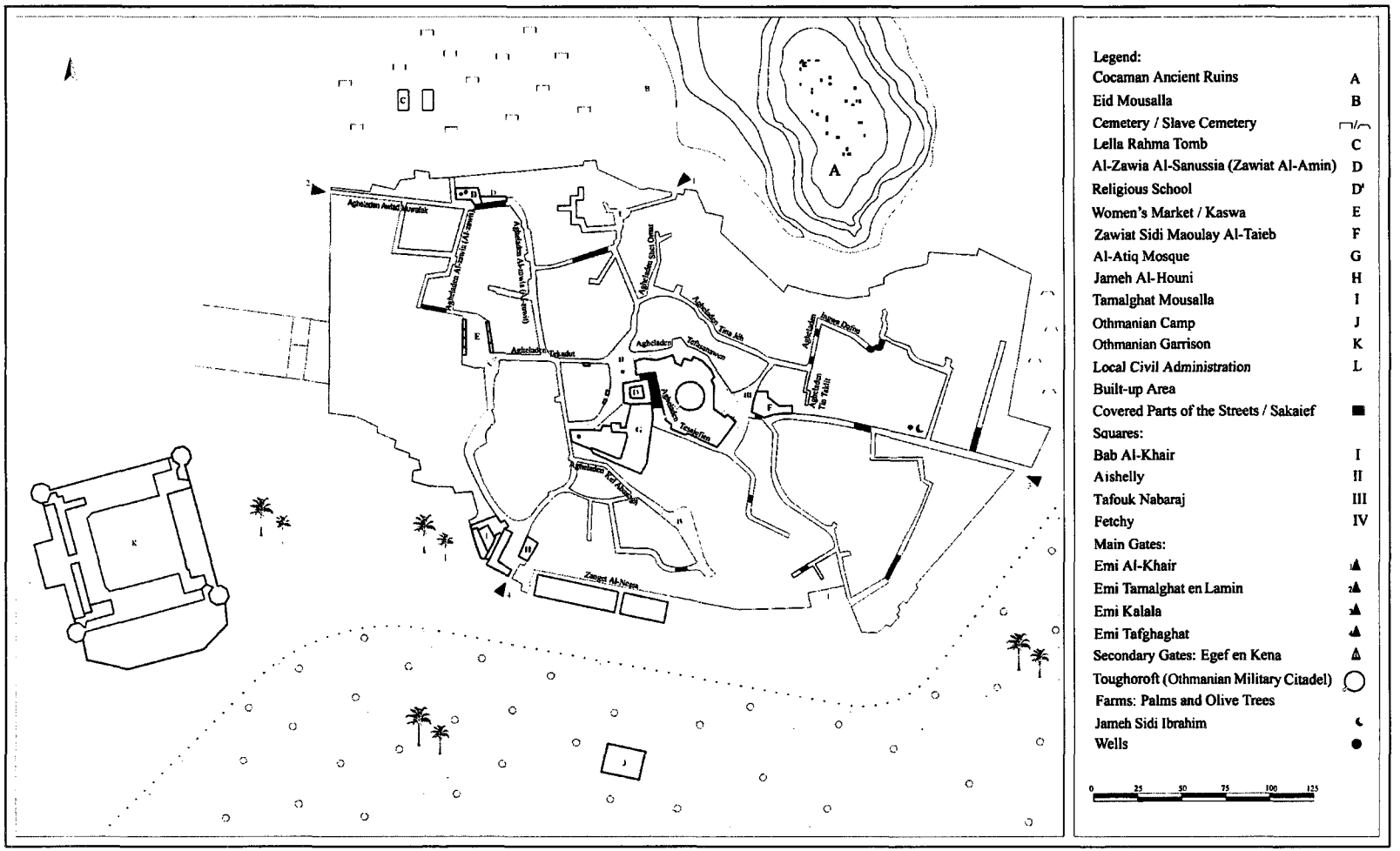

Fig. 5.22. Covered and uncovered streets and lanes.
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20) and FINNMAP Company (1984). Redrawn by the author with modifications based on field and research work 2005-2006.

his services. He transfers the dry human waste to the farms outside the town to be used, after some traditional treatment,[123] as fertilizer.

With regard to street landscaping, Ghat's streets are treeless and bear no sign of any planting. In the past, it seems there were a few palm trees planted in the town. Richardson notes that "two or three palms within the town cast a grateful shadow, and make an angle of the streets picturesque, but no other trees are seen" (plantation of the town streets will be discussed in Chapter 6, section 6.1.2.3).[124]

The harsh hot Saharan environment with its low, infrequent rainfall (it can go up to 10 years without rain) has not only prevented street landscaping, but has also influenced paving techniques. Ghat's streets are entirely paved with layers of sand, which is abundantly available in close proximity to the town without any cost or much effort, as well as being easy to renew in order to maintain the streets cleanliness.

Erwin von Barry notes in his dairy the quietness and peacefulness of Ghat compared to the noise, caused by carts and people, that he was used to hearing as he approached any town. He explains this difference as due to the absence of carts or streets in Ghat, and instead the presence of narrow passageways for pedestrians. He adds that since the ground was covered with sand, footsteps could not be heard.[125]

The streets in Ghat are not gender classified or vertically separated as they are in Ghadames;[126] however, there is one street that was constructed specifically for the use of women only, mostly female servants. This street is called *Zanget Al-Nessa*, meaning 'the women's lane.' It is located behind the commercial strip at the southern gate (*Tafghaghat*) and leads to the secondary southern gate (*Tamalghat*). According to Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, this lane was provided mainly so that women who wanted

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[123] Human waste was treated by covering it with soil for a couple of weeks until it was fully dissolved, before being used as a fertilizer.

[124] Richardson, *Travels in the Great Desert*, 69.

[125] Ghanem, *Al-Almani Erwin von Barry*, 80.

[126] In Ghadames (which, like Ghat, is deserted), all the houses of the settlement are attached to each other by terraces covering the lower streets. This provided the women with a freedom of movement and communication that paralleled that of the men on the streets below. In Ghadames, the dwellings' roofs functioned among other things as upper streets and meeting and visiting spaces for neighbouring women. This thoughtful design gave women the opportunity to meet one another in complete privacy without contravening the traditional segregation of the sexes prescribed by Islamic law. Jamal, "Ghadames,"15; Shawesh and Awotona, "Attitude of Libyan Families," 152, 126.

to access the town through *Tamalghat* would avoid passing by the hustle and bustle of the *Tafghaghat* caravans' central market area, which was a male domain.[127]

5.3.3.4 *Al-Atiq* Mosque

Al-Atiq Mosque is the largest and oldest religious building in Ghat. As I stated earlier (section 5.2), this mosque is believed to have been built almost 1000 years ago. Brief references to *Al-Atiq* Mosque have been made by several travelers and scholars. Oudney describes the mosque as "finer than anything of the kind in Fezzan."[128] Similarly, Clapperton includes in his description of Ghat the claim that the town includes a neat mosque, which is better than others in Fezzan.[129] However, like Oudney, he does not clarify in what sense *Al-Atiq* Mosque is better than the one in Fezzan, describe its appearance or location, and does not indicate the existence of any other mosques in Ghat.[130] Scarin provides the first survey of the mosque in 1937, indicating that the western wall of the old core was demolished in order to build this mosque (see fig. 5.23).[131] He adds that this mosque includes two entrances, both of which, based on my fieldwork, still exist. One opens towards the old core (*Aghram Washaran*) and the other towards the southern end of *Aishelly* Square.

Over the years, *Al-Atiq* Mosque was extended in order to accommodate an increasing number of users. This expansion is evident in the existence of two *mehrabs*. The old one is partially blocked by a short wall, almost 1.7m high, in order, I believe, to prevent confusion with the new one, which is located in the middle axis of the prayer area (see fig. 5.24). According to Haj Mohammed Danda, the Ghatians used to place the old damaged books of the Qur'an (*Al-Msahef*) in the enclosed space created by this short wall. He claims that a kind of insect called an *eradah* eats the Qur'an papers thrown into this hole.[132] Another option in disposing of torn pages of the Qur'an is to burn them. I

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[127] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

[128] Oudney, "Excursion to the West of Mourzuk," lxvi.

[129] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 152.

[130] Neither Oudney nor Clapperton mention the name of the mosque; however, considering that *Al-Atiq* Mosque is the oldest in the town and also the largest and finest, I believe their descriptions were meant to be of this mosque.

[131] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 30, 38-40.

[132] Mohammed Danda, interview.

observed that the short wall blocking the old *mehrab* has a small wooden door which was used in the past to clean the enclosed space of any remnants of the discarded pages.

In his report submitted to the chairperson of the Department of Archeology in Libya, described in section 1.4.2, Khalil Abdel Hadi, the president of the Italian mission of the International Center of Architectural and Historical Studies of the Mediterranean Sea (CISAME), claims to have discovered this *mehrab* during his survey of *Al-Atiq* Mosque in 2002, and that 'absolutely' none of the old records mentioned it because this *mehrab* is not clearly visible. However, this *mehrab* was clearly illustrated by Scarin and is known to the people of Ghat.

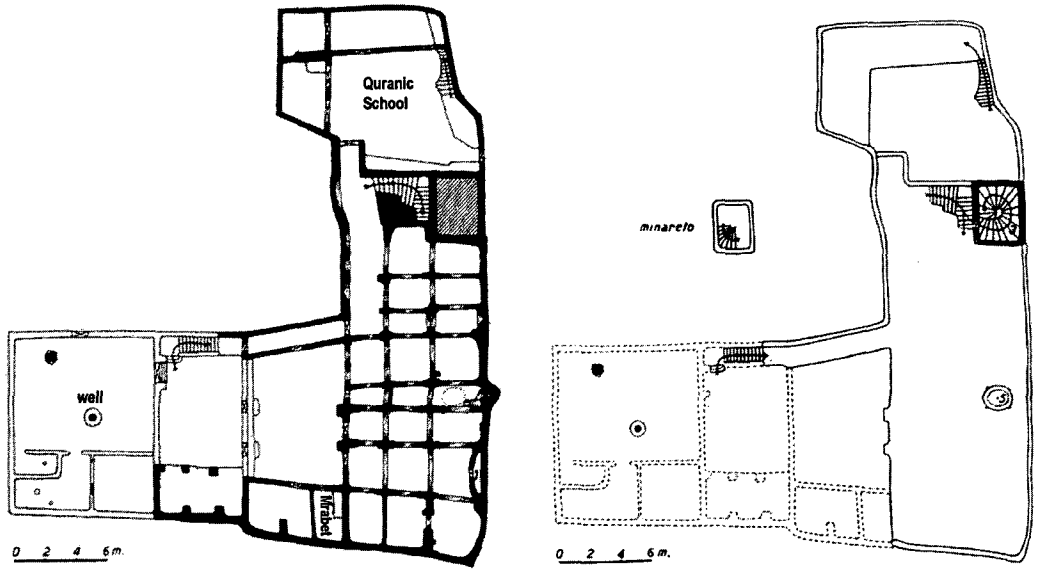

Fig. 5.23. The ground floor and first floor of *Al-Atiq* Mosque. Reproduced from Scarin (1937c, 39, 40).

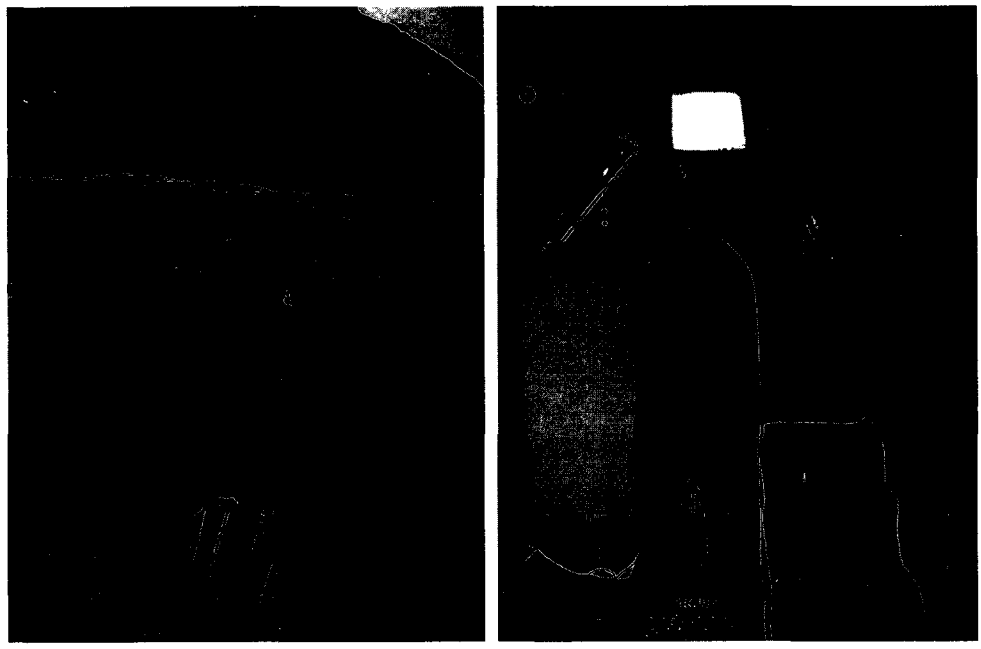

Fig. 5.24. The old and new *mehrab*.

Al-Atiq Mosque includes a Qur'anic school, which occupies the end of its northern wing. The outer side of the eastern wall of this school is attached to the mosque's *sakiefa* or *majles*, which comprises a shaded seating area used as a comfortable waiting lounge for prayer times. Users of the eastern door of this mosque cross the inner court of this school before reaching the prayer area. The other door, which is north-facing and opens into *Aishelly* Square, seems to have been used in early times by outsiders and the mosque guard who, according to Scarin, dwelt inside the mosque.[133] Later, as the town grew beyond the borders of the old core, the use of this northern door increased. After the desertion of the town, this door has been used more often because, according to the testimonies of Ghatians, it is closer to the town's main gate and to the new settlement.

The square minaret of this mosque is similar to that of *Al-Zawia Al-Sanussia*, and in general its architecture is comparable to many other mosques built in Fezzan oasis towns. *Al-Atiq* Mosque is still in use and is well maintained. The open courts on the west of the mosque are now partially covered with metal sheets in order to provide more shaded areas for the users. The well at the western door still exists, but its water is no longer used even for ritual ablutions (see fig. 5.7).

[133] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 38.

5.3.3.5 The Cemetery

Ghat's old cemetery is located outside the town wall. Based on my 2006 fieldwork, the cemetery, which in the past was not walled, is now fenced and extends along the town's north wall. The graves are simply marked with heaps of stones, with the head position marked by a large rock. Only the tombs of the blessed people called *Mrabetin* (singular *Mrabet*),[134] such as those of Lella Rahma, Sidi Abderazeq, and Al-Shareef Mousa Abd Alkarim Al-Tawàti, are whitewashed, in order to signify the people's respect for these individuals and to make the graves easy to recognize for their visitors (see fig. 5.25).

Fig. 5.25. The old cemetery.

Cemeteries are sacred places for Muslims and in Libya, as in most if not all Muslim countries, they cannot be part of a park or used for walking or sitting in as an open space, even if they are so classified academically and presented on national, regional, and local master plans. In addition, Islamic respect for the dead and their remains has influenced the size of cemeteries, and prolonged the duration for which graves are used. In his description of Ghat cemetery, Richardson notes that:

[134] In European records, this word is spelled as *Marabout*.

> The places for burying the dead around the Saharan towns occupy more space than the abodes of the living. This is not surprising, when we reflect that every new grave occupies a new piece of ground, and many years elapse before the old grave is opened to place in it a fresh body. I saw but one grave whitewashed; it was that of a Marabout, the only "whitewashed sepulcher," and, strange enough, it is to denote superior priestly sanctity as in New Testament times amongst the Jews. The rest were small stones heaped up in the shape of a grave, a large piece of stone being placed at the head.[135]

According to the literature, at different periods in the past there was more than one cemetery in Ghat. At various times, there were separate cemeteries for children, adults, slaves, and Christians. Oudney mentions two of these, claiming that the burying-ground outside the town "is divided into two departments, one for those arrived at maturity, the other for children, - a distinction not observable in Fezzan."[136] Similarly, in his travel diary of the same trip in 1822, Clapperton indicates that "in their [the Ghatian's] burials they do not bury the children in the same church yard [no churches have ever been found or built in Ghat. I believe he meant the cemetery] as the grown up people but in a small one close by."[137]

In his sketched site plan of Ghat, Krause indicates the existence of a separate cemetery for slaves outside the town east wall.[138] After the end of the slave trade through the desert, it seems that this cemetery was added to the children's cemetery. During the Italian colonization of Ghat, a small Christian cemetery was established beside the children's cemetery. Now, only the northern cemetery exists.

It is interesting that not only the neighbourhoods of Ghat, but also the graveyards, were divided along social lines. According to Al-Sanussi Goudya, the cemetery was organized so that each tribe had a specific location in which to bury their dead people.[139] For example, Lella Rahma's family is buried close to her, the *Kel Khabsa* are buried in a particular location, and so on. It is possible that this division is due less to social class than to the need for an organizing system to facilitate finding and recognizing particular graves or family burial sites.

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[135] Richardson, *Travels in the Great Desert*, 140.
[136] Oudney, "Excursion to Westward of Mourzuk," lxvii.
[137] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 154.
[138] Krause, *Proben der Sprache von Ghat*, appendix
[139] Goudya, interview.

5.3.3.6 *Al-Zawaya*: *Zawiat Al-Amin Al-Anssari* (*Al-Zawia Al-Sanussia*)[140]

Ghat has several *zawaya*. The most famous is *Zawiat Al-Amin Al-Anssari*, which is located in the western part of the town facing the western gate (*Emi/Bab Al-Zawia*). This *zawia* consist of two parts, old and new. The older part (currently deserted) once functioned as a *zawia*, and was originally called *Al-Zawia Al-Sanussia*. It was established in order to teach Islam in the teaching method of Grand Sanussi, called *Al-Tariqah Al-Sanussia*.[141] *Al-Zawia Al-Sanussia* is almost 200 years old, having been established around 1860.[142] Jami indicates that it was built 45 years before his arrival as governor of Ghat in 1906.[143]

According to Krause, this *zawia* includes two wells;[144] however, based on Ahmed Moulay Ali Al-Shereef's testimony, one of these dried up and was blocked up a long time ago.[145] According to my own observation in summer 2006, there is only one well, which is still in use and is located in the new section, which was built as a mosque (originally this was vacant land attached to the old section). The ground floor of the older section functioned as a space for prayer, and as a school to teach young children how to read and write the Qur'an. It also provided sleeping space for visitors who were strangers to Ghat. The roof of this section includes rooms used by the Qur'anic school as classrooms or as an extra teaching space, as well as a storage space for the wooden teaching boards. This old section is naturally lit through small vents in the walls and roof. Extra light is provided through the building's entrance and roof access doors. These tiny light sources provide a dim light that is enough to see by while keeping the *zawia* teaching and meditating environment cool by comparison to the harsh, hot, bright outdoor

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[140] Locally, the name is pronounced *Zawiat Lamin* (without the 'A') *Al-Anssari*. It is currently called *Zawiat Al-Amin Al-Anssari*, but some people still use the former name, *Al-Zawia Al-Sanussia*.

[141] The double names of the *zawaya* refer to different religious schools. For example, *Al-Zawia Al-Sanussia* refers to the *Al-Sanussia* religious method, called *Al-Tariqah Al-Sanussia*, which was established by the Grand Sanussi. *Al-Qaderia* refers to the *Al-Qaderia* religious method, established by Sidi Abd-Elqader Al-Jaylali. His name is also sometimes spelled Abd-Elkader.

[142] According to testimonies collected in summer 2006 from regular users of the place named Mohammed Mohammed Al-Ghati and Ahmed Mohammed Aya. Mohammed Mohammed Al-Ghati, interviewed by the author, Ghat, 15 August, 2006; Ahmed Mohammed Aya, interviewed by the author, Ghat, 15 August, 2006.

[143] Jami, "Ghat and its Surroundings": 171.

[144] Ghanem, *Al-Almani Gottlob Adolf Krause*, 115.

[145] Ahmed Moulay Ali Al-Shereef, founder and head of the Tunein Heritage Society, interviewed by the author, Tunein, 26 July, 2006; telephone interview by the author, Tunein-Montreal, July 10, 2008.

environment, and at the same time gives the space a spiritual and meditative ambience (see fig. 5.26; see Appendix XVI).

In the old times, the mosques in Ghat were used only for the five compulsory daily prayers and the Friday collective prayers; they were not used for teaching the Qur'an or for the performance of religious chanting songs, called *al-adhkar al-sofiya*, *al-werd* and *hadtrah*. These activities were always performed at *al-zawaya* and were considered one of its main functions. However, this does not mean that prayers cannot be performed at *al-zawaya*. In *Zawiat Al-Amin*, the *mehrab* of the old prayer space can still be seen engraved in the eastern wall of this praying space of the building (see fig. 5.26).

The newer section attached to this *zawia* was built as a mosque (*jameh*).[146] It is connected to the old section (*al-zawia*) by an interior L-shaped passage. Both sections shared a small arched main entrance.[147] The mosque, which was named after its builder, Al-Sheikh Mohammed-Al-Amin[148] Al-Sedeek Al-Anssari, and includes his tomb, expanded over the years. It is still in use, well-maintained, and in very good condition. The carpeted shaded corridors that surround the middle court, in addition to being a space for prayer, are still used as a seating area to read and learn the Holy Qur'an, especially on summer afternoons and before and after daily prayers (see fig. 5.27; see Appendix XVI). Local people now combine both buildings' functions into one phrase when they refer to them, calling them *Jameh Zawiat Al-Amin Al-Anssari*. However, the literature commonly refers to the compound building as a *zawia*, rather than a *jameh*.

Religious education, including learning how to read and write the Qur'an was (and still is for a great number of people) very important in the early years of the child's life in Ghat, especially for male children. People were proud that their children memorized the whole Qur'an. This pride is reflected in their creation of a special area for teaching children boys and girls within the *zawia* walls,[149] which were paid for by donation. The small wooden boards and the remains of the washable, locally made black

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[146] I was not able to discover the exact time the second section was built, but it was most likely built after the arrival of the Othmanians in Ghat.

[147] The old entrance of the *zawia,* which opens onto the covered corridor connecting the old and new buildings, still exists and is always closed. The caretaker opens it only for tourists or researchers.

[148] Mohammed-Al-Amin is a compound first name. Locally, it is shortened and pronounced 'Lamin.'

[149] Generally in Ghat, Qur'anic schools are either individual buildings attached to a mosque, as is the case with *Al-Atiq* Mosque's Qur'anic school, or part of the *zawaya* spaces, as the case of the *Zawiat Al-Amin Al-Anssari* Qur'anic school, or the *Al-Zawia Al-Qaderia* Qur'anic school.

Fig. 5.26. The old section: The rooftop classrooms and storage rooms for wooden boards, roof vent holes, the old prayer space, and the old *mehrab*.

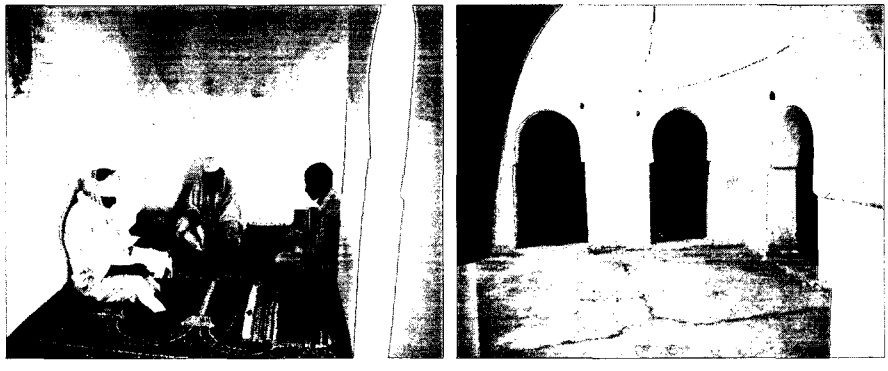

Fig. 5.27. The new section: The mat-carpeted corridors for praying and reading the Qur'an.

ink that were used for learning are still kept in one of the storage rooms on the roof of the old section (see fig. 5.26; see Appendix XVI).[150] They are material evidence of the old methods of teaching, in which individual, portable wooden boards were the best way to utilize small spaces, especially with large numbers of students. In the past, the sandy floors of the classrooms were also used for teaching, since they formed reusable, easy to erase boards.[151] It seems that using sand as a writing board was also common practice among merchants who, according to Richardson, used this technique to make their simple calculations.[152] In the past, the Qur'anic schools functioned night and day, and it seems that the climate was the main factor in the development of these two shifts. Generally, on very hot days, night classes are a better option than afternoon classes. Richardson provides a captivating image of the learning method in one of the night Qur'anic schools in Ghat. His description highlights the importance of religious education to those Saharan people, which has been translated into the development of particular spaces to perform this function. He states:

> In the streets, I pass nearly every evening a Night School, where there is a crowd of children all cooped up together in a small room, humming, spouting, and screaming simultaneously their lessons of the Koran, in the manner of some of our infant schools. This mode of simultaneously repeating a lesson has prevailed from time immemorial in the schools of North Africa. [...] But I never saw before a night-school in Barbary, and look upon this Saharan specimen of scholastic discipline as a novelty. It is probable, in this way, every male child of Ghat, as in Ghadames, is taught to read and write. [...] I observe that the little urchins of this Saharan School use sand in their first efforts to write, As sand abounds everywhere in the populated oases of Sahara, and the people are poor and cannot afford to buy much paper, it is constantly employed instead of paper, pens, and ink, in casting up accounts.[153]

The teaching spaces of the Qur'anic school within the *zawia* were without furniture, and the children sat on the floors. This provided flexibility in using the space. In

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[150] According to the testimonies of local people, this ink was prepared using two different methods. The first was by burning the wool, then diluting the black powder with water before adding natural glue collected from a kind of tree growing around Ghat. The second method is by scraping the black soot from the bottom of clay cooking pots and then repeating the same process. The glue fixes the ink when it dries. At the end of every school day, the children wash these boards so they can be used for another school day.

[151] Generally, smoothing over the sand is a habitual, superstitious practice after finishing writing anything.

[152] Richardson, *Travels in the Great Desert*, 63, 65.

[153] Ibid.

the times when it was not occupied by children, it was used by adults for studying and reading Qur'an, or for the religious enchanting mentioned earlier.

In addition to being the place where religious practices took place (and still take place), *al- zawia* with its *jameh* has a spiritual importance to the town inhabitants. Inside the *jameh*, at its north end, one can still see the small court in which is located the tomb of its first builder, Al-Sheikh Mohammed-Al-Amin Al-Sedeek Al-Anssari (see fig. 5.28; see Appendix XVI).[154] The presence of this tomb increased the spiritual and moral value of this place as an honorable and blessed place (*mubark*). The spiritual significance stems from Mohammed-Al-Amin Al-Anssari's honorable descent. His family descend from Ayoub Al-Anssari, the companion of the Prophet Mohammed (peace be upon him).[155] Ayoub Al-Anssari was himself descended from a well-known family called Bani Al-Najar, who belonged to an honorable Arab tribe called *Al-Khzraj* in the Arabian Peninsula.[156] The mystical value and sacredness of this place is also increased by the presence of small sacks hung on both sides of the *mehrab* (see fig. 5.28; see Appendix XVI).[157] These sacks, which are small and can be carried in the palm of the hand, contain dirt brought from Makka by the people of Ghat who went there on pilgrimages.[158] These sacks, which are believed to bring a blessing (*baraka*) to the *jameh*, increase the spiritual feeling of the people in the praying space, as if they are praying in or close to Makka.

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[154] According to Al-Haj Ibrahim Abdarrahman Al-Anssari, Al-Sedeek Al-Anssari descends from the Arabian Peninsula. He came to Ghat from Tawàt and then got married to a woman from the *Alijaneen*, a Tuareg group, with whom he had three children named Ahmed, Al-Madani, and Mohammed-Al-Amin. His tomb still exists in the old cemetery in Ghat, near Lella Rahma's tomb. Ibrahim Abdarrahman Al-Anssari, interview.

[155] The descendent of the Al-Anssar group, who stood by the Prophet Mohammed (peace be upon him) at the town of Yathreb in the Arabian Peninsula from the beginning of the Islamic call. He was killed at the gates of Konstantinapolis during the Islamic conquest.

[156] *Al-Khzraj* supported Prophet Mohammed (peace be upon him) since the early Islamic call.

[157] The *mehrab* is one of the most important architectural elements in mosques design. It is a recess in one of the interior walls of any mosque that points towards Al-Ka'aba, the Muslims *qebla*, in the holy town of Makka in the Arabian Peninsula. *Al-Qebla* is where the faithful direct themselves in their prayers, as God ordered them in the Holy Qur'an.

[158] Mohammed Mohammed Al-Ghati and Aya, interviews.

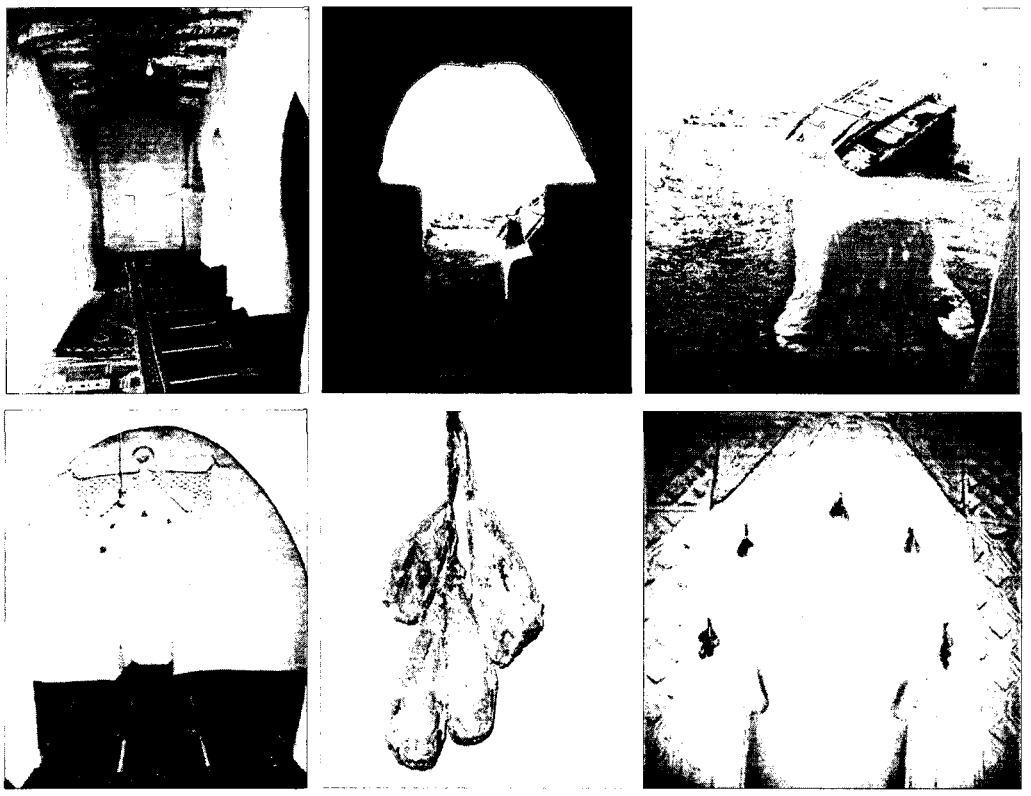

Fig. 5.28. The tomb of Al-Sheikh Mohammed-Al-Amin Al-Anssari, the *mehrab* of the *jameh*, and the dirt sacks.

Another interesting element that can clearly be seen carved on the interior arches of the prayer area of the *jameh*, beside the few ornaments, are prayers and the names of some people. This *jameh* has been extended over the years, and each builder wrote his name on the arches of the extended part of the *jameh*, along with prayers (however, the arches of the middle square court, which are the most recent section, have been left plain of any ornaments or writing). Participation in building or maintaining mosques by any means (donations or personal effort) is considered to be an act praised by God. It gives the participant and his family, for generations to come, great social respect, which explains the keenness of the builders to carve their names.

Although the area on which this *jameh* was built is lower than the rest of the town, its minaret easily articulates its location. The minaret also works as landmark and an indication of the west gate of the town. This vertical element of the *jameh* is used to announce prayer times five times a day, through the medium of a human voice calling to

the faithful.[159] In this sense, the minaret is an architectural element that functioned as a timer uniting the people of Ghat five times a day in one religious practice, inside and outside religious buildings (see fig. 5.29).

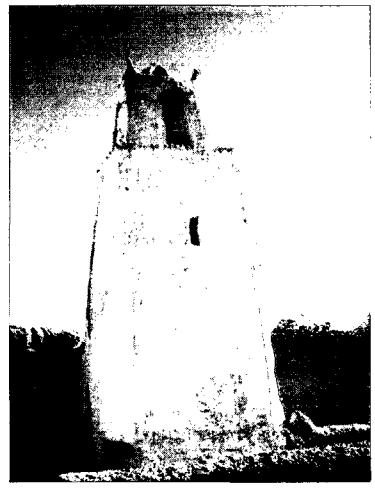

Fig. 5.29. The minaret.

5.3.4 Agriculture and Water Sources

There were two agricultural seasons in Ghat oasis: winter and summer. The main winter crops were wheat and barley, while the summer crop was mainly white corn. There were also some kitchen gardens for the daily requirement of fresh vegetables. Travelers' records over the years show the agricultural development of the town of Ghat. Progress is evident from their records of the different types of agriculture products and the number of wells and springs.

Clapperton's travel records indicate that in the past the town was well supplied with fresh water, which permitted the cultivation of the land around the town. According to Clapperton, "outside the gate is a very copious spring of sweet water which serves to water a great number of gardens and fields without more trouble than making a channel to convey it to them[.]"[160]

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[159] In the past, the caller (*al-mouadhen*) climbed a narrow winding staircase for this purpose. Now, loudspeakers fixed on the top of the minaret are used instead, and the caller need not climb any stairs to perform this job.

[160] Bruce-Lockhart and Wright, eds., *Difficult and Dangerous Roads*, 154.

Richardson was more specific in his portrayal of Ghat's limited agricultural land, products, water sources, and irrigation system, which may relate to his having spent longer in Ghat. He also briefly compares Ghat's irrigation system to those used in the rest of Fezzan and in Ghadames. Richardson states:

> The town is small, and the gardens are also extremely limited; the oasis is comprehended within a circle of not more than three or four miles. The palms are dwarfish, and half of them do not bear fruit, and their dates are of the most ordinary kind. [...] In the gardens, besides the palms, a little wheat, barley, and ghusub is [are] cultivated. There are some fruit-trees, but no vines. Of water there are several large pits, and some warm springs, but nothing approaching to the hot boiling spring of Ghadames. There is, however, one large reservoir, partly surrounded with palm-trees, and the banks covered with rushes, except where the people go to draw. The whole of this is enclosed within walls. Water apparently oozes from a great extent of surface. The water itself is of the first quality, and is said not to produce bile or fever. The irrigation is the same in principle as that of Ghadames, but slaves are employed to draw up the water, whilst animals are used in Fezzan, and in Ghadames the water runs itself into the gardens.[161]

In his account of Ghat in 1881, Krause provides three lists of water sources in Ghat, which amount to 29 springs and 63 wells. He classified them into three levels: wells and springs close to Ghat; wells and springs far from Ghat; and dry wells and the wells inside the town walls. The wells inside the town walls were distributed so that two were located in the *Al-Zawia Al-Sanussia* and one at *Jameh Sidi Essa*, while another was located in a house to the south-east of the latter.[162] However, Krause does not refer to the well of *Al-Atiq* Mosque or the dry and blocked-up well in *Aishelly* Square, which could mean that they were dug some time after he wrote his narrative.[163] Krause based his classification largely (though not totally) on the text written by Haj Othman Ben Omar. A review of the original script has revealed that the list of dry wells and the wells inside the town were not documented by Haj Othman Ben Omar. This extra information could have been given to Krause verbally by Haj Othman Ben Omar, or Krause could have collected it from different sources, perhaps including merchants.

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[161] Richardson, *Travels in the Great Desert*, 68-70.

[162] Ghanem, *Al-Almani Gottlob Adolf Krause*, 110-115.

[163] In regard to the well of *Al-Atiq* Mosque, another reason could be that *Al-Atiq* Mosque was named at that time *Sidi Essa*. This assumption will be further explained in the next chapter.

Like Clapperton and Richardson, Krause describes the agricultural product of Ghat. He claims that the main agricultural product in Ghat is dates, and he lists its different types and names. Next, he claims, are wheat and barley. He also mentions other agricultural products such as oranges; however, he maintains that these varied products had no impact on the town's economic situation.[164]

In 1909, Jami listed more fruit trees which are not commonly grown by the people or part of their inherited agricultural tradition. According to Jami:

> The gardens of Ghat, watered by the large spring of Teheut [I believe he means *'Ayn Ghat*, called *Ṭeid* or *Ṭet*; طيد or طيت], contain palm, orange, lemon, apple, apricot, peach, and pomegranate trees. There are also several wells whose water stands at 12 to 15 feet below the ground, and which are used to water the plantations of wheat, barley, millet, maize, and various vegetables, the water being drawn up by means of a pulley by one of the humped Sudanese cattle or a Janet donkey.[165]

This indicates not only an increased knowledge of the cultivation of different trees, but also an interest in agriculture, as well as trading, as a source of income and self-sufficiency for the people of the town. According to the testimony of Ghatians, more types of fruits such as grapes were introduced later by the Italians, mostly for their own use. However, in the case of the grapes, at least, these were not of such good quality as grapes grown on the coast.

5.3.5 Gender and Property Ownership: *Hebs*

Ghatian society adopted Tuareg culture, customs, and social system in many ways. The Tuareg have a matrilineal society, in which succession and inheritance take place through the mother's family. For the Tuareg, if a *Targee* (Tuareg man) is married to a *Targia* (Tuareg woman), their children will be Targian (i.e., will belong to the Tuareg group), but if he is married to an Arab woman their children will be Arabs. If a Targian woman is married to a non-Tuareg, her children will be Tuareg. In other words, the child inherits his mother's social status, even if he takes his father's family name. With regard to wealth and property ownership, the Ghatians followed precisely the Tuareg tradition regarding laws of inheritance, in which women, rather than men, are the hereditary

[164] Ghanem, *Al-Almani Gottlob Adolf Krause*, 110, 115-118.
[165] Jami, "Ghat and its Surroundings": 173.

owners of property. In Ghat, a great number of houses are possessed by women. Usually, houses are given to women on the day of their marriage. They may be given them by their parents, or inherit them from relatives or friends. Rajab Othman Al-Masrī maintains that "In Tuareg society woman is always the one who inherits the wealth because she is always home and not on continuous travel as are the men. A traditional proverb frames this social reality: when you get hungry go to *khalk* (your uncle on your mother's side) and when you want protection go to *ammak* (your uncle on your father's side)."[166]

In the past, a woman would inherit her family wealth in the form of what is traditionally, and in *sharī'ah*,[167] known as *hoboss* (singular *hebs*). *Hoboss* can refer to lands, dwellings, farms, or jewels. *Hebs*[168] is inherited from one generation to another and in Ghat most, if not all, the *hoboss* are passed from one female generation to another. *Hebs* cannot be sold, gifted, or bought. If the family dies out, it is given to the family's slaves, and if there is no-one left it is given to the mosque as a *waqf*.[169] Moreover, *hebs* documents always end with a proverb that aims to prevent people from doing anything with *hoboss* other than just using it. The proverb says, "God will not bless whoever sold or presented or bought *A-Hebs*." It is as if that person will be cursed. The people always respect *hebs* documents and abide by what they stipulate (see Appendix XVII). According to local informants, this social norm is intended to protect the woman, shelter her future, and make her desirable for marriage. This law has had the effect that almost all of the dwellings and land in Ghat are owned by women, even where, for example, lands and fields were cultivated and cared for by the husband or by other men. The Ghatians

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[166] Al-Masrī, interview.

[167] *Sharī'ah* is the Islamic Law. "Within Muslim discourse, *sharī'ah* designates the rules and regulations governing the lives of Muslims, derived in principle from Kur'ān and *Hadīth*." C. E. Bosworth, E. van Donzel, W. P. Heinrichs, and G. Lecomte, "Sharī'ah," in *The Encyclopaedia of Islam*, vol. 9 (Leiden: Brill, 1997), 321.

[168] The word *hebs* [plural *hoboss*] means 'retention.' It is spelled in some literature *hubs* or *habs* or *hubus*.

[169] *Waqf*, plural *awqāf* or *waqfs*: "Literally waqf means to stop [withhold], contain, or to preserve. In shari'ah, a waqf is a voluntary, permanent, irrevocable dedication of a portion of ones wealth - in cash or kind - to Allah. Once a waqf, it never gets gifted, inherited, or sold. It belongs to Allah and the corpus of the waqf always remains intact. The fruits of the waqf may be utilized for any shari'ah compliant purpose." National Awqaf Foundation of South Africa, "What is Waqf?" http://www.awqafsa.org.za/waqf.htm (accessed May 24, 2008). According to Mircea Eliade, "The Arabic term *waqf* (pl., *awqāf*) refers to the act of dedicating property to a Muslim Foundation and, by extension, also means the endowment thus created. The meaning of the Arabic word is "stop," that is, stop from being treated as ordinary property. The property is then said to be *mawqūf*." Mircea Eliade, "Waqf," *The Encyclopedia of Religion* 15 (New York: Macmillan Publishing Company, 1987): 337.

believe that this law is what protected the built form of Ghat over the years and preserved its particular identity from being lost under external influences.

5.4 Ghat's Suburbs and Nearby Villages

Ghat is surrounded by group of small towns and villages, including Tadrumt, Tunein, El-Barkat, El-Feuat, and Tahala (see fig. 5.1). In the past, as a commercial Saharan center Ghat provided essential services not only to trade caravans, but also to the surrounding small towns and villages and the nomadic tribes who lived nearby. Tadrumt and Tunein form Ghat's closest suburbs. In fact, considering the reasons for the establishing of these two villages (based on oral testimonies and written records) and taking into account their proximity to Ghat, these villages are like exterior neighbourhoods complementary to Ghat's built structure and dependent on its services, rather than independent, self-sufficient and separate villages. Tadrumt in particular functions like an exterior extension to Ghat. The main reason for establishing these two villages seems to be social; however, the availability of water in these locations also encouraged their foundation and development.

5.4.1 Tadrumt

In the past, Tadrumt,[170] which was a small village, was mostly inhabited by blacksmiths (*inadhen*), and the Ghatians' slaves (*iklan*) and servants (*attrah or attree*),[171] who were mostly dark-skinned people. The blacksmiths and the slaves' families were allowed to work, but not live, in the town; only the families of domestic slaves working for high-class Ghatian families, for example as nannies, were allowed to live in their masters' dwellings or in dwellings in adjacent neighbourhoods. Moreover, as I have mentioned previously, in the past the Tuareg and the Ghatians avoided associating with blacksmiths, except on occasional festivals or marriage ceremonies, when they performed as dancers, singers, and musicians. This hereditary social distinction has been made material in Ghat's built environment by the creation of separate living quarters for these

[170] Currently, this village is deserted apart from some African immigrants who live illegally in the few remaining dilapidated dwellings.

[171] The former black slaves of the Ghatians.

social categories outside the town walls. Tadrumt was built approximately 150m south of the town. It is an unwalled village consisting of several small neighbourhoods. The first built and most famous neighbourhood is called *Ahansawa.* It was inhibited by blacksmiths and contains a large square where their main workshops are located. These workshops are currently deserted and in a debilitated condition. The story of the naming and building of this neighbourhood, as told by Ibrahim Bousha Al-Koni, maintains that the blacksmiths chose this place to settle and then informed the *Azjer* Tuareg sultan. He said "Ahan Sawa," meaning that they could settle wherever they wanted to, and that became the name of the neighbourhood (see fig. 5.1;Appendix XVIII A).[172]

5.4.2 Tunein

This village was built in 1845[173] by Ahmed Al-Sedeek Al-Anssari, the brother of Mohammed-Al-Amin, who built *Al-Zawia Al-Sanussia.*[174] The story of the building of Tunein indicates that the choice of this location was due to the presence of water, which is the most important element in the site selection of Saharan towns in general. According to Al-Arbi Mohammed Al-Arbi Al-Anssari, the decision to build Tunein was taken after a spring was accidentally discovered in this area by Ahmed Al-Sedeek Al-Anssari, who was the ruler (*al-ha-kem*) of Ghat at that time.[175] The story is that he saw moisture in the ground, and so inserted his spear in the ground and ordered his slaves to dig at that point until water sprung out. This spring was the nucleus around which Tunein developed.[176] The first structure to be built beside the well was a room for the workers. A mosque was subsequently built adjacent to it. The workers' room was later developed into a dwelling, to be the residence of Ahmed Al-Anssari and his family. His brother came at a later point and built a dwelling for himself on the other side of the mosque.

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[172] Ibrahim Bousha Al-Koni, interview (see chap.3, n.53).

[173] Al-Dnasouri, *Goghrafiat Fezzan*, 404.

[174] Ahmed Al-Sedeek Al-Anssari, who established this village, was a governor of Ghat. He stepped down in favour of his brother, Mohammed-Al-Amin Al-Sedeek Al-Anssari (the father of Mohammed Al-Safi, the Ghatian governor who was killed by the Tuareg).

[175] According to Jami, Ghat was under the control of an independent administration imposed by the families of Al-Anssari for long periods of time, and even after the Othmanian government took control of Ghat part of its administration remained in their hands. Jami adds that this situation continued to the day he became governor of Ghat, and remained a right for the Al-Anssari family. Jami, *Men Trabls Al-Gharb*, 145, 146.

[176] Al-Arbi Mohammed Al-Arbi Al-Anssari, head of the Engineering Syndicate of *Sha'biyet* Ghat, interviewed by the author, Ghat, 7 August, 2006.

The inhabitants of Tunein formerly lived in the *El-Zawiat* (or *Al-Zawia*) neighbourhod in Ghat.[177] This neighbourhood was named *Al-Zawia* in reference to the religious building where the honorable Mohammed-Al-Amin Al-Sedeek Al-Anssari is buried.[178] According to Haj Ibrahim Abdarrahman Al-Anssari, they left Ghat because "they wanted to live and raise their children away from the noise and hustle and bustle of the commercial town and have a socially more conservative and religiously strict way of life."[179]

In contrast to Tadrumt, the inhabitants of the village of Tunein, who are the Al-Anssari families, descended from honorable roots related to one of the companions of the Prophet Mohammed (peace be upon him), as I explained earlier. This honorable descent gave them social prestige and an influence that continuous until today. It also obliged them to build their village and its dwellings to reflect Islam and its *shari'ah*. According to Haj Ibrahim Abdarrahman Al-Anssari, "we built Tunein dwellings so the women's compartments are far enough from the men's places so her voice or even her cough cannot be heard."[180] This statement emphasizes an important concept in the built form of their town that was not satisfied in their old town of Ghat, which is acoustic privacy. This concept stems from the *shari'ah*, which considers the women's voice to be *awrah*. In this context, *awrah* means that her voice should not be heard by anyone not related closely enough to the woman by blood or by marriage (that is, by anyone outside the degree of *mahrem*).[181]

Tunein is built approximately 600m west of Ghat on higher ground than Ghat, which protected it from flood (see fig. 5.1). Like the Old Town of Ghat, Tunein is surrounded by a wall formed of the backs of buildings, which in 1934 embraced a total

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[177] This neighbourhood was also called *Zawiat Al-Barraka*, meaning 'the blessed *zawia*,' in reference to the spiritual position of the religious building as a *mubark* place (meaning a sacred place) by which people are blessed. Scarin referred to this neighbourhood by its old name with a different spelling: 'Abaraqqâ n ezzâuyet.' Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 27.

[178] Locally, this is shortened and pronounced 'Lamin Lanssari.'

[179] Ibrahim Abdarrahman Al-Anssari, interview.

[180] Ibid.

[181] The word *awrah* has a wide meaning in Islamic shari'ah. Literally it means certain parts of the body not to be seen or touched by anyone except one's spouse. However, the extended meaning includes any private matter that others should not see, hear or know about. The word *mahrem* denotes a relationship either by marriage or close blood ties of such a degree that marriage is permanently prohibited. In reference to women, *mahrem* is either a husband or any male relative with whom marriage is permanently forbidden by Islamic law, such as her father, son, brother, grandfather, uncle or nephew.

area of 14,400sqm (see Appendix XVIII B, C).[182] However, Tunein was better constructed than was Ghat. Its houses are well-constructed and well-maintained, and it was and still is much cleaner.[183] With its high walls, the four towers built at its four corners, and its five gates, the village looks like a small fortress. Tunein was first inhibited by the extended families of Al-Anssari, followed by the Al-Ashraf families,[184] who are related to the Al-Anssari by marriage. According to Haj Ibrahim Abdarrahman Al-Anssari, the Al-Ashraf came from Ghadames and settled in Ghat before moving to Tunein, but it is believed that they were originally from Tawàt.[185]

Tunein consists of only two streets (one for each family group) and a large square in front of the mosque. This square has the village well in the center, and is named *Aishelly* after the main square in Old Ghat. This reflects the strong attachment of the people to their mother town, even though "they left it although they were the town ruler," says Ibrahim Abdarrahman Al-Anssari.[186] This statement also indicates the choices the people made, suggesting that it was more important for these people to live in a place that allowed them to give material form to their strict social values, stemming from Islam, more fully than they could when living in the center of political and commercial power.

In addition to the mosque, Tunein has an open-air prayer area (*mousalla*) with a sandy floor at the gate that leads to Ghat (called *Emi Ghat*). Like the *mousalla* of Ghat, this area was used for prayers during the *Eid Al-Fetr* and *Eid Al-Adtha* religious ceremonies, and during the summer for daily prayers. The area where the old *mousalla* is located was originally a *fonduk.*[187] This Arabic word is used locally to refer to a vacant walled area of land that is open to the sky. Later, a large portion of this *fonduk*, which at the time was used as a *mousalla*, was taken over by Haj Ibrahim Abdarrahman Al-Anssari to build his house, and the mousalla was extended toward the north-west. The main gate

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[182] Scarin, "L' Insediamento Umano della Zona Fezzanese di Gat": 43.

[183] Tunein Heritage Society and Haj Ibrahim Abdarrahman Al-Anssari (the sheikh of Tunein and the Al-Anssari families) are the caretakers of Tunein. They provide protection and regular general maintenance work with their limited financial resources.

[184] Locally referred to as *Al-Shrefa*. Al-Shereef, interview.

[185] Jami, *Men Trabls Al-Gharb*, 142.

[186] Ibrahim Abdarrahman Al-Anssari, interview.

[187] In formal Arabic, *fonduk* originally means 'vacant walled land.' Now it is used to mean a hotel, but previously the word *khan* was used in formal Arabic to mean a hotel. The word *khan* is not used any more except in historical reference. In Libya, when an intruder enters a place without permission he will be asked: "Where are you going? Do you think this is a *fonduk*?"

also shifted to include the new structures. In the early 1970s, Haj Ibrahim Abdarrahman Al-Anssari built his new house outside the new main gate (also called *Emi* Ghat). Haj Ibrahim performs a role similar to the spiritual father and protector of this village, and he gave that role material form by building his house at the main gate. His respect, deep concern, and care for his village is summarized by his statement to me, in which he said "As long as I'm alive no-one from the archeology and antiques department will enter Tunein [in order to do any maintenance work]. We maintain our village as we know and as we have always done."[188]

New structures have been added and more alterations were made over time to the function of some buildings that open onto the village square. My fieldwork found that a small Qur'anic school for children has been built adjacent to the new *mousalla*, while the old grocery shop (which was previously owned by Haj Abdarrahman Al-Anssari) across the street from this school, which faces towards the north-east gate (the gate is now walled up) now functions as an office for Tunein Heritage Society. In addition, a totally new structure emerged at the south-west gate, which has been closed up in order to build areas for ablutions at the mosque.

The name 'Tunein' derives from the plural of the Targian *tanoot*, which is *tunein*, and means 'wells.' It was chosen to be the name of this town because of the abundance of water and wells in this area. The underground ducts of the central village well, which were built branching towards the south-west and north-east gates, are used for drinking and watering the surrounding farms. These farms, in which the inhabitants grew various vegetables, fruit, and palm trees, are called *jana'en* or *jenan* (the singular of *janah*), which is an Arabic word meaning 'heaven.' This name reflects how well cared-for these farms are. The large cultivated areas around the village reflect the people's farming skills, and the importance of farming to the people's economy and life in this so-called desert. According to Haj Abdarrahman Al-Anssari, the village was self-sufficient in vegetables and fruits, and they never needed to buy any of these. However, from time to time they needed to go to Ghat to buy supplies other than daily food.

A few meters outside Tunein's are the slaves' and servants' dwellings. This social distinction in the location of the residential quarters is similar to that of Ghat and

[188] Ibrahim Abdarrahman Al-Anssari, interview.

Tadrumt. These dwellings are distant from each other and built almost 10m away from the north-east and south-west walls of the village. According to Haj Abdarrahman Al-Anssari "even stranger visitors, not only servants or slaves, are not allowed to live in the town."[189]

The building material used in Tunein is the same as that in Ghat; however, the foundations of the walls are made of sun-dried bricks made from yellow clay and small stones known locally as *errshad.*

[189] Ibid.

Chapter 6
Urban Form (1875-2006)

6.1 Mapping

The purpose of this chapter is to review and document the physical and spatial organization of Ghat during the various ruling periods of military non-demographic colonization, and to examine the extent of the influence of colonization on the local urban form and architectural identity of Old Ghat. In order to accomplish this goal I provide a brief account of Ghat's colonization history in relation to the colonization history of the whole of Libya. I then map and analyze the development of Ghat's urban form over the various ruling and colonial periods. The period since the Othmanian colonization of Ghat in 1875 falls into three clear historical phases, each of which has left its mark on Ghat's form and architecture. The first phase, before independence, extended from 1875 to 1951, and can be broken down into three periods: the Othmanian (Turkish), Italian, and French colonization periods. The second phase, which is the period after independence and before the revolution (the Kingdom period), runs from 1951 to 1969. The third phase can be characterized as commencing with the Al-Fateh revolution in 1969 and extending to the time of my research in 2006, comprising the governing system of the Republic and the subsequent, current Jamahiriya governing system.

6.1.1 Historical Background

In 1551 the Othmanian Government invaded Libya and ruled for 160 years before Ahmed Karamanly[1] seized power in 1711 and founded the Karamanly dynasty.[2] In 1835, the Othmanian government took advantage of local disorder and asserted their direct authority for the second time, succeeding in holding it until the final collapse of the

[1] Ahmed Karamanly was an Othmanian cavalry officer and the son of a Turkish officer and a Libyan woman.

[2] Abdarrahman Tshayjee, *Al-Seraa Al-Turkey-Al-Faranci fi Al-Sahraa Al-Kubra*, trans. Ali Azazi (Tripoli: Markaz Jehad Al-Leebeeian Lellderassat Al-Tarikhya, 1980), 34; Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 13.

Othmanian Empire in 1912.[3] The second Othmanian ruling period witnessed the presence of a resistance movement to Othmanian rule (which survived to form a resistance to Italian and French colonization) called the *Sanussia* Movement. This movement was centered in Al-Jaghbub and Al-Koufra, in eastern Libya, and established a network of missionary *Zawaya* (religious lodges functioning mainly as religious centers and schools) across the country.[4] It brought some stability to regions and towns not known for their submission to central authority, such as Ghat.

During their second period of rule, the Othmanian government was unable to spread their power all over the large country. In 1842, Fezzan came under Othmanian control; however, Ghat in particular was difficult to defeat.[5] Ghat's geographical location in the deep Sahara, and the fighting spirit of its inhabitants, made any military invasion both difficult and expensive. In 1849, 1854, 1858, and 1862 the Othmanian government entered into several negotiations with *Azjer* Tuareg leaders and the local leaders and sheikhs of the town of Ghat. These negotiations were at the request of the local leaders of Old Ghat; however, as a result of the *Azjer* Tuareg's refusal to submit to Othmanian control, all these attempts failed.[6] However, in 1867, a bloody fight between the *Kel Azjer* and *Kel Ahaggar* Tuareg in Algeria caused the inhabitants of Ghat to fear that France might use the need to protect the *Kel Ahaggar* Tuareg as an excuse to invade them. For this reason, the Ghatians and the *Azjer* Tuareg asked the Othmanian government to rule and protect them.[7]

In 1875, after getting the permission of the *Azjer* Tuareg, Ghat surrendered to the Othmanian Government.[8] The government then assigned Ghat a governor (*qaimmaqam*)

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[3] Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 13. Francesco Coro was an Italian soldier who served under the command of Marshal Rodolfo Graziani during the Italian colonization of Libya. He was known for his intellectual interests and has several publications on Libya.

[4] These religious schools teach the *Sanussia* method (*tariqah*). The main teachings of Sanussi encouraged people to live within the limits of religious law and to work to earn a living, and forbade the practice of voluntary poverty.

[5] Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 123.

[6] According to Abdarrahman Tshayjee, the request for negotiations by the leaders of Ghat may have reflected the desires of the *Sanussia* sheikhs of Ghat, because their missionary activities were threatened by the Christian French colonists in neighbouring countries. They preferred the town to be under Muslim control. Tshayjee, *Al-Seraa Al-Turkey-Al-Faranci*, 64, 88.

[7] Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 14, 123; Bourbon del Monte Santa Maria, *L'Oasi di Ghat*, 9.

[8] Tshayjee, *Al-Seraa Al-Turkey-Al-Faranci*, 89.

as their representative, who was selected from among the Ghatians.[9] After consulting with local (town) and Tuareg leaders, Mohammed As-Safi was chosen to rule Ghat, and salaries were dispensed by the Othmanian Government to Tuareg leaders.[10] However, in 1886 the *Azjer* Tuareg revolted and invaded Ghat, and refused to surrender to the Othmanian government.[11] In 1887, Ghat again agreed to become part of the Othmanian empire on the basis of Othmanian negotiations with the *Azjer* Tuareg, and another governor, named Ahmad Al-Anssari, was chosen to rule Ghat.[12] The Othmanians continued to govern Ghat until the Italian invasion of Libya in 1911. In 1912 the Othmanian Empire renounced its claim to Libya. Although the Italian colonization of Libya lasted from 1911 to 1943, Ghat did not come under Italian control until 1930.[13] For the Italians, Ghat was part of the military defense of the south-western borders, mainly against the French, who at that time were colonizing neighbouring Algeria. Ghat remained under Italian military rule until 1943, when French troops invaded Ghat, supposedly in order to protect their western borders. They took over the governing of this town as part of their governing of the whole of Fezzan. This military colonization continued until Libya's independence in 1951, which ushered in the Kingdom period, which lasted until the Al-Fateh revolution in 1969. In the following sections, I illustrate the extent of the influence of the various periods on the built environment of Ghat.

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[9] The *qaimmaqam* was an administrative occupation ranked third in the Othmanian hierarchal administrative system. The main job of the *qaimmaqam* was to collect taxes. Coro, *Libya Athnaa Al-Ahd Al-Othmani*, 27.

[10] Tshayjee, *Al-Seraa Al-Turkey-Al-Faranci*, 90.

[11] According to Tshayjee and Bourbon del Monte Santa Maria, the Tuareg revolt was the result of the imprisonment of eight Tuareg accused of raiding a trade caravan carrying supplies for the Othmanian government. The revolting Tuareg invaded Ghat and killed the *qaimmaqam*, called Mohammed As-Safi, and the sheikh of Ghat, called Yahya Egh En Telleymak, who was *Azjer* Tuareg, as well as Major Jafer, the commander of the Othmanian occupying force. Tshayjee, *Al-Seraa Al-Turkey-Al-Faranci*, 124; Bourbon del Monte Santa Maria, *L'Oasi di Ghat*, 11-12. A slightly different story told by local sources indicates that the Tuareg invasion was a result of the betrayal of the eight Tuareg by Mohammed As-Safi, who falsely accused them of raiding a trade caravan, leading to their imprisonment.

[12] Tshayjee, *Al-Seraa A-Turkey-Al-Faranci*, 124.

[13] The Italians controlled Ghat for less than four months in 1914 (from August 12th 1914 to December 23rd 1914) before they were forced out by the Tuareg.

6.1.2 Phase I: Before Independence (1875-1951)

6.1.2.1 Ghat during the Second Othmanian Ruling Period of Libya (1875-1912)

Historical records and travelers accounts show that the built landscape of the town of Ghat, which existed before the Othmanian arrival, did not improve or change during the Othmanian occupation, and that nothing was added for the advantage of the town's inhabitants. Francesco Coro's book, which summarizes all the civil works and economic development accomplished by the Othmanian Government in the seventy-six years of their rule of Libya, indicates that the limited development that occurred during the Othmanian ruling period focused mainly on towns and cities located on the sea coast.[14] Saharan towns were the lowest priority for the Othmanian government.

In his description of the civil and economic situation of the southern Libyan Saharan oases prior to the Italian invasion, Coro indicates that the town of Ghat in particular did not benefit from Othmanian rule, represented by the *qaimmaqam* and the small garrison stationed there. The income generated from taxes was not enough to provide any benefits, especially with the refusal of the *Azjer* Tuareg to pay any taxes.[15] The economic development of the town, which was once one of the most important stops for trans-Saharan traders, and which had flourished on trade and commerce, deteriorated with the decline of the trans-Saharan trade caravans. In particular, Ghat suffered from the abolition of the slave trade and the closure of trade caravans to Sudan during the later half of the 19th century.[16] This decline caused the inhabitants of Ghat to lose their main source of income besides agriculture, which was generated by serving these caravans, while the Tuareg lost their main source of revenue produced by a levy for escorting and protecting these caravans.

Abd-Elkader Jami claims that the Othmanian garrison with its four mud towers, which is located in the middle of the triangle that consists of Old Ghat and the villages of Tadrumt and Tunein, "is the only trace of the Othmanian ruling period in Ghat, the center of trans-Sahara trade" (see figs. 5.1, 5.2, 5.13).[17] This garrison, he says, was built by the

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[14] Coro, *Libya Athnaa Al-Ahd Al-Othmani.*

[15] Ibid., 124.

[16] Ibid., 123-124.

[17] Abd-Elkader Jami was a Turkish commander and *qaimmaqam* of Ghat exiled to Fezzan by the Othmanian government between 1906 and 1908. Jami, *Men Trabls Al-Gharb*, 142. This book was first published in Turkish in 1908.

Othmanian government after Tuareg rebels killed their soldiers in the old Othmanian citadel (*Toughoroft*)[18] inside the Old town.[19] According to the mutually complementary narratives of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, Haj Mohammed Baba Abd Alkarim Engoni, and Haj Ibrahim Abdarrahman Al-Anssari, *Toughoroft* was originally a large house for one of the earliest rulers of Ghat, and consisted of several rooms.[20] The Turks altered the western part of the building to quarter their soldiers, and blocked up the rest of the house with dirt in order to be able to build extra rooms for their soldiers on the roof. The roof of these new rooms formed a circular layer on which the Turks placed their cannons. This layer was connected to the roof and then to the street named *Tesajefien* by two separate sets of staircase (see fig. 5.7). After being abandoned by the Othmanian military force, the soldiers' quarters on the ground floor were used by the people as dwellings. The doors of these dwellings, which are now bricked-up, can still be seen in the old structure of *Toughoroft*.

According to Haj Mohammed-Al-Mahdi, the Othmanian government also altered one of the houses near *Emi Tafghaghat* (the southern gate) in order to use it as their local civil administration, and built some military hangars facing *Emi Tafghaghat*, which were used later by the Italians as car workshops.[21]

Based on the above description, it seems that during the Othmanian period, Ghat was mainly used as a Saharan defense line against the French.[22] This is evident in the lack of any economic development plans for the town and its inhabitants. Development was limited to the construction of several buildings for the Othmanian military force, such as the old Othmanian citadel, the garrison, and some hangars. Those Othmanian military

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[18] As I mentioned earlier, the old fort is called *Toughoroft* locally, which is a Tuareg word meaning 'rooms' and connoting a palace. *Toughoroft* has been deserted since the revolt in 1886.

[19] Jami, *Men Trabls Al-Gharb*, 142.

[20] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview (see chap.5, n.38); Engoni, interview (see chap.5, n.102); Ibrahim Abdarrahman Al-Anssari, interview (see chap.5, n.64). This narrative is further supported by Atiq Abd-Elkader Danda's brief description in *The Old Town of Ghat*, in which he says that the old citadel *Toughoroft* was originally the residence of the ruler of the town, and was known as a *kasar* (an Arabic word meaning 'palace'). Atiq Abd-Elkader Danda, ed., *Exhibition and Historical and cultural Symposium: The Old Town of Ghat* (Ghat: The Archeology Department of Ghat, 2005), 10. This text is a booklet that documents a symposium and an art exhibition on Old Ghat.

[21] In the absence of any material record or written historical description of the location of these hangars, I have roughly indicated their location on the town plan (fig 6.1), based on the testimony of eyewitness Mohammed-Al-Mahdi Basheer Abd Elhameed. Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

[22] The French colonized neighbouring Algeria from 1835 to 1962.

buildings in Old Ghat that are still standing, except for the hangars, are witnesses to that period.

The above review of the Othmanian ruling period explains the reasons for the limited influence of that period on Ghat's urban form and architecture. The weak economy of the Othmanian government, which was based on tax-collection, and the political power of the *Azjer* Tuareg, were among the important factors that protected local identity and prevented Othmanian cultural influence on Ghat architecture.

During the Othmanian ruling period another influence, which was more acceptable to the people, left its mark on the development of the town's built structure. This was the religious influence represented by the *Al-Sanussia* movement, which took material form in the construction of *Al-Zawia Al-Sanussia* (later known as *Zawiat Al-Amin Al-Anssari*) and its two wells.[23] This *zawia* was not the only mark of the influence of Islam on the town's built form; there were also mosques and another religious school. Beside *Al-Zawia Al-Sanussia*, Ghat included another religious school. Erwin von Barry in his dairy refers to the existence of *Zawiat Sidi Maoulay Al-Taieb*;[24] however, he does not indicate its location. Since the teaching method of this school was considered to be a branch of the *Al-Qaderia* religious teaching method (*tariqah*), it is likely that the name *Zawiat Sidi Maoulay Al-Taieb* refers to what it is now known as *Al-Zawia Al-Qaderia*, which is the only religious lodge in the Old Town that teaches this method.

According to Gottlob Adolf Krause's 1881 account, the town embraced within its walls other religious buildings such as *Jameh Haj Ibrahim Ben Soliman*[25] and *Jameh Sidi Esaa*, the latter of which contained a well.[26] It appears that *Jameh Sidi Esaa*, which is a name that none of my Ghatian informants were able to recognize, refers to what is known today as *Al-Atiq* Mosque. I base this assumption on the legend of Krause's map of Ghat, which indicates that the location of *Jameh Sidi Esaa* is number 12 on the map; however,

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[23] Ghanem, *Al-Almani Gottlob Adolf Krause*, 115.

[24] Ghanem, *Al-Almani Erwin von Barry*, 214. Erwin von Barry was a traveler who, according to his own diary, pretended conversion to Islam in order to earn the trust of the people, and particularly of the Tuareg, and to be able to collect information and protect himself at the same time.

[25] *Jameh Haj Ibrahim Ben Soliman* has been roughly indicated on the plan, based on Krause's diagrammatical plan, the testimony of informant Mohammed-Al-Mahdi Basheer Abd Elhameed, who indicates that this *jameh* was located near *Emi Kalala* and close to the covered street called *Sakaief* Sidi Ibrahim, in reference to the adjacent *jameh*, and Enrico De Agostini's account of Ghat. De Agostini, "La Conca di Gat": 20.

[26] Ghanem, *Al-Almani Gottlob Adolf Krause*, 71, 115.

it does not mention *Al-Atiq* Mosque, although this mosque existed at that time.[27] Although, as a result of the unclear fussy old writing, I could not confirm the location of *Jameh Sidi Esaa* on Krause's plan, my hypothesis is supported by the placement of a mosque symbol on Krause's map in the same location as *Al-Atiq* Mosque, while another symbol is placed in the known location of *Jameh Haj Ibrahim Ben Soliman*, suggesting that what was called in the past *Jameh Sidi Esaa* is what is known today as *Al-Atiq* Mosque. Furthermore, all the old mosques of the town were named after people, whereas *Al-Atiq* is a formal Arabic term meaning 'the old,' which might suggest that it was renamed at a later date, on the ground that it is the oldest mosque in Ghat. My argument is further supported by the fact that, like *Jameh Sidi Esaa*, *Al-Atiq* Mosque has a well and contains the tomb of an unknown *Mrabet* (a man from the religious class described in section 3.1.7.2), which could belong to its builder, Sidi Esaa (see fig. 5.23).[28]

To my knowledge, the Othmanian government did not make any surveys of the town structure or draw any plans for Ghat during their ruling period. The only plans available from that period were drawn by Krause in 1881 at a scale of 1:40000 (see fig. 5.16),[29] and by Abd-Elkader Jami (the governor of Ghat) in 1909 at a scale of scale 1:15000 (see fig. 5.20).[30] Neither plan shows any details of the town's physical structure. I drew the following map of Ghat (fig. 6.1) as an attempt to visualize Ghat during the Othmanian period, basing the plan on several sources. The basic plan was adopted with modifications from Scarin's layout plan, which was based on his survey in 1934 (see fig. 5.17),[31] the layout plan by Italian Lieutenant (triangulator) Giuseppe Tschon, published in

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[27] According to the 2006 testimony of Mohammed Danda, the chairperson of Ghat Archeology Department, this mosque is about 1000 years old. Mohammed Danda, interview (see chap.5, n.54).

[28] I developed this hypothesis based on my field visit to *Al-Atiq* Mosque and Scarin's records and map of the mosque, which shows a room that opens towards the middle court and includes a tomb for unknown *Mrabet* (Marabout). This *Mrabet* could be Sidi Essa, considering that in the old times religious buildings such as zawaya and mosques were named after their builders (for example, *Jameh El-Houni*, *Zawiat Al-Amin Al-Anssari*) and usually contain their tombs, as is the case in *Al-Amin Al-Anssari* Mosque.

[29] Krause, *Proben der Sprache von Ghat*, appendix.

[30] Jami, "Ghat and its Surroundings": 172. Although he was the Othmani governor of Ghat, in his publications on Ghat Jami never suggested that his research or drawings were made upon the request of the Othmanian government.

[31] Scarin, "L'Insediamento Umano della Zona Fezzanese di Ghat": appendix.

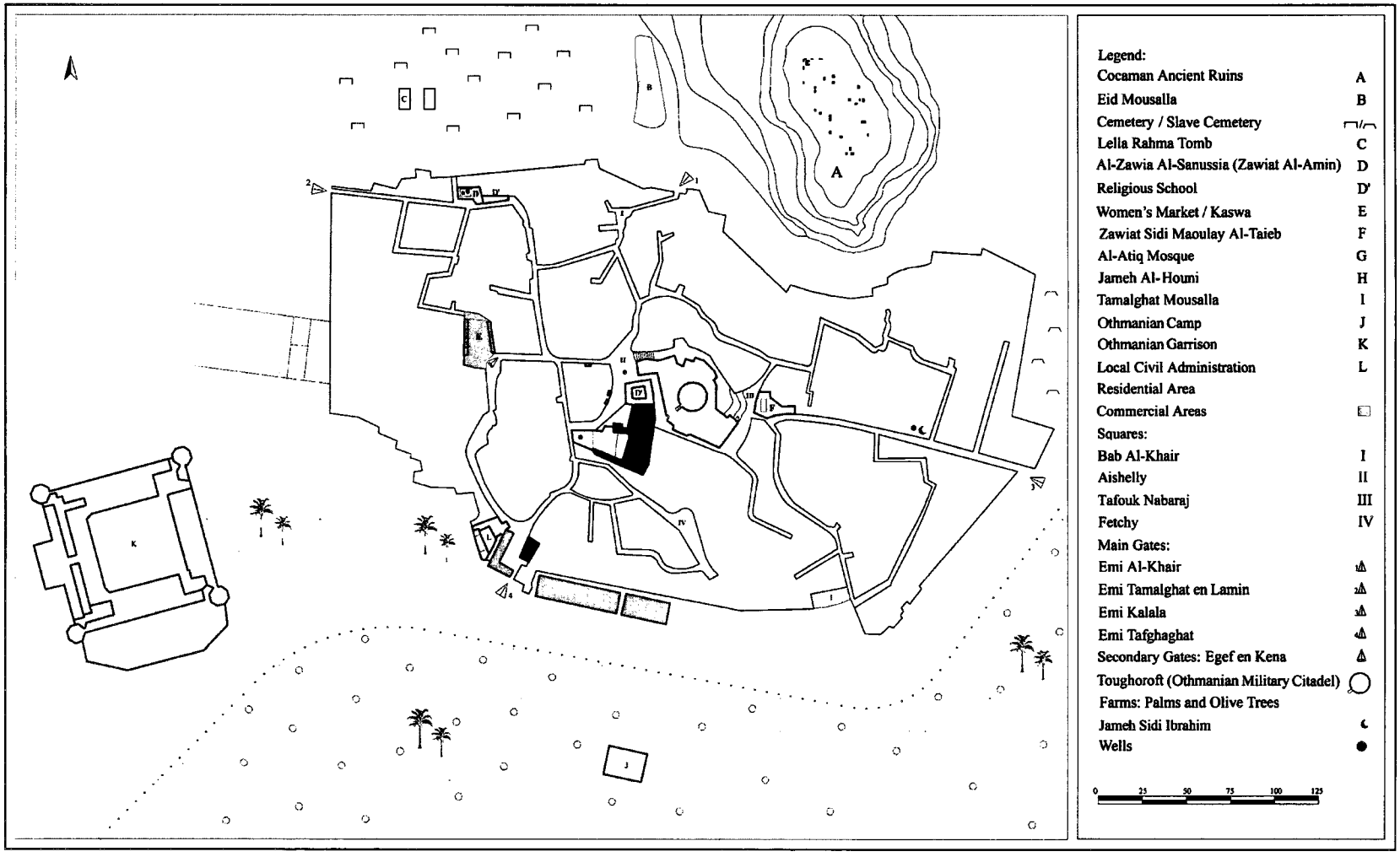

Fig. 6.1. Map of Ghat during the Othmanian (Turkish) period.
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20), and FINNMAP Company (1984). Redrawn by the author, with modifications based on field and research work 2005-2006.

De Agostini (1933-1934) (see Appendix XIX),[32] and the aerial map made by FINNMAP Company in 1984 upon the request of the Surveying Department of Libya (see fig 5.2).[33] I used various sources to envision the physical and spatial organization of Ghat during that period, including old photos, aerial photos of Ghat taken in 1980, oral testimonies collected in 2006, travelers' illustrations and accounts from the Othmanian period,[34] and other written historical records.

6.1.2.2 Ghat during the Italian Colonization of Libya (1930-1943)[35]

During this period, the Italian administration of Libya achieved its aims in planning and economic development with respect to public works, utilities and agricultural development. However, these plans were mainly for Italian families that had emigrated from Italy to settle on Libyan farms, and nothing was provided for the native population. Although it is estimated that the Italian government spent over LD. 50 million on development during their colonization,[36] the economy was still in a deficit situation. This deficit was most obvious in the housing sector, since most, if not all, of the Libyan population lived in tents, caves and huts.[37]

In Ghat, the situation reflected this poor national economic development after the town fell under Italian control in 1930. Because there was no Italian demographic colonization in Ghat, as there was in other cities and towns in Libya, development in Ghat was limited to providing basic services, mostly for the benefit of the Italian administrators and military force.

During this period, one of the major achievements that added to the exterior built landscape of the town was the building of *Jameh Tamalghat* directly outside the town wall and adjacent to the southern secondary gate (see fig. 6.2). According to Haj

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[32] According to Scarin, the map drawn by Giuseppe Tschon and published by De Agostini in "La Conca di Gat" is adapted from his map made in 1934.

[33] Surveying Department of Libya, Blueprints of aerial maps of Ghat made by FINNMAP Company on the basis of 1981 aerial photographs (Tripoli, 1984).

[34] Krause, *Proben der Sprache von Ghat;* Jami, *Men Trabls Al-Gharb*; Cuneo, "Ghat Oasis"; Ghanem, *Al-Almani Gottlob Adolf Krause*; Ghanem, *Al-Almani Erwin von Barry*; Scarin, *L'Insediamento Umano nella Libia Occidentale.*

[35] As I stated earlier, although the Italian colonization of Libya lasted from 1911 to 1943, Ghat did not come under Italian control until 1930.

[36] R. Farly, *Planning for Development in Libya* (New York: Praeger, 1971), 162.

[37] Amal M. Hassan Jamal, "Housing policies in Libya (1911-1998)" (MA diss., McGill University, 1999), 9.

Mohammed-Al-Mahdi Basheer Abd Elhameed, this mosque was built in 1938 adjacent to *Tamalghat* gate, in the place of an existing fenced m*ousalla*. He states that Italian architects and local Ghatians participated in the construction of the mosque; however, the mud decoration of the interior arches was made by Tuareg masons. He adds that local techniques were used in the roofing of the mosque, which was constructed using the trunks of palm trees. According to Haj Mohammed-Al-Mahdi, *Jameh Tamalghat* was named after the adjacent neighbourhood and the town's secondary gate. Later, he says, the name changed to *Jameh Al-Souk* (locally pronounced *as-souq*), meaning 'marketplace,' because it was located near the commercial area outside the town, and was used mostly by the merchants of the nearby tree-lined commercial strip.[38] This strip is composed of several shops opening onto a shaded corridor running parallel to the main street, and is intersected by un-shaded corridors at close intervals.

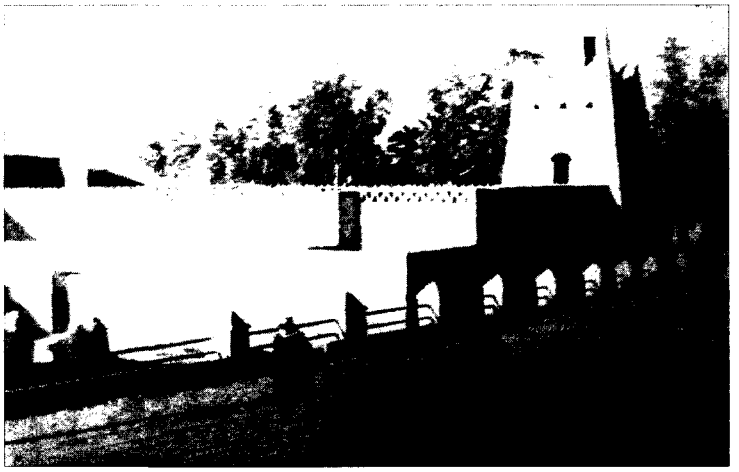

Fig. 6.2. *Jameh Tamalghat.*
Reproduced by permission from Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, from his personal collection.

Haj Mohammed-Al-Mahdi also recalls some changes in the functions of existing buildings. He states that one of the houses close to this mosque and behind the commercial strip just mentioned was converted into a student hostel.[39] The Italians also

[38] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.
[39] Ibid.

altered one of the houses at *Emi Tafghaghat* into an Italian school;[40] however, few attended it with him, because the Ghatians prevented their children from attending Christian schools (see fig. 6.3). Muslim religious schools in the various *zawaya* buildings and attached to mosques were preferred. He adds that after some time this building was again modified and its interior divided into two buildings, which functioned as the Italian municipality of Ghat and the Italian legal court, with separate entrances opening to the east and west. The Italians also altered the building used during the Othmanian period for local civil administration into the offices of the public works administration, and turned the Othmanian (Turkish) military hangars located further to the south of the main (at that time unpaved) road into military car workshops.[41] Haj Mohammed-Al-Mahdi states that they also built the famous small fort on Cocaman Mountain (see fig. 6.4), a hospital to the south of *Jameh Tamalghat* and across the unpaved road (see fig. 5.14),[42] an electric station (see fig. 5.15), and a tennis court for the recreation of their soldiers (see fig. 6.5). According to De Agostini, the Italians demolished the Old southern gate *Tafghaghat* because it was in a dilapidated condition.[43] During the Italian colonization period, the gate was rebuilt on the entrance of the southern arterial street that leads from *Souq Tafghaghat* to the town's main square, *Aishelly*. At first this new gate, which retained its previous name of *Tafghaghat*, had no tower articulating it. In more recent years, a small tower crowned the gate (see fig 5.4).

According to Haj Ibrahim Abdarrahman Al-Anssari, the Italians also partially demolished, modified, and extended Gnaba's house to be a *caserma*, or quarters for their police soldiers (*carabinieri*; see fig. 5.12).[44] According to Haj Ibrahim Abdarrahman Al-Anssari and Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, this building was extended to the south by the Italians, replacing an old, closed-up town gate called *Egef en Kena* and a group of old houses that were part of *Kel Egef en Kena* neighbourhood, all of which had been demolished by the Italians (see figs. 5.17, 5.19).

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[40] This school was also recorded by Philip Ward in *Touring Libya: the Southern Provinces* (London: Faber and Faber, 1968), 80.

[41] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

[42] This hospital, which, as a structure, still exists, was also recorded by Ward in *Touring Libya*, 79.

[43] De Agostini in "La Conca di Gat": 18.

[44] Ibrahim Abdarrahman Al-Anssari, interview.

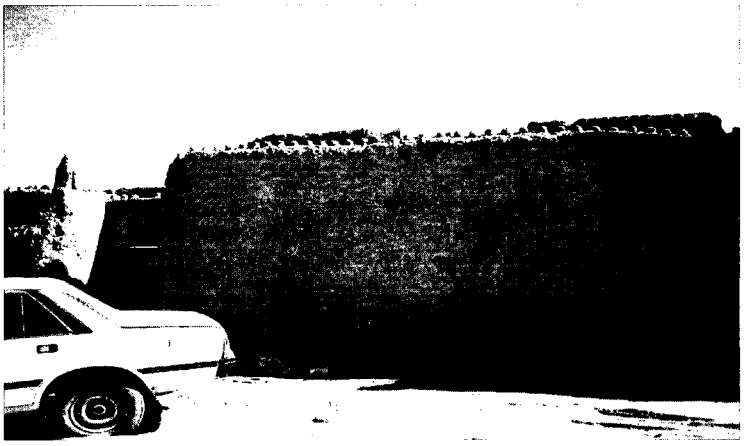

Fig. 6.3. A house that has been converted into a student hostel.

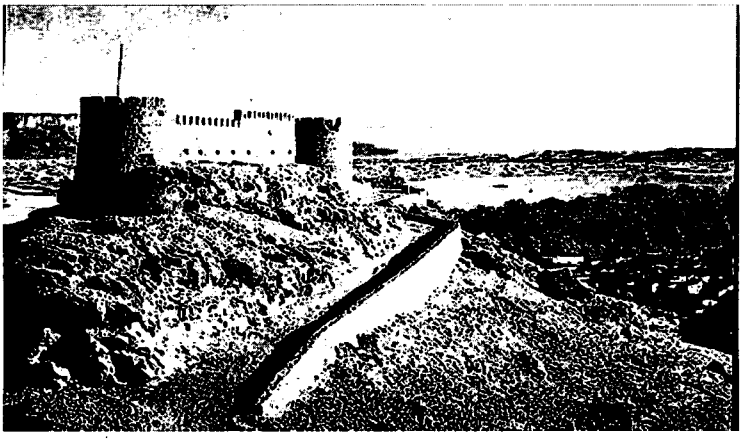

Fig. 6.4. The Cocaman Italian Fort in 1950.
Reproduced by permission from Soupene.

Fig. 6.5. The tennis court in 1950.
Reproduced by permission from Soupene.

Besides being quarters for the *carabinieri*, the *caserma* was used for the Italians' local civil administration, which the Ghatians used to call *mutassarifia*.[45] This building contains a small prison cell barely large enough for four or five people and, to the left of the main entrance, a small post and radiotelegraph office with a small service window, which opens onto the front elevation of the building. The old sign referring to this post office still hangs on the front wall of the *caserma*.

In addition, according to Haj Mohammed-Al-Mahdi, the Italians partially demolished, modified, and converted the large Othmanian garrison into a modern Italian fortress occupied by their police force.[46] According to Scarin, this fort was called Forte Vittorio Emanuele.[47] In order to assure a continuous supply of fresh water for their soldiers, the Italians dug new wells and maintained some of the existing ones. According to Al-Sanussi Goudya the Italians dug wells outside the town walls and maintained the main spring of Ghat, called *'Ayn Ghat* (*ṭeid* or *ṭet* طيد or طيت in Tuareg) as well as extending water pipes to their administrative buildings.[48]

One of the significant accomplishments of the Italians, which ironically had a negative impact on Ghat's role as a Saharan trade center, was improving Ghat's communication with other Saharan towns by constructing a new road connecting Ghat to Al-Awaynat (Serdless) and to the rest of Fezzan and the region of Tripolitania. This road was constructed mainly for Italian military purposes, enabling their military forces and supplies to reach the most resistant parts of the Libyan Sahara. This road, which was partially paved, replaced some of the old caravan routes (discussed in section 5.3.3.1). Although, for topographical reasons, it was more circuitous than these, it was more convenient, allowing much faster and cheaper mechanical modes of transportation, such as trucks, to replace the camels and horses that were the caravans' old mode of transportation. According to Scarin, in its last section this long road passes the southern wall of the town and ends at the Italian fort called Forte Vittorio Emanuele. However, just before it passes Ghat, the road branches to the right and leads up to the old Italian fort that

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[45] People kept the old Othmanian administrative classification m*utassarifia*, which was equivalent to the Italian classification at that time.

[46] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview. This police force is a different force from the police soldiers (*carabinieri*).

[47] Scarin, "L'Insediamento Umano della Zona Fezzanese di Ghat": 24.

[48] Goudya, interview (see chap.5, n.82).

crowns Cocaman Mountain at a height of about 40m from ground level.[49] Based on my field observations, this branched road is a narrow, winding, unpaved access route leading to and from the old fort. Scarin adds that from the new Italian fort, a completely unpaved road leads to the military airport in the south, and from there the road branches into two roads, leading to El-Feuat in the west and El-Barkat in the south. Later, even Tuareg caravans abandoned the old routes for these new roads until the total end of the Sahara caravan trade.[50]

I drew the following map of Ghat during the Italian period in order to help visualize the development of Ghat's urban form described above, and the organization of the physical structure of Ghat at this time (see fig. 6.6). The basic plan was adapted from Scarin's map of Ghat (see fig. 5.17), the layout plan by Italian Lieutenant (triangulator) Giuseppe Tschon, published in De Agostini (1933-1934), and the aerial map made by FINNMAP Company in 1984 (see fig. 5.2). As with my plan of Ghat during the Othmanian period, in order to construct this plan I used information from different sources, including Paolo Cuneo's 1978 updating of Scarin's original plan (see fig. 5.19), written and pictorial documents, and oral testimonies.

[49] Scarin, "L'Insediamento Umano della Zona Fezzanese di Ghat": 24, 25.
[50] Ibid.: 25.

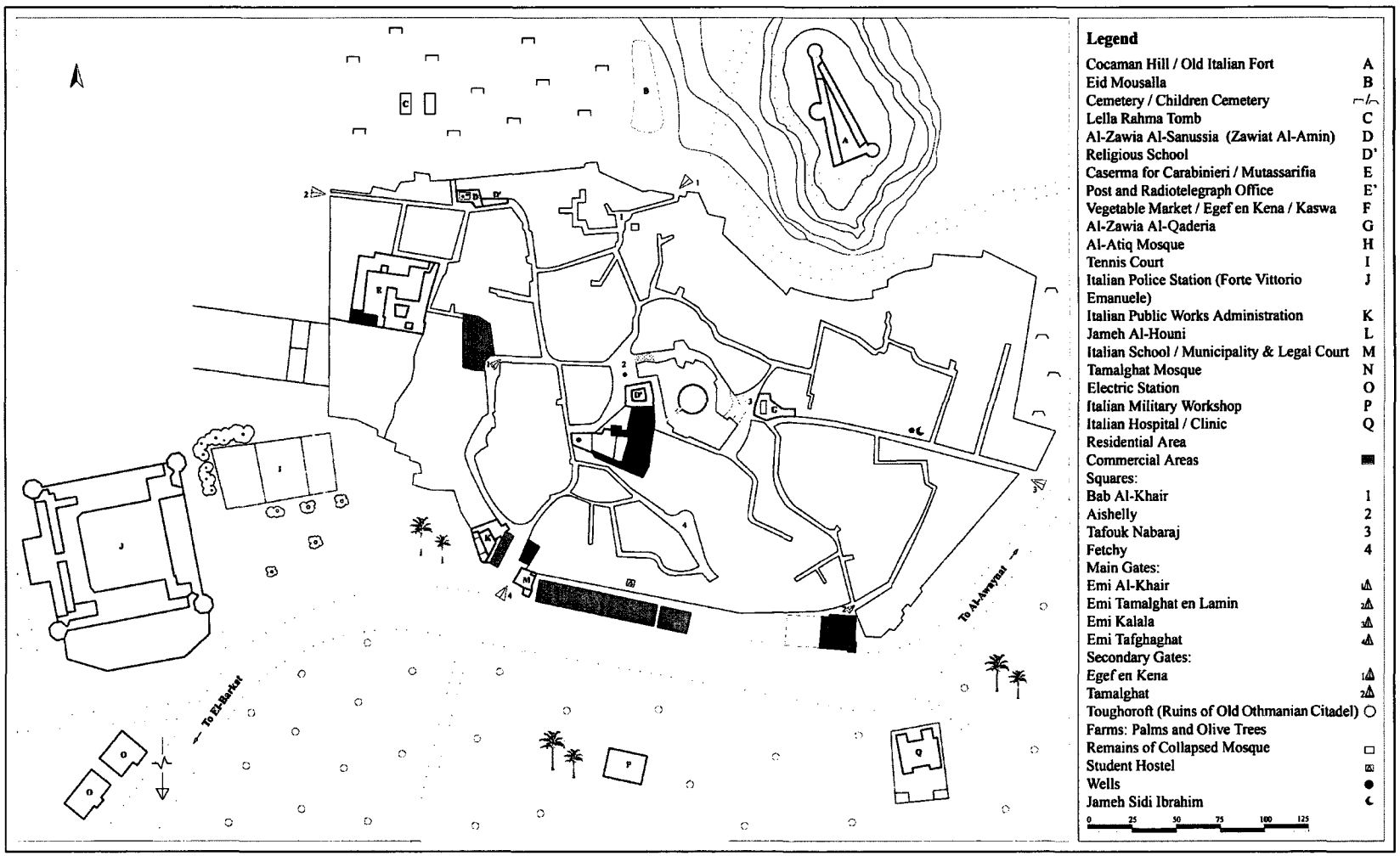

Fig. 6.6. Map of Ghat during the Italian period.
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20) and FINNMAP Company (1984). Redrawn by the author, with modifications based on field and research work 2005-2006.

6.1.2.3 Ghat during the French Military Administration of Fezzan (1943-1951)

During the period from 1943-1951, Libya was divided into two administrative sections. The northern regions were known as Tripolitania and Cyrenaica, and were administered by the British military. The south-west was known as Fezzan, and was administered by the French. Both were caretaker-administrations, implementing no major investment programs or grand designs. The available budget was barely sufficient to reduce the deficit and feed the population.[51] The situation in Ghat reflected this general situation.

Like previous colonizing periods, the French administration of Ghat did not add much to the physical structure of the town for the benefit of the people. They mostly reused or altered existing buildings from previous periods; however, it seems that French government paid some attention to the town landscape and, compared to previous periods, their small additions were unique. Based on the testimony of Haj Mohammed-Al-Mahdi, a French commander called colonel Florimond[52] planted *athel* trees beside *Jameh Tamalghat*, and planted the main streets and squares of the town with *athel* and *nabeg* trees. This commander then asked some *attara* women (freed slaves) who lived in the town to water them, allocating ten trees per woman. When these trees grew up, the French commander gave the ownership documents of these trees to the women so that they could benefit from them; the branches and leaves were sold at that time to be used for fuel and construction.[53] During my summer visit to Ghat, I did not see any trees in the streets or squares of the town, or even traces of them. It seems that in the past, landscaping the town was not part of Ghatian tradition, and the people used water judicially. This was not only in order to preserve their lives in this part of the Sahara, where rainwater is scarce, but also the fragile structure of their town. Ghatians concentrated their use of water mostly on their farms, palm groves, and kitchen gardens. Support for my argument can be found in Richardson's *Travels in the Great Desert of Sahara: In the Years 1845 & 1846*, in which

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[51] J. A. Allan, *Libya: The Experience of Oil* (London: Croom-Helm, 1981), 71,72.

[52] The name of the French commander is confirmed by a French oil driller called Jean Soupene, with whom I communicated in 2008. Soupene visited Ghat for one day in about 1950 and served in Fezzan for a short period of time. According to his written testimony, the French colonel Florimond, who was the governor of Fezzan at that time, paid attention to education, sanitation, and landscape in the towns of Fezzan; however, especially in Gatron, Ubari, and Mourzuk, he left the town structure intact. Jean Soupene, interviewed by the author, Montreal-Albi, 9 September, 2008.

[53] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

he states, "The town is small. [...] Two or three palms within the town cast a grateful shadow, and make an angle of the streets picturesque, but no other trees are seen."[54]

Moreover, according to Haj Mohammed-Al-Mahdi, French colonizers converted the Italian court/municipality building into a French legal court. They added another floor to the Italian hospital and to the Italian public works administration building, connected it to the street by an exterior iron staircase, and continued to use the building for public works administration. He adds that they also used the Italian *caserma* building for the same purposes – that is, as quarters for soldiers, as offices for civil administration, and as a post and radiotelegraph office. To these functions, Haj Mohammed says, the French added a small coffee shop for soldiers inside this building.[55] Later, in the early years after the independence of Libya in 1951 and before the final departure of their troops from the country in 1955, the French moved their military force from this *caserma* to the large Othmanian/Italian garrison called Forte Vittorio Emanuele which, as I mentioned in section 6.1.2.2, was used as a police station during the Italian period (see fig. 6.7).

Fig. 6.7. Othmanian/Italian garrison used by French troops. Reproduced by permission from Soupene.

[54] Richardson, *Travels in the Great Desert*, 69.
[55] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

One of the most important changes made by the French to the town's built form was the demolition of a group of houses that formed a large part of the northern section of the *Kel Egef en Kena* neighbourhood, and of the adjacent old women's market (*kaswa*).[56] Some people also refer to this market as the vegetable market, while in colloquial Arabic it is called *as-souq* (in formal Arabic *al-souq*). According to Haj Ibrahim Abdarrahman Al-Anssari and Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, these were demolished in order to create a court for the French chevalier soldiers, and an outdoor cinema. The French later replaced this market with an almost exact replica of the old *kaswa*. The only difference, says Haj Mohammed-Al-Mahdi, is in the shape of the arches surrounding the market central square.[57] In the new market, these were curved, unlike the rectangular arches of the old one (see figs. 6.8, 6.9). In order to replace the old *kaswa* and build a new women's market, the French knocked down a cluster of houses in *Kel Tafghaghat* neighbourhood near *Emi Tafghaghat*. This frequent demolition caused serious damage to the physical structure of the town, and had a negative effect on the well-organized social tissue by causing distress to families that had to relocate their residences.

Fig. 6.8. The old women's market (*kaswa*).
Reproduced from De Agostini (1933-1934, 40).

[56] The word *kaswa* means 'market' in Hausa.

[57] Ibrahim Abdarrahman Al-Anssari, interview; and Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

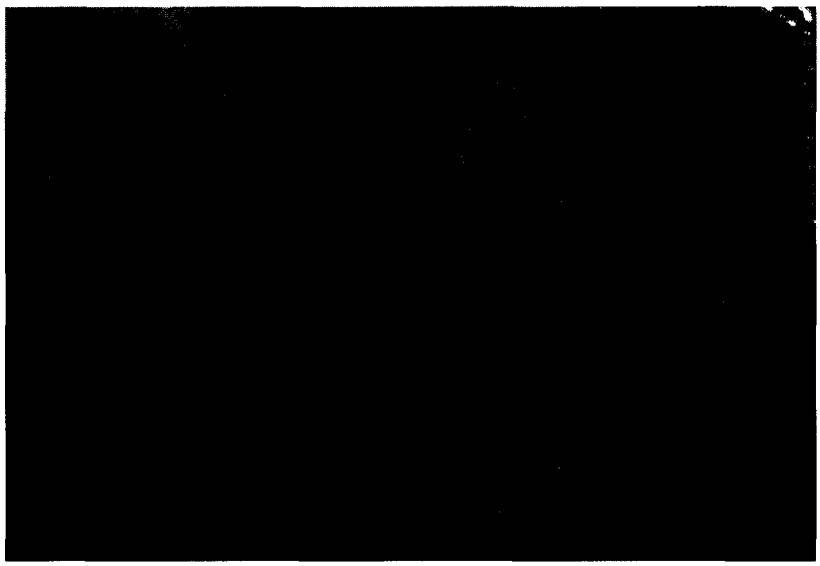

Fig. 6.9. The new women's market (*kaswa*).
Reproduced by permission from Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, from his personal collection.

Besides the landscaping of the town mentioned earlier, one of the most memorable additions to the built environment of Ghat by the French colonizers was the providing of some public services. According to Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, the French built public toilets outside the town at the main gates, and dug a well at *Tamalghat* gate (this well is now totally blocked) (see fig. 6.10).[58] The water of this well was not used for drinking, since it was located at a natural drainage area from the nearby farms. The excess water from irrigation collects and moves towards the natural slope leading to this area. According to Fatma and Aisha Basheer Abd Elhameed, the water of the well was used for purposes such as sprinkling the courtyards (*taa-wkh*) of the houses to cool them down on hot days.[59]

In addition, during the French administration period maintenance of the gates was given some attention. The gate towers at *Emi Al-Zawia* and *Emi Kalala* were renovated (according to Haj Mohammed-Al-Mahdi Basheer Abd Elhameed the other gates did not have towers at that time).

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[58] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

[59] Fatma and Aisha Basheer Abd Elhameed, interviewed by the author, Ghat, 12 August, 2006. Fatma and Aisha Basheer Abd Elhameed are sisters of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, who lived in *Tamalghat* neighbourhood. Their house is located near to this well.

Fig. 6.10. A blocked, dried-out well at *Tamalghat* gate.

The French also made interesting alterations to the old deserted Othmanian citadel, called *Toughoroft*, which was located in the center of the old town. According to Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, Haj Mohammed Baba Abd Alkarim Engoni, and Haj Ibrahim Abdarrahman Al-Anssari, the French blocked up the whole ground floor of the old citadel with debris from the demolished houses of *Egef en Kena* and the demolished women's market, as well as with dirt and garbage. They then converted the Othmanian soldiers' rooms on the roof into a solid circular layer. After that, they built another smaller circular layer on top of the first, and connected the two layers with a staircase. The whole structure was then connected to the street level by three staircases opening in different directions. Finally, the French painted the whole circular structure a red-brownish color.[60] According to the narratives of local people, the French meant to make the whole structure resemble the famous red Turkish hat. This structure was used by the French as an observation tower for defense purposes (see fig. 5.7).

Alterations by individuals to their dwellings were not recalled by the people I interviewed; however, individual alterations made for the benefit of the Ghat community were held in the collective memory of those who lived in Ghat. One of these alterations, as recalled by Haj Mohammed-Al-Mahdi and Haj Mohammed Baba Abd Alkarim

[60] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview; Engoni, interview; and Ibrahim Abdarrahman Al-Anssari, interview.

Engoni, was to the function of one of the houses that opens towards the old *kaswa*. This house, which is believed to be an older house belonging to Gnaba, was converted by its owner into a religious school (*kouttab*) to teach the Qur'an to the town children.[61] Since the Ghatians were at that time generally poor, with very limited resources, this narrative signifies the importance of Islamic education in people's lives and the priority of the good of the community and God's eternal reward (*al-ajer*) for good deeds, as opposed to individual profit and immediate rewards. Although this school does not exist anymore, the people still remember with respect the name of its donor and are able to locate its previous site.

I drew the following plan to show the changes that occurred to Ghat's physical structure during the French colonization period (see fig. 6.11). I based this plan on the same sources that I used to draw the plans of Ghat during the Othmanian and Italian periods.

[61] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview; and Engoni, interview.

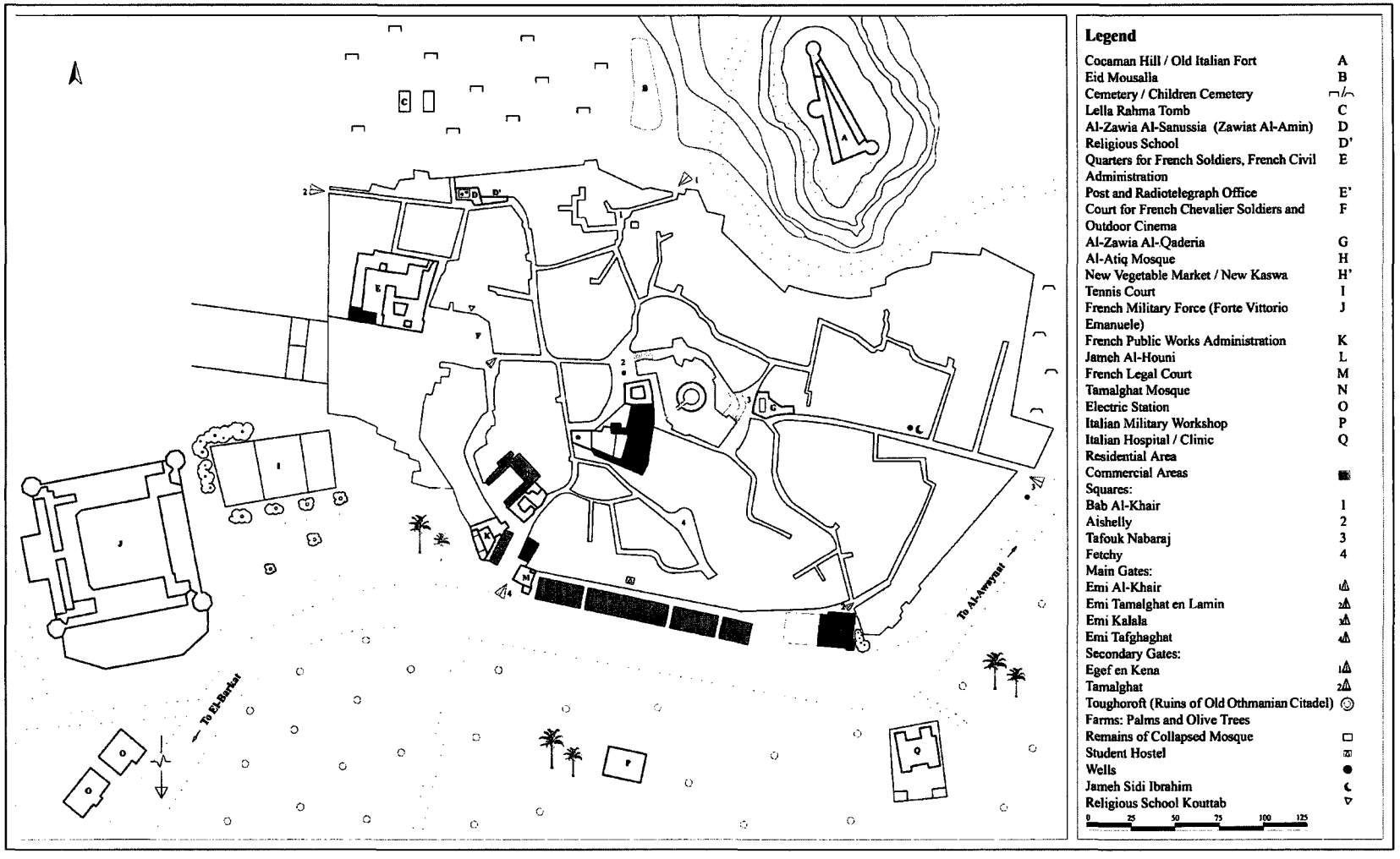

Fig. 6.11. Map of Ghat during the French period.
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20) and FINNMAP Company (1984). Redrawn by the author, with modifications based on field and research work 2005-2006.

6.1.3 Phase II: Ghat after Independence and before the Revolution (1951-1969): The Kingdom Period

The years after the independence of Libya, which was achieved in December 1951, were marked by low economic performance and dependence on the aid of western governments and rents from military bases. However, between 1962 and 1969, Libya's dependence on foreign aid declined and was replaced by oil revenues. In the early 1960s, government investment gave priority to deficiencies in the nation's physical and social infrastructure. Communication and housing were improved, and special attention was given to spending on education and health. Generally, between 1962 and 1968 the standard of living of Libyans improved, especially in housing, where investment increased most rapidly.[62] In 1966 a major national housing program was adopted, named after the King of Libya at the time and known as the Edris 1st Program. Ghat had its share of this program, and a large housing project was launched with the goal of transferring the residences of the old town of Ghat to this new settlement upon completion.

As a result of this program, during this period the government did not make any real effort to preserve, improve, or alter the physical structure of the old town or its close surroundings. They re-used existing public buildings for administrative purposes. For example, they changed the building used in previous ruling periods as a building for public works into royal guesthouse while, after the French evacuated it in favour of the Othmanian/Italian garrison, the *caserma* building was used as a Libyan police station.[63] However, as soon as the French troops left the country permanently and evacuated the garrison, the Libyan police transferred their station there from the *caserma* building. Meanwhile, the function of the *caserma* building changed again, and it was used for royal local administration, called locally *mutassarifia*.[64] In the following plan, I show the changes that occurred in the town's urban form during the Kingdom period (see fig. 6.12).

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[62] Jamal, "Housing Policies in Libya," 10.
[63] Although Libya became independent in 1951, French troops remained in Fezzan until 1955.
[64] This Othmanian administrative classification term continued to be used until the Kingdom period.

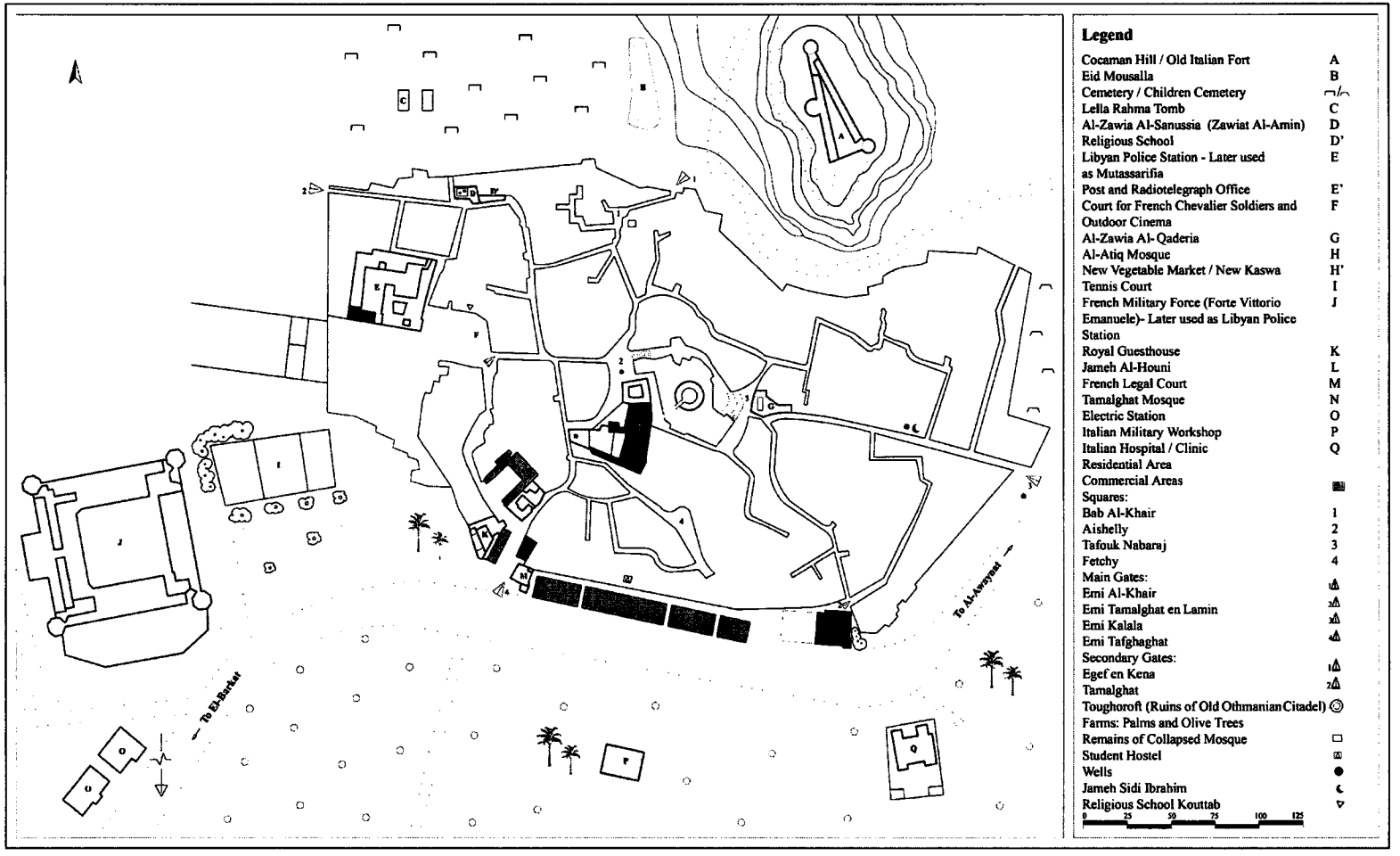

Fig. 6.12. Map of Ghat during the Kingdom period.
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20) and FINNMAP Company (1984). Redrawn by the author with modifications based on field and research work 2005-2006.

6.1.4 Phase III: Ghat after the Revolution (1969-2007): The Existing Situation

The years between 1969 and 1981 were 'fat' years in Libya's history, involving high expectations and unlimited supplies. This period also witnessed an increase in both production and service activities.[65] In Ghat, upon the completion of the Edris 1st public housing project in the early 1970s, people were encouraged to leave the old town and move to the new modern settlement. The abandonment of the town was gradual. Mohammed Ali Mohammed says that "the desertion started effectively by the end of the seventies and early eighties."[66] At first, the people refused to move to the new settlement, considering the free allocation of a house by the government to be "government looking for trouble." Mohammed Ali says that "every time the government orders them to go and allocate houses a problem happens because they do not want to go to the modern area which was then located in uninhabited bare desert. However, as time passed and after the development [of the surrounding areas], moving out of the town became more desirable."[67]

The built heritage of Ghat is now in alarming situation, and a considerable part of its eastern side has already gone. The destruction in Ghat's physical structure has occurred as a result of human and natural causes. In the early 1980s, according to Haj Mohammed-Al-Mahdi, the buildings located along the main road were demolished.[68] The main reason for demolition is said to have been the need to widen the main road. The buildings destroyed in this project were *Jameh Tamalghat* (built during the Italian period), the linear commercial strip parallel to the town wall, the small shops built at *Emi Tafghaghat* and existing since the Othmanian period, and the administrative buildings located close to *Emi Tafghaghat* and along the road.

Other parts of the town collapsed naturally as a result of lack of maintenance following the abandonment of the town by its residents. Another possible cause, according to the testimony of Al-Sanussi Goudya, was the chaotic extension of water

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[65] Jamal, "Housing Policies in Libya," 11.
[66] Mohammed Ali Mohammed, (see chap.2, n.56).
[67] Ibid.
[68] Mohammed-Al-Mahdi Basheer Abd Elhameed, interview.

pipes to the town, which took place on an individual basis by the dwellings' owners.[69] This lead to undetected leakage that caused the fragile structures of the houses to collapse (see fig. 6.13).

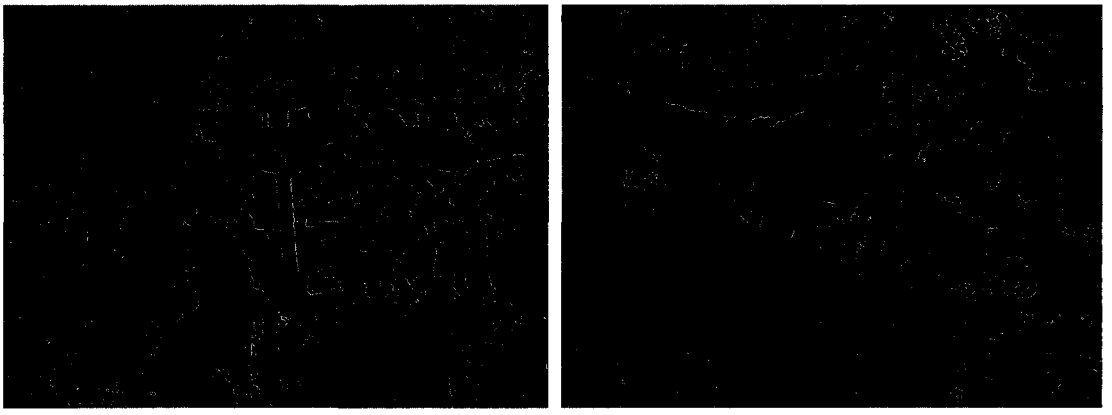


Fig. 6.13. Extensions of water pipes.

The worst damage to the compact structure of the town was in *Kalala* neighbourhood. According to Mohammed Ali Mohammed:

> *Bab Kalala* [*Kalala* neighbourhood] was the last to be built and the first to collapse. It was built on an area that was previously the drainage area where the excess water from farms collected. During the summer, this water evaporates. However, after the building and extending of *Bab Kalala* neighbourhood, the excess water had no open surface to evaporate quickly and collected under the houses. As a result, the dwellings' foundations became so fragile that, as soon as the people abandoned Old Ghat for their new houses, the houses of this neighbourhood, which was the last to be built in the town, was the first to collapse.[70]

Mohammed, who is an engineer, further explains why the water collected particularly in this area: "the farms surrounding this area have a rocky base as close as four meters to the surface [by his estimation]. For this reason, the water collects and moves towards the existing natural slope leading to that natural farms' drainage area [where the newest part of *Kalala* neighbourhood was built.]"[71] The most damaged parts of *Kalala* are now totally wiped out and the ruins have been removed, and a wall has been

[69] Goudya, interview.
[70] Mohammed Ali Mohammed, interview.
[71] Ibid.

built to fence in the wiped-out areas. This vacant land is used for Ghat's annual festival (see fig. 6.14).

Apart from the above-mentioned destruction, only a thin strip along the northern side of the town, facing the cemetery, as well as some other houses within the town, have fallen partially into ruins. In addition, however, some replacements or additions to the town's structure have been made in the past few years on the south side and adjacent to the main gate (*Emi Tafghaghat*). An antique brass shop for tourists has been built in place of some demolished houses in *Tafghaghat* neighbourhood, and the new *kaswa*, which was built during the French period, has also been demolished and replaced by *Al-Zawia Al-Taiebiya*. In addition, *Jameh Al-Houni*, which is located at *Emi Tafghaghat*, has changed its function to become *Al-Zawia Al-Shatheliya*.[72] Furthermore, new buildings have been built on the site of the obliterated *Egef en Kena* neighbourhood, including the building for the Popular Social Leadership, and on the site of the small farms adjacent to *Egef en Kena* neighbourhood, such as *Al-Rahma* Mosque (see fig. 5.2).

Currently, the *caserma* building is being altered into a museum and some casual maintenance work is being done occasionally to the town gates. Work completed so far includes renovating the gates and crowning them with new towers that reflect the traditional local architecture. With regard to the residential quarters, which were generally in an alarming situation at the time of my visit in summer 2006, a large number of houses were either bricked up in order to prevent intruders, or closed up by their owners with large locks and iron doors. Additionally, some streets have been bricked up to hide collapsed areas.

However, all the remaining old traditional religious buildings are well-maintained, in good condition, and in use. These include *Al-Zawia Al-Sanussia*, *Al-Zawia Al-Qaderia*, *Jameh Al-Houni*, and *Al-Atiq* Mosque. The latter, with its new additions (most significantly temporary roofing using metal sheets for one of its main open courtyards, and permanent roofing to the court where the well is located at the western entrance), is an excellent example of the survival of traditional construction methods over the years (see figs. 5.2, 5.23).

[72] A religious school that teaches the *Shatheliya* method (*tariqah*).

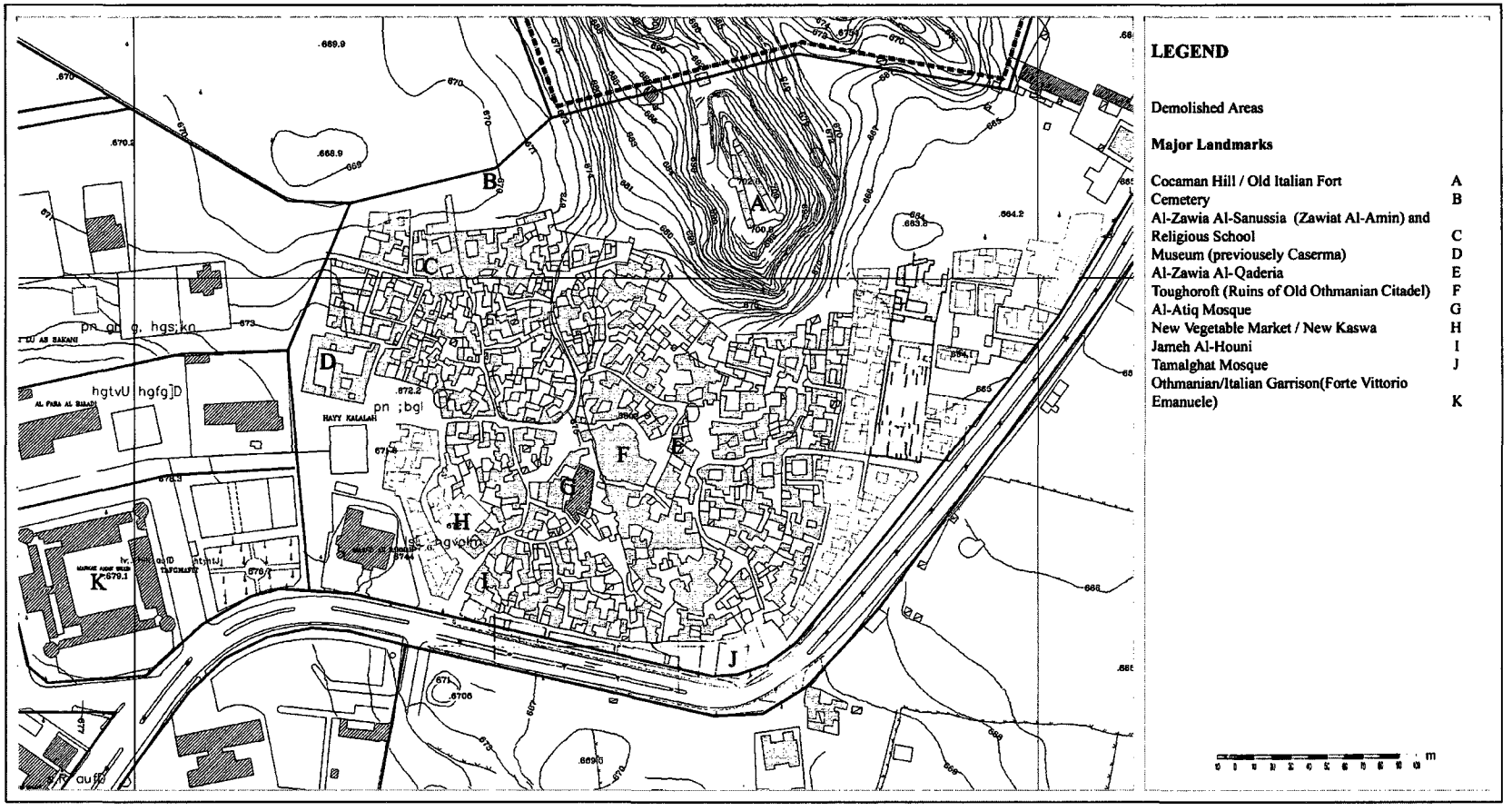


Fig. 6.14. The demolished areas.
Adapted from the map of Ghat by FINNMAP Company (1984). Modifications by the author based on field and research work 2005-2006.

Chapter 7
The Hidden Dimension of Ghat: Space and Meaning

7.1 The Concept of Public and Private Spaces in Old Ghat

The relationship between private and public varies from one culture to another, both in the degree to which they are distinguished, and in the form this distinction takes (for example, hierarchies of public and private spaces, or the organization of public and private spaces as immediately next to each other or with one or more intermediate zones between them). As I wrote earlier (section 1.6.1), in Ghat, public and private spaces exist both within and beyond the town wall. The town incorporates spaces for different social groups and activities. Public spaces within Ghat are constituted by the areas immediately around the main gates, non-residential squares, covered and uncovered streets and nodes, mosques, *zawaya*, individual shops, and commercial areas for men and women. Outside the town walls, public spaces are represented by kitchen gardens, date palm farms, and the areas around the main water sources. These spaces and places within and outside the town provide channels for movement and communication, and common spaces for socializing and collective recreation, sometimes (but not always) segregated according to gender and age.

Private spaces comprise largely (though not exclusively) residential quarters and domestic spaces. In addition to the residential and domestic spaces of Ghat, some other spaces and places of the town turn into private areas at particular times of day. As with public spaces, private spaces extend beyond the town walls in the nearby village, Tadrumt, which is composed of separate neighbourhoods for particular social groups (see section 5.4.1). These include, primarily, the families of the Ghatians' slaves (*iklan*) and servants (*attara*), as well as blacksmiths (*inadhen*), and groups of musicians and dancers.

What I have here described as a public space, in keeping with the way that we commonly conceptualize public space, may not have been considered so in Ghatian society. As I wrote in (section 2.2), based on my knowledge of the Ghatian conceptions of public and private and the distinction between them, Ghatians felt that they were in a public space only when they left the town walls. Only outsiders unfamiliar with Ghatian society refer to the above-mentioned non-domestic spaces within the town as public

areas. The inhabitants, by contrast, considered these spaces to be extensions of the confined private domain represented by their dwelling places. However, while the level of privacy, type of users, and forms of use varied in the spaces that Ghatians considered to be extensions of their private domains, such variation was regulated and controlled.

The Ghatian concept of these spaces as private evolved from the fact that for most of the year, these spaces and places were used by the extended families of their tribes, who constituted the structure of the town society. Only in caravan seasons did some of these spaces – such as main squares, market areas (immediately inside and outside the wall gates), and mosques – become accessible to, and shared with, total strangers (for example, merchants and dealers from nearby villages, towns, or countries). At these specific times of year, these spaces may both have functioned, and been considered by Ghatians, as public areas. In order to emphasize that the town is a private territory, the Ghatians provided a praying area (*mousalla*) outside the town wall, adjacent to *Emi Tamalghat*. The building of this *mousalla* highlighted the boundary between public and private spaces, and indirectly restricted strangers' access to the town mosques, especially during trade caravan seasons.[1] In addition, this allocation signified the Ghatians' feeling of their town as their extended home, and the need to protect this enlarged private territory from being accessed by undesirable outsiders. In addition to those functions described in section 5.3.3.1, the presence of the town wall and the control of access to the town through its four main gates physically emphasize the boundary between the public and private realms. By contrast, since gate areas and the market places located on the western and southern edges of the town (immediately inside and outside the wall gates), were accessible to strangers from nearby villages and towns at all times, Ghatians considered them as public domains all year long.

Ghatians conceptualized their town as one big home inhabited by one large family. This united image was based on blood and marriage ties, the low population density, and the adoption of Tuareg culture, all of which diluted major ethnic differences and resulted in Ghat being constructed like a cell composed of several smaller cells. Thus,

[1] Strangers living in the town on a temporary basis were allowed to use the town mosques. This information is based on Imad Al-Deen Ghanem's translation of the diary of traveler Erwin von Barry, which recounts how von Barry, who pretended to be a Muslim in Ghat, was allowed to use the town mosques like the Ghatians. Ghanem, *Al-Almani Erwin von Barry*, 185, 190, 207.

the usual concept and meaning of public space, as described earlier in this research (section 2.2), may not be applicable to the spaces within Ghat. These spaces might more appropriately be termed 'shared,' 'communal,' 'collective,' or 'semi-private,' rather than 'public.'

The Ghatians did not live in isolation, but had a sense of community spirit and cohesion. They developed shared spaces at the neighbourhood and town level that supported their social values, and their economic, recreational, political, and spiritual needs. Some of these spaces and places, such as *Aishelly* Square, *Tafouk Nabaraj* Square, the women's market (*kaswa*), the *Tafghaghat* Gate Market (*al-souq*) (these places will be discussed in sections 7.2.2 and 7.2.3), and *'Ayn Ghat*, acquired meanings through their various functions, which eventually increased their role in people's lives. For example, *'Ayn Ghat*, which is the main spring in Ghat, located just a few meters outside the town wall across the main road, besides being the main source of fresh water for the people of Ghat functioned as a place for washing and drying clothes for the whole town. This multi-use place provided opportunities for social interaction, and acquired social meaning through its role in strengthening social relationships.

Another important aspect of Ghat that further illustrates the Ghatians' unique conception of public and private domains is that the boundaries of the private areas within the town were temporal, changeable and could be extended and controlled based on the hours of the day and gender privacy requirements. At particular hours of the day, the shared open spaces within the town (streets and squares) became almost completely private female domains, which were shared with children and elderly males of the town. This temporal boundary, which restricted the use of space to a particular gender, occurred because of the people's lifestyle and daily routine. The men would usually leave the town after dawn prayers for the nearby farms, where they cultivated their lands and looked after their animals, or for their little shops concentrated mostly at the commercial areas at the southern gate. Other men were shepherds or merchants on continuous long travel. Around 1:00pm the men would return from their work to rest and have lunch in the town. This resting period would extend from the *al-ẓouher* prayer time until *al-aser* prayer time (the noon and afternoon Muslim prayer times), after which the men would go back to their jobs, leaving the town an almost male-free domain. There were, of course, some

exceptions, as I noted earlier: for example, elderly men would normally gather under the shaded seating areas (*al-majales*) of covered streets, especially near mosques, *zawaya* or in *Aishelly* Square or on the periphery of the town. Nevertheless, even in these cases the places that the elderly men used during the day were clearly delimited, and were known and could be avoided by the women.

Generally, during the day, the streets and squares were used mostly by female slaves (*iklan*), or female servants (*attrah*). In fact, at that time it was part of Ghatian tradition that only slave women used the town street during the day. If free and high-class women (*al-hara'er)* wanted to visit, for example, their families or relatives, they would leave their dwellings at dawn (*al-fajer*) and would not come back until sunset (*al-maghreb*). Some dwellings even have a back door to provide easy access and shortcuts to the next street or neighbourhood, permitting private indoor movement for women within the town. These back doors were used by the females of these dwellings, and also by neighbouring women, who would ask permission to pass through them. As I mentioned earlier, neighbours were usually family or close relatives.

All these ways in which Ghatian women's domains and private movement were protected were created out of respect, and not in order to control them. In Ghatian culture, which stems from Tuareg culture, women are greatly respected. Due to the traditional system of female inheritance, women have most of the wealth, which gives them prestige, as well as the role of looking after their wealth, either directly or by assigning or hiring somebody else to do it (the husband is usually given this job). According to Tuareg tradition, women do not veil themselves or hide from men, especially in the domestic domain, where most of the visitors are close relatives and blood-related, and therefore are those with whom women can socialize in the same space under the same roof. However, Tuareg women's right to and need for privacy is highly protected and well provided for (this will further be discussed as part of section 7.2.1.9).

At sunset, around *al-maghreb* prayer time, the work period would end and the men would come back to their town and homes from their fields or shops to rest. They would gather at the nodes of streets and in squares and seating areas adjacent to mosques, talking, or 'gossiping,'[2] until *al-isha prayer* time. After finishing this prayer, everybody

[2] Jami, "Ghat and its Surroundings": 173.

would go home. Usually after *al-isha* prayer time no social visits were performed and the streets were deserted except by those returning from visiting their families, and the last main gate would be closed, preventing access to and from the town.

The following paragraphs provide analytical descriptions of the urban form and architecture of selected major public and private spaces and places in Ghat at three levels: home, neighbourhood, and town; as well as an account of how Ghatian culture and way of life informed the use, conceptualization, and construction of these spaces.

7.2 Physical versus Intangible Meanings within Public and Private Spaces

7.2.1 Home: Domestic Spaces

Based on my observations, the architectural form and structure of Ghatian dwellings are very simple and humble, with one or two floors, and one or more (in larger lots) courtyards. The dwellings' lots vary in size and usually take slightly irregular rectangular or square shapes. Based on my survey of selected dwellings, the dwelling is often designed to be entered through a small, low door onto an entrance passage (*sakiefa*) leading to a sunny inner square or rectangular court, called locally *taa-wkh*, surrounded by the various rooms of the house. From the central court, an exterior central or corner staircase, which in many cases is partially shaded, leads from the court to the terrace of the roof (see figs. 7.1 - 7.7) (see Appendix XX A, B, C, D).

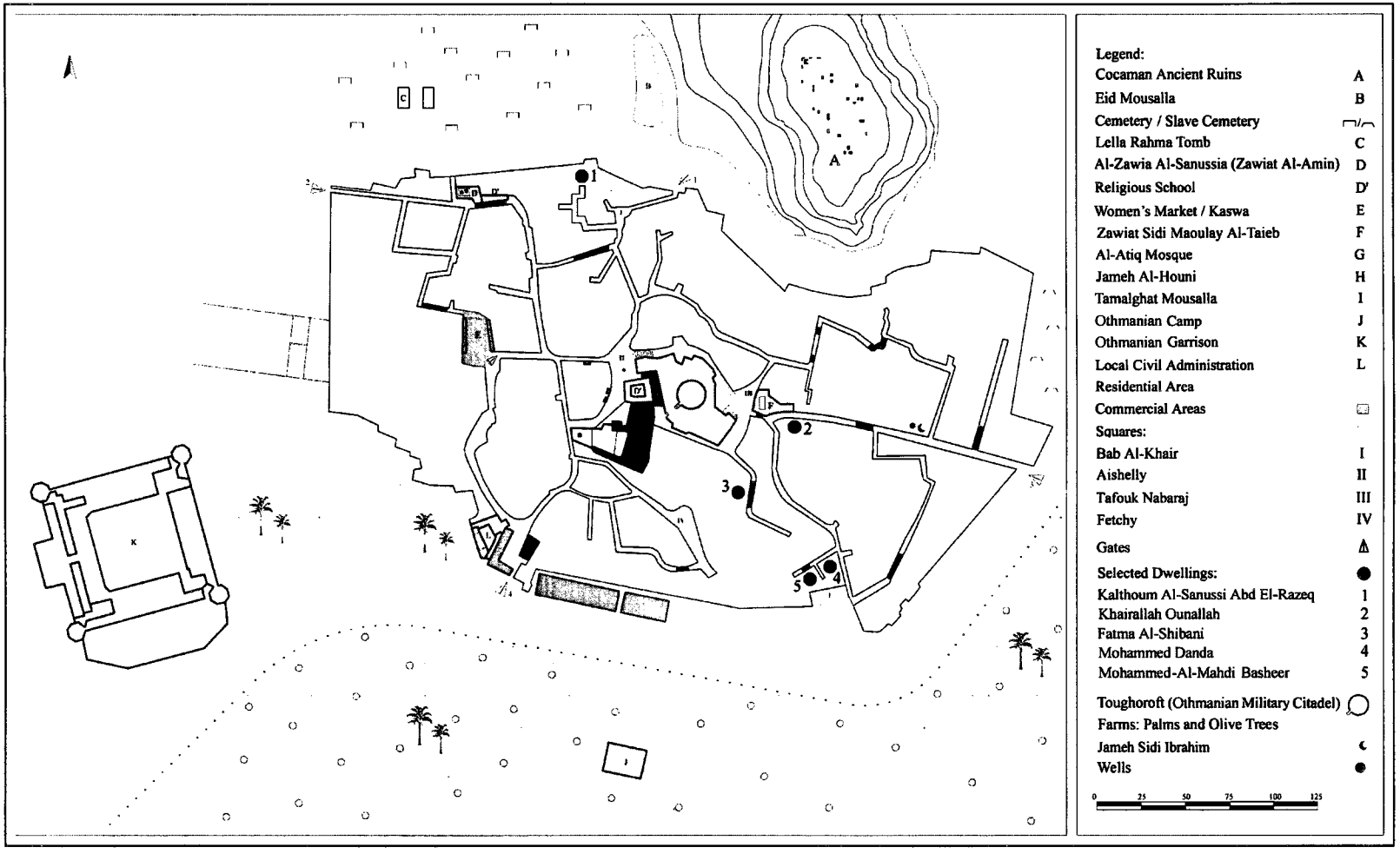


Fig. 7.1. Location map of selected dwellings for detailed study (surveyed dwellings).
Adapted from Scarin (1937c, appendix), De Agostini (1933-1934, 20), and FINNMAP Company (1984). Redrawn by the author with modifications based on field and research work 2005-2006.

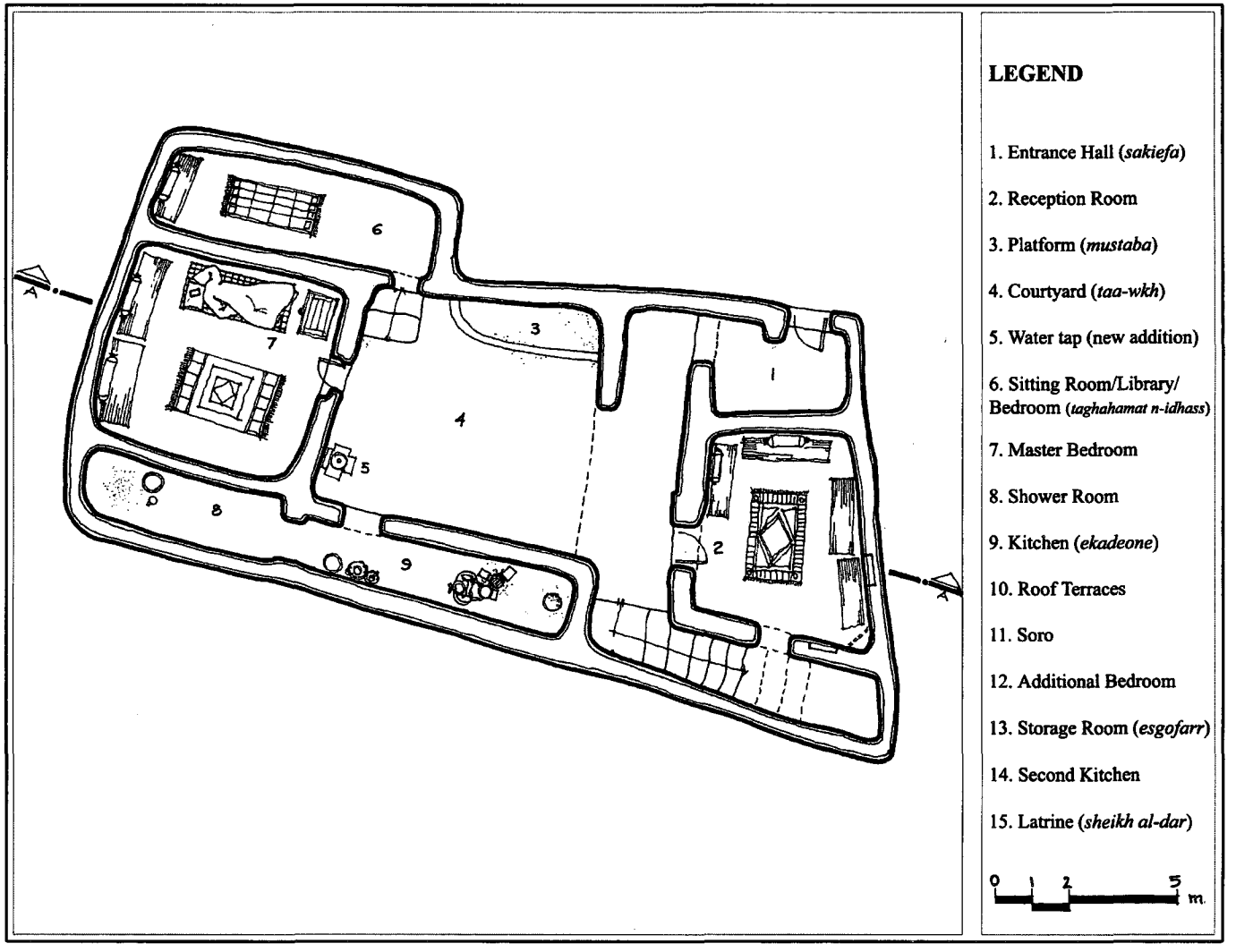


Fig. 7.2. The ground floor plan of Haj Mohammed Danda's family house.

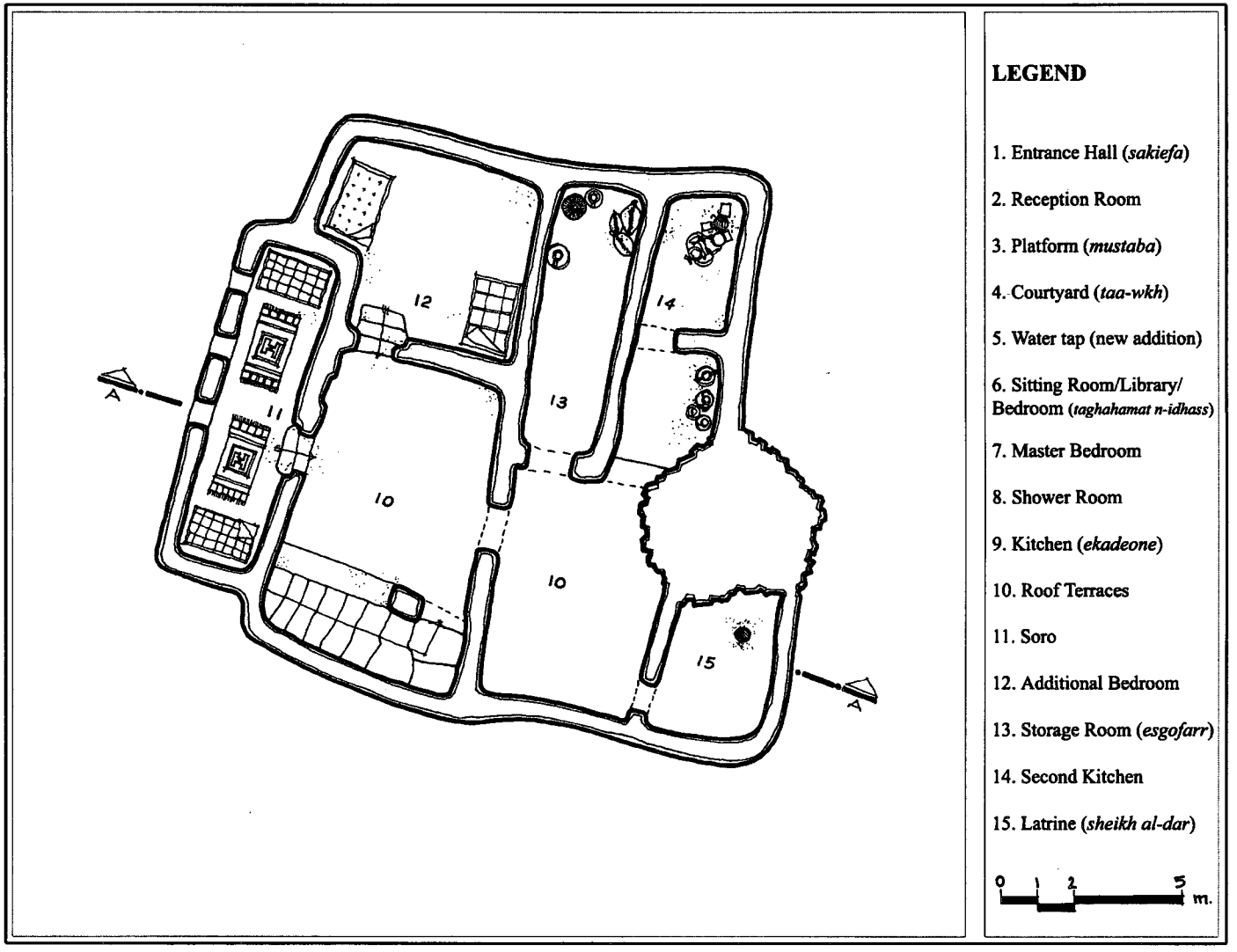


Fig. 7.3. The roof plan of Haj Mohammed Danda's family house.

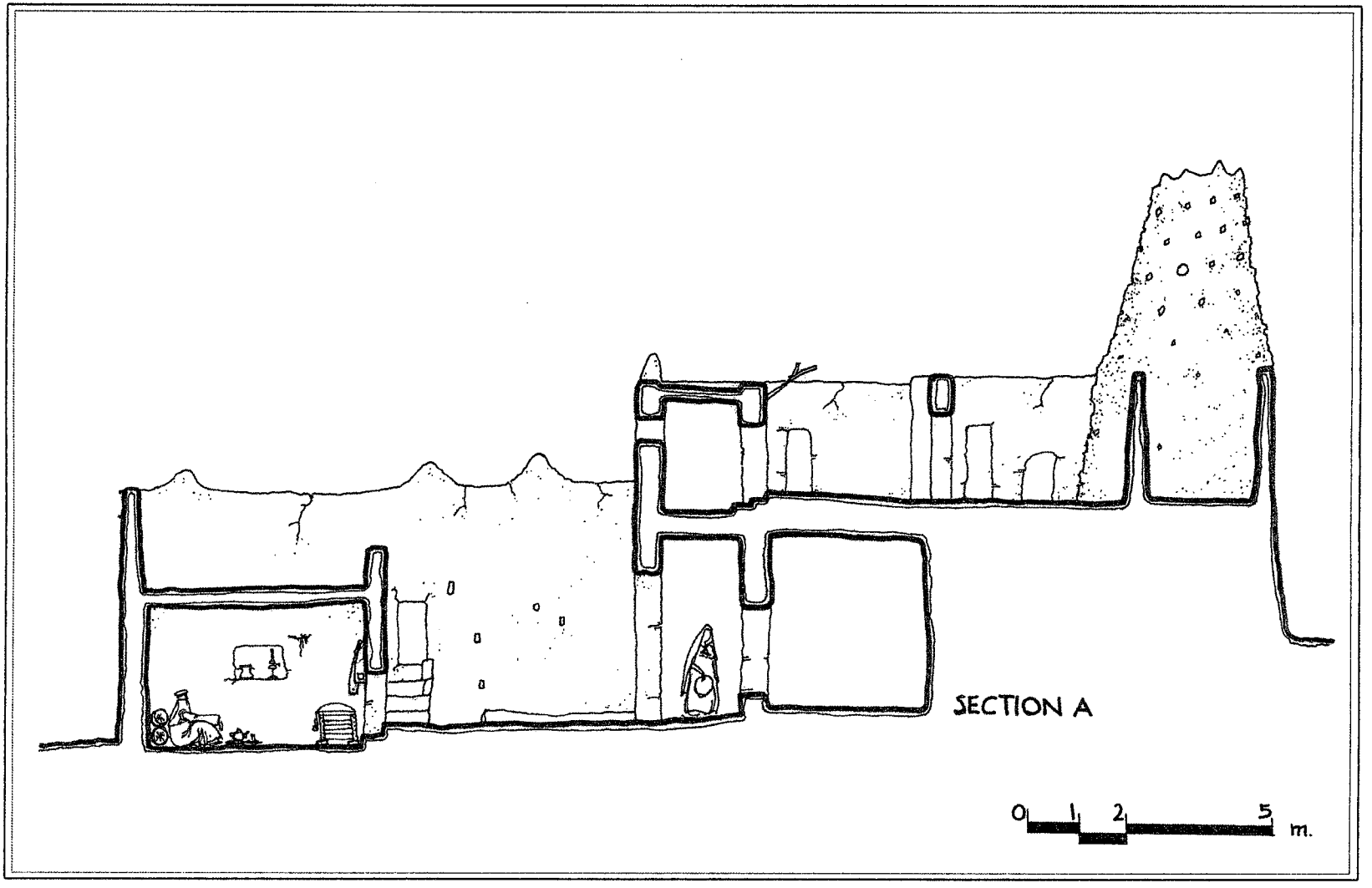


Fig. 7.4. Cross-section of Haj Mohammed Danda's family house.

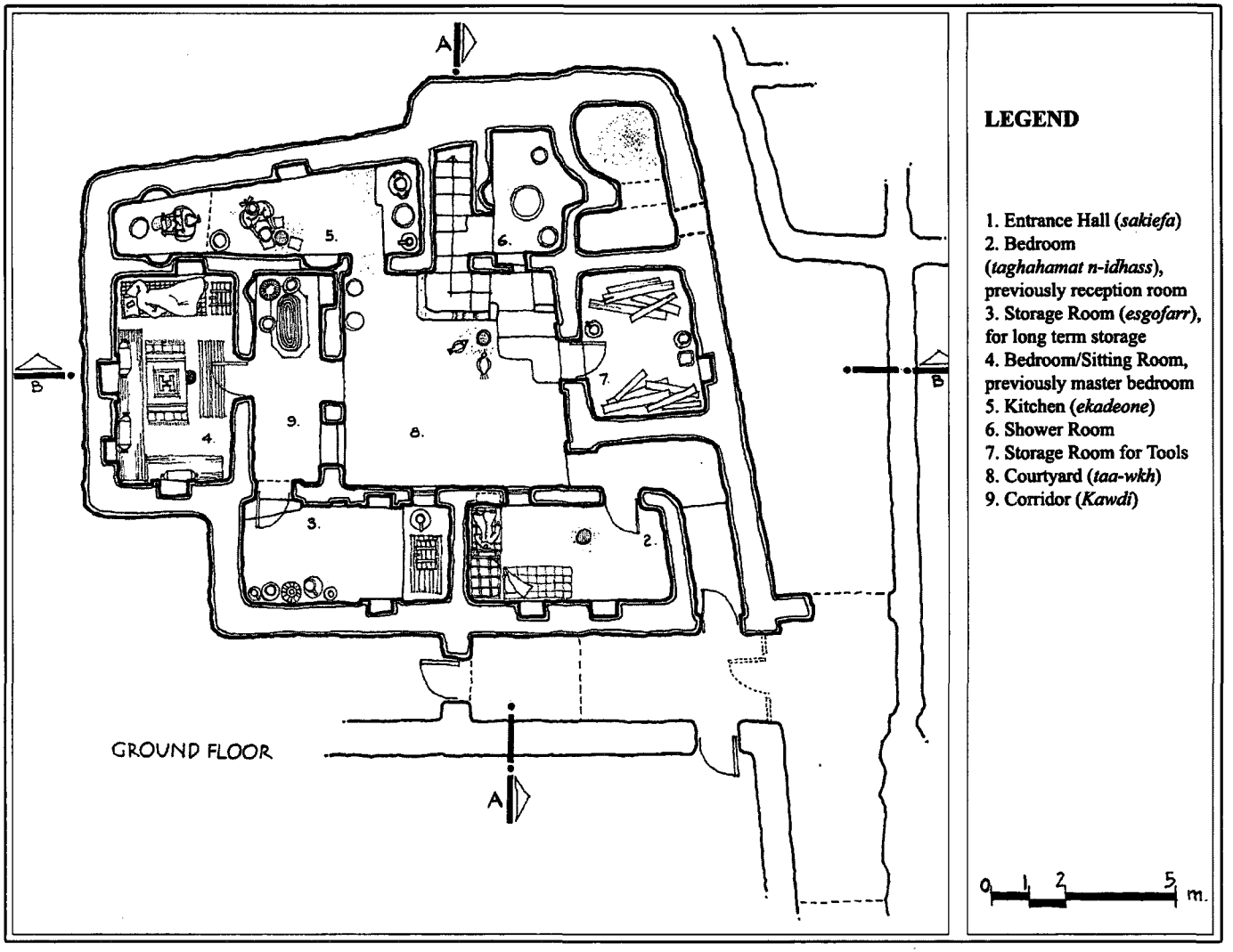


Fig. 7.5. The ground floor plan of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house.

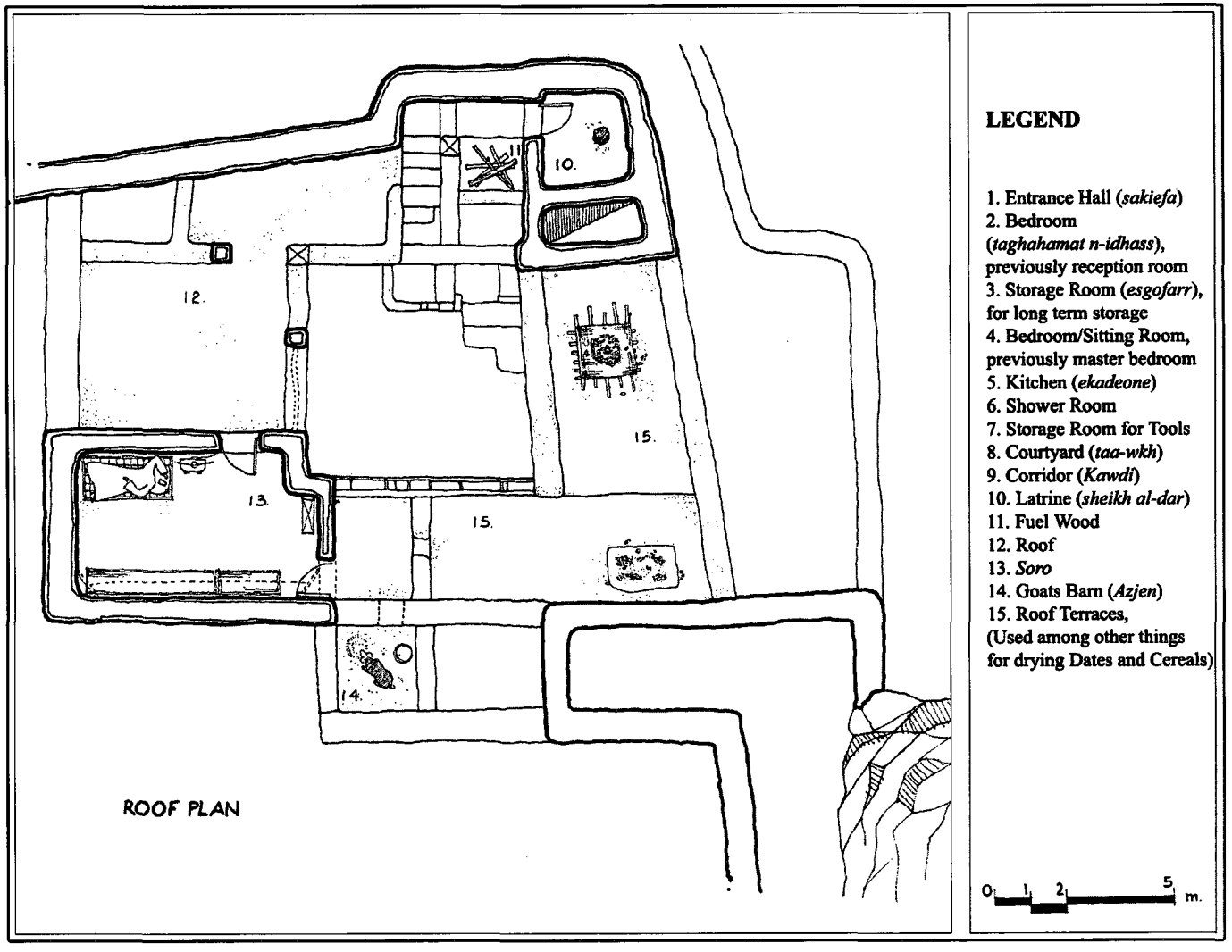
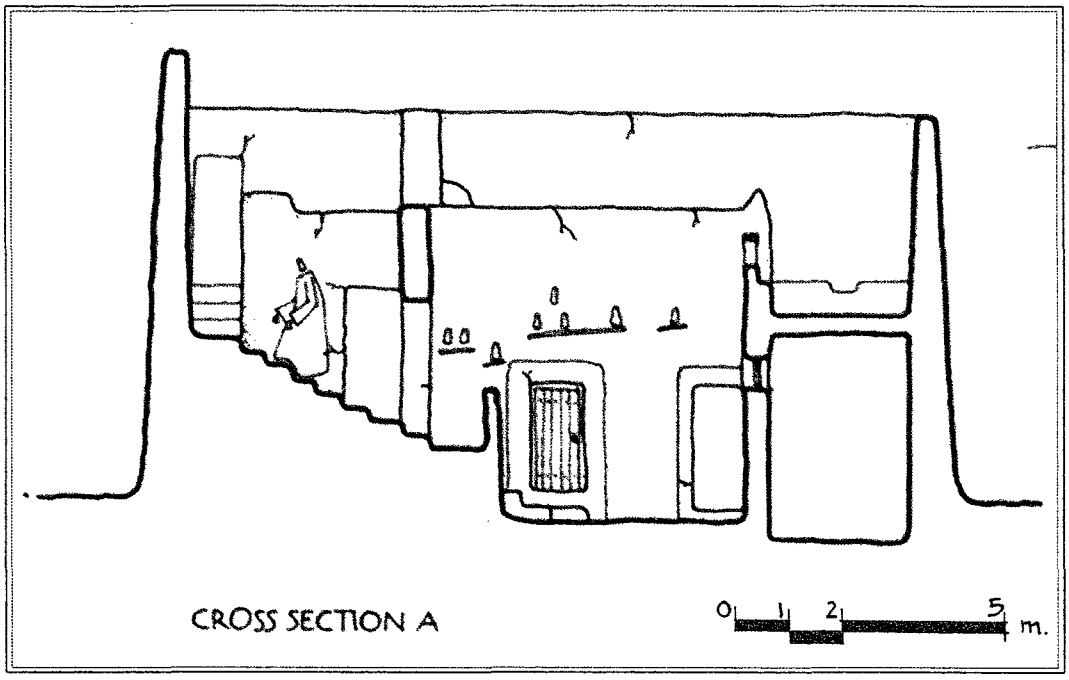


Fig. 7.6. The roof plan of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house.



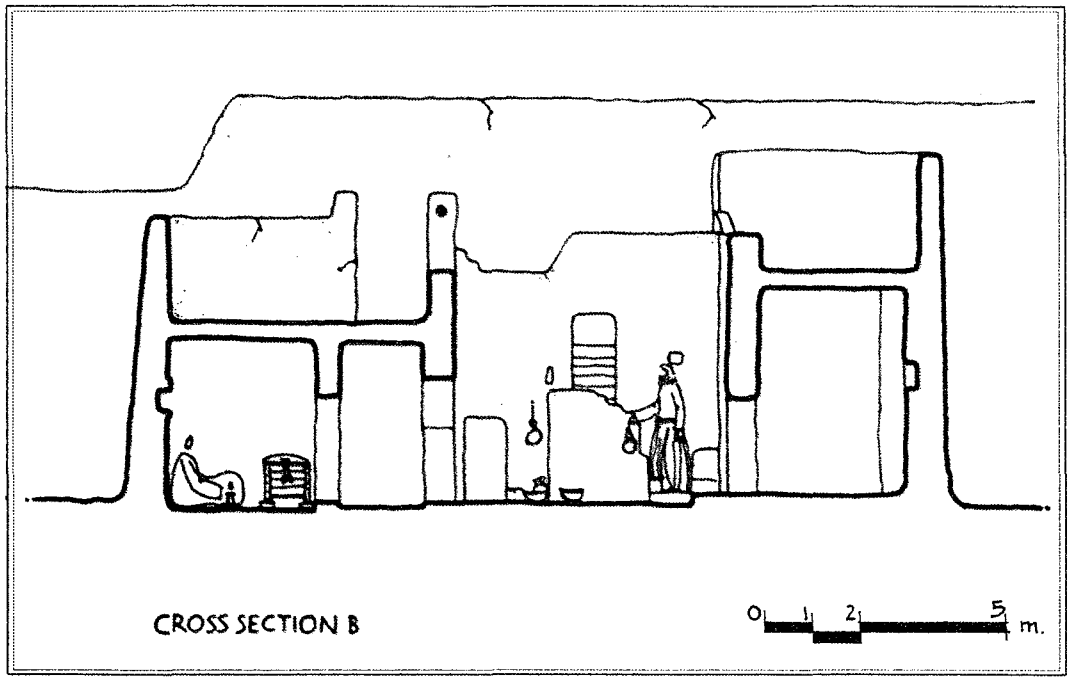


Fig. 7.7. Cross-sections of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house.

In Ghat, the general trend is for the dwelling's rooms, especially those on the ground floor, to have no windows. The rooms on the second floor, if there are any, might have small windows opening onto the street, the roof terrace, or the interior court.[3] The rooms are naturally lit and ventilated, mainly through the doors; however, natural light may also come from small and differently-shaped vents cut into the mud walls (see fig. 7.8). Besides climatic reasons, the main reason for not making windows is structural. The wall's mud structure is fragile, and could collapse if large openings were made (building material and construction methods will be discussed in section 7.2.1.12). However, there are a few exceptions in which alterations were made to the original structure in the years just before the town's abandonment, or even after. In such cases, either a larger vents or very small windows were cut out in the ground floor rooms, opening onto the interior court (see fig. 7.9).

7.2.1.1 The Front Door (*émi n-éhen*)

One of the most noticeable architectural features of Ghatian dwellings, as mentioned above, is the height of the doors, particularly of the front door, called *émi n-éhenan* (singular *émi n-éhen*) in Tuareg (*tori* in Hausa). Some of these doors are so low that you are obliged to stoop to enter through them (see fig.7.10). According to local people's testimonies, the doors were made short for privacy and defense reasons. Privacy is achieved by preventing a passerby or a visitor from looking directly into the interior of the dwelling. Defense is enhanced by preventing intruders from being in an easy position for a direct attack. Other locals related the short dimensions to the cost of the wood used in making doors, and the manufacturing involved in making the wood ready for use.[4] Good quality wood, such as cypress, was brought from distant places such as the valleys of the Tassili near Djanet in Algeria,[5] and prepared by the best carpenters of Tawàt in Algeria.

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[3] It seems that in the past the use of windows was not common: according to Erwin von Barry, windows are rarely found in Ghat dwellings. Ghanem, *Al-Almani Erwin von Barry*, 80.

[4] Based on testimonies by Ibrahim Bousha Al-Koni (see chap.3, n.53), interview, and Mahmoud Ali, interview (see chap.5, n.103).

[5] Jami, "Ghat and its Surroundings": 171.

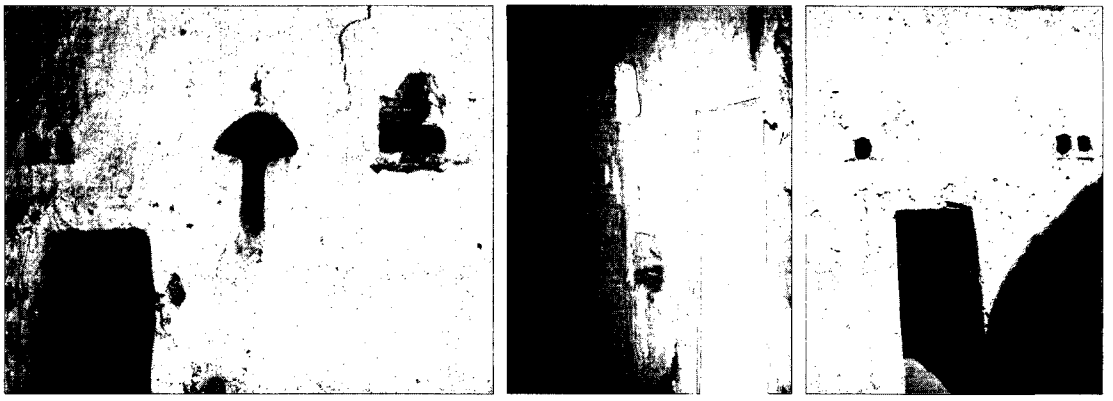

Fig. 7.8. Vent holes of different shapes cut out of the mud walls.

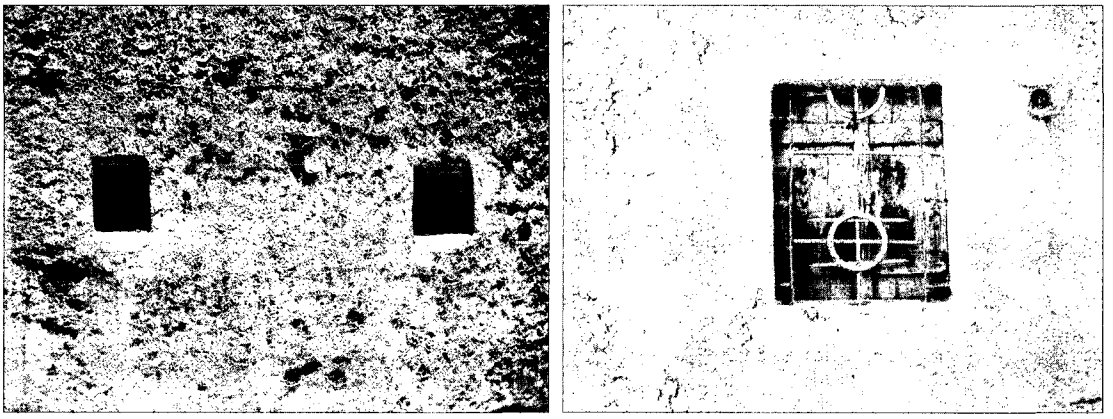

Fig. 7.9. Alterations to the original structure: the addition of small and middle-sized vent holes and windows.

Fig. 7.10. Low door.

The most attractive feature of the dwellings' main doors is the skillfully manufactured wooden lock and its heavy metal key. The key is a piece of thin iron six or eight inches long.[6] Surprisingly, the keys to some dwellings were normally kept in a small niche beside the door and were not carried around unless the inhabitants were traveling or leaving the town for a long time. A stranger would be unlikely to guess the purpose of these niches. By placing one's hand through the niche, one can unlock and slide aside the wooden bar placed across the interior of the door. This architectural element, which is more common in El-Barkat village, reflects the peacefulness of the town, and suggests that locking the dwelling, beyond assuring security, signified ownership, symbolically drew a boundary-line, and marked the start of private territory (see fig. 7.11).

Access to this private territory is articulated either by a recessed entrance or by a projected entrance frame made of thick mud-work (see fig. 7.12). This recess or projection in the wall signifies both the connection point and the boundary line between the dwelling's private interior and the exterior domain. It also provides a small, semi-private shaded area away from street movement for the standing person, which is similar to an Islamic concept that protects the right of the road and its users. The projected frame can also be used as a cul-de-sac entrance leading to a group of dwellings for related families, as is the case in *Kalala* neighbourhood.

Another important and common element of the entrances of most of Ghat's dwellings and some of its culs-de-sac (which are shared by several dwellings) is that they are lower than street level, with one or two steps leading down to them from the street, and mostly surrounded by a curb, which protects the dwellings from heavy sand penetration on stormy desert days (see fig. 7.13). Another way to screen the dwelling from wind and sand penetration, especially in narrow streets where curbs could block the right of way, is by building a low, short wall close to the entrance (see fig. 7.14).

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[6] According to the testimonies of local people, the oldest locks and keys used in Ghat dwellings were both made of wood. However, during my visit I did not get the chance to see a wooden key in Ghat. Richardson provides a detailed description of these wooden locks and keys. He says: "I have noticed here in the Sahara, as well as on the coast of Barbary, very ingenious wooden lock-and-keys. The key is a piece of wood six or eight inches long, and two broad, covered at one end with little pegs. The lock is fitted to these pegs by a little hole. On the arrangement and fitting of these pegs and holes depend the secrecy and security of the lock. It is no easy matter at times to unlock these locks, and requires a very practiced hand." Richardson, *Travels in the Great Desert*, 71.

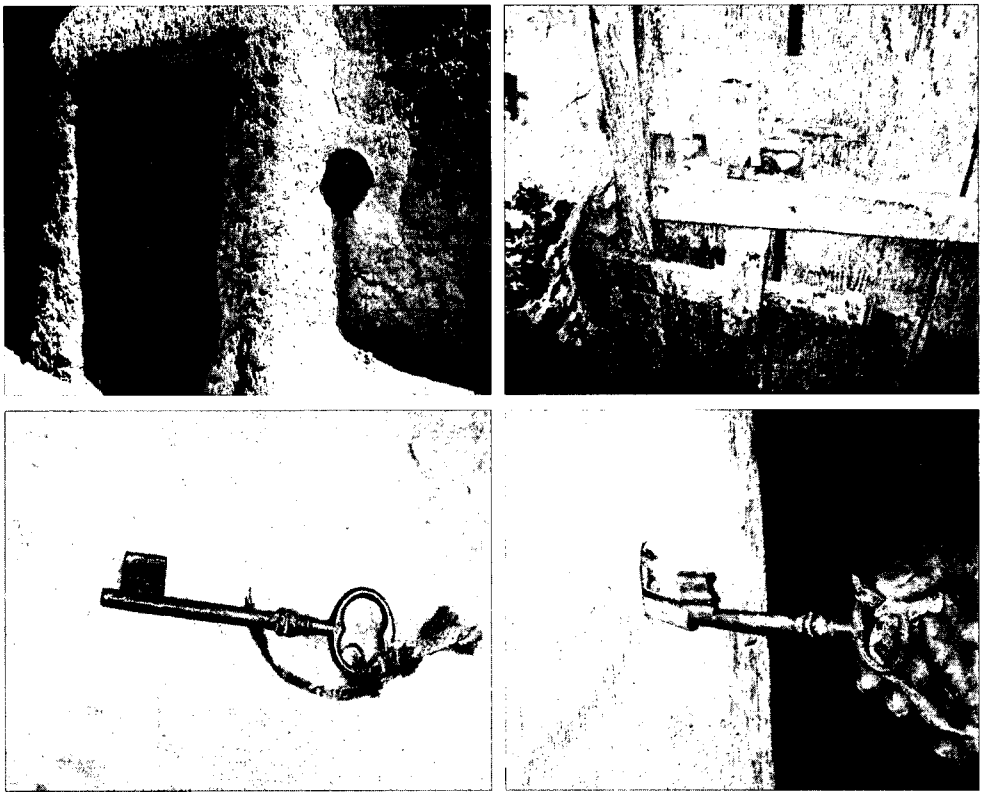

Fig. 7.11. Wooden lock and metal key for a dwelling door.

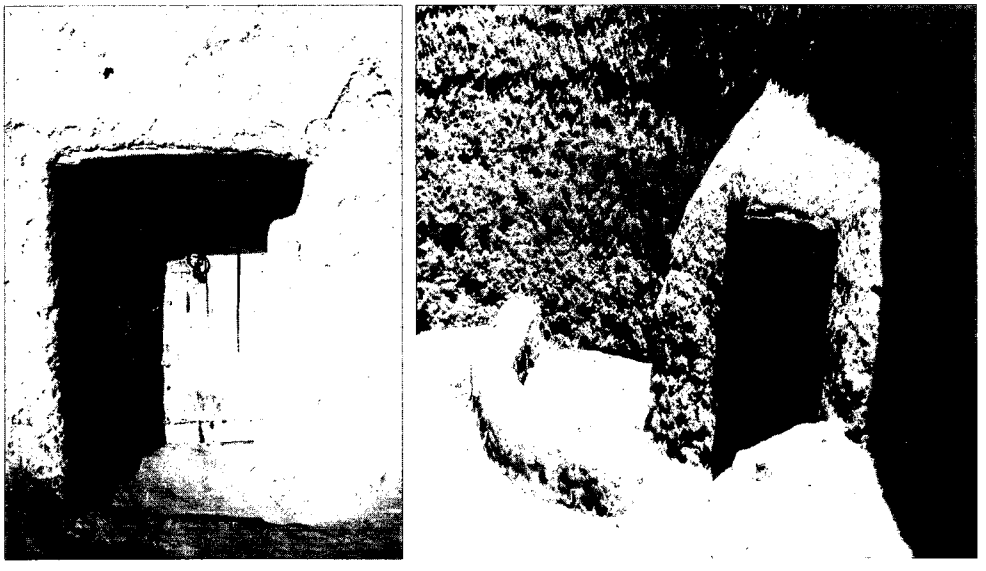

Fig. 7.12. Recessed dwelling door in *Aishelly* Square and projected semi-underground cul-de-sac entrance in *Kalala* neighbourhood, framed with thick mud-work.

Fig. 7.13. Dwelling and cul-de-sac entrances with their surrounding curbs.

Fig. 7.14. Windbreak.

In addition, the Ghatians, who have adopted the dominant Tuareg culture and believe in the stories of *Jinnis*, rely in general on an invisible, nonphysical boundary to protect their dwellings, the town, and its people. I discovered that the people used to put a small rolled-up piece of paper, which they refer to using the colloquial Arabic term *ihjab* (plural *ihjabat*; in formal Arabic *tamemah* and in Tuareg *anzaf* and *tera*), in the cracks above the main doors of their dwellings, the access doors of culs-de-sac, both ends of the covered street roofs, and even above the town gates. On these pieces of paper is written "Adam wa [and] Noah wa [and] Noah wa [and] Hawa." This refers to the story of Noah's Ark, mentioned in the Qur'an. The people believe that the phrase written in the *ihjab* creates an invisible boundary which protects against all creature and evil spirits. In particular, they believe that it protects them against poisonous insects, especially

scorpions. For this reason, on the 15th of May of every year, which is the month in which the appearance of scorpions increases, the people renew these *ihjabat*.

Another traditional ritual the people practice in order to protect their dwellings from snakes and harmful insects or from evil spirits is to make two small holes in the ground on either side of the dwelling's entrance, and burn in these holes either a plant called locally and in formal Arabic *sheeh*, or a traditional incense called *fasookh*.[7] In addition, in order to protect family members from the evil eye some Ghatians place horns of the Barbary sheep above the main entrance. A different ritual, practiced by those who prefer to rely more on their Islamic religious beliefs in order to protect their dwellings from evil spirits, is to read particular verses of the Qur'an in every room, such as "Al-Kursi" (verse number 255 in Sourat Al-Baqara). According to Fatma and Aisha Basheer Abd Elhameed, the ritual starts by the reader pointing a finger towards one corner of the room and beginning to read the Al-Kursi verse while describing a circle with his finger, ending at the same point where he began.[8] It is believed that the area encircled by this reading of the Qur'an will be protected from all invisible evils and bad spirits.

7.2.1.2 The Entrance Hall (*sakiefa*)

The entrance hall to Ghat dwellings is a small, narrow, windowless, rectangular or L-shaped entrance passage, called a *sakiefa*, which leads to a sunny inner square or rectangular court (*taa-wkh*).[9] The shift from the dark *sakiefa* to the bright inner court announces the transition between two spaces with different degrees of privacy. This transition actually starts at the main entrance to the dwelling, which forms the point of connection and the main boundary between the dwelling's private interior and the exterior realm, which can be either public or less private than the dwelling. In the former case, the main entrance leads to a public realm, as in the case of dwellings located near the main gates or market areas. In the latter, it leads to a shared, less private realm, as is the case with those dwellings which open onto culs-de-sac, lanes, or streets which are shared by extended families, relatives, or families of the same tribe. Another element signaling this

[7] Locally, it is believed that the smoke resulting from burning the *sheeh* will keep away snakes and harmful insects, while the *fasookh* is believed to protect from the evil eye.

[8] Fatma and Aisha Basheer Abd Elhameed, interview (see chap.6, n.59).

[9] The term *sakiefa* refers to being roofed and covered, as has been explained in section 3.4.3.3.

transition is the lower level of the dwelling compared to the street, which occurs at the main entrance in the form of one or two steps leading to the *sakiefa* (see figs. 7.2, 7.5, 7.15).

Fig. 7.15. The dim L-shaped *sakiefa* of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's dwelling, and its middle step.

The *sakiefa* is a multi-purpose space used by both males and females. It was used not only as a transition corridor leading to the dwelling's interior, but also as a reception area either for close male friends and relatives, or for male strangers visiting for a short period (a couple of hours). If the stranger's visit lasted three days or less, but involved staying a night in the house, the *sakiefa* functioned partially as a sleeping area. A temporary structure made of piles of sand shaped into a bed would be built for the guest in one of the *sakiefa's* corners. This sand bed (*edbel*) was always built a few centimeters higher than the ground, and was covered with a straw mat to hold it together, before a colourful piece of hand-made quilt was placed on the top. In some dwellings, the *sakiefa* contains a permanent seating/sleeping platform (referred to locally in Tuareg as *e-khadakh* and in formal Arabic as *mustaba*) built of mud and brick, similar to the solid seats lining streets and squares, which was used instead of the *edbel* as a bed. If there were too many guests to be accommodated within the *sakiefa's* limited area, or if the stranger's visit was for several days rather than for few hours or days, the reception room would be the next choice for sleeping space for the guest. Generally, the *sakiefa* was favoured, rather than the reception room, because it was cooler during the long hot dry summer season.

The *sakiefa* was used not only by guests but also by the man of the house as a seating and sleeping/resting area for short periods, especially on hot afternoons when he came back from his work and before he returned to it. The multi-purpose and non-gendered nature of the *sakiefa* is further signified by the fact that at specific times of day, the *sakiefa* turned into a woman's domain which functioned as a space in which to accomplish some of the kitchen work. This will be further explained in section 7.2.1.6.

7.2.1.3 The Reception Room

The reception room is always the first room one comes to after the *sakiefa*, and is either located by its end, as is the case in Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house and Haj Mohammed Danda's house, or facing it, as is the case in Fatma Al-Shibani's house and Kalthoum Al-Sanussi Abderazeq's house (see figs. 7.2, 7.5; Appendix XX A, B, C, D). The reception room is one of the most decorated rooms in the house, and wall decoration in particular is intensified here. In rich people's dwellings, the entrance to this room is framed with hand-carved motifs, and the seating area is articulated by building a permanent solid platform of mud and brick (called *mustaba* or *e-khadakh*) elevated almost 15cm from the ground, on which beautifully designed and colored straw mats (called *tabermah* in Hausa), rugs, quilts, and cotton or skin pillows would have been organized (see fig. 7.16). The amber of the permanent ground hearth (*imkhawel*) added to the beauty of this room, especially on moonless nights.

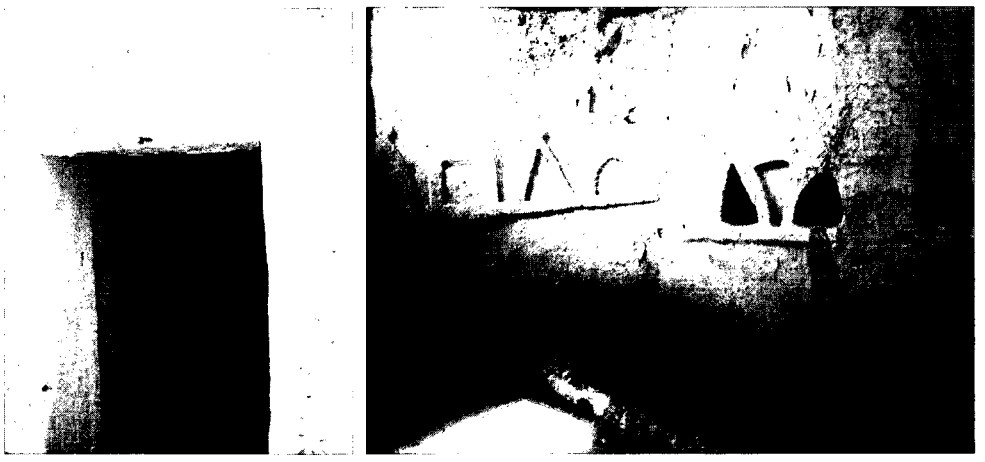

Fig. 7.16. The reception room of Fatma Al-Shibani's house.

The reception room was usually used by both male and female hosts and visitors. In Ghatian society, as in Tuareg culture, men and women are permitted to sit and socialize together in one place. As I explained earlier, this is because this society is well-connected by blood, marriage, and tribal relationships, meaning that visitors are not usually total strangers. In addition, as I have mentioned previously, Ghatian women, as in Tuareg culture, are highly respected (see section 5.3.5). However, if the male visitors were not strangers, but were also not very close friends or relatives, and if they had come for a particular purpose or private matter, the women were supposed to use another room. The reception room could also be used as a sleeping-space by male strangers, if their visit was expected not to exceed one week. If his visit was expected to be longer, the host would build a hut for him outside the town wall, or use an already available hut outside the town.

Although shared dwelling spaces, such as reception rooms and courtyards, were used by both males and females, the spatial organization of these spaces was gendered. Men and women always sat on separate sides, as is the case in Tuareg huts and tent dwellings, in which the division between the male and female domains in the dwelling's shared spaces is made obvious through the organization of furniture and personal belongings, without using physical partitions. In the reception room, the women usually sat in the innermost part of the room, while men sat facing or closer to the entrance. Nevertheless, in exceptional cases, the sitting or socializing places for men and women in the house were separated. This would be due to the small size of the reception room, and its consequent inability to accommodate both genders in the same place at the same time, especially on social occasions such as birth, *hajj*, marriage, or death ceremonies, in which large numbers of visitors were expected. The desire of individual men or women to sit in separate places could also have led to the separation of male and female seating areas, but even in these cases separation was not total, since women did not need to veil themselves or hide from men.[10]

[10] Ghatian social traditions are changing as a result of the social, economic, and political transformation of the whole country. New dwellings are now designed to provide separate sitting areas for men and women; however, regardless of gender, members of the extended family can sit together and socialize in the same reception space.

Shared spaces within the dwelling, such as reception rooms or courtyards, should not be thought to indicate that there was no privacy in the Ghatian dwelling. Privacy was controlled verbally as well as temporally. If the dwelling's door was left open,[11] any male visitor, no matter how closely related to the family, had to announce his presence by coughing or calling out a loud greeting at the doorstep or the *sakiefa*, and get permission to enter before crossing to the inner court. Also, as with the relation of the temporal boundary to the routine of the people of the town, discussed earlier (see section 7.1), the daily routine of the family works as a temporal controlling mechanism of the gendered use of and access to domestic spaces, and thus also of privacy.

The reception room was where the man of the house would spend most of his time, especially during cold winter days. Even though his family and friends could share this space with him, it was known that this part of the house was his territory. His authority and respected position was reflected in the social obligation for children to speak quietly as they entered this room, and never to sit in his place even if he was not in the house.

As the man of the house grew older, he would separate his sleeping area from that of his wife. He would either use this reception room for sleeping, or build a room for himself on the roof, called a *soro*. The *soro* was mostly the male domain. It was a special reception room for the man of the house, in which he received his close male friends or relatives, as well as a place to sleep and rest, especially as he got older. However, even when used for sleeping, the Ghatians never referred to the *soro* as a bedroom. This is because the wife could not share this space, and because it could be accessed by others, which reduced its privacy and its sacredness as a bedroom. The location of the room on the roof allowed free movement on the ground floor for the woman of the house to finish her chores. This room usually has a window that opens onto the street, the roof terrace, or the middle court. The humble furniture of this room, like in the other rooms of the house, is always organized around the edges, against the walls, so that the small rectangular room looks wider and less cluttered.[12] The furniture of this room could include, beside the

[11] It is common for the dwelling's door to remain open most of the day.

[12] The Ghatian organization of the furniture along the walls influences the spatial experience of the room, giving a different feeling to the space to, for example, the spatial experience of the interior spaces in the Japanese house, in which the people "keep the edges of their rooms clear because every thing takes

bed (made either of sand or wood), the husband's little personal library (*mktaba*), which would mainly have contained religious books or personal documents, collections, and inscriptions.[13] In previous times, this *mktaba* was simply a couple of shelves carved into the walls of the room. In later years, transportable wooden bookshelves were also used. As with the other rooms of the house, the sandy floors of this room were usually covered with straw or wool carpets topped with colourful, soft hand-made quilts called *tabardee* (in Hausa, *asudokan*), and long skin or cotton pillows organized along the walls. According to Fatma and Aisha Basheer Abd Elhameed, if there is a visitor a traditional colourful high quality wool carpet, called locally *kleem*, would be used instead of the *tabardee*.[14] This type of carpet is also commonly used in rich people's dwellings.

In some cases, the use of the reception room on the ground floor could be altered as a result of a change in the structure of the nuclear family, due to social circumstances. For example, after the death, at a young age, of both of the parents of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed, he altered the reception room to be used as a bedroom occupied by both of his sisters and their grandmother, while he built a *soro* for himself instead of the ground floor reception room (see fig. 7.17). As with the furniture of the rest of the rooms in the house, the furniture of the *soro* is simple and humble. According to Haj Mohammed-Al-Mahdi, his rectangular *soro* space once included his iron bed, radio, and small wooden bookshelf. Its sandy floor, he says, was covered with colourful homemade quilts that were lined up with long pillows, and the walls were decorated with colourful mats, which surrounded and articulated the seating areas on the ground. His few clothes, he says, were always hung on ropes that extended between the corners of the room and were tied to wooden branches that crossed the corners, and that formed part of the roof's structure (see fig. 7.17).[15] This inventive method is similar to that used by the Tuareg in their thatched huts and *derb* dwellings. Although the *soro* usually has one door, in some cases, such as in Haj Mohammed-Al-Mahdi's house, it has two doors leading to different sides of the roof terrace. A curtain, made of any available piece of material, was

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place in the middle." Edward T. Hall, *The Hidden Dimension* (New York: Doubleday and Company, Inc., 1966), 50.

[13] *Mktaba* is Arabic word which means 'library.' It can be used to refer to the library as a building or as a room in a building (i.e. in a house or in a school), or to bookshelves that contain books or personal documents, collections, and inscriptions.

[14] Fatma and Aisha Basheer Abd Elhameed, interview.

[15] Mohammed-Al-Mahdi Basheer Abd Al-Hameed, interview.

used to cover the main entrance of the *soro* while the door was open. This provided some privacy and protected the room from direct sun, while keeping it ventilated (see fig. 7.18). This flexible barrier could be pulled aside as desired in order to unite the roof terrace space with the interior space of the *soro*, especially on breezy moonlit nights.

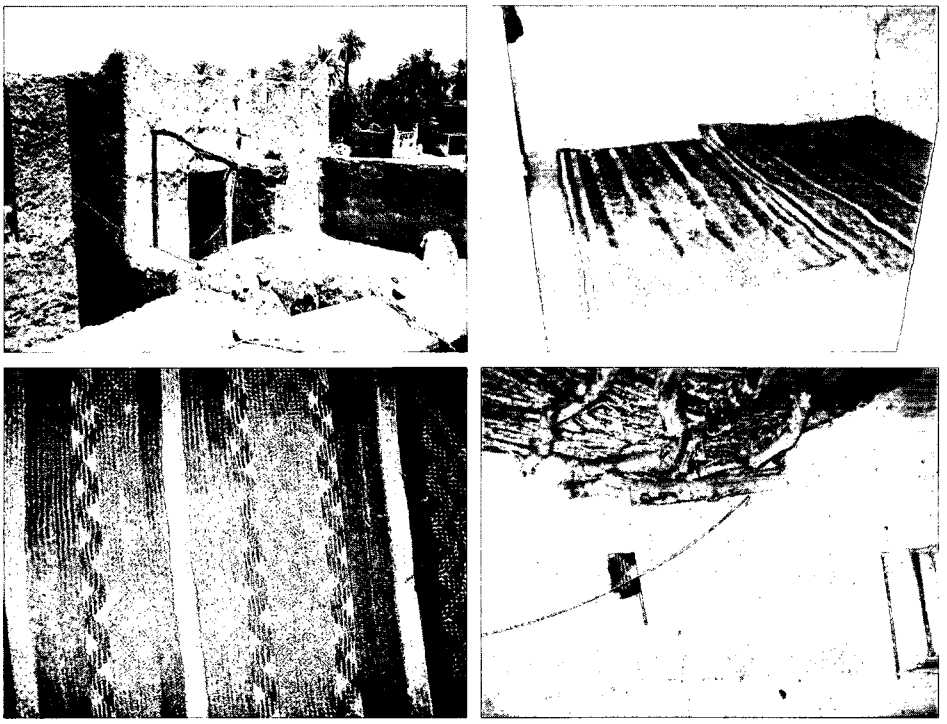

Fig. 7.17. The interior of the *soro* in Haj Mohammed-Al-Mahdi Abd Elhameed's house.

Fig. 7.18. The door to the *soro* and its curtain bar.

7.2.1.4 The Roof (*afalah*)

On the roof, Ghatians always built two small, unroofed rooms, one used as a barn for goats and the other as a latrine, called locally *sheikh al-dar*. However, in many dwellings, additional rooms, roofed and unroofed, were built on the roof terrace. In this case, the dwelling was classified by Ghatians as a two-storey dwelling. In general, the number of rooms on the roof and their use depended on the wealth and needs of each family. If the roof contained only one roofed room, this was usually used as a *soro*; if it contained more rooms, these would have been used as bedrooms for older children, or in rare cases for married children, as is the case in Haj Mohammed Danda's house, and/or as storage space. The storage rooms for dates were usually unroofed, to provide good ventilation.

During summer nights, the areas of the house that are open to the sky, such as roof terraces and courtyards, would turn into family sleeping spaces. The inhabitants would escape from the unbearable heat of the windowless rooms on the ground floor either to the courtyard (*taa-wkh*) or to the roof terrace. On the roof, they would either build a small hut-like shelter, or erect sheds and sleep under them on wooden beds (see fig. 7.19). On the other hand, the male domestic slaves preferred to sleep on the sand in the open Sahara, which is cooler during the summer nights, in order to escape the heat. Domestic slaves were considered part of the family. They lived in the same houses, ate from the same pots, and their children were raised with their masters' children. The use of the roof or the court as a sleeping area, following their transformation into sleeping areas using temporary structures, indicates the flexible and multi-purpose nature of dwelling spaces according to time (day/night) and season, as well as reflecting the people's response in order to overcome a climatic challenge.

Generally, sleeping areas were sheltered not for privacy, but in order to provide protection from moonlight. On moonlit nights, beds either had to be sheltered or placed in the darkest area of the roof because, according to Tuareg beliefs (as I mentioned in section 4.1.2.2) the light of the full moon causes headaches. That is also why the decoratively trimmed parapets of the roof were built high enough to provide shaded areas on the roof and in the court, protecting its users from the hot sun and the moonlight.

In addition to being used as a sleeping space, the roof terraces provided contained areas for social interaction. They were used on social occasions as female space for celebration. During marriage ceremonies, young girls and unmarried women stayed on the roof to watch the marriage ceremony, which was celebrated by the older females in the courtyard below. The use of the roof as an upper extension to the celebration area in the court, used only by a particular gender and age group, reflects both social values and a response to a shortage of space.[16] The limited space of the court made it impossible to accommodate all age groups, and priority was given to married and older women. In addition, following Ghatian customs that distinguished between different age groups, and in order to emphasis respect and to show bashfulness, young girls and unmarried women were not allowed to mix with older and married females in the same space, especially on such occasions.

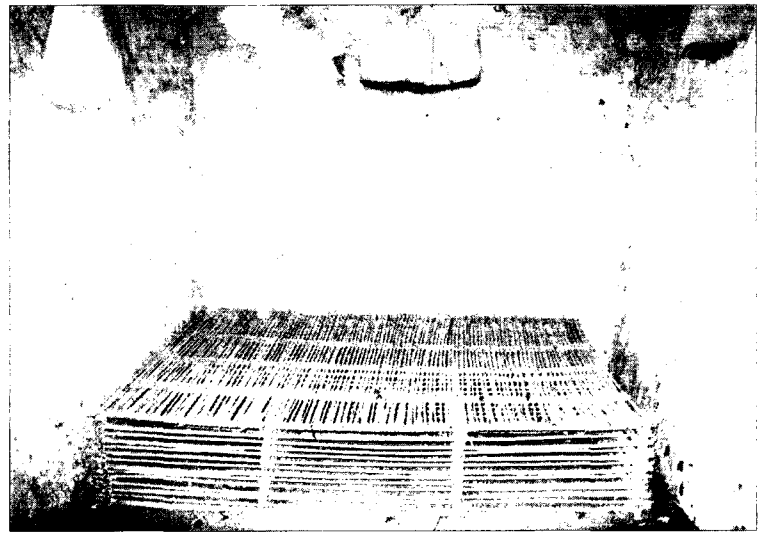

Fig. 7.19. The wooden bed.

[16] During marriage ceremonies, neighbours (usually relatives) lent their houses to be used by the guests of the bride's family, especially those coming from far away, for sleeping. Often a neighbour's house was also used by the host for cooking, which was usually done in large quantities for the guests. If the bride's family's house is small, the bride and groom sometimes used their best friend's house during the first week of marriage and until the end of the whole celebration, which usually extended for one week. According to local people, this tradition was just intended to keep the new couple's dwelling clean until the end of the celebration. This tradition is different from the nomadic Tuareg's marriage tradition, in which the bride has to spend the whole first year in her family's tent before she can separate from her family with her husband. The Tuareg custom may be in order to give new couples enough time to prepare their new home.

7.2.1.5 The Shower and Latrine (*sheikh al-dar*)

In Ghatian houses, shower spaces and the latrine (*sheikh al-dar*) were always separated from the rest of the house. The degree of separation of these spaces depends on dwelling lot sizes. In small lots, the shower area was usually built on the mezzanine level, open to the staircase leading to the roof, as is the case in Haj Mohammed-Al-Mahdi Abd Elhameed's house (see figs. 7.5, 7.7). However, in medium and large lots, the shower area could be separated just by being a couple of steps higher than the rest of the house, as is the case in the house of Kalthoum Al-Sanussi Abderazeq, or it could be located in a secluded area on the ground floor, or placed on the mezzanine level, as was the case with smaller lots (see Appendix XX C). The shower space is usually small, with a low door and roof, and includes a vent hole and a wall niche used to place the soap and washing cloth (see fig. 7.20)

Fig. 7.20. The shower room of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's dwelling: entrance, low roof, vent hole.

Within this room, the shower rituals were performed on a circular straw mat placed on the ground,[17] in a large shallow metal washbasin called locally *lay-yan*, or on a platform. The water used for showering was usually brought from Ghat's main spring and kept in a small bucket made of brass or steel. If the shallow portable washbasin was used, the collected shower water was disposed of outside the town. The shower water was never reused for any other purpose, even for sprinkling the hot courtyard. If a platform

[17] The straw mat was usually brought by the bride as part of her marriage belongings. It keeps the feet clean from the sandy floors.

system was used, a shallow hole, 80cm – 1m in diameter and 40cm deep, was made in the ground and the bottom covered with small stones, which worked as a filter and slowed down the water's penetration of the ground. The hole was then covered with small branches to form the platform, on which the person stands to shower. In some other cases, a metal bowl of the same dimensions as the hole was placed in the bottom of the hole rather than stones. The collected shower water was then drained manually using a mug and carried outside the town in a bucket. Generally, Ghatians were conservative in using water to shower, not only because water is so valuable in the desert, but also because lots of water threatens the fragile sun-dried brick dwelling structure.

Commonly, for most of the year, men and children, other than babies and toddlers, bathed in a specific place near the main spring of the town.[18] To maintain privacy, the men would usually bathe late at night or at dawn before prayer time, when the darkness would provide a natural screen. Based on my observations, two medium-sized water basins, called *tihaseen* in Tuareg (singular *tihemet*) and in colloquial Arabic *jowabi* (singular *jabia*), were built during the Italian period near Ghat's spring, *'Ayn Ghat*, one after the other along the eastern aqueduct (called *tahaft* or *tazaft*) which extends between the spring and the eastern farms: one basin for drinking and irrigating purposes and the other for washing and bathing.[19] The eastern aqueduct of the spring, which connects these two basins, like other ducts, is partly open at intervals and it spreads from the main spring (*'Ayn Ghat*) towards the eastern farms along a natural slope. According to Housain Hammadi, this duct (called *tahaft* or *tazaft*) used to channel fresh water using the force of gravity from the spring to these basins and then to the smaller channels of the farms, called *eten-jaran*.[20] The basin assigned for bathing and washing clothes comes after the drinking basin. It was built with two holes; one connected by a duct to the fresh water

[18] This spring is currently dried out.

[19] According to Ahmed Moulay Ali Al-Shereef, the usual hierarchy of the water basin system in Ghat is as follows: the smaller basin-like structure is called *afayek* and is basically a longitudinal half of a palm tree trunk usually placed close to the well to collect the water, which would be lifted up using a rope tied to a leather bucket called in Tuareg *aja* and in Arabic *dalo* (the whole water lifting system is called *shadouf*). Subsequently, the water would pass through this trunk to a larger basin, called *abareek*, that was built to collect the water before passing it through a *tahaft* to medium-sized basins called *tihaseen*, which would distribute the water through several small channels called *eten-jaran* (singular *a-tenjar*) to feed the different farms. In the case of natural springs or where the water source is close to the farm or owned by one person, this hierarchal system would be less extensive. Al-Shereef, interview (see chap.5, n.145).

[20] Housain Hammadi, agricultural engineer and the head of the Basic Popular Congress of the town of Ghat, interviewed by the author, Ghat, 8, 10 August, 2006.

basin, which was connected to the spring's eastern ducts, and the other connected to a duct to discharge the dirty water away from the basin towards the farms. Since, in the past, no harmful chemicals were added to the soap used by people, and the hot weather dries the discharged water in no time, this discharge was not harmful to the nearby farms. In the winter, both children and male adults used their homes' shower rooms. Conversely, the elderly usually preferred to wash in the mosques' washing areas at dawn.

On the other hand, the latrine (*sheikh al-dar*) was always built on the roof. This provided a sufficient drop to collect the waste in the windowless room-like space under the latrine. This room could be accessed for cleaning from a small door outside the dwelling. The size of the family and of the room underneath the latrine (the latter of which is based on the size of the latrine itself) controlled the frequency of cleaning. The latrine itself is a small roofless room with a small hole in the ground, almost 15cm in diameter (see fig. 7.21). To prevent bad smells, ashes from the ovens are thrown in this hole after each use. The hot weather and the ashes turn the human waste into dry material used later as a fertilizer.

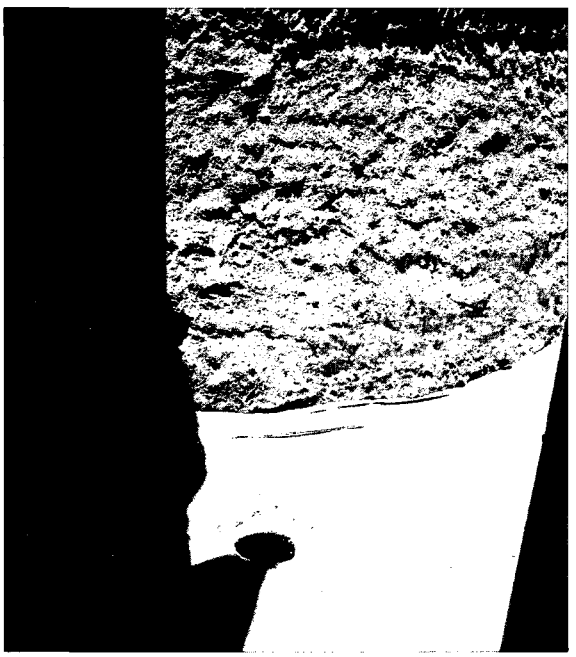

Fig. 7.21. The latrine of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's dwelling.

The word *sheik al-dar* is an Arabic word meaning 'the sheikh of the house.' As I stated earlier (section 3.1.5) 'sheikh' is a term that could mean 'elder,' or which could refer to a religious person or be placed before someone's name to show his position, for example, as a tribe leader. In general, it has a positive connotation and is used to show respect and high status. The latrine's location in the house on a higher level resembles the sheikh's social status, and according to the testimonies of local people, *sheikh al-dar* is used as a polite reference to this room's function. The term is specific and used only by the people of Ghat. In the other Libyan Saharan towns, the people use the classic formal Arabic term *baiet al-raha*, meaning 'rest room.'[21]

7.2.1.6 The Kitchen (*ekadeone*)

The kitchen is usually a narrow rectangular room with a vent hole in the roof, which is usually located in the innermost part of the kitchen above the bread oven (*tannour*; described in section 4.1.1.1), in order to allow cooking vapour and smoke to escape (see Appendix XX D). In the rainy season this vent hole is covered with an old straw plate or mat. The dwellings in Ghat almost always have one kitchen, although in large dwellings that were inhabited by more than one family, two kitchens could be found. The kitchens are always located on the ground floor, for two reasons. First, the *tannour* needs to be built into the ground to a depth of almost 50cm, which the roof thickness would not allow. Second, there would have been a danger of fire spreading in the roof if the kitchen was built on the second floor, due to the inflammable material of which the roof is built. In exceptional cases, a second kitchen was permitted on the second floor, especially in those dwellings located in the old core, in which the dwellings' structure is engaged with the rocky Cocaman Mountain in some of its parts. This allowed the building of a second kitchen on the solid roof, as is the case in Haj Mohammed Danda's house, but even in these cases types of cooking implements other than the underground *tannour*,[22] such as *bagoal*, *térirt* or *alekkin* placed on three stones, were used, due to the hard ground of the rocky mountain, which is difficult to dig (see figs. 7.2,

[21] There is another word in formal Arabic with the same meaning: *al-merhath*, which is widely used in more formal circumstances such as in publications.

[22] The above-ground *tannour* is not common in Ghat as it is in Ghadames where the kitchen is always on the roof. In a few cases the above-ground *tannour* was used in *Kalala* neighbourhood, but even in these cases the *tannour* was built on the ground floor.

7.5, 7.22; see Appendix VIII). In dwellings located in *Kalala* neighbourhood, I observed an exceptionally different type of oven, also called *tannour*, that is unused in the rest of the town's dwellings. In Khairallah Ounallah's house this *tannour* was built of clay above the ground at the corner of the entrance that leads to the kitchen. This type of conical shaped clay oven is similar to traditional types of ovens built outside dwellings in Timbuktu in Mali, which could suggest the influence of neighbouring African cultures and the adaptation and modification of an element of their domestic mud architecture, which could have been transmitted through African slaves (see figs. 7.23, 7.24).

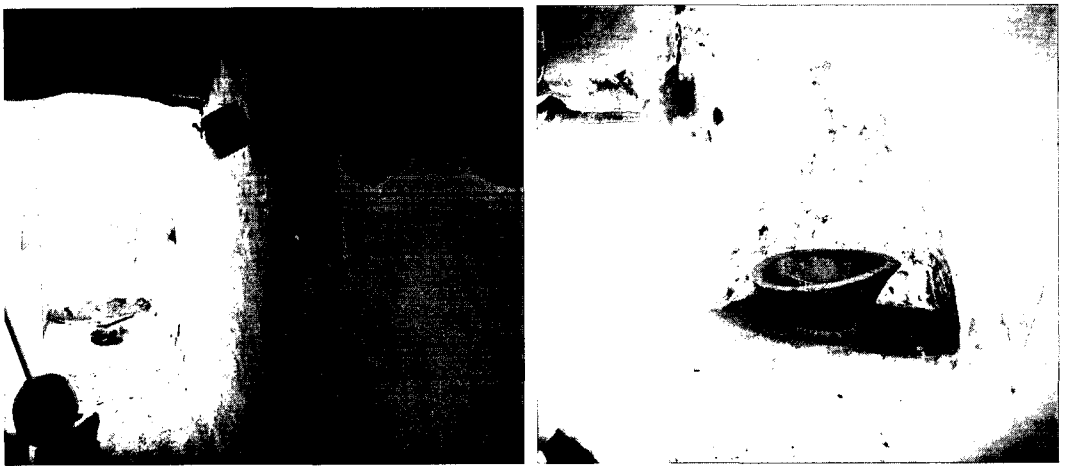

Fig. 7.22. The kitchen of Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house.

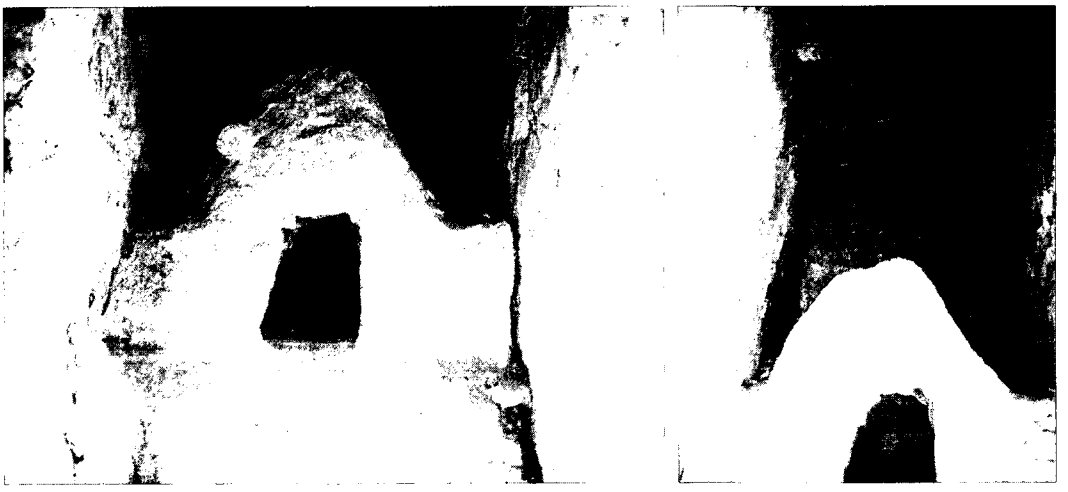

Fig. 7.23. The conical clay oven in Khairallah Ounallah's dwelling in *Kalala* neighbourhood.

Fig. 7.24. The clay oven in Timbuktu in Mali. Reproduced by permission from AISA.

Besides the *tannour*, the Ghatian kitchen includes other types of cooking appliances, and tools similar to those that were and still are used by the nomadic and rural Tuareg, which reflects the influence of Tuareg culture on Ghat and Ghatians. These other appliances and tools are the bread-baking implements called *bagoal*, different sizes of earthen cooking pots called *térirt* or *alekkin*, large water jars, also called *bagoal*, a couple of wooden serving dishes, and colourful straw dish-covers. The earthen cooking pot was always placed on three stones called *sefrad*, located beside the *tannour*. This enabled the cooking vapour and smoke to escape from the vent hole above the *tannour*. The water jars were usually placed on a platform near the kitchen door; however, in cases where there was a separate working courtyard for the kitchen, the water jars were placed in the shaded areas of this court. (see fig. 7.25; see Appendix VIII).

The kitchen also contained other small kitchen utensils such as knives, baskets for keeping bread, wooden spoons, and two grinding implements, which were different in size, shape, and purpose. These were the wooden tub (*tindé*) with its heavy pestle (*éheren*), and the volcanic grinding stones called locally *tehunt* or *rahaa*,[23] which mostly took a rectangular shape (the *tehunt* equipment is described earlier in section 4.1.1.1; see Appendix VIII). These were used either to crush or to make into flour grains, cereals and

[23] The Tuareg term *tehunt* is used more than the Arabic *rahaa*. However, this grinding implement differs from the traditional Arabic *rahaa*, which is a hand mill consisting of two flat circular stones on top of each other, with a middle hole in which to place the grain and a handle to move the upper stone in circles.

other dry vegetables. The wooden tub was also used to squash dates, after removing the seeds, into a sweet dough. The Ghatian *tehunt* is similar to the grinding stones used by the ancient Garamants (discussed in section 4.1.1.1), and can be considered an adaptation of ancient Garamantian culture.

Fig. 7.25. Water jars on the platform in the kitchen.

There are two types of *tehunt*: one to make coarse flour; the other one to make it finer. Although these implements were kept in the kitchen, Ghatian women would use them outside the kitchen. This is because the ritual of grinding the grains, cereals, or dates takes long hours and involves effort to accomplish, and that requires a comfortable space. In addition, the grinding process is a noisy one. These factors obliged the choice of a specific space sufficiently removed from cross movement and the interior family resting zone. As a result, Ghatian women would usually accomplish this daily chore in the cool shaded *sakiefa*, unless a secluded working courtyard in front of the kitchen was available. They would choose times with the least cross movement in the house: either the early morning when the man of the house was at his work and the children were playing outside the house, or the afternoon family naptime, called *kilola* time (2:00-4:00pm) when almost everybody would be resting. This grinding activity was mostly accomplished

individually, unlike grinding using the Arab hand mill, which could be a collective activity accomplished by two women. The grinding ritual would begin by spreading out a straw mat to mark the working area, which nobody was supposed to cross (due to the sandy floors). Then the Ghatian woman would spread a small sheet of skin on the mat before placing the *tehunt* on it to collect the flour. To perform this duty, the women would kneel, placing both hands on the small stone and moving it back and forth on the larger stone beneath it (see fig. 7.26). As soon as she was finished her work, she would collect the flour in a jar or dish reserved for this purpose and keep it there until cooking time. Separate jars were used for each type of cereal or grain. Usually, the woman would grind enough flour for that day's needs; however, sometimes she would prepare enough for the next day as well.

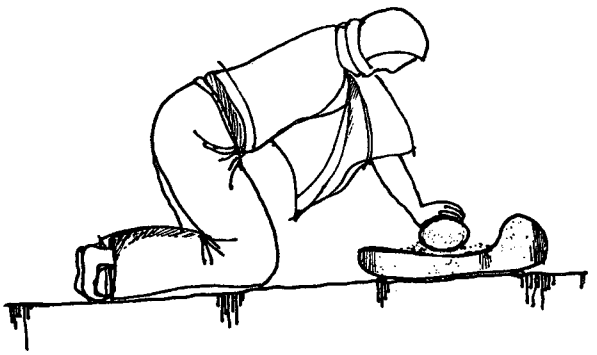

Fig. 7.26. Grinding tool and position for use.

As the above explanation indicates, the kitchen working area extended outside the kitchen towards the area in front of the kitchen or to the reception hall (*sakiefa*) for some activities and at specific hours of the day. This means that, like in the rural Tuareg dwelling (*derb*), the reception hall, which is the most public zone of the house and which connects the interior to the exterior world, would turn at specific times of the day into a private working space used by the women. In Ghat, social visits would traditionally start after 4:00pm, which allowed this space to be used at particular hours of the day for kitchen work.

In Ghat, the kitchen is always configured and organized to contain the furniture and utensils used on a daily basis by the particular family; however, equipment and utensils for special occasions were normally stored in a special storage area, apart from the food storage room (which will be described in section 7.2.1.7). The kitchen's walls contain at least one alcove (in Tuareg called *al-kokee*) to place the dishes. Other utensils may have been hung on the walls, leaving the floor clear for cooking activity. The arrangement of the cooking implements was usually based on the woman's choice of a suitable place, which created a familiar environment and identity for the kitchen of every family. However, the usual narrow rectangular form of Ghatian kitchens and the location of the *tannour* and the vent hole meant that arrangement of the kitchen implements was almost the same in all the dwellings. Differences were more noticeable in the variety, number, and quality of tools, utensils, baskets, straw dishes, and dish covers that were used, which had various degrees of carving, decorations, and colours.

The frequency and time of use of the kitchen space related mainly to meal types and family meal routines. Most common was three main meals per day (breakfast, lunch, and dinner). The daily chores of the women began with milking the goats that were kept in the barn (*azjen*) on the roof for the breakfast meal. If more milk was collected than the family could consume that day, it would be shared with neighbours who did not have domestic goats or enough milk for the day. Generally, sharing is part of Ghatian tradition, and strengthened social ties. In the absence of fridges, a solution other than sharing was to turn the extra milk into cheese or buttermilk, which could be kept in the kitchen in goatskin bags for longer periods.

After milking the goats, the women would prepare the morning tea. The tea, which was and still is an essential part of the Ghatians' daily routine as it is with rural Tuareg, was never prepared in the kitchen. The tea set was always kept in the bedroom; however, it was either prepared inside the bedroom after every meal on a permanent ground hearth called *imkhawel*, especially on cold days, or in the courtyard (*taa-wkh*) on a small, portable hearth pot made of clay or latticed iron in various styles (*ka-noon*; see fig. 7.27). Breakfast could consist just of tea and milk with some bread from the previous day, or it could be a heavy hot meal that required as much time to prepare as lunch. This difference influenced the times at which the kitchen space was used. However, in Ghat

meals were never eaten in the kitchen. They were eaten either in the courtyard, or in the *kawdi* (this will be discussed further in sections 7.2.1.9, 7.2.1.10). Only on cold winter days would the family have their lunch indoors.

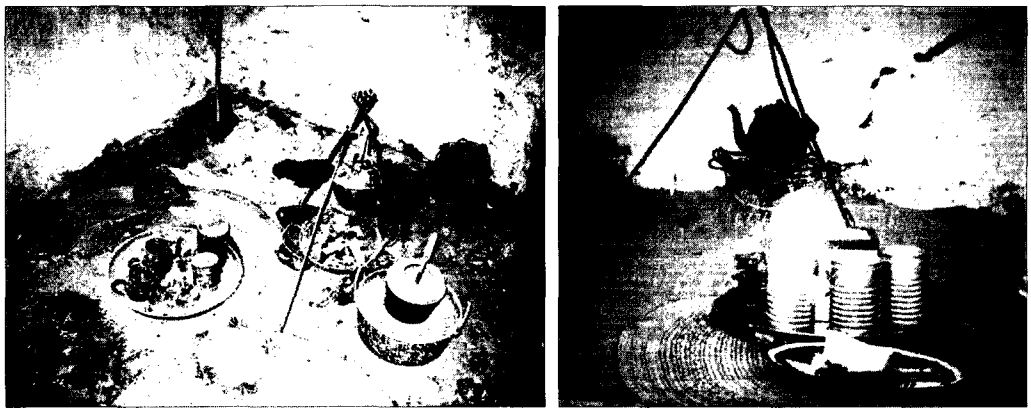

Fig. 7.27. Different styles of portable iron hearth.

In addition to the daily meal-cooking activity, dish-washing took place either in the kitchen or in the courtyard in front of it. The dishes were washed in small portable basins made of brass, iron or, rarely, of wood. According to Rajab Othman Al-Masrī:

> The dirty water resulting from washing dishes is collected and thrown outside the town walls. Similarly, the daily trash was collected and either burned or buried outside the town walls in assigned areas, or recycled into organic fertilizer or as feed for the domestic animals. The garbage is usually carried outside by the slaves; however, if there are no slaves it is usually carried by the head of the family. The garbage were usually collected and carried in jars.[24]

As I have mentioned before, in Ghat, as in Tuareg culture generally, it is considered dishonorable for the man to enter the kitchen. As a result, the Ghatian kitchen was solely the women's domain, as is also the case in nomadic and rural Tuareg dwellings. Rajab Othman Al-Masrī says that "The kitchen is as the storage room: both are sacred and private places. It is as sacred and private an area as the bedroom, in which no strangers is allowed; only the house inhabitants or very close relatives."[25] Moreover, the kitchen is a very personal space that reflects the inhabitants' state of wealth, which should

[24] Al-Masrī, interview (see chap.3, n.111).
[25] Ibid.

not be exposed to strangers. Al-Masrī explains this, saying, "The kitchen has a kind of privacy: strangers should not see what you have, you do not have, or how you cook."[26] He explains that access to this space was limited, not in order to hide wealth or poorness just for the sake of hiding it, but to serve a gracious social purpose in respecting the dignity of those who do not have, protecting their feelings by not showing your wealth or unveiling your financial situation. He claims that this intention is summarized in a common traditional proverb: "one night do not show your poorness." He explains this as meaning that

> You should provide the best for your guest, no matter what your financial situation is, and not let your guest know that you are poor; in other words, you should be generous with your guest. For this reason, the kitchen should be in a place that is hidden, unexposed, and inaccessible to your visitors, so you do not show that you are poor and cannot receive them.[27]

This explains why the kitchen is placed in the innermost part of the Ghatian house, away from intruders' eyes.

7.2.1.7 The Storage Room (*esgofarr*)

Ghatians had two types of storage spaces: one for long term and one for short term storage. Materials to be stored consisted of clothes, kitchen utensils, tools, wood, and food. Spaces for long term storage were located either within the dwelling in separate rooms assigned for storage purposes or in deep holes outside the town wall, in the fields or the open desert, depending on the type of the stored materials. On the other hand, materials to be stored for short periods were kept in the dwelling in specific spaces located either on the ground floor or on the roof.

Generally, clothes and jewelry that were used on a daily basis were kept in a transportable square or rectangular wooden box, 80cm x 80cm or 80cm x 1m, covered with leather and decorated with pieces of brass. This box was always placed behind the door of the bedroom (see figs. 7.5, 7.7, 7.28). Jewelry was placed in a small, more elegantly decorated silver box or in a small decorated skin bag called *ten aghraf* before

[26] Ibid.
[27] Ibid.

being placed inside the clothes box. For immediate daily use, clothes and bed covers were hung on ropes extending along the walls of the bedroom (see fig. 7.29), as I explained in section 7.2.1.3. Other clothes, expensive carpets, rugs, and utensils, such as large pots and dishes, that were used occasionally and especially for festivals, marriages, or death ceremonies, were kept in a separate storage room. In this room, the clothes were kept in large wooden boxes, while kitchen utensils and other tools were arranged on a solid bed-like platform (*mustaba* or *e-khadakh*; see figs. 7.5, 7.30). This *mustaba*, which is similar to the *jalsah* used as a seating in the *al-majales*, is built of mud and sun-dried brick, and elevated almost 50cm from the ground. It always extends from one corner of the room to the other.

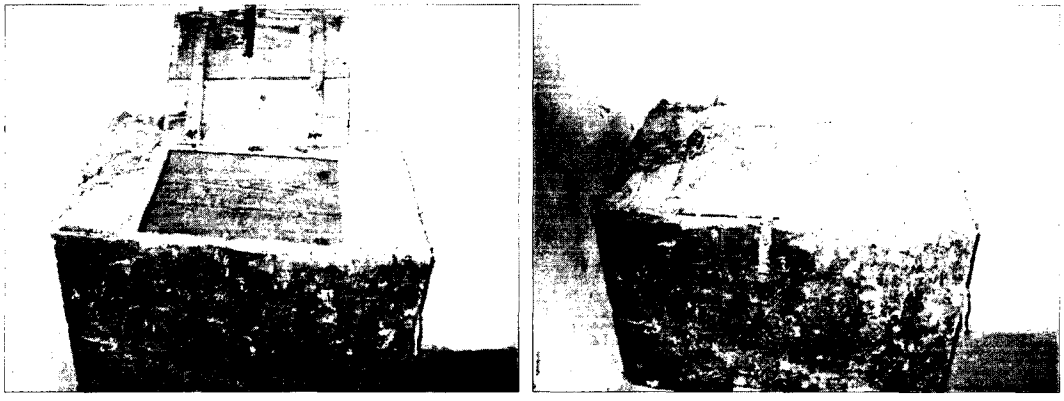

Fig. 7.28. Clothes storage box.

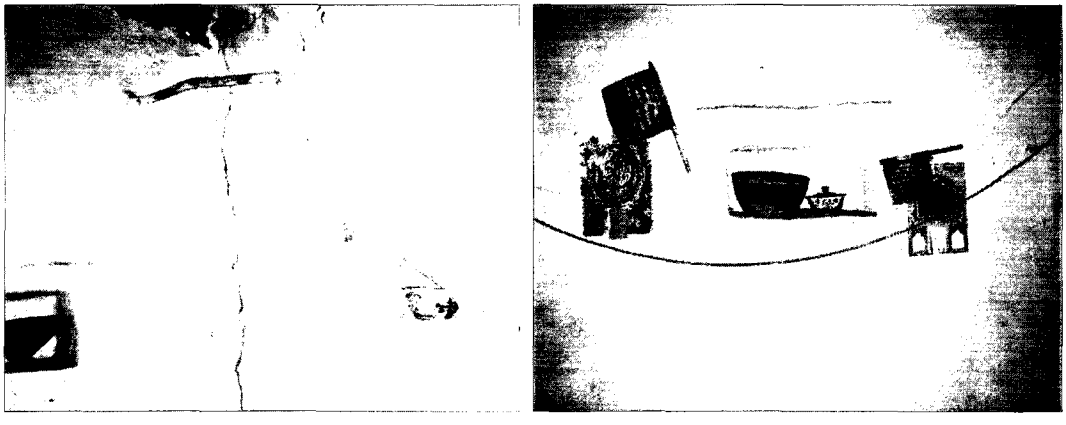

Fig. 7.29. Ropes to hang clothes and bed covers.

Fig. 7.30. The *mustaba* of the storage room.

The storage rooms could be unroofed and placed on the roof of the dwelling, such as those used to store dates and wood, or they could be roofed and placed either on the roof or the ground floor, such as those used to store tools or food such as oil, flour, grain, and cereals (see figs. 7.5, 7.3). These products were usually stored in clay jars called *bagoal* (plural *bawageel*). The mouths of these *bawageel* were covered with balls made of thatched pieces of date palm that are found between the *kernaf* and the trunk of the palm tree, locally called *asen* (see Appendix VIII, XXI).[28] While sealing the jar to protect it from insects and lizards, the *asen* allows enough ventilation to protect its contents from decaying. If dates were not to be consumed fresh, they were not stored in jars, but were usually piled to dry on a straw mat elevated above the ground on large logs in order to provide ventilation to the bottom of the pile and prevent the dates from decaying. If dates were to be consumed by the family in the same season, they were left in piles in the unroofed rooms on the roof. If they were to be stored for long periods, then after they had dried, they were put either into baskets made from young white leaves of male palm trees, or into handcrafted sacks made from a material locally called *kheesh*[29] or made from camel or goat hair by specialized people. These storage materials are resistant to food insects. Generally, the dates always had to be stored in sunny, rather than shaded areas (see fig. 7.31).

[28] *Kernaf* is the local colloquial Arabic term for the brownish flat part of the leaf that stays connected to the palm trunk after cutting off the palm leaf.

[29] *Kheesh* is a formal Arabic term referring to a material woven from *asen* fibers (thatched pieces of date palm).

Fig. 7.31. Different storage methods.

The food storage rooms are usually ventilated either with small holes in the walls or using thin (30-40cm wide) linear vents along the upper part of one of the walls of the storage room. These linear vents are made simply by not attaching one of the walls of the room to the ceiling, as is the case in Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house (see fig. 7.32). Linear vents are used only if the rooms' location allows them to open onto a shaded area such as a corridor or a *sakiefa*.

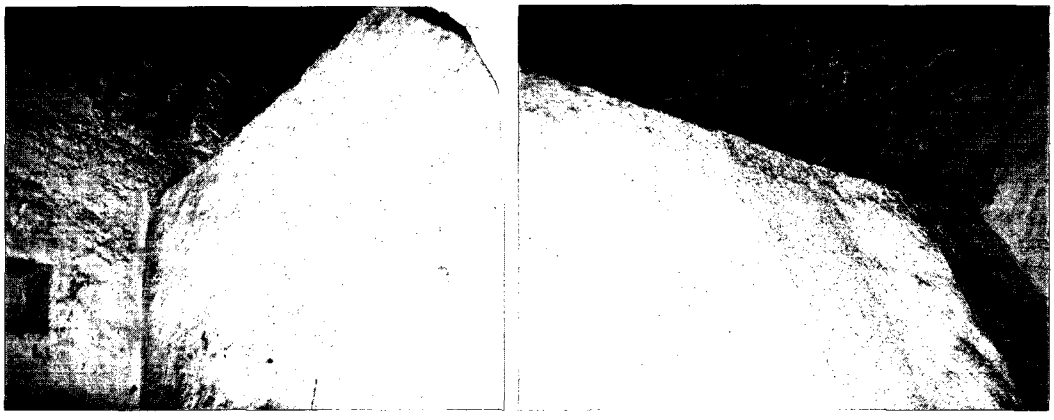

Fig. 7.32. Linear vent used in food storage rooms.

Storage spaces for dates and grains can be situated not only within the dwellings, but also outside the town walls. Dates and grains in large quantities were always stored outside the dwelling by burying them in the clean hot sand of the desert. Separate large holes were made in the sand for the dates and grains, and straw mats were placed at the bottom and on the sides of the holes before the products were placed in them. Unlike

dates, grains were placed into sacks before being buried in the sand. After being placed in the holes, the products were covered with straw mats and then with layers of sand. In some cases, the dry dates were placed in the sandy hole without using any mats and covered directly with clean layers of sand. The place was then marked in a way that only the owner could recognize. The hot sand keeps dates and grains dry and fresh for a long time.

Fuel wood was usually kept on the roof in the open air (see fig. 7.5). The wood, which was mainly collected by the women of the house, was usually stored in quantities sufficient for three days; however, larger quantities were collected and stored when slaves and servants were used or hired to accomplish this job.

While the kitchen was treated as a sacred place and its access was limited to females only, the food storage room of the family house was the man's territory, and he was the only person allowed inside this space or able to access it. The keys for the food storage room, as well as for the little tea box, which was precious at that time, were always kept with the husband, chained around his neck. This signifies the importance of storage for the Ghatian family. Every day before he left for work (in some cases the night before) the husband would fetch whatever would be needed for the day's meals from the storage room, and close it again. This both controlled consumption and avoided revealing the contents of the storage room to any visitors. This tradition signifies not only the man's power of control and status, but also the sacredness of the space and the desire of the head of the family to keep his financial situation secret, especially considering that in the past food was as precious as gold because of the limited resources in the Sahara. Moreover, in most cases and as lot size and shape allows, the location of the storage room in the house emphasizes this desire to hide its contents away from intruders' eyes. In large houses with more than one court, storage rooms, like kitchens, were always located in the innermost part of the house opening onto the inner court.

7.2.1.8 The Bedrooms (*taghahamat n-idhass*)

Bedrooms are not the only places used for sleeping in the Ghatian dwelling. While during the cold winter, enclosed warm bedrooms are the only choice for sleeping, on summer nights, open courtyards and roofs were favoured as sleeping areas. There are two

types of bedrooms in Ghat: the master bedroom for the parents, and the children's bedroom. On the other hand, slaves had no assigned rooms. According to Fatma and Aisha Basheer Abd Elhameed, female domestic slaves usually sleep in the kitchen or in front of the kitchen if the kitchen has its own courtyards, as is the case with large houses.[30] This shows that even female slaves are provided with a certain degree of privacy, represented by sleeping in an enclosed area to which males do not have access. Female slaves may also share the children bedrooms if they work as nannies for young children. Meanwhile, male slaves usually spend the nights in the farms or, as stated earlier (section 7.2.1.4), on the cooled desert sand, especially on summer nights. Slaves, especially those who are married with families, could also have their own houses, owned by their masters, close or attached to their masters' house.

In small houses, during the day the children's bedroom would sometimes turn into a family sitting area. However, the master bedroom is more sacred. Its function changes only if the parents die, as was the case in Haj Mohammed-Al-Mahdi's dwelling, in which the master bedroom was altered into a family sitting room, which was occasionally used for sleeping by both of his sisters and their grandmother. The flexibility in the functions of rooms in Ghat was due to their simple rectangular plan, their humble, easy to reorganize furniture, and the cultural roles by which privacy was controlled, mostly, but not only, using non-physical barriers (as explained earlier and in the next section 7.2.1.9). In large houses, the master bedroom could consist of two rooms leading into each other, in which the inner room is without a door and was used for sleeping, while the outer room was used for sitting. However, more common is a rectangular windowless room opening onto the courtyard through a narrow transition corridor called a *kawdi*. The *kawdi* provides a semi-private transition area that announces the next, more private realm of the bedroom/s (*kawdi* will be discussed in section 7.2.1.10). The furniture of the master bedroom was varied, but consisted mainly of the daily clothes storage box, the bed, and the colourful floor-mats covered with thick quilts called *tabardee* or wool carpets called *kleem* and topped with long pillows. The clothes box was always hidden behind the door and close to the bed (see figs. 7.2, 7.4, 7.5, 7.7). The bed is either *edbel* (sand) or wooden (see fig. 7.19). This single room, unlike the connected rooms of large houses, was divided

[30] Fatma and Aisha Basheer Abd Elhameed, interview.

into two sections using the furniture: the sleeping area and the sitting area. The division could be enhanced by using a curtain to hide the bed; however, according to local people's testimonies, this was not a common practice. The sitting area was mostly used by the parents, but it could also be used by the family on cold winter mornings to have breakfast.

During special occasions, such as giving birth, the master bedroom become a women's domain for 40 days, which was the time that the woman was expected to need to get her strength back. On such occasions, and especially if it occurred during the summer, the room door was usually left open for light and ventilation; however, privacy was obtained by using a flexible screen in the form of a piece of material used as a curtain, which partially closed the bedroom entrance. Importantly, this curtain was also meant to protect from the evil eye. The newborn would share the parents' bedrooms until two years of age (the maximum time indicated by Islamic rules to finish nursing the child), after which he or she moves to the children's bedrooms.[31] The children's bedrooms are usually shared with their nanny (a servant or slave or, in some cases, a close relative such as an unmarried aunt or a grandmother). When the number of children is large and the house size is small, the older children either spend the nights in their grandparent's house, which is usually close by, or use the clothes storage room.[32] In some dwellings, the children's bedroom has attached to it a tiny, narrow, dark, cell-like room used to store quilts and covers, as is the case in Fatma Al-Shibani's dwelling. On very cold winter days, this space was used as a warm sleeping place for young children. This small area, which can be accessed only from the bedroom, is ventilated and lit indirectly through the door and vent holes of the main room (see fig. 7.33).

[31] This Islamic role is mentioned in the Qur'an, *Sourat Luqmān*, verse 14. Saheeh International, *Qur'an*, 568, 569.

[32] In some cases, where the house is very small, the children shared their parents' room until the age of seven, when they would move to the clothes storage room.

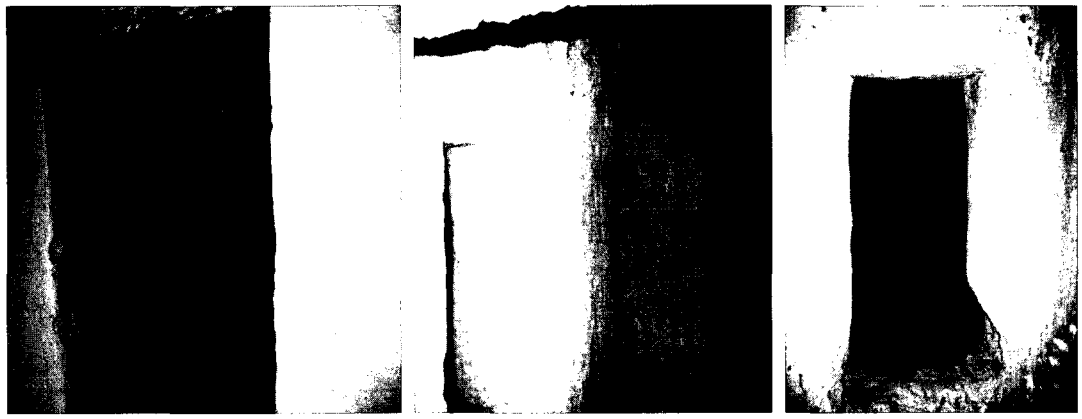

Fig. 7.33. The young children's sleeping place in the narrow, dark, cell-like room in Fatma Al-Shibani's house.

On hot summer days, and in order to protect the rooms (particularly the children's bedroom) from scorpions, wet mats were usually placed at the doorstep. Scorpions were usually attracted to the cold humid shaded areas, which made it easy to get rid of them. To avoid the annoying flies, a palm leaf (called in Arabic *jereed* and in Tuareg *takola*) would be sprinkled with sugar or dipped in sweet or sugary liquid and then hung on one of the court walls or at the rooms' doors to attract the flies.

As in the other rooms of the house, the bedroom walls contain alcoves used for different purposes. Some alcoves were used to place the tea set, including the tea and sugar cans, or water jars, or to display ornaments, books, small mirrors, oil candles, metal bottles for perfumed oil, traditional medicines, or incense kept in small decorated metal boxes, etc. The wall niches not only provided a place for small objects but also defined the purpose, character, and the ambience of each room.

7.2.1.9 The Courtyard (*taa-wkh*)

The courtyard is the beating heart, breathing lung, and the circulating space of the Ghatian dwelling (see fig. 7.34). It is a shared and genderless domain that was used by all members of the family regardless of their age or position in the family. It constituted a safe playground for the children (mainly for toddlers), the woman's working area, where she washed dishes, made tea, and made handcrafts,[33] the family's outdoor sitting and

[33] The women would sit in the courtyard in their spare time in order to perform this activity, either individually or with the help of female friends or relatives. The most common handcraft was making

sleeping zone on long hot summer nights, and the main space for receiving guests during family celebrations and ceremonies.

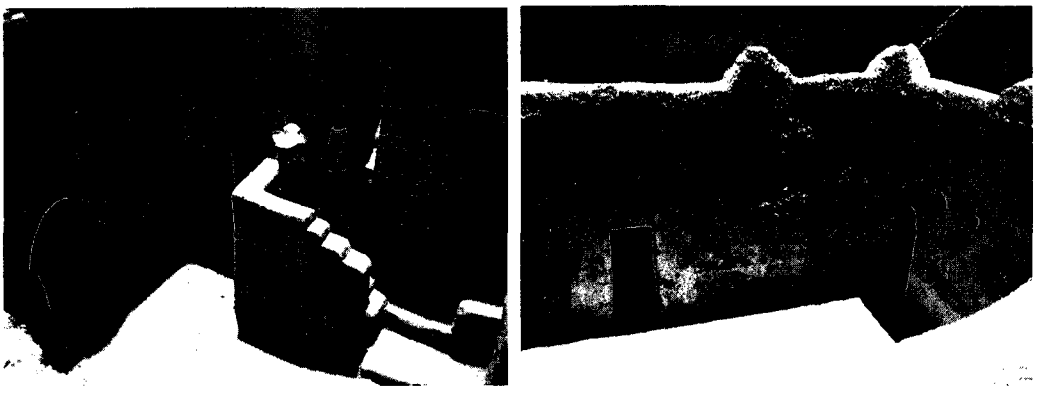

Fig. 7.34. The courtyards of Mohammed-Al-Mahdi Basheer Abd Elhameed's and Khairallah Ounallah's dwellings.

The courtyard is commonly called *taa-wkh*, which is a Tuareg term; however, another term, *lydha* (meaning 'the surrounded space'), was also used by a few people, mostly of Arab origin. *Lydha* is a local, informal Arabic term used mostly by those who came to live in Ghat from the nearby Saharan towns of Fezzan, such as Murzuk and Ashati. In formal Arabic, the courtyard is called *fena*.

Climate, meal routines, family size, daily activities, and tradition influenced the usage-times and organization of the courtyard. On summer mornings, the family would gather in the courtyard in one or two circles, based on their numbers, close to each other to have their breakfast; however, during lunchtime the heat would be intolerable. For that reason, Ghatians preferred to have their lunch in the outdoor shaded corridor called *kawdi* (explained next), which is much cooler than the courtyard. However, during the cooler months of the year, extending from November to March,[34] the shaded areas of the courtyard increase, and consequently so does its use. The seating organization in the courtyard dining area was changeable and controlled by the Ghatians' traditions. For

bracelets or necklaces of differently-sized and coloured beads, and weaving straw baskets, colourful dish covers, or circular straw mats to be used as trays etc. The space required was small and the tools and material used were simple, constituted by green baby palm leaves, a water basin in which to soak the branches, and small basins for the selected dyes.

[34] Based on the TuTiempo record of Ghat's temperature in the years 1981-2008, I estimate the average temperature during these months to be approximately 14-23 centigrade. Older records of Ghat weather conditions are not available. TuTiempo.net, "Historical Weather: Ghat, Libya," http://www.tutiempo.net/en/Climate/Ghat/622120.htm (accessed August 10, 2008).

example, if the family was large, the youngest members would eat together in a separate circle (see section 4.1.1.1 for a similar description of courtyard space use and seating arrangements). In addition, if a newly married daughter was visiting, she would not join or even sit close to the circle headed by her father, especially if she was holding her newborn child. She would usually sit with other members of the family at some distance, due to her desire to show respect for her father and her bashfulness at having recently become a mother.

If the courtyard was large enough, it might include a *mustaba* (*e-khadakh*) used for sitting in the summer evenings, as is the case in Haj Mohammed Danda's and Fatma Al-Shibani dwellings (see figs. 7.2, 7.35). However, straw mats were much preferred, and were commonly used to better utilize the space. The courtyards always include, in their center or at their sides, the staircase leading to the upper floor (see figs. 7.34, 7.35). They may also include a wash-stand or a marked place in the ground used as an earth washbasin, for performing sacred rituals of ablution (see figs. 7.2, 7.36).[35]

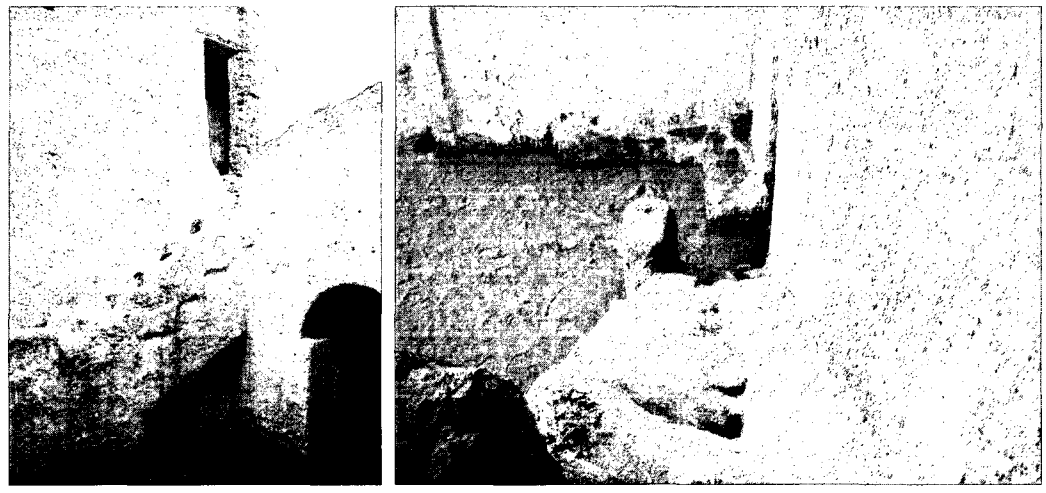

Fig. 7.35. The staircase and courtyard *mustaba* of Fatma Al-Shibani's dwelling.

[35] In the years immediately prior to the abandonment of the town, water taps were connected to the washstands of some dwellings.

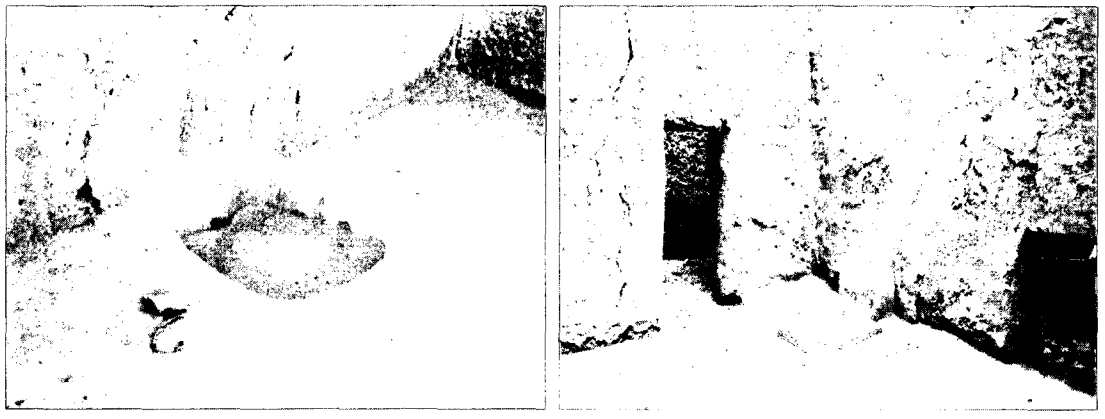

Fig. 7.36. Examples of earth washbasins and wash-stands.

As well as the holes in the walls for pigeons to roost, an architectural feature that characterizes some dwellings' courtyards is a carving cut into the wall, almost 40cm high and resembling, on a smaller scale, the *mehrab* of the mosque, which articulates the direction towards the *qebla* in Makka. This little *mehrab* is similar to those found in the *derb* rural dwelling (see fig. 7.37). This architectural element signifies one of the five pillars of Islam, which is praying. It also reflects not only the importance of performing the five daily prayers, but also the significance and value of religion in Ghatians daily life.

Fig. 7.37. Holes for pigeons to roost and the *mehrab*-like carving pointing towards the *qebla*.

The number of courtyards in Ghatian dwellings varies, as do their sizes and shapes, based on the particular needs of each family and the shape and size of the

dwelling lot. While the courtyards are mostly square or rectangular, I also observed small, irregularly-shaped courtyards opening onto each other, mainly in larger dwellings with more than one courtyard, which were inhabited by extended families. This was the case, for example, in Fatma Al-Shibani's dwelling in *Aghram Washaran* neighbourhood, which has three courts: one large main courtyard and two very small secondary courtyards (see fig. 7.38). The innermost of these two small courtyards was used as an outdoor extension of the kitchen, where water jars called *bawageel* were kept and where some of the kitchen work was accomplished.

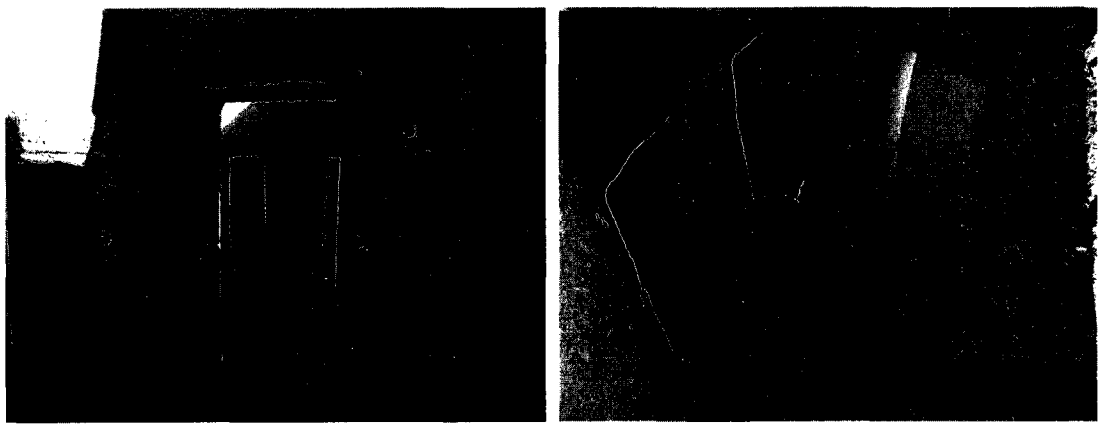

Fig. 7.38. Small secondary courtyards in Fatma Al-Shibani's dwelling.

Where the dwelling has more than one court, the main court will be the largest, located close to the entrance, and surrounded by reception rooms and rooms for sitting. If the dwelling has only one court, the rooms that are usually located on the ground floor will be organized around this court. Even if the house included more than one courtyard, the Ghatian dwelling was never divided physically into two domains served by two courtyards, one for women and the other for men, as is the case in the Arabic-Islamic dwelling[36]. The reason for the lack of explicit visible physical division of spaces for men and women is mainly due to the culture and tradition of the Ghatian society, in which women are highly respected and are allowed to socialize together in the same space with male visitors, particularly since most of the visitors are family and blood-related.

[36] The domestic space of the Arab-Islamic dwelling is divided physically into two gendered domains with two separate courtyards, one, called *salamlak*, for the men, located at the dwelling's front, and another, secluded one for the women, called *haramlak*.

7.2.1.10 The *Kawdi*

Investigating the various dwellings revealed that the rooms surrounding the main courtyard may open onto the court either directly, as is the case of Haj Mohammed Danda's family's house (see fig. 7.2), or indirectly, as is the case of Fatma Al-Shibani's dwelling in *Aghram Washaran* neighbourhood and Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house in *Tamalghat* neighbourhood, in which the rooms open towards the court through a shaded corridor-like outdoor room, called *kawdi* (see fig. 7.5).

The *kawdi* is an important architectural element of Ghat dwellings and forms an essential part of most of the dwellings' main courtyards. The *kawdi* is a small arched corridor that usually contains wall niches, in which small water jars were kept handy or decorative objects were displayed (see figs. 7.39, 7.40). The width of the *kawdi* ranges from 1m to 1.7m. The low keyhole-shaped arches distinguish the architecture of Ghat's dwellings and religious buildings from that of Ghadames. However, the keyhole-shaped arches are commonly used in some neighbouring Saharan towns in Fezzan, such as Murzuk, as well as in towns in neighbouring countries, such as Timbuktu in Mali. The origin of this architectural form is unknown, and investigating this issue is beyond the scope of this dissertation; however, the caravan trade, including slave trading, could be one of the main reasons behind its wide use within the desert oasis towns and villages.[37]

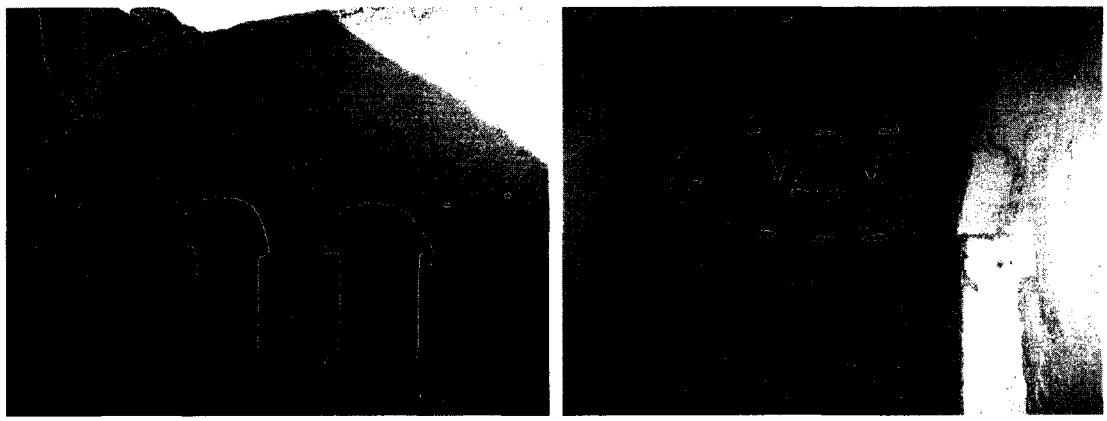

Fig. 7.39. The *kawdi* of Fatma Al-Shibani's dwelling, and its wall niches.

[37] Ghatian slaves, who came from different African countries and could be owned by several masters in different places before they ended up with a Targian or Ghatian master, helped their masters with the skills they gained from years of working in different places in, among other things, construction.

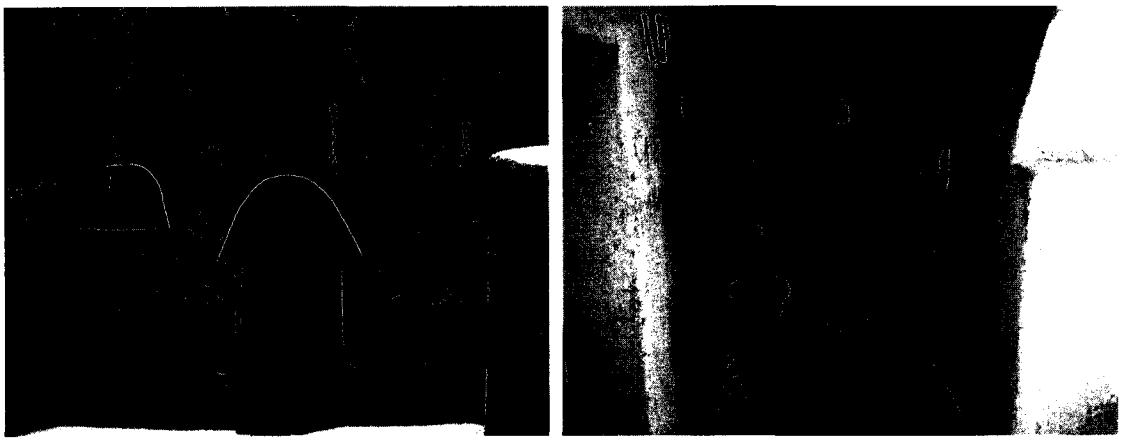

Fig. 7.40. The *kawdi* of Mohammed-Al-Mahdi Basheer Abd Elhameed's dwelling.

7.2.1.11 Aesthetic Elements: Wall Niches and Decoration

Ghatians used the interiors of their buildings to display Ghat's modest art forms and decorative skills, which stemmed from Targian culture, as well as to represent class and wealth differences. By contrast, the exteriors of buildings were left modest, simple, and almost free of ornamentation in the whole of Ghat.

Different methods were used to decorate Ghatian dwellings' entrances, walls and roofs. These involved mud techniques, woodwork, and local woven handcrafts, which were often used together. Generally, dwelling ornamentation depended mainly on family wealth and the individual taste of each family, unlike in the dwellings of Ghadames, in which the interior decoration of the dwelling depends totally on the decorating skills and personal taste of the housewife.

Ghatian dwellings usually have one elevation; however, in the few cases where dwellings have two elevations, they usually have two entrances (a main entrance and a back door). The general trend is that main entrances, whether recessed or projected, do not have any decoration, but in some cases modest decoration was carved on the wet mud-plaster of the walls in rhythmic or non-rhythmic geometric forms, in order to frame and articulate the main entrance and/or the upper windows. Frequently, entrance decoration was accomplished just by decorating the wooden door itself using woodwork techniques in order to create attractive motifs, and/or by using small decorative pieces of brass (see fig. 7.41).

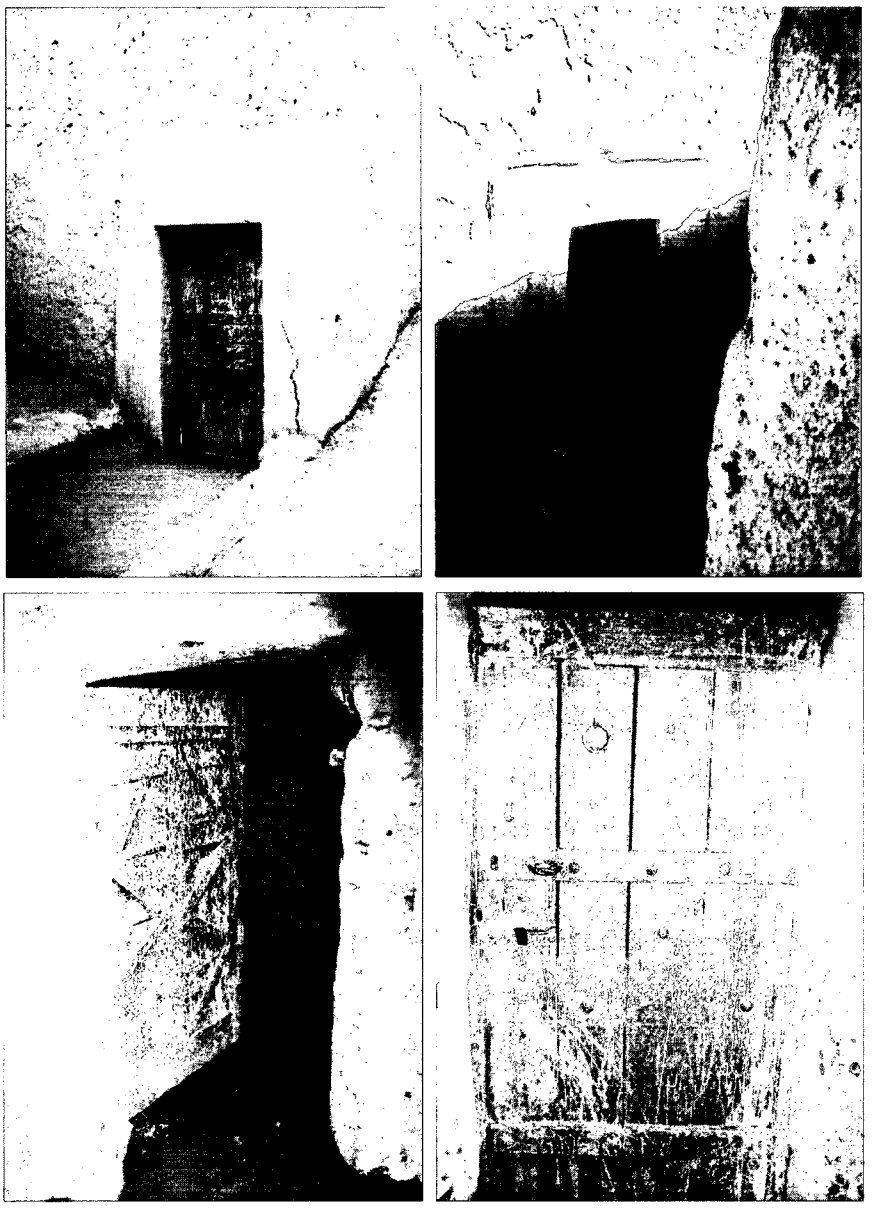

Fig. 7.41. Main entrance decoration.

Different types of mud decoration characterize Ghatian architecture, particularly dwellings. However, the most common decorative features in all houses, which were affordable for most families, are handmade zigzags or triangles formed by sun-dried mud bricks, which are used as trimmings surmounting exterior and interior walls and roof terraces, and the simple, plain or carved handmade mud-plaster frames, approximately 5-15cm thick, that border the alcoves engraved in the walls (see figs. 7.42, 7.43).

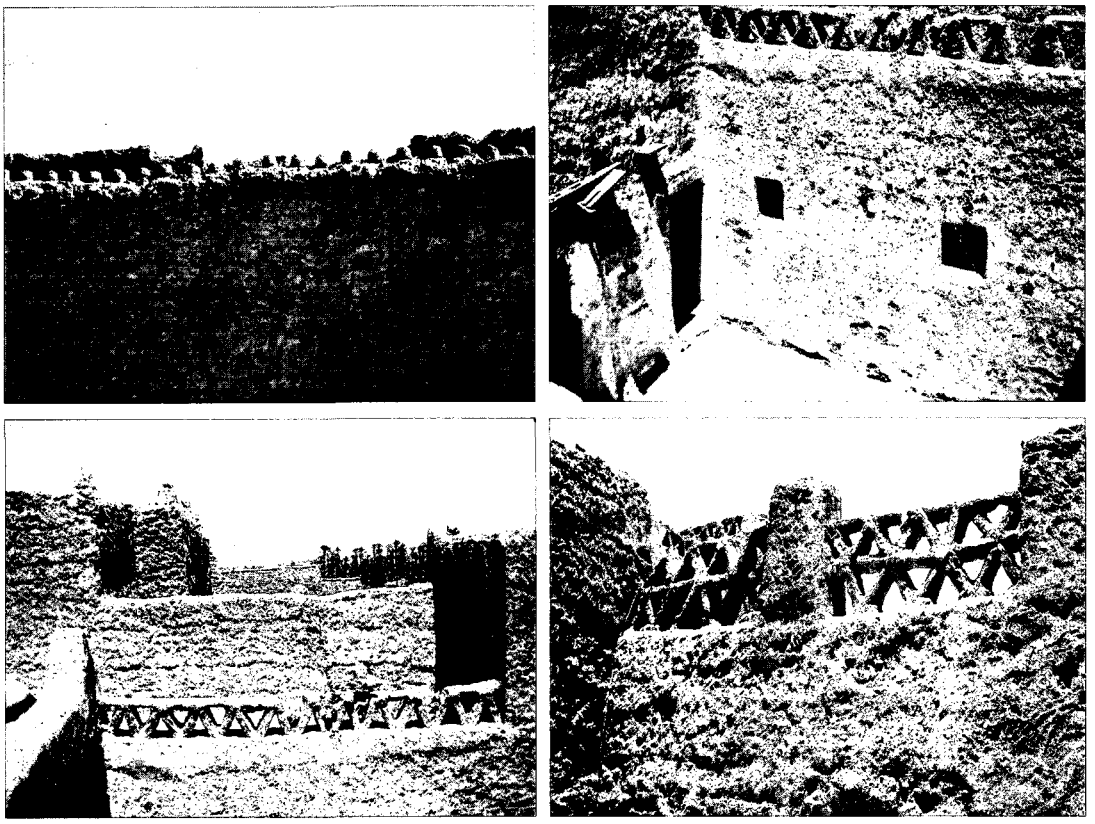

Fig. 7.42. Wall trimming decoration in Ghat dwellings.

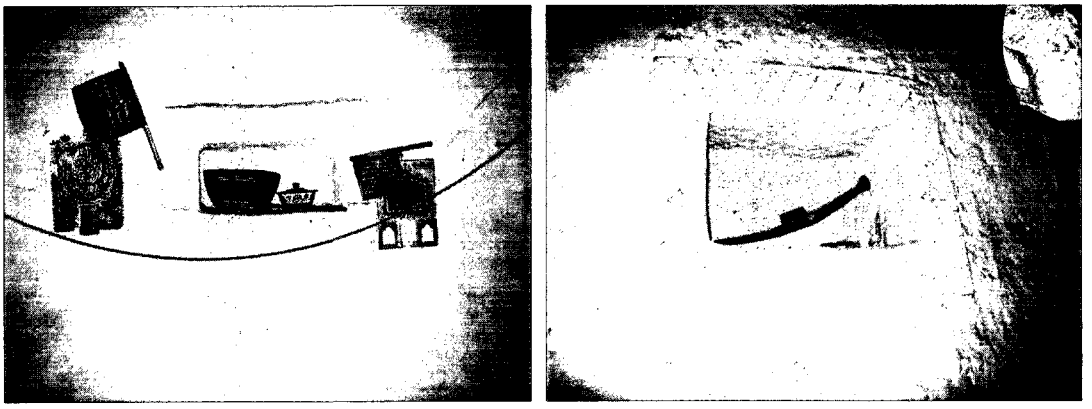

Fig. 7.43. The simple mud-plaster frames that border the wall-alcoves.

Another mud decoration, which is common in rich people's houses and in the dwellings of rich merchants from Ghadames and Tripoli, and which was used to signify their wealth, is the relief. These are built in geometrically decorated rectilinear mud panels (see fig. 7.44) or in more elaborate mud frames, which may be detached or

attached to each other and used to decorate the carved niches in the walls (see fig. 7.45). These alcoves take various shapes: rectangular, triangular, square, or semi-circular, and are used for displaying or storing various items, as explained in section 7.2.1.8. Moulded decorations are never used in Ghatian dwellings. Decorations that are contained in panels or that surround alcoves take different geometrical forms, which are arranged in magnificent non-repetitive patterns united by the proper use of scale and the careful gauging of the size of the decorative unit in relation to its setting.

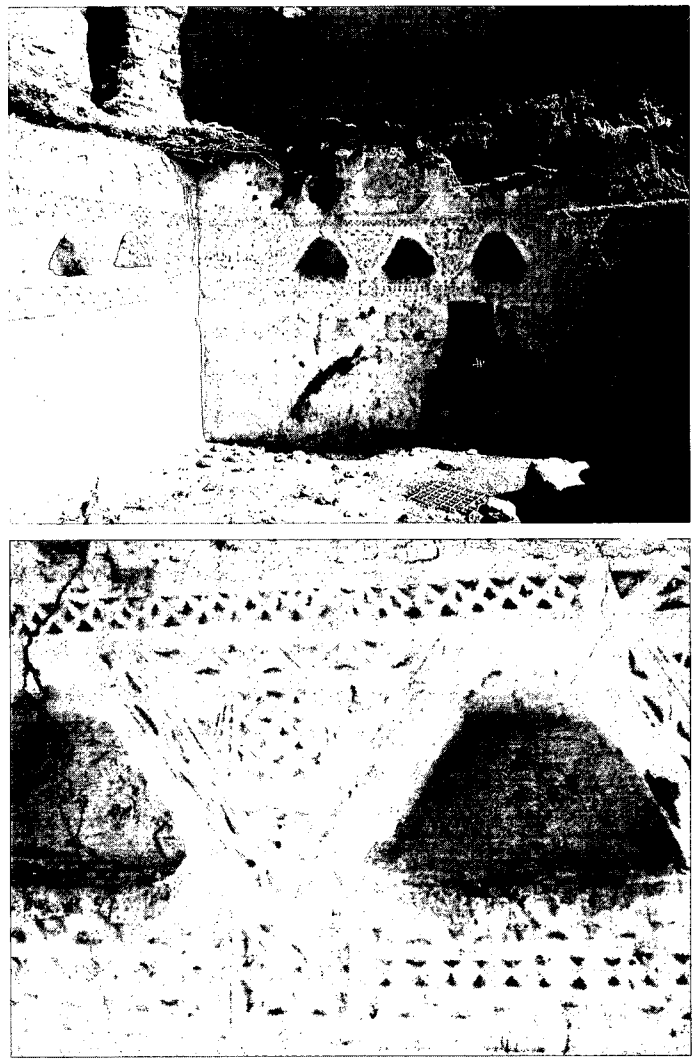

Fig. 7.44. Ornamented panels in *Kalala* neighbourhood.

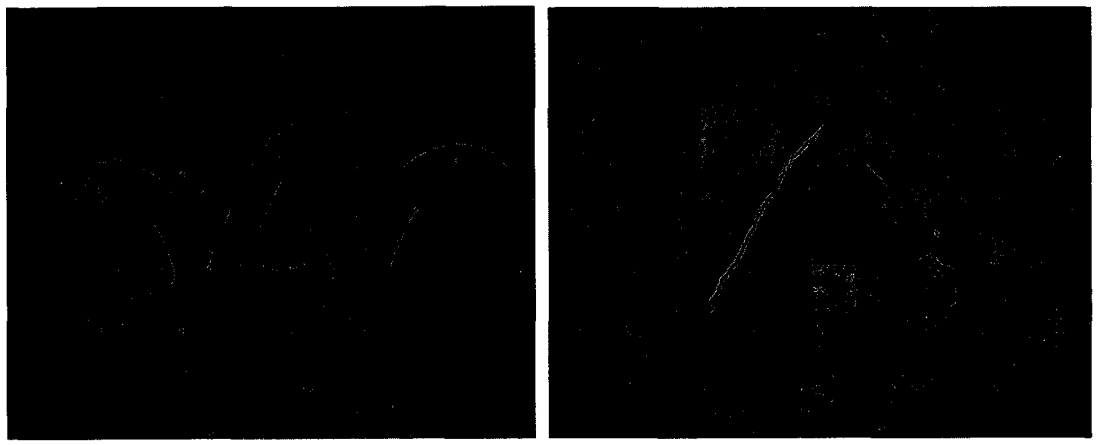

Fig. 7.45. Elaborate detached and attached mud frames from rich people's dwellings.

The mud decorations of the walls cover only the upper parts of the walls' surfaces. In the case of motifs contained in a panel, the decoration normally extends in a rectilinear form around the room at a height from the ground ranging from approximately 1.6m to 1.8m and a vertical width of 0.4 to 0.5cm. However, in some cases the mud decoration extends as far as the ceiling (see fig. 7.46). On the other hand, niches and alcoves never exceeded reachable heights.

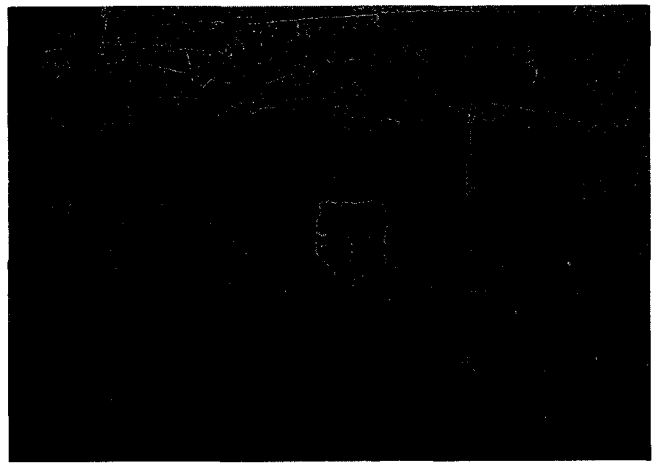

Fig. 7.46. Mud decoration extending to the roof.

Colourful woven handcrafts were used in the interiors of dwellings, particularly on the walls, in order to contrast with the pale, colourless decorative mud motifs, and to bring the different spaces of the dwelling to life. Decorative woven straw handcrafts made

by the women, such as baskets, dish covers, plates, and mats, along with other hand-made products, such as the elegantly designed quilts (locally called *tabardee* or *asudokan)*, *kleem* carpets, and cotton and skin pillows, were used to decorate the various rooms and signify their importance (see fig. 7.47). For example, the beautification and ornamentation was most intense in reception rooms and master bedrooms.

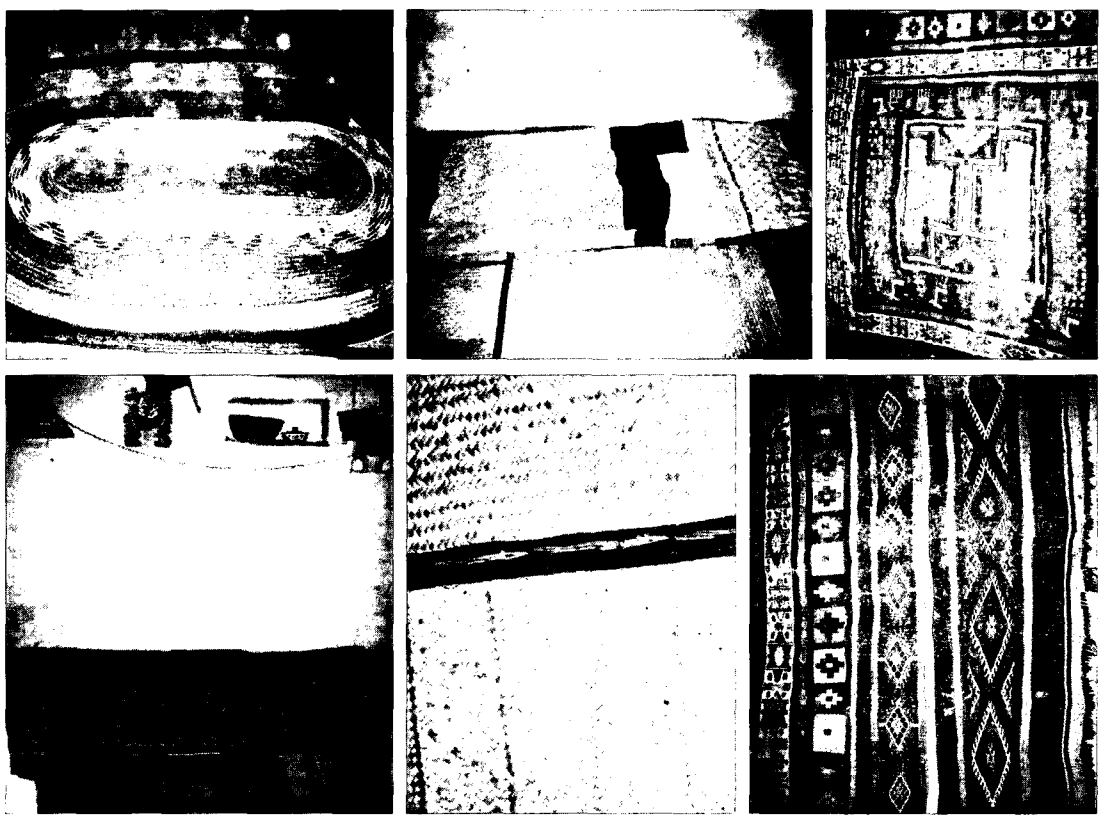

Fig. 7.47. Colourful woven handcrafts.

Compared to Ghadamesian dwellings, which are renowned for their outstandingly rich decoration, the decoration of Ghatian dwellings looks humble and pale. Based on my observations in summer 2005, all the rooms of the Ghadamesian house are furnished simply, yet tastefully and adequately, and decorated with colourful carpets and mats. Red is the preferred colour of Ghadamesian women, and is used to decorate the doorways and walls of the main living room, which are adorned with various ornaments and where decoration is intensified. Mirrors, woven fabrics, and brass pots hung on the walls add visual interest and personality to the interiors of the houses (see fig. 7.48). I believe that

the humbleness of the Ghatian dwellings' decoration in relation to the Ghadamesian is due not only to the wealth of the people, but also to differences in urban form of the towns. The Ghadamesian people produced a compact and enclosed settlement structure, with a generally covered street system and a dwelling form with a minimum of openings to the daylight, mainly in order to protect themselves from the harsh, hostile desert environment. Their dwellings lack the open interior courtyard; instead, Ghadamesian people use a small aperture (skylight) in the ceiling of the living room to bring light and air to the centre of their dwellings (see fig. 7.49).[38] This important feature of the Ghadamesian house, which differentiates it from all other traditional Libyan domestic architecture, played an important role in lowering the cost, effort, and frequency of maintenance of the interiors of the Ghadamesian home. Because the interior spaces were not exposed to the harsh climatic factors, as is the case in the Ghatian dwelling with its open to the sky inner courtyard, a successful and sustainable interior decoration was made possible.

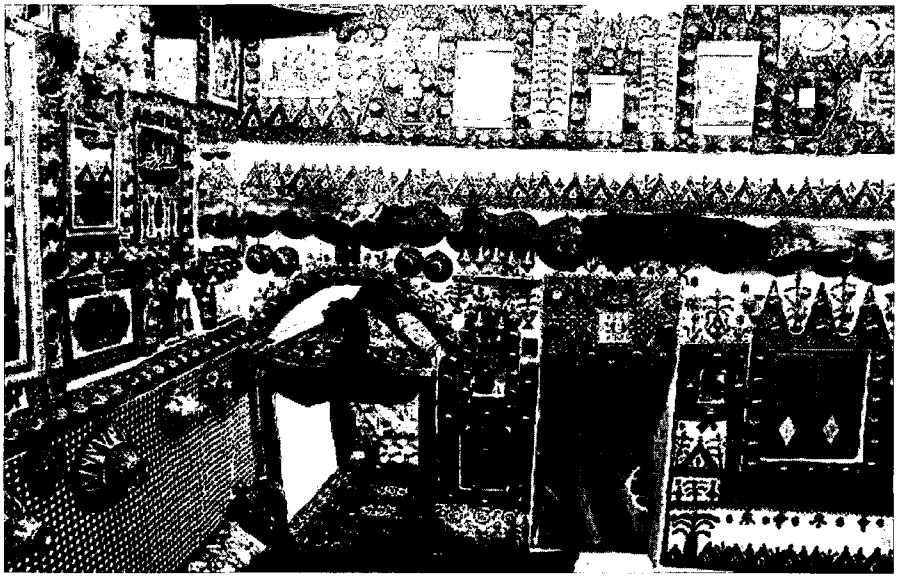

Fig. 7.48. The use of brass, mirrors, and mainly red-coloured decoration in a Ghadamesian home.
Reproduced from World 66, with permission from Mahmoud Akka.

[38] The Ghadamesian living room is located in the middle of the house. Its location resembles the courtyard in the Ghatian dwelling. This living room is the primary source of light and ventilation for all the rooms of the house.

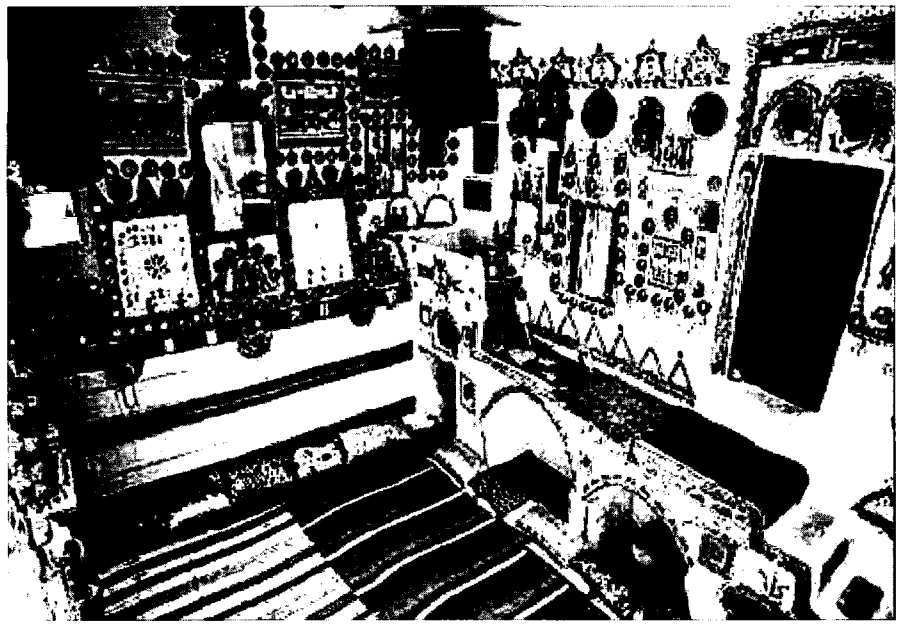

Fig. 7.49. The Ghadamesian dwelling's living room.
Reproduced by permission from Mahmoud Akka.

The decorative carvings in Ghat dwellings never represent human beings or animals, because Islam forbids representing either animals or human beings in carved or non-carved pictures or sculpture. Instead, their rather elegant abstract and geometrical forms meld together to give a rich pattern like a mosaic, without the use of colours. The decorative motifs are textural geometrical forms, in which the richness of the surface is conveyed using varying detailed patterns or rhythmic repetition of the same forms (see fig. 7.50). Such a form of ornamentation, which may be simple or complex, conveys no abstruse symbolic meaning, but is meant to be enjoyed for itself alone. In Ghat, ornamentation does not represent proverbs, sayings, or myths and legends of the tribal past in visual symbols, as the case in some African dwellings (see fig. 7.51). According to local people, motifs have no allegorical meaning, but are inspired by the texture of clothes, carpets, woven straw mats, or weapons (spears), or incorporate letters from the Tuareg *tifinagh.*

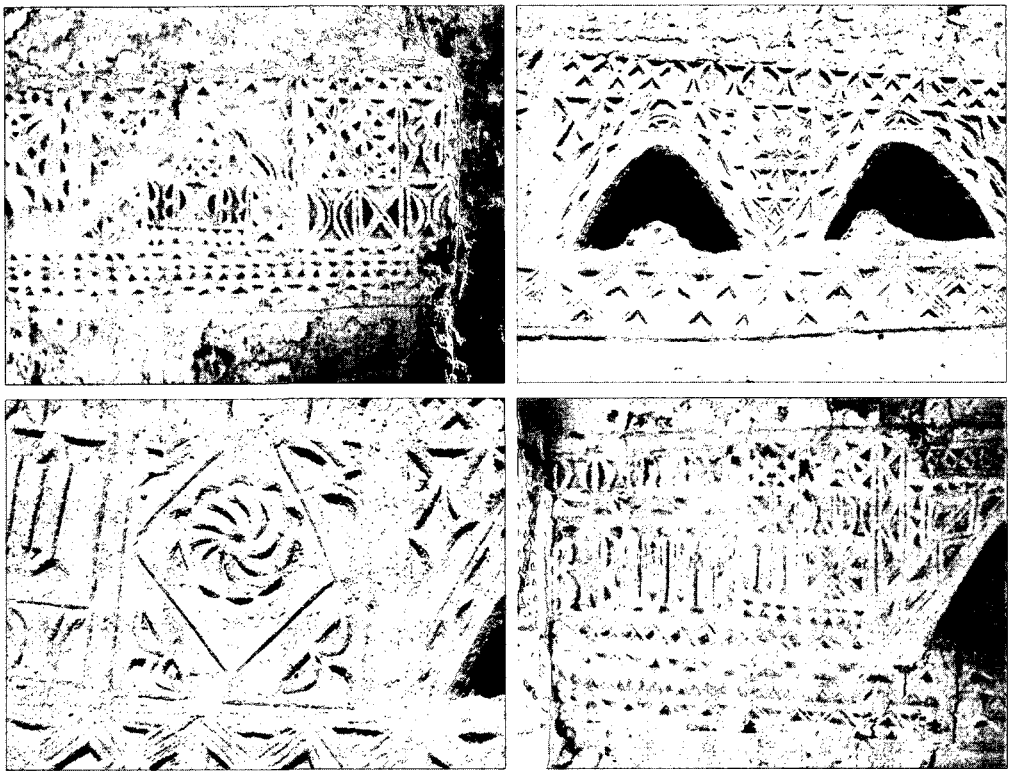

Fig. 7.50. Different textural geometrical motifs and rhythmic replication.

Fig. 7.51. Visual symbols of myths and legends of the tribal past summed on the interior wall of a hut in Uganda.
Reproduced from Trowell (1965, plate VIII).

7.2.1.12 Building Materials and Construction Methods

In Ghat, construction activity took different forms: building a totally new dwelling; dividing an existing dwelling into two dwellings, and consequently making some alterations to the old one; or extending an existing dwelling. Usually, extensions were made either horizontally or vertically, based on the lot size; however, extension was also sometimes accomplished by adding an attached lot or dwelling. The decision to build, divide, or extend was usually taken in order to accommodate changes in family size or structure. These changes could result from an increase in the size of the nuclear family, or from allowing married children to live close by or to share the parents' house, which was not a very common practice. Building was also initiated if a dwelling collapsed.

In Ghat, no one built to rent. However, renting did exist. When a family built a new house, they might rent the old one, sell it, use it as a storage place (mainly for dates) or as sleeping quarters for their slaves and servants, or bestow it upon one of their immediate or extended family members who were in need (for example, if he or she wanted to get married or if his or her house had collapsed).[39] Although building would begin as an individual action, it was a collective activity. It could be accomplished by the head of the family with the help of his slaves, children or close relatives or friends, or by hiring masons. In either case, the head of the family would make a sketch on the sand indicating the various spaces that he wanted and their desired location before construction began. The first step after making a decision to build would be to provide the building materials. Roofing and door materials would have to be collected from nature, bought, or traded for. Sun-dried bricks, which were used for walls, would have to be prepared in advance, either individually by the owner or by specialized people who sold ready-made bricks.

The process of making sun-dried mud bricks takes several months. First, the mud mixture is prepared by mixing the clay available in the area with a little wheat or barley straw, cut to 3-5cm long and beaten flat. These components are mixed little by little with water, until they become a soft, but not watery, adobe. The mixture is then piled together and a hole is made in the middle and filled with water. Then the mixture is left for a

[39] The house can be sold or rented to merchants to live in during the caravan season, or as a storage place for their goods. Some dwellings were rented exclusively in order to store dates.

minimum of three weeks and a maximum of three months to ferment. During this period, the mixture has to be sprinkled regularly with enough water to keep it wet and humid, and the hole regularly filled with water. In order to indicate when the mixture is ready to use, palm seeds are planted in the mixture. When these seeds sprout, the mixture is ready to be molded. The mixture is usually molded into 30 x 10 x 20cm bricks, using wooden molds, although in some cases metal molds are used. The technique is to fill the moulds and then smooth them with the bare hands, without any compression or compaction. The molded brick is then left to dry on the ground in the sun. After three days, the bricks must be turned on their edges to dry properly, before being piled together ready for use or sale. In addition to sun-dried mud brick, Ghatians also used small solid pieces of rock, almost the size of a brick, to build walls, especially in dwellings in the old core.

Normally, the construction process would begin by indicating the middle or main court of the dwelling, after which the rest of the spaces would be arranged around it. Lines would be drawn softly on the ground to indicate the location of the walls of the dwelling, before digging almost 30cm into the ground. If, after digging, the ground was found not to be solid, a layer of small stones, locally known as *errshad*, would be placed in the foundation before another two layers of brick were placed over it. These small stones were prepared from larger stones by using a traditional hammer, called an *aldebraz*, to break the larger rocks into small pieces. The bricks would be arranged in the foundation in a special pattern, placing two bricks in a horizontal position succeeded in the same row by another two in a vertical position, and so on. The second layer would be arranged oppositely to the first. This made the dwelling's foundation and structure much firmer. Between the layers of brick would be placed thin layers of mud mortar. It was important to wait for three days after every two layers of brick were laid, in order to let the mortar dry and prevent the wall from bending or collapsing. As the walls rose, the Ghatians would begin to build in a staircase format, in order to allow the builder to reach the top of the wall in the absence of scaffolding. Building the walls required at least three people. One would hand the bricks to the builder, while the other would throw balls of mud mortar to him. These balls were made of soft mud for easy spreading, then rolled in dry soft earth for easy handling. The mud ball is a common technique also used in neighbouring African countries such as Mali and Niger, and may have been brought to

Ghat by African slaves. In Ghat, the dwellings share their side walls with neighbours on both sides. This tradition, besides reflecting the strong ties in the community, made building extensions easy, saved individual and communal resources, and reduced time and effort spent in construction.

After building the walls, the roofing process would begin. The roofs of Ghatian dwellings are usually made of a combination of *athel* tree wood and leaves, called locally *albo*,[40] and the branches of shrubs called locally *barambkh* and *torha*, both of which have the natural quality of keeping insects away.[41] However, in some cases, *azawa* tree branches or palm tree branches and trunks were used for roofing instead of, or in combination with, *torha* branches, depending on their availability.[42] The completed wooden skeleton would be covered with a layer of a mixture made by combining mud with a little animal dung, mainly collected from goats. This mixture should not be watery, but should form a very soft dough, so that it does not leak between the branches. This layer would then be coated from the top down with a layer of dry earth mixed with sand, to prevent the soft mix drying too quickly and cracking. Although the animal dung is light in weight, it increases the roof's strength, makes it impermeable during rainy seasons, and works as insulation.

The selection of *athel* tree branches for roofing depended on their length and weight: the best branches for this purpose were long and lightweight. The length of the branches controls the rooms' width, which derives its thin rectangular shape from this restriction rather than from the particular desire of the inhabitants. Based on my observation of some dwellings in *Kalala* neighbourhood, I found that in order to overcome the width limitation problem, thick pillars and beams were used in the middle of some rooms to expand their space, but this was not a common practice in Ghat dwellings (see fig. 7.52).

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[40] *Albo* is a Targian term.

[41] The botanical name of *barambkh* is *Calotropis Procera. Barambkh* is an Arabic term, while *torah* is Targian. Both are used equally in Ghat, and refer to a poisonous shrub whose fruit and branches contain a white sticky liquid that causes blindness.

[42] The botanical name of *azawa* is *Tamarix Gallica L.* Usually, palm tree branches were used to build huts or fence fields rather than to roof mud-brick dwellings. This is because *athel* and *barambkh* are available locally in large quantities, and do not require any treatment before use, as is the case with palm tree branches and trunks.

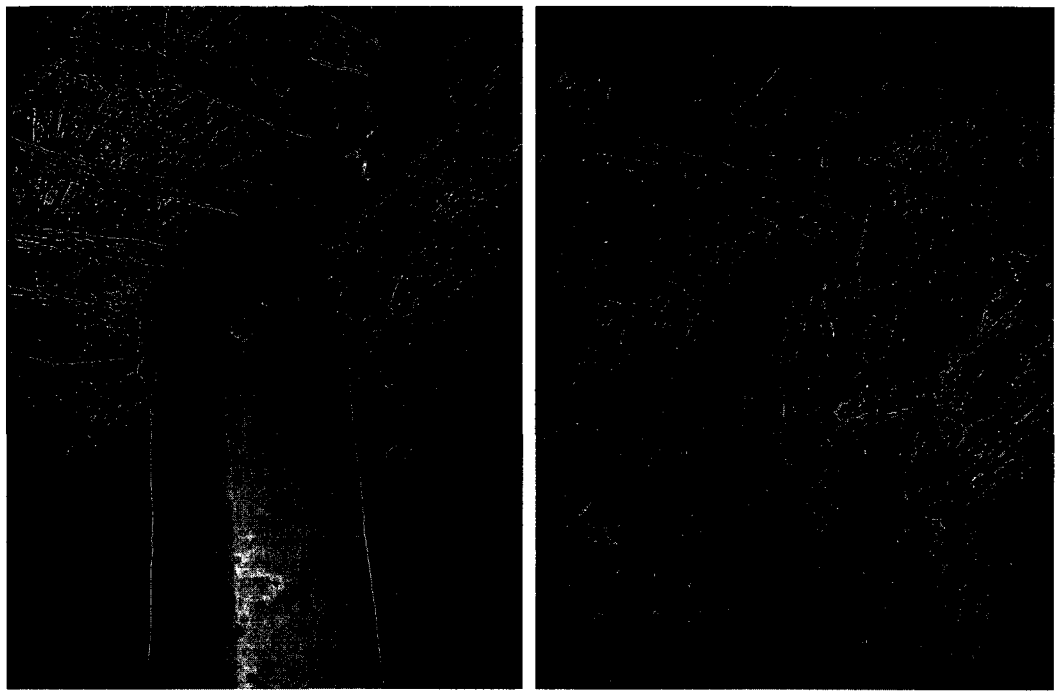

Fig. 7.52. Supporting beams and columns.

The diameter of the *athel* tree branches used in the roofs of Ghatian dwellings ranges from 10 to 15cm. They are placed 40-50cm apart,[43] and the span between them is filled with the thinner *torha* branches (see fig. 7.53). The branches used for roofing should be cut to the required size when green, and left to dry completely before use. In some of the collapsed dwellings, I noticed the use of dried branches from palm leafs (called in Tuareg *takart*), *asen*, and old woven straw mats made of *diss* in roofing; however, this is not a common practice (see fig. 7.54).

The textures in the roofs of the dwellings are fascinating. The natural variety of the palm or *athel* tree trunks and *barambkh* branches used in roofing, in addition to the builders' decorative skills in combining and arranging them, have resulted in impressive, ornamental ceiling patterns. The utility of the decorative ceiling is enhanced by the Ghatians' knowledge of their environment and their use of building materials that have the natural quality of keeping insects away, such as *barambkh* or *torha* (see fig. 7.55).

[43] The local measuring unit for placing the *athel* branches was the *theerah*, which is the length of the human arm from the middle finger to the elbow.

Fig. 7.53. Filling the space between *athel* tree branches using *torha* branches.

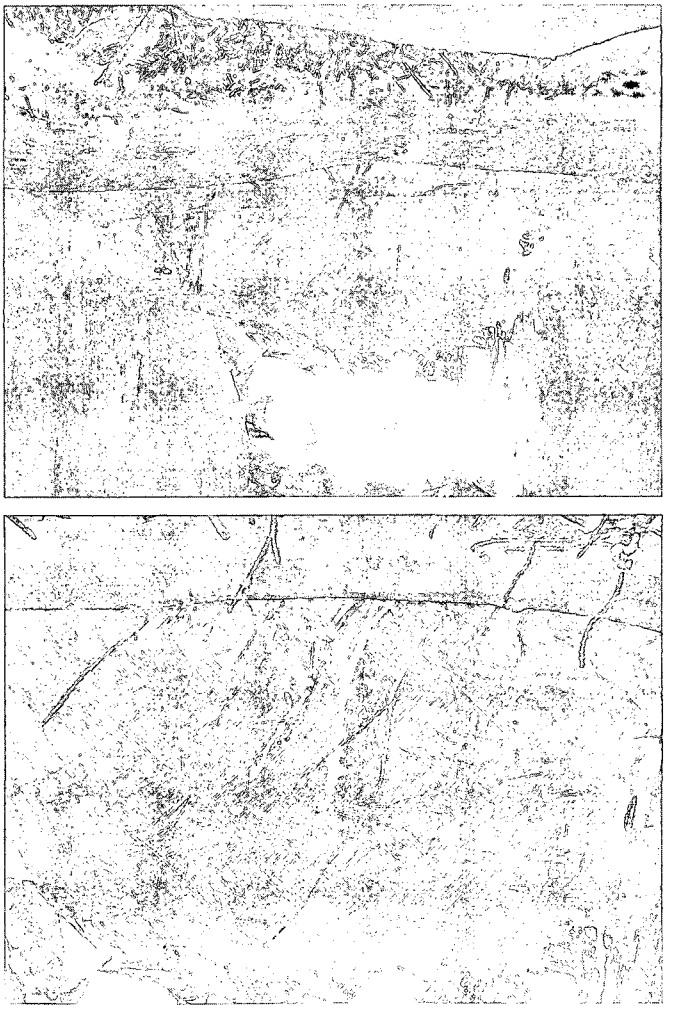

Fig. 7.54. Palm mats used in roofing in *Kalala* neighbourhood.

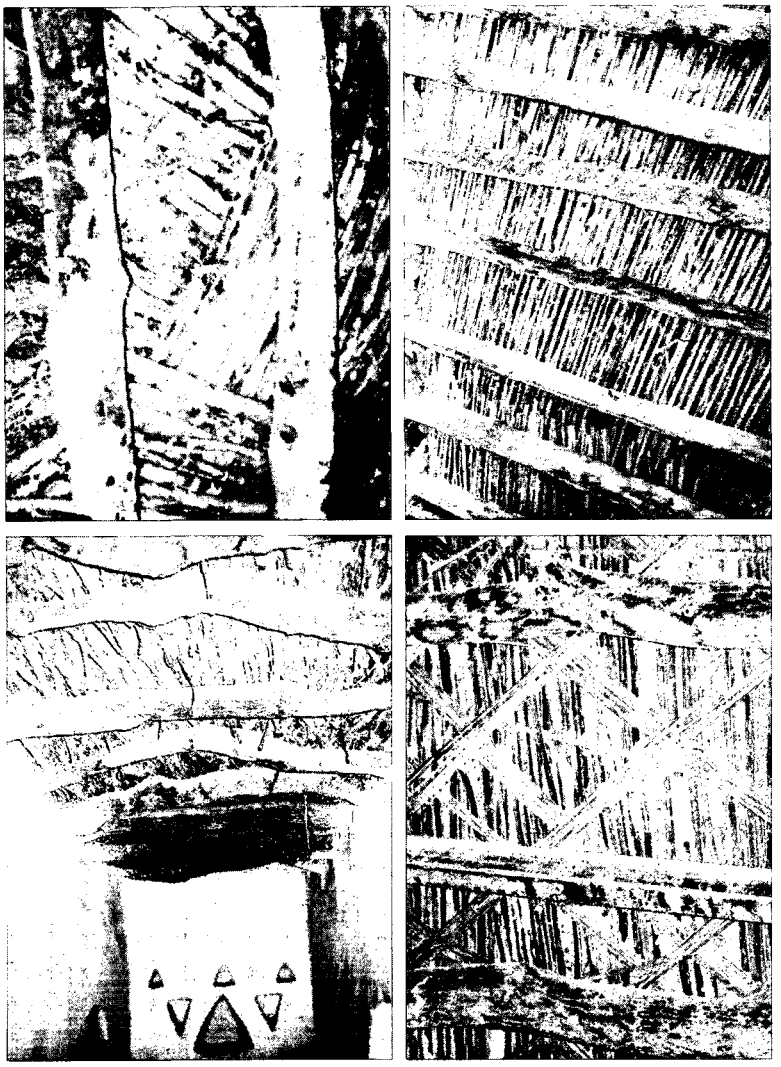

Fig. 7.55. Decorative arrangements and patterns of the ceiling.

The building process was always a happy time for Ghatians, and was accompanied by special songs, called *ahazeej*, for the occasion. These songs encouraged the builders and made building more enjoyable. However, the end of roofing was always announced by a big ritual celebration, in which a black goat was slaughtered and its skin hung on one of the edges of the roof in a location visible to everyone. The Ghatians believed that this ritual protects the new dwelling from the evil eye.

After roofing, the next step is plastering. The owner would begin plastering the exterior and interior of the dwelling with a layer of very thin (but not watery) mud mixed with a little natural salt, found locally near El-Barkat village in an area called Tin Jraben.

The salt rocks are excavated from the ground, diluted in water, and left until the dirt settles, before using the salty water in the mud mixture.[44] In some cases, the exterior plaster was decorated by hand-shapes by using the pressure of the palm of the mason's hand on the fresh wet mud. The interior wall, on the other hand, was smoothed, using either the palm of the hand or a piece of wood, before any other decoration work was performed.

After the walls had completely dried, they would be white-washed using *abafa*, in the way I described in section 4.1.1.5. This step, which would mostly be performed by the women, could come last instead, after excavating the vent holes and niches in the walls of the rooms, installing the doors of the dwelling, and installing all other accessories such as front door-knockers and locks.

The form and construction techniques of the Ghatian dwellings' doors are fascinating and reflect the advanced skills of the carpenters of that time. The wooden doors, unlike the wood used in constructing the roof, were mostly made of irregular strips of, according to Jami, "rough planks of wild cypress wood, which is found in great quantities in one of the valleys of the Tassili near Janet."[45] The wooden strips or planks of the dwellings' doors would usually be attached to each other using ropes of animal skin, mostly camel skin, rather than nails (see fig. 7.56). Camel skin, which is stronger than other skins and hardens with time, was not only used to tie together the wooden planks of the dwelling doors, but sheets of this skin were also used as screens for these doors. Since not all families owned herds of camels or could afford to slaughter one, camel skin was usually traded for with something else (for example with food, such as butter, margarine, dates, or wheat, or with handcrafts such as quilts, *éssaber*, etc.). However, since camel skin was expensive, not all families could immediately afford to provide screens for their doors, and some obtained screens in stages.[46]

In constructing the doors, a vertical bar of *athel* tree wood was used instead of a hinge. The wooden bar would be attached vertically to the wooden strip at the corner of the door. Its upper end would penetrate the horizontal wooden beam above the door, both

[44] This natural salt is usually found close to the surface and does not require great effort to excavate.

[45] Jami, "Ghat and its Surroundings": 171.

[46] The camel skin goes through a manufacturing process similar to that applied to the goatskin used in nomadic tents (as explained in section 4.1.2.1). The skin ropes are usually used while they are still soft and before they dry and harden.

ends of which would be fixed in the walls, while the lower end of the bar would penetrate the ground (see fig. 7.57).

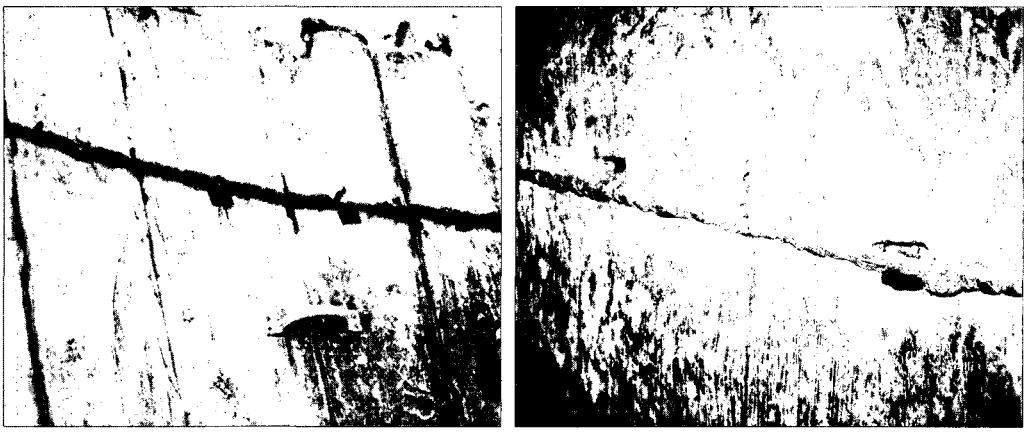

Fig. 7.56. The door, made of planks of cypress wood attached together using camel-skin ropes.

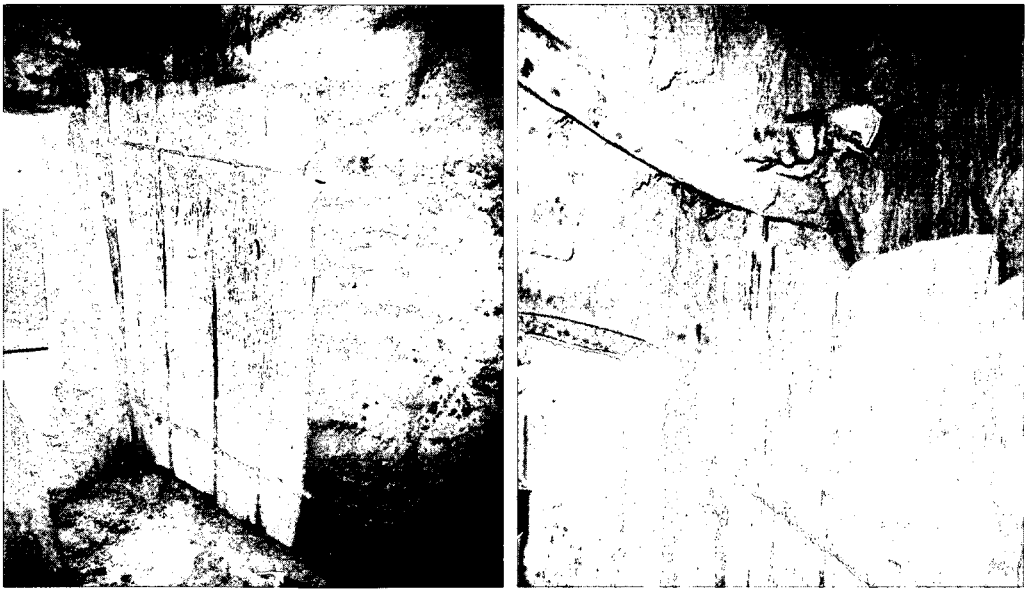

Fig. 7.57. Hinge made from the wood of the *athel* tree.

Fragile building materials imposed special techniques on accessories, decorative material, and the installation of doors in Ghat. For example, iron nails were never placed in the walls in order to hang clothes or mirrors or any decorative elements such as wall mats or woven crafts, because the mud walls easily crumbled. Instead, wooden hooks and

bars that were part of the dwelling's structure were used, particularly across the corners of rooms. Even in the doors, neither iron nails nor iron hinges were used.

This is how Ghat houses in general were built, including the house of the governor (*qaimmaqam*).[47] Differences in social class are not evident or articulated in the form of Ghatian houses, their building materials or their construction methods or techniques, although they can be reflected in the lot size or interior furniture. This social value was also noted by Richardson, as I stated earlier in section 3.1.5.1 in regard to the residence of the sultan of Ghat and the *Azjer* Tuareg, named Mohammed Safou Ben Seed.

7.2.1.13 Dwelling Maintenance

Dwelling maintenance in Ghat usually took place during the sacred months of the Muslim calendar, called *Al-Ash-hour Al-Hourm* in Arabic.[48] While the sandy floors were always renewed when they get dirty, a special sand renewal usually took place during the sacred month of Muhàrram, which is the first month in the Muslim calendar and which announces the start of the new Islamic year, called *Al-Sana Al-Hejria.* It was customary for Ghatians to renovate and whitewash their dwellings during this sacred month, as well as to renew the sand in the rooms. This was usually the job of the women. The women were responsible for the little maintenance work in the house, such as plastering walls and doorframes with mud and then whitewashing them using the *abafa* described in section 4.1.1.5. However, the sand in the rooms was renewed by young girls of the family unless slaves or servants were available. Around *al-maghreb*, the sunset prayer time, and before the town gates closed, in several trips the young girls would take the old sand out of the town and bring in fresh sand. At this time, the streets were less active, and were almost exclusively the domain of the women, since the men were usually praying at the mosques. In addition, darkness provided a non-physical screen, which gave more privacy to the young girls to finish their chore.

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[47] According to von Barry's dairy, the *qaimmaqam*'s dwelling did not differ in any respect from the other dwellings of the town. Ghanem, *Al-Almani Erwin Von Barry*, 81.

[48] The sacred months in the Muslim calendar are Muhàrram, Dhu l-qà'da, Dhu l-hìjja, and Ràjab.

7.2.2 Neighbourhood Communal Spaces: Squares and Seating areas (*al-majales*)

7.2.2.1 *Aishelly* Square and its Non-Covered *Majles*

Aishelly Square is one of the most important squares in Old Ghat. It is located at the heart of the town, surrounded from the east to the south by the old Othmanian Citadel called *Toughoroft,* the Qur'anic school of *Al-Atiq* Mosque, and *Al-Atiq* Mosque itself. The presence of these important buildings adds to the historical ambiance of this square (see figs. 7.1, 7.58). The walls of dwellings complete the enclosure of the square on the north and west.

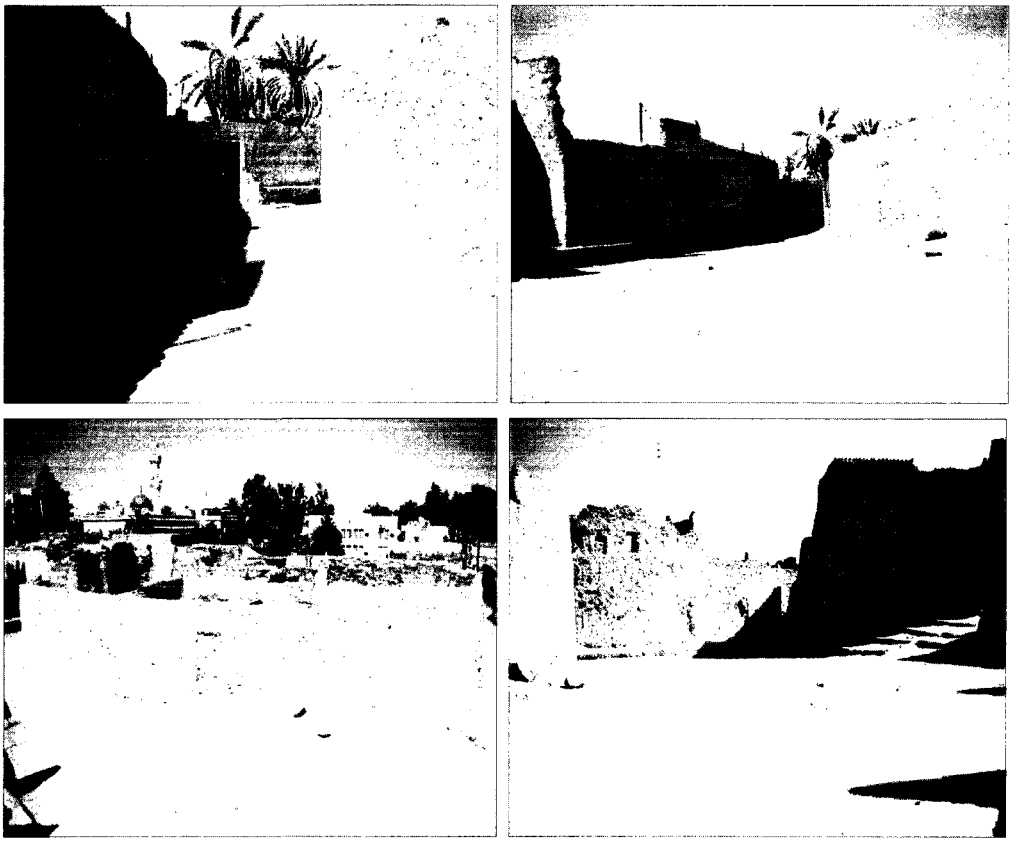

Fig. 7.58. *Aishelly* Square and its *majles*.

According to Ibrahim Bousha Al-Koni, this square witnessed the historical agreement that ended a long period of bloodshed and war between two indigenous sedentary tribes of the *Kel Azjer* Tuareg, named *Almakamazen* and *Kel Talaq*, and united them under the leadership of *Alijaneen*. It also witnessed the decision taken by these

groups to build the town of Ghat at the foot of Cocaman Mountain (described in section 5.2).[49] As a result, for the people of Ghat this square symbolizes political power, peace, union, and a new start.

The square's location and history confirms that it is not just a leftover space between town buildings. The historical and social importance of *Aishelly* Square was manifested and articulated in the spatial arrangement of the town of Ghat from the start, not only by its central location and the balanced town growth around it, but also by being a focal point for the town's inhabitants and a vital circulation node from which the town's four main radial streets breached the built structure and lead towards the four main gates, which connected these streets to the caravan routes.

As I briefly stated earlier (section 5.3.1), the name of this square, which is Tuareg, is pronounced in Hausa *Aishelly* and in the Tuareg language *Aselly,* and means 'the flat smooth rocky or solid land.' This meaning correctly describes the square's ground geology. According to my fieldwork carried out in summer 2006, in the past both pronunciations were equally used; however, these days, *Aishelly* is more commonly used by the people of Ghat.

Aishelly Square has an irregular plan articulated with a several platforms used as seating areas, elevated from the ground by approximately 30-60cm, and with a seating width of approximately 50cm-80cm (based on my summer 2005 and 2006 fieldwork). The seating areas of *Aishelly* Square, which are in totality referred to it as the '*majles* of Ghat' or '*Aishelly majles,*' were built to be attached to the walls of the one-floor dwellings that surround the square from the west side and the walls of *Al-Atiq* Mosque and its school on both the east and south sides. These walls functioned like the backs of seats for users of the square's linear seating area. The square floor is unpaved and covered with sand, although the ground itself is solid in most parts, as is all the ground of the old core (*Aghram Washaran*). A trace of an old well (now totally blocked) can still be recognized in the northern part of the floor of the square (see fig. 7.1). According to Rajab Othman Al-Masrī, this well has been blocked for more than 60 years.[50]

[49] Ibrahim Bousha Al-Koni, interview.
[50] Al-Masrī, interview.

This square, which centers the town's physical structure, was the beating heart of Ghat, where Tuareg political and legal power was expressed and manifested, small commercial activities took place, and where various sacred religious rituals, social ceremonies, and yearly festivals were performed.[51] These functions and uses gave this confined space a social meaning and local prestige.

The square resembles a small public room that functioned as both a stage for the ruler and a courtroom for the people of Ghat. The Tuareg tribal leaders of Ghat (deputies of the *amanukal*) held their political meetings in this square, and resolved various conflicts between members of the different tribes that inhibited Ghat. Prior to the creation of formal legal and administrative courts, the assigned judges also resolved local disputes in this square. Usually, court gatherings would take place in the late afternoon and continue until sunset.[52] Any decision taken in this square by Tuareg tribal leaders or judges was final and had to be obeyed. Locally, any regulation that should not be ignored is referred to as 'decided in *Aishelly*.' In the past, in order to announce any news, warning, decision, or judgment that the people ought to be aware of and had to obey, the sultan or the tribal committee would send a messenger, locally called *al-mounadi* (in Arabic), who would walk through the town streets and announce the message in a loud voice and with the help of small drum in his hand.

Ghat was a very peaceful town and all conflicts and issues were resolved peacefully in this important square. As recorded by Richardson, one mode in which tribal leaders or the sultan of the *Azjer* Tuareg administered justice at this square was to demand the payment of an amount of money to the defendant by the accused, as a penalty. A more severe punishment was to banish the offender from the city.[53] This explains why no prison was ever built in Ghat. In fact, prisons do not seem to been part of any Saharan towns' structures in those times. Richardson states that "Our country is filled with prisons, all well tenanted, whilst the desert cities have no one thing in the shape or form

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[51] James Richardson describes this square, stating that "This little place [the town] has one large square, called *Esh-Shelly* -الشلي- the general rendezvous of business and gossip, and where Shafou [the *amanukal* of the *Azjer* Tuareg of Ghat] and all the subordinate Sheikhs administer justice. Here is held the Souk [in caravan season], where everything important is done. But the town-councils and state-councils of the Sheikhs are generally held in the open air." Richardson, *Travels in the Great Desert*, 69.

[52] Al-Masrī, interview.

[53] Richardson, *Travels in the Great Desert*, 37, 74.

of a prison."[54] In Ghat, the use of prisons started with its colonization (in the Othmanian Citadel and the Italian *caserma*), but was never part of the Ghatian social townscape because this type of punishment was not customary in their culture. As experienced by Richardson, Ghat was "a country of peace."[55] He supports this claim with the following observation:

> The Touaricks are beggars, but not thieves; they will also beg hard and with authority. Rarely, however, will a Touarghee take anything away from you without your knowledge. So, if Touaricks are poor, they are honest, which is so seldom the case, poverty exciting as much or more to crime than exuberant wealth. On the whole, this country must be considered free of crime.[56]

As stated earlier in this research (section 5.3.3.1), during their colonization period, the Othmanians would confiscate all weapons from those entering the city and return them only when they left the town. This was a safety measure and aimed to protect their military force in the citadel and their guards at the main four gates. However, before that, the Tuareg used to enter the town with their swords and spears. As they took their seats in the square, they would place their spears head down in the ground beside them. It was common at that time to see the floor of the square injected with lots of Tuareg spears, as a sign of peace and a representation of their power and domination.[57] This added to the feeling and meaning of this space since, according to Mohammed Ali Mohammed, for the people of Ghat *Aishelly* Square "symbolizes power, power of law and the moral power of ruling" (see fig. 7.59).[58]

A conversation between Richardson and Khanoukhen, who at that time was in line to succeed the sultan Safou, expresses how the Tuareg were keen to represent their power not only in the main square of Ghat, but throughout their territory. According to Richardson, Khanoukhen said "All the Desert is ours; wherever you go you find traces of our power."[59]

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[54] Ibid., 221.
[55] Ibid., 74.
[56] Ibid., 149,150.
[57] Von Barry, who arrived in Ghat just after it came under Othmanian control in 1875, mentions that all the gates were guarded by Othmanian soldiers, who took the weapons of anyone entering the town and returned them when they left. Ghanem, *Al-Almani Erwin von Barry*, 80, 82.
[58] Mohammed Ali Mohammed, interview (see chap.2, n.56).
[59] Richardson, *Travels in the Great Desert*, 73.

Fig. 7.59. *Aishelly* Square: Tuareg with their spears' heads down. Reproduced from Mordini (1937, 480).

In addition to being a place where the power of tribal law was performed and expressed, *Aishelly* was where the people strengthened their familial or tribal ties through socialization and through celebrating religious and social ceremonies. According to Rajab Othman Al-Masrī:

> *Aishelly* is where important religious rites, such as pilgrimages (*hajj*), were celebrated. This square was where people would gather to say goodbye or welcome back *al-houjajj* [singular *haj*; those who have performed the *Hajj* in Makka]. The mosque *imams* and tribe leaders compose, and read during these celebrations, poems to compliment and praise the prophet Mohammed, and use the poems to educate people leaving for the *Hajj* about the rules, regulations, methods of performance and procedures of the rituals required to accomplish their religious mission, known by Muslims as *Hajj*. In this place, before they say goodbye and leave for Makka, as part of the *Hajj* rite the *al-houjajj* have to ask the people left behind for their forgiveness, release themselves of responsibilities, resolve every issue related to them, and purify their hearts, conscience, and souls.[60]

The use of this square for this occasion took pressure off the squares in residential neighbourhoods and confined domestic spaces, maintaining their privacy and quietness. On such annual occasions, the shared use of this space would unite the whole community

[60] Al-Masrī, interview.

regardless of gender, age, or social status, and would dilute class differences, which eventually strengthened the Ghatian social tissue.

In comparison to the squares of *Fetchy* (in *Kel Abanagh* neighbourhood) and *Bab Al-Khair* (in *Bab Al-Khair* neighbourhood), in which mostly small individual ceremonies were celebrated, *Aishelly* was a place where the marriage ceremonies of large, high class and noble families' were celebrated. This is because tribe leaders and town sheiks were always invited with their families, and consequently a larger space, such as that provided by *Aishelly* square, was needed.

On *Al-Fadtela* night,[61] called *Ashoura*[62] (the ninth night of the month of *Muhàrram*), the people of the town, regardless of age, gender or status, would gather in *Aishelly* square to celebrate this occasion. The youth and children of Ghat (male and female) would gather in one large group with the groups of musicians and dancers and would go around the town singing various songs. According to Haj Mohammed Danda:

> The celebrating group uses one musical tone called *seb-e-dty*, which unites all the tribes of the town while they are singing, unlike on other occasions where each tribe uses a different tone. This represents the unity of the town inhabitants. This tour around the town also shows the inhabitants in a metaphorical way as powerful warriors and the shield that protects the whole town. The rites and enchantments are also meant to purify their town of evil (meaning any segregation between the different groups that form the town), and to revive it.[63]

The procession would start from the main gate, passing by the neighbourhood squares, and as they came to *Bab Al-Khair*, which is the northern gate facing the cemetery, they would stop and read *Sourat Al-Fateha*, which is the opening *soura* in the Qur'an, before continuing their excursion. The procession would come to an end at *Aishelly* Square. The youths would then light a big fire on the northern side of the square and music and dancing would continue until late in the night. Although everybody would participate in this big celebration, regardless of age or gender, the seating areas in the square were organized and controlled based on gender and age. As a social space,

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[61] A term used by Ghatians to refer to religious occasions that they celebrate. There is more than one *Fadtela* night in Ghatian culture, each related to a specific religious occasion.

[62] An Arabic term for a religious day of celebration that takes place on the ninth night of the month of *Muhàrram*, the first month in the Muslim calendar.

[63] Mohammed Danda, interview (see chap.5, n.54).

Aishelly Square was divided by invisible boundaries that stemmed from the Ghatians' cultural values and rules. These decreed who could occupy certain spaces, based on age, gender, and status. On normal days, women would not share this male domain. On special occasions, women would come to the square accompanied by their husbands or parents. On these occasions men and women would share this space; however, even then they would not sit together, as was also the case within the domestic domain. During such celebrations, the seating area for the women would be adjacent to the east wall of the square, with the male elders sitting beside them. This seating space for the elders would extend to the south side of the square. The young men would sit on the north side, close to the fire and at a sufficient distance from the women and the elders. The same arrangement was kept on normal days, with the exception that the women's seating areas were used by elderly men. Thus, although Ghatians shared the same space, each group had its own mini private space within the large space of the square. This invisible division tells us a lot about Ghatian social values, which acknowledged the need for different age groups and genders to socialize, while at the same time setting rules to protect the groups' rights to a certain amount of privacy by creating invisible boundaries and clearly defining shared spaces (see fig. 7.60).

Aishelly Square fulfilled another social purpose as the place in which the starting time of the sacred sacrificial ritual was announced to the whole of Ghat. According to Al-Sedeek Abdurrahman El-Kenndy, on the first day of *Eid Al-Adtha*,[64] a yearly religious celebration in which Muslims sacrifice an animal, usually a sheep, the children would gather in the square after the end of *Al-Eid* morning prayers and wait for the *imam* to give the sign to the community to sacrifice their animals. Either the *imam* himself or somebody sent by him would hang a palm leaf covered with the blood of the animal he had just sacrificed on the top corner of the wall of the mosque, close to the minaret, so everybody could see it. As soon as the children see this sign, they would run screaming with joy through the town streets to tell their parents and neighbours (see fig. 7.61).[65]

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[64] *Eid Al-Adtha* is a religious festival (the Festival of Sacrifice) celebrated by Muslims worldwide in commemoration of God's forgiveness of Ibrahim from his vow to sacrifice his son Ismael.

[65] El-Kenndy, interview (see chap.2, n.45). It is an Islamic rule that the community should wait until their *imam* has sacrificed before anyone else does.

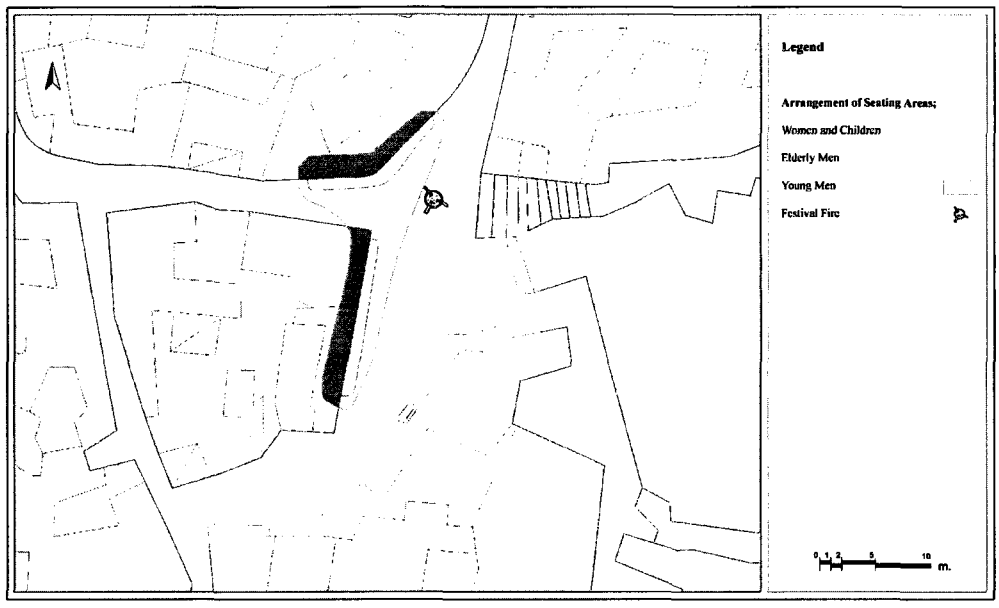

Fig. 7.60. ***Aishelly*** **Square: spatial organization based on gender and age.**

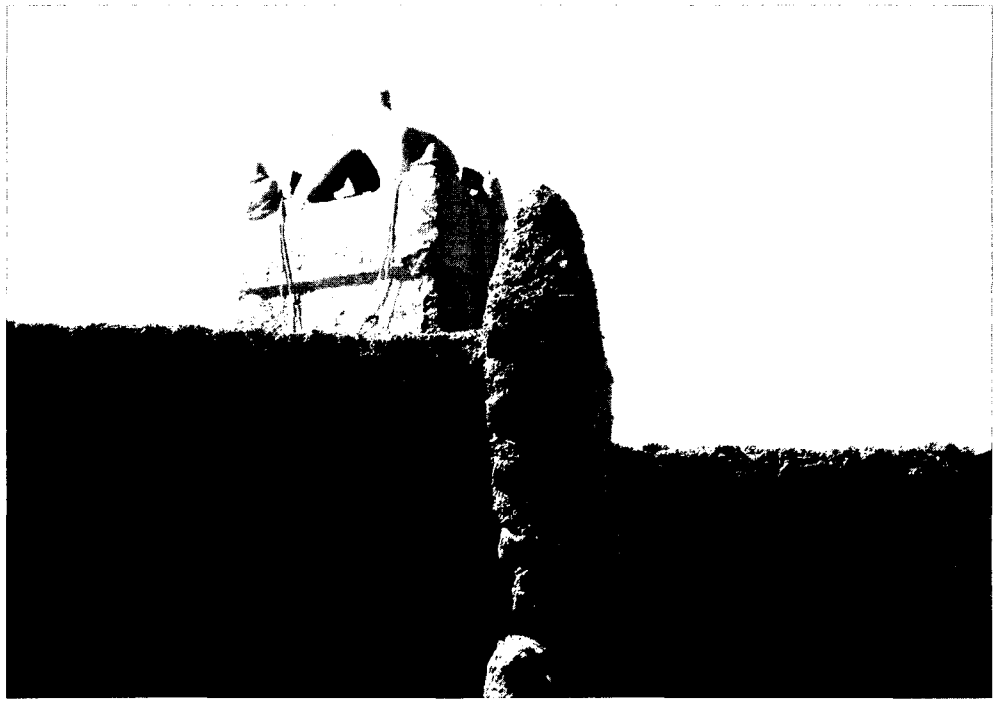

Fig. 7.61. ***Aishelly*** **Square: The top corner of the mosque wall, from which a palm leaf used to be hung to signal that an animal had been sacrificed to celebrate** ***Eid Al-Adtha*****.**

Although, unlike those squares/areas located on the edge of town, it was not recognized as a market area to the same extent that it was known as the '*majles* of Ghat,' or by its main purpose as the place of the ruling assembly, *Aishelly* witnessed important business deals and limited commercial activity. Based on my fieldwork, I found that in the past, *Aishelly* Square contained two or three small shops, which are currently blocked up. These shops were part of the front elevation of the dwellings which open onto the square, and were used by the owners of these dwellings. During caravan season, the seating areas surrounding *Aishelly* Square were used temporarily by the town merchants as a stage upon which to display small items of merchandize (see fig. 7.62). Based on Richardson's narrative, it seems that that this limited market activity did not originally take place in *Aishelly* Square, but began in 1846 while Richardson was in Ghat. He describes the beginning of this limited commercial activity in *Aishelly* as a "a step in the march of Saharan commerce."[66] According to Haj Mohammed Danda, "these shops in *Aishelly* were not part of its formation. *Aishelly* was never considered by the people of Ghat as a market area even when occasional selling and displaying of small items may have occurred on its seating platforms."[67]

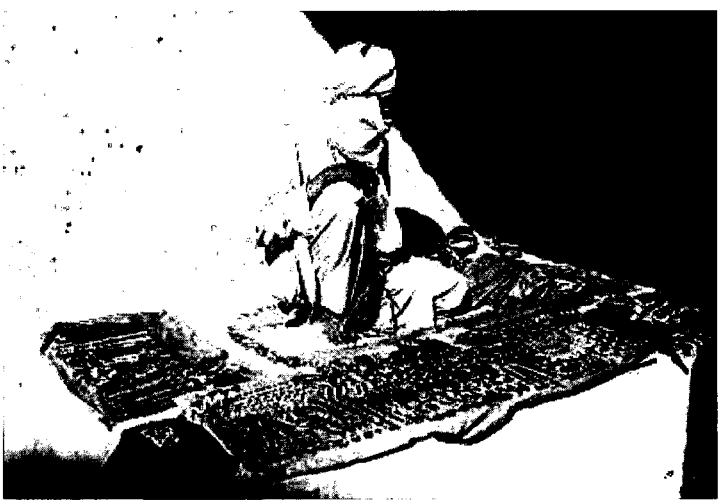

Fig. 7.62. Tuareg: seating and selling area.
Reproduced by permission from EWP.

[66] Richardson, *Travels in the Great Desert*, 39.
[67] Mohammed Danda, interview.

Although *Aishelly* Square is small, simple, and humble in both design and furnishing, it is invested with cultural meanings that have been expressed through its different uses, users, times of usage, and spatial organization. All of these have combined to create a square that is distinct in form and function from the other squares of the town, and to articulate its vitality to the town inhabitants.

7.2.2.2 *Tafouk Nabaraj* Square

Tafouk Nabaraj Square is located on the eastern side of the town. It is surrounded by the Othmanian citadel (*Toughoroft*) and the dwellings of the old core (*Aghram Washaran*) on the west, and by the *Al-Zawia Al-Qaderia*, *Kalala* neighbourhood, and its old gate (see fig.7.63) on the east. This square is linked to *Aishelly* Square by two important streets running east-west. The first is an uncovered street called *Tefasanawen*, which (as I mentioned in section 5.3.3.3) means (in Tuareg) 'the stepped street' or 'the street of hills.' The second street is partially covered, and is called *Tesajefien*, meaning 'roofed' (see fig. 7.64). The old gates of the old core (the oldest gates in Old Ghat) used to be located at the two ends of this street (see fig. 5.19).

Fig. 7.63. *Tafouk Nabaraj* Square (looking east).

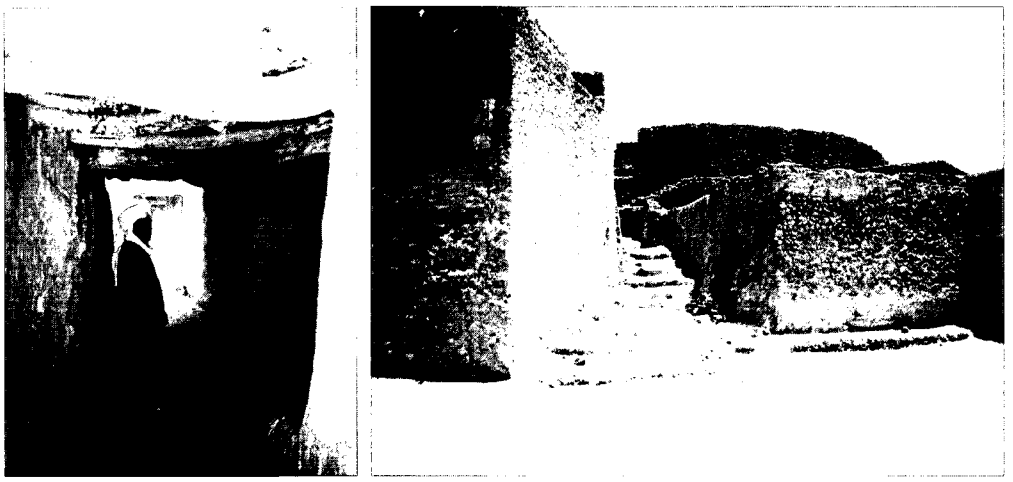

Fig. 7.64.*Tesajefien and Tefasanawen* streets leading to *Tafouk Nabaraj* Square.

The ground of *Tafouk Nabaraj* Square is formed from widely spaced solid rock steps carved out of Cocaman Mountain, which extend from the east end of *Tefasanawen* street (see fig. 7.65). Unlike *Aishelly* Square, this irregularly-shaped square is not articulated with seating platforms. The only seating platform was built along the front elevation of *Al-Zawia Al-Qaderia* and along the street that extends from the square to the north (see fig. 7.66). However, the stepped ground of the square form stages that replace the function of the built-in seating areas.

Fig. 7.65. The wide steps of *Tafouk Nabaraj* Square.

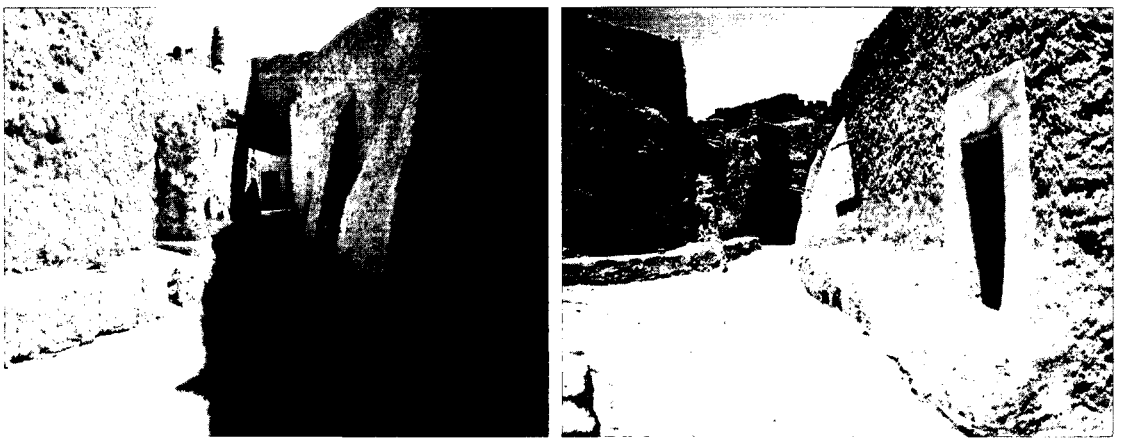

Fig. 7.66. The seating platforms extend along the street leading north and the front elevation of *Al-Zawia Al-Qaderia*.

The square name means, in Tuareg, the 'sun of pride' (in Arabic, *shamess al-mafakher*); however, no one was able to explain to me the origin of this name. One interpretation given by some informants was that it refers to a house of the Othmani governor located in *Emeze* neighbourhood (previously this neighbourhood was called *Shet Turirt*). This house faces the square from north (see fig. 7.66). This square also has another name, in Arabic, which illustrates its main function: *Mydan Daq Al-Nawa*, or 'the square of crushing the date-stones.' The solid ground of the square provided the perfect surface to accomplish this task. This task was performed only by the female *iklan* (slaves) or *attrah* (freed female slaves). Every day these women would gather to break the dry date-stones, which were then sold as animal fodder. The women would sit cross-legged on the wide steps of the square, take the date-stones one at a time and place them on a small piece of *kheesh* material (to prevent the date-stones from moving) on the ground, and then, using a small heavy, solid stone, hammer the seed to crack it. To reduce the annoyance of the hammering sound and to make this rough job enjoyable, the women would knock in musical rhythms and sing. The continuous daily hammering has left material evidence on the ground of the square in the form of small depressions (see fig. 7.67).

While *Aishelly* Square was the daily domain of the men, *Tafouk Nabaraj* Square was predominantly the women's domain. Only a few men would share this space with the women, in particular the users of *Al-Zawia Al-Qaderia*. The social meaning signified by this square is represented by the separation of communal open spaces based not only on

gender, but also on social class. High-class women and *al-hara'er* (the Ghatian term for free women in general) would never sit in this square or participate in the tasks performed there, which were carried out only by servants and slaves.

Fig. 7.67. Depression caused by continuous hammering.

7.2.3 Public Spaces of the Town: The Main Commercial areas

7.2.3.1 *Kaswa*: The Women's Market

As I stated earlier (in section 6.1.2.3), the original location of the women's market was on the eastern side of *Kel Egef en Kena* neighbourhood, before it was demolished by the French. The French then rebuilt it to almost the same architectural form, with a slight difference in plan and in the shape of the arches, close to the main southern gate of the town (*Tafghaghat*). The old market area was a rectangular space articulated by two parallel shaded corridors within a trapezoid space, while the new market was U-shaped. Despite these differences, the two market areas were similar in the regularity of their plans, which differed from the irregular plans of other squares and open spaces in the town. Like *Tafouk Nabaraj* Square, this market was used only by the *attrah* and the female *iklan*. Mainly vegetables and dry grains were sold here. The products were placed either under the shaded corridors or in the middle of the central square. Each woman would place a piece of old straw or a *kheesh* mat on the sandy floor before placing her products on top of it. The grains were brought to the market in straw baskets and were either kept in these baskets or displayed in piles on the mats (see fig. 6.8). Based on

illustrations by Emilio Scarin and Elio Migliorini, the architectural form and use of this market seems to be similar to a women's market in Murzuk, a nearby oasis town in Fezzan, which was used by the same gender and class as in Ghat (see figs. 7.68, 7.69).[68] Similar markets run only by *attrah* (freed slave women) or female *iklan* (slaves) in the Saharan towns of Fezzan signifies a common social phenomenon in which distinctions based on gender and social class were made material in the built environment.

Although the *kaswa* was used only by women to sell their goods, the customers were of all ages and genders. Furthermore, as a result of its location (both old and new), which provides direct and easy access to and from the town gates, this market was used not only by Ghatians, but also by outsiders from nearby villages. Based on Migliorini's description of commercial activity in Ghat in 1937, it seems that the use of such large open market places was at that time in decline as a result of the establishment of individual small shops. Migliorini notes that the people of the town in general did not buy much at that time, because most Ghatian families were self-sufficient.[69] This implies that market areas such as the *kaswa* would not have survived without the customer of outsiders and landless people.

The main products sold in the *kaswa* included grain, vegetables, spices, and eggs; however, other small products like perfumes, spoons, small pots, handmade non-golden jewelry, or incense were also sold in this place.[70] This market satisfied most of the Ghatian's daily domestic needs for food products, bearing in mind that meat was a luxury at that time and was not consumed on a daily basis.[71] Dry food or medicinal plant (*sana*) products, or items such as clothes, tools, equipments, and weapons, were sold in *Tafghaghat* Market.

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[68] Elio Migliorini, "Risorse Economiche," in *Il Sahara Italiano: Fezzan e Oasi di Gat*, vol. 2 (Roma: Società Italiana Arti Grafiche Editrice, 1937), 573; Scarin, "Descrizione," 636.

[69] Ibid., 588, 589.

[70] According to Ghatians. Migliorini, "Risorse Economiche," 588; and Jami, "Ghat and its Surroundings": 171.

[71] No special market to sell meat ever existed in Ghat; however, there was an animal market outside the town walls. Sun-dried salted meat (called *ged-deed* in Arabic), was used more in Ghat than fresh meat (which was mostly chicken). This was not bought, but was made at home by the women. Dried meat was how meat was stored for long periods in the absence of fridges. Usually this procedure would take place on the sacrificing day of *Eid Al- Adtha*.

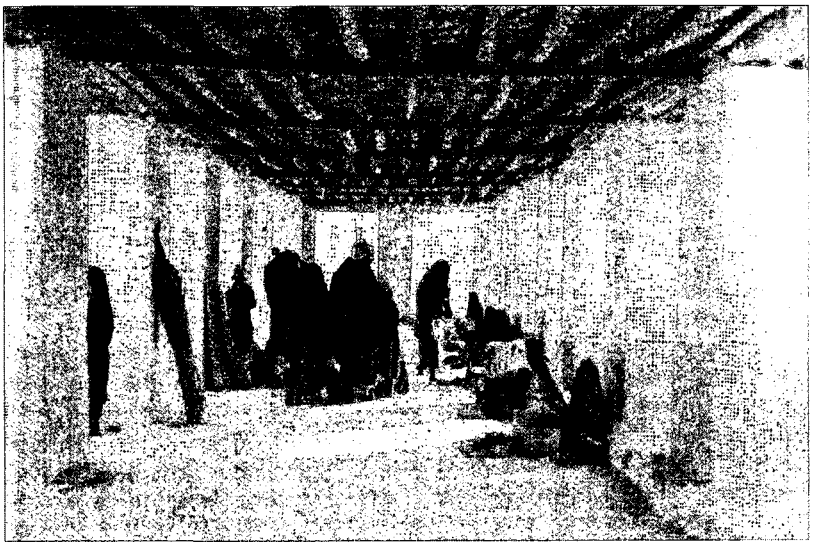

Fig. 7.68. Women's market in Murzuk.
Reproduced from Scarin (1937a, 636).

Fig. 7.69. Women's market in Murzuk.
Reproduced from Migliorini (1937, 573).

7.2.3.2 *Al-Souq*: The Gate of *Tafghaghat* Market

This market, called locally *Souq Tafghaghat*, is located on the southern edge of Ghat, immediately inside and outside the Old *Tafghaghat* gate, after which it is named. Like the *kaswa*, this place was accessible to strangers from nearby villages and towns at all times, and Ghatians considered it a public domain all year long. This was where the caravan merchants would display their products and make business deals. It was a vital node on the periphery of the town, and a major stop for camel caravans coming from Tripoli, Aheer, and Sudan (see fig. 7.70).[72]

During caravan season, this market area would expand outside the town wall to include the area immediately outside the town, thus connecting the confined interior domain of the town with the exterior public domain. This expansion would accommodate the increasing numbers of visitors and intensified commercial activities. At this time, servants and slaves would load and unload goods from camels and carry merchandise to and from the town.[73] According to Ghatians, merchants would use not only the floor areas and platforms of *Tafghaghat* to display their merchandise, but also the surrounding walls of the square, turning the square into a colourful furnished room.

On caravan days, this market would be packed not only with goods, townspeople, merchants, and dealers from nearby villages, towns, or countries, but also with animals. As recorded by Jami, an animal market was held at this place almost every day. During caravan days, the market would be occupied by merchants from Ghadames and Tripoli, who shared the space with Tuareg and Ghatians. The *souq* was never divided spatially based on class or ethnic differences. Jami's description of this market supports this claim: "A cattle market is [...] held there nearly every day. Entering the town one finds oneself in the market where Sudanese goods are sold by auction, and here traders from Ghadames and Tripoli can be seen sitting beside Tuareg and Ghatians."[74]

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[72] This picture shows the new southern gate *Bab Tafghaghat* that was built during the Italian period, as explained in section 6.1.2.2. The *souq* was held in front of it. This area in the picture represents the immediate inside of the Old gate of *Tafghaghat* where the *souq* was held.

[73] Richardson, *Travels in the Great Desert*, 4.

[74] Jami, "Ghat and its Surroundings": 171.

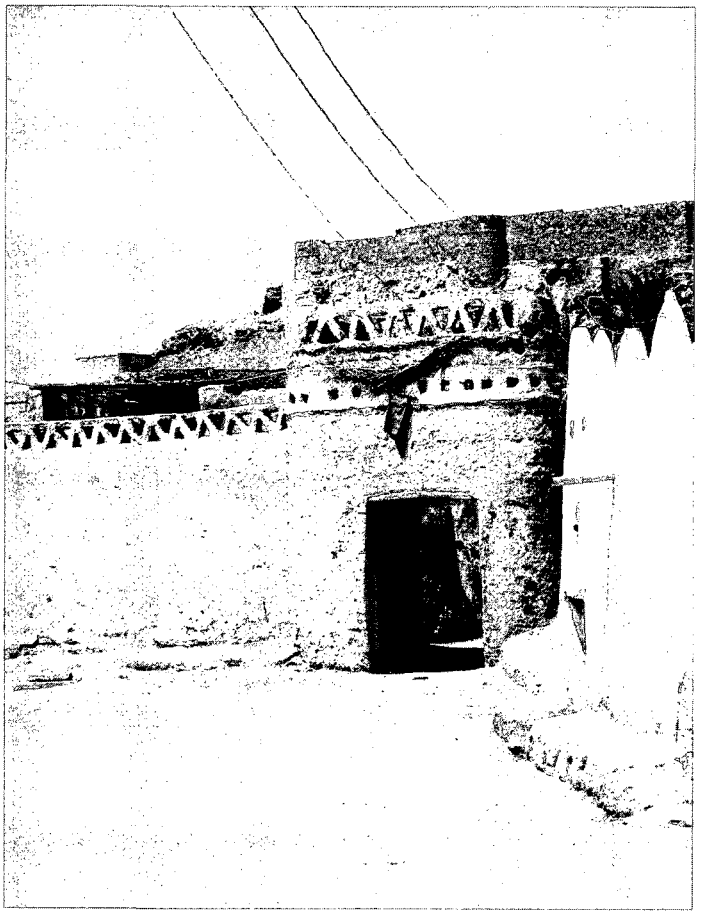


Fig. 7.70. The area in which *Souq Tafghaghat* was held.

Chapter 8

Conclusions

This dissertation presents Ghat's urban form as a collective artifact. It provides a comprehensive analysis of selected public and private spaces in Ghat in order to understand and document the relationship between architecture and society, explaining how architectural forms signify socio-culturally distinct meanings and values and reflect Ghatian life. This is the first study to provide analytical documentation of Ghat's urban form and architecture and to portray the evolution of Ghat's built form from the time of its founding by King Hamdoun in the 17th century[1] until its total abandonment in the early 1980s. This dissertation also describes the role of the dominant indigenous Tuareg culture in Ghat's origin, survival, and evolution, and presents the first documentation of the nomadic and semi-nomadic dwelling typology of the *Azjer* Tuareg in Libya. In addition, my research offers insight into *Azjer* Tuareg culture, using historical and material evidence to counter the common misconception that the Tuareg never built or lived in permanent settlements.

Although the origins and development of Old Ghat, the sultanate of the *Kel Azjer* Tuareg, are not fully known, and although its urban form is superficially similar to many other old Libyan Saharan towns, my analysis indicates that Ghat in fact contains a unique indigenous architecture, informed by socio-cultural practices of the Libyan *Azjer* Tuareg. My research highlights the richness and distinctiveness of Old Ghat's built heritage: a step that may help save this unique urban form and its architecture from natural or planned destruction in the name of 'progress,' allowing continued access to the various meanings signified in this outstanding architectural legacy. After the abandonment of Ghat, neglect of the proper maintenance of its buildings by the owners and the government led to a serious deterioration in the condition of the town's built structure. Ghat is gradually falling into ruins, making it of critical importance to document its architectural forms and the ways of life of its former inhabitants before they disappear

[1] As I stated in Chapter 5, Krause says that the town may have been built more than two centuries before his study in 1879. Krause, *Proben der Sprache*, 7.

forever. By contributing to an awareness of the richness and importance of Ghat as a cultural artifact, this study may aid efforts to have Ghat designated as a World Heritage Site by UNESCO, like other archeological historical sites in Libya, which would protect it from further damage.

Previous studies of Ghat have mostly focused on historical, geographical, and anthropological issues, and have neither taken Ghat as the main focus of their analyses, nor considered the relationship of the town's architecture to the culture of its inhabitants. In the current work, I extend the methods of material culture studies to provide an analysis of the urban form and architecture of Ghat as a whole, in order to investigate the interrelationships of cultural and physical aspects of social existence in Ghat. My study goes beyond research into architectural form and exterior aspects of the town's built form, such as decoration and building and construction materials, and encompasses in addition to these the organization, configuration and use of Ghat's built spaces. This approach has informed an interpretation, presented in this dissertation, of the town's built landscape as it was lived by its inhabitants, and as a physical representation of a certain time and a certain society's way of life. In the following paragraphs, I present the major findings of this project.

My research indicates that Ghat's urban form and architecture is a cultural phenomenon, and that its form and organization are greatly influenced by the Tuareg cultural milieu from which they emerged. This is evident not only in the prevailing use of the Tuareg language in Ghat and the predominance of Targian names and terms for neighbourhoods, streets and public and private spaces, but also in the structure of the town itself, especially in the layout of its neighbourhoods. Ghat's built structure developed into a configuration based on kinship, which is related to the concept of the extended family. The overall form of the town represents a tribal classification that is reflected in the many divisions of neighbourhoods into areas inhabited by small groups of different origin and descent. The collectivist character of traditional Ghatian society is evident in the fact that kinship provided the basic organizing principle for the town's social and built structure, while the individual's identity was intimately tied to membership in the group. However, it appears that the Tuareg culture, which was adopted by all the kinship groups in Ghat, helped dilute cultural differences between these groups,

creating a collective identity and forming a common ground upon which the town's inhabitants could unite as Ghatians. The Ghatians' communal ceremonies, traditional dress, customs, and way of life are manifestations of this sense of identity. This common adoption of Targian culture influenced Ghat's compact structure, uniform architecture, and homogenous physical development, which included private, communal, and public areas. Individual identity, meanwhile, was expressed and confirmed in the home environment.

Important evidence for the strong influence of the socio-cultural aspects of the *Azjer* Tuareg on Ghat and its built landscape is found in the town's articulation into separate quarters based on social class, for example in the segregation of dwellings for servants' families and blacksmiths outside the Old Town walls in a village called Tadrumt. The placement of these social groups outside the town can be attributed to Tuareg social structure, which counts blacksmiths as a lower class with no political influence, who should in general not be mixed with socially, and which does not count slaves and servants as either a class or a caste.

A further sign of the influence of Tuareg culture can be seen in the reflection of the political system of the *Azjer* Tuareg in the built form of Ghat. The adoption of this political system by the Ghatians, including the retention of the political power of the *Azjer* Tuareg sultan, is signified in the location, use, and type of users (mostly sheikhs of the Tuareg tribes) of the town's main square, *Aishelly* Square. However, based on descriptions of the site and appearance of the *Kel Azjer* sultan's residence mentioned earlier in this research, it appears that the sultan's political power and social status were never signified in a fancy permanent dwelling or building within the walls of his capital, the Old Town of Ghat. This reflects the nomadic nature of the Tuareg sultan and the beliefs of the nomadic Tuareg in general, who consider mud and brick dwellings and walled towns as graves. It also signifies the sultan's strategy for protection and defense, which involved avoiding placing himself in a walled place such as a town.

The influence of Tuareg culture in Ghat also extended to domestic spaces within the town. The interior arrangement of Ghatian dwellings mirrors the traditional Targian rural (nomadic and semi-nomadic) dwellings. For example, in both dwelling typologies, the interior arrangement of space provides an architectural interpretation of the family

that stresses distinctions on the basis of family identity (sex and status). Although shared dwelling spaces, such as reception rooms and courtyards, were used by both males and females, the spatial organization of these spaces was gendered. Men and women always sat on separate sides of common rooms, as is the case in Tuareg huts and tent dwellings, in which the division between male and female domains within shared spaces is made obvious through the organization of furniture and personal belongings, without using physical partitions. In the reception room, the women usually sat in the innermost part of the room, while men sat facing or closer to the entrance. In addition, it was considered socially important that no one should sit in the seating area assigned to the man of the house, out of respect for his status in the family, even when he was not in the house.

The use of the kitchen and food storage rooms in Ghatian dwellings was also gendered. The kitchen was treated by Ghatians as a sacred place which, like in Tuareg culture, it was considered dishonorable for the man to enter. Eventually the kitchen became solely the woman's domain, as is also the case in nomadic and semi-nomadic Tuareg dwellings. On the other hand, the food storage room of the family house was considered by Ghatians to be the man's territory, and the man of the house was the only person allowed to access it. This creation of a strictly defined space for the man, besides giving control over family food resources to the man of the house, reflects his symbolic control over the family itself and highlights his position as the individual responsible for the family's needs.

Further evidence for the transmitting of influences from Tuareg dwellings into the Ghatian urban dwelling is found in similarities in the diverse functions of the reception hall. As with the rural Tuareg stone dwelling (*derb*), the reception hall (*sakiefa*) of the Ghatian dwelling, which is the most public zone of the house, connecting the interior to the exterior world, would function at specific times of the day (when no social visits were expected) as an extension to the private working space of the kitchen used by the women.

The influence of Tuareg traditions on Ghatian dwellings needs further study in order to determine conclusively which typology emerged first: the *derb* or the urban dwelling. A similar statement can be made regarding a distinctive architectural element shared by the *derb* and some Ghatian dwellings: the *mehrab*. This alcove, which is always engraved in the wall in the direction of the *qebla* (towards Makka), is a powerful

architectural indication not only of the importance to the Tuareg of the religious practice of the required five daily prayers, but also of the Tuareg's architectural representation of their religious needs in their dwellings. To my knowledge, this architectural element is not used in domestic architecture in Libyan cities, nor even in dwellings in Ghadames or Tripoli, which are the two cities from which descended the two major groups (the Ghadamesians and the Trabelsiyas) to inhabit Ghat after the Tuareg. This provides a further indication that this domestic religious representation is a Targian innovation.

Further evidence for the transmitting of Tuareg culture to Ghat's domestic spaces can be detected in the adoption of Tuareg storage techniques, such as the use of *bawageel*, skin sacks or handcrafted *kheesh* sacks stored in or on the ground. These played a role in the spatial design and organization of Ghatian dwellings. Another interesting manifestation of this influence is the *imkhawel*. This little underground hearth is an essential feature of the traditional Tuareg dwelling, and represents an indispensable element in the Ghatian dwelling as well. Other evidence includes the dominant use of Targian terms for various types of furniture, cooking implements, and appliances, and in the similarities in the uses and methods of arrangement of these. As with the Tuareg tent, hut or stone house, in the urban dwellings of Old Ghat the few humble pieces of furniture, which might include differently-sized boxes or skin bags for personal belongings and occasional clothes, skin pillows, and variously sized rugs and mats of different designs and materials, were always distributed along the walls of the rooms, while daily clothes and bedcovers were hung away from sandy floors on ropes extending along the walls from one corner of the room to the other. This organizing concept was very efficient in utilizing the limited interior space of the narrow rectangular rooms while providing free space in the middle. In addition to the above, in the huts and tents this organizing method provided extra protection from hot or cold winds.

Many other aspects found in the nomadic and semi-nomadic *Azjer* Tuareg dwelling are also found in the urban dwellings of Ghat. The only noticeable difference to emerge during the transferal to permanent urban settlement is in the different names given to particular spaces in rural and urban areas. For example, the courtyard in the Ghatian urban dwelling is called *taa-wkh*, while in the tent a space that is similar in use and function is referred to as *émotayéé*, and in the hut dwelling a similar space is referred to

as *efarun*. Likewise, the concept of the Tuareg hut's shaded outdoor room, called *tafalkat*, is adopted in the Ghatian *kawdi*, with the slight modification of adding keyhole-shaped arches. Other adaptations can be seen in the use of traditional Tuareg cooking implements, appliances and utensils, such as the *tannour*, the *bagoal*, and the *tehunt*, in the urban Ghatian kitchen. These kitchen implements are similar to those that were and still are used by the nomadic and semi-nomadic Tuareg.

In addition to the above findings, the evolution of Ghat as a whole provides further support for my claim that Tuareg culture was influential on Ghat's built forms. The first people to build Ghat were indigenous sedentary Tuareg tribes, and it was only after the town was established and had become a capital of the Tuareg sultanate and an important centre for trade that other groups of settlers arrived. In the light of these findings, it is clear that there occurred in Ghat a significant adoption of nomadic and semi-nomadic architectural and structural elements.

This dissertation has also considered the colonization history of Ghat in relation to that of Libya as a whole. I found that the extent of colonial (Othmanian, Italian, and French) influence on Ghat's formation and growth, and consequently on the meanings of Ghat's built environment, was limited. Although these periods of Ghat's colonization lasted fifty-eight years in total, they did not include demographic colonization, as was the case with the other major coastal towns and cities, where thousands of Italians settled. The absence of colonial settlers who established themselves in Ghat meant that the colonizers did not leave obvious prints on the dominant local culture, the people's way of life, or on their built environment, building techniques and domestic architecture, as they did in towns and cities on the coast. For the colonizers, Ghat was just a military frontier located in the harshest part of the country, climatically and geographically speaking. In fact, rather than influencing the local architecture, Ghat's colonizers integrated traditional Ghatian building techniques and skills into their own sophisticated techniques, creating a new style for their administrative and military buildings, such as the *caserma* building that the Italians built for their *carabinieri*.

The influence of these colonization periods on Ghat's urban form and architecture was further limited by the weak economy of the country during these periods, which did not permit the colonizers to invest in building projects. These factors contributed to

protecting local identity and preventing colonial cultural influence on Ghat's built landscape. In addition, the power and cultural dominance of the *Azjer* Tuareg in the region enabled them to resist relinquishing cultural supremacy to foreign powers.

As a result, in Ghat tangible changes in the people's culture and improvements in living conditions and the built environment occurred only when the impetus came from within the country itself and by the people's own will. This occurred following Libyan independence and as a result of the discovery of oil and the associated acceleration in political and socio-economic change and new openness to the outside world. However, this change was not completely positive, since western technical standards that were alien to Ghatians and unsuitable for their built and ecological environment and the history of this area, were either imposed (in the modern settlement built to replace the Old Town) or permitted (in the Old Town). Pipes for drinking water were allowed to be extended into the Old Town, metal bars used for roofing, and non-traditional building materials such as cement used in restoring or rehabilitating some buildings. These actions not only failed to consider the fragility of the structures of the Old Town, but actually contributed to its collapse in parts.

Unlike the colonial period, the rising and waning of trans-Saharan trade had a great influence on the Ghatian economy and way of life as well as playing a role in the construction of Ghat's built landscape. A possible manifestation of this can be detected in the transmission and adaptation of mud construction techniques, such as mud plastering balls and the elevated, conical kitchen clay oven, brought by African slaves, who were sold to Ghatians and worked for them. Another tangible influence of trans-Saharan trade can be found in the location of the town's main gates and major commercial space, *Souq Tafghaghat*, which is located at the southern gate (*Emi Tafghaghat*) where caravans coming from Sudan and Aheer would arrive. The main gates were oriented towards the caravan routes that led to and from the town, suggesting that commercial and economic activity, to a greater extent than considerations of defense and protection, determined the development of the town and the location of its gates.

After trans-Saharan trade ended as a result of the abolition of slavery and slave trading and the introduction of new paved and unpaved transportation routes during the Italian colonization period, Ghat's economy declined. These new circumstances

tremendously reduced the use and importance of the town's main gates and commercial areas for defense and trading, although they continued to have various other functions until the abandonment of the town in the 1980s. These gates and remaining commercial areas now symbolize the former commercial prosperity of the town and its earlier dependence on trans-Saharan trade.

Ghat's compact pattern and traditional fragile mud structure result from both environmental and socio-cultural forces. The ingenious architectural and structural form of the Ghat dwelling and its reliance on local construction methods and limited local resources has proved highly successful not only in responding to harsh climatic conditions, but also in respecting dominant socio-cultural traditions, preserving a sense of continuity with the settlement's ancient past, and sustaining a uniquely Ghatian identity.

The extreme weather conditions of the Sahara, including short cold winter months and long, extremely hot summer months, and the available types of local building material, greatly influenced the town's architecture and played a significant role in the design of its dwellings. The effects of this harsh climate can clearly be seen in the usage-times, type and duration of activities practiced, and spatial organization of the town. In the domestic realm, the climatic influence can be noticed in the limited number of openings to the dwelling, which maximizes shade and protects from wind, and in the usage-times and type of activities practiced in dwelling spaces such as courtyards (*taawkh*), outdoor shaded corridors (*kawdi*), and roof terraces.

In addition to the climate, fragile building materials imposed the need for special building techniques in order to provide light and ventilation, doors, accessories and decoration. For example, the limited availability of long pieces of roofing materials necessitated the narrow dimension of the dwellings' rooms. Large or too many openings could result in the collapse of the dwelling, so natural light comes mainly through the doors, although also sometimes from a few small vents cut into the mud walls. Furthermore, iron nails were never placed in the walls or doors, since these were likely to damage the building materials, and wooden nails were used instead.

Various methods were used to embellish Ghatian dwellings' entrances, walls and roofs. These comprised mud techniques, woodwork, and local woven handcrafts, which were often used together. Generally, the dwellings' exteriors were left almost free of

decoration. Ghatians focused instead on the interiors of their buildings in general and their dwellings in particular in order to display Ghat's modest art forms and decorative skills, which originated with Targian culture, as well as to articulate differences in social class and wealth. In fact, the level and style of dwelling ornamentation depended both on the wealth of the family and on the individual taste or desires of each family.

Several types of mud decoration distinguish Ghatian architecture, particularly in dwellings, such as handmade mud-brick zigzag trimmings for walls and terraces, mud-plaster frames bordering wall niches, and relief. Ghat is also distinguished by the kinds of decoration *not* found in its dwellings, such as moulded decorations and ornamental carvings symbolizing human beings or animals, the latter of which are forbidden by Islam

Another aspect of the Ghatian built environment that reflects culturally specific social meanings is the fact that social stratification and class hierarchy based on social status was not expressed by the design, size, or furniture of individual houses. In Ghat, social status was not necessarily related to wealth. Historical records indicate that the most powerful person in Ghat, the sultan of the *Azjer* Tuareg, lived in a humble dwelling. Wealth, but not status, was expressed in the size of individual dwellings, as well as their interior layout, which might include intensive, durable, and elegant decoration, rather than in the location of a dwelling in a particular neighbourhood. Although some neighbourhoods, where merchants from Ghadames or Tripoli used to live, included the largest and most decorated dwellings, these were grouped together on the basis of the merchants' shared kinship, tribe, or geographical origins, rather than their shared wealth. Ghatian neighbourhoods were not stratified based on wealth into separate areas for rich and poor people.

Ghat's physical development and architectural form strongly relates to the cultural life of its users, embodies Ghatians' decisions to build their town in a purposeful way, and expresses social meanings. One of the unique architectural manifestations of Ghatian social norms can be seen the in the fact that no prison was ever built in Ghat. Ghat was a nonviolent town and all conflicts and issues were resolved peacefully, ultimately through the arbitration of the sultan and his *imghars*. The use of imprisonment as a punishment in Ghat started with the Turkish colonizers, who used some rooms in their Old Citadel

(*Toughoroft*) as a prison, but this practice was never part of the traditional Ghatian social townscape because this type of punishment was not customary in their culture.

Knowledge of the social significance of the factors that influence the patterns of use of the various spaces of Ghat's built environment allows a precise interpretation of the social meaning of Ghat's built forms. Ghat's built environment mirrors the social structure of the town and corresponds to social forms and values. The use of social norms and values to police social boundaries allowed Ghatians to structure their social interaction and, correspondingly, their built environment, without detracting from the compact, homogeneous and uniform nature of the built structure of the town. The role of concepts of privacy in regulating these boundaries is crucial to an understanding of Ghat's built form

Many features of Ghat's built environment can only be adequately understood where the socially structured and time-sensitive nature of their patterns of use is taken into account, and this requires an understanding of the Ghatian approach to privacy. According to this concept, the town is a private territory and public space starts at the edge of the town wall and extends beyond it. Ghatians considered non-domestic spaces within the town to be extensions of the confined private domain represented by their dwelling places. While the level of privacy, type of users, and forms of use varied in those non-domestic spaces within the town, such variation was regulated and controlled not only by the creation of two distinct spatial identities (public and private) but, even more importantly, by the construction of boundaries between them. In Ghat, the boundaries of private areas within the town were temporal and changeable, and could be extended and controlled based on time of day and gender privacy requirements. The identity of public and private spaces depended greatly, if not entirely, on the social boundaries that distinguished and separated them, rather than on physical boundaries. By defining a space in this way, social relations took spatial form.

In Ghat, the built environment in general and the domestic domain in particular were configured and organized to satisfy the needs of its users for privacy and social interaction. Ghatians acknowledged that the possibilities of social interaction and the corresponding need for communication in their built environment depended on the recognition of the need for privacy. Privacy regulations were a critical social tool to

control boundaries between or within the town spaces, as well as interaction between individuals or groups. Ghatians used a unique concept of privacy stemming from Ghat's collective social tissue formed of blood and marriage ties and the highly respected status of Ghatian women to regulate hierarchical and gender relationships and eventually the resulting social interaction. This concept had a profound affect on social and spatial relationships. Following Tuareg tradition, Ghatian women do not veil themselves or hide from men, especially in the domestic domain, since visitors are usually close relatives and blood-related. In addition, in Ghatian culture, like in the Tuareg culture from which it descends, due to the traditional system of female inheritance, women have most of the wealth, which gives them social power and prestige. For these cultural reasons, the Ghatian woman's right to and need for privacy is highly protected in the town. The manifestation of this right can be seen, for example, in the designation of a street, known as *Zanget Al-Nessa*, or 'the women's lane,' to be used by women only, and in the addition of a back door in some of the town dwellings in order to provide easy access and shortcuts for women to the next street or neighbourhood, permitting private indoor movement for women within the town.

Within the domestic realm, spatial organization takes account of the different ages, genders and social groups of its users need of privacy. An example of this is the *soro*, a room built on the roof and used by the man of the house as he advanced in age. This room not only provided a private, quiet, male domain where the head of the family could meet with his friends cut off from the busy family domain, but also allowed more privacy to the women of the house who occupied the ground floor.

Privacy in the domestic domain was provided for the inhabitants regardless of their social status. For example, the sleeping areas for the female domestic slaves, who traditionally had no assigned rooms, were usually in the kitchen or the extension in front of the kitchen, especially in large houses where the kitchen has its own, working courtyard exclusively for women. Thus, even female slaves were provided with a certain degree of privacy, represented in their sleeping in an enclosed area - the kitchen - that was traditionally inaccessible to males. Some female slaves who worked as nannies for young children may have enjoyed the privacy of the enclosed children's bedrooms. On the other hand, as I mentioned earlier in this dissertation, single male slaves usually spent the

nights either in farm huts or on the cool desert sand, especially on summer nights. Married slaves with families enjoyed their privacy in houses located close to or attached to their masters' house, which were either rented or owned by their masters.

Another consideration of privacy can be seen outside the domestic realm in the gendered seating arrangements and organization of *Aishelly* Square during social or religious celebrations and festivals. On these occasions, the square was divided by invisible boundaries based on Ghatian cultural norms. Consequently, although this space was shared by different age and gender groups, each had its own private space within the larger shared space of the square. Moreover, the use of this square for celebrating occasional communal events, which are important for their role in strengthening the social tissue, took some of the pressure off the residential neighbourhoods and their confined domestic spaces, allowing them to retain their privacy and serenity.

In addition to social norms and values that decreed who could occupy certain spaces based on age, gender, and status, the daily and seasonal routine of the people of Ghat was another important variable in regulating privacy in the town and its domestic spaces. The people's daily routine, in particular that of males, permitted the streets and squares of the town to turn during particular hours of the day into an almost male-free private female domain shared with children and the elderly men of the town. The people's lifestyle and their daily routine allowed this temporal boundary, which restricted the use of space to a particular gender and allowed temporal privacy, permitting the more private movement of the women within the town during the day.

This study indicates that social and cultural values are important aspects in people's lives, particularly in traditional societies such as Ghat. We therefore need to recognize and address these values in order to interpret vernacular architecture in a meaningful way. I hope that this dissertation has contributed to an understanding of the impact of social and cultural forces in shaping Old Ghat's built environment, as well as provided knowledge of the remarkable collective artifact of Ghat. This knowledge could be used not only in evaluating future restoration programs of this historical town, but also in assessing the merits of future programs and policies for Saharan towns in general. It could also potentially assist in creating a successful housing environment that provides

some form of reconciliation between highly valued elements of both new and traditional cultures.

Unfortunately, socio-cultural considerations figure all too rarely in the production of contemporary housing in urban environments, especially in Libya. In the case of Ghat, a shared local system of knowledge, customs, and values led to distinctive forms of settlement and housing that have endured, with little modification, for centuries. Notably, the producers of these settlements have also been the inhabitants. Forms were not imposed arbitrarily or artificially, but instead emerged from an engagement between local imagination and specific environmental and socio-cultural demands and, as such, represent a highly successful and sustainable model of domestic architecture. Sadly, in recent times this model was modified without regard for the environmental and socio-cultural conditions in which it had developed, and then eventually abandoned, as a result of insufficiently culturally-sensitive planning and housing policies, leading to the current alarming state of the town. The knowledge of the remarkable built heritage of Ghat that is presented in this study may be useful in establishing effective government policy in regard to the protection of its vernacular architecture. I hope this dissertation may assist in initiating and encouraging heritage conservation studies in Ghat, in other towns in the Sahara, and further afield.

This study of Ghat provides essential information that forms the starting point for further research. It also briefly touches upon some topics beyond the scope of this dissertation which require further investigation. In my research I discussed the nomadic and semi-nomadic dwellings of the *Azjer* Tuareg and, in my brief comparison of the Tuareg skin tent (*éhekyet*) and the Arabic black tent, I highlighted as relevant some similarities and connections between these. I also raised the question of the adoption of tent architecture by both ethnic groups, since there may be some confusion for someone unfamiliar with both cultures regarding which aspects stem from Tuareg, and which from Arab, influence. I recommend further research into both dwelling typologies, with a focus on the appropriation of design concepts, the extent of appropriation, and the identification of predominating architectural elements (for example, the enveloping structure or the tent's interior arrangement and spatial organization). I also suggest that the role of environmental factors in the adoption of a particular structure or building material should

be investigated (for example, the skin or tensile materials used in roofing). Answering these questions will benefit any further study of Libyan *Azjer* Tuareg dwellings.

There is also an opportunity for comparative, cross-cultural studies of Ghat with the town of Ghadames, and with other Saharan towns and Tuareg settlements in neighbouring African countries. For example, it would be pertinent to investigate the differences between the towns of Ghat and Ghadames in the concept of the interior layout and decoration of domestic spaces, and the relation of these concepts to socio-cultural elements. These differences, which I discussed briefly in my research, suggest underlying cultural differences that may be articulated through an examination of the ways that traditional practices and architecture interact. Such a study would shed light on the various ways that cultural meanings can be expressed in domestic realms.

Finally, in my research I briefly touched on Tuareg linguistic metaphors that relate to their built environment. I recommend further research and comparative, cross-cultural studies into Tuareg terminology, particularly linguistic metaphors, especially in relation to architecture, with both the town of Ghadames and other Saharan towns and Tuareg settlements in neighbouring African countries.

I hope that my findings, along with these recommendations for future research, may motivate further work in the field of vernacular architecture and material culture, stimulating purposeful studies in this area and encouraging an approach to government policies that are more sensitive to the interrelationship of socio-cultural and architectural factors, and that respect the ways of life of traditional societies.

Glossary

All terms are in Tuareg, unless stated otherwise.

***Abafa*:** A natural chalky rock dug from the ground, used for whitewashing walls.

***Abareek*:** A large water basin built to collect spring or well water before passing it to a medium-sized basin, called *tihaseen*, which distributes the water to different farms through several small channels called *eten-jaran* (singular *a-tenjar*).

***Abrajen*:** A type of Bedouin tent. See *baiet sha'er*.

***Afalah*:** A term meaning 'the high place,' referring to the roof of the dwelling.

***Afayek*:** A longitudinal half of a palm tree trunk, usually placed close to a well to collect the water.

***Agelmam*:** Natural rock waterholes or basins, known in local Arabic as *gueltas*.

***Agharaj*:** A woman's bag, smaller and more decorative and colourful than the men's bags.

***Aghelad*:** A street, although this term can be used more generally to describe open, uninhabited or empty country.

***Aghram washaran*:** An old town or the 'old core' of any town.

***Ahaja*:** A skin holder for kitchen utensils. The *ahaja* would be hung from the roof of a tent or tied by its four corners to two short, forked poles, similar to a rack for hanging clothes but without the cross bar. The skin holder is made of camel skin tied either to a rectangular wooden frame or to a wooden ring frame of 50cm-60cm in diameter made from a bent green branch.

***Ahannka*:** A woman's palanquin, also known as *takhawat*, similar in function but not in design to the Bedouin *karmoud* or *houdaj*. See *karmoud*.

***Ahazeej*:** A formal Arabic term for a type of traditional song.

***Aja*:** A leather bucket used to lift water from the well to the surface. In Arabic known as *dalo*.

***Alaa*:** A powder made from the *alaa* plant, used to depilate animal skin.

***Al-Ash-hour Al-Hourm*:** An Arabic term meaning 'the sacred months.'

***Albo*:** The wood and leaves of the *athel* tree.

***Aldebraz*:** A local colloquial Arabic term referring to a traditional hammer used to break larger rocks into small pieces.

***Al-doufouf* (singular *douf*):** A formal Arabic term for a musical instrument like a drum, which is held close to the face with one hand while the other beats it.

***Alekkin*:** Earthen cooking pots, also known as *térirt*.

***Al-Fadtela* Night:** A term used by Ghatians to refer to the religious occasions that they celebrate. There several *fadtela* nights in Ghatian culture, each relating to a specific religious occasion.

***Al-hara'er*:** A formal Arabic term for free women, but used in some contexts to refer to high class women.

***Al-hokkam* (singular *al-ha-kem*):** An Arabic term meaning 'governors' or 'rulers.' In the past, the *al-ha-kem* ruled Ghat in the name of the *Azjer* Tuareg *amanukal*, or sultan.

***Al-houjajj* (singular *haj*):** An Arabic term referring to those who have performed the *hajj* in Makka.

***Al-kokee*:** An alcove in the wall where different domestic items can be placed.

***Al-majales* (singular *al-majles*):** A seating area, which may be covered or non-covered.

***Al-mounadi*:** An Arabic term for a messenger, who would walk through the town streets and announce the message in a loud voice and with the help of small drum in his hand.

***Al-adhkar al-sofiya*:** A type of religious chanting song.

***Al-Sana Al-Hejria*:** An Arabic term for the Islamic year.

***Al-souq*:** A formal Arabic term meaning 'market.' Locally pronounced *as-souq*.

***Al-werd*:** A type of religious chanting song.

***Al-zawaya* (singular *al-zawia*):** An Arabic term for religious lodges, which function mainly as religious centers and religious schools.

***Amajeyen*:** Supper, also referred to as *ezozejen*.

***Amanukal*:** The sultan of a Tuareg group. Each Tuareg sultanate was commanded by an independent supreme chief or sultan.

***Ammak*:** The uncle on the father's side.

***Anzaf*:** A piece of paper, rolled or folded into a triangular shape, upon which phrases or verses of the Qur'an are written. It is usually hidden in an unnoticeable place or placed in a skin pocket and worn as a necklace or attached by a pin under the clothes. Also known as *tera*. In formal Arabic, it is known as *tamemah*, and in colloquial Arabic *ihjab*.

***Asefl*:** A skin manufacturing process.

***Asen*:** Thatched pieces of date palm, used to stop the mouths of jars. This term is used in both the Tuareg and Hausa languages.

***Ashoura*:** An Arabic term for a day of religious celebration that takes place on the ninth night of the month of *Muhàrram*, the first month in the Muslim calendar.

***Asudokan*:** A Hausa term for a hand-made quilt, known in Tuareg as a *tabardee*.

***Athel*:** An Arabic term for a tree. The botanical name of the *athel* is *Tamarix Articulata*.

***Attara* (masculine singular *attree*, feminine singular *attrah*):** Freed slaves of the Tuareg.

***Awrah*:** A formal Arabic term, with a wide meaning in Islamic *sharī'ah*. Literally, it means certain parts of the body not to be seen or touched by anyone except one's spouse. Its extended meaning includes any private matter that others should not see, hear or know about.

***Azawa*:** The botanical name of *azawa* is *Tamarix Gallica L.*

***Azjen*:** An animal shed or barn.

***Baiet sha'er*:** An Arabic term for a type of a Bedouin tent. Literally, the term means 'hair dwelling.' In Tuareg this type of tent is known as *abrajen*.

***Barambkh*:** An Arabic term for a poisonous Saharan shrub (*Calotropis Procera*) whose fruit and branches contain a white sticky liquid that causes blindness. In Tuareg known as *torha*. Both terms are used equally in Ghat.

***Bawageel* (singular *bagoal*):** Jars that can be used to store grains or water. Bread-baking implements, also called *bagoal*, look like jars with openings at each end, one smaller than the other.

***Caserma*:** An Italian term for an Italian military building used as quarters for the *carabinieri*.

***Diss*:** An Arabic term for a Saharan plant. The botanical name is *Imperata Cylindrica*.

***Dalo*:** See *aja*.

***Ébayogh*:** Skin-bags for water. In Ghat, the Arabic term *gerbah* is also sometimes used.

***Edbel*:** A sand bed made by piling and leveling sand approximately 20cm high off the ground.

***Efarun*:** An enclosed rectangular or circular yard.

***Efetat*:** A type of bread cooked on a *tasalsalat.*

***Éhekyet*:** A skin tent used by the Tuareg. The name comes from the skin sheets (*éhekyet*) used in the construction of the tent.

***Éhen*:** Similar to the English term 'house,' referring to a shelter of any type.

***Éheren*:** A heavy pestle which is used with the *tindé*, or mortar, to crush grains.

***Eid Al-Aḍḥa*:** Festival of Sacrifice. A religious festival celebrated by Muslims worldwide in commemoration of God's sparing Ibrahim from his vow to sacrifice his son Ismael, as commanded by God.

***Ekadeone*:** The kitchen.

***Ekadeone tekabart*:** The kitchen hut.

***E-khadakh*:** A term referring to a permanent seating or sleeping platform. In formal Arabic known as *mustaba.*

***Elallwaten* (singular *elallwah*):** The main rafters of the roof.

***Émi*:** This word literally means 'the mouth,' and refers to a gate, for example *Émi Tafghaghat*, or a door to a dwelling. See *émi n-éhen*

***Émi n-éhen* (plural *émi n-éhenan*):** The front door, known in Hausa as *tori.*

***Émotayéé*:** A fenced, patio-like area in front of the tent, which can be formed by extending the two ends of the *éssaber*, or straw dividing-mat, outside the entrance of the tent.

***Enabutter*:** The skeletal structure of the hut walls in their final shape.

***Énaftagh*:** Someone for whom the bed and bedding must be prepared – i.e., a guest. The guest is usually given the best of everything.

***Errshad*:** A local colloquial Arabic term for small stones.

***Esgofarr*:** The storage room.

***Éssaber* (plural *isebran*):** A straw mat woven from the stems of the *afazo* plant. The *éssaber* is used as a wall to surround or divide the tent interior or to create outdoor extensions to the tent.

***Eten-jaran* (singular *a-tenjar*):** Small channels to transfer water to farms.

***Ezozejen*:** See *amajeyen*.

***Faquieh*:** An Arabic term for a religious person. In Ghat, the *faquieh* held the position of *imam* and was responsible for giving religious consultation to the Sultan, taking care of education and mosque affairs, and making decisions regarding tribal problems. He was the monitor of the judicial system and authenticated the rulings of judges

***Fena*:** A formal Arabic term for the courtyard, known in Tuareg as *taa-wkh* and in local colloquial Arabic as *lydha*

***Fonduk*:** In formal Arabic, *fonduk* originally meant 'vacant walled land.' Now the term is used to mean a hotel, which was previously referred to by the formal Arabic word *khan*. The term *khan* is not used any more except in historical reference.

***Fasookh.*:** An Arabic name for a traditional incense.

***Gafolee*:** A plant used to dye skins a coppery red. The skin is soaked with a powder made from the skin of this plant.

***Ged-deed*:** A sun-dried salted meat.

***Gerbah*:** See *ébayogh*.

***Gueltas*:** See *agelman*.

***Hadtrah*:** A type of religious chanting song.

***Haloum*:** Cords of woven goat hair.

***Hoboss* (singular *hebs*):** Meaning 'retention,' and referring to lands, dwellings, farms, or jewels that cannot be sold, gifted, or bought.

***Houdaj*:** See *ahannka*.

***Ighaydan*:** A rack for hanging clothes or bed covers.

***Ihaggaren*:** The highest Tuareg class, or the Tuareg nobility, also known as *imajeren*.

***Iklan*:** Slaves.

***Imajeren*:** See *ihaggaren*.

***Imam*:** A formal Arabic term for a religious person. The *imam* was always chosen from the *Ineslemen*, which is a religious Tuareg class. See *faquieh*.

***Imazighen* (singular *amazigh*):** The Tuareg term for themselves.

***Imghad*:** The class of vassals. These were the ancient servants of the noble Tuareg, who later became their warriors, which did not give them any prestige. This class is the most numerous class in most groups of Tuareg.

***Imghars* (singular *imgher*):** Sheikhs, in general to the sheikhs of tribes, and in particular the sheikhs of drum-tribes, who together formed an assembly of deputies which helped the sultan in his rule.

***Imkhawel*:** A hearth. The *imkhawel* can be a small portable pot made of clay or latticed iron in various styles, or it can be non-portable, in which case it will be a small hole in the ground filled with wood or the dry dung of cattle, goats or camels.

***Inadhen* (singular *inadh*):** Blacksmiths.

***Ineslemen*:** A religious Tuareg class, added to Tuareg class hierarchy after the introduction of Islam. The *imam* and *faquieh* belong to this class.

***Jalsah*:** Seat, or seating.

***Jana'en* or *jenan* (singular *janah*):** A formal Arabic word meaning 'heaven,' used locally to refer to small farms or gardens.

***Jereed*:** A local colloquial Arabic term for palm tree leaves.

***Jowabi* (singular *jabia*):** A local colloquial Arabic term for water basins. In Ghat, the Tuareg term *tihaseen* (singular *tihemet*) is more commonly used.

***Ka-noon*:** A local colloquial Arabic term used to refer to a small, portable hearth pot made of clay or latticed iron in various styles.

***Karmoud*:** The palanquin of Arab Bedouin women, known in formal Arabic as a *houdaj*. The *karmoud* is different in design from the Tuareg *ahannka*.

***Kaswa*:** The Hausa term for 'market.'

***Kawdi*:** A narrow, shaded, corridor-like outdoor space used as a transition space between the outside and the inside of some of the rooms of the dwelling.

***Kernaf*:** The local colloquial Arabic term for the brownish, flat part of the palm leaf, which stays connected to the trunk after it has been cut off. The term is also commonly used to refer to the whole branch (*takart*) of the palm leaf. In Tuareg the *kernaf* is known as *tafoudaq*.

***Khalk*:** The uncle on the mother's side.

***Kheesh*:** A formal Arabic term for a material woven from fibers of the *asen* (thatched pieces of date palm).

***Kleem*:** A traditional, colourful, high quality wool carpet.

***Kouttab*:** A formal Arabic term for a religious school, in which children are instructed in the Qur'an.

***Lay-yan*:** A local colloquial Arabic term for a large shallow metal washbasin.

***Lydha*:** A local colloquial Arabic term. See *fena*.

***Mahrem*:** A formal Arabic term denoting a relationship either by marriage or close blood ties of such a close degree that marriage is permanently prohibited by Islamic law.

***Mehrab*:** A formal Arabic term for an essential architectural element in mosque design. The *mehrab* is a recess in the interior wall of the mosque that points towards Al-Ka'aba, the Muslim *kebla*, in Makka, towards which the faithful direct themselves in their prayers.

***Mellaa*:** A bread cooked by placing the dough on hot embers and ashes on the sand before covering it with more hot embers and ashes topped with sand. This bread is also often called *tajella*.

***Mktaba*:** A formal Arabic term meaning 'library.' It can refer to the library as a building or as a room in a building (i.e., in a house or in a school), or to a bookshelf that contains books or personal documents, collections, and inscriptions.

***Mousalla*:** A formal Arabic term referring to any land or place reserved for prayers which is not a mosque. The *mousalla* can be covered or uncovered.

***Mustaba*:** See *e-khadakh*

***Qaimmaqam*:** A Turkish term meaning 'governor,' an administrative occupation ranking third in the Turkish hierarchal administrative system.

***Rahaa*:** A formal Arabic term meaning 'grind,' used to refer to a grinding tool consisting of two circular grinding stones. The *Ahaggar* Tuareg call this tool *tasyart*. However, the *tasyart* is different from the *tehunt* that was used in Ghat.

***Sakaief* (singular *sakiefa*):** A local colloquial Arabic term for the covered parts of the streets. In formal Arabic it is pronounced slightly differently in the plural: *saqa'ef* (singular *saqiefa*). In Ghat, this term refers to shaded seating areas (but never to uncovered seating areas). In Tuareg, these are referred to as *tesajefien*. In both languages, the term means 'the roofed or shaded area.'

***Sakiefa*:** A local colloquial Arabic term for the roofed entrance hall to a dwelling. This term can also refer to covered seating areas in streets.

***Sefrad*:** Three stones that form the hearth.

***Shadouf*:** A machine used to lift water using human or animal power from the well to the surface using a leather bucket tied to a rope.

***Shakwah*:** The local colloquial Arabic term for skin containers for sour milk, often referred to by the Tuareg term *tanoarat*.

***Sharī'ah*:** Islamic Law. Sets of rules and regulations derived in principle from the Qur'an and *hadīth* (oral traditions relating to the Prophet Mohammed).

***Sheeh*:** A formal Arabic term for a plant that are used locally for different purposes, including protecting dwellings from snakes, and harmful insects or from evil spirits.

***Sheikh al-dar*:** A formal Arabic word meaning literally 'the sheikh of the house,' used only by Ghatians to refer politely to the latrine. This term is the equivalent of the formal Arabic terms *baiet al-raha* and *al-merhath*, meaning 'rest-room.'

***Soro*:** A special reception room for the man of the house, always built on the roof.

***Taa-wkh*:** See *fena*.

***Tabardee*:** See *asudokan*.

***Tabawant*:** A woman's bag, bigger than the *agharaj*, used for long-term storage, usually for occasional clothes. The *tabawant* is made of a light skin sheet, which can be hung by its four corners on two short forked poles or kept folded and wrapped using leather strips.

***Tabermah*:** A Hausa term for a straw mat.

***Tafalkat*:** A shed, which can be used as a shaded outdoor seating area or as an outdoor water or milk shed.

***Tafoudaq*:** See *kernaf*.

***Taghahamat n-idhass*:** The bedroom.

***Taghahamat n-idhass tekabar*:** The bedroom hut.

***Tahaft*:** Irrigation channels, also sometimes called *tazaft*.

***Tajella*:** See *mellaa*.

***Takart*:** The date palm branch of the *jereed*. In Arabic known as *al-karb*.

***Takhawat*:** See *ahannka*.

***Takola*:** See *jereed*.

***Tamajahwet*:** A rock that can be ground into a powder and used to dye animal skins a coppery red.

***Tamankayeen* (singular *tamankayet*):** The central forked pillar that supports the thatched conical roof of the hut. It is a feature common to all huts.

***Tamasaih*:** A crunchy type of bread.

***Tamashaq*:** The Tuareg language.

***Tamasseen*:** A type of bread cooked in the *tannour*.

***Tannour*:** A local colloquial Arabic term used to refer to a non-portable bread oven used to bake a type of bread called *tamasseen*. It looks like a large, cylindrical earthen jar built into the ground with an open top almost 45cm wide.

***Tanoarat*:** See *shakwah*.

***Tarda*:** A skin strip.

***Tarot énkeley*:** Lunch.

***Tasalsalat*:** A square iron sheet for baking two types of bread called *efetat* and *tasleyet*.

***Tashakkat*:** A plant used to soak animal skin in order to depilate it.

***Tasleyet*:** A type of bread cooked on a *tasalsalat*.

***Tasofraa*:** A colourful skin bag used to hold men's tools and clothes.

***Tasyart*:** See *rahaa*.

***Tawaleleya*:** Palm fronds.

***Tazaft*:** See *tahaft*.

***Teghemhien* (singular *taghahamat*):** Rooms.

***Tehunt*:** A grinding stone, consisting of two naturally differently sized and shaped stones. The upper stone is small and called *azzed*; the lower one is larger and called *tehunt*. The Tuareg use also the Arabic term *rahaa*, meaning 'grind,' to refer to this equipment. However, the *tehunt* is different from *rahaa*. See *rahaa*.

***Tekabrayen*:** Huts. The singular feminine of *tekabrayen* is *tekabart*, which refers to a small hut, while the singular masculine is *tekabar*, which refers to a bigger hut. Known in Arabic as *zarieb* (singular *zeriba*).

***Ten aghraf*:** A skin bag in which Ghatian women keep their jewelry.

***Terek*:** A saddle for a camel or a horse.

Tera: See *anzaf*.

***Térirt*:** See *alekkin*.

***Tesajefien*:** See *sakaief*.

***Theerah*:** An Arabic term for a local measuring unit denoting the length of the human arm from the middle finger to the elbow.

***Tifinagh*:** The alphabetic transcription system of the Tuareg.

***Tihaseen*:** See *jowabi*.

***Tijettewin* (singular *tajettiwt*):** A vertical or horizontal pole forming part of the structure of the tent or hut, which may be forked or non-forked. The *tajettiwt* could be a carved apex pole.

***Tindé*:** A tool used with a heavy pestle (*éheren*) to crush grains, cereals or other dry vegetables into small pieces or flour.

***Tisettitay* (singular *tasettiti*):** Wooden pegs.

***Torha*:** See *barambkh*.

***Tori*:** See *émenhanan*.

***Tullult*:** A grass used for thatching. The botanical name is *Aristida Pungens*.

***Tunein* (singular *tanoot*):** Wells.

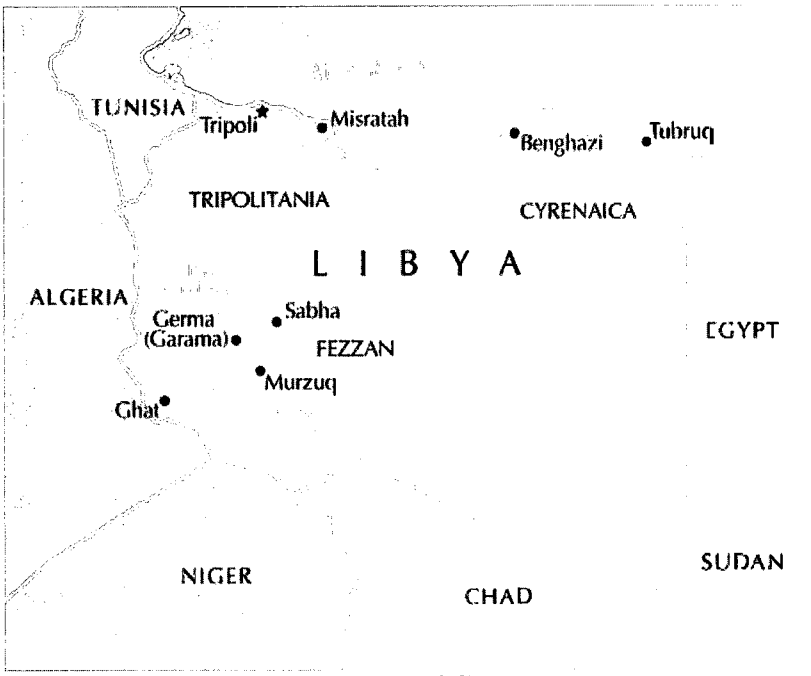
***Qebla*:** The direction of Makka.

***Waqf* (plural *awqaf* or *waqfs*):** A formal Arabic term. According to *sharī'ah*, the *waqf* is a voluntary and permanent gift of a portion of one's wealth to Allah. Once gifted, the *waqf* cannot be given away, sold or inherited.

***Zarieb* (singular *zeriba*):** Hut (*tekabrayen*). Also used to refer to an animal shed or barn, known in Tuareg as *azjen*. The word *zarieb* is spelled here as it is pronounced in local colloquial Arabic. In formal Arabic, it is spelled *az-zara'eb* (singular *zariba*).

Appendix I

The Old Town of Ghat and its geographical location



Geographical location of the town of Ghat.
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The old settlement of Ghat, built at the foot of the lower southern ridges of Cocaman Mountain.

The old settlement of Ghat, framed by the Acacus Mountains.

Appendix II

Kalala neighbourhood

The elimination of considerable parts of *Kalala* neighbourhood.

Appendix III

An outline of the survey work by the Italian mission

CENTRO INTERNAZIONALE STUDI ARCHITETTURA E STORIA DEL

MEDITERRANEO

Cod. Ricerca 51717ASU Cod. Fiscale 97228760589

Il Presidente

MISSIONE ITALO- LIBICA "L'ARCHITETTURA DELLE CITTA' CAROVANIERE. IPOTESI DI RECUPERO DELLE CITTA'-OASI DEL SUD LIBICO: GHAT, MURZUQ E ZWYLA"

Egreggia Dottoressa Amal Jamal
C/c Prof. Robert Mellin

Ho il piacere di illustrarvi le nostre ricerche svolte nella città oasi di Ghat, vi informo che sono a vostra completa disposizione per qualsiasi lucidazione.

L'attività svolta dalla missione è stata indirizzata durante gli anni passati, come da programma, verso due obbiettivi principali: l'inquadramento storico-geografico dell'area in cui sono situate le tre città-oasi di Ghat, Murzuq e Zwyla e l'analisi degli elementi compositivi e degli edifici della *medina* (città antica) di Ghat.

1- L'inquadramento storico-geografico della città area, attraverso la consultazione e catalogazione informatizzata di fonti storiche arabe e occidentali, con particolare riguardo alle pubblicazioni e ricerche svolte dagli studiosi italiani durante il XX secolo ed dai fonti dei viaggiattore . Tale raccolta di documentazione si rivolge all'area del Fezzan e in particolar modo alle oasi della fascia desertica che comprende Ghat, Murzuq, Zwila e le oasi del Ventinovesimo parallelo, e costituisce il prologo alla verifica e conoscenza delle rotte carovaniere che collegavano l'Africa con il Mediterraneo attraverso il territorio libico, al fine di ricostruire i rapporti commerciali che originarono la presenza di cospicui insediamenti in aree pressochè desertiche.

Basandoci sui dati storici riportati dalle fonti e sui rilievi eseguiti si è iniziato a restituire graficamente la pianta della città-oasi di Ghat.

2- L'analisi degli elementi compositivi della *medina* di Ghat è avvenuta attraverso una ricognizione generale in cui si è andati ad individuare le parti crollate e non più riconoscibili, in modo da circoscrivere la parte urbana che conserva, sia pur in alcuni punti gravemente danneggiata, le forme originarie.

3- All'interno della zona conservata si è proceduto ad analizzare, attraverso il rilievo architettonico, di tutti i componenti della città rappresentati dalle mura, porte, strade, piazze, majlis (strade coperte usate come luoghi di riunione), moschee, caravanserragli e gli edifici di abitazione.

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L'attività di rilievo ha avuto inizio a partire dall'edificio di maggior interesse storico-architettonico e sociale: la moschea di Al Atiq o Al Quadim che si trova nella zona centrale della medina. Sono state realizzate la pianta e la sezione trasversale in scala 1 : 50, durante le operazioni di rilievo si è scoperto un mihrab (materializzazione della direzione de La Mecca) precedente a quello attualmente utilizzato, di cui non vi era conoscenza. Tale scoperta ed una più approfondita analisi dell'edificio ha permesso di constatare la presenza di un nucleo originario successivamente ampliato. Il mihrab presenta dei motivi decorativi geometrici e delle iscrizioni, che successivamente andranno analizzate per una eventuale datazione. Anche in altre parti dell'edificio sono presenti iscrizioni finora sconosciute, realizzate in rilievo con malta di gesso. L'edificio necessita di restauri alla copertura, agli intonaci e alle parti decorative.

Tramite i confronti effettuati con altre moschee presenti nelle oasi libiche, vedi le moschee dell'oasi di Ghadames e la regione del Gebel (Nalut, Awlad Mahmud, Al Jababra...) si può stabilire che sono presenti diversi elementi architettonici comuni e, soprattutto, pertinenti unicamente a quest'area.

4- Successivamente si è continuato con i rilievi del complesso della Zawiyya Al Amin constatandone le condizioni di scarsa conservazione; il rilievo ha consentito la ricostruzione della pianta degli elementi principali del complesso, processo attraverso cui potremo distinguere delle tipologie che forniranno dati sugli usi e costumi, sociali e religiosi del luogo e le loro trasformazioni nel tempo.

I componenti della Missione, in collaborazione con il Dipartimento alle Antichità della Libia, hanno potuto realizzare durante l'attività dell'anno 2002 nella *medina* di Ghat i seguenti rilievi in scala 1 : 50

1) Pianta e sezione complesso della Moschea Al Atiq
2) Pianta e sezione della Madrassa Al Atiq (scuola coranica)
3) Maydan Iscli (piazza principale della *medina*)
4) Majlis Iscli (luoghi di sosta arredati da sedute in muratura, centro sociale della *medina*)
5) Maydan Tafuk Nebrage
6) Pianta della Confraternita Al Zawiyya Qadireyya (complesso religioso)
7) Maydan Tafghaghat
8) Maydan Meridionale
9) Majlis Zawiyyat Al Amin
10) Pianta e sezione Moschea Al Amin (piano terra e primo piano)
11) Pianta Casa Baçir (piano terra e primo piano)
12) Pianta Moschea Al Huni
13) Sono stati completati tutti i rilievi delle case abitative della città
14) Rilievo della la fortezza di epoca Othmaniana
15) Un altro complesso che, e' stato oggetto di analisi, sia attraverso il rilievo sia attraverso l'individuazione delle fasi costruttive, è senza dubbio il caravanserraglio posto ai piedi della montagna Kokamann su cui si estende la *medina* di Ghat. Esso e' stato rilevato.
16) il restauro del complesso dell' *ex-mutasarrafia*, destinata a sede del Museo della Regione di Ghat;
17) lo studio degli edifici facenti parte di uno dei nuclei più antichi della medina di Ghat, vale a dire la zona delle torri di Baba Khalil;
18) Studio e annalisi dei materiale costruttivi e confronto con altre materiale uttilizzate in altri città oasi della Libia
19) Analisi e confronto tipologico architettonico delle edifici abitativi della città
20) Ricostruzione completa della planimetria generale della città oasi di Ghat a scala 1:50

I rilievi realizzati sono stati digitalizzati e trasferiti su AUTOCAD al fine di successive elaborazioni e confronti.

Per gli edifici considerati si è proceduto al censimento e alla classificazione delle tecniche costruttive, alla registrazione del livello di degrado raggiunto e all'individuazione delle cause che hanno concorso al decadimento. Tale disamina costituisce il primo passo per formulare un decalogo di norme di comportamento nell'affrontare il restauro della *medina* di Ghat e delle città oasi dell'area presahariana.

Il lavoro svolto ha conseguito l'approvazione del Dipartimento alle Antichità della Libia , che ha espresso grande interesse per i primi risultati raggiunti, soprattutto per ciò che riguarda le indicazioni su metodi e tecniche di restauro da applicare agli edifici di mattoni crudi e gesso.

Per questo ti informo che il nostro centro Cisam ha il piacere di mettere a tua disposizione non solo tutto l'archivio ma anche tutta la nostra esperienza e collaborazione.

Distinti Saluti

IL PRESIDENTE CISAM E
DIRETTORE DELLA MISSIONE
(arch. Khalil Abdel Hadi)

Translation of the original document[1]

International Center for Architecture and History of the Mediterranean Studies

Italian-Libyan Mission, "The Architecture of the Caravan Cities. Case of the Recovery of the Oasis Towns of Southern Libya: Ghat, Murzuq, and Zwyla."

Dear Dr. Amal Jamal
C/o Prof. Robert Mellin

I am pleased to describe our research carried out in the oasis town of Ghat, and wish to inform you that I am completely at your disposal for any further clarification.

1. Over the past years, the mission's activity has been to address, as a program, two main objectives: the historical-geographical organization of the area in which are situated the three oasis towns of Ghat, Murzuq, and Zwyla; and the analysis of the compositional elements, as well as of the buildings, of the old town of Ghat.
   The historical-geographical delimitation of the town's area was carried out through the computerized consultation and cataloguing of Arabic and Western historical sources, with particular attention given to the publications and researches conducted by Italian scholars during the 20th century and from travelers' records. This collection of documents refers to the Fezzan area, and in particular to the oasis of the 29th parallel, constituting the prologue to the verification and knowledge of the caravan routes which connected Africa to the Mediterranean via the Libyan territory. The purpose of doing so was to reconstruct the commercial ties which led to the presence of remarkable settlements in areas of near-desert. The graphic restoration of the map of the oasis town of Ghat was initiated based on historical data and the executed surveys.
2. The analysis of the compositional elements of the old town of Ghat took place through a general reconnaissance in which unrecognizable collapsed parts were identified in such a way as to define the urban sector, which, although in some points gravely damaged, preserves the original form.
3. Within the preserved area, an analysis was undertaken through architectural surveys of all the components of the town, represented by the walls, gates, streets, squares,

[1] Translation on behalf of the author by teachers of École Pierre Elliott Trudeau, Montreal, 2006.

majalis (covered streets used as meeting places), mosques, caravan seraglio, and residential buildings.

The surveying activity began with the building that held the greatest social historico-architectural interest: the Al-Atiq mosque, situated in the central part of the old town. The plan and transversal section were produced in the scale 1:50. During the survey operations, an unknown mehrab (the materialization of the direction to Mecca) was discovered that preceded the one actually used. This discovery, as well as a more detailed analysis of the building, made it possible to acknowledge the presence of an indigenous nucleus that had been subsequently extended. The mehrab presents decorative geometric motifs and inscriptions that will subsequently be analyzed for eventual dating. Also, in other parts of the building, previously unknown inscriptions are present, made in relief with gypsum mortar. The building needs restoration to the roof, to the plaster and to the decorative parts.

Through a comparison with other mosques present in Libyan oases, such as the mosques of the Ghadames oasis and the region of Gebel (Nalut, Awlad Mahmud, and Al-Jababra), it can be established that diverse architectural elements are present and found to be common and uniquely pertinent to this area.

4. Subsequently, the survey of the Zawiyya Al-Amin complex was accomplished, noting the conditions of its scanty conservation; the survey permitted the reconstruction of the plan of the principal elements of the complex. This process made it possible to distinguish the typologies which will provide data on the social and religious traditions and customs and their transformation throughout the passage of time.

The members of the mission, in collaboration with the Department of Antiquity of Libya, were able to produce during the 2002 activity in the old town of Ghat the following surveys in scale 1:50:

1. Plans and sections of the Al-Atiq mosque complex.
2. Plans and sections of Madrassa Al-Atiq (Qur'anic school).
3. Maydan Iscli (the principal square of the *medina* [town]).
4. Majlis Iscli (rest area equipped with seating arrangements in masonry; social centre of the *medina* [town]).
5. Maydan Tafuk Nebrage.
6. Plans of the Al-Zawyya Qadireyya (religious complex).
7. Maydan Tafghaghat.
8. Southern Maydan.
9. Majlis Zawiyyat Al-Amin.
10. Plan and section of the Al-Amin mosque (ground floor and first floor).
11. Plan of the Baçri house (ground floor and first floor).
12. Plan of Al-Huni mosque.
13. Completion of all the surveys of residential buildings.
14. Survey of the Othmanian era fortress.
15. Another complex which was an object of analysis, both throughout the survey and through the identification of the constructive phases, is without doubt the 'caravan seraglio' at the foot of Kokamann mountain, to which extends the old town of Ghat.
16. Restoration of the ex-*mutasrafia* complex, destined to be the head-quarters of the museum of the Ghat region.
17. Study of the buildings belonging to one of the oldest nuclei of the old town of Ghat, which is the Baba Khalil towers zone.

18. Study and analysis of construction materials, and comparison to other materials used in other oasis towns in Libya.
19. Analysis and architectural typological comparison of the residential buildings of the town.
20. Complete reconstruction of general plan of the oasis town of Ghat in scale 1:50.

The surveys produced were computerized and transferred to Autocad for subsequent elaboration and comparisons.

For the buildings in question, a census and classification of construction techniques has been done, as well as registration of the level of deterioration reached and the identification of the causes which contributed to the decay. Such a detailed examination constitutes the first step in formulating a rulebook of norms of behavior towards the restoration of the old town of Ghat and the other oasis towns of the pre-Saharan area.

The work done met with the approval of the Department of Antiquities of Libya, which expressed great interest in the preliminary results, above all in the suggestions of restoration methods and techniques to be applied to the buildings made of raw bricks and gypsum.

For these reasons, I inform you that our center CISAME has the pleasure of placing at your disposal, not only all the archives, but also all of our experience and collaboration.

Best regards

The president of CISAME and director of the mission
Arch. Khalil Abdel Hadi

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Appendix IV

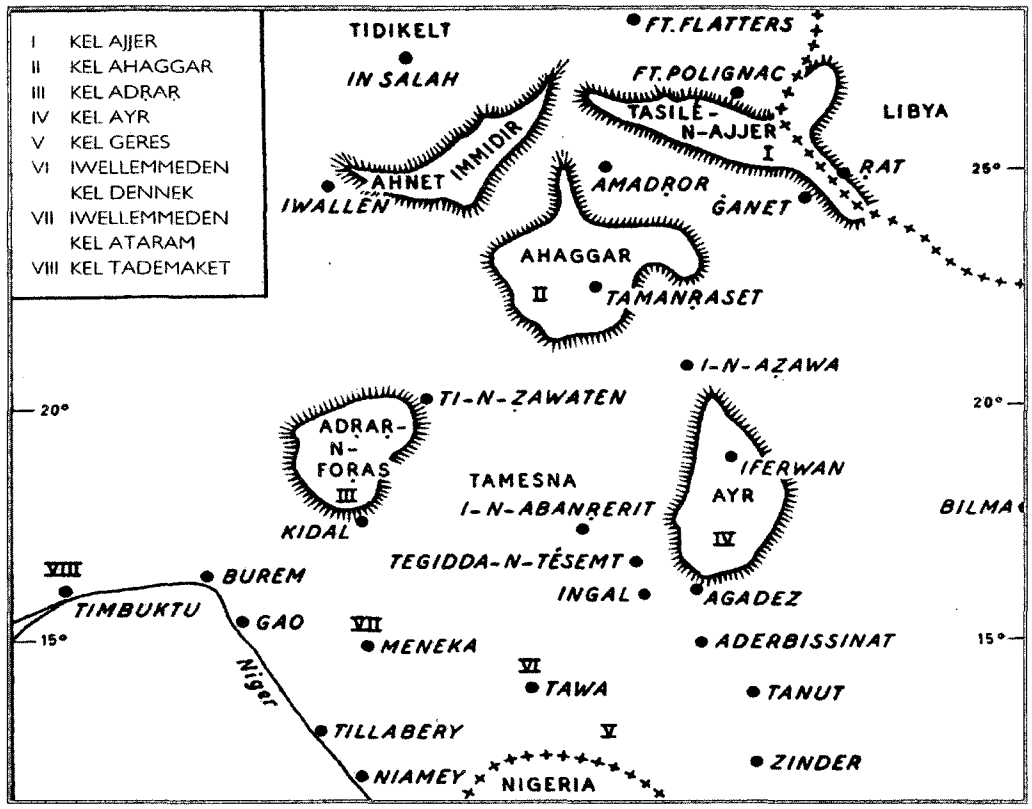
The alphabet characters used in Ahaggar, Tassili-n-Ajjer, and Ayr

Ahaggar	Ayr	Transcription and value in Arabic letters	Notes
yeb	eb	b ب	
yech	ech	ch ش	
yed	ed	d د	
yeḍ		ḍ ض	Emphatic
yef	ef	f ف	
yeg	eg	g	Hard
yeġ		ġ	A peculiar soft pronunciation something between g, d, j, and i
yeh	eh	h ه	Aspirated
yey	ey	y (i) ى	Used both as consonant and vowel at the end of a word. At the beginning and in the middle of a word only as consonant
yej	ej	j	
yek	ek	k ك	
yeḳ	eḳ	ḳ ق	
yekh	ekh	kh خ	Foucauld 1951-52 has the transcription k̲
yel	el	l ل	
yem	em	m م	
yen	en	n ن	
yeñ		ñ	
yew	ew	w (u) و	Consonant or vowel as for i mentioned above
yer	er	r ر	
yeṛ	eṛ	ṛ غ	Pronounced gutturally. Frequently transcribed as gh in litterature
yes	es	s س	
yet	et	t ت	
yeṭ		ṭ ط	Emphatic
	et'	t'	Patalized t
yez	ez	z ز	
yeẓ		ẓ	Emphatic

Reproduced from Nicolaisen and Nicolaisen (1997, 44).

Appendix V

Map of central parts of Western Sahara, and the eight major Tuareg political groups



Reproduced from Nicolaisen and Nicolaisen (1997, 40).

Appendix VI

Vegetation zones

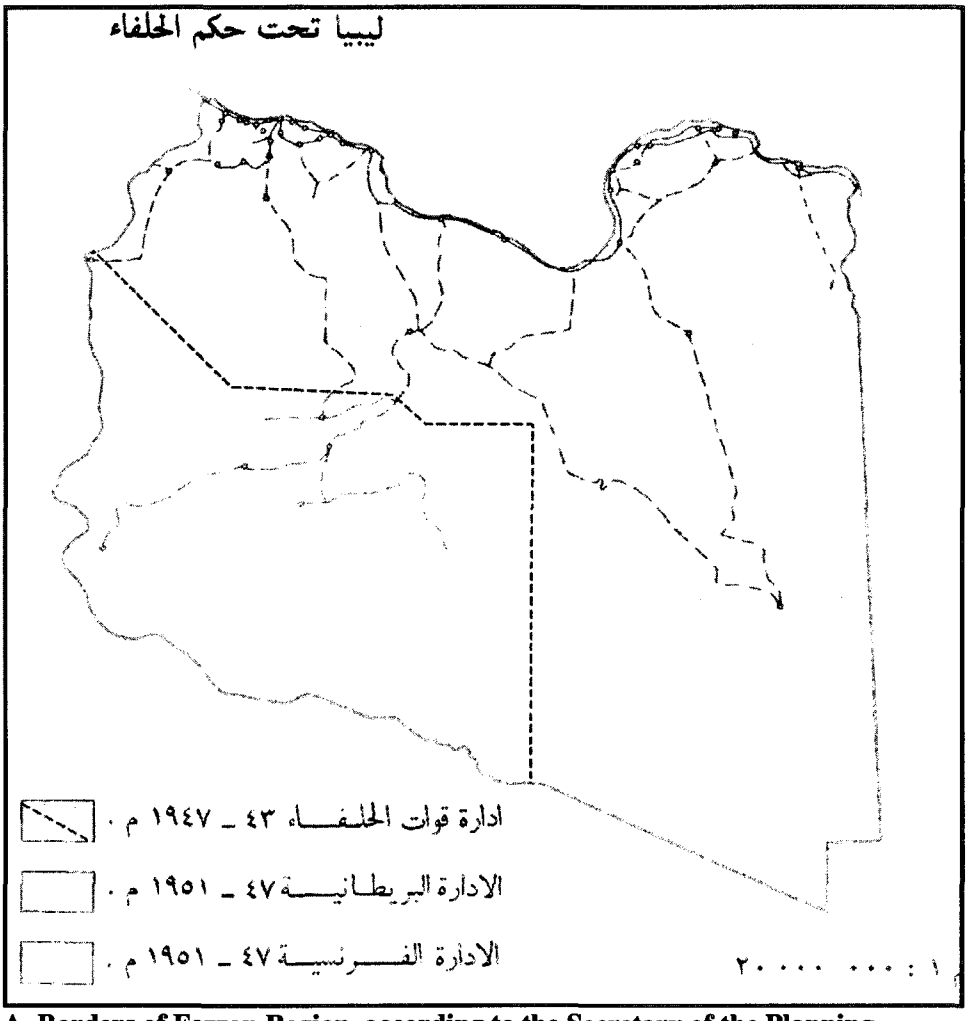
Based on the account of Nicolaisen and Nicolaisen (1997, 73).

The regions inhabited by the Tuareg fall within three distinct vegetation zones, each with different conditions for stock-breeding:

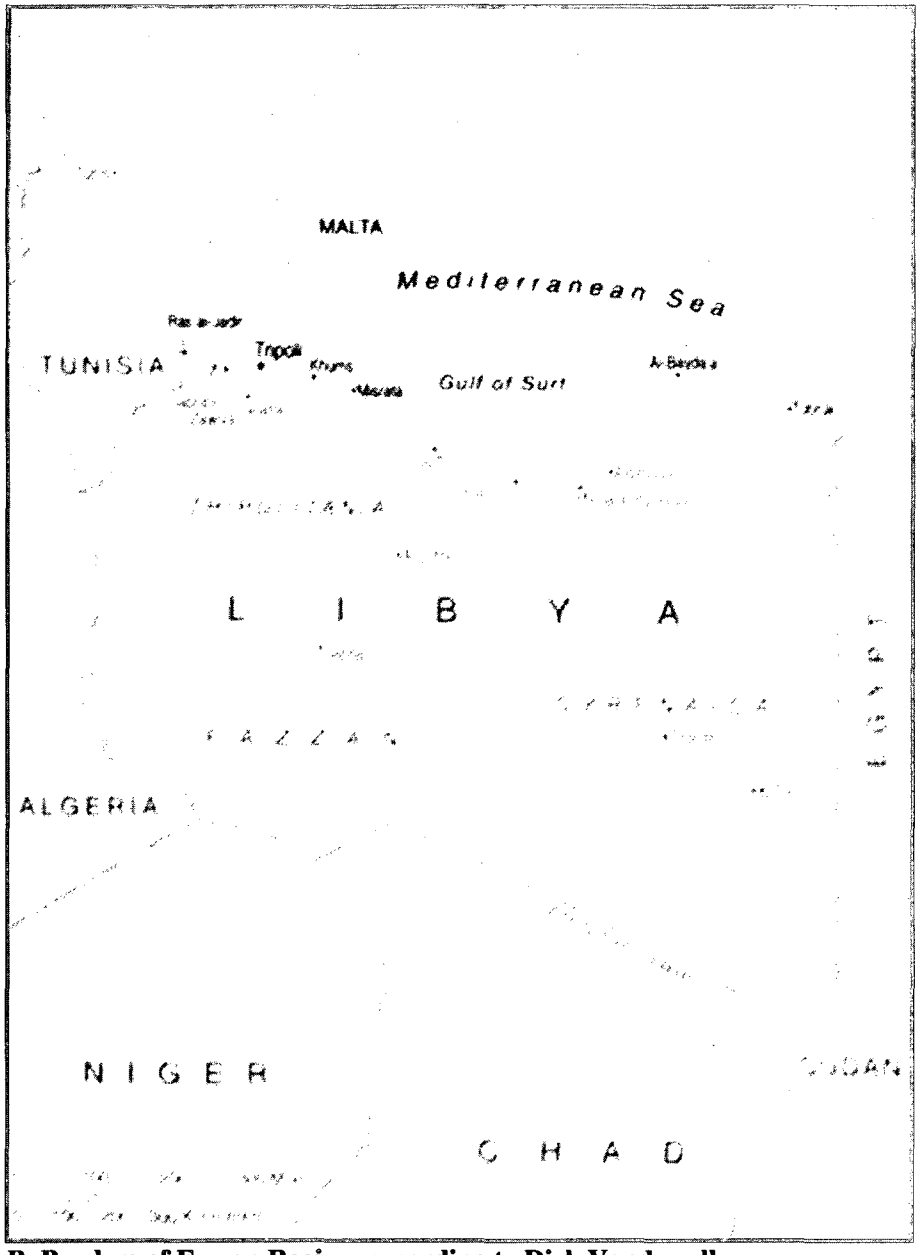
1. True desert zone: comprising the territories of *Kel Ahaggar* and *Kel Ajjer*, where irregular precipitation, and consequently irregular growth of annual vegetation for animal pasture, occurs. The nomads' main livestock are goats, camels, and donkeys. There is no cattle breeding.
2. Sahel zone: Comprising Adrar, Ayr, and part of the plains located between these two mountain massifs. This zone has a fixed rainy season during the summer and yearly pastures of annual plants. The main livestock are goats, sheep, camels and donkeys, as well as some cows. Horses are bred only by sedentary people.
3. Savannah zone: comprises the territories of *Kel Geres*, *Iwellemmeden*, and *Kel Tademaket*. In this zone, regular growth of annual plants over wide plains occurs. The main livestock are cows and sheep.

Appendix VII

Borders of Fezzan Region



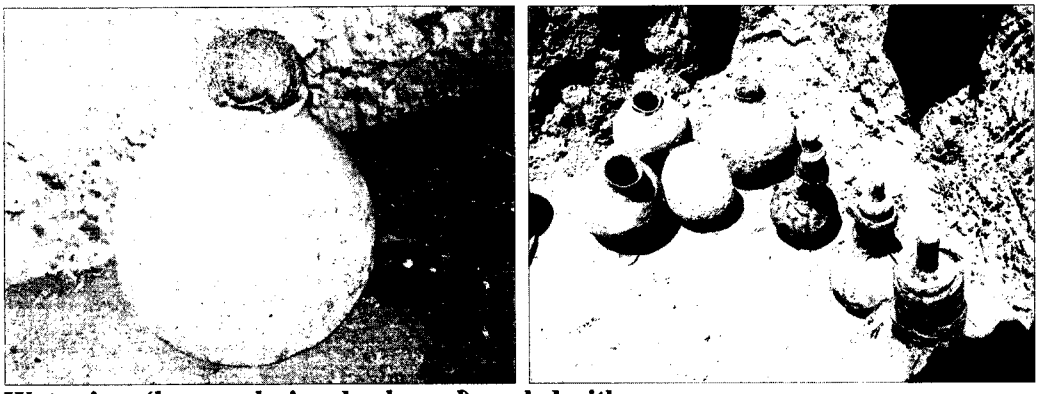
A. Borders of Fezzan Region, according to the Secretary of the Planning-Surveying Department.
Reproduced from Secretary of the Planning-Surveying Department (1978, 20).



B. Borders of Fezzan Region, according to Dirk Vandewalle. Reproduced from Vandewalle (1998, xii).

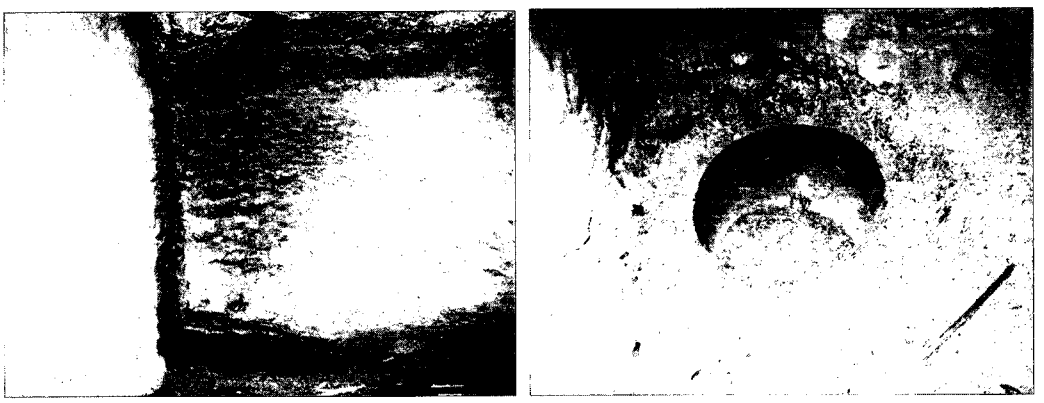
Appendix VIII

Handmade implements, kitchen utensils, personal belongings, and furniture of the *Azjer* Tuareg of Ghat



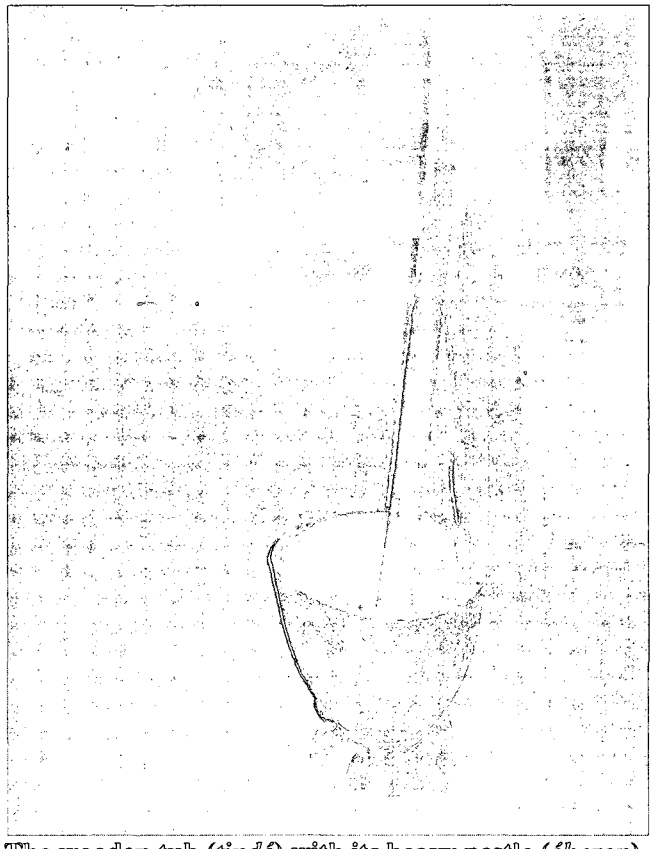
Water jars (*bawageel*; singular *bagoal*), sealed with *asen*.

Bread baking ovens (*tannour*) in rural areas.

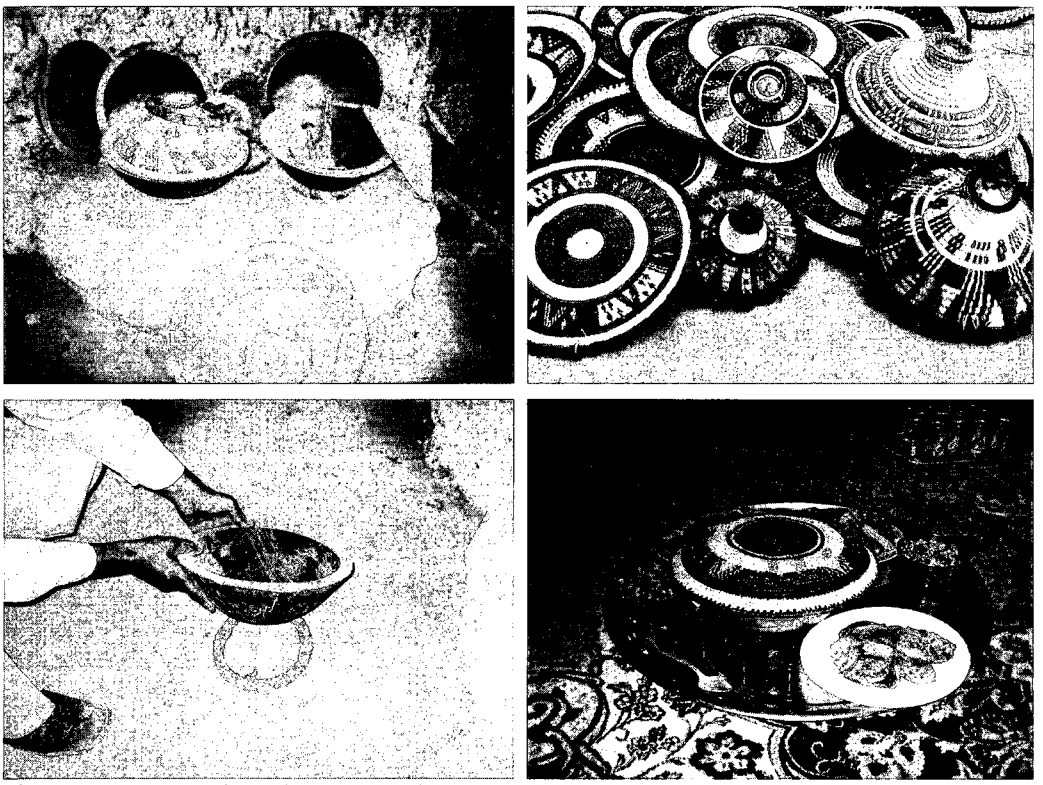


Bread baking ovens (*tannour*) in urban areas.

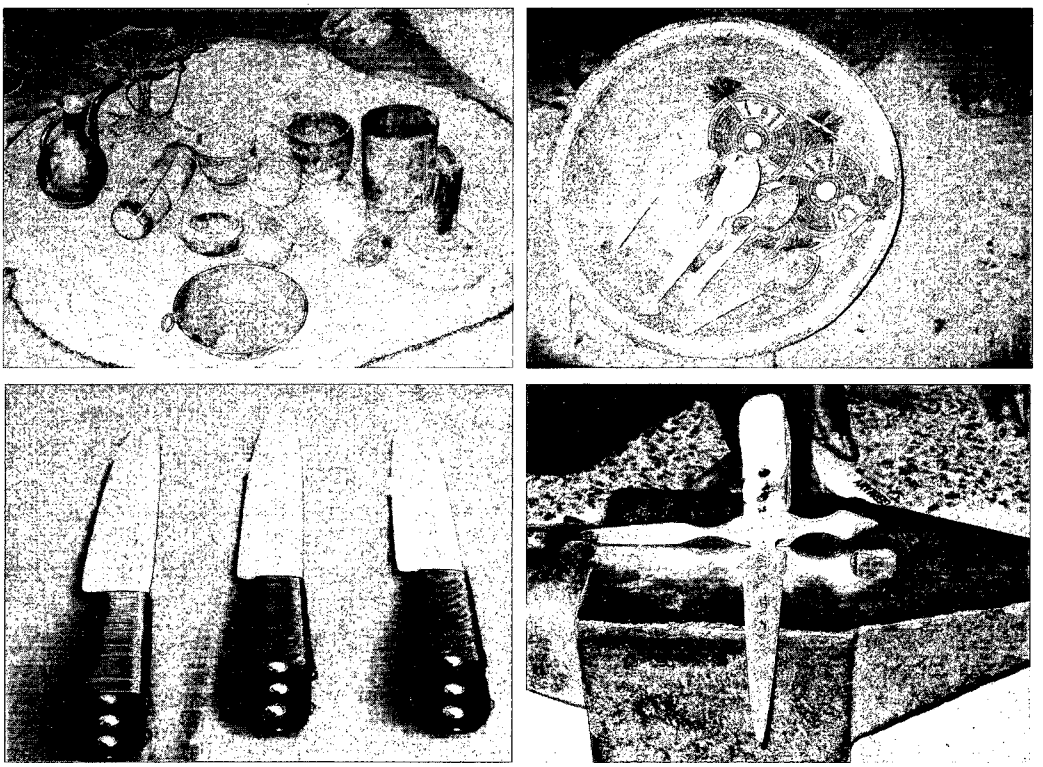
Earthen cooking pots, called *térirt* or *alekkin*.



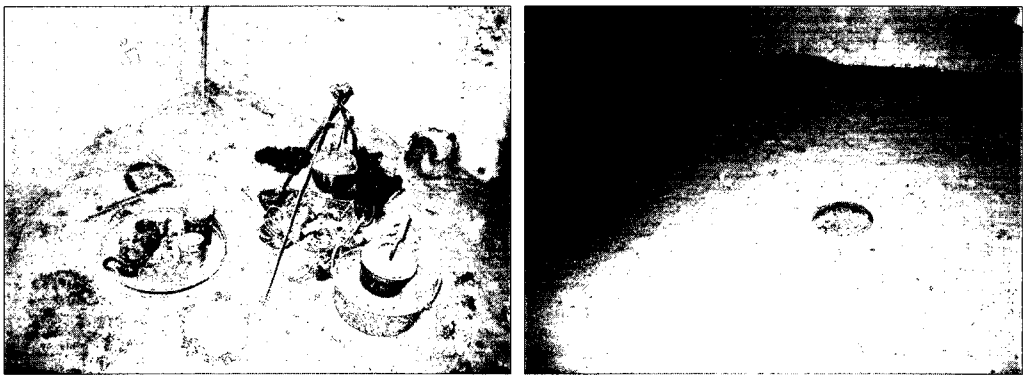
The wooden tub (*tindé*) with its heavy pestle (*éheren*).



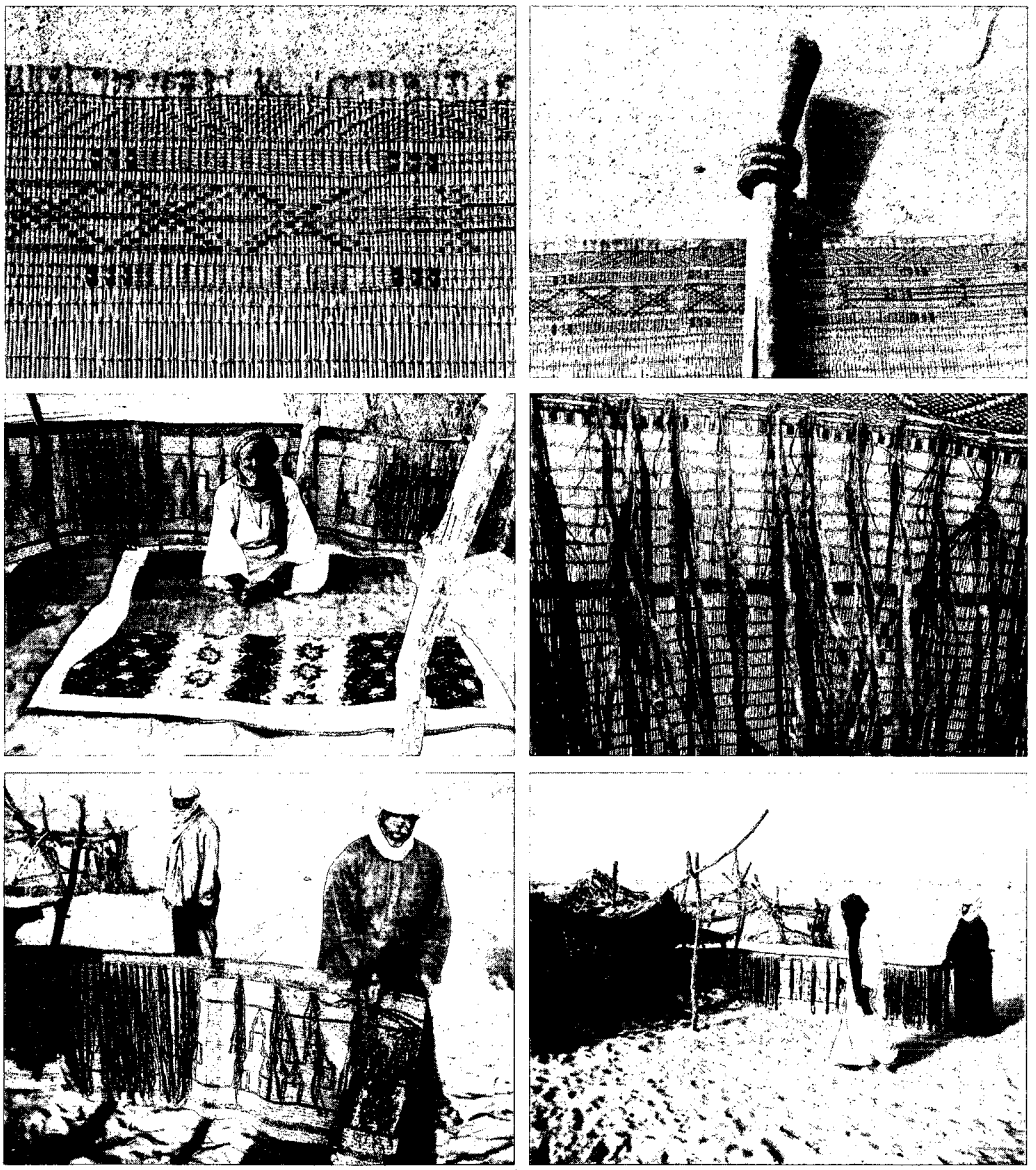
Old and new serving dishes and dish covers.



Old and new small kitchen utensils.



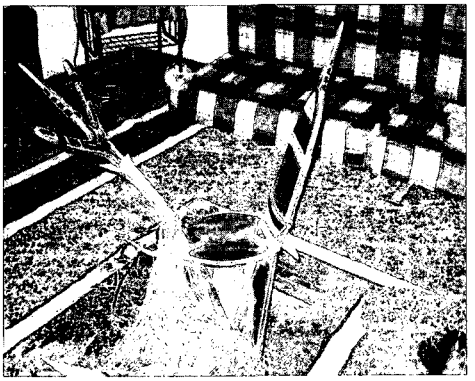
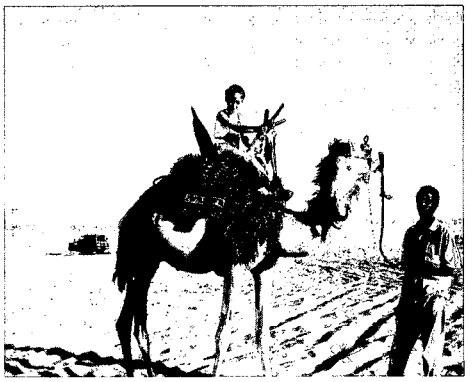
The portable iron hearth (*ka-noon*) and non-portable hearth (*imkhawel*).



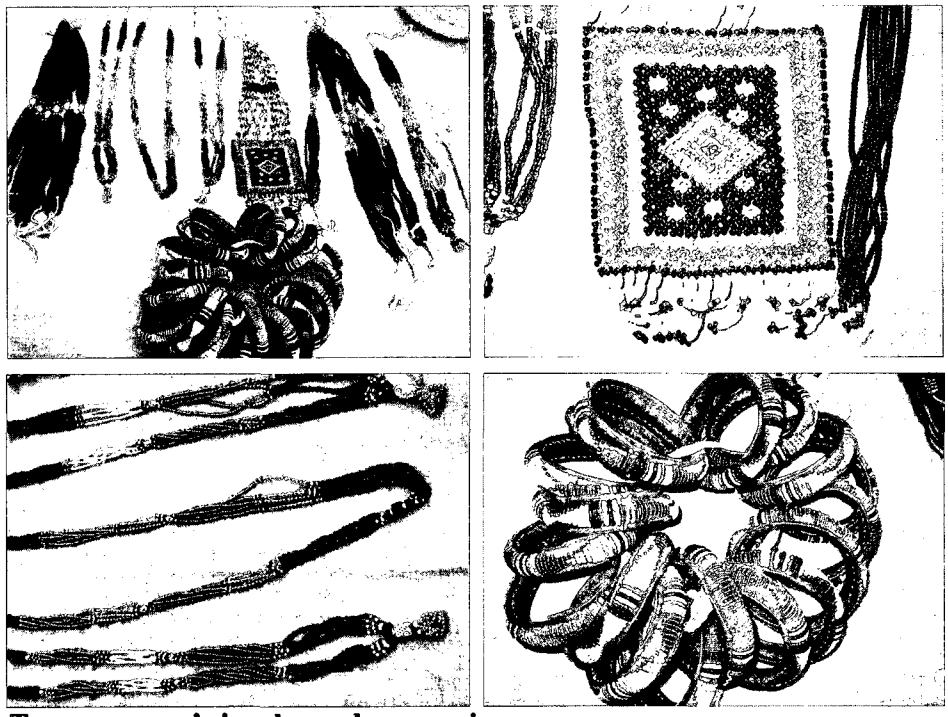
Decorated woven mats (*isebran*; singular *éssaber*).

Water and milk skin bags.

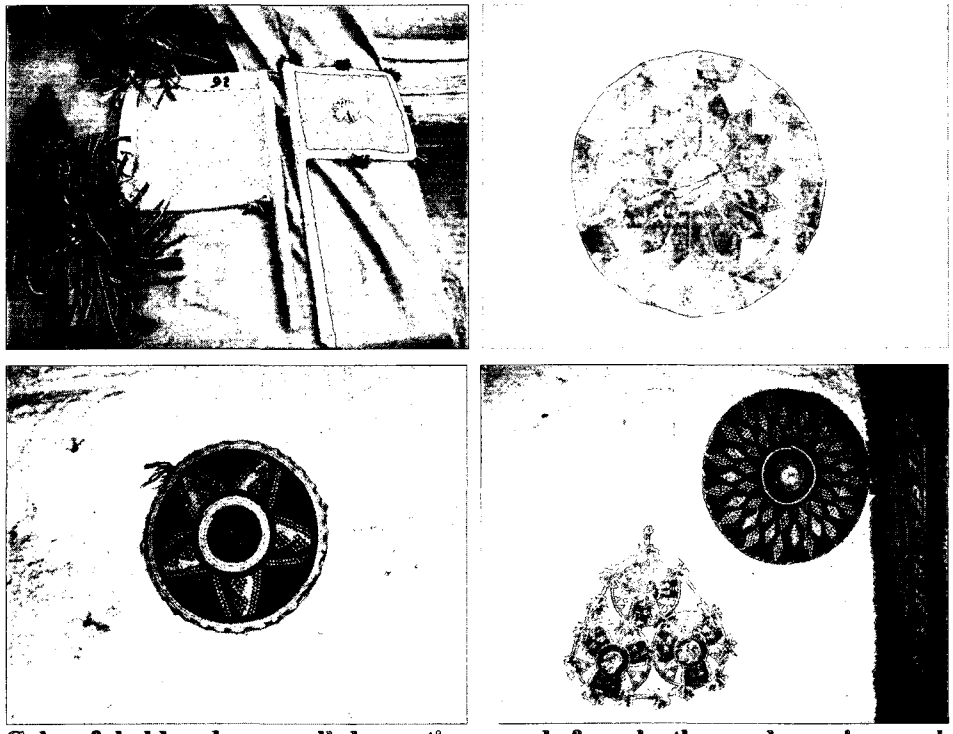
Old and new woven baskets, used for different purposes.

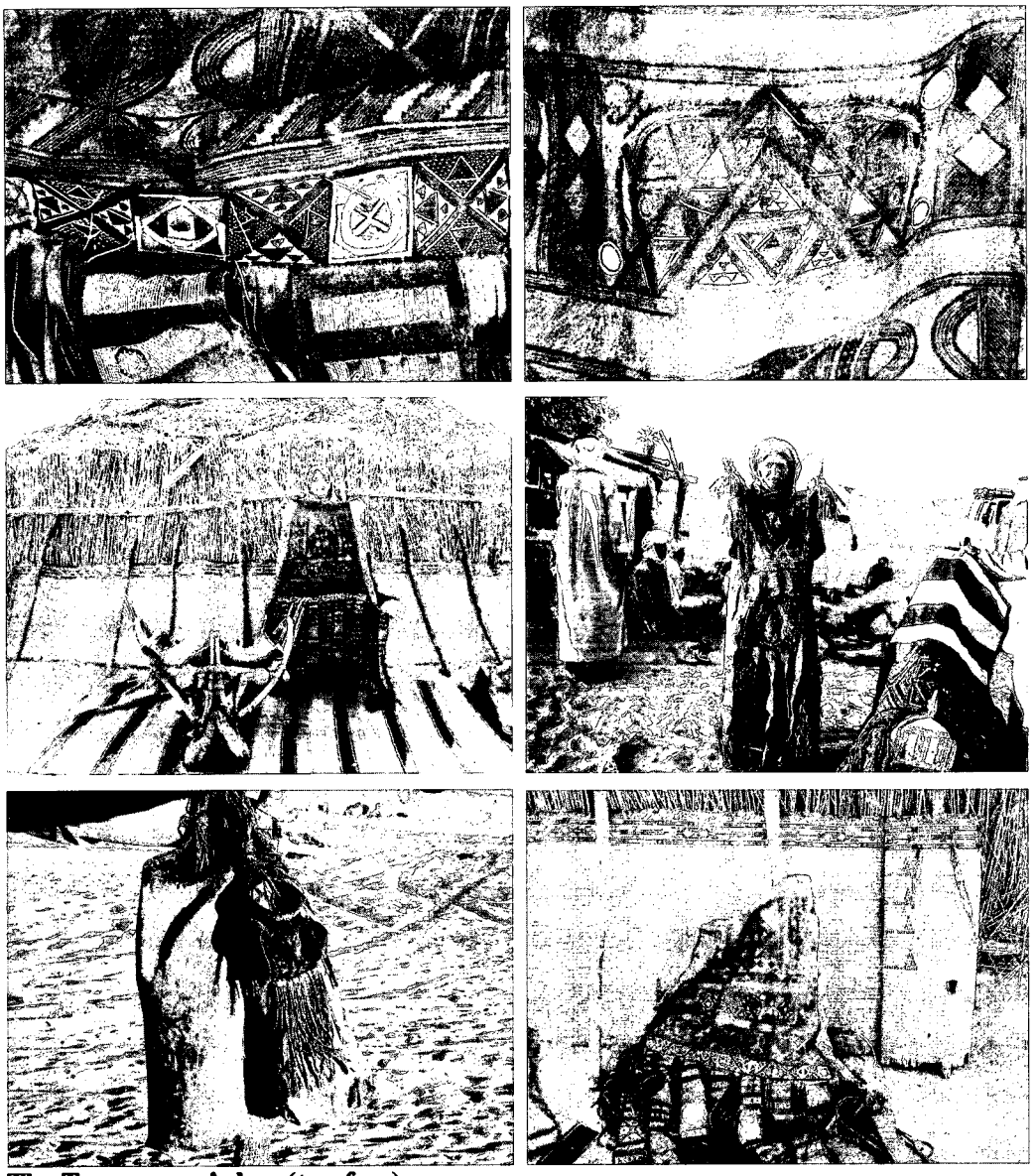
The saddle (*terek*).



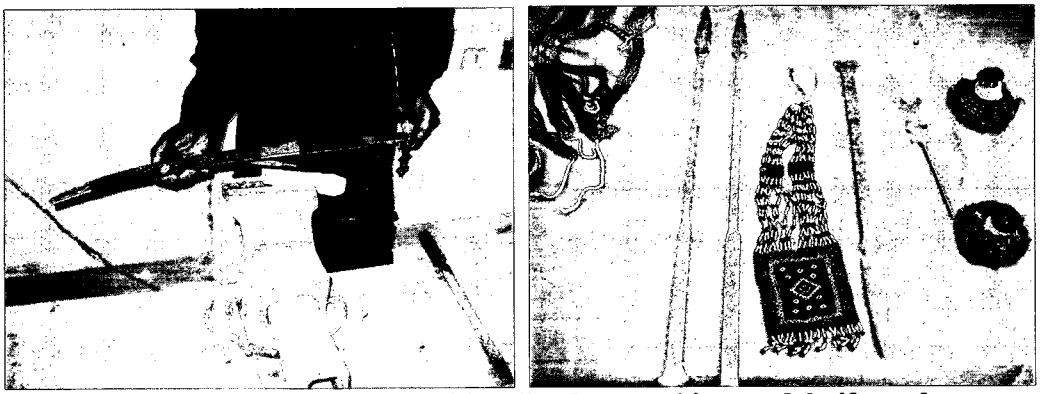
Tuareg women's jewelry and accessories.



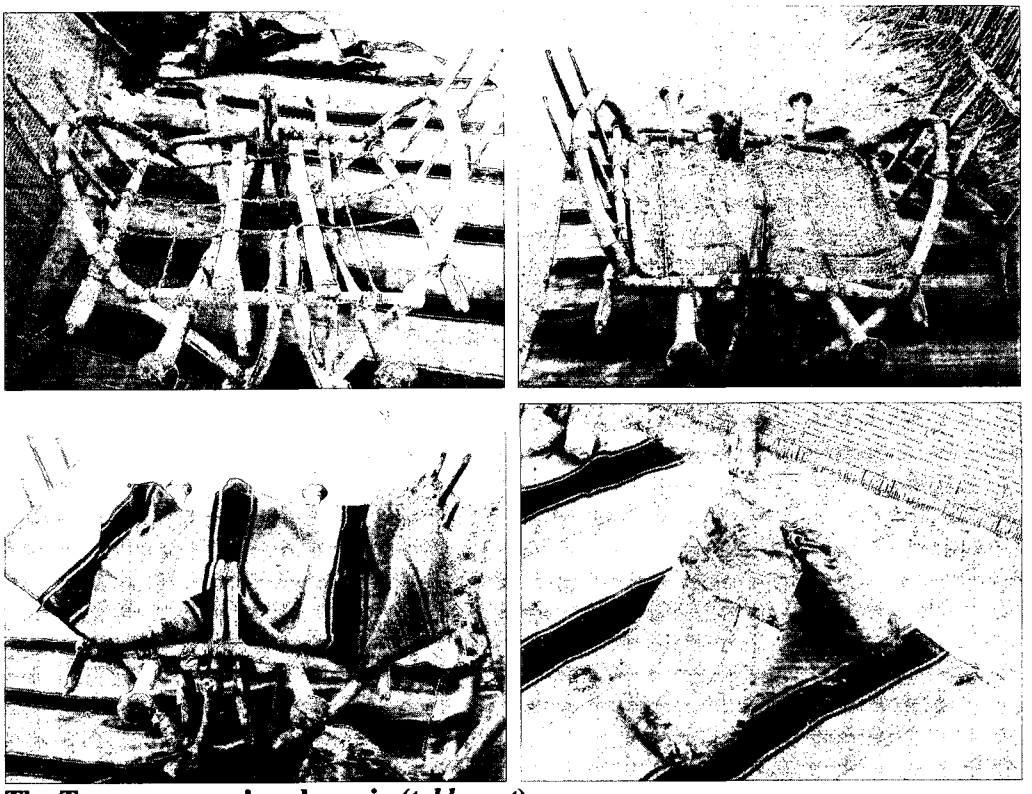
Colourful old and new wall-decorations, made from leather and weaving work.



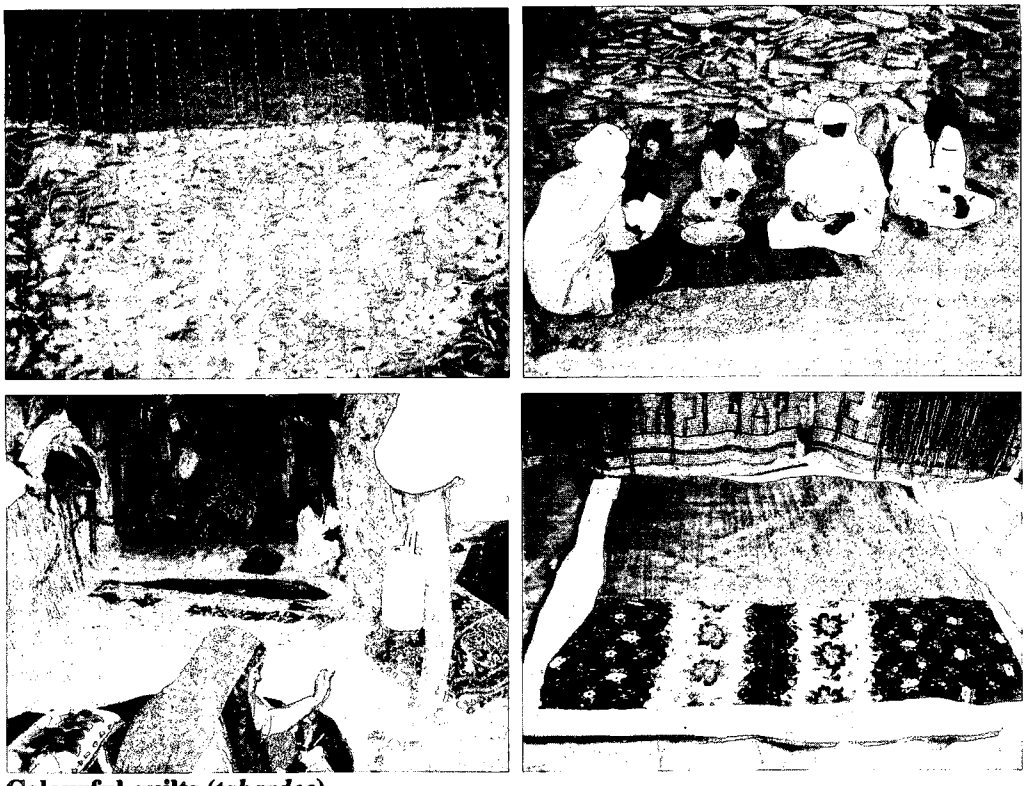
The Tuareg man's bag (*tasofraa*).



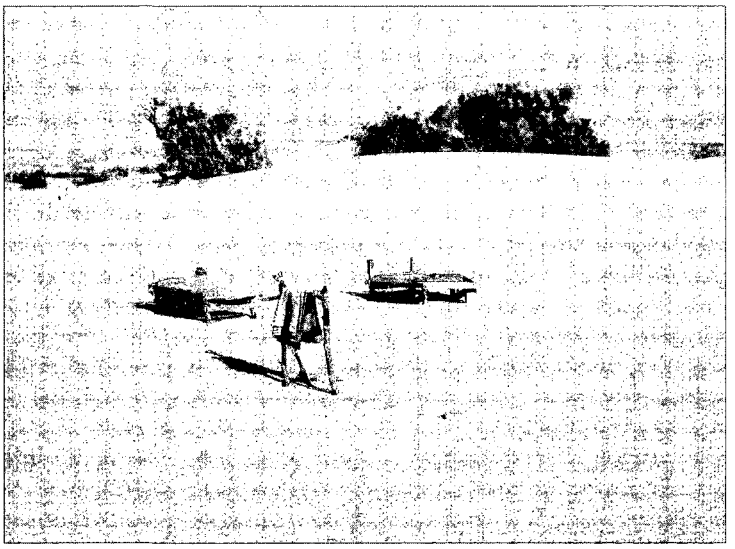
The Tuareg warrior's weapons: traditionally, these are his sword, knife, and spear.



The Tuareg woman's palanquin (*takhawat*).



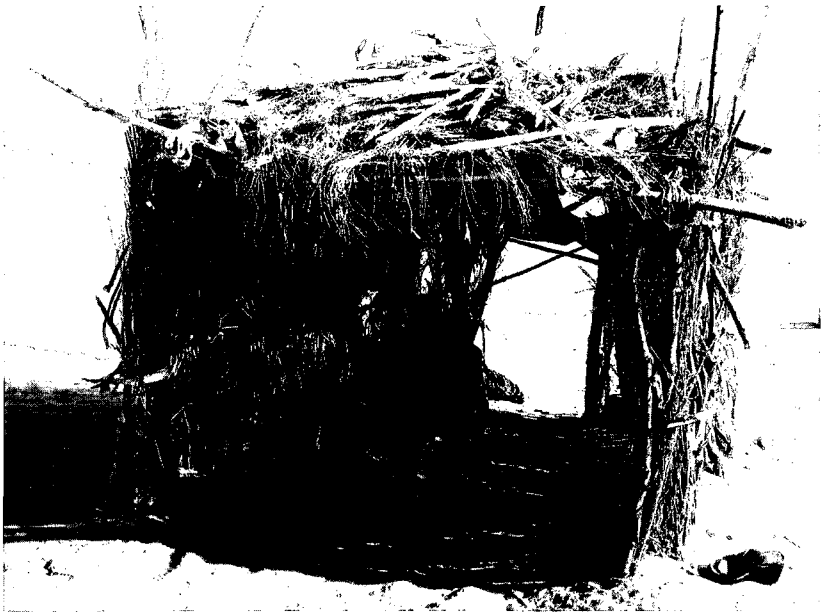
Colourful quilts (*tabardee*).



Rack (*ighaydan*) for hanging clothes and bed covers.

Appendix IX

Sunshades (*tafalkats*)



A small sunshade used for storing water and milk containers.

A large sunshade used as an outdoor seating area in hut dwellings.

Appendix X

Brief review of Despois' and Scarin's records of Tuareg huts in Fezzan

In *Géographie Humaine*, Jean Despois describes a type of hut found in Fezzan, referring to it as a *zeriba*. A *zeriba*, he says, is a dwelling built of palm tree leaves (called *jereed* in Arabic) and used by what he calls the 'arabisees du Sahara.' Despois points out that this type of hut is also termed *khoss* or *hoch* in some places.[2] He indicates that the *zeriba*, which is a cylindrical hut with a conical roof, is constructed by the settled *Imghad* Tuareg of Fezzan in Wadi Etba and in the Wadi Al-Ajal Al-Gharbi;[3] however, he does not specify the Tuareg tribe or group to which the *Imghad* belong.[4] He claims that this *zeriba* is intermediate in form between the Fezzanni *zeriba* dwelling model (which, based on his sketches, are rectangular and square huts attached to each other in order to form a dwelling unit) and the *eguef*, which were built in the areas around Ghat and Ghadames.[5]

Despois provides a description of the *eguef* [6] based on Scarin's account,[7] stating that it is circular in plan, 5-6 meters in diameter, with walls built of *diss* or *sbat* which are kept in place by the support posts. He adds that the *eguef* is covered with a conical roof and completed by a very spacious court (see appendix X A). Despois states that in Fezzan, the above-mentioned building materials are not available (*manqué*), and for this

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[2] *Khoss* is an Arabic word meaning 'straw hut.' According to Despois, it refers to the small hut size of 3m x 2m. Sometimes, he says, for example in Ashati area, this hut is built on the top of houses. He also claims that in Wadi A-Ajal the *khoss* became a permanent dwelling for the sedentary people, and its plan is reminiscent of that of a house. He does not specify who those people are and what type of house, but it is likely that the Fezzanni houses were built of mud. In other places, he says, including in Ashati area, Murzuk, Wadi Etba, and Al-Hofra Al-Cherguiya, the *khoss* becomes a more complicated type of housing given the name of 'house,' locally referred to as *bit* or *hoch*. In El-Gatroun, Tejerhi, Medrousa, and particularly in El-Bakhkhi, the *zeriba* is more elegant, vast, and more regular in plan, which Despois supposes is because its people originally lived in houses, and so built the *zeriba* in the same way. He also suggests that the low cost of building the *zeriba* is the reason for the enlargement in their construction. Despois, *Géographie Humaine*, 80-82.

[3] *Wadi* means 'valley' and *Al-Gharbi* means 'the west.'

[4] Despois, *Géographie Humaine*, 83.

[5] Despois does not state if they still owned them at that time or if they had deserted them and, if so, why. He also does not state the origin of the term *eguef*. According to all the Tuareg I interviewed, the term *eguef* is unknown to them as a dwelling typology, and the straw hut is called *tekabar* or *tekabart* in the Tuareg language, depending on their size. The Tuareg use the Arabic term *zeriba* to refer to straw huts, as equivalent in meaning to *tekabar* or *tekabart*. Even compound dwellings of huts have never been called *eguef* by the Tuareg.

[6] According to Scarin, this is spelled *eghef*. Scarin, "Insediamenti e Tipi di Dimore," 520.

[7] Ibid., 520-525.

reason are replaced by palm leaves. However, this statement contradicts his claim that the hut that he describes as covered with *diss* is located in the areas around Ghat, in Fezzan. Despois may have meant that this material was sparse in Gragra, in Wadi Al-Ajal, where the intermediate type of *zeriba* was built. He also claims that the *eguef* is to a degree similar to, although smaller than, the Fezzanni *zeriba* dwelling model (mentioned earlier); however, unlike the rooms of the Fezzanni *zeriba* dwelling model which, according to Despois' sketches, are rectangular or square, the *tekabart*[8] is small and circular.[9] Despois describes the Tuareg *zeriba* (the intermediate model) of Gragra as composed of "a small entrance court *ifergân* [*efarun*], one or two circular rooms [*tekabart*], a small room used as for storage (*ihân*), another room used as a kitchen (*akadiouen* [*ekadeone*]) and a meeting place" (see Appendix X B).[10]

There are two confusing uses of terminology in the above description. First, Despois uses the term *tekabart* to refer to circular rooms only, but without indicating their functions, whereas he refers to other utility rooms based on their functions. Based on my summer interviews with the Tuareg of Ghat, and as I stated in section 4.1, the term *tekabart* is used in their language to refer to small huts, while *tekabar* is used to refer to larger huts regardless of their shape (circular, rectangular or square) or use. In other words, the term *tekabart* refers to the hut itself as an architectural structure and a dwelling type. Second, Despois refers to the storage room as *ihân*; however, the Tuareg refer to the storage room as *esgofarr*.

Despois argues that the sedentary Tuareg rapidly adopted the construction methods of their 'new neighbours' (meaning their Fezzanni neighbours).[11] This appears to be true, based on my own observations in Ghat. The spatial organization, use, and spatial relationships of the indigenous *Azjer* Tuareg *zeriba* dwellings differ from those illustrated by Despois (the Tuareg's compound dwelling of detached cylindrical and rectangular huts (*tekabrayen*) will be explained next). However, I doubt that the kitchen was used as a meeting space, as Despois states, either for Tuareg or for Fezzannis. This is because in the

[8] Despois uses the term *tekabart* in his sketch to refer to the some rooms of the *eguef*.
[9] Despois, *Géographie Humaine*, 83, 84.
[10] Ibid., 84.
[11] Ibid.

Tuareg tradition it is considered shameful for the man to enter the kitchen, and also because the nature of cooking makes this place unsuitable for such a purpose.

Emilio Scarin provides a more structural description of the Tuareg round or cylindrical hut, based on an example of a dwelling used by the Tuareg of Ghadames. He notes that the hut consists of sixteen posts installed around the central post.[12] In summer 2006, I observed twenty posts being used in similar huts in Essaien, south-west of Ghat. It seems that the number of posts used in constructing this type of hut depends on the hut size and availability of building material.

Scarin also provides a geographic study of the settlements of Fezzan, including the distribution of the Saharan settlements of various ethnic groups and some of their distinct dwelling typology. He uses the 1936 census classification of Fezzan settlements as nomadic, semi-nomadic, and sedentary in his study (see Appendix X C).[13] This census classifies the nomadic settlements into Tabou and Tuareg, without considering the Arab nomadic tribes of Fezzan, which constitute a large portion of nomadic tribes. However, Scarin indicates that according to a 1936 census the true nomadic Arab tribes were classified as semi-nomadic (according to him, true nomads accounted for 667 of the total number classed as semi-nomadic, which amounted to 1511).[14] In his account of the Tuareg nomadic settlement in Serdless, Scarin focuses on what he classifies as their 'nomadic' temporary dwelling, which is the hut *caapanna* (in Italian) or *eghef* (in the Tuareg language, according to Scarin).[15] However, he does not provide any details in his brief, one-sentence reference to the skin tent, which according to him was used occasionally by those nomads living in huts when they went to pasture areas with their animals. He adds that the noble nomadic Tuareg used the skin tent more than the non-noble Tuareg, who rarely used it.[16] As a geographer, Scarin's description of the Tuareg hut is non-analytical, and inadequate from the architectural point of view, but he does provide simple illustrations of different examples of hut dwellings (see Appendix X A).

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[12] Scarin, *Les Oasi de Fezzan*, 112.

[13] Scarin, "Insediamenti e Tipi di Dimore," 517.

[14] Ibid., 529.

[15] Ibid., 520. See previous explanation about *eghef*.

[16] Scarin, "Insediamenti e Tipi di Dimore," 525. Scarin does not specify if those non-nobles were *Imghad, Iklan*, or others.

Scarin points out that the cylindrical hut found in the west of Fezzan should not be confused with those built in different forms (square and rectangular) around the major centers of Tanezzuft, Ghat, El-Barkat, and El-Feuat, which are owned by sedentary people, and "considered by the indigenous as a *zeriba*, and called by them *tekabart*."[17] However, he does not specify which groups are sedentary and which indigenous, or if the sedentary groups are Tuareg only or of mixed ethnicity. Furthermore, he does not provide a description of the types of hut built around major centers (namely, as mentioned above, Tanezzuft, Ghat, El-Barkat, and El-Feuat), or of the major differences between them. Based on my fieldwork in Ghat and its surrounding towns and villages, huts can be built not only as a compound type of dwelling, but also as single structures. The latter are usually built in the surrounding farms and are used for different purposes by the sedentary people. They are used for storage, as a barn in which to keep animals, at harvest time to shelter the family or workers, to host guests, or during the summer season as a refuge from the hot sun-dried mud brick dwellings. Those huts, in contrast to Scarin's statement, are built in different forms: cylindrical/circular, square, or rectangular. However, it could be the case that in the past the circular form was less common.

Scarin classifies the semi-nomadic hut settlements into those in Wadi Al-Ajal and those in Wadi Etba. He refers to two Tuareg groups, the *Imgrrghessan* and the *Managhasaten*, both of whom he classifies as semi-nomadic, who settled in huts along Wadi Al-Ajal and west of Ubari in Wadi Irauen. He states that those groups were classified as nomads in the 1936 census.[18] He adds that the huts of these groups are similar to those built by the nomadic Tuareg in the western areas of Fezzan; however, they are larger and imperfect, with some additions made of brick, which he refers to as *muratura* (in Italian). In some cases, the hut itself is *quadrangolare* (i.e., rectangular or square) rather than circular.[19] Scarin is not specific in his reference to the western areas of Fezzan, where were built huts similar to those of the *Imgrrghessan* and *Managhasaten* Tuareg groups, and he does not refer to a particular place or group in these areas, in which several different Tuareg groups lived. According to my 2006 summer fieldwork,

[17] Scarin spells *zeriba* as *zeribe* and *tekabart* as *tecabart*. Ibid., 526.

[18] Scarin does not clarify whether these people changed their way of life from nomad to semi-nomad, or whether this was a mistake in the census.

[19] Scarin, "Insediamenti e Tipi di Dimore," 533.

huts in Ghat and its surroundings, and along Wadi Tanezzuft, can be rectangular, square or circular in shape, or a combination of these, such as the compound hut-dwelling in Essaien, which I examine in detail later in this section.

Moreover, Scarin maintains that in Wadi Etba the semi-nomadic *Ten El-Koum* Tuareg lived in a similar settlement built by what he mistakenly classifies as the nomadic Tuareg of Wadi Tanezzuft (in the south-west of Fezzan).[20]

While I agree with Scarin that huts are used by sedentary and semi-nomadic Tuareg, I disagree with his classification of these as a nomadic typology also used by nomadic Tuareg, since the duration of use for these huts was between one and two years, as Scarin himself indicates.[21] In addition, it is important not to overlook the fact that nomadic Tuareg in Ghat have always used skin tents, rather than huts, as their dwellings, because they are constantly on the move. Scarin maintains that he saw the skin tent used only by *Azjer* Tuareg in Algeria and around the Ghat oasis.[22] Based on my summer interviews in Ghat, the Tuareg huts along Wadi Tanezzuft and in Ghat, El-Barkat, and El-Feuat have always been used by semi-nomadic pastoral Tuareg and by the urban and rural sedentary people in their farms, but not by nomadic groups. This is the case regardless of the architectural form of hut dwellings, or construction similarities and differences with those described by Scarin in the north and north-east of Fezzan. This fact further weakens Scarin's argument that the hut is a nomadic dwelling typology used by the nomadic Tuareg of Wadi Tanezzuft.

More support for my argument can be found in the scope of Scarin's studies of the Libyan Sahara, which focus mainly on the northern areas of Fezzan region. At that time these areas were under the control of the colonizing Italian government, unlike the south-west (where the oasis of Ghat and its surrounding villages are located), where the Tuareg enforced more control over their land. In order to control the nomads in the northern areas of Fezzan, and as part of their colonizing scheme, from the early 1930s the Italian government encouraged nomadic groups to settle in particular localities.[23] This might

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[20] Ibid.
[21] Ibid., 524.
[22] Scarin, *L'Insediamento Umano nella Libia Occidentale*, 95.
[23] Scarin, "Insediamenti e Tipi di Dimore," 520.

have eliminated the use of the skin tent by nomadic people in these areas, and may have led to Scarin's incorrect classification of the hut as a nomadic dwelling.

I also find Scarin's use of the term 'village' in his reference to some dispersed semi-nomadic (or, as he classifies them, nomadic) Tuareg hut dwellings[24] to be inaccurate, since according to their tradition and way of life, nomadic and semi-nomadic Tuareg never lived in villages. What Scarin describes as a nomadic Tuareg village of 20 huts dispersed and extended for several kilometers along the base of valley lacks the spirit of a village. This is basically a collection of scattered dwellings without any particular layout plan, organization of dwellings, or collective non-residential services or structures such as markets or mosques, which could give it the character of village. While close relatives may live in small agglomerations in the same area, dwellings are always built at some distance from each other.

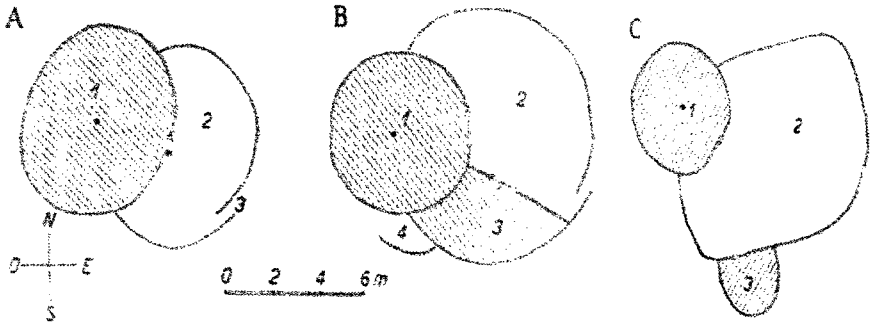
As a geographer, Scarin does not consider the role of culture in his description of the Tuareg hut dwellings. His analysis is also largely insufficient from an architectural point of view, as is the case in his brief reference to the *Azjer* Tuareg tent. Scarin provides a good general portrayal of the cylindrical conical-roofed hut's physical components and structure; however, his account ignores, among other things, structural and architectural terminology specific to the Tuareg, and he does not provide an interpretation of structural and spatial meaning, or analytical documentation of the use and organization of space or of furniture.

The literature indicates that round or cylindrical huts with conical roofs were known long ago in Libyan history. Oric Bates dates the use of cylindrical huts in North Africa back to antiquity, and indicates that these types of huts were used by the ancient Eastern Libyans.[25] This type of huts seems to be unusual in Ahaggar in neighbouring Algeria, but is common among the sedentary agriculturists within the Southern Tuareg territories. It is not found among the pastoral Tuareg of this large region.[26] This could indicate that this type of hut was transferred to the south by the Libyan Tuareg during their migration, and that this form was later adopted by the Tuareg of the south, as is the case for the *derb* dwelling mentioned earlier. This claim is supported by evidence

[24] Ibid., 527.
[25] Oric Bates, *The Eastern Libyans* (London: Macmillan, 1914), 169.
[26] Johannes Nicolaisen and Ida Nicolaisen, *Pastoral Tuareg*, vol. 1, 418, 422, 423.

described in my historical review which suggests that the Tuareg, as a Berber group, immigrated from the north to the south

As I stated earlier, straw huts are built and used by semi-nomadic and sedentary rural and urban *Azjer* Tuareg. Based on my 2006 fieldwork, straw huts are built as both single and compound huts. The compound huts mix two forms: the cylindrical hut, with its conical roof, and the rectangular or square hut. According to the *Azjer* Tuareg to whom I spoke in Ghat, in the past only the pastoral vassal Tuareg used the straw hut, while their masters, the noble Tuareg, used the skin tents. However, later the noble Tuareg began to use the straw hut during the summer.[27]



A. Nomadic Tuareg huts (*eghef*) located 7 km from Serdless. Reproduced from Scarin (1937b, 522).

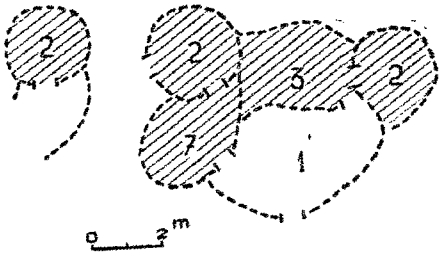
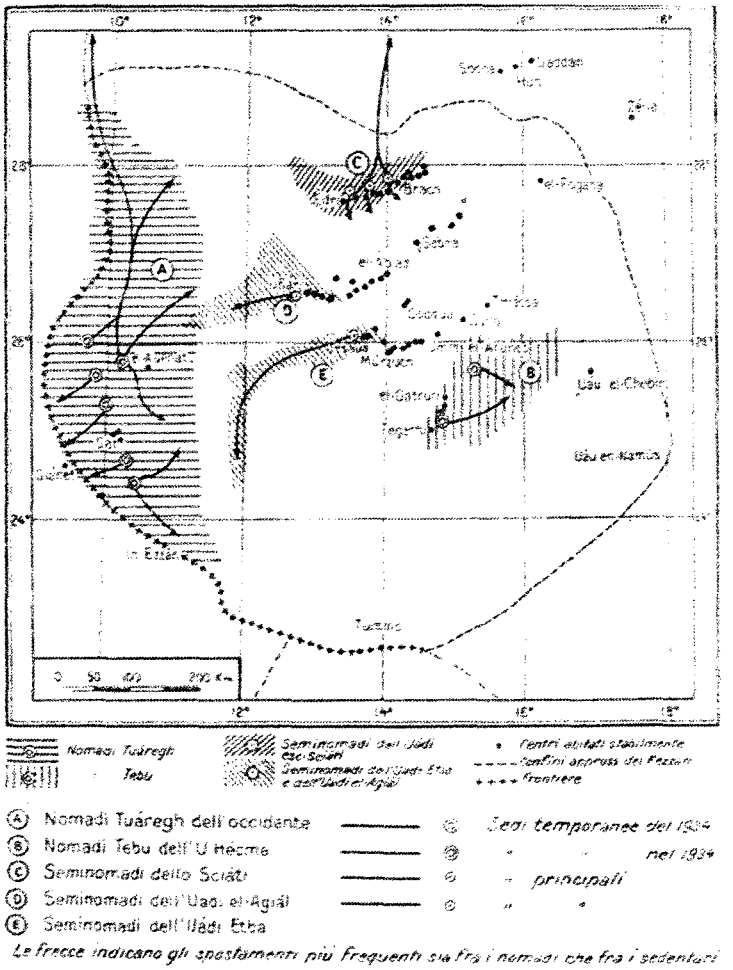


Fig. 17. — *Zeriba touareg (takabart) à l'est de Gragra (O. el Ajal)*
1 : cour d'entrée (ifergân); 2 : chambre (takabart); 3 : cuisine (akadiouen); 7: remise (ihân). A gauche : takabart élémentaire.

B. Tuareg *zeriba* in Gragra, in Wadi Al-Ajal. Reproduced from Despois (1946, 84).

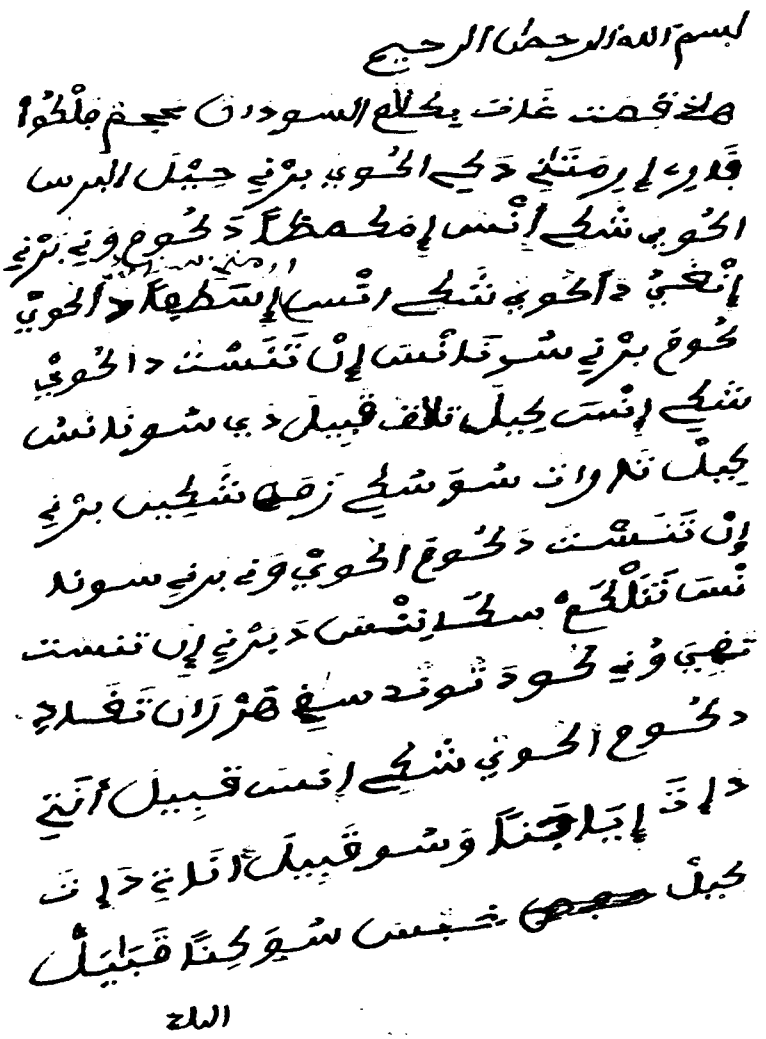
[27] The skin tent is much hotter than the hut during the summer season.



C. Classification of Fezzan settlements into nomadic, semi-nomadic, and sedentary.
Reproduced from Scarin (1937b, 519).

Appendix XI

Manuscript of "Kesat Belad Ghat Bekalam Al-Soudan."



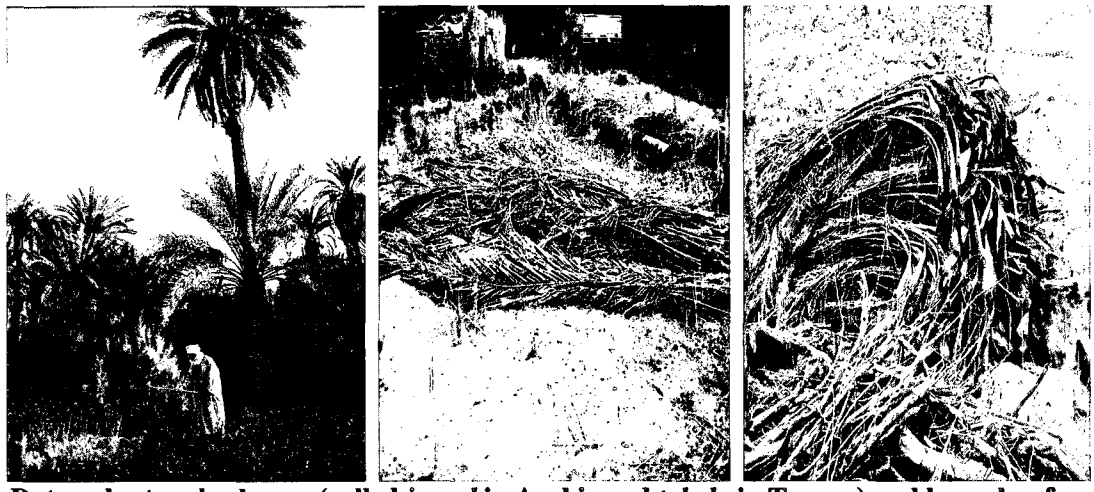
A copy of the first page of a manuscript of 86 pages telling the story of the establishment of Ghat, written by Haj Othman Ben Omar Al-Ghati, in Hausa (1879).
Reproduced from Othman Ben Omar Al-Ghati.

Appendix XII

Natural building materials used in the town of Ghat

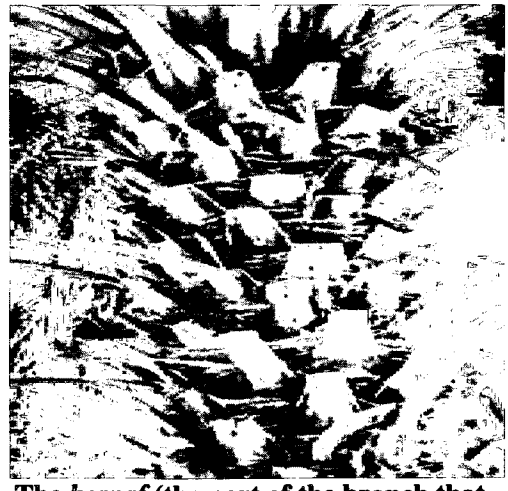
The *barambkh* (*Calotropis Procera*).

The *athel* (*Tamarix Articulata*).

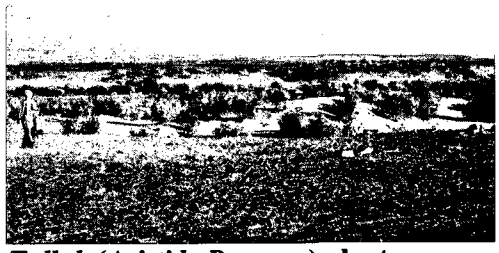


Date palm trunks, leaves (called *jereed* in Arabic and *takola* in Tuareg) and branches from the leaves (in Arabic *al-karb* and in Tuareg *takart).*

The *asen*.

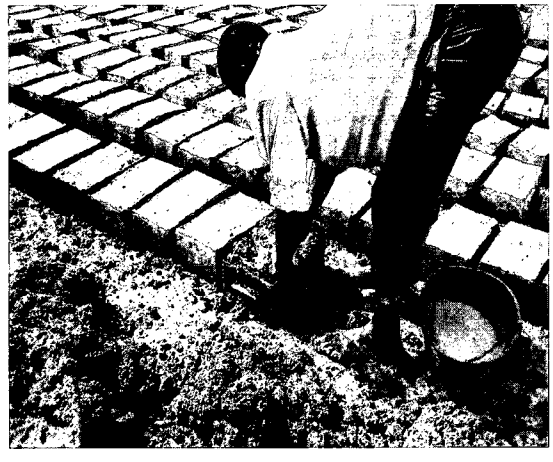


The *kernaf* (the part of the branch that remain on the palm tree after cutting).



Tullult (*Aristida Pungens*) **plants.**

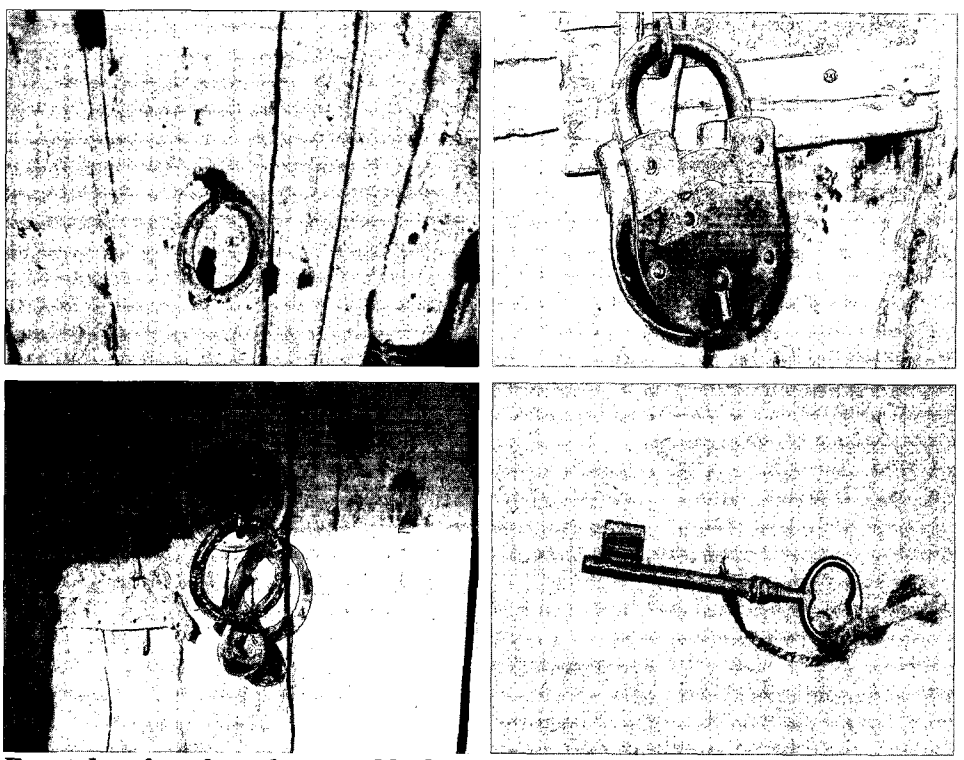
Diss (*Imperata Cylindrica*).



Sun-dried mud bricks.

Appendix XIII

Ghat dwelling accessories



Front door knockers, keys, and locks.

Appendix XIV

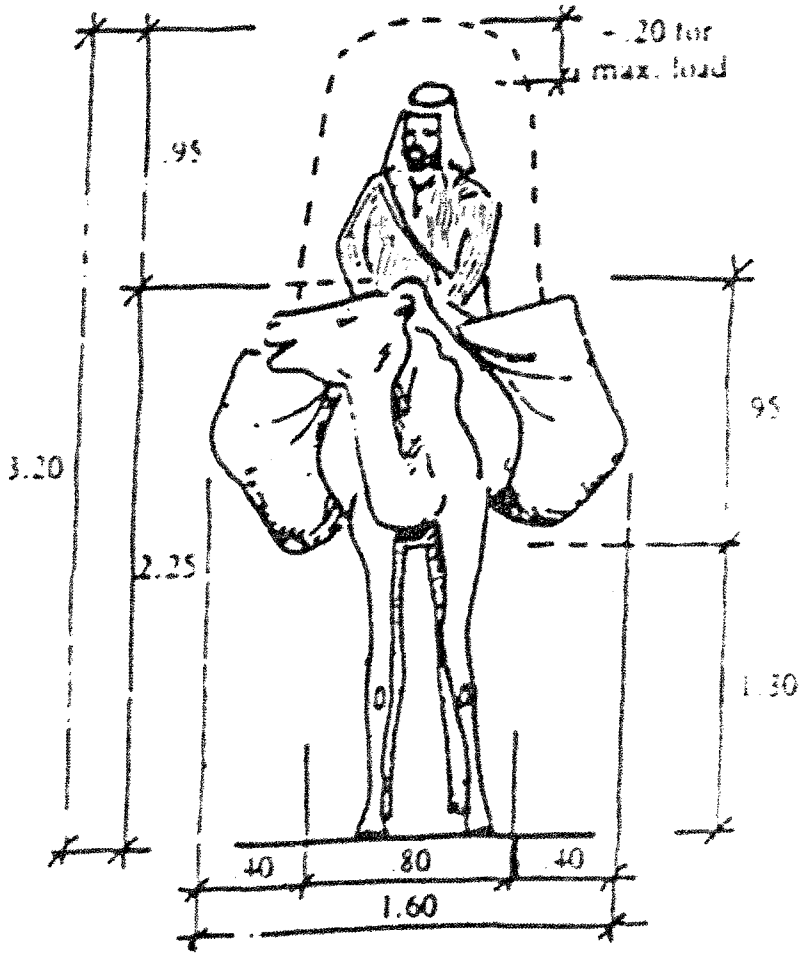
The total area of Old Ghat and its neighbourhoods

Name	Surface			Houses
	Total	of constructions	of streets, squares etc.	
Kel Kalâla	m^2 9900	(9200	+ 700)	34
Kel Tafghâghet	m^2 6300	(5700	+ 600)	30 (plus shops, Muni-
				cipality and Mosque)
Kel Egef en Kêna	m^2 5400	(4900	+ 500)	14 (plus RR. CC building)
Kel Aghrem Wesharân	m^2 5300	(4880	+ 420)	10
Kel Abaraq. n ez.	m^2 5150	(4750	+ 400)	19 (plus Mosque)
Scet Turîrt	m^2 4100	(3800	+ 300)	19
Tamalgât in K. Khabsa	m^2 3500	(3200	+ 300)	21
Kel Abanâgh	m^2 3300	(2800	+ 500)	22
Kel Tekadût	m^2 2250	(2000	+ 250)	15
Kel Bab el Khêr	m^2 2050	(1850	+ 200)	13 (plus ruins)
Kel Eshelî	m^2 1400	(950	+ 450)	10 (plus Mosque)
Aghalad ne scet tb.	m^2 1250	(1100	+ 150)	10
Aghalad ne scet Omar.	m^2 1200	(1100	+ 100)	4 (plus ruins)
Kel Ghalad n el. Omar	m^2 630	(570	+ 60)	4
Tafôk n Abarâg'	m^2 600	(450	+150)	2 (plus Mosque)
Kel Tin Taklîl	m^2 320	(320	+ 0)	(unhabited and destroyed)
Total	$m^2$52.650	(47.570	+5080)	227

A table by Emilio Scarin indicating the total area of Old Ghat and its neighbourhoods, based on his 1932 and 1934 surveys. Translated by the author.
Adapted from Scarin (1937c, 28).

Appendix XV

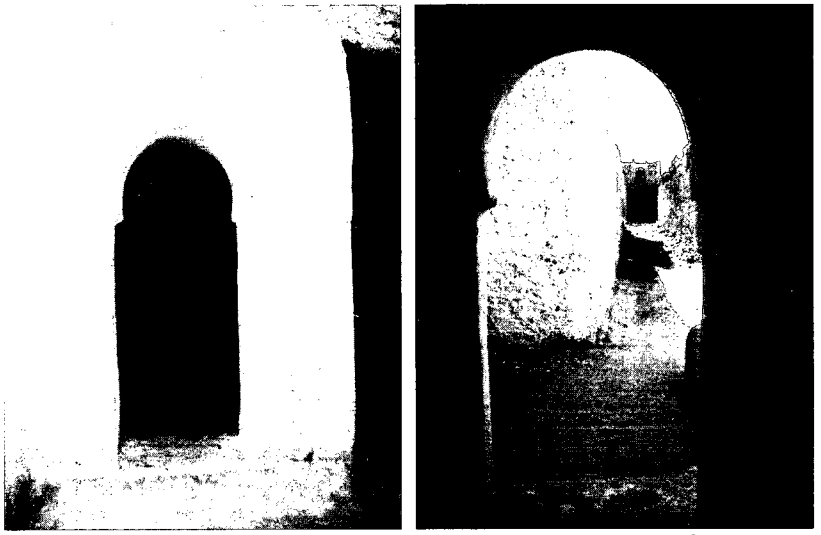
Dimensions of the Arabian camel used in designing the streets of Arab towns



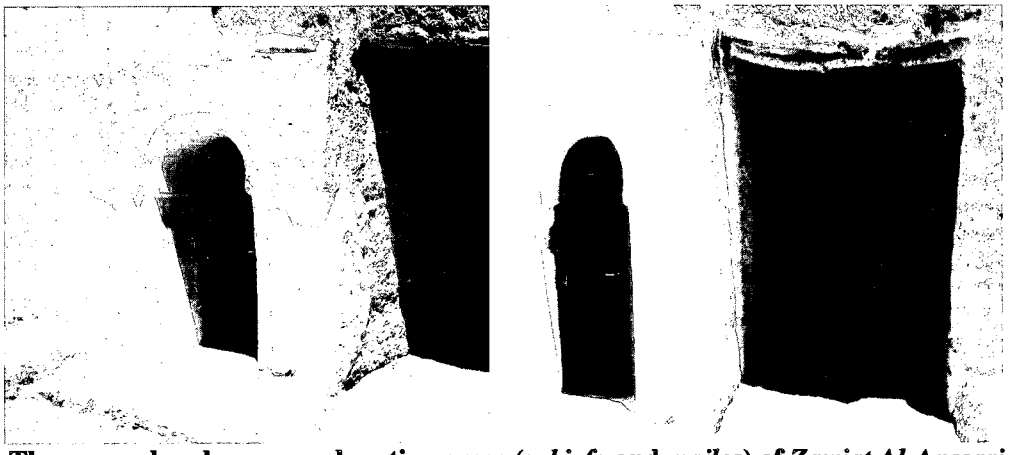
An illustration by Helal Alwaz showing how in Arabic towns the street width and standards are built with consideration for the maximum horizontal and vertical dimensions of a mature Arabian camel, fully loaded on both sides.
Reproduced from Alwaz (1995, 18).

Appendix XVI

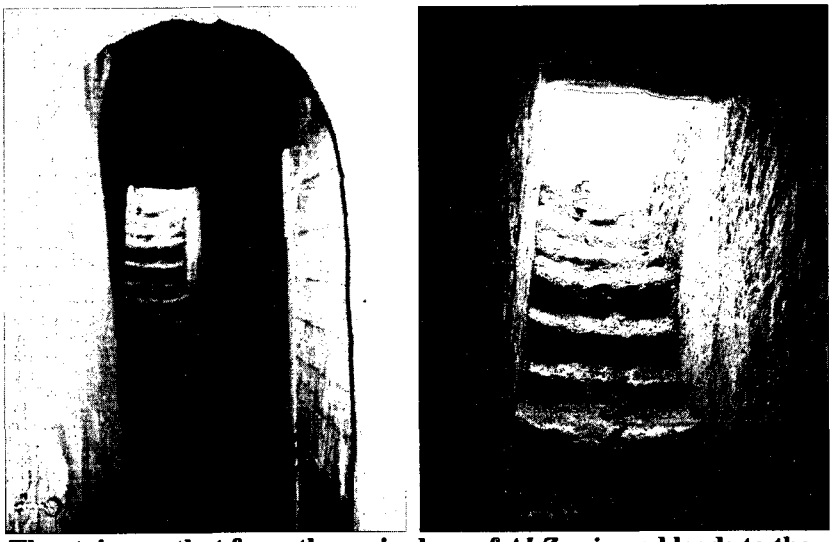
Zawiat Al-Amin Al-Anssari (*Al-Zawia Al-Sanussia*)



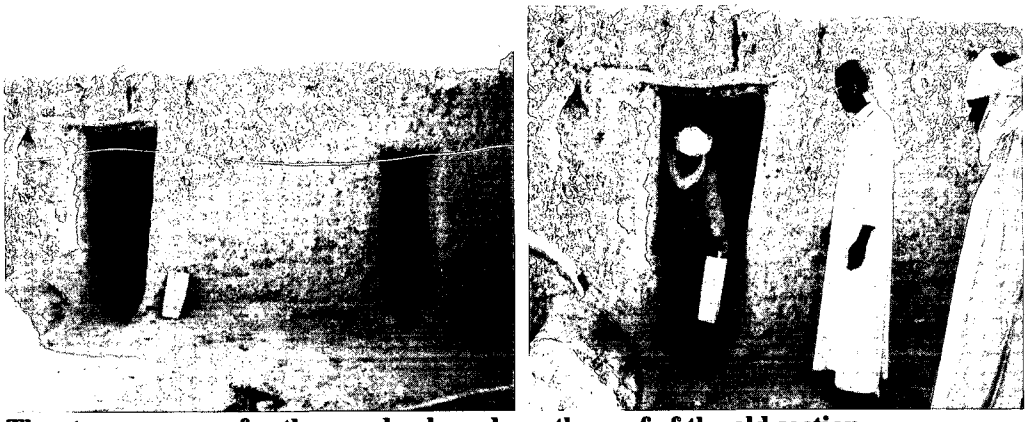
The main entrance of *Al-Zawia* facing the western gate of the town.



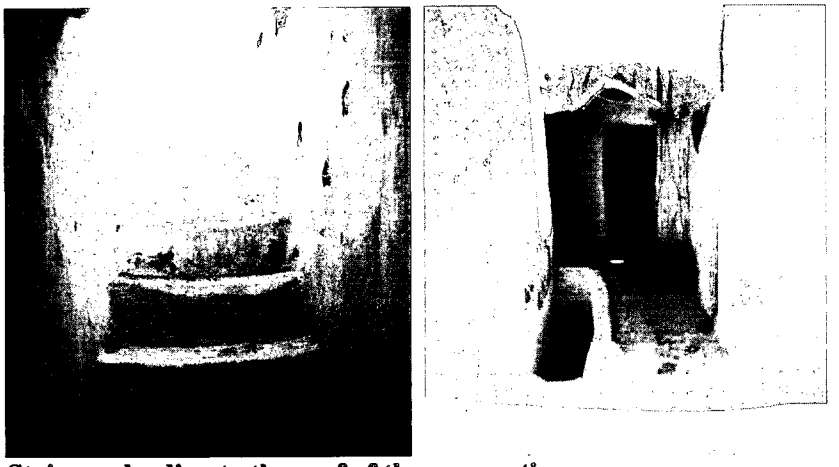
The covered and uncovered seating areas (*sakiefa* and *majles*) of *Zawiat Al-Anssari*.



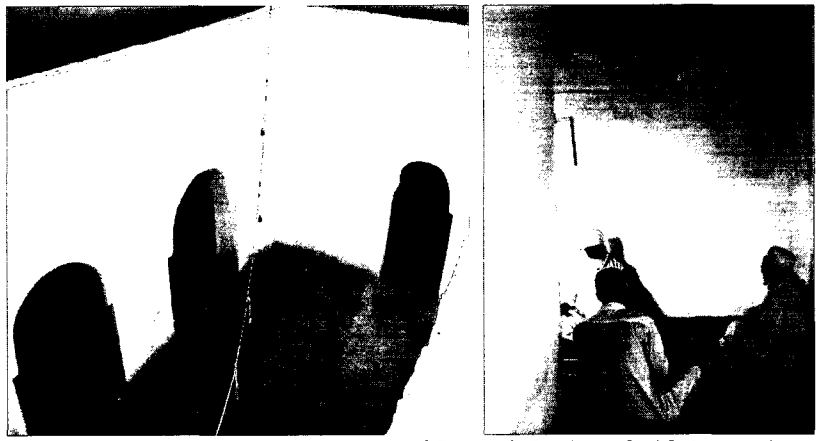
The staircase that faces the main door of *Al-Zawia* and leads to the roof of the old section.



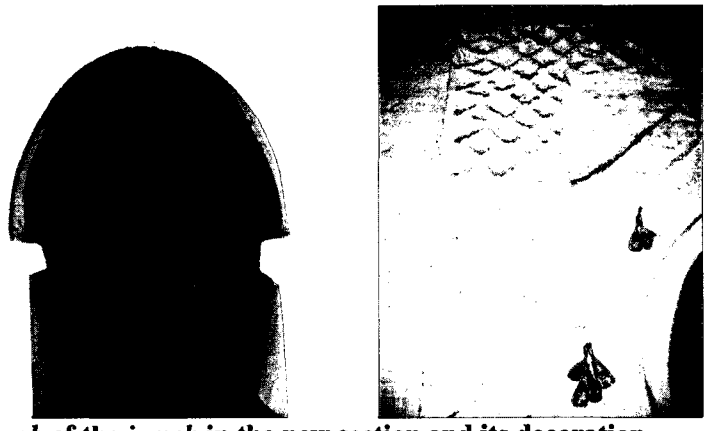
The storage rooms for the wooden boards on the roof of the old section.



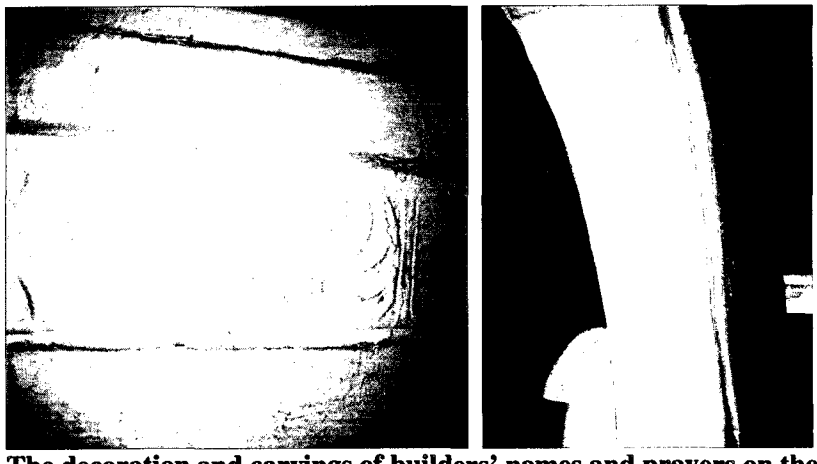
Staircase leading to the roof of the new section.



The inner court and carpeted corridors of the *jameh Al-Anssari* in the new section.



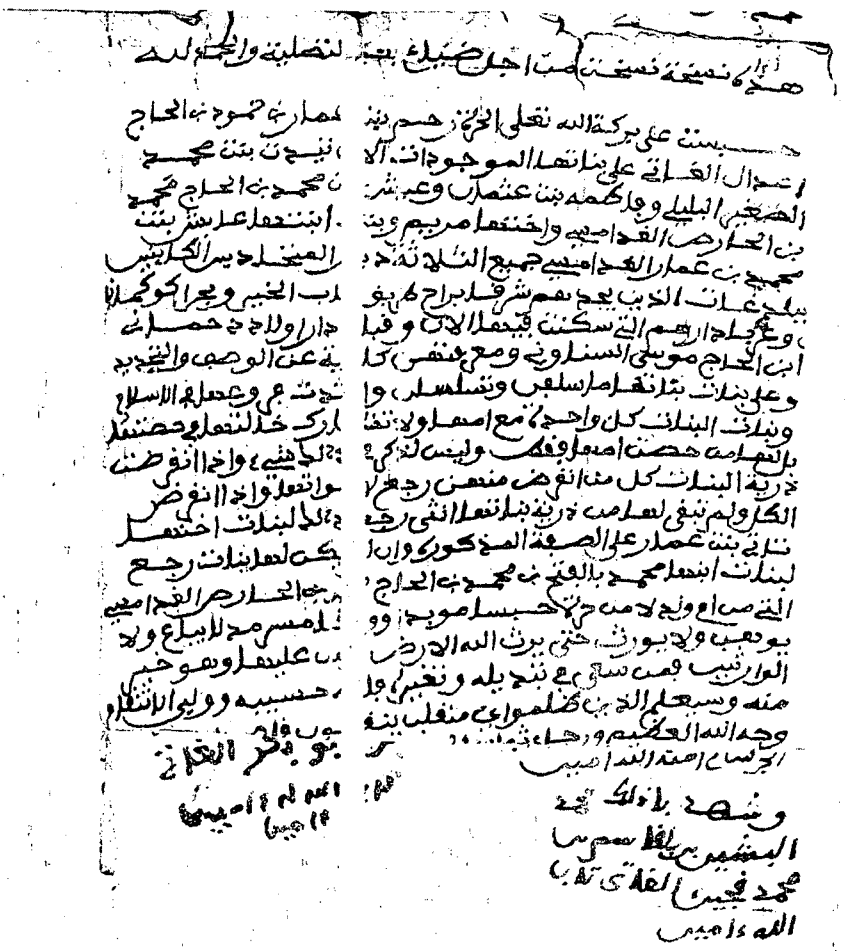
The *mehrab* of the *jameh* in the new section and its decoration.



The decoration and carvings of builders' names and prayers on the walls and arches of the *jameh* in the new section.

Appendix XVII

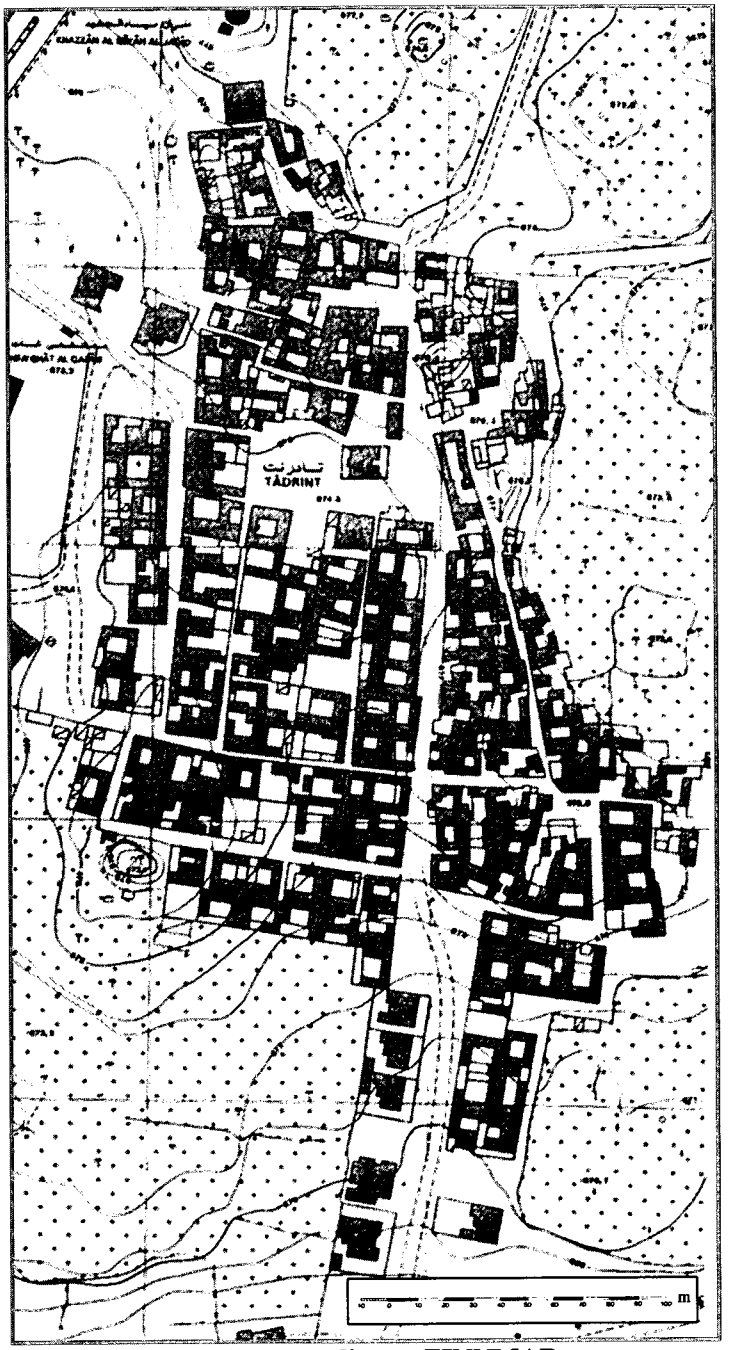
Hebs manuscript



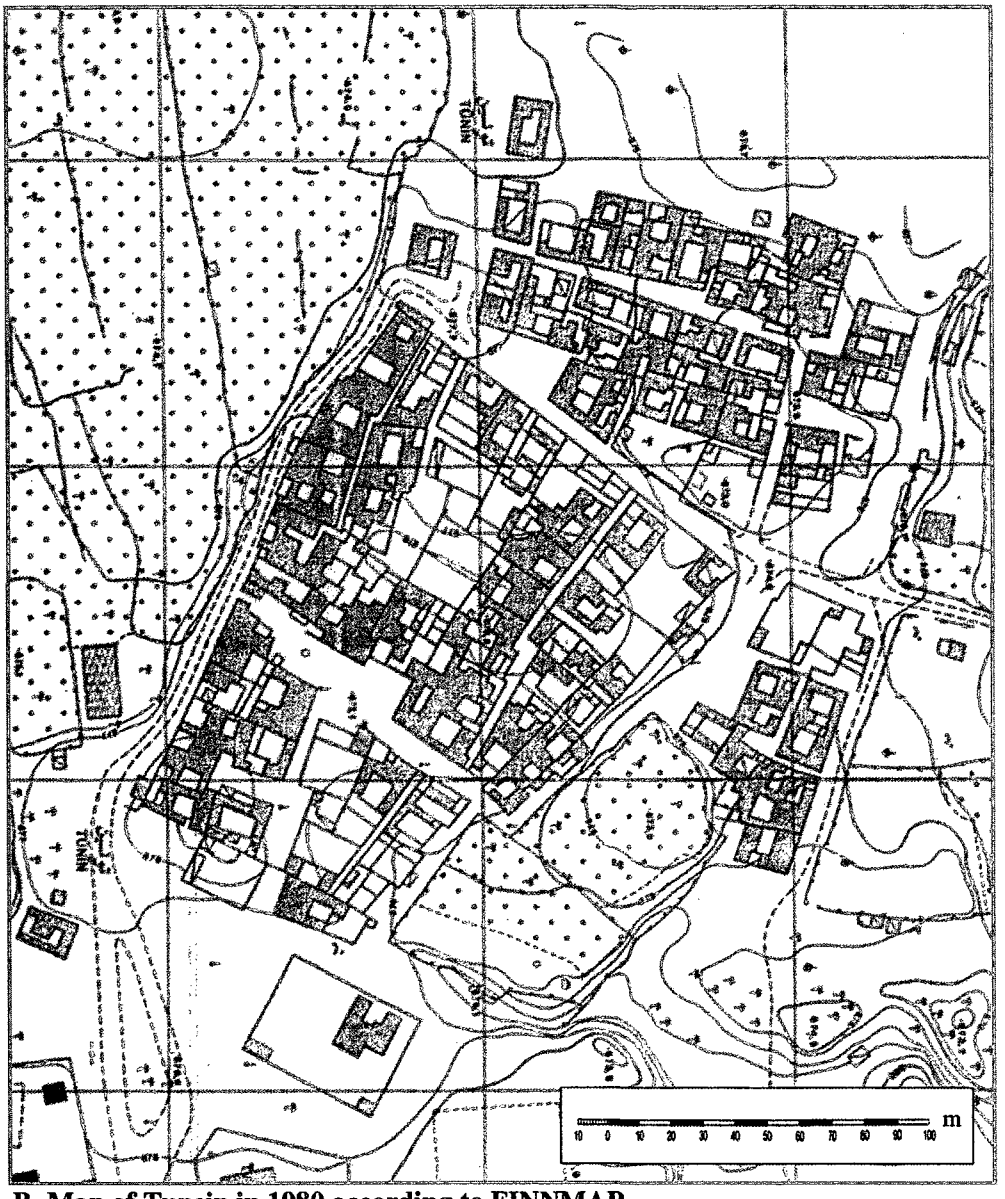
A copy of an original *hebs* manuscript owned by Al-Sanussi Goudya. Reproduced by permission from Al-Sanussi, from his personal collection.

Appendix XVIII

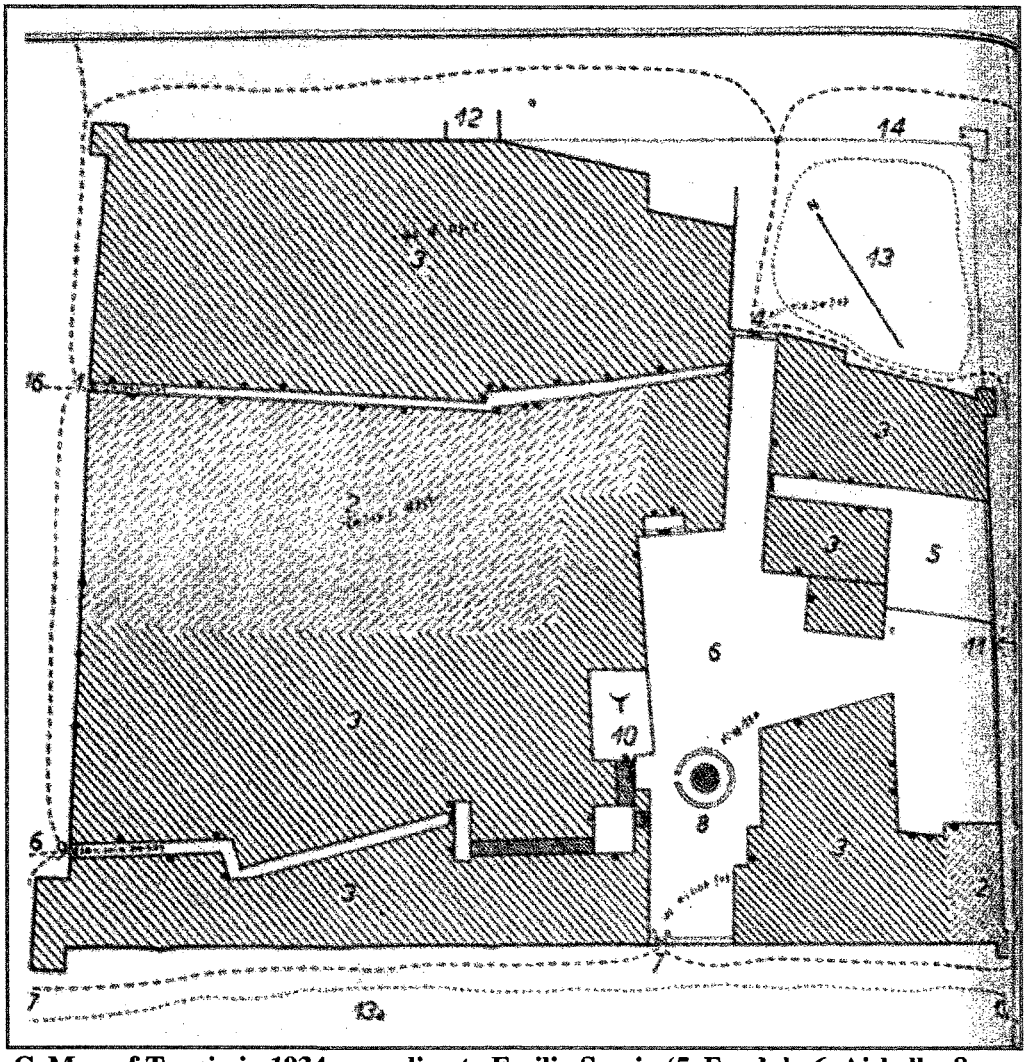
Maps of Tadrumt and Tunein



A. Map of Tadrumt according to FINNMAP.
Reproduced from the Surveying Department of Libya (1984).



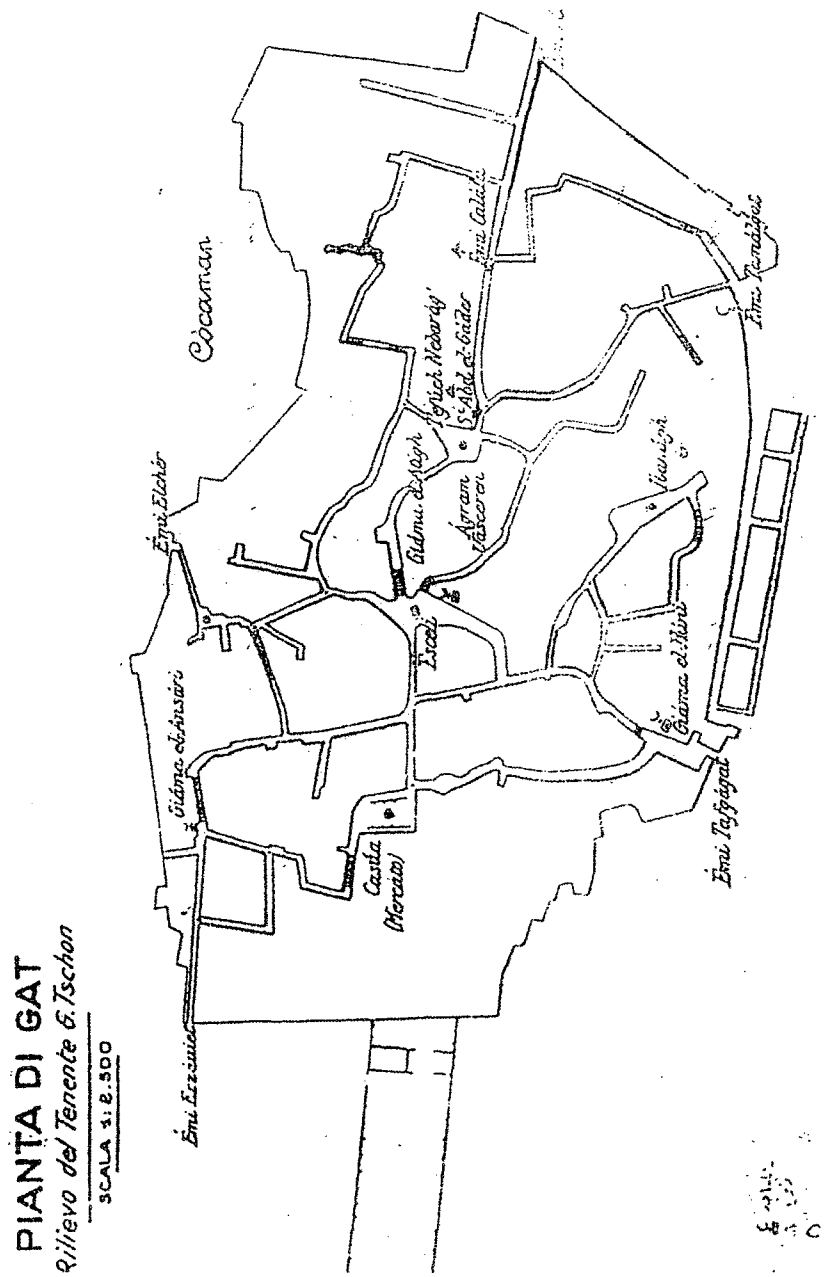
B. Map of Tunein in 1980 according to FINNMAP.
Reproduced from the Surveying Department of Libya (1984).



C. Map of Tunein in 1934 according to Emilio Scarin (5. Fonduk, 6. Aishelly, 8. Main well, 10. Mosque).
Reproduced from Scarin (1937c, 42).

Appendix XIX

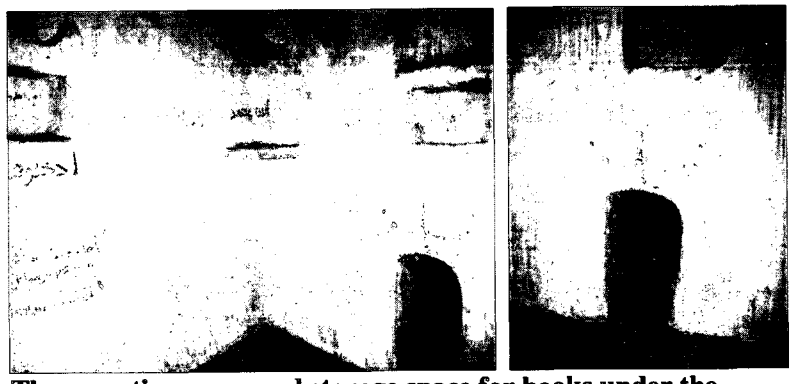
Layout plan of Ghat by Italian Lieutenant Giuseppe



Appendix XX

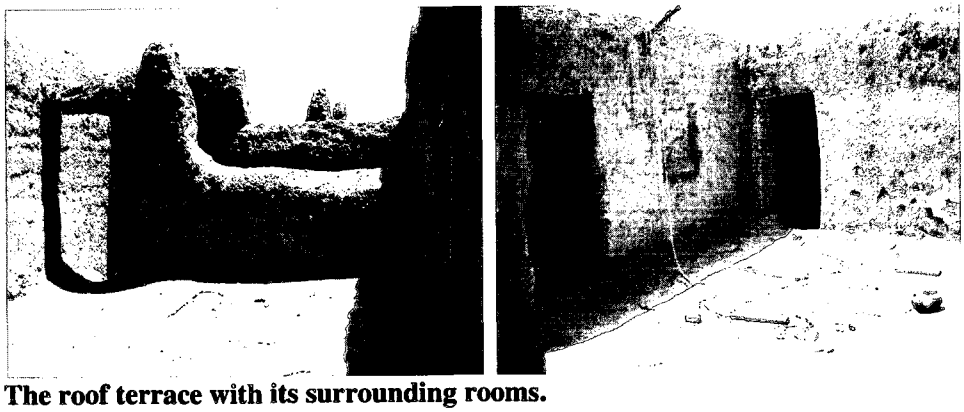
Photographs of the surveyed dwellings in the Old Town

A. Haj Mohammed Danda's family house in *Tamalghat* neighbourhood.



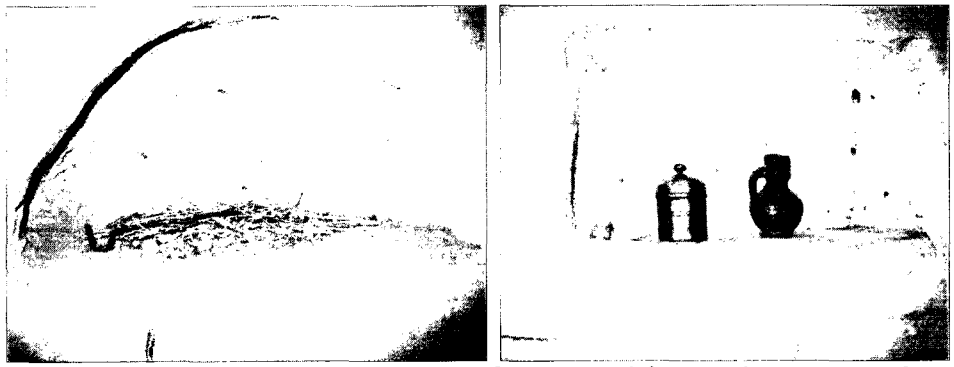
The reception room and storage space for books under the staircase leading to the roof.

The courtyard and the staircase leading to the roof.



The roof terrace with its surrounding rooms.

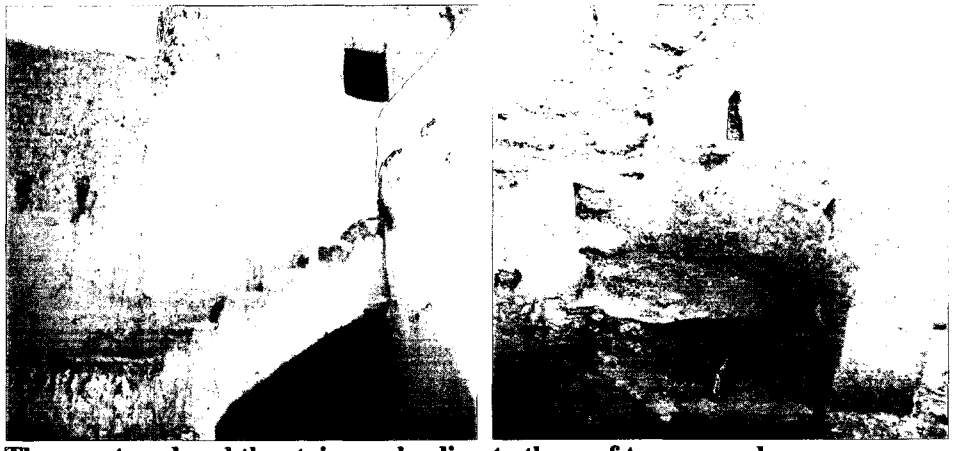
B. Haj Mohammed-Al-Mahdi Basheer Abd Elhameed's house in *Tamalghat* neighbourhood.



Alcove (*al-kokee*): The alcove on the left is located in the shower; the alcove on the right is the common shape found in all rooms of the dwelling.

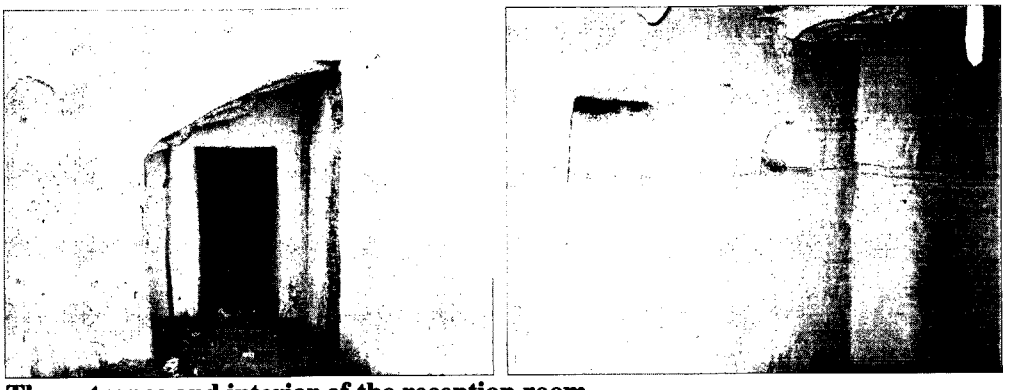
The courtyard and the roof terrace.

C. Kalthoum Abderazeq's house in *Bab Al-Khair* neighbourhood.



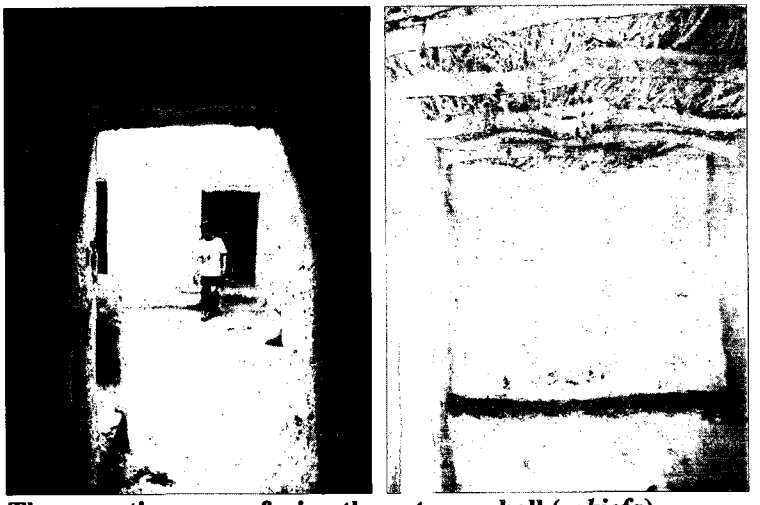
The courtyard and the staircase leading to the roof terrace and rooms.

A few steps on the left and right of the north end of the courtyard: the first leading to the latrine and the second to the shower room (both rooms face south).



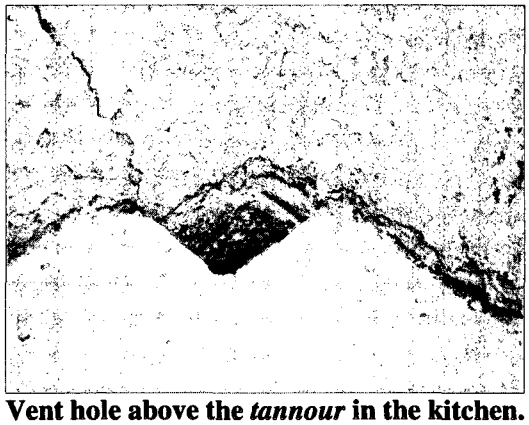
The entrance and interior of the reception room.

D. Fatma Al-Shibani's house in *Aghram Washaran* neighbourhood.



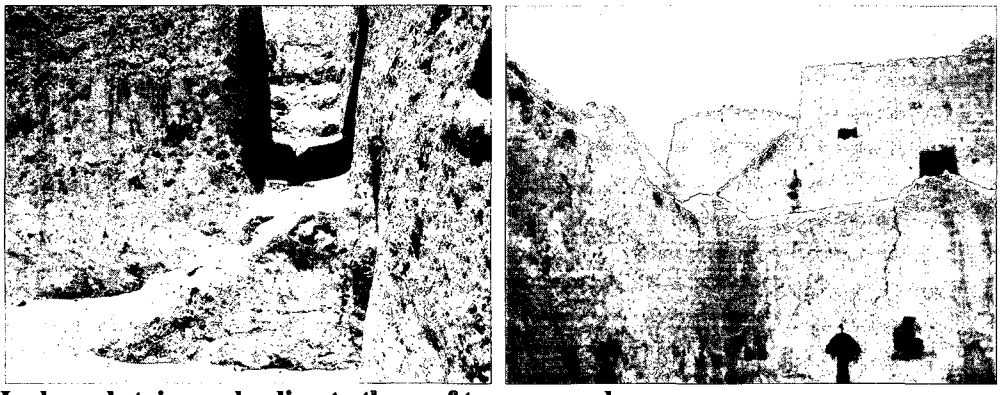
The reception room, facing the entrance hall (*sakiefa*).

The inner court staircase that leads to the roof terrace.

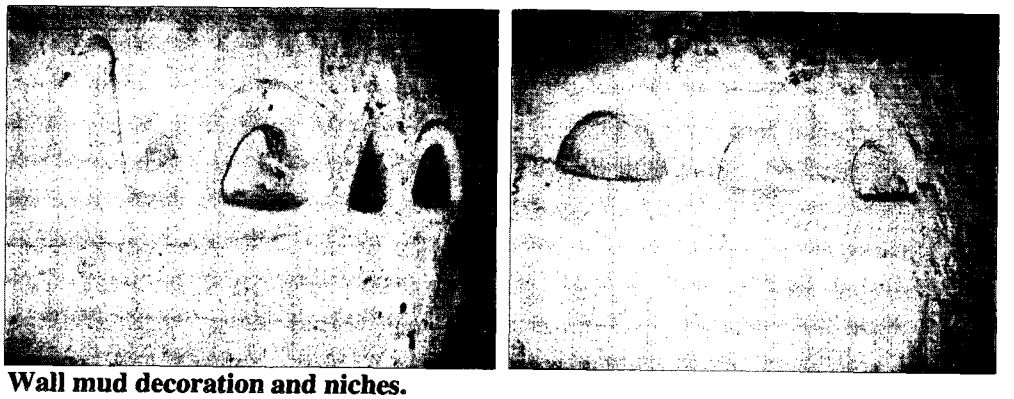


Vent hole above the *tannour* in the kitchen.

E. Khairallah Ounallah's house in *Kalala* neighbourhood.



L-shaped staircase leading to the roof terraces and upper rooms.

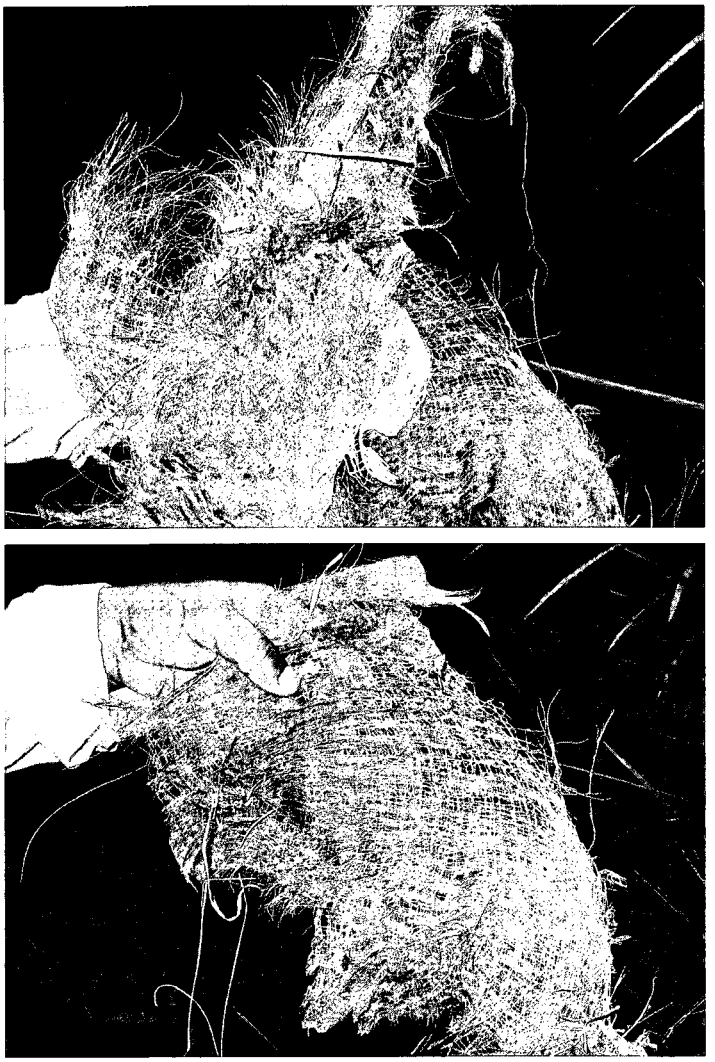


Wall mud decoration and niches.

The roof terrace.

Appendix XXI

Thatched material (*asen*)



***Asen*, used to seal the mouths of jars.**

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