GEOGRAPHICAL FACTORS IN ARABIAN LIFE AND HISTORY

BEING AN INQUIRY INTO THE INFLUENCE OF PHYSICO-GEOGRAPHICAL ENVIRONMENT UPON ARABIAN LIFE AND INSTITUTIONS

by

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PREFACE

THE present work reproduces, in a slightly revised form, the dissertation, which I wrote as a Government of the Panjab Scholar in the University of London during the years 1929-31, and which was accepted by that University as a Thesis for the degree of Doctor of Philosophy (in Arabic). The work on the Thesis was commenced under the direction of the late Dr. Sir Thomas W. Arnold; and, after his lamented death in June, 1930, was continued under the guidance of his successor, Professor H. A. R. Gibb. I am deeply indebted to them both for the trouble they took in giving me the inestimable benefit of their expert advice and guidance in the course of my researches.

In the present dissertation, the principles of human geography have been consistently applied to several aspects of Arabian life, and new light, I believe, has in consequence been thrown on the causes and inter-relations of a large number of facts, most of which, though already known, have not hitherto been studied from the view-point of environmental influence. In other words, it is designed to be a geographical interpretation of Arabian life and institutions. The scope and method of inquiry have

been explained in the first chapter of the present work.

The present issue is merely in the nature of a 'preliminary edition,' which is meant for private circulation only among a limited number of competent scholars, with a view to elicit their critical opinion regarding the results of my investigations. I shall be glad to receive helpful suggestions for the improvement of this book, and shall gratefully adopt them, wherever practicable.

Government College,
Lahore,
June, 1942.

SH. INAYATULLAH.

CONTENTS

CHAPTER I

THE CONCEPT OF ENVIRONMENTAL INFLUENCE

THE influence of climate and other geographical factors upon man and his social organization has been recognized, if not fully studied and systematically worked out, from early times. Herodotus (*circa* 484-425 B.C.) hinted at a possible correlation between the characteristic climatic and hydrographical environment of Egypt and the peculiar customs and usages of its people.[1] In his *Laws*, Plato (427-347 B.C.) accepts in general terms the theory that the psychical as well as the physical characteristics of human beings are determined and differentiated by their physical environment, and enumerates atmosphere, water and food among the important elements which constitute this environment. His pupil, Aristotle (384-322 B.C.), wrote in his *Politica* on the influence of climate and geographic position upon the location of cities and the character of their inhabitants. He showed, for instance, how the maritime or inland position of a city may result in definite economic and political

[1] Herodotus, *History*, Book II.

advantages or disadvantages to its inhabitants. He also referred to the kind of soil and the extent of territory which would be most conducive to the welfare of a good city or country.[1]

But the *locus classicus*, in which the Hellenic theory of environment found its best exposition, is a treatise, entitled *Influences of Atmosphere, Water and Situation*, which dates from the fifth century B.C. and is preserved among the collected works of the Hippocratean School of Medicine. In this treatise, the writer shows that in the majority of cases the human body and character vary in accordance with the nature of the country.[2]

This treatise of Hippocrates, which was translated into Arabic by Ḥunain ibn Isḥāq under the title of *Kitāb al-Mā' wa 'l-Hawā'*,[3] seems to have exercised

[1] Aristotle, *Politica*, English translation in Everyman's Library, pp. 210-213.

[2] For a historical survey of the concept of environmental influence, the interested reader is referred to *The Environmental Basis of Society* (New York, 1925) by Franklin Thomas, who has traced the development of this concept from the ancient Greeks to the present day; and *The Theory of Environment* (1918) by Armin Koller who quotes liberally from modern French and German scholars who have written on this subject. A similar historical survey of the views of Arabic and Persian writers on the subject of environmental influence has yet to be made. The late Professor Eilhard Wiedemann's valuable article, entitled *Kulturgeschichtliches und Klimatologisches aus arabischen Schriftstellern*, which appeared in *Archiv für die Geschichte der Naturwissenschaften und der Technik*, Band V (Leipzig, 1913), affords only a sample of the wealth of interesting material which patient research into the vast Islamic Oriental literature is bound to yield.

[3] While the text of the treatise of Hippocrates was translated by Ḥunain ibn Isḥāq, Galen's Commentary on it was likewise translated

such a strong influence on the thought of later Arabic writers on medicine, history, geography and cosmography that the validity of environmental influence is accepted by them all as a well ascertained fact of natural causation. Yāqūt, in the introduction to his great Geographical Dictionary, expressly mentions Hippocrates and Galen among the ancient writers who had discussed the climatic and physical features of various countries.[1] Following the lead of Hippocrates, almost all writers on medicine in the Muslim World have treated of climate and other physical conditions such as soil, hydrography and geographical location in respect of their effect on human health and physical characteristics. Ibn Sīnā (980-1037 A.C.), for instance, in his *Al-Urjūzatu's-Sīnāiyya*[2] sees a definite relation between climate and the colour of human skin and hair, while in his *Canon of Medicine*, he devotes a lengthy chapter to the influence of seasonal changes upon human health, and also discusses the effect of different localities on the physical characteristics of their inhabitants.[3]

The works of an earlier writer, al-Jāḥiẓ (d. 869 A.C.), also contain some passages, which show a clear

into Arabic by Ḥubaish ibn al-Ḥasan, *vide* the *Fihrist* of Ibn al-Nadīm (Cairo, 1348 A.H.), pp. 401-402.

[1] *Mu'jam al-Buldān*, ed. F. Wüstenfeld (Leipzig, 1866), vol. I, p. 4.

[2] Lithographed edition of Lucknow (1261 A. H.), p. 8.

[3] *A Treatise on the Canon of Medicine of Avicenna, incorporating a Translation of the First Book*, by Dr. Cameron Gruner (London, 1930), p. 175 *et seq.*

recognition on his part of the influence of physical environment. In his *Kitāb al-Ḥayawān*, for instance, he refers to the view held by certain materialists that the alleged metamorphosis of human beings *(maskh)* may be explained by the prolonged vitiating influence of bad climate and unhealthy habitat. In support of this view, he further refers to the remarkable changes which long residence in Khorasan had brought about in course of time in the physical characteristics of the Arabs.[1]

Provincial or regional geography is a peculiar feature of the contribution which the Arabs made to the science of geography. One country or region was taken as a unit of study, and an attempt was made to describe the life of the people in relation to its particular physical environment. For instance, al-Maqdisī, who describes the Muslim world according to countries, always gives the first place in his descriptions to the climatic and topographical features of the country or region under discussion, and then sets forth the other characteristic things of that region such as plants, animals, minerals, and industries.[2] This arrangement of the descriptive matter clearly shows that he attached basic importance to physical environment. It seems that the Arabic geographers were becoming increasingly cognizant of the fact that in the case of a given

[1] *Kitāb al-Ḥayawān* (Cario, 1906), vol. IV, p. 24.
[2] *Ahsan al-Taqāsim fi Ma'rifat al-Aqālīm*, ed. De Goeje (Leiden, 1877).

region, a definite correlation exists between physical environment on the one hand and the vegetable and animal life on the other. By anticipating some of the modern concepts of human geography, they in fact paved the way for the later scientific development of the subject.[1] Even those Arab geographers, who did not adopt this method of regional treatment—*e.g.* the compilers of geographical dictionaries—make it a regular practice to remark upon the climatic and physical conditions of the town or country in question, with reference to their influence upon human health and physique. Likewise, diseases peculiar to different towns and districts are also occasionally noticed. Arabic cosmographers like Zakariyyā al-Qazwīnī (1203—1283 A.C.)[2] had a still clearer notion of environmental influence, and their writings are much more explicit regarding the nature and extent of this influence.

Arabic historians did not lag behind other classes of scholars in their recognition of environmental influence. In his *Murūj al-Dhahab*[3] al-Mas'ūdī (d. 956 A.C.) refers to the view that the cocoanut tree is nothing but a species of the palm-

[1] The first scientific geographer in Europe, who concerned himself with the recognition, characters and classification of regions, was Burnhard Varenius, whose work originally appeared in 1659 and was reissued at Cambridge in 1672.

[2] Al-Qazwīnī, *'Ajā'ib al-Makhlūqāt*, ed. F. Wüstenfeld (Göttingen, 1849).

[3] Al-Mas'ūdī, *Murūj al-Dhahab* (Paris, 1861), vol. I, pp. 336-37.

tree (*muql*), which has developed its present characteristic form after its transportation and adaptation to the soil of India. In this connection, he also refers to another work of his, *viz. Kitāb al-Qaḍāyā wa'l-Tajārib* (The Book of Propositions and Experiences), where, he says, he has discussed how every region of the earth and its climate have influenced not only its human population but also its vegetation and minerals. He regards this environmental influence as a matter of common experience, which could not escape the observation of a person with any knowledge of the world. Equally interesting are the remarks of the Toledan judge, Abu'l-Qāsim Ṣā'id (1029—1069 A.C.), regarding the physical and mental characteristics of the contemporary nations of Nothern Europe, which struck the refined Arab scholar as rude and barbarous. Whereas in modern Europe there is a strong tendency, though unscientific, to explain differences in human behaviour and achievement by simple reference to racial diversity, the Arab doctor tries to find an explanation of these differences in the diversity of climatic conditions. In his *Tabaqāt al-Umam*, he writes, "Because the sun does not shed its rays directly over their heads, their climate is cold and atmosphere clouded. Consequently, their temperaments have become cold and their humours rude, while their bodies have grown large, their complexion light and their hair long. They

lack withal sharpness of wit and penetration of intellect, while stupidity and folly prevail among them."[1] We may not feel satisfied with the explanation of the Arab judge; but from our present point of view we are here concerned more with the line of his argument than the soundness of his conclusions.

The Arab author, however, who has dealt with the subject of environmental influence more fully than any other writer of his race, is the celebrated philosophic historian, Ibn Khaldūn (1332-1406 A.C.), who, besides writing a Universal History, conceived and formulated a philosophy of history which is based on a profound and comprehensive analysis of human history and civilization as known to him. In his *Muqaddama* or the Introductory volume of his *History*, he presents a theory of historical evolution, which takes into account the physical facts of climate and geography as well as moral and spiritual forces. In order to give due weight to geographical factors as the physical basis of human society, he begins with a lengthy description of the chief features of the inhabited part of the earth, its regions, principal seas, great rivers, etc. The seven climatic zones are delineated and their inhabitants specified. The three climatic zones of moderate

[1] Abu'l-Qāsim Ṣā'id, *Ṭabaqāt al-Umam*, ed. L. Cheikho (Beirut, 1912), pp. 8-9, I am indebted for this reference to Professor Philip Hitti; see his excellent *History of the Arabs*, pp. 526-27.

temperature are described in detail as well as the social condition and culture of their inhabitants. The far-reaching influence of the atmosphere, temperature, etc., on the physical and even mental and moral peculiarities of peoples is emphasized. A careful attempt is also made to show how differences of fertility of soil—how dearth and abundance—modify the physical and mental constitution of man, and so operate on society. This is followed by what is probably the finest study of nomad life in the Mediæval Arabic literature, in the course of which he tries to explain facts of the economic and political life of the desert by causes of a physico-geographical nature.[1]

That Ibn Khaldūn devotes the early part of his *Muqaddama* to the descriptive geography of the inhabited portion of the globe and that he bases his survey of human civilization on a careful analysis of geographical conditions is a highly significant fact. It shows that he was fully alive to the value and understanding of geography and physical environment in the study of social evolution. It is to be regretted that the work of Ibn Khaldūn was not carried on by the writers who came after him in

[1] The *Muqaddama* of Ibn Khaldūn may be read in the original Arabic, of which there are several editions, or in the French translation by De Slane. There are also Turkish and Urdu versions of it. A trustworthy and annotated English translation of the *magnum opus* of this greatest historical thinker of Islam is an urgent desideratum of the present age and an unpaid debt upon Arabic scholarship.

the East. For his successors in this field of inquiry, as in several others, we shall have to turn our attention to the West, where Bodin and Montesquieu in the 17th and 18th centuries began to consider in considerable detail the effects of climate and locality upon human customs and institutions.[1] In the last century, Buckle[2] in England and Ratzel[3] and his school in Germany pushed the study of environmental influence much further; while Ellsworth Huntington in America and several other savants, whose names will be found in our Bibliography, have made important contributions in recent years to the same subject.

Despite the many casual references to the land and people of Arabia that are to be met with in the works of modern writers on human geography, that land owing to a variety of reasons has not, so far as I know, been made the subject of a special, systematic and comprehensive study from the viewpoint of environmental influence. The present small work is not intended to supply that want in an adequate way, but is only a modest contribution to that vast subject, which I have tried to approach

[1] John Bodin, *Republique*, livre V, ch. I; and his *Methodus ad facilem historiarum cognitionem*, ch. V. Montesquieu, *Esprit des Lois*.

[2] Thomas Buckle, *History of Civilization in England*, vol. I in particular.

[3] Friedrich Ratzel, *Anthropo-geographie*, 2 Bände (1882—1891). A full re-statement of the principles embodied in this work can be read by the English reader in Miss E. C. Semple's *Influences of Geographic Environment* (London, 1911).

from a limited number of avenues. For the purpose of my study, I have taken into consideration the Arabs of modern times, in the first instance, and for the data concerning their material and moral life I have relied upon such trustworthy guides as Burckhardt, Doughty, Musil and Philby,—to mention only four out of a host of modern travellers and explorers, whose works I have consulted in the course of my inquiry. Occasionally, I have also tried to take a retrospective view of things and have attempted to understand and explain the conditions obtaining in ancient times in the light of our principles. My task in this connection has, to a very considerable extent, been facilitated by reference to the works of Georg Jacob and Henri Lammens on the pre-Islamic Bedouins.[1] Reference has also been made in many instances to a number of passages in the Qur'ān, which are highly significant of climatic control over Arabian life and thought. I have, however, kept out of my view the two holy cities of Mecca and Medina which, owing to their manifold connections with the outer world and their cosmopolitan character, show little direct dependence upon their immediate environment, and thus stand in a class by themselves and should, therefore, be studied separately. Similarly, little account has been taken of

[1] Georg Jacob, *Altarabisches Beduinenleben nach den Quellen geschildert* (Berlin, 1897).

Henri Lammens, *Le Berceau de l 'Islam.* Vol. I: *Le Climat-Les Bedouins.* (Rome, 1914.)

the Yaman, because in the study of the sedentary population, I have chosen the settled communities of Central Arabia for special treatment.[1]

An attempt has been made in the following pages to explain a number of more or less well-known facts of the economic, social and political life of the inhabitants of Arabia in the light of climatic and other geographical conditions. We shall take the Arabs in their geographical setting; examine the relationships which exist between them and the land in which they live, and thus understand better their mode of life, their methods of exploitation of the soil, and also the social and political organization which they have developed in their particular *milieu*. We shall see how man and physical nature have acted and reacted one upon the other in the peculiar environment of Arabia. In short, the present work represents an attempt at the geographical interpretation of certain important aspects of Arabian life and institutions. It is hoped that this interpretation will give due share to the influences of physical environment, which are among the basic and chief modifying factors in the evolution of the Arabs, and which must be taken into account, if the peculiar development of Arabian society is to be seen in its true perspective.

[1] Ample material, however, exists on the Yaman in the accounts of several modern travellers, as well as in the excellent digest of the same by Prof. Adolf Grohmann: *Südarabien als Wirtschaftsgebiet* (Wien, 1922), and in the slightly older work of Dr. W. Schmidt, entitled *Das Südwestliche Arabien* (Frankfurt a. M., 1913).

From our current scientific point of view, the forms and general structure of that society are, in the main, the result of that process of adaptation and adjustment which has enabled it to survive in its particular surroundings. We cannot expect to fully understand individual behaviour and collective activity in their manifold expressions, without paying adequate attention to the environmental conditions that have stimulated and directed that activity.

The term 'Physical Environment,' in relation to the Arabs, covers the climatic and other physico-geographical features of their homeland in respect of their directive and formative influences upon their life. Such features include the position of Arabia in relation to other lands; its relief and landscape; the nature of its soil; its climate (temperature, rainfall, etc.); its hydrography (springs, streams, etc.); and its vegetation and mineral wealth.

These conditions of climate and physical environment form the chief basic factors in the evolution of the Arabs. They have more or less influenced their economic activity, their social and political organization; their physical and mental development and the general character and status of their material civilization. The problem of environmental influence thus resolves itself into a number of special problems.

The varied economic activity of the pastoral nomads and the settled agriculturists has a definite

corresponding physico-geographical basis. Their economic development has been further affected in each case by the control of climatic conditions over the distribution of the vegetable and animal life which they exploit.

Environmental influences are also manifest in the primary elements of their material culture, that is, in the matter of their food, dwelling, clothing and general equipment; since man, especially in a low grade of civilization, satisfies his needs with what he finds in his immediate surroundings.

The physique of the Arabs and their general state of health have also been influenced by geographical conditions, through the nature and amount of food available for consumption and the salubrity or otherwise of their habitat.

The social and political conditions of Arabia have been affected through the effects of its physical features upon the measure of the stability of its inhabitants and of their co-operation and cohesion. The main features of the political life of the Arabs become fully intelligible only when they are studied in relation to the physical conditions of their land.

The influence of climatic conditions is also perceptible in a large number of idioms and modes of expressions which are peculiar to the Arabic language; while the relief of the land and other topographical features are reflected, to a remarkable degree, in the geographical nomenclature of the Arabs.

In the present work, the principles of human geography have been, for the first time, consistently applied to several aspects of Arabian life, and new light is in consequence shed upon the causes and inter-relations of a large number of facts, most of which, though already known, have not hitherto been studied and explained from the view-point of environmental influence.

CHAPTER II

THE CLIMATIC AND PHYSICAL FEATURES OF ARABIA

AREA AND POSITION

ARABIA is a great square-ended Peninsula, which is situated at the south-western corner of Asia, its mean breadth being about 700 miles and its extreme length about 1200 miles. It is the largest peninsula in the world, having an area of about 1,000,000 square miles; while its population has been estimated at between six and seven million souls only. It is bounded on three sides by the sea—on the west by the Red Sea, on the south by the Indian Ocean, and on the east by the Gulf of Oman and the Persian Gulf. Its inhabitants generally call it *Jazīratu'l-'Arab* or the 'Isle of the Arabs,' using the word *jazīrah*, which is applied as much to peninsular as to strictly insular areas. In fact, the Northern Nufūd is such an effective desert barrier that it cuts off the country from the rest of Continental Asia, with the result that for all practical purposes the land is of an insular character. The manifold effects of this insular character of Arabia will be discussed in the next chapter.

RELIEF

On the whole Arabia may be described as a plateau, sloping gently eastward from a mountain range, which runs along the whole length of its western side and may be regarded as the backbone of the land. The fall towards the Persian Gulf is long and gradual; while the slope towards the Red Sea is short and steep. The coastal plain on the west (Tihāmah or "netherland") rarely exceeds 30 miles in width. The highest land-level is in the southern part of the mountain range, where it rises to a height of about 10,000 feet in the Yaman. At the south-east extremity, the uniform slope of the Peninsula is disturbed only by the Jabal Akẖḍar range of 'Omān, which is as high as the mountains of Yaman.

Outside Yaman, 'Omān and the numerous settled valleys, Arabia is remarkable for its aridity and barrenness, and consists mainly of desert or steppe land. The main varieties of the desert are:—

1. Al-Nufūd, an area of reddish sand blown into high dunes by wind pressure. It covers most of Northern Arabia, and offers pasture during some months of the year after the winter rains.

2. Al-Dahnā' or "the red land" is a comparatively hard plain, covered at intervals with long and winding sand-belts. It stretches from Najd to Ḥaḍramaut, and covers the greater part of southern

Arabia. Its western part is often called al-Aḥqāf; while the eastern is called al-Rub' al-Khālī or the 'Empty Quarter.' Certain parts occasionally receive seasonal rains, and bring forth some pasturage; but ordinarily it is very barren.

A large part of Central and Western Arabia is covered by black *ḥarrah* tracts (pl. *Ḥarrāt*). A *ḥarrah* is a surface of corrugated or fissured lava, generally overlying sandstone. It is very bad going, owing to the wear and tear to which the feet and legs of animals are exposed. Since they lie in patches only and are relieved by intervals of fertile soil, they can often be avoided by travellers. *Ḥarrah* tracts of this type are the result of former volcanic activity.[1] The craters of extinct volcanoes can still be seen in many parts of Arabia. In spite of the forbidding appearance of these tracts, the lava of these regions has been the cause of the astonishing fertility which the neighbouring oases enjoy. Mineral matter is loosened and washed down from the lava plains by the action of rain and wind, and serves as a fertilizing agent of great value. The extensive palm-groves of Tabūk,

[1] The last volcanic eruption in Arabia, as recorded by Abu'l-Fidā in his *Mukhtaṣar al-Duwal*, by al-Maqrīzī in his *Sulūk li-ma'rifat Duwal al-Mulūk*, and by Samhūdī in his *History of Medina*, took place in 1256 A.C. Al-Maqrīzī writes that "in July, 1256, there was a great volcanic eruption to the east of Medina in the Shazā valley, opposite mount Ohod. The stream of lava was four parasangs long, four miles broad and one and a half cubits thick. The flames could be seen as far north as the environs of Buṣrā in Haurān." *Vide* the abridged translation of *Sulūk* by E. Quatremere, vol. i, p, 61 *et seq.* For a fuller description, see Richard Burton's *Pilgrimage*, ch. XXIV.

Taimā, Khaibar and Medina, all owe their fertility to the mineral elements which are thus periodically received from lava beds in their vicinity to renovate the productive powers of their soil.[1]

Many tracts in Arabia are covered with salt crust remarkable for its glaring whiteness. These are generally low-lying places, where water is wont to gather after the rain. After the water has evaporated under the burning heat of the Arabian sun, the salt that has been washed down from the neighbouring country, appears in the shape of a white thick sheet. This salt content accumulates from year to year, till it assumes the form of cakes, often a foot long and an inch thick, curled by the sun's rays and overlying clay into which water has sunk. A tract of this kind is called a *sabkha* (pl. *sibākh*).

Besides the types of surface relief described above, there are vast areas, hard or dusty, plain or undulating, which have occasional natural water-holes and permanent coarse vegetation in hollows. Areas of this kind may be characterized as poor steppe land, where the camel-breeding nomads love to roam, each tribe within its own traditional circuit, called a *dārah* (pl. *Dārāt*) or, in modern parlance, *dīrah*.

[1] Yāqūt gives a list of 27 harras known to him, *vide* his *Mu'jam al-Buldān* (ed. F. Wüstenfeld), II, 247-254, and also Loth's article, *Die Vulkanregionen von Arabien nach Yakut*, in *Z. D. M. G.*, XXII, 365-82.

HYDROGRAPHY

There are no rivers in Arabia, which flow perennially from source to mouth; but there are countless river-beds or nullas (Ar. *wādī*). These water-courses carry the floods (*sail*) after rainstorms for a few days or weeks in the year. Although they are generally dry for the rest of the year, they carry more or less water beneath the surface, which can be reached by sinking wells at varying depths. Wherever the ground moisture rises near the surface, they have given rise to important chains of oases.

The wadis, which flow to the east, are mostly long and shallow. The longest is the Wādī Rumma, which originates near Medina and runs north-eastwards through the district of Qaṣīm to the Shaṭṭ al-'Arab. In its central course, its subsoil water supports a large settled population (the towns of Rass, Anaiza and Boraida). The chief wadi of Najd is Wādī Ḥanīfa, which runs in a south-easterly direction. The luxuriance of the dense palm-groves of Riyāḍ and, in fact, of the whole district of 'Āriḍ is entirely due to its subsoil drainage. Both the Wādī Ḥanīfa and Wādī Rumma carry water beneath their beds at all seasons of the year, which can be reached by wells at varying depths. The most important wadi in the Ḥijāz is the Wādī Ḥamḍ, which unites two main channels from the ridge, one draining the Khaibar Harrah, the other the Awairid

Harrah. The first gives Medina its underground water and extensive oases; the second supplies the palm-groves of al-'Olā. Similarly, Yaman, Ḥaḍramaut and 'Omān are all covered with a network of large and small wadis, some of which have vast reservoirs of water available near the surface.[1]

It is important to note that the wadis in Arabia have played a very important part in determining land routes and lines of communications throughout the country. Their beds, which are dry for most part of the year, have from time immemorial served as natural roads for traders, travellers and pilgrims. A very important condition for a land route, especially in an arid country, is the presence of water along it. This condition, too, is satisfied by the subsoil moisture of the wadis, which can be reached by means of wells. It will, thus, be seen that the chief land routes follow the direction of the wadis. Wādī Rumma, for instance, serves as a natural highway from Central Arabia to the lower Euphrates and *vice versa*, for a distance of several hundred miles. Similarly, Wādī Sirḥān, which runs from Ḥaurān south-eastwards to al-Jauf for about two hundred miles is a natural road to and from Syria; and its use as a caravan route can be traced back into remote antiquity. In the Ḥijāz and Yaman,

[1] On the hydrography of Arabia, see in particular B. Moritz's *Arabien, Studien zur physikalischen und historischen Geographie des Landes* (Hannover, 1923), pp. 21-30.

too, the wadis facilitate communications from the inland towns to those situated on the coast, *e.g.*, between Medina and Yanbū', between Mecca and Rābugh or Jidda and between Ṭā'if and Līth.[1]

CLIMATE

The Tropic of Cancer passes through the middle of the Peninsula, dividing it into two halves of about equal size. The southern half of the Peninsula thus lies within the Torrid Zone, while the northern half lies within the Northern Subtropical Zone. Arabia is, accordingly, classed among the hot regions of the earth, the mean summer maximum temperature of Najd, for instance, being about 112 degrees Fahrenheit. Mecca, too, is exceedingly hot in summer; but Medina with a mean temperature of about 70°F. is comparatively healthy throughout the year. On the coast, the heat is usually oppressive; Jidda, Hodaida and Muscat being the hottest towns in the world. The coastal districts in the south, too, are intensely hot and enervating. In summer the

[1] On the land routes of Arabia, see A. Sprenger, *Die Post-und Reiserouten des Orients*, Teil I: *Syrien, Mesopotamien und Arabien* (Leipzig, 1864); F. Wüstenfeld, *Die von Medina auslaufenden Hauptstrassen, nach arabischen Schriftstellern beschrieben* (Göttingen, 1862); and *A Handbook of Arabia* (London, 1916), vol. II, which is mainly devoted to a detailed description of routes. Exceedingly valuable information, concerning the historical and present-day routes of Arabia, is also contained in several works of Alois Musil, such as *Arabia Deserta, The Northern Hijaz* and *Palmyrena* (all published at New York, between 1926 and 1928).

heat of the sun is so unbearable that the Arabs are constrained to do most of their travelling at night. The most dreaded wind of the Arabian deserts is the Simoom, which is so hot, dry and suffocating as to compel all living things to rush for shelter at its approach.

The hot climate of Arabia is, however, tempered to a considerable extent in certain elevated regions by the fact of their altitude. The mountain range of Western Arabia (Ṭā'if), the high plateau in the south-west (al-Yaman), and the massif of 'Omān enjoy a temperate climate without extremes of temperature.

The people of Arabia on the whole suffer more from heat than from cold. This is reflected in an interesting manner in a verse of the Qur'ān (xvi. 81), where clothes are mentioned among divine blessings as affording protection from heat, there being no mention of cold.[1]

Desert sand gives up its heat very rapidly, with the result that in the interior of the Peninsula nights are cool, even in the hottest months. In winter they may be even disagreeably chilly, especially in the northern regions exposed to the cold wind from the north (Ar., *Shimāl*). On the high plateaux, the range between the day and night

[1] وَجَعَلَ لَكُمْ سَرَابِيلَ تَقِيكُمُ الْحَرَّ (القرآن: سورة النحل)

temperature is very great. Considered from the view-point of human health, this enormous variation of temperature is a great disadvantage, as it detracts from the sanitary value of the highlands.

The other outstanding feature of the Arabian climate is its extreme dryness, which is accounted for by two principal factors. Firstly, Arabia lies in the tropical latitude of low pressure, in which also lie the Sahara, the desert region of southern Persia, Baluchistan, Sind and Rajputana. Secondly, the prevalent winds are from the land ; and although the country is placed between the seas, they are so narrow as hardly to make any appreciable difference as regards its humidity. Arabia is, consequently, a country of scanty and irregular rainfall. The average annual rainfall at Muscat is about 4 inches, at Aden about 3 inches, while that of the Red Sea coast is scarcely more.

Arabia receives its scanty rain from two directions: from the Indian Ocean in summer and from the Mediterranean in winter. Yaman profits from the summer monsoon from the Indian Ocean, which reaches as far as Ṭā'if, but the current discharges itself so fully in the mountains that it retains little or no precipitation for the interior of the Peninsula. Mecca and Medina, as well as districts farther north, occasionally receive heavy rains during thunderstorms, which result in floods in the Mecca valley. Here and elsewhere when precipitation occurs, it

is usually of a torrential character and concentrated in a few hours or days only, causing sudden and devastating floods. Large areas in the south and south-east of Arabia (Aḥqāf, al-Rub' al-Khālī), however, suffer from extreme drought and receive a sprinkling of rain once in every three or four years.

In northern Arabia, rain is brought by the prevailing winds from the Mediterranean across Palestine in the winter. It makes the desert blossom in the spring (Ar., *Rabī'*); and ushers in two months of comparative peace and plenty for the Bedouins. All prosperity depends upon the rain, which the Arabs, consequently, call 'God's mercy' (*Raḥmat Allah*), the words 'rain' and 'beneficence' being synonymous in the Arabic language.

CLIMATE OF ARABIA IN THE PAST

The question whether the climate of Arabia has suffered any change during historical times has been the subject of prolonged discussions among scholars in recent times. The idea that the climate of Arabia has changed for the worse, on account of the increasing desiccation of the land, has been suggested by several considerations. The Greek and Roman writers have left us glowing accounts of a civilized and prosperous society, located in those very parts of South Arabia, where nowadays roam wild and barbarous Bedouin tribes, scarcely intelligent enough

to understand the true significance of the ancient archæological remains that are found in their midst. Biblical, Babylonian and Assyrian records refer to Arabian rulers and peoples of rich possessions.[1] Important settlements flourished at points, where now exist but scanty waters and the most wretched of populations. Extensive and luxuriant oases have either completely disappeared or been reduced to a mere shadow of their former selves. Certain animals (*e.g.*, the lion) mentioned by ancient Arab poets, the existence of which presupposes rich vegetation, are now totally extinct in Arabia. Large and deep-cut valleys that are found in many parts of the land could have resulted only through the prolonged action of running water extending over long periods of heavy rainfall. These and similar considerations have led several scholars to think that Arabia has been subject to a progressive diminution of rainfall and a corresponding desiccation and general deterioration of the Peninsula. The deserts of Turkistan, which conceal the remains of a lost civilization of ancient times, would offer a corroborative parallel to this hypothesis.

[1] All the Assyrian and Babylonian references to Arabia and the Arabs have been conveniently presented by T. W. Rosmarin in his article entitled '*Arabi und Arabien in den assyrisch-babylonische Quellen*', which appeared in the *Journal of the Society of Oriental Research*, vol. XVI (Toronto, 1932), pp. 1-37. Professor R. P. Dougherty has also given a useful survey of the relations of Arabia with Assyria, Babylonia and Persia in his notable work, *The Sealand of Ancient Arabia* (New Haven, 1932), chapters 6 and 7.

This theory was propounded and elaborated on historical grounds by the distinguished German scholar Hugo Winckler, who not only maintained, along with Sprenger, Schrader and Sayce,[1] that Arabia should be regarded as the original home of the Semites, but he also held, by way of explanation, that their repeated dispersal and migration into other lands was due to a gradual change in the climate of that country. He sees a rhythmic outward movement of the population of Arabia with corresponding far-reaching effects upon the history of the neighbouring lands.[2] According to this view, the Semitic invasion of Babylonia in the fourth millennium B.C.; the migration of the Canaanites (Amorites) in the third, of the Aramæans in the second, of the Nabatæans (of Petra) in the first, and then the mightiest of all these outbursts, that of Islam in the seventh century of the Christian era—all these mass movements are to be regarded as the successive waves of Semitic expansion out of the Arabian reservoir of humanity, which occurred at

[1] Sprenger has maintained the theory of the Arabian home of the Semites in his *Die alte Geographie Arabiens* (Bern, 1875), § 427; Schrader in his article entitled *Die Abstammung der Chaldäer und die Ursitze der Semiten*, in *Z. D. M. G.*, XXVII, pp. 397-424; and Sayce in his *Assyrian Grammar*, p. 13.

[2] For the views of Hugo Winckler on the subject, see *Der Alte Orient herausgegeben von der Vorderasiatischen Gesellschaft*, 1. Jahrgang, heft 1; and 7. Jahrgang, heft 2; and also his *Arabisch-Semitisch-Orientalisch. Kulturgeschichtlich-mythologische Untersuchung* (Berlin, 1901).

about 1,000 years' intervals.[1]

The theory of the progressive desiccation of Arabia was later taken up with great enthusiasm by the Italian Prince Leone Cætani, and elaborated by him with an imposing array of geological, climatological and historical evidence, and was also used by him to explain the Islamic movement of the seventh century. He not only tried to prove that Arabia had suffered from a progressive desiccation during post-glacial times, but also attempted to demonstrate that the migrations of the Arab people from the Peninsula, as well as the topographical changes that have taken place in Arabia in historical times, had been due to this desiccation.[2]

Although accepted by several competent scholars, this hypothesis has been controverted with great ability by the Czech Orientalist, Alois Musil, in his paper, *Die Hypothese von der Austrocknung Arabiens* (1914), in which he points out that the theory of Cætani is not substantiated by historical facts. In view of the intrinsic importance of the subject and

[1] To this series of Semitic migrations, we may add that of the Banu Hilāl and Banu Sulaim, who swarmed into Egypt and later overran the whole of N.-W. Africa in the middle of the eleventh century of the Christian era. This large-scale movement is deserving of special notice because of the fact that the final Arabization of North Africa was chiefly due to it. For further details, see *the Encyclopædia of Islam*, *sub voce* Hilāl and Sulaim, and the references given there.

[2] Leone Cætani, *Annali dell' Islam*, vol. ii, part 2 (Milano, 1907), p. 831 *et seq.* The theme has been elaborated much more fully in the same author's *Studi di Storia Orientale*, vol. i (Milano, 1911).

of the almost universal acceptance of Cætani's views as authoritative, Musil subsequently felt impelled to explain in greater detail his reasons for rejecting the hypothesis in an appendix to his work, *Northern Negd* (New York, 1928), in which he arrived at the conclusion that Arabia had not suffered from desiccation, but from a lack of a far-sighted and powerful government.[1]

Similar attitude towards Cætani's views has been taken by Père Henri Lammens, who has made a valuable contribution to the subject of the controversy by bringing together, in his *Berceau de l' Islam* (Roma, 1914), a large amount of concrete data, extracted from Arabic literary sources, depicting conditions of climate and physical environment as they seem to have obtained in Western Arabia about the time of the rise of Islam. He cannot see any worsening of the Arabian climate during historical times; but maintains that the later deterioration of the land has been due to the lack of proper organization and to the indifference of the rulers whose seat of government lay outside the boundaries of Arabia proper. In his opinion, the Arabo-Islamic expansion was not due to the desiccation of the Peninsula, but to spiritual impulses.

Fresh evidence of a botanical and zoological

[1] Alois Musil, *Northern Negd* (New York, 1928), Appendix X (pp. 304-319): 'The Alleged Desiccation of Arabia and the Islamic Movement.'

character in support of the theory of desiccation has, however, been collected in recent years by the German Orientalist, Bernard Moritz, in his valuable work, *Arabien: Studien zur physikalischen und historischen Geographie des Landes* (Hannover, 1923). He shows that there has been a marked deterioration of vegetable and animal life in Arabia within historical times, as a result of the increasing aridity of the land and the ceaseless encroachment of the desert upon the cultivated territory. In any case, the increasing growth of the desert is an undeniable fact, which is due to the continued disintegration of rocks through the sudden diurnal changes of temperature and other atmospheric causes. The desert sands have thus been amassing in depth as well as spreading far and wide under the action of strong winds. This is also frequently accompanied by the increasing salination of the soil, the surface water being insufficient to wash away the salt contents of the earth. Even though the rainfall may not have perceptibly decreased in historical times, the sandy desert has nevertheless increased both in area and depth, filling up springs and natural watercourses, steadily encroaching upon the cultivated territory, and making things generally difficult for the inhabitants. Consequently, there is a considerable justification for holding that the conditions of life in Arabia are not as favourable to-day as they were before.

After weighing the available evidence, I am inclined to the view that Arabia has suffered from increasing aridity in historical times like many other countries of the world during the post-glacial age. I have referred here to the past climate of Arabia only incidentally. I hope to take up the subject once again for a fuller treatment in a future edition of this work, in which I also intend to deal with the historical migrations of the Arab people in relation to their geographical background. In fact, the importance and vastness of the subject would require a separate treatise for its adequate discussion.

BIBLIOGRAPHICAL NOTE

The inaccessible nature of the land and the deep prejudice of its inhabitants against foreigners have been chiefly responsible for the want of a systematic geographical survey of Arabia. Our knowledge of the climatic and physical conditions of the country is, therefore, mainly derived from the accounts of the various travellers and explorers, almost exclusively Western, who have visited different parts of Arabia at different times. A careful digest of the data, furnished by them, will be found in (1) the excellent monograph of Dr. Walter Lesch, *Arabien : eine landeskundliche Skizze,* which appeared in *Mitteilungen der Geographischen Gesellschaft in München,* 24. Band (1931), 1. heft, S. 1-153, and was also published separately ; (2) Adolf Käselau, *Die freien Beduinen Nord und Zentral-Arabiens* (Hamburg, 1927) ; and (3) *A Handbook of Arabia,* Vol. I (London, 1916). The last-named work, which was prepared on behalf of the British Admiralty and the War Office, is a veritable mine of useful information, concerning the geographical, social, political and economic conditions of contemporary Arabia.

CHAPTER III

THE LOCATION OF ARABIA AND ITS VARIOUS EFFECTS

THE location of a country or people is a geographical fact of permanent and constant operation and, consequently, of supreme importance in its history. Perhaps, it outweighs every other single geographic force.

1. THE INSULAR (ISOLATING) ASPECT

Arabia is bordered on three sides by the sea, and on the fourth is scantily linked by a desert to Egypt, Syria and Mesopotamia, with the result that it is segregated from the life of the mainland of Asia almost as completely as if it were an island, and it is as such that it is looked upon by its inhabitants, who call it *Jazīratu 'l-'Arab*, *i.e.* the Isle of the Arabs. Held to the continent by bonds that often fail to bind, it is isolated enough to keep its historical processes for long periods at a time considerably detached from those of the surrounding lands. In point of comparative isolation and individualization, it forms a geographical unit, and in relation to the rest of the Continent it shows in many respects an

aloofness and self-sufficiency that has resulted in an unmistakable historical divergence. Its peculiar physico-geographical and climatic conditions, *viz.*, its soil, climate, rainfall, system of drainage, and fauna and flora, have led to a peculiar economic, social and historical development of the people, who do not betray any great signs of similarity or community of interest with the rest of the Continent. In their mode of life, their social and economic organization and their general outlook on life, they are as different from the Indians and Chinese as from the Western Europeans. The segregated region of Arabia has not merely afforded the people a comparative isolation, but the restriction imposed by natural obstructive boundaries has forced the people to the more complete adaptation to natural environment. In the course of time, they have consequently developed a distinct historical individuality of their own.

The well-defined natural location of Arabia, in which the sea and deserts act as effective barriers and guarantee a marked degree of isolation, has tended to hold the people, as it were, in an embrace, guarded them against excessive outside interference and infusion of foreign blood, and thus enabled them to develop the racial type and national character in such direction as the local geographical conditions permitted. Being a comparatively secluded region, it appears as a quiet nook, wherein a part of humanity

has been caught and held, till it has crystallized into a distinct racial stock. It is pre-eminently an area of race characterization and "the Arabs, by reason of their geographical situation and the monotonous uniformity of desert life, have in some respects preserved the Semitic character more purely and exhibited it more distinctly than any people of the same family."[1] Although there has been an infiltration and considerable admixture of African (negro) blood through the age-long slave traffic,[2] the general population is, perhaps, the more unified and probably the most homogeneous in Asia.

The same factor, *viz.*, the insular character of Arabia, has preserved the Arabic language from contamination by non-Semitic languages, and has thus saved it from the fate of other Semitic languages, such as Assyrian and Hebrew. Thanks to its isolated position, Arabic is generally allowed to be nearer the original Semitic (*Ursemitisch*) than any other language of the Semitic group; and is

[1] Prof. R. A. Nicholson, *A Literary History of the Arabs*, p. xvi.

[2] On the African element in present-day Arabia, see Doughty, *Arabia Deserta*, I, p. 553, and also by index s.v. Negroes and Slaves; also Snouck Hurgronje, *Mekka*, II., pp. 12-18 (The Hague, 1888). Hamitic type has also been detected in certain Southern Arabian tribes, recently visited by Mr. Bertram Thomas. Prof. Seligman, commenting on the anthropological aspects of the photographs, brought back by Mr. B. Thomas, and on the skull-measurements he had made in Arabia, is reported to have said that the types were broadly two in number, the Arabic and the non-Arabic. One was the Aromahan or partly Semitic type, and the other the Hamitic type, which had some likeness to the type found in Abyssinia. (*The Times*, May 19, 1931.)

consequently accepted as the starting-point for Semitic philology.

2. THE INTER-CONTINENTAL ASPECT OF THE LOCATION OF ARABIA

According to a larger conception of environment, the influences of a land upon its people spring not only from the physical features of the land itself, but also from its situation in relation to other lands. If we look at a map of the Old World, we see that Arabia occupies a central position in the midst of the three continents of Asia, Africa and Europe. This inter-continental location of Arabia is a fact of great importance in its history. In so far as it projects from the land-mass of Asia, it is an area of isolation, but in respect of its central position within a wide circle of lands, it becomes an intermediary between them as well as a focus, from which influences, if there be any, can radiate to great distances. The isolating aspect of its location has, however, preceded the intermediary and inter-continental character. In course of historical development, the Peninsula has first isolated its people, until its secluded environment has cast them as if in a mould and favoured their independent growth and maturity; then as that people outgrew the limits and resources of its habitat, the Peninsula, in virtue of its central position, became a favourable base for

their ethnic, political and commercial expansion both on the land and the sea.

The intermediate position of Arabia, between India and the East on the one hand, and Egypt and Europe on the other, threw the ancient international trade between the East and the West into the hands of the Arabs. Thanks to the situation of south-western Arabia on the sea route, leading from the Indian Ocean to the Mediterranean, the merchants of the Yaman and Ḥaḍramaut coastal lands, like the ʻOmān Arabs to the East, for long acted as middle-men and enjoyed the profits of that lucrative trade which they monopolized. "Sea-traffic between the ports of East Arabia and India was very early established, and Indian products, especially spices and rare animals, were conveyed to the coast of ʻOmān. Thence, apparently even in the tenth century B.C., they went overland to the Arabian Gulf, where they were shipped to Egypt for the use of Pharaohs and grandees. . . . The difficulty of navigating the Red Sea caused the land route to be preferred for the traffic between Yaman and Syria. From Shabwat in Ḥaḍramaut the caravan road went to Ma'rib, the Sabæan capital, then northward by way of Petra to Gaza on the Mediterranean."[1]

The maritime activity of the Arabs continued in

[1] August Müller, *Der Islam im Morgen-und Abendland*, vol. I, pp. 24-25. The translation is that of Prof. R. A. Nicholson, *A Literary History of the Arabs* (Cambridge, 1930), pp. 4-5.

the Indian Ocean throughout the Middle Ages, when the Arabian and other Asiatic influences passed through them to the East African coastal lands. They retained their paramount position in the Indian waters till the advent of the Portuguese and other European maritime nations in the sixteenth century.

If the inter-continental location of Arabia has, on the one hand, thrust upon it for a long period the rôle of a commercial intermediary, it has, on the other hand, made the land a sort of focal point and favoured the movements and influences emanating from it, so as to have an unusually wide range of operation. The wide diffusion of Islam is an instance in point. This religion has been singularly fortunate in the land of its birth. Leaving aside the appeal of its simple and rationalistic doctrines to the religious consciousness of mankind and other causes that have favoured its propagation, the central position of its birth-place has been a powerful geographical factor in its wide dissemination to the remotest corners of the world, the importance of which factor has rarely been recognized, much less emphasized, by investigators. If Islam had originated in any country on the periphery of the inhabited world, it is most probable that, other things being equal, the range of its dissemination and the sphere of its influence would never have been as wide and extensive as they are to-day.

CHAPTER IV

GENERAL ECONOMY OF ARABIAN LIFE IN RELATION TO LAND

FROM time immemorial, the inhabitants of Arabia have been known to be divided into two groups or classes of society : nomadic folk and settled folk. All the Babylonian, Egyptian, Assyrian, Classical, Syrian and Arabic records recognize and refer to this division of the Arabian population into nomads and settlers. They are, respectively, the *Ahlu'l-Badw* and *Ahlu'l-Ḥaḍar* of the Arabic authors.[1] The nomads—or Bedouins, as the pastoral nomads of Arabia are generally called—are those who live by the herds of domesticated animals, principally the camel; whereas the settled folk are engaged in agriculture and trade. This division does not represent any racial distinction or classification, but only two different types of economic life; for we know that whereas, on the one hand, there are nomadic tribes like the Sherārāt, Ḥuṭaim and Ṣulubba, which are not reckoned among the Bedouins

[1] Actually, there are some minor intermediate types between the two groups, of which we shall have occasion to speak later on. However, the division between the nomads and settlers, though broad and rough, holds good in general.

of true Arab stock, on the other hand there are tribes like the Dawāsir of the present day, some members of which have settled down in towns and villages, while others are still leading a nomadic life.[1]

If we trace the geographical distribution of the nomads and settlers of Arabia, we find that their distribution is in close conformity with the climatic and hydrographic conditions of the regions which they inhabit, and that they are fundamentally of an economic order, employing two different methods of obtaining subsistence. Where there is a fairly sufficient amount of rain as in the Yaman, or stream water is available as in some parts of Ḥasā and 'Omān, or where subterranean water collects from wide surrounding areas in quantities sufficient for irrigational purposes, there people have settled down to the tillage of the soil. Hoisting water from wells of various depths by animal labour, or obtaining it from streams and springs by means of channels and aqueducts, or simply relying on the rainy showers to water their ploughed fields, they are engaged in tending their palm plantations, or cultivating to a limited extent such crops as barley, millet, wheat, cotton, indigo and sundry fruits and vegetables. This settled agriculture has given rise not only to the urban and village communities of 'Asīr, Yaman, Ḥaḍramaut and 'Omān, but also to

[1] *A Handbook of Arabia*, vol. I (London, 1916), p. 604.

the important settled districts of Central Arabia, where groups of oases support urban settlements, several of which have over 5,000 inhabitants apiece.[1]

But owing to the extreme scarcity of water—the prime condition of human existence, as well as an indispensable requisite for agriculture—cultivation is made impossible in three-quarters of the total area of Arabia. Water is only occasionally found in wells or rain-pools, which are few and far between. In the hot season they are often dry, and when they contain any water at all, the supply is generally so small that the watering of a few scores of thirsty camels would soon exhaust them, and some time must elapse before the precious liquid trickles from the surrounding area to cover the bottom again. What little supply of water is obtained through rain is not allowed to form itself into rivulets or streams, but—thanks to the limestone and sandy character of the soil—it is soon absorbed and lost, to reappear in the distant east in the springs of Ḥasā and Qaṭīf, or actually under the sea surface near Baḥrain.[2] Besides, in areas of a very considerable extent, the

[1] It must not, however, be understood that the above-mentioned provinces and districts are wholly settled and exclude nomads. Almost every district contains a greater or smaller number of nomads, who are never far from urban centres and often surround them.

[2] Hogarth, D. G., *The Penetration of Arabia* (London, 1904), p. 3. It will, furthermore, be observed that in limestone areas an attempt to store water by means of large-scale dams and tanks would be rendered exceedingly difficult, if not utterly futile, by the calcareous and absorbent nature of the soil.

forbidding nature of the lava plains (*ḥarrāt*) or the excessive salinity of salty tracts (*sibāk̲h*) presents an additional difficulty in the way of cultivation.

Such being the conditions, agriculture is out of the question for a greater part of the land. Where the country is not a barren desert, it is at the best a more or less poor steppe-land. Here the winter showers from the Mediterranean or the monsoons from the south make possible the growth of coarse grass or stunted plants, and it is by grazing his herds and flocks on this meagre and evanescent plant life that the Arab nomad contrives to support himself in this inhospitable land. It will thus be seen that outside the oases and cultivable territories, which are more or less abundantly supplied with water, man can live only as a stock-raiser or hunter. Other possibilities of existence do not seem to present themselves—at least in the present stage of the development of Arab intelligence and ingenuity. Again, since wild animal life is restricted in Arabia for the same reasons that make human existence so difficult, it is obvious that a large population could not live the life of hunters exclusively. In fact, only the comparatively small tribe of Ṣulubba or Ṣulaib, an interesting non-Bedouin nomad tribe, manage by their superior skill to supplement by fruits of the chase the livelihood they make as itinerant craftsmen.

We thus come to the conclusion that whereas a

large part of Arabia is suitable for pastoral life only, the existing ways or types of life of the pastoral nomadic and settled agriculturist communities of Arabia, as well as their geographical distribution, are in strict conformity with the physical conditions of their land. Their varied activities become fully intelligible only when they are studied in relation to the various physical conditions, which have stimulated and directed them in different channels in different parts of the land.

Ibn Khaldūn had a clear conception of the difference and distinction between the pastoral nomads, the sedentary agriculturists and the commercial townsfolk, which distinction he shows to be of an economic character, being the result of their different occupations.[1] Our inquiry has further shown that their varied economic activity is based upon, and corresponds to the different physico-geographical conditions of their land.

CONTRAST BETWEEN NOMADS AND SETTLERS

The division and grouping of the Arabian population into the pastoral and settled folk, which, as we have tried to show above, is fundamentally of an economic order and has a definite ultimate physico-geographic basis, is probably the most crucial

[1] Ibn Khaldūn, *Muqaddama* (Paris, 1858), I, p. 220 *et seq*; Beirut edition of 1900, p. 121.

fact in Arabian life and history. The divorce of the nomad economy from the settled agricultural economy represents the parting of ways. Henceforth, the two classes develop on two distinctly separate lines. In each case, the economic organization gives rise to a peculiar social and political organization, so that in course of time they come to differ not only in their general mode of life, but also in their manners and customs, their character and temperament and their ideas and aptitudes. Habits of thought and action, acquired in different surroundings and ways of life, have in course of time acquired sufficient consistency as well as persistency and fixity to fashion two distinct forms of cultural life, which cannot be mistaken one for the other.

Below, we shall make an attempt to compare and contrast the salient features of nomadic and settled life in Arabia :—

1. Nomads are perforce migratory, if they have to exploit the land through their animals. On the other hand, the settlers are sedentary, cultivating their fields and tending their palm-groves.

2. The nomads live in portable tents ; while the settlers have a fixed abode, living in houses of mud and stone.

3. Domestic animals are essential and indispensable to the pastoral economy ; while they are only useful auxiliaries of the settlers to save human labour.

4. The wealth of the nomads consists in their herds; while that of the settlers consists in their fields and household property.[1]

5. The nomads live by and trade in the produce of their flocks and herds; while the settlers live by and trade in the produce of their land.

6. Milk is the proper and chief article of nomad diet, supplemented by corn, dates and flesh; while corn and dates are the staple articles of food among the settlers.

7. Industries are restricted and trade is rudimentary among the nomads; while the settlers cultivate arts of peace, include skilful artisans and have a flourishing trade.

8. The nomads look down upon settled agriculture as ignoble drudgery, and are enamoured of the untrammelled free life of the desert. The settlers, on the other hand, find the wandering life of the nomad inconvenient, nay unendurable.

9. Being mobile and inaccessible in the desert wastes, the nomads are extremely difficult to bring under control or discipline; while the settlers, being rooted to the soil, are much more amenable to external control.

10. Scattered widely in small economico-social

[1] It is interesting to note that the same word *māl*, meaning property, has a different significance with different classes of society. To the pastoral nomad it means flocks and herds; to the cultivator, his agricultural land; to the trader, his merchandise; and to the tax-collector, it is tax-money!

groups, the nomads have developed strong separatist tendencies, which hinder political development, which in consequence stops at a loose tribal system. The conditions of settled life, on the other hand, are much more favourable to ordered political development and the formation of centralized government and unified states.

11. Among the nomads, kinship or blood relationship is the ground of community in social and political life. On the other hand, the settlers are identified with the place they live in; and the principle of local contiguity establishes itself as the basis of common political action.

RELATION OF NOMADS AND SETTLERS TO THE LAND

What is the exact relation of the pastoral nomads and settled agriculturists to the land, which is the field of their activity and the different physical conditions of which have given particular direction to that activity. The relation of the settlers to the land which they directly exploit is clear, and their dependence on it evident. But in the case of the nomads, too, who live primarily on their domestic animals, the dependence on the land, on which they roam about, is not less real. Land provides the vegetable substratum on which their animals subsist; and thus it remains the ultimate basis of

nomadic as well as sedentary society, although the bond with the soil in the case of the former is intermittent and comparatively loose.

Although the wealth of the nomads primarily consists in their flocks and herds, they have a clear conception of their ownership of the tribal land which they hold and use in common. As it is not held by permanent occupation or cultivation, the boundaries are naturally ill-defined and subject to change. Here they wander about from place to place in search of fresh pasture and water, the pastoral use of the land necessitating a move every now and then. The whole territory is thus necessary for the support of the tribe. Owing to the prevailing aridity, its springs and wells possess inestimable value for them; they are things to be jealously guarded and fought for. Any encroachment on their territory calls for the united action of the tribe. Its food supply is regarded as a monopoly; and the task of common defence devolves upon the whole tribe as a distinct duty. The conception of the ownership of the land also underlies the practice of levying a toll on travellers and wayfarers for the right of crossing the tribal district. This toll, which goes to the *shaikh* or the head of the tribe, should not be regarded as a mere blackmail, for after all in return for it the wayfarer is not only given protection, but he uses up some of their scanty supply of fodder and water. We also know

that in time of drought the tribes buy from each other for a period the right of pasturage in territories other than their own.

With the settled folk, the occupation of the land is permanent. This gives them a stability, which ensures them a distinct advance upon the nomads in civilization and the arts of peace. Thanks to their permanent habitation, their increasing density of population and their thorough use of the soil, as exemplified in their wells, gardens and fields—the relations of the settlers with the land are more numerous and stronger than those of the nomads. The land is held not in common, like the nomads; but as private individual property.

INTERMEDIATE TYPES

Whereas the majority of the inhabitants of Arabia are either purely nomadic or absolutely sedentary, there are several intermediate types, which represent a greater or less mixture of cultivation and animal-raising. These cases further illustrate the land-basis of Arabian society and the adaptation of its economic activity to the physical conditions of its habitat. The underlying fact is that there are regions which are too poor to admit of an absolutely settled life and which demand from their inhabitants the raising of cattle as well as the tillage of soil. Thus, there are tribes that are primarily

pastoral and nomadic and give more of their time to herding, agriculture being subsidiary to the exploitation of the pastures. Thirty miles from 'Aqaba, Doughty came upon green corn-fields, nourished only by the rain, which, he was surprised to learn, belonged to a section of the Ḥuwaiṭāt Bedouins. Similarly, he found the best valleys on both sides fo the *ḥarrah* near al-Ḥijr, sown every year by some of the Moahib Arabs. There in a few undressed plots, cleared amidst waste of *ḥarrah* stones and watered by channels from natural springs, these Bedouins contrived to raise barley and wheat, pumpkins, melons and a little tobacco. Their harvest finished, they would strike their tents and go forth to wander like other nomads.[1]

On the other hand, we meet with settled communities which combine agricultural with pastoral activity. The settled tribes of 'Asīr, whose mainstay is agriculture, carried on by irrigation in wadis, also keep animals, which they pasture on the hills. Jabal Shammar presents a remarkable mixture of nomadic and sedentary conditions. Bedouins do things there that no other desert tribe would do; while at certain seasons the villagers themselves lead a partially nomadic life. Bedouins possess palm-groves, and the cultivators own and graze horses, camels and sheep. This state of affairs shows that physical conditions in this region admit both of agricultural

[1] Charles Doughty, *Arabia Deserta*, I, 45, 234; II, 440.

and pastoral pursuits, and the people finding neither of these sufficient by itself to support them, occupy themselves with both. Similarly, the semi-nomad pastoralists (*Ra'iyya*) of the Syrian border lead a double life. After sowing their crops in the autumn, they leave their permanent dwellings in the rainy season, and with their flocks of goats and sheep make their way into the steppe, where they dwell in movable tents. In April or May, when the harvest time is near, they return to their villages.[1]

Within nomadism itself there are distinct degrees or types, related to the animals bred by the nomads. Whereas the majority of the Arab nomads, the true Bedouins, breed camels exclusively or in the main, there are certain tribes that live exclusively by goats and sheep, and are known as *shwāyā* or *Shuwwān* (شَوايَا، شُوّان). In a subsequent chapter on the domestic animals, we shall try to show the varying degree of suitability of different animals to the desert environment. Thanks to its frugality, its capacity to bear thirst for several days on end and its great power of endurance, the camel can penetrate and manage to live in barren inhospitable regions, which are quite inaccessible to goats and sheep, which require frequent watering and are, besides, incapable of making long marches. The climatico-botanical regions of the camel and the sheep are therefore

[1] Alois Musil, *The Manners and Customs of the Rwala Bedouins* (New York, 1928), p. 44.

quite different. This fact has given rise to two quite distinct types of nomadism in Arabia: that of the camel-herds and of the shepherds. There is a remarkable difference in their manner of life, which is much more conspicuous in their respective political conditions. The camel-herds or the Bedouins *par excellence* who form the majority, are by far the more important of the two, constituting as they do the aristocracy of the desert population of Arabia. Their importance and superior power does not, however, simply proceed from their larger numbers; it comes mainly from their greater mobility and the wider range of their movements and migrations. Aided by a strong animal of transport like the camel, which at the same time provides them with necessary nourishment, they are in a position to make long journeys and, in case of need, to retire and take refuge in the interior desert and there enjoy comparative security and independence. The sheep-breeders, on the other hand, are confined to the edge of the desert, because their flocks do not permit them to go into the interior; they encamp on the territory where there is abundance of water and grass. Not only are they unable to undertake extensive raids, but they have to acknowledge the supremacy of the more powerful camel-breeding Bedouin tribes, to whom they pay a protection-tax. Sometimes, they are also subject to the exactions of the local rulers of the neighbouring settled

territories. This explains why a certain degree of humiliation and disgrace has always been attached to the breeding of smaller domestic stock.

So far as we know, the cow is not associated extensively with pastoral nomadism within the limits of Arabia proper. Its limited distribution, both as a dairy and draft animal, among the settled communities of Central Arabia and elsewhere will be noticed in the special chapter devoted to domestic animals. Mr. Bertram Thomas has, however, reported the existence of rich herds of cows in the forested parts of the Qara mountains,[1] which are sprinkled by a three months' drizzling rain from the Indian south-west monsoon. The people are mainly settled herdsmen and live chiefly on their cows, supplementing their livelihood by gathering and exporting frankincense (لوبان), a characteristic product of their district. Camels are also bred by some groups, but principally for transport purposes.[2]

That the breeding of cattle is closely connected with climatic conditions is also well illustrated by the distribution of the cattle-rearing Arab or Arabicised nomad or semi-nomad tribes of Eastern Sudan (Kordofan, etc.), known as the baggara (*i.e. baqqārah*, cow-herds).[2] Here cattle-breeding locates itself between the northern fringe of the equatorial

[1] Bertram Thomas, *Arabia Felix* (London, 1932), p. 78 *et seq.*

[2] C. H. Becker in *the Encyclopædia of Islam*, *s. v.* Baggara. See also S. C. Treatt, *Sudan Sand : Filming the Baggara Arabs* (London, 1930).

forest and the steppe-lands bordering the Libyan desert. Various baggara tribes have northern relatives of the same name, who rear camels exclusively. It is quite plain to see that the Arabs took up cattle-breeding in their advance towards the south as the climatic conditions became favourable for it.

PRIORITY OF THE NOMADIC BEDOUINS

It was customary at a time with historians and political theorists to maintain that all peoples had passed through three successive phases, *viz.*, hunting and fishing, cattle-rearing and agriculture. The insufficiency of this theory, involving strict and clear-cut categories, has now been felt, and it is recognised that there is no compulsory passage of different peoples from one phase or state to another. For want of domesticable animals, for instance, a community of hunters, like the Red Indians, may never pass to pastoral life. Similarly, unrelieved aridity of a region may for ever condemn a pastoral people to an unstable nomadic existence. In the case of Arabia, however, the old theory, though discredited in its universal application, seems to hold good ; and there is reason to believe that the nomadic life there is prior to sedentary life and that the first inhabitants of settlements were originally nomads. We cannot decide this question with simple appeal to history, because in the very beginning of historical

times, when things and events begin to emerge in the light of history, the division of the people into nomads and settlers is already an accomplished fact. As has been said above, the records of the neighbouring civilized people refer to these two groups. The subjects of the oldest known kingdom of south-west Arabia were mainly settled agriculturists and traders, and their towns and villages were at a later period seen and attacked by the Romans under Ælius Gallus. Whereas in Pliny we find only a few names of Central Arabian towns and villages, Ptolemy enumerates 114 towns or villages in Arabia Felix alone.[1] If we may justifiably argue from the events of comparatively recent times, we may presume that all the towns and villages were originally started by nomads in places that were found favourable for cultivation and settled life. The view of Ibn Khaldūn on the subject is well known. He unhesitatingly derives the settlers from the nomads.[2] Modern observers, like Doughty, are also strongly inclined to think that all the villages and towns of nomad Arabia were at first colonies of Bedouins, whose inhabitants still remember their nomad tribes.[3] The settled folk in Najd are almost all of original Bedouin stock—Banū Tamīm and Banū Khālid in Qaṣīm, Southern ʻAnaza, Tamīm and

[1] Hogarth, *The Penetration of Arabia*, p. 17.
[2] Ibn Khaldūn, *Muqaddama* (Paris, 1858), vol. II, p. 224 *et seq.*
[3] Doughty, *Arabia Deserta*, vol. I, p. 234.

Dawāsir in Central Najd and Dawāsir and Qaḥṭān in the south-west. If other tribes come in, it is to settle.[1] The history of Banū Tamīm is very instructive in this respect. At the advent of Islam they were essentially nomads and had no towns in the proper sense of the word, though they visited them occasionally and sometimes even held them to ransom.[2] They are now an entirely settled tribe, and form an important element of the fixed population of Najd and Jabal Shammar.[3] Boraida is said to have been founded by them about four hundred years ago.[4]

[1] *A Handbook of Arabia* (London, 1916), vol. I, p. 351.
[2] *The Encyclopædia of Islam*, *s. v.* Tamīm.
[3] *A Handbook of Arabia*, I, 610-11.
[4] *The Encyclopædia of Islam*, *s. v.* Bereida.

CHAPTER III

DOMESTIC ANIMALS OF ARABIA IN RELATION TO THE LAND

WHILE studying the economic life of the Arabs, we are naturally led to a consideration of their domestic animals, which stand in a definite relation with the land on the one hand, and the economic life of the people on the other. The domestic animals may be discussed from various points of view; but here we need only see them in their geographical setting, and consider their suitability or otherwise to the physical conditions of Arabia, and also determine with what methods of exploitation of the soil and with what forms of economic organization they are generally associated there.

It will be readily seen that geographical conditions influence not only human life, but also animal life in general. Geography of a land determines what kinds of animals shall or shall not thrive in it, and thus it exercises a sort of selective control on the animals available for domestication there. The domestic animals of the Arabs thus form a link between the land, on the one hand, to which they are adapted, and the economic life of the people on

the other, with which they are so intimately and indissolubly bound up.

Although what the Bedouin exploits at first hand are his domestic animals, his dependence on the vegetation of the land is as great as that of the agriculturist, who exploits the land directly. The Bedouin's flocks and herds must have grass and water, without which they could not live, much less support their keepers. Vegetation thus forms the ultimate basis of human life in the desert as in cultivated territories. The nomads will not burn the good pasture bushes even in their enemies' country. It is the food of their animals. Doughty sometimes unwittingly offended them by plucking such bushes and giving them to the flames of the tent-fire. Tribesmen, who could not make allowance for his ignorance in the matter, called it a heathenish act.[1] Thus, their animals form a link,—a very necessary one in their case—in the chain that binds the people to their land. The importance of the vegetable substratum for the nomads is also brought home to us, when we consider that the nomad population does not simply increase with the multiplicity of their herds. Their herds cannot multiply indefinitely, because there is a limit imposed on their increase by the existing vegetable resources of the land.

[1] Doughty, *Arabia Deserta*, I, 260.

1. THE CAMEL

We have already mentioned the camel in connection with the Bedouin economy. It appears to have been domesticated by the Arabs from very early times, so that when the curtain is lifted from the stage of history, the Arab and his camel are already found to be friends of long standing. Joseph was sold to the Ishmaelites, who came with their loaded camels bound for Egypt (Genesis, 37 : 25-28). It figures prominently in the oldest known civilization of Southern Arabia, where it was bred for its milk as well as for transport. When the Queen of Sheba came to prove Solomon with hard questions at Jerusalem, there was with her a train of camels that carried spices (II Chronicles, 9 : 1). It is as camel-riders that the Arabs of the north impressed themselves on their neighbours : in the wonderfully life-like reliefs of the Assyrian king, Assurbanipal, the Arab warriors are represented as camel-riders.[1]

That the camel has been associated, as a characteristic domestic animal, with the Arabs in general and the nomad Bedouins in particular, is not a fortuitous circumstance. Neither the horse nor the

[1] On the general characteristics of the camel and its relation to the patriarchal nomadic life, see Carl Ritter, *Die Erdkunde*, 13 Theil, S. 609 *et seq*. The picture he draws of the camel in its desert environment is in some places too highly coloured and yet very interesting, his descriptive account being something of a rhapsody !

cow, nor any other animal that is known to be associated with the life of other pastoral peoples, could take its place in the arid steppes and deserts of Arabia. That the life of the Bedouins has been associated with the camel in particular, is due to the fact that this animal alone is adapted, by virtue of its peculiar qualities, to the geographical conditions of Arabia. We know that Arabia, considered climatically, suffers upon the whole chiefly from extreme dryness and excessive heat, and is very poor in water and pasture-land. Now the camel overcomes these disadvantages in a most remarkable way. In fact, the scarcity of water and good pasture appears to be no great disadvantage to it; for no animal puts its owner to less expense and trouble for its keep. It picks up its food where it can, living on the roughest grass, and browsing on thorny acacias and tamarisk (Ar. *athl*), and finding a considerable part of its sustenance in the *rimth* plant, a saline bush which, as the Bedouins say, 'is to the camel what flesh-meat is to man.'[1] The thorns of the desert, dry grass, cactuses, euphorbias—nothing comes amiss to the catholic and unexacting taste of the camel.[2] As regards water, it can do without it

[1] Doughty, *Arabia Deserta*, I, 651. For the favourite plants and bushes of the camel, see Lammens, *Berceau*, pp. 54-55; also Ibn Sīdah, *Kitāb al-Mukhaṣṣaṣ*, 7th part, pp. 87-89 (عَلَف الإبِل).

[2] It is only in the oases and cultivated territories of Central Arabia, where camels are employed for working wells, that they are fed on corn and dates which, however, only the well-to-do can afford. The oases

for days and weeks together. Even in the hot season it can hold out for three or four days, whereas in winter it can pass a full week waterless without discomfort. In the spring season, the moisture in the fresh juicy plants suffices for its needs, and it will not touch water for as long as a month. In short, its wonderful patience, power of endurance and physical strength render it eminently suitable for the hard life of the desert and it is probably with reference to these qualities, and to the physical constitution, which lies at the basis thereof, that the Qur'ān invites our attention to this animal, bringing it forward as a marvel of creative nature.[1]

It is no exaggeration to say that a large part of Arabia would have remained unexploited and uninhabited by man, but for the domestication and utilization of the camel. The Arab nomadic life cannot be conceived without the camel, whom Père Lammens has so appropriately called the '*alter ego*'

produce nothing but date-palms and garden produce, and have generally no camel pasture in their neighbourhood (Blunt, *Pilgrimage to Nejd*, p. 4). The Bedouins need not, and could not afford such luxuries, since they buy corn for their own consumption, when they can. The camels employed in the Hajj caravans have no time to browse, and are therefore fed, as in Syria, on balls of boiled pulse. The 'Oqail camel-dealers are also said to carry millet and coarse flour as fodder for their camels. On the 'Omān coast, where agriculture is supplemented or replaced by fishing, live-stock including camels are largely fed on fish-heads boiled up with date-stones. (*A Handbook of Arabia*, p. 241.)

[1] (Al-Qur'ān, 88 : 17.) أَفَلَا يَنْظُرُونَ إِلَى الْإِبِلِ كَيْفَ خُلِقَتْ

of the Bedouin.

Even in cultivated territories it does yeoman's service by raising water from wells, without which agriculture would be impossible there. The value of the camel for the Arabs in general and the nomads in particular, cannot be over-estimated; and it is far from easy to enumerate and exhaust all the possible ways in which it is made use of, dead or alive. The she-camel gives them milk all the year round; this forms the principal and, in many families, the only food for months. Fresh, sour or dried, the milk is used in many forms.[1] The camel also serves them as a general agent of communication and transport, which is a fact of very great importance for the migratory nomads. The camel not only carries his owner, but also his family, and his household effects, including his tent. It is the alimentary need of the camel itself that forces the Bedouin to be migratory, and it is therefore a blessing for him that his animals should be strong enough to transport him, as well as his belongings. As a matter of fact, the deserts, on account of their prohibitive character, would be impassable for the Arabs but for the camel. When slaughtered, it provides them with flesh food. The hair is made into clothing, tent-cloth, sack-cloth and ropes. Hide is tanned and made into buckets, water-troughs, bags and various other vessels. The dung is used as fuel.

[1] For details, see the section on food, *infra*.

In summer, in the absence of water, camel-urine is used for washing hair, chiefly by women.[1] It is said to possess even medicinal properties. When hard pressed for water, the Bedouins are reported to slaughter their camels and drink the water from their paunches.[2] Although the existence of the practice has been denied and discredited by Burckhardt (*Notes*, pp. 259-60), G. Jacob (*Altarabisches Beduinenleben*, p. 96) and Leonard (*The Camel*, pp. 38-39), Musil learnt that the practice was not uncommon among the Rwāla at least, and he goes even so far as to assert that there is hardly an adult Rwālī, who has not tasted such water at least once in his life.[3]

The camel proves an economic asset for its owner in other ways as well. The Bedouins hire it out for money to settlers and townspeople, when the latter have to make a long journey through the desert from one town to another. The use of hired camels in the Hajj caravans is a well-

[1] For the place of camel-urine in Bedouin toilet, see Doughty, *Arabia Deserta*, vol. I, pp. 237, 240 ; Musil, *Manners*, pp. 117-118 ; Harrison, *The Arab at Home*, p. 25. See also the graphic description of Musil in his *Northern Negd*, p. 88. When the Bedouin poet exhausts the resources of his copious language in praising the black, long and flowing hair of his beloved, the effect would be greatly lost, it is feared, on the reader, and his æsthetic enjoyment spoilt, if he were to be reminded that the much-applauded locks might have been washed in camel-urine !

[2] Referred to, for instance, in *Tabari*, vol. I, p. 2123, where horses are reported to have been watered by such means.

[3] Alois Musil, *The Manners and Customs of the Rwala Bedouins* (New York, 1928), pp. 94-95 ; 368.

known practice. The surplus stock is sold to the agriculturists, who use the camels in ploughing, for raising water and for carrying their products to the markets; while the camel traders export them in large numbers to the neighbouring countries for meat (*e.g.*, to Egypt and Iraq), or chiefly to be used in civil and military transport. The camel trade is an important trade of Arabia, and it is estimated that about 45,000 camels are exported every year. It should be noted as important, from our climatic point of view, that the camel trade is regulated by the succession of seasons. The camels are sold only in summer, when there is difficulty in pasturing them and when the Bedouins need money to provide themselves with clothes and food for the coming autumn and winter. There is a complete cessation of camel trade in winter, when the Arabs have laid in their stock of provisions and the first winter rains make it easy for them to pasture their herds, which they prefer to preserve for milk and for breeding.

The pre-eminent position of the camel in the practical life of the Arabs accounts for the large place it occupies in their language and literature. It is said that the Arabic language has four thousand names for the camel alone, and one who has seen sixty pages of Ibn Sīdah's *Kitāb al-Mukhaṣṣaṣ*[1] filled

[1] Ibn Sīdah, *Kitāb al-Mukhaṣṣaṣ*, 7th part, pp. 17-76
(نُعُوتُ الْإِبلِ و صِفَاتُها)

with the various attributive and qualitative names of the camel will not feel inclined to seriously doubt or challenge the assertion. Almost every poet of the desert has sung the praises of the camel;[1] the poet Ṭarafa's long description of his she-camel in his Mu'allaqa being the best-known classical example of its kind. In short, this animal figures so largely in their poetic similes, proverbs and everyday expressions that one feels at times as if the Arab thinks and speaks in terms of the camel.

It should also be noted that whereas the camel is a *sine qua non* of Bedouin economy—the very pivot on which pastoral nomadic life rests—it plays a comparatively minor part in the economic organization of agricultural territories, where the people live on the yield of their palm-groves and corn-fields, and where it is used, along with oxen and asses, in working wells, thus simply saving human labour. It is nevertheless true that here again its employment is a necessity, and is much to be preferred to that of oxen, whose strength 'cannot profitably draw wells of above three or four fathoms, and if God had not created the camel, Najd, they (the Arabs) say, would have been without an inhabitant.'[2]

[1] While the effusions of the older Arab poets may be read in any anthology of ancient Arabic poetry, reference may here be made to Musil, *Manners*, pp. 338-68, for camel songs current among the present-day Rwala Bedouins.

[2] Doughty, *Arabia Deserta*, I, 292.

2. THE HORSE

Although in a description of the animals of Arabia, Palgrave assigns the first place to the horse,[1] it has no economic value as compared with the camel. However much the breed may have improved in certain respects in Arabia, and however just and deserved may be the popularity and esteem enjoyed by the Arabian horse in the outer world, the fact remains that, owing to the lack of abundant water and good pasture, the horse has always been rare in Arabia and it could not thrive there without the care of man. Almost all the modern travellers and explorers of Arabia have observed the fact and are agreed on this point. In his visits to the Aneyza encampments, Burckhardt could seldom reckon more than one mare for six or seven tents; while among the Ḥarb in the Ḥijāz, he saw a few only in the possession of their principal persons (*Notes*, 40, 238). Doughty tells us that the Fuqarā are considered a tribe of horsemen, and yet their mares did not amount to a score.[2] Lady Blunt, whose observations on all matters, relating to the horse, are entitled to our highest respect, tells the same tale. Even in Najd, which is celebrated for its horses and is regarded as the best breeding-ground for them, they are exceedingly rare. 'One may

[1] In his article on 'Arabia' in *the Encyclopædia Britannica*, 9th Ed.
[2] *Arabia Deserta*, I, 274.

travel vast distances in the Peninsula,' she writes, 'without meeting a single horse or mare or even crossing a horse track.'[1]

The conditions in this respect were about the same thirteen hundred years ago, when the horse, as shown by Lammens (*Berceau*, p. 137), was an animal of luxury afforded only by a few rich persons. That the chief difficulty in the way of successful breeding of the horse lay then, as now, in the scarcity of suitable food, is evident from a story related by Ṭabari (I, 2756-57) about 'Abdullah b. Abī Rabī'a, who was allowed by the Caliph 'Omar to keep horses in Medina, only on condition that he would obtain the requisite fodder for them from outside the Medina district.[2]

The reasons for this scarcity are not far to seek. The existence of the horse presupposes plenty of water and good pasturage, two conditions not to be easily fulfilled in Arabia. Lady Blunt writes about the northern part of the favoured Najd, "the oases, in which the towns stand, produce nothing but date-palms and garden produce, nor is there a blade of grass or even a tuft of camel pasture in the

[1] *A Pilgrimage to Nejd*, p. 13.

[2] Everyone has remarked the comparative smallness and spare build of the Arabian horse. This is most probably due to scanty and unvaried food; for Mr. Davenport states (as mentioned in Semple: *Influence of Geographic Environment*) that the pure blood Arabian horses raised on his New Jersey stock-farm are in the third generation a hand higher than their grandsires imported from Arabia, and of more angular build.

neighbourhood. The townspeople keep no animals except a few camels. . . . . Horses are a luxury reserved only for the princes."[1] According to Doughty, a horse will drink one-third more than a camel, and since it soon suffers from thirst, the carriage of water for it on a long journey becomes a serious impediment. The question of food is hardly less troublesome, for it cannot stomach the coarse grazing which contents the camel. "There is a foster camel to every nomad mare, since they taste no corn, and the harsh desert stalks could not else sustain her: the horse, not ruminating and losing much moisture by the skin, is a creature very impatient of hunger and thirst. His mare is therefore not a little chargeable to a sheykh in the desert, who must often burden another camel with her provision of water. Who has wife or horse, after the ancient proverb, may rue; he shall never be in rest, for such brittle possessions are likely to be always ailing."[2]

In short, the horse has no place in Arabia, especially in the drier regions, and would perish if the Arab did not take better care of it than of his own children. He milks first for his mare and would pour out the last drop from the water-bag for the pampered animal, while the children are crying for water. While a camel will exist even without the care of man, a runaway horse would soon perish

[1] Anne Blunt, *A Pilgrimage to Nejd*, I, 4-5 (London, 1881).
[2] Charles Doughty, *Arabia Deserta*, I, 261.

in the desert.

Despite its scarcity, the horse has nevertheless possessed a commercial value for a few individuals at least. There are indications of a horse-trade even in olden times. In Ṭabari (I, 2190) there is a casual mention of horse-dealers of the Christian tribes of Namir and Taghlib. We are naturally better informed about the horse-trade of recent times, which seems to have acquired considerable proportions, apparently owing to the increased facilities of transport to foreign countries, among which India has always provided a ready market for the animal. Ibn Rashīd in the last century had a stud at Ḥā'il; the horses were preferably grazed in the Nufūd and exported chiefly to India through Kuwait. Individual enterprise also has not been lacking in this respect. Although there is no breeding of horses at Boraida or 'Onaiza, or any other town in Najd, the traders there buy up young stallions from the Bedouins, who exclusively ride the mares and do not care for male colts.[1]

The value of the horse for an average Bedouin, however, lies in quite another direction. He is prepared to take endless trouble on its account, because it serves him as a weapon of war. It is much easier to make or repel an attack on horseback

[1] Charles Doughty, *Arabia Deserta*, II, 389. Musil states that the Rwala actually destroy the newly-born male colt, so that the mother may not be needlessly weakened (*Manners*, p. 374).

than when mounted on a camel. The power an prestige a tribe enjoys is proportionate to th number of horses it can bring into the field. Fro the almost exclusive use which the Arabs mak of the horse as a war animal, one is strongly incline to think that the introduction of this animal i the Peninsula has been, on the whole, of very dubious utility, for its employment has clearly tended to make the warfare of an already too belli- cose people all the more fierce and deadly.[1] The gusto and pride, with which the Arab warrior-poet describes the fine points of his valued mare and the martial exploits performed on its back, are well known to all readers of Arabian poetry. It need only be remarked here that the Qur'ān has not lagged behind in its appreciation of the horse as a war- animal; and the picture it draws (in Sura 100)[2] of a cavalry charge in a morning foray is as spirited as any in the Arabic literature. Suddenly do they emerge before our eyes, running and panting; striking fire with their hoofs in their mad charge at break of dawn; raising clouds of dust in their gallop and finally rushing down upon, and cleaving, the enemy host.

[1] For the introduction of the horse in Arabia and the probable date thereof, see Moritz, *Arabien*, pp. 43-45.

[2] وَ الْعٰدِيٰتِ ضَبْحًا ○ فَالْمُوْرِيٰتِ قَدْحًا ○ فَالْمُغِيْرٰتِ صُبْحًا ○
فَاَثَرْنَ بِهٖ نَقْعًا ○ فَوَسَطْنَ بِهٖ جَمْعًا ○ (القرآن : سورة الْعٰدِيٰت)

3. SHEEP AND GOATS

Next to the camel in economic value for the Arab nomads are their sheep and goats. As compared with the camel, their distribution, however, is limited, since they are incapable of bearing thirst or making long and swift journeys like the camel in search of pasture and water. Although many Bedouin tribes possess a greater or less number of goats and sheep in addition to their camels, they are more abundant on the Syrian borderland and in such other regions of Arabia as are better watered. The tribes who exclusively breed sheep are called *Shwāyā*, corresponding to the *shāwiyah* of Ibn Khaldūn.

The sheep has evidently undergone a marked transformation in the desert *milieu* and is approximating to the goat.[1] Its thick wool has changed into smooth, long hair; and the animal has grown thinner, so that Palgrave speaks of sheep-like goats or goat-like

It is highly interesting to note that in the *Book of Job*, too, the horse is seen and depicted as a fearless and dreadful war animal. In chapter 39 (verses 19-25), we read; "Hast thou given the horse strength? hast thou clothed his neck with thunder? Canst thou make him afraid as a grasshopper? the glory of his nostrils is terrible. He paweth in the valley, and rejoiceth in his strength: he goeth on to meet the armed men. He mocketh at fear, and is not affrighted; neither turneth he back from the sword. The quiver rattleth against him, the glittering spear and the shield. He swalloweth the ground with fierceness and rage: neither believeth he that it is the sound of the trumpet. He saith among the trumpets, Ha, ha; and he smelleth the battle afar off, the thunder of the captains, and the shouting."

[1] Moritz, *Arabien*, p. 47.

sheep.[1] Lady Blunt also at first took the sheep f goats, since they were as unlike sheep as was possib to conceive.[2] It is only the milk of sheep and goa which is churned for the sake of butter.

4. THE ASS

By virtue of its hardness and power of endurance the ass is hardly less suitable for Arabia than th camel; while for transport purposes, it is decidedly more important than the horse, because it is patient of thirst and need only be watered every second day. The Sulubba, who do not possess any beasts except the ass, cross waterless regions as well as do the camel-riding Bedouins.[3] In the *ḥarrah* country the ass has even an advantage over the camel, in that its hard hoofs stand the sharp stones better than the camel, whose soft feet are liable to be corroded and wounded in those tracts. Donkeys are numerous in villages and towns, where they are used not only for riding but also for raising water from irrigation-wells.

5. THE COW

The kine are, probably, the least important of the domestic animals of the Arabs. They require plenty

[1] W. G. Palgrave, *Central and Eastern Arabia*, II, 127 (London, 1865).

[2] Lady Anne Blunt, *A Pilgrimage to Nejd*, I, 201 (London, 1881).

[3] Doughty, *Arabia Deserta*, I, 281, 428.

of fodder and water, and consequently do not thrive on the poor Arabian soil. Although they are found to a limited extent in many villages and settled habitations, they are, as a general rule, in a degenerated condition. Doughty saw them in the oases of the Ḥijāz (al-'Olā, Khaibar and Ṭā'if) and also in Qaṣīm. Philby found them in south-east Najd (al-Kharj), but of a uniformly miserable and stunted growth, due no doubt to the poorness of the grazing in the vicinity of settlements, where they are expected not only to supply milk but also to take their part with camels and asses in the ordinary draught work of the villagers.[1] They are also found in the Yaman, but the worth and quality of the breed can be judged from Doughty's statement that the small Yaman kine could be had in Medina for the price of a good sheep.[2] Mr. Bertram Thomas has reported the presence of rich herds of cows in the forested parts of the Qara mountains (Central South Arabia); but the published photographs show them to be of stunted growth, like their kind in other parts of Arabia, hardly measuring three feet in height.[3]

[1] Philby, *The Heart of Arabia*, II, 33.

[2] Doughty, *Arabia Deserta*, II, 184.

[3] Bertram Thomas, *Arabia Felix*, p. 78. See also the photograph facing p. 80.

CHAPTER VI

THE OASIS COMMUNITY OF CENTRAL ARABIA IN RELATION TO LAND

THE provinces of Ḥijāz, 'Asīr, Yaman and Ḥaḍramaut in the west and south-west of the Arabian Peninsula and 'Omān and Ḥasā in the east, all contain, along with nomadic or semi-nomadic tribes, urban and village communities, which are rooted to the soil and are engaged in agriculture and to a less extent in trade. Besides, there are three large groups of oases in the centre of the Peninsula, which support several considerable towns and numerous large and small agricultural villages. Whereas all these settled communities dispersed over different parts of the land are based on agriculture, which in its turn presupposes sufficient water-supply in one form or another for irrigation purposes, they all show slight differences of cultural development owing to the difference in natural conditions, and therefore ought to be studied separately with reference to their respective positions and physical environments. It is to the last-named, *i.e.*, the oasis communities of Central Arabia, that we propose to confine our attention for the present and study their main features in relation to the land, on which they have their being.

1. THE HYDROGRAPHICAL BASIS

The distribution of settlements in Central Arabia is directly connected with the hydrography of the land.[1] It is the presence of subterranean water in quantities sufficient to ensure cultivation that has enabled people to settle down in villages and towns of greater or less extent. There are no rivers in central Arabia or in any other part of the land; but there are many valleys or watercourses, for which the common local name is *wādī* in the singular. Although they are generally dry for most part of the year and flow only rarely after rainstorms, they carry water throughout the year beneath their beds; and where that underground drainage rises sufficiently near the surface to be tapped by means of wells, there oases have sprung up to give harbour to man and beast. The district of Qaṣīm, with its chief towns of 'Onaiza and Boraida and many other smaller settlements, owes its agricultural prosperity to Wādī Rumma, the longest of all the wādīs in Arabia, whose course from the neighbourhood of Medina to the Shaṭṭ al-'Arab is about 1,000 miles. Similarly, the south-eastern Najd ('Āriḍ), the seat of the political power of the region, owes its settled population to Wādī Ḥaisiyah-Ḥanīfa, which, originating to the east

[1] On the hydrography of Arabia in general, see B. Moritz, *Arabien: Studien zur physikalischen und historischen Geographie des Landes*, pp. 21-30. (Hannover, 1923).

of Jabal Ṭowaiq and giving fertility to ʻĀriḍ, ultimately disappears in Yamāmah. Whereas the various districts differ in altitude and the character of their soil, they have one common feature in that almost all settlements, or at least their gardens, are situated in valley-depressions, where the water is sufficiently near the surface to be reached by means of wells. This fact clearly shows their direct dependence upon the subsoil water, and also accounts for their location. Riyāḍ, for instance, lies in a depression about 100 feet below the general level of the plain, and is not visible till at short range.[1]

Since the level of ground-water varies in different parts of the same wadi-basin, fertile tracts are not continuous. Settlements are therefore found in the form of a string or cluster of isolated oases, which are separated from each other by desert or steppe-land of greater or less extent.

To sum up, the settled communities of Central Arabia live by the direct exploitation of the soil through agriculture, which has been made possible for them by the presence and utilization of subsoil water in or near wadi-beds.

It may be asked whether the area of cultivation could be increased. Our knowledge of the physical conditions of present-day Arabia enables us to

[1] In a similar way, the long depression of Wādī Sirḥān in the north has created the important settlement of al-Jauf and its adjoining oases, which are 500 feet below the level of the surrounding desert.

answer this question in the affirmative. Whereas it is true that the supply of underground drainage is after all limited and that it can be profitably tapped only in certain places, it is equally true that whatever the supply, it has not been fully utilized. Agriculture presupposes two primary physical conditions, cultivable soil and sufficient water. There is plenty of land, we are informed, suitable for agriculture near the existing oases or far from them,[1] which could be utilized if new wells were sunk to obtain the requisite water-supply. As is well known, it is an important part of the programme of the Ikhwān movement to create new settlements of the Ikhwān members throughout the length and breadth of the land, and the success which the effort in this direction has already achieved shows great possibilities of increased settled life based on agriculture. Since the inception of the movement, sixty-five new settlements have been started, some of which are of considerable size.[2] Artawiya alone, for instance, the fountain-head of the movement, has about 10,000 inhabitants, as reported by Philby,[3] who also noticed that whereas the wells of Artawiya lay in a ravine (*shi'b*) of that name, there were countless clean and unclean wells in the parallel valley of Butaira, which were apparently used only as water-

[1] Harrison, *The Arab at Home*, p. 51. (London, 1924).

[2] *Ibid.*, p. 39.

[3] Philby, *The Arabia of the Wahhabis*, pp. 352-53 (London, 1928).

ing places for camels and sheep, but could easil give rise to a new settlement.

But the nomad mode of thought and habit c life present a great difficulty in the way of increase settled life. Even though the Bedouin knows o such places where he could settle down, he is loath to give up his free desert life for the labour of cultiva- tion, which he considers hard and disagreeable, and which he looks down upon as drudgery unworthy of free men. The habits of thought acquired in one particular manner of life prevent him from adopting another. So long as his animals supply him with a little milk, he is content with himself and his lot, finding diversion from his monotonous existence in his favourite game of the raid (*ghazwa*). He must starve before stooping to the cultivation of the soil.

Not only is the Bedouin himself averse to settle down, but his predatory habits also make the open desert unsafe for other people, who would take to the tillage of the soil far from existing settlements. A case of this kind, which came to the knowledge of Doughty, may be taken as illustrative of the conditions obtaining in the desert. Near the site of al-Ḥijr, he noticed a number of ruined habita- tions and garden-walls. He was informed that they had been formerly built by certain settlers from Taimā, who had carried on agriculture there for some time, until they made enough capital to be able to buy land in their own town, whither they

eventually returned because of the danger to which their life and property were constantly exposed in the desert.[1]

2. WELLS AND GARDENS

As regards the source of water-supply, the oases of Arabia may be divided into two types. An oasis of the first type is that whose land is watered by running springs. Such is al-ʿOlā, where palm-groves are irrigated by springs, rising in the midst of the oasis. Similarly, on the eastern coast in Ḥasā, practically all the gardens are watered by springs. The water on which the life of the oases depends is, however, not everywhere obtained so easily. It has to be laboriously drawn from depths of 30—90 feet.[2] This is the second type of oasis, and nearly all the oases of Najd are of this kind. In order to reach the subsoil water, wells have been sunk, which differ in their dimensions and depths. Water is hoisted in a large leather bucket, which is attached to a rope drawn over a pulley and away from the wells. Camels, donkeys and kine, but

[1] Doughty, *Arabia Deserta*, I, 136.

[2] Philby (*Arabia of the Wahhabis*, 341) noted, at the small settlement of Nukhail al-Abd near Zilfi in Najd, that the subsoil water was so close at hand that the palms, tapping the moisture with their roots, needed no irrigation. This is, however, a very rare example of a palm-plantation in Arabia, in the case of which all artificial irrigation is dispensed with.

especially the first-named, are employed to do draught-work. The path on which the ani moves away from the well is made on a sli incline, so that the animal is going slightly down the bucket is being raised and the effort involv is thus reduced. The wells are generally work for the greater part of the day and night, becau it is necessary to draw water without ceasing order to irrigate a thirsty soil. In summer, whe water is in great demand, the wells are worke throughout the day and night.

The labour and expense of raising water b the means at present employed by the Arab being very considerable, the depth of the wel which varies from oasis to oasis (30—90 ft.), directl affects the economic value of the land irrigated from it. In the case of very deep wells, *e.g.* those o Riyāḍ, the labour involved is so great that it practi- cally eats up the profits of gardening. Husbandry is, therefore, more profitable in places where subsoil water is near the ground-surface and wells are comparatively less deep.

The water raised from the well is conducted to a reservoir and from there to palms and fields through channels, which are sometimes, as Philby noticed

[1] On the various kinds of wells in ancient Arabia, together with their accessories and the ways in which they were made, see E. Bräunlich, *The Well in Ancient Arabia* (Leipzig, 1925), which work admirably fulfils the philological and lexicographical demands of the subject.

near ‘Onaiza, made of stone-work or cement-lined as in Ḥasā. It is, however, common to see water wasted in passing through long sandy waterways and the practice of paving channels with some hard material does not seem to be general, but might be adopted with great advantage everywhere, so as to guard against the infiltration of water, obtained with so much labour. Some care in the use of water, however, is shown by the fact that it is lifted high enough to give it a good pitch as it flows through the channels, so that the flow to the field is rapid.

The principal tree of an Arabian oasis is, of course, the date-palm. The trees are planted in rows and at a regular distance from each other. The intervening space is utilized, where possible, by growing other fruit trees and vegetables. The cultivated soil is too valuable to be given exclusively to these trees, the fruits of which are not necessities but are looked upon as luxuries. The fruit-trees that will generally grow in Central Arabia are not few. Philby enjoyed peaches and figs in Qaṣīm, together with pumpkins and melons. Doughty saw plums at al-‘Olā and Taimā. Jabal Shammar and Taimā have a wider range, including apricot, apple, pomegranate and lemon. Vine is also grown, but to a very limited extent. These fruits, however, are not a source of income for the cultivators, since they are not sold (except in the Ḥijāz to the pilgrims), but are reserved for home consumption and

the entertainment of friends, guests and wayfarer

The gardens are generally enclosed by mud-wa which serve a double purpose. Firstly, they prev the sands of surrounding deserts from encroach upon cultivated land, and secondly, they ensure measure of security against spoliation and atta The first consideration is clearly geographical.

Of grains, wheat, barley and millet are grown fields, ploughed by camels or kine and are irrigate from wells. Lucerne is extensively grown for fodde

The cotton plant is also cultivated but, to a ver limited extent, owing to the want of adequate water supply and cultivable soil. Under more favourabl conditions, its extensive cultivation might prove o great econmic value to the people.

3. THE DATE-PALM

The object of the oasis-dwellers' chief care is, however, the date-palm. It is the main source of their wealth, the riches of a garden-owner being proportionate to the number of the date-trees he owns. As Dr. Harrison has remarked, evidently more human life can be supported per acre by date-culture than by any other crop that can be raised in Arabia.[1] It is a tree of hot desert regions, of which the mean annual temperature is above 68° F.; and

[1] Harrison, *The Arab at Home*, p. 47. (London, 1924.)

saline soil, which is otherwise unfavourable for agriculture, is no disadvantage to it.[1] Philby was astonished to find palms deriving nourishment from water so salt that its brine formed a thick crust along the banks of the streams.[2] For want of water, however, it does not grow wild in Arabia; and in order to thrive there it has to depend upon constant irrigation by man.

By virtue of its manifold utility, the date-palm occupies the same important position in the practical life and general economy of the oasis-dwellers as does the camel in that of the pastoral nomads. Its fruit is the staple article of food among the settlers, and forms a substantial part of all their meals—breakfast, midday meal and supper—in the case of rich and poor alike. It has been praised by the Prophet, who has dubbed the date-palm as 'the aunt of the Arabs,' and commended it to their respect.[3] He has also laid down precepts for people eating dates in company, and has declared it meritorious to break

[1] The date-palm has been transplanted to the Mediterranean shores of Europe; but its fruit does not ripen there for want of sufficient heat. The south-east coast of Spain is the only part of Europe, where the climate permits the date-palm to flourish. On the geographical distribution of the date-palm and its rôle in the cultural history of mankind, see Th. Fischer, *Die Dattelpalme, ihre geographische Verbreitung und kulturhistorische Bedeutung* (*Petermanns Mitteilungen, Ergänzungsheft* 64, 1881); and Carl Ritter, *Die Erdkunde, 13 Theil, § Die allgemeine Verbreitung, Verehrung und Symbolik des palmbaums*, p. 760 *et seq.*

[2] Philby, *The Arabia of the Wahhabis* (London, 1928), p. 136.

[3] أَكْرِمُوا عَمَّتَكُم النَّخْلَةَ (Honour your aunt, the date-palm).

the ritual fast with dates. Philby found it customa at Onaiza to begin every meal with a couple of dat by way of grace. A great advantage of the date as food lies in the fact that it is a ready-made food, r preparation being required before taking it. Where it naturally tastes best when eaten fresh, it will kee for a long time without losing its nutritive valu There are innumerable varieties of the date, Medin alone being credited with about one hundred and forty. The spare produce of the oases is sold to the Bedouins, and also exported to foreign countries for a handsome return.

All parts of the date-palm yield valuable products. Its trunk, though poor timber, is used in house-building. Beds and furniture are also made from its wood. Its branches, shorn of their leaves, are made into crates, baskets, stools and various other articles of household utility. Its foot-stalks are used as fuel, and also yield a fibre from which cordage is made. Its leaves supply thatch, and are also woven into mats.

Because of the great importance of the date and the date-palm for the Arabs, the Arabic language, as was to be expected, has a large vocabulary connected with it. There are about five hundred names for the date alone. There is, for example, a different name for each stage in its development: it is *laun* in the initial unripe stage, *bisr* in the half-and-half stage and *raṭab*, when it is ripe and fresh. The

general name for the date, especially in a dry state, is *tamr*.

The date-palm is a graceful tree, 60-80 feet high, with a stem marked with leaf-scars and ending in a crown of shining pinnate leaves.[1] An oasis presents a beautiful sight, standing out green and fresh in the midst of the parched and desolate desert and giving a distinctive look to the whole landscape. The date-palm has not only been mentioned in the Qur'ān as one of the divine blessings conferred upon mankind in this life;[2] but it also figures in the descriptions of the *Janna*. These descriptions were most probably not inspired by Christian miniatures and mosaics, as Carra de Vaux supposes (*The Encyclopædia of Islam*,

[1] Considering the tall, slender and graceful form of the date-palm, it is no wonder that in the Hebrew literature it symbolizes the beautiful female figure. In *The Song of Songs* (chap. VII, verses 6-8), we read: "How fair and how pleasant art thou, O Love, for delights! This thy stature is like to a palm tree.....I said, I will go to the palm tree, I will take hold of the boughs thereof." The Arab poet, on the other hand, loves to compare the graceful stature of his beloved to the *bān*-tree, which is likewise noted for its erect and shapely growth.

[2] وَالْاَرْضَ وَضَعَهَا لِلْاَنَامِ ○ فِيْهَا فَاكِهَةٌ وَّالنَّخْلُ ذَاتُ الْاَكْمَامِ ○
(القرآن: سورة الرحمٰن)

وَجَعَلْنَا فِيْهَا جَنّٰتٍ مِّنْ نَّخِيْلٍ وَّاَعْنَابٍ ○ (القرآن: سورة يٰسين)

فَاَنْشَاْنَا لَكُمْ بِهٖ جَنّٰتٍ مِّنْ نَّخِيْلٍ وَّاَعْنَابٍ لَكُمْ فِيْهَا فَوَاكِهُ كَثِيْرَةٌ وَّمِنْهَا تَاْكُلُوْنَ ○
(القرآن: سورة المومنون)

s. v. Djanna); but they clearly correspond to t oasis-gardens of Arabia.[1] With its cool shades, ru ning waters and luscious fruits, the Qur'ānic Parad is, *mutatis mutandis*, a glorified garden.

4. HOUSES AND SETTLEMENTS

The oasis-dwellers need not migrate from plac to place like the Bedouins; on the contrary, thei palm-gardens and fields, which require constant care root them to the soil. For purposes of shelter, there fore, they build permanent homes and dwellings.

It is quite natural for man, especially in a low grade of civilization, to build his shelter out of the material he finds near at hand. Thus, the condi- tions of soil and climate in a given region determine whether the use of wood, earth or stone shall pre- dominate in the habitations built there. Again, the material used accounts for the form, size and resis- tance of the structure built of it. This is how physical environment influences human habitation; and we may say that of all the primary needs of man, the house is the most geographical in character.

The most important and essential building material in Central Arabian towns and settlements

[1] وَ مِنْ دُوْنِهِمَا جَنَّتٰنِ ○ .. فِيْهِمَا فَاكِهَةٌ وَّ نَخْلٌ وَّ رُمَّانٌ ○

(القرآن : سورة الرحمٰن)

is the clayey soil or loam. All buildings are made of sun-dried bricks, sometimes mixed with stone. The clay requires little preparation before use ; it can be easily worked with a little water and moulded into the required shape. The bricks are nothing more than clods, rolled and left to harden in the sun. Two or three courses of rude stones are laid as foundation, on which are built clod-like bricks, mortared with puddled earth. The walls thin upwards, so that the upper part does not weigh down too heavily upon the lower structure. It is thus easy and economical to build with clay. A structure made of sun-dried bricks could not stand long in a rainy climate, but since the country is arid and practically rainless—there being only a few inches of rainfall in the whole year, when it is not a year of drought—it is not found necessary to fire the bricks before use. In this region where the hot air dries up everything, the clay structure hardens quickly and becomes sufficiently resistant to withstand the weather.

The only other important material that enters into the building of the house in Central Arabia is the wood of the date-palm and the tamarisk (أَثْل) The soil of Arabia is not favourable to the growth of timber-wood : practically, all the trees are stunted and dwarfed, their wood being more or less porous and soft.

They only yield more or less twisted posts, which are not at all strong enough to bear the weight of a

large structure. The only trees, whose wood is of a use for purposes of building, are the date-palm and t tamarisk.[1] The date-palm is made use of, when it h ceased to be useful as a fruit tree; while the tamari is purposely grown in oases for the sake of its timbe But the wood of both these trees is porous. Th Arabs, however, make the best use they can of thes because they have nothing better at their disposa As a matter of fact, they make a manifold use of a their parts as building material. Their trunks ar used to serve as rafters for the roof of the house These rafters are covered with a network of palm- fronds or tamarisk-branches, upon which earth is stamped to make the floor. Two-storeyed houses are exceptional in Najd, but many houses in the Ḥijāz oases have an upper storey (*ṣuffah*), which is preferred for living. The lower storey (ground- floor) in these oases is comparatively damp; and is generally used as a coffee-room, storehouse for agri- cultural implements and produce, or as shelter for their few sheep or goats. As Doughty has observed, upper storeys in the Ḥijāz are made also for the sake of fresh and free air. Just as in cold latitudes

[1] The want of suitable timber was as acutely felt in ancient Arabia as it is felt to-day. This is well illustrated by what Ibn Hishām reports about the condition in which the Ka'ba lay about the end of the 6th century. The walls were about a man's height and without a roof. Fortunately for the Ka'ba, a ship belonging to a Greek merchant was wrecked on the coast near Jidda, and its timber was brought by the Quraish of Mecca to be used in the reconstruction of their sanctuary. See Ibn Hishām, *Sīrah*, ed. F. Wüstenfeld, p. 122.

the chief problem is how to keep the house comfortably warm, so in hot countries the chief concern of the inhabitants is how to keep it cool. We cannot say that the problem has been satisfactorily solved in Arabia, but an attempt in this direction is discernible in the Ḥijāz oases and other districts of Arabia, where large windows open the upper storey to the floor and loopholes are made high upon the walls for better ventilation. For the same reason, hand-fans made of palm-leaves and porous earthen water-jars to cool water are useful articles of furniture in every household.

The staircase is generally made of stone and clay; but sometimes in poorer habitations a palm-trunk is hacked into steps, and laid aslant to serve the purpose. Palm-trunks are also used as columns in the construction of large halls. Doors are also made of palm boards.

The climatic conditions, which in other countries require a slanting roof, are non-existent in Central Arabia. There is no snow and practically no rain. A flat roof is, therefore, the general rule. It proves very useful in another way. In the hot weather, which is by far the longest season in Arabia, the people sleep at night on the roofs of their houses. This is especially the case in larger towns, which are compact and comparatively congested.

In most oasis settlements, the gardens and farms lie apart and at a distance from villages and towns,

which have to be kept at a safe distance from the actual wadi-beds or water-courses for fear of sudden floods. In Qaṣīm, for instance, no settlements lie in the Rummah depression itself, for fear of its storm-floods; though there is cultivation in it, especially on the left-bank slope. Such settlements present a noteworthy fact with regard to the dwelling. Almost all palm-gardens, and often even isolated corn-fields, have a more or less pretentious dwelling attached to them, usually called a *qaṣr* (pl. *quṣūr*). While the village or town houses are grouped close together, the *quṣūr* or farmhouses are scattered in the gardens and fields. They are built, however, in the same way as the houses in villages and towns, and have often a second storey.

CHAPTER VII

ELEMENTS OF MATERIAL CULTURE IN RELATION TO PHYSICAL ENVIRONMENT

1. FOOD

OUR nourishment is derived, directly or indirectly, from plant life and animal life; and since climate determines what plants and animals shall or shall not thrive in a particular region, the diet of a people stands in close relationship with the climatic and physical conditions of the land which they inhabit. Moreover, different climates require different diet regimens. Although the food of a people is subject to modification through the influence of commerce, the economic poverty of the Arabs is so great that they possess very little purchasing power and are unable to buy from foreign countries all what they want in the matter of food-stuffs. Consequently, they have to depend mainly upon the produce of their own land, and have developed, with the resources of their own home-land, a characteristic diet which has grown typical through habitual use.

(*a*) MILK

The Arab nomads are chiefy camel-breeders. The milk of the camel, therefore, takes the first place in their dietary. The sheep and the goat, when they are possessed in addition to the camels by the Bedouins, also contribute to the milk-supply of the desert. The supreme importance of milk to the Arabs is clearly shown by such expressions as '*Kathir Ullah lebanakom*' (*sic*)—May Allah multiply your milk—which a grateful guest addresses to his host as thanksgiving and blessing.[1] The Qur'ān, too, calls attention to the milk supplied by man's domestic cattle as a divine blessing and a wonder of creative nature. In chapter sixteenth (*an-Naḥl*), we are exhorted in the following words, "And lo! in the cattle there is a lesson for you. We give you to drink of that which is in their bellies, from betwixt the refuse and the blood, pure milk palatable to the drinkers."[2] According to Musil, milk is the chief nutriment of the Rwala Bedouins, and many families live exclusively on it for months at a time. They suffer hunger, when there is no abundant pasture and

[1] Doughty, *Arabia Deserta*, I, 400-401 : (كثّر الله لبنكم).

[2] وَ اِنَّ لَكُمْ فِي الْاَنْعَامِ لَعِبْرَةً نُسْقِيْكُمْ مِّمَّا فِيْ بُطُوْنِهٖ مِنْ بَيْنِ فَرْثٍ وَّ دَمٍ لَّبَنًا خَالِصًا سَائِغًا لِّلشّٰرِبِيْنَ ○ (القرآن : سورة النحل)

the camels have little to eat in consequence.[1] Whilst the spring-milk is available, the nomads nourish themselves on little else. In poorer households, it is their only nourishment during the two spring months.

Camel's milk is either drunk fresh soon after it has been obtained, or is poured into a leather bag and allowed to become sour, in which form it appears to suit the Bedouins' stomach better in their hot climate. This sour milk is called *laban* (لَبَن) and corresponds to koumiss, mare's fermented milk, which is the favourite national drink of the Central Asian Turkomans. Camel's milk is poor in fat, and is therefore not churned for the sake of butter. The freshly obtained milk (حلِيب) has a salty taste, because the camels are fond of grazing on salt herbs. In consequence of this, it has an aperient effect, especially on the foreigner, who after a short time, however, becomes accustomed to it and suffers no ill effects.[2] Since the plants, on which the camels feed, obtain their salt contents from the saline earth, this particular quality of camel's milk is ultimately traceable to the soil.

The milk-supply of the Bedouins is not constant or regular throughout the year; it varies with the seasons. It is most copious during the spring

[1] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 90.

[2] Richard Burton, *A Pilgrimage to al-Madinah and Meccah*, I, 390; Alois Musil, *The Manners and Customs of the Rwala Bedouins*, p. 89.

months, when the animals can graze in abundant green pastures, and decreases thereafter, until toward the end of summer it has reached its lowest ebb.

To use the striking expression of Dr. Sprenger, the Bedouin is the parasite of the camel[1]; and unhappily this parasitism sometimes takes extraordinarily cruel forms. In some poor households, the newly-born calf is slaughtered as soon as it is born, since they must drink themselves all the available milk. They often kill five to seven young camels, and to all the she-camels they bring the same calf to suck.[2]

(*b*) FLESH FOOD

Another article of diet, with which the domestic animals of the Bedouins provide their masters, is their flesh. Meat is, however, not a usual food with the Bedouins, but a luxury which they can enjoy only on rare occasions.[3] They cannot afford to

[1] *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, vol. XLV, p. 361.

[2] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 96.

[3] It is significant and worthy of note in this connection that the Qur'ān mentions meat as one of the two choice foods, with which the Believers will be regaled in Paradise: "And We provide them with fruit and meat such as they desire." (LII, 22.) The flesh of birds, too, is mentioned in a similar context (LVI, 21).

وَ اَمْدَدْنٰهُمْ بِفَاكِهَةٍ وَّ لَحْمٍ مِّمَّا يَشْتَهُوْنَ ○ (القرآن : سورة الطور)

وَ لَحْمِ طَيْرٍ مِّمَّا يَشْتَهُوْنَ ○ (القرآن : سورة الواقعة)

slaughter their animals simply for the sake of their flesh—the animals which are, so to say, their very stock-in-trade, the source of their daily diet (milk) and of their woollen clothing, and their only means of transport across the vast sandy deserts.[1] According to Doughty, seldom do the nomads eat any other flesh than that of their sacrifices.[2] Burckhardt found that the Anaza tribes in the Najd seldom or never tasted meat, but lived almost wholly on dates and milk.[3] Only when a beast does not thrive or is likely to die on their hands, do the Bedouins slaughter it for the sake of its flesh. Festive occasions, such as the marriage of a *shaikh* or of his son, are particularly welcome to the tribesmen, because they give them a rare opportunity of partaking of a public

[1] *Cf.* al-Qur'ān, XVI, 5-7: "And He has created the cattle, whence you obtain warm clothing and other benefits and whereof you eat; and therein is beauty for you, when you bring them home and when you take them out to pasture. And they bear your loads to a land which you could not reach except with great trouble to yourselves. Indeed, your Lord is Compassionate and Merciful."

وَالْأَنْعَامَ خَلَقَهَا لَكُمْ فِيهَا دِفْءٌ وَّ مَنَافِعُ وَ مِنْهَا تَأْكُلُونَ ○ وَلَكُمْ
فِيهَا جَمَالٌ حِيْنَ تُرِيْحُونَ وَ حِيْنَ تَسْرَحُونَ ○ وَ تَحْمِلُ أَثْقَالَكُمْ
إِلَى بَلَدٍ لَّمْ تَكُونُوا بٰلِغِيهِ إِلَّا بِشِقِّ الْأَنْفُسِ إِنَّ رَبَّكُمْ لَرَءُوفٌ رَحِيمٌ ○
(القرآن : سورة النحل)

[2] Doughty, *Arabia Deserta*, I, 452.

[3] J. L. Burckhardt, *Notes on the Bedouins and the Wahabis*, p. 34. (London, 1830).

feast, at which meat is the principal and the most attractive item in the menu. Occasionally, a *shaikh* kills a sheep or a goat to entertain an important and honoured guest. How often he may kill an animal for the consumption of his own household or the entertainment of his guest, depends on the strength of his flocks. Only in late summer, however, when milk becomes exceedingly scarce, is the Bedouin forced to sacrifice a part of his animal stock for the sake of indispensable food.

The milk-dieted Bedouins are, therefore, glad to take any mouthful of small game; and the list of wild animals and birds, which they are not too disdainful to consume, when they happen to catch or kill them, is fairly long. The place of honour in that list is taken by the *Ḍabb* (ضَبّ), a kind of lizard, often weighing as much as 11 lb. It is hunted by the Bedouins out of its hole, roasted in hot sand or on coals, and eaten as a delicacy, for which they are held to ridicule by their more fortunately placed compatriots, the townspeople.[1] The list is made up by the jerboa or the field rat, the hedgehog, the weasel, the fox, the wolf and the hyena; and when Doughty, who knew too much for the Bedouins, once taunted them—in self-defence of course—with eating crows, kites and owls, they could not deny it.[2] The sumptuary laws of the Qur'ān, forbidding

[1] Doughty, *Arabia Deserta*, I, 326; Musil, *Northern Negd*, p. 15.
[2] Doughty, *Arabia Deserta*, I, 326, 534.

certain things as too vile for human consumption, would also indicate that the dietetic habits of the sons of the desert have long stood in dire need of a drastic reform.

The land of Arabia has better game to offer in the shape of the gazelle and the mountain antelope; but they are too fugitive for the Bedouins and very rarely fall at their poor shooting. Thanks to their superior skill in hunting, the Ṣulubba, a non-Bedouin nomad people, have better luck with these animals.

The people of coastal districts, who combine fishing with other occupations, consume much fish. It is not only eaten fresh, but considerable quantities of it, including such varieties as sardines, mackerel, rock-fish and cod are caught, dried and salted at certain inhabited points on the coast and sent into the interior as merchandise.[1] Fish-heads are boiled with date-stones and used as fodder for live-stock including camels. Fish has been mentioned twice in the Qur'ān as providing fresh flesh food for man. *Cf.* al-Qur'ān (XVI, 14): "And He it is who has made the sea subservient to you, so that you may

[1] Although the fisheries of Arabia are not very important commercially, they are a valuable asset for supplying local needs. They are carried on along the whole extent of the coast-line, *i.e.*, on the 'Omān coast, at Baḥrain, in Ḥaḍramaut, in the Aden district and on the shores of the Red Sea. Large quantities of fish are consumed locally as well as dried to be sent to the interior. The seer-fish also yields lamp-oil. On the eastern coast, fishing boats have to be laid up during the monsoon season. See J. Th. Bent, *A Journey in Southern Arabia* (London, 1900), pp. 81-82; and *A Handbook of Arabia*, Vol. I (London, 1916), p. 241.

eat fresh meat from it."[1] Again in *sūrah al-Fāṭir*, we read, "The two seas are not alike; one is sweet and fresh, good to drink, and the other is bitter and salt; and from each you eat fresh meat."[2]

For the poorer Bedouins, locusts (*jarād*) are an important article of diet; and when they have no crops to lose, the people are thankful for a fall of locusts. They are roasted on fire, or boiled in salt water and then dried in the sun. They are then either ground down to powder, from which bread is made as from wheat, or stowed away whole in bags. They are stored in quantities large enough to last the whole year and are consumed particularly on journeys. The poorer people are forced to replenish in this way their meagre stock of provisions through sheer necessity. Locusts and the meal prepared from their flour are not considered fit to be placed before a guest; and the poor nomads, more often women, confessed to Doughty that they ate that wretchedness only to beguile hunger.[3]

[1] وَهُوَ الَّذِي سَخَّرَ الْبَحْرَ لِتَأْكُلُوا مِنْهُ لَحْمًا طَرِيًّا
(القرآن: سورة النحل)

[2] وَمَا يَسْتَوِي الْبَحْرَانِ هَذَا عَذْبٌ فُرَاتٌ سَآئِغٌ شَرَابُهُ وَهَذَا مِلْحٌ أُجَاجٌ وَمِنْ كُلٍّ تَأْكُلُونَ لَحْمًا طَرِيًّا (القرآن: سورة الفاطر)

[3] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 93; Richard Burton, *Pilgrimage to al-Madinah and Meccah*, II, 117; Musil, *Northern Negd*, p. 85; and Doughty, *Arabia Deserta*, I, 203.

(*c*) CEREALS

Wheat and some other grains, when available, form an important supplementary article of food with the Bedouins. Owing to an insufficient supply of water for purposes of irrigation, Arabia on the whole is not fit for an extensive cultivation of cereals. Only a small fraction of the total requirement of the inhabitants is produced by the country in the shape of wheat, millet and barley, which are grown more or less in the Yaman and other cultivated territories in the rest of the Peninsula, especially the Najd.[1] For the sake of provisions, therefore, the Bedouins from all over the Peninsula visit the frontier villages of Syria and Mesopotamia and the importing towns like Jidda and Mecca, where they sell their animals and the products thereof (clarified butter, wool and hides) and take in exchange wheat and barley, together with their two other chief necessaries of life, *viz.*, clothes and weapons. In the case of Rwala, as we learn from Musil, the allowance of grain per person is one camel-load, which is equal to about 150 kilograms, besides an additional load for guests.

[1] According to Doughty (II, 355), light-eared wheat is harvested from year to year at 'Onaiza in north-western Najd. He also found wheat, barley and millet grown in the oasis of Taimā, where the villagers raised enough corn to sell to their nomad neighbours (I, 294). Wyman Bury mentions bearded wheat as one of the principal crops of the Yaman (*The Land of Uz*, p. 310).

The Bedouins are not quite independent of their neighbouring cultivated lands, with which they are obliged to keep up intercourse for the sake of the afore-mentioned articles of necessity. Those who rule the cultivated territories or control the ports can, therefore, always bring pressure to bear upon the desert men, however inaccessible they may otherwise be. Bedouins' economic want has thus a very important political consequence, which was well recognized by Ibn Khaldūn, who devotes a special section of his Prolegomena to show how the nomadic tribes are dependent upon towns for some of the primary necessities of life such as grain and for necessary artisans such as carpenters, blacksmiths and the like, and how this economic dependence leads to their political subordination to the town-dwellers.[1] The Bedouins, however, view the matter from a different angle. They are convinced that the cultivators (*Fallāḥīn*) must supply them with grain food as a matter of duty. While sojourning among the Bedouins of Northern Arabia, Musil everywhere heard the remark: "The *fallāḥ* must provide food for the Bedouins."[2] If the *fallāḥ* does not give of his own free will, they think they have the right to take away from him everything they find.[3]

[1] Ibn Khaldūn, *Muqaddamah* (Paris, 1858), Vol. I, p. 276.
[2] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 90.

[2] اَلبَدْوُ عَيْشَتُهم عَلَى الفَلّاح ○ [3] خُذْ مِنَ الْفَلّاح مَا لَاحَ ○

Wheat is generally eaten in the form of a porridge, which is commonly called *'aiṯh*, but is also known in certain northern districts by the name of *burghūl*, which is a corruption of the Turkish word *bulghūr*. Wheat is freshly crushed in a wooden mortar with pestle, or is grounded in a stone-mill, and then boiled in water or sour butter-milk into a thick paste.[1] Bread is rarely baked. In spring, the season of abundance, when the land is flowing with milk, the Bedouins do not bake bread at all. Even at other times they usually prepare it only for guests. It is a luxury afforded only by the rich, as is indicated by such expressions of praise as: "This is the tent of bread"; "So-and-so is very rich: he has bread" (هُوَ رَاعِى الخُبْز). The material conditions of desert life do not seem to have ameliorated since many centuries past, for we find an ancient Arab poet describing and boasting of his tribal chief as 'the eater of bread.' (مِنَّا آكِلُ الخُبْز).[2]

All Bedouins, however, cannot afford to purchase wheat. The poorer people buy millet (دُخْن), which costs half as much and can be used in exactly the same way as wheat. Maize (ذُرَة), too, is grown in 'Asīr, Jabal Shammar and the Aden district. While

[1] For the names and descriptions of other dishes, in which flour and dates enter as principal ingredients, see Burckhardt, *Notes*, pp. 32-34; and Musil, *Manners*, p. 94.

[2] Al-Jāḥiẓ, *Kitāb al-Bukhalā*,' p. 254.

the stalks and leaves are used as fodder, the grain is consumed locally or exported, if there is a surplus, in the pilgrim season. Another grain that deserves mention here as a native product, is the seed of the *samḥ* (سمح) plant, which grows wild with its sub-varieties in the sun-baked gravel plains of the Ḥamād or Syrian Desert in a year of abundant rain. It is a reddish brown seed, which the Bedouins roast and grind into a dark bitter flour. Kneaded with butter and dates, or boiled in water into a sort of porridge, it becomes edible and serves as a welcome additional article of food in a poor season.[1]

Rice has long been very popular as an article of food with the rich shaikhs and other well-to-do tribesmen of the desert. Served with meat, it is considered an excellent dish, with which guests are usually entertained. Carsten Niebuhr, who visited Arabia in 1762-63 as a member of a Danish scientific mission, already found it in common use among the distinguished chiefs of the country.[2] At the beginning of the nineteenth century, Burckhardt, too, found it a usual dish with the Arabs of the Ḥijāz, who ate it mixed with lentils and found it cheaper than corn. It was, however, not preferred to dates, when they were available.[3] Rice is locally grown in

[1] Musil, *The Manners and Customs of the Rwala Bedouins*, pp. 15-16, 93; and Carl Raswan, *The Black Tents of Arabia*, Chap. VII. (London, 1935.)

[2] Carsten Niebuhr, *Description de l'Arabie*, p. 47 (Copenhagen, 1773.)

[3] J. L. Burckhardt, *Notes on the Bedouins and the Wahabis*, p. 137. (London, 1830.)

the Ḥasā district, where the water-supply is plentiful for this plant; but the yield is too small for the total demand of the Peninsula, which is satisfied by large imports from India, Burma and other eastern countries. In all probability, the Arabs were first introduced to the extensive use of rice as a fairly cheap article of food by Muslim pilgrims from India, or by the Arab colonists in the East Indies, where rice is the staple diet of the people.

(*d*) THE DATE

A typical article of Arab diet is the date, the fruit of the date-palm, which is a characteristic tree of the Arabian Peninsula. Since it grows not everywhere in the desert, but only in oases and cultivated territories, the Bedouins of the desert have to procure dates by purchase. From a few oases in the Ḥijāz, where they have imposed proprietary rights, they also obtain them as tribute from the settled cultivators. The importance of the date in the diet of the oasis-dwellers has been noticed above in Chapter VI.

(*e*) TRUFFLES

Among the numerous plants and spontaneous vegetable growths, of which special notice should be taken as native products of the land, the truffles

(كَمْأَة) deserve particular mention as a favourite dish of the Arabs. They grow in great abundance in the Ḥamād desert, and are dug out with sticks. While the truffles last, the Bedouins live exclusively on them, without tasting any corn food. They are boiled in water or milk till they form a paste; sometimes they are roasted. If they are abundant, they are carried in camel-loads to the neighbouring towns of Syria for sale. They are also dried and stored for future use.[1]

(*f*) BUTTER

Physiologists tell us that heat-producing foods such as oil and sugar must enter more largely into the diet of peoples living in cold countries; whereas the diet of the inhabitants of the Tropics consists essentially of vegetable products and such other articles as do not increase the caloric. This dictum of theirs seems to be seriously challenged by the dietetic habits of the Arabs, who live in a hot climate and are yet exceedingly fond of clarified butter (سَمْن), which they use to excess. Whoever can afford such a luxury, swallows a cupful of butter every morning; while all their food swims in butter.[2]

[1] Burckhardt, *Notes on the Bedouins and the Wahabis*, p. 35; H. Lammens, *Le Berceau de l'Islam*, p. 49. For other wild plants and tuberous growths eaten by the Rwala, see Musil, *The Manners and Customs of the Rwala Bedouins*, p. 95.

[2] Burckhardt, *Notes*, p. 137; Burton, *Pilgrimage to al-Madinah and Meccah*, II, pp. 11-12.

This anomaly is, however, explained by the fact that the diet of the Bedouins is generally inadequate and lacking in variety, and they have consequently developed a craving for butter and foods rich in butter, because of their unquestionable sustaining qualities.[1]

(*g*) COFFEE

While dealing with the food of the Arabs, special mention is due to coffee for reasons more than one. Coffee is not only a characteristic native Arabian product, indigenous to the Yaman highlands, constituting an asset of great economic value for that province; but, being a favourite drink both with the nomad Bedouins and the sedentary townsfolk of Arabia, it plays an important part in the social life of the Arabs throughout the Peninsula.

The classical writers do not mention coffee among the native products of Arabia, nor among the numerous articles of merchandise, which formed the bulk of that international trade which passed between India and the Mediterranean lands through Arabia in ancient times. Arabic authors say nothing about it down to the fifteenth century, when the habit of taking a decoction of its berry as a beverage became sufficiently prevalent to receive literary notice. For want of relevant historical data, it is not possible to say definitely when or by whom the

[1] *Cf.* Doughty, *Arabia Deserta*, I, 276.

cultivation of the coffee-plant was introduced into the Yaman. It grows wild in great profusion in the highlands of the neighbouring country of Abyssinia; and it seems probable that it was introduced from there by the Abyssinians, who invaded and ruled over a large part of south-western Arabia in the centuries immediately preceding Islam. In any case, the coffee-plant has for several centuries past been thoroughly acclimatized in the highlands of Yaman; and it was from here that the cultivation of the coffee-plant, as well as the use of coffee as a stimulating beverage, gradually spread through the lands of the East and the West.[1]

Besides stimulating an extensive trade, the use of coffee has given rise to characteristic habits of life and interesting social conditions among the present-day Arabs of all classes. In the social life of the Arabs, no ceremony or feast is considered complete without coffee, and it is the first thing offered to a visitor. An invitation to coffee in Mecca means an invitation to a meal. Coffee-houses serve as centres of social intercourse in important towns like Mecca and Medina. In a nomad tribe, their place is taken by the tent of the *shaikh*, where the assembl-

[1] On the subject of Coffee in Arabia and Arabic literature, see the excellent article of Dr. C. Van Arendonk in the *Encyclopædia of Islam*, *sub voce* Kahwa, and also the references given there. The German geographer Carl Ritter, too, devoted an interesting chapter to the geographical distribution of Coffee and its introduction as a beverage among the civilized peoples of the East and the West, in his *Erdkunde*, XIII Theil (Berlin, 1847).

ed tribesmen are entertained with coffee. It is generally taken without milk or sugar; but the addition of these is welcome when available. The Arab ideal of a cheering coffee-cup is characteristically summed up in sayings like this: "Coffee should be black as night, hot as hell and sweet as love." Both men and women are exceedingly fond of it; and there is no household, however humble, that does not possess a mortar for pounding coffee-beans and a few small drinking cups. It should, however, be mentioned that the amount of coffee consumed at one time is pitiably small; and in the Yaman itself, the home of coffee, it is a general custom to drink a decoction of the coffee-husk instead of the coffee-beans, which have a great commercial value for them, inasmuch as they fetch a high price in foreign markets. In other parts of Arabia, too, cheaper coffee, *e.g.*, Brazilian, is often used in place of the costly mocha.[1]

It is interesting to see that the exhilerating cup of coffee has inspired the muse in modern times in the same way as did the appreciated but inebriating wine-cup in pagan days of old. Musil quotes three poems, which he found current among the Rwala Bedouins in praise of coffee;[2] while *qaṣā'id* of this

[1] On the mode of preparing coffee and many other interesting details connected with it, see Carsten Niebuhr, *Description de l'Arabie*, pp. 48-49; Charles Doughty, *Arabia Deserta*, I, 244-48; and Alois Musil, *Manners and Customs of the Rwala Bedouins*, pp. 100-102.

[2] Alois Musil, *The Manners & Customs of the Rwala Bedouins*, p. 105 *et seq.*

kind may also be read in De Sacy's *Chrestomathie Arabe*, 2nd edition (Paris, 1826), vol. I.

(*h*) PRESERVED FOODS

In the case of the Bedouins, the preservation of foodstuffs is necessitated, firstly, by the extreme scarcity of provisions in certain parts of the year and, secondly, by the exigencies of constant travel. The two chief articles preserved are milk and meat. Both are preserved by drying.

After butter has been extracted from milk, the butter-milk is dried by boiling to hard shard, a little wheaten flour being added to thicken it. This dry milk will remain unaltered till the next season; it is good in the second year, though it has grown harder. It is sometimes ground to powder, as they do in Qaṣīm, and is made use of by mixing and stirring in water. It is greatly prized in times of scarcity, when there is no fresh milk; and is also found excellent and convenient to take on journeys. This dry milk is called by different names in different provinces, the common name being *marīsah*. It is also much prized in oases, where they use it mixed with dates, which taken alone would prove too heating.[1]

Dr. Harrison mentions a kind of cottage cheese made from camel's milk, kneaded into little cakes

[1] Doughty, *Arabia Deserta*, I, 262; and Burton, *Pilgrimage to al-Madinah and Meccah*, vol. II, p. 117, note 2.

and baked in the sun to the consistency of bricks. It would keep indefinitely and form a welcome additional diet in times of scarcity.[1] I imagine it is the *'aqiṭ* (أقط) of the Arabic authors.

The other food that is preserved by drying is the flesh of their domestic animals. It is simply cut into strips and left to dry in the sun. Putrefaction is prevented by the fact that the desert air is not only hot but also dry. Dried meat of this description is called *qadīd*, and is the favourite food on the line of march. Some pilgrims spend three days, following the day of sacrifice, drying the flesh of the animals sacrificed to take it on their return journey. These days are, accordingly, called *'Ayyām al-Tashrīq*.

The other less important foods that are preserved by drying are fish and locusts.

GENERAL OBSERVATIONS

The diet of the desert Arabs is scant.[2] We have seen that for cereals and dates they have to depend on the cultivated territories inside or outside Arabia; and the supply acquired by them is naturally only proportionate to their purchasing power, which is

[1] P. W. Harrison, *The Arab at Home*, p. 26.

[2] When Ibn Khaldūn waxes eloquent on the physical and moral benefits, which the nomads derive from their frugal diet, it must however be remembered at the same time that their much-applauded frugality is not a matter of choice with them, but is imposed on them by the poverty of their land as an inevitable necessity. *Cf.* Ibn Khaldūn, *Muqaddamah*, ed. E. Quatremère (Paris, 1858), I, 158.

usually not very considerable. The only means of subsistence on which they can rely with some assurance are the milk and flesh of their domestic animals. The latter, again, they can enjoy only at infrequent intervals, for fear of diminishing their live-stock, which is their wealth and capital. Their milk supply also varies from season to season, being lowest or almost non-existent in late summer. This state of affairs would explain their efforts to supplement their meagre bill of fare by the addition thereto of locusts and all sorts of rodents and reptiles, when they can lay their hands on them. Consequently, their basis of life is on the whole precarious; and excepting the springtime when they have plenty of milk to drink, the Bedouins are always on short rations in full sight of famine.

According to Musil, the Rwala Bedouins eat twice a day. Their first meal is *ghadā'*, taken just before noon, when they simply drink milk or eat a piece of bread or what is left of supper from the previous night. Their principal meal is *'ashā'* or the evening meal. They are, however, all familiar with hunger. If a Rwaili has a piece of dry bread and can soak it in water, he boasts of having eaten well. Breakfast in our sense of the word is unknown to them. For breakfast, they eat a grain of salt, a morsel of bread or gulp down some milk (صُبُوح); and on long marches they can keep going with this breakfast until evening. On a line of march, they have

no forenoon meal and eat only after sunset, and are grateful to Allah, if He gives them a chance of eating to satiety once a week! Sometimes, they have only a cup of milk for supper (غَبُوق), and often even that is not available. This is the condition of the powerful Rwala tribe, who own thousands of camels, are comparatively prosperous among the present-day Arab tribes; and, their territory being contiguous to Syria, they have easy access to the markets of the outer world.[1]

That the diet of the Bedouins is so poor and scant is well illustrated by an anecdote related by Doughty. The Bedouins asked him what the Christians' fasting was, whether they abstained from all food till sunset. 'Not thus,' replied Doughty, 'but they abstain from flesh meat, and some of them from all that issues from the flesh, as milk and eggs, eating only the fruits of the ground, as bread, salads, oil of olive, and the like; in the time of abstinence they may eat when they will.' On hearing this, they cried out wondering and laughing: 'This you call fasting! Oh, that the Lord would give us thus every day to fast!'[2]

The summer is the hardest and worst part of the year for the Bedouins. There are no rains to mitigate the heat of the sun or bring out new grass for

[1] Alois Musil, *The Manners and Customs of the Rwala Bedouins*, pp. 86-87.

[2] Doughty, *Arabia Deserta*, I, 538.

their animals. The blazing, scorching sun that increases in its ferocious intensity from day to day, burns up the last vestiges of pasture, dries up the wells, with the result that they are brought face to face with famine. The milk, their first and last means of subsistence, is also drying up in the dugs of their famished animals. A handful of dates, of rice or dried milk is considered a boon in such hard times, for it is found sufficient to sustain a man's life for a day at least. Sacrifices of animals become more frequent in the camp, the famine-stricken Bedouins making a virtue of a necessity. Every now and then there is a sacrifice in some household, on one pretext or another, in pious memory of some dead ancestor, on the birth of a child or simply for the health of the flock. The desert life is at its lowest ebb, until it is resuscitated by the welcome autumn rains. In the pages of Doughty, who shared their privations as one of them for two summers, may be read some of the most harrowing tales of human want and misery on earth.[1]

In the matter of nourishment, as in many other things, the weaker sex is at a positive disadvantage in the Bedouin society. Women have to rest content with what is left by men of the dinner, and on the occasion of a feast they never taste any choice part of the slaughtered animal; the feet, head and liver

[1] On the indigent life of hunger in the desert, see his *Arabia Deserta*, I, pp. 244, 441-43, 452-53, 458, 472-73; 561.

generally falling to their lot.[1] The women of poorer households suffer most in times of scarcity. Doughty often heard them saying that they had not broken the fast, and the sun was already setting. From springtime to springtime, nine months in the year, most nomad women languish with hunger. They bear few children; of two at a birth, Doughty heard no mention among them.[2] No wonder then that he did not find south of Ḥā'il any young woman with the colour of health in her cheeks; they were pale even at their freshest age while the ravages of age showed themselves only too soon in their withered skins. Scant nourishment for children also sometimes forces them to suckle their children longer than it would be necessary in easier circumstances. This practice also puts an additional strain on their constitutions.

Though large families are desirable in order to increase the military strength of the tribe, and though the Arabs multiplied exceedingly when they conquered and settled in rich lands outside Arabia under the banner of Islam, nevertheless the limited food supply of the desert and steppe-land and the general low level of pastoral economy, imposes a hard restriction on population. Patriarchal families are rare, and according to Burckhardt three children constitute a large family among the Bedouins. Though

[1] Burckhardt, *Notes on the Bedouins and Wahabis*, p. 36.
[2] Doughty, *Arabia Deserta*, I, 237, 339.

polygamy is allowed by religion, few can afford to practise it. They have generally only one wife at a time, whom they however change more or less frequently, according to their individual circumstances. The barbarous custom of burying female children alive prevailed in heathen Arabia, and there is no doubt that the primary motive for the practice was that which is assigned to it in the Qur'ān, *viz.*, poverty.[1] It is well known that the same cause has led to female infanticide in other countries.[2]

What has been said above regarding the indigent life of hunger in the desert, may help us to understand why the Qur'ān particularly mentions hunger and insecurity (الجوع و الخوف) as the two chief and dreaded curses of mankind. In the parable of a town, it is with these that the rebellious inhabitants are visited for their ingratitude to Allah's favours;[3]

[1] Al-Qur'ān, VI. 152; "And do not kill your children for (fear of) poverty; We provide for you and for them."

[2] As Professor R. A. Nicholson has shown, this custom was also partly due to the comparatively helpless and defenceless position of the weaker sex in a land of violence, where might was generally right. It was said proverbially, "The despatch of daughters is a kindness." *A Literary History of the Arabs*, 2nd ed., pp. 90-91.

[3] Al-Qur'ān, XVI, 113:—

وَ ضَرَبَ اللّٰهُ مَثَلاً قَرْيَةً كَانَتْ اٰمِنَةً مُّطْمَئِنَّةً يَّاْتِيْهَا رِزْقُهَا رَغَداً
مِّنْ كُلِّ مَكَانٍ فَكَفَرَتْ بِاَنْعُمِ اللّٰهِ فَاَذَاقَهَا اللّٰهُ لِبَاسَ الْجُوْعِ وَ الْخَوْفِ
بِمَا كَانُوْا يَصْنَعُوْنَ ○ (القرآن : سورة النحل)

while security against starvation and danger are mentioned as two special favours conferred on the Quraish.[1] The peoples of more civilized countries, living in orderly and peaceful towns and cities and enjoying regular meals, cannot truly understand what these two things, *viz.*, hunger and insecurity, mean in the turbulent and lawless land of Arabia, until they have acquired, from the perusal of Doughty and Musil, some knowledge of the terrible conditions of life prevailing there.

Again, in another place in the Qur'ān (XX, 118-19), in a passage that is remarkably significant of the peculiar climatic conditions of Arabia, Adam (when put in the garden of Paradise) is guaranteed, among other things, security against hunger and thirst.[2]

[1] لِاِيْلٰفِ قُرَيْشٍ ○ اٖلٰفِهِمْ رِحْلَةَ الشِّتَآءِ وَ الصَّيْفِ ○ فَلْيَعْبُدُوْا رَبَّ هٰذَا الْبَيْتِ ○ الَّذِیْٓ اَطْعَمَهُمْ مِّنْ جُوْعٍ وَّ اٰمَنَهُمْ مِّنْ خَوْفٍ ○

(القرآن : سورة قريش)

[2] اِنَّ لَكَ اَلَّا تَجُوْعَ فِيْهَا وَ لَا تَعْرٰى ○ وَ اَنَّكَ لَا تَظْمَؤُا فِيْهَا وَ لَا تَضْحٰى ○

(القرآن : سورة طٰهٰ)

CHAPTER VIII

MATERIAL CULTURE IN RELATION TO PHYSICAL ENVIRONMENT (*Contd.*)

(2) CLOTHING OF THE ARABS

FOR the Arabs, as for other peoples of the earth, clothing serves a primary and vital need, protecting the human body from the effects of cold and heat. Although man's need for clothing is far less compelling than that for food—some primitive tribes go naked or almost naked in the hot and humid tropical regions of Africa and elsewhere—the way in which this need is satisfied has a great geographical significance in the fact that man clothes everywhere with some animal or plant product—wool, cotton, fur-skin, etc.—that is available in his immediate surroundings, and thus in his clothing, as in many other things, he depends in a more or less degree on his environment.

Although a more or less striking difference is noticeable in the dress of the Arabs in every province, almost in every tribe, it may be said as a result of a general survey that three articles of dress, *viz.*, the shirt (ثَوب), the mantle (عَبَاء) and their pecu-

liar head-gear (عِقَال) are common and universal throughout nomad Arabia.[1]

The shirt, nowadays generally called *thaub*, has long and wide arms and in length reaches down to the ankles. It is now invariably made of cotton. Over their shirt most of the Arabs wear—when they can afford it—a mantle or *'abā*, now generally called *bisht* in Arabia. It has no sleeves and reaches a little below the knees. There are various sorts of mantles, differing in quality and colour, but they all agree in this that they are always made of camel's hair or sheep's wool. The use of the mantle is almost obligatory in public, since it is a sign of respectability and must be worn, according to etiquette, when visiting a town or village. In winter, the Bedouins wear over the shirt a fur-jacket, made of sheep-skin, instead of the woollen mantle.

Well-to-do people also wear a shift of linen next to the skin under their shirt and a kind of coat, called *zebun*, over the shirt and underneath the mantle. These garments are, however, dispensed with by the common Bedouins of the poorer class.

[1] For a detailed description of the Arabian costume, see Burckhardt, *Notes on the Bedouins and the Wahabis*, p. 26, *et seq.*, p. 131, *et seq.*; Doughty, *Arabia Deserta*, by Index *sub voce* 'Clothing'; Musil, *The Manners and Customs of the Rwala Bedouins*, p. 118, *et seq.*; and Philby, *The Heart of Arabia*, I, pp. 39-40. For particular articles of clothing, the student may also consult with profit Reinhart Dozy, *Dictionnaire détaillé des noms des Vêtements chez les Arabes* (Amsterdam, 1845), although this work does not deal specifically with conditions in ancient or modern Arabia. For clothing in pre-Islamic Arabia, see Georg Jacob, *Altarabisches Beduinenleben nach den Quellen geschildert* (Berlin, 1897), pp. 43-53.

The Bedouins do not wear trousers, the nether parts of the body being covered with the long, flowing shirt, which reaches down to the ankles and is fastened round the waist with a leather or woollen belt. Trousers are, however, worn by both sexes in the Najd, where they are called *sirwāl*, a word of Persian origin, betraying Persian influence. Near Mecca and Ṭā'if and beyond those places southward in the direction of the Yaman, the place of trousers is taken, in the case of both men and women, by a kind of apron (ازار) which is wrapped round the loins and fastened by means of a leather girdle round the body. In the case of men at least, the upper garments are correspondingly abbreviated, for in the hot season they go about almost naked, covering themselves at night and in winter with a mantle only.

The head-gear of an average Arab, equipped for travelling or fighting, and the mode of wearing it are highly significant of climatic control. The head is covered with a round woollen or cotton skull cap, over which is worn a kerchief, called *kaffie* (corrupted form of *kūfiyya*), folded double like a triangle, the middle lappet of which is thrown back over the shoulder, while the outside lappets are arranged to an equal length. It is fastened with a woollen cord (*'aṣaba* or *'iqāl*) wrapped double around the forehead and skull. The kerchief is pulled over the forehead, shading the eyes. The side lappets are crossed under the chin, and pulled

through under the fastening cord, so that they project above the forehead like two small horns. This kind of head-gear, called li<u>th</u>ām (لِثام), is worn especially in case of travelling or fighting; and the wearer is said to be *mula<u>th</u><u>th</u>am* or *mutala<u>th</u><u>th</u>im*. If he does not wish to be recognized, he simply pulls the side-lappets up above his chin over his mouth and nose, so that only the eyes remain uncovered. Besides effecting a disguise, this mode of head-dress is found to keep the *samūm* and dust in the hot weather, and the catarrh in the cold weather, from the lungs. The *li<u>th</u>ām* has no place in the outfit of the town-dwellers.[1]

It seems obvious that the climatic, and especially atmospheric, conditions of the Arabian desert, characterized chiefly by excessive heat and dust, are responsible for the development of this peculiar mode of head-dress among its inhabitants.[2]

Women's clothes are made of the same materials as those of men, *viz.*, wool and cotton. The veil, prescribed by Islam for women, is found irksome, nay impossible, in the free and active outdoor life

[1] *Cf.* the article on *Li<u>th</u>ām* in *the Encyclopædia of Islam.*

[2] Similar climatic conditions, prevailing in north-west Africa, most probably gave rise, quite independently, to the custom of wearing a similar head-gear among the Berber tribes, *e.g.* the Sanhaja, who are therefore described by the Arabs as li<u>th</u>am-wearers or *Mula<u>th</u><u>th</u>amūn*, which appellation came to be especially applied to the Almoravids, who originated in one of their clans. As is well known, the custom still prevails among the Tuaregs.

of the desert, and is therefore absent among the Bedouins. It is, however, taken more seriously in the towns and especially in the Najd, because of the renewed influence of Wahhabism.

The various garments constituting the Arab dress do not, as a rule, sit tight on the body of the wearer, but being of ample proportions are generally very loose. The climate of the country is on the whole hot, and since clothes are primarily required there as a protection against heat, loose garments, providing plenty of ventilation, seem to serve better the purpose for which they are intended.[1] On the contrary, tight-fitting clothes are better suited to a cold climate, where the object of clothing is to preserve and retain the internal heat of the body.

It is further to be noted that the material, of which the Bedouins' clothes are made, is mainly wool, obtained from their domestic animals. With the exception of the shirt and head-kerchief; the mantle, the skull-cap, the 'iqāl and sometimes even the belt, are all made of camel's hair or sheep's wool. It may, therefore, be safely maintained that

[1] *Cf.* the Qur'ān, XVI, 83: "He has given you garments that preserve you from heat." The fact that only heat has been mentioned here to the exclusion of cold, has puzzled some commentators (*e.g.* ar-Rāzī), who have been at pains to show that since what preserves from heat also preserves from cold, preservation from heat and cold alike is meant here. Their task would have been greatly facilitated if they had only remembered that in the *milieu* of the Qur'ān, *i.e.* the land in which it was originally revealed and promulgated, the people suffer more from heat than from cold, and the mention of the latter would have, therefore, been superfluous.

in so far as the native and locally procurable wool enters into the making of their clothes, the Bedouins are indebted to their own domestic animals and thus dependent upon their own land in the matter of clothing.[1] It is, therefore, not without significance that the Qur'ān mentions the wool, fur and hair of animals among God's gifts to mankind (*Cf.* XVI, 80 " . . . . . and He has given you of animals wool, their fur and their hair, household stuff and equipment).[2]

Besides wool, the only other important material that enters largely in their clothing is cotton The dry climate of Arabia is, however, not favourable to any extensive cultivation of the cotton plant, which needs abundant rainfall throughout the period of its growth and maturing. It is, therefore, grown only to a limited extent in Qaṣīm, 'Asīr, Yaman (Wādī Zabīd), Aden (the 'Aulaqi country), Ḥaḍramaut and 'Omān, where it is one of the principal crops and where it has given rise in several places to a local

[1] Moreover, the fauna of the Arabian wastes, especially the gazelles, yield to the skilful hunting of the despised Sulubba (صُلَيْبَة), a non-Bedouin nomadic people, a sufficient supply of skins to enable them to wear in winter robes entirely made of gazelle-skins. Sometimes, they can even spare some for sale to the aristocratic, but less skilful, Bedouins.

[2] وَ جَعَلَ لَكُمْ ---- مِنْ اَصْوَافِهَا وَ اَوْبَارِهَا وَ اَشْعَارِهَآ اَثَاثًا وَّ مَتَاعًا اِلٰى حِيْنٍ ○ (القرآن : سورة النحل)

cotton-weaving industry.[1] It is, however, cultivated in sufficient quantities to supply the needs of the local population, with the result that cotton-growing districts import cotton stuffs like the rest of the country. Thus, the Arabs are partly dependent on the outside world for cotton goods. With the increased facilities for commercial intercourse, cotton stuffs are enjoying an ever-increasing vogue among the Arabs, and they are becoming so common that, in the words of T. E. Lawrence, without them one can hardly imagine the Arab desert life.[2]

It would seem that the Arabs have always looked upon cotton stuffs as a luxury as compared with woollen garments. Apart from the extreme refinement of texture to which the cotton fibre lends itself in the process of manufacture, this view of things is also explained by the fact that cotton goods, being partly of foreign import, have been comparatively scarce in the Peninsula. Woollen garments, on the other hand, are regarded as homely and unpretentious. It is now fairly certain that the term *Ṣūfī* is derived from the Arabic word *ṣūf* meaning wool, since "woollen garments were frequently worn by men of ascetic life in the early days of Islam in order (as Ibn Khaldūn says) that

[1] *A Handbook of Arabia*, pp. 136, 174, 183, 226, 233, 241; for the Yaman see also Schmidt, *Das südwestliche Arabien*, p. 47 and Grohmann, *Südarabien als Wirtschaftsgebiet*, pp. 260-61.

[2] T. E. Lawrence in his Introduction to Doughty's *Arabia Deserta* (London, 1921), p. xxiv.

they might distinguish themselves from those who affected a more luxurious fashion of dress."[1]

Silk, which is not an indigenous product of Arabia, enters very little in the garments of the Arabs.[2] Their head-kerchiefs alone are sometimes made of cotton and silk mixed. Silk is an article of luxury with them, as with many other peoples; and it is as such that it is mentioned in the Qur'ān in several places (22 : 23 ; 35 : 33 ; 76 : 12), where the dress of the inmates of Paradise is said to be of silk.[3] The other Qur'ānic luxury articles are *sundus* and *istabraq*, kinds of silk brocade. It may be further noted, as an instance of the psychological influence of physical environment, that the colour of the Qur'ānic garments is always green (18, 30 ; 76, 21).[4] Green is a colour pleasant to most people; but it

[1] R. A. Nicholson, *A Literary History of the Arabs*, 2nd edition, p. 228.

[2] The silk-worm is not raised in Arabia, nor is it found there in a wild state, as it is in some other regions of the world. So far as we know, the mulberry tree, which is necessary for the nourishment of the silk-worm, does not grow in Arabia. For the geographical distribution of the silk-worm, see Jean Brunhes, *Human Geography* (London, 1920), p. 298.

[3] وَ لِبَاسُهُمْ فِيهَا حَرِيرٌ ○ (القرآن : سورة الحجّ و سورة الفاطر)

وَ جَزٰهُمْ بِمَا صَبَرُوْا جَنَّةً وَّ حَرِيْرًا ○ (القرآن : سورة الانسان)

[4] يَلْبَسُوْنَ ثِيَابًا خُضْرًا مِنْ سُنْدُسٍ وَّ اِسْتَبْرَقٍ ○
(القرآن : سورة الكهف)

عَلَيْهِمْ ثِيَابُ سُنْدُسٍ خُضْرٌ وَّ اِسْتَبْرَقٌ (القرآن : سورة الانسان)

is particularly welcome and refreshing to the parched eyes of the sun-burnt Arabians, for whom it possesses a special appeal, probably because of its association with grass and vegetation in general, which are the basis of pastoral life. Hence the dominant rôle it plays in the colour-scheme of the Qur'ānic Paradise, where besides the garments of the righteous, the *Rafraf* too is described as green (55, 76).[1] *Cf. the Song of Solomon*, chap. 1, verse 16.[2]

3. THE DWELLING

For the migrant Bedouins, who pass their whole lives roaming over their tribal territory, going from place to place in search of pasture and water, a fixed dwelling is out of the question. And since they cannot live without some sort of shelter against the blazing sun of their country and the inclemency of the wind and the weather, they make use of the portable tent, which is generally made of goat's hair. The tent has several advantages for the nomads: it can be easily set up and broken up,

[1] مُتَّكِئِينَ عَلَىٰ رَفْرَفٍ خُضْرٍ وَّ عَبْقَرِيٍّ حِسَانٍ ○

(القرآن: سورة الرحمٰن)

[2] It is interesting to note in this connection that in the *Song of Solomon*, also called the *Song of Songs*, lovers' bed also is referred to as green: "Behold, thou art fair, my beloved, yea, pleasant: also our bed is green." (Chap. 1, verse 16.)

can be carried from place to place like other baggage, and is again light—an important consideration for the Bedouins, who cannot afford to tolerate any heavy clog upon their movement.[1] Moreover, the material of which it is made, *viz.* the hair, is obtained from their own domestic animals and so they can depend in this matter entirely upon the resources of their own land. The result is a distinctive type of human dwelling, which gives a characteristic aspect to the Bedouin life as well as to the Arabian landscape.[2]

The tent, called *bait*, is made of thick, coarse cloth, woven from black goat's hair. The coarse thread, with which the separate pieces of cloth are sewn together to make the covering of the tent, and sometimes even the ropes (الطناب) that are used in pitching the tent, are made of goat's hair. A tent consists of one large covering held up by a number of posts. To this covering are attached, by

[1] *Cf.* the Qur'ān, XVI, 80 ; "And He has given you tents of the skins of animals, which you find light to carry on the day of your march and on the day of your halting."

وَ جَعَلَ لَكُمْ مِنْ جُلُودِ الْأَنْعَامِ بُيُوتًا تَسْتَخِفُّونَهَا يَوْمَ ظَعْنِكُمْ وَ يَوْمَ إِقَامَتِكُمْ (القرآن : سورة النحل)

[2] From their habit of living in tents, the Bedouins have received one of their characteristic appellations, *viz. ahl al-wabar* (أَهْلُ الْوَبَر) the people of the hair (-tents), as opposed to *ahl al-madar* (أَهْلُ الْمَدَر) the people of the clod, *i.e.*, the settled agriculturists.

means of a rope and hooks, a back wall (رُوَاق) of the same stuff, with its lower part called *siflah* (سفله) and two side-walls. An ordinary tent, which has always a rectangular shape, has one main pole (عُمُود) with a number of smaller posts. It is usual to have nine poles or posts, three in the middle and three on each side of the tent. The size of the tent is determined by the requirements of the owner. A large tent is made by the employment of additional posts lengthwise. The tent is, as a rule, divided into two parts: the men's apartment and the women's, the two being separated by a woollen cloth or carpet, hung upon the middle poles.[1]

The tent-cloth is thick enough to keep off the heaviest rain, as Burckhardt tells us from his personal experience.[2]

It is further instructive to note that the structure of the tent is such that it admits of easy adjustment to the prevailing conditions of the weather. To begin with, it is always pitched according to the direction of the wind. The long side facing the wind is completely closed, when it becomes the back of the tent. In winter, the back wall keeps

[1] For a full description of the Bedouin tent, its structure and its furnishings, see Burckhardt, *Notes* p. 18 *et seq.*; Doughty, *Arabia Deserta*; pp. 224-27; and Musil, *Manners*, p. 61, *et seq.* It may be remarked *en passant* that the terminology of Arabic prosody has been borrowed almost entirely from the vocabulary used for the nomads' tent and its various parts.

[2] Burckhardt, *Notes on the Bedouins and the Wahabis*, p. 21.

out the wind, the lower part thereof being pegged down to the ground, so that the wind cannot lift it. The short sides are regularly closed. The wall clothes are detachable, being fixed to the tent covering by means of hooks, all or any of which may be fixed or taken out at will to exclude or admit air. In summer the front is left open, while in the cold season a wall is suspended at the front also, so that the tent is completely closed in. If the wind changes its direction and blows against the front side, the back wall is unfastened and put up at the front. If it is very hot, and there is no wind, the back wall is removed and poles are inserted beneath the front and back ropes, whereby the side walls are raised at each corner. Thus the tent is open on all sides and admits of a free circulation of air. It will thus be seen that the Bedouin tent is not only portable, but it is also adjustable according to the prevalent weather.

FURNISHINGS OF A BEDOUIN TENT

The furniture and other household effects of a Bedouin tent bear an unmistakable stamp of mobility. Constant movement reduces the impedimenta to a minimum. The only desirable and convenient form of capital is that which transports itself, *viz.*, flocks and herds. The whole furniture of a tent consists of woollen mats and rugs, a few wooden or metal

utensils (rarely earthenware ones), and a few skin bags. Such meagreness is imperative, since the baggage must be capable of being folded quickly and the goods to be carried must not be either very bulky or fragile.

Another noteworthy fact about their furniture is that it is, for the most part, made from the products of their domestic animals, *viz.*, wool and hair, skins and hides. The following articles are made of goat's or camel's hair: carpets and coverlets; quilts and cushions, used as padding in camel-saddles and litters; sacks to contain wheat, dates and other victuals. The following vessels are made of skins or hides: large bags (قِرْبَة), made of tanned camel-skin to keep water; goat-skins, in which they keep milk or make and store butter; leather-troughs (حَوْض), supported on a rickety wooden frame, in which camels are watered; leather bucket (دَلْو), to draw water from wells, furnished with a rope made of long leather-strips.

The following articles are made of wood: mortar and pestle for crushing grain; bowls and cups, dishes and plates. Besides, there are a few copper pans and pots, a solitary kettle and possibly a few plates of the same metal.

Earthenware, being so liable to breakage, has no place in a Bedouin household. In the words of Doughty, 'none here (in the desert) nowadays use

these brittle wares, but only wood and tinned-copper vessels."[1] It can, therefore, be easily understood why the art of the potter never developed among the Bedouin nomads. Perhaps the only pottery, found in a present-day Bedouin tent, consists of a few foreign-made cheap porcelain coffee-cups, wrapped in a woollen rag.

The mode of encamping is different in different tribes and in different circumstances. When the tents are few, they are generally pitched in a circle, or rather in the shape of an oval, the encampment being then called *duwār* (دُوَار). This is especially the case when the tribe is weak, or when it is camping in a strange district and the attack of a hostile tribe is feared. In his wanderings, Doughty came upon an encampment of this kind, which belonged to Banū 'Ali. It consisted of sixteen tents, pitched ring-wise, their animals being encompassed within the hedge formed by the tents and the stretched tent-ropes, from where they could hardly be stolen without disturbing their owners.[2]

If the number of tents be considerable, they are arranged in one straight line or several parallel lines. Such a large camp is called a *manzil*. In the case of some tribes, the observance of a regular order is completely dispensed with. The Rwala, for instance, as Musil tells us, do not pitch camps in the shape

[1] Doughty, *Arabia Deserta*, I, 113.
[2] *Ibid.*, II, 309.

of an ellipse, as some other tribes do. Each one may pitch his tent where he likes, for his tribe is strong and can withstand any enemy.[1]

The dwelling of the oasis-dwellers of Central Arabia has been considered above in chapter VI.

[1] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 77.

CHAPTER IX

HEALTH AND PHYSIQUE AS INFLUENCED BY PHYSICAL ENVIRONMENT

THE environmental and climatic conditions of Arabia have also influenced, directly or indirectly, the physical constitution of the Arabs and their general state of health, since the salubrity of a locality is principally determined by its climatic and other physical conditions.

The physique of the Arab people has to a great extent been influenced through the mode of life, which they have found suited to their environment. The hardihood of the nomads, for instance, is the direct result of their hard life. Although the nomad has little need of steady industry and application, he must be strong in the endurance of heat, thirst and the fatigue of long journeys. It is only by developing the qualities of hardihood and endurance that the nomad could hope to combat with, and live in, an unfriendly environment and in the lines of his face can be read the story of the struggle he puts up for existence. Those who are, by reason of physique or temperament, unfit for such a life either perish or leave the nomadic life to go to the oases or to the cultivated territories on the borderland. Thus,

by a process of natural selection and adaptation, extending over long ages, nomads have become differentiated from the settlers. One type of character has become fixed in the desert and another in villages and towns.

As regards their general physique, it will be observed that the privations and hardships of desert life discourage obesity. Moderately tall, the nomad is almost always of slight build. 'A fat, lazy-looking Arab is an anomaly, to be found only in the cities, where unusual temptations to luxury have been encountered.'[1] The Bedouin's physical ideal of a man is spare and sinewy, 'lean-sided and thin like a spear-shaft,' as the Arab poet would express it. Their scant diet, at the root of which stands the economic poverty of their land, is also responsible for the spare build of the nomads. There is at least one point in their physiognomy, noted by Burton, which can be traced directly to the influence of climate. Inhabitants of the desert, Burton remarks, are to be recognized by the network of wrinkles traced in the skin round the orbits, the result of constantly half-closing their eye-lids; this is done to temper the intensity of the light.[2]

A frugal and simple diet, coupled with the pure, unpolluted atmosphere in which the nomads generally

[1] Harrison, *The Arab at Home*, p. 1.

[2] R. F. Burton, *A Pilgrimage to al-Madinah and Meccah*, I, p. 144, footnote.

live, has made their senses acute and their nerves very sensitive. According to most travellers, their senses of smell, hearing and sight are very strong and fine. Living in an uncorrupted atmosphere, the nomads, in particular, are very sensitive to all odours. In entering towns, where they meet with diverse unpleasant odours, it is common to see them breathing with a sort of loathing, through a lap of their kerchiefs.[1]

The question of health and disease of a people obviously stands in direct relation to the climatic conditions of their land. In respect of salubrity, the open desert with its free, pure air, where the nomads wander about with their flocks and herds, compares very favourably with the towns and settlements. There the air is not only free from impurities, but it is dry, and though hot for most part of the year, it is much more tolerable than the damp and close air of the oases or coastal districts. Moreover, the soil is, on the whole, dry and porous, which is decidedly much healthier than a moist impervious one. Another important reason for the comparative salubrity of the desert is that the nomad population is scanty, living a more or less scattered and isolated existence, holding rare communication with the rest of the world. Such conditions not only lessen the chances of the importation of communicable diseases, but they are also unfavourable to the prevalence

[1] Charles Doughty, *Arabia Deserta*, I, 210.

and multiplication of the infecting material, even when imported. The outstanding features of the Arabian climate are dryness and heat, and working together they put a great check, in the desert at least, on the growth and spread of the many germs and parasites that carry disease. The Nufūd is the most healthful district in the whole Arabian desert.[1]

The salubrious effect of the desert environment is, however, greatly minimised by more than one factor. In the first place, the food supply of the desert is so limited, both in quantity and variety, and the power of the nomads to purchase their necessities from the outer world is so little—a fact which is again due to the economic poverty of the land—that they are for most part of the year on short rations, and have not enough to eat.[2] The result of their scanty and insufficient diet is that their general efficiency and power of resistance to disease remains at a low level. In the long and lean summer months, when the bodies of the Bedouins are languishing from starvation, and the whole nomad life is at a low ebb, it is only their serene and pure atmosphere, free from contagion, that saves them from being carried off by disease. 'The Beduin body is as a light-timbered ship, which may be stranded till the spring-time, when, with one great eating, he may replenish his fainting

[1] Musil, *The Manners and Customs of the Rwala Bedouins*, p. 185.
[2] On the scanty diet of the nomads, see Chapter VII above.

nature and his blood is renewed after many days of evil fare.'[1] A less healthy environment, with the insufficient food on which they have to live, would prove disastrous for them.

Whereas the observations of Ibn Khaldūn[2] on the physical and moral benefits received by the nomads from their frugal diet might be true in the case of the nomads of North Africa, with whom he came in personal contact, and whereas we are at one with him in thinking that super-abundance of food, coupled with faulty elimination, produces effects injurious to health, the fact remains that so far as the nomads of present-day Arabia, at least, are concerned, the reports of modern travellers and observers are agreed on the point that their diet is too scanty and that it is insufficient to ensure normal health and efficiency. Those who are not actually killed in inter-tribal warfare succumb prematurely to the hardships and privations of nomad life, so that old men are rarely to be seen among them.[3] The frequent abstinence of the poorer nomads enfeebles and corrodes their viscera and, according to Doughty, there is no people who are more troubled with this kind of complaint than they.[4] Impure water also

[1] Doughty, *Arabia Deserta*, I, 472.

[2] Ibn Khaldūn, *Muqaddama*, ed. E. Quatremère (Paris, 1858), vol. I, p. 158 *et seq.*

[3] According to the estimate of Prince Nūrī al-Sha'lān, as reported by Musil (*Arabia Deserta*, p. 422), two-thirds of the Rwala die a violent death; the rest, without exception, carry their wounds and scars.

[4] Doughty, *Arabia Deserta*, I, 473.

seems to be a contributory cause of this particular ailment. Women die mostly while suckling their babies. The rate of infantile mortality is high. Doughty has aptly called hunger the desert disease, since it predisposes its dwellers to several ailments, which they would be in a better position to withstand, were they better fed.

Another factor which greatly detracts from the salubrity of the desert is the brackish character of its water, which proves upsetting to foreigners and which the natives seem to tolerate only through long habit. Sources of sweet water are very few. Whatever the character and conditions of its waterholes, they are made still worse by the carelessness of man and the abominable habits of his domestic animals.

Different parts of Arabia differ in salubrity, according to their respective climatic conditions. As compared with the interior desert, all the coastal districts are more or less unhealthy. Here the moist heat is oppressive; the climate is damp and there is consequently much malarial fever. Mosquitoes are numerous, for instance, in the town of Mascat during the winter months; and cause a considerable amount of malaria among the inhabitants. In Ḥasā the humidity is increased by the presence of streams and lake-like ponds. The climate of Tihāmah, the lowland bordering the western coast, is likewise unpleasantly hot and oppressive, with its peculiar

hot mists rising from the Red Sea.

On account of their dampness, the oases share the unhealthiness of the coast-lands and have an ill repute for their malarial fevers. Khaibar is particularly notorious in this respect,[1] its fever being the worst of its type and most deadly, especially to the newcomers to the place. In the pestilent season, called *hamīm* (March-April), an adult is liable to be carried off after a day or two's illness. Although the air is pleasant at Medina, the place is not quite healthy, since fevers have been and still are prevalent in the town. The Companions of the Prophet, who followed him in his emigration to Medina, had an unpleasant experience of these fevers. After some suffering, however, they appear to have adapted themselves to the new conditions and acquired a sort of immunity—a fact which was ascribed to a change in the local climate, brought about by the prayer of the Prophet. The Bedouins have a wholesome dread of all such malarial places and avoid them as far as possible. Surrounded as it is by high desert, Taimā is the only important oasis-settlement in the Hijāz, which is entirely free from

[1] A pre-Islamic Arab poet, al-'Akhnas bin Shihāb the Taghlibite, refers to the ague of Khaibar in the following line:

وَقَفْتُ بِهَا اَبْكِي وَ اُشْعِرُ سُخْنَةً ۔ كَمَا اُعْتَادَ مَحْمُوماً بِخَيْبَرَ صَالِبُ

"While I stood there weeping, I felt a burning sensation as that of the ague-fever of Khaibar, which visits a fever-sticken person again and again, *vide Kitāb al-Ḥamāsah* of Abū Tammām, Bāb al-Ḥamāsah.

fever. Even here the Bedouins, however, complain of night chill, which is due to the evaporation from irrigation channels and gives them cold in the head.[1]

The settlements and towns are not only comparatively unhealthy in themselves, but the masses of pilgrims moving to and from the holy cities of Mecca and Medina are also a source of great danger to the health of the peoples and places through which they pass. These pilgrimages have often aided the diffusion of disease, and have repeatedly been the means of spreading cholera, small-pox and other communicable diseases.

[1] On the diseases most prevalent among the Arabians, see Burckhardt, *Notes on the Bedouins and the Wahabis*, pp. 52-55, 148; Doughty, *Arabia Deserta*, by index s. v. Maladies, fever, imbecility; and Musil, *The Manners and Customs of the Rwala Bedouins*, pp. 666-70.

CHAPTER X

SOCIAL AND POLITICAL EFFECTS OF PHYSICAL CONDITIONS

THE social organization of the Arabs stands in close relation to, and is mainly built upon, their economic organization. Social groups in Arabia, as elsewhere, are at the bottom economic groups; their genesis, growth and size being determined or modified by their economic needs and the way in which they satisfy them in their peculiar environment. We have tried to show in a previous chapter how their economic life is adapted to the peculiar physical conditions of their land; in the present chapter we propose to notice certain aspects of their social and political life, which seem to be influenced by physical environment, either directly or through the intermediary of their economic life.

Environmental influences are specially significant and manifest in determining the size of the social group among the Arab nomads. This must be for ever small in a country like Arabia, where the natural resources are not only limited but are exploited in a primitively rude and undeveloped fashion. The meagre vegetable resources necessitate sparse distribution of herds and of the population

that lives on them. The food-supply of a given area is limited; the nomad cannot increase it at will, being helplessly dependent upon what nature doles out to him with a niggardly hand. The size of the nomad social group is thus rigorously kept small, because a large horde cannot find subsistence in one and the same place. The natural increase of population beyond the limited resources of its territory puts a strain upon the social bond; the tribe must split up, a part separating and migrating elsewhere, either forming a new independent group or losing its identity by merging itself into some other powerful group. Thus seems to have taken place the repeated division and ramification of the Arab population into tribes and sub-tribes, with their innumerable genealogies, the traditional scheme of which has been recorded by Fr. Wüstenfeld in his *Genealogische Tabellen.*[1] It will thus be seen that the geographical conditions of Arabia have necessitated a sparse and discontinuous distribution of the nomad population.

Aggregation of individuals with a view to joint concerted action is required, on the other hand, by at least two considerations. Firstly, there is the need of economic co-operation. This need,

[1] Fr. Wüstenfeld, *Genealogische Tabellen der Arabischen Stämme und Familien.* Nebst einem *Register.* (Göttingen, 1852-53). On the structure of the Bedouin society of Arabia, consult also the comprehensive study of E. Bräunlich, *Beiträge zur Gesellschafts ordnung der arabischen Beduinenstämme,* in *Islamica,* Sechster Band (Leipzig, 1934), pp. 68-111; 182-229.

however, is not so compelling, because of the extreme simplicity of the pastoral economy. Joint social action is chiefly dictated by consideration of internal peace and security and of common defence against external enemies. The larger and more closely knit a group is, the better able it would be to defend itself against the outside enemy. Here are, then, two contending forces in the nomad life, each acting in a contrary direction : the strong dissociative tendencies inherent in the pastoral people, who are scattered over thinly-pastured deserts and steppe-lands ; and the imperious necessity of aggregation and joint social action, demanded by considerations of co-operation and of common defence. The size of the Bedouin nomad group thus represents the measure of the balance reached by these two conflicting forces.

In order that a number of human beings may be collected into a group, capable of joint concerted action, they must have some tie, some bond to hold them together. In the case of pastoral nomads, community of interest in pastures and waters should lead to the principle of local contiguity as a basis of tribal cohesion ; but the hold of the Bedouin nomad society over the land is weak, and its association with it is consequently slight. It is very seldom that a tribe lives for long in one and the same circuit ; migration is often forced upon it by persistent drought or by the intrusion of more powerful

neighbours. Even in normal and comparatively peaceful times, a nomad tribe makes only a transitory and intermittent use of its territory, with the result that the cementing or integrating force of the land is almost non-existent in their case, or at the best, remains very weak. In these circumstances, the need for cohesion makes appeal to the primary and natural feeling of kinship. The sentiment of common blood serves as a bond of social solidarity and is emphasized for its usefulness as such. It is adopted, fostered and perpetuated as far as possible as a principle of social unity, with a view to engendering in the associated individuals a sense of mutual duties and rights as against other groups.

As a basis of social unity, the idea of blood relationship plays a very large part in the social and political life of the Arabs in general and the nomad tribes in particular. A Bedouin belongs not to any town or territory but to such or such a tribe. He bears a relative name (*nisba*), which refers to the fact of his being a member of some tribal group, irrespective of the territory occupied by that group. The military organization of the early Islamic times and the settlement of the Arabs in military stations closely followed the old tribal grouping. The feuds and rivalries of the warring desert tribes were thus transplanted to Syria and Iraq, to Spain and Khorasan. Although the factions in these civil wars were really due to local interests, the very fact that

appeal was almost always made to the sentiment of kinship, shows the importance that was traditionally and habitually attached in the Arab mind to kinship as a bond of union and solidarity. Moreover, we know that brotherhood between alien tribes might arise by covenant. Whereas, on the one hand, such possibilities must necessarily put us on our guard against acknowledging unreservedly any two reputed brother-tribes as the lineal descendants from a common ancestor, they, on the other hand, show that according to Arab ideas consanguinity alone is the primary basis of social unity.[1]

How is it—it may be asked—that the feeling of kinship obligation is not universal in its operation, but works effectively only within a certain group of families, while beyond this group kinship obligations disappear. In explanation of this phenomenon, reference should be made to what has been said above regarding the dissociating effects of the scattered distribution of pastoral population. Though nearly or distantly related, the nomad groups are scattered over thinly pastured steppes and deserts, living exclusive and independent of each other. Their interests are, of necessity, separately localized, the physical conditions of their land making it impossible for them to habitually act together. The alliances, which they sometimes form for the purpose of

[1] W. Robertson Smith, *Kinship and Marriage in Early Arabia*. Second edition, London, 1903.

common defence or offence, are dissolved as soon as that purpose is fulfilled. Even within a single group, the social bond may be strained till broken, in case the group is forced to divide itself under pressure of circumstances. The natural increase of a group, for instance, beyond the resources of its territory may make it necessary for it to split up. In such a case its local unity is broken and therewith its community of interest gradually disappears. At first every effort is made to maintain the old tribal system, and the separated branches regard themselves as parts of one community. For instance, they continue to pay or receive—as the case may be—their share of blood-money. But, gradually the distance between the scattered groups makes itself felt; they lose touch with each other, till any useful and effective cohesion among them is scarcely feasible. Since they can no longer live and move and act together, the sentiment of common blood, which was fostered and kept alive principally for the purpose of common defence, ceases to operate and gradually fades away. It will, thus, be seen that the factor of scattered location ultimately gets the upper hand in nomad life.

To sum up, the Bedouin social and political group is fundamentally an economic group; its primary object being food-quest. The same quest, carried on in the thinly-pastured steppe-lands and deserts, determines its size: it lives and moves together

so long as it can find food together. The integrative force of the land being weak or absent, the natural sentiment of common blood serves as a principle of social unity and cohesion within a group. The physical conditions of the land, which necessitate a sparse and widely scattered distribution of the pastoral people, are responsible for introducing the factor of scattered location in Bedouin life. This factor powerfully militates against co-operation among scattered nomad groups, and prevents them from rising as communities in the social scale above the tribal standard.

POLITICAL CONDITIONS OF ARABIA AS INFLUENCED BY PHYSICAL ENVIRONMENT

Not only does geography make clear to us historical facts and events, by giving us topographical and other information about the places, with which they are connected; but the conditions of physical environment, taken as a whole, reflect themselves, among other things, in the historical and political activity of man. Such considerations of a physico-geographical character do not, of course, explain the variable element of human personality and initiative, but they certainly underly the stage on which the drama of human history unfolds itself, and consequently help us to understand better the general trend of the historical process.

In an earlier chapter of the present work, we have tried to trace some general effects of the insular and inter-continental aspects of the location of Arabia in the history, race and language of its people; we propose to consider here some aspects of the political life of the Arabs, which seem to have been influenced, directly or indirectly, by the physical conditions of their land.

The national independence of the Arabs has sometimes been made the subject of animated remarks. There are, however, some exceptions, which should be noted. The province of Yaman, for instance, has been subdued successively by the Abyssinians, the Persians and in modern times by the Turks; while the Ḥijāz, with its holy cities Mecca and Medina, has often been dependent upon the rulers of Egypt or Syria. Yet these exceptions are temporary or local. Upon the whole, the Arabs in general and the nomads among them, in particular, have escaped the foreign yoke. Arabia never formed a part of the great Empires of antiquity, that embraced the adjacent lands of Western Asia and the Mediterranean region. Even under Arab Caliphs, *viz.*, the Omayyads and the Abbasids, who might be expected to know the ways of the Arabs better and to be able to control them effectively, Arabia was only under a nominal subjection. Sometimes, the Arab nomad tribes actually raided the cultivated territories of the Empire. The chief causes of their

insubordination and freedom are to be found in their mobility and in the physical character of their country, which gives them a decided advantage over their opponents. Aided by a strong animal of transport like the camel, and in exclusive possession of the knowledge of secret waters of their deserts, they can always be sure of a safe retreat and can thus elude the pursuit of their enemy, for whom it is no easy task to follow them up in their forbidding solitudes. Even if the nomad tribes are temporarily subdued by an alien foe, they can always reassert their independence, since the physical conditions of their land, which make an effective control impossible, are decidedly in their favour.

Another reason of the independence of Arabia lies in its economic poverty and unattractiveness. The natural resources of the land are so meagre that the native population itself has a precarious living. An alien power has very slight prospects of deriving any substantial material gain from the occupation of the country. It was a complaint of the Turks that the province of Ḥijāz was a burden upon, rather than a source of revenue to, the Imperial exchequer. Despite the economic unattractiveness of Arabia, some foreign powers would fain get control of some parts of it for strategic reasons, if not for economic exploitation. The British Government, made wise by the lessons of the past history of Arabia, has been content, for its own part, with attaining

its political ends by friendly alliances with, and monetary subsidies to, the tribal shaikhs and local rulers, rather than by any extensive occupation of the land itself, which would give unnecessary offence to the religious sentiments of its Muslim subjects in other parts of the world.

When a student turns from the history of other countries and peoples to that of Arabia, he is at once struck by the absence of political unity among its people. Although the Peninsula is fairly well defined geographically, racially and linguistically—a fact which might reasonably be considered eminently favourable to the growth of political unity—history does not know of a well organized and strongly centralized stable state, co-terminus with the natural boundaries of the land. It is true that the Arabs have a clear notion of their being distinct from other peoples and nations of the world, but the Arab society in Arabia has not been able to weld itself into one organized permanent state. Only here and there in some parts of the Peninsula have arisen in a sporadic manner at various epochs of history dominions of varying extent and power. The south-west of the Peninsula has been the seat of some ancient kingdoms, whose history, however obscure, goes back to a fairly remote antiquity; but so far as we can see, they did not exercise any effective control beyond the agricultural settled territories over which they held sway. The rise of Islam and the

theocratic government of the orthodox Caliphs gave for a short space of time a semblance of political unity to the vast Peninsula, which in later times continued to give a common but doubtful allegiance to the Omayyad and Abbasid Caliphs. Coming down to modern times, we find that the phantom of a united Arab kingdom, which foreign aid and personal ambition had led the late king Ḥusain of the Ḥijāz to see, vanished even before the eyes of the dethroned and disillusioned old monarch were closed in death. The present Wahhābī power of Central Arabia, whose fortunes all students of Arabian affairs are watching with a keen interest, is based on a more solid ground, and the very remarkable success it has already attained, remains without a parallel in the history of Arabia since the early days of Islam; but it can hardly be said to have passed beyond the experimental stage, when we take into consideration the reverses it has met in the past and the comparatively short term of its existence.

The explanation of this political disunion and instability of the Arabian society is to be found ultimately in the physical environment of their land and the conditions of life it has imposed on them. About three-fourths of the Peninsula is desert or semi-desert, the home of wandering tribes, incapable of economic and political development beyond the rude Bedouin status of life. Settled life, which alone is favourable for political growth, is possible

only in a few favoured parts, which are isolated and separated from each other by vast stretches of forbidding deserts. In a land where the camel is the sole means of military transport, considerations of water and pasture are of supreme importance. Communications between the various parts of the country are therefore difficult, so that the maintenance of a general control by one authority over the whole land is an extremely arduous, nay wellnigh impossible, task. Geographical conditions thus lend every aid to the forces of separatism and particularism, and hinder the growth and expansion of a state that should cover the whole Peninsula and unite all its scattered people in its embrace.[1]

Such states as exist or have existed in Arabia have been generally of limited extent and influence and confined to one part of the Peninsula or another. It will furthermore be observed that they have always had some settled territory as their basis. The migratory Bedouins are incapable of forming a state, so long as they lead a nomadic life. Although they have a simple political organization of their own, based on their tribal system, the affairs of each tribe being regulated by its head called the *shaikh*,

[1] *Cf.* Julius Wellhausen, *Ein Gemeinwesen ohne Obrigkeit.* Eine Rede am 27. Januar 1900 gehalten. (Göttingen, 1900). An English version of this illuminating lecture may be read in the *Historians' History of the World*, ed. Dr. H. S. Williams, vol. VIII (London, 1907), Chap. XI (pp. 284-293): 'Tribal Life of the Epic Period.' After drawing a picture of the Arabian community in brief outline, the learned author comes to the conclusion that it is devoid of effective supreme authority and executive power.

they lack that stability which is necessary for the organization of a state. States have always originated in settled territories. In a sedentary life of agriculture, permanent residence in larger and more complex units leads to a closer integration of social units, for whom land becomes the dominant cohesive force. They feel a growing necessity for an organized government, to reduce friction within and secure protection from without. Being settled, they are much more amenable to discipline and control than the mobile nomads. In short, the conditions of settled life are, on the whole, much more favourable to ordered political development and the growth of centralized unified states.

The province of Yaman furnishes the most notable example of a favoured area in Arabia, which has embodied considerable political power. Here there has existed from early times some sort of established government. The sceptre of power has passed from one hand to another, and even the seat of government has shifted from place to place; but there has generally been a more or less powerful government—thanks to the sedentary agriculturist population that has served as the basic foundation of the state. Similarly, in comparatively modern times, the Wahhābī power originated in the Haisiyah-Hanīfah valley, the heart of ʻĀriḍ, the central district of Najd. Here, in one town or another, has resided the chief political power controlling Najd.

Further, the establishment of Ikhwān settlements, which is an important part of the political programme of Ibn Sa'ūd, shows what weight the rulers attach to settled communities as an element of stability and consolidation in the state. The now defunct Emirate of Shammar was likewise centred in the settled cultivated territory between mountains 'Aja and Salmā.[1]

[1] On the social and political organization of the Shammar, see Robert Montagne's valuable article, *Notes sur la vie sociale et politique de l'Arabie du Nord*, in *Revue des Etudes Islamiques*, vol. VI (1932), pp. 61-79.

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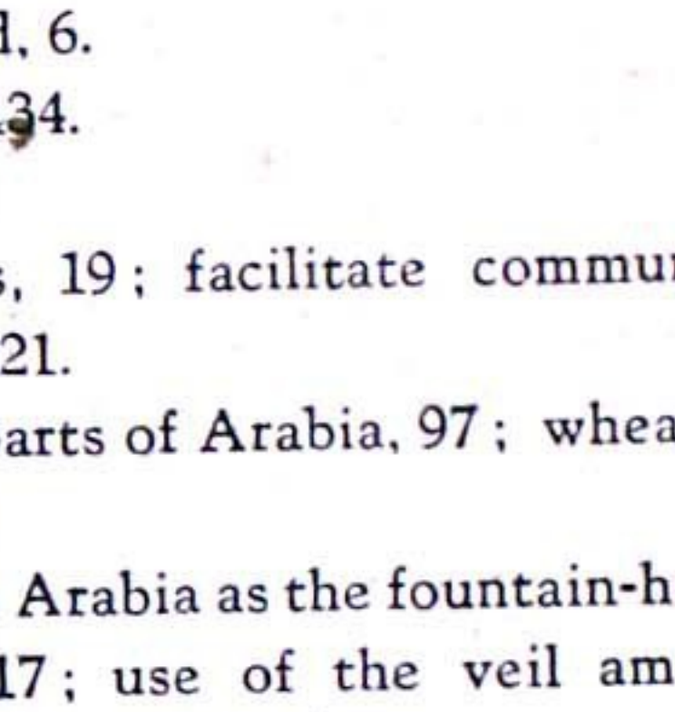

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