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Abstract of Thesis:

THE MOBILITY OF THE ARAB ARMIES IN THE EARLY CONQUESTS

By D. R. Hill. B. Sc. A.M.I.C.E.

Submitted for the Degree of Master of Letters of the University of Durham.

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This work deals with the Arab conquests from 622 A.D. to 656 A.D., with particular reference to Mobility, and is based mainly on Arabic sources such as Tabari, Balādhuri, Waqidi, Ibn Hishām, Ya'qūbi and Abd al-Hakam. It is divided into six chapters.

Chapter I is introductory and outlines conditions in Arabia and in the Persian and Byzantine Empires on the eve of the conquests.

Chapter II is a brief regional geography of the regions conquered in the first invasions.

Chapter III is a discussion on the camel: its main characteristics; the historical and geographical spread of camel-culture.

Chapter IV is a summary of the history of the early conquests.

Chapter V is a survey of Arab military affairs and covers many aspects of this subject including: conditions of service; weapons; numerical strengths; troop formations; command; tactics; static warfare; deception; the Arab woman in battle; provisioning; care of wounded; treatment of the slain and of prisoners; booty; the origin, planning and direction of the conquests; administration of the conquered lands; pensions; Muslim morale.

Chapter VI deals with Mobility and is divided into two sections. Section I is devoted to a discussion of the use of the camel and the horse in the daily life of the Arabs. Section II considers the use made by the Arabs of mobility as an instrument of war in the early conquests.

A short Conclusion summarises the advantages and disadvantages possessed by the Arabs when they began their wars of conquest. Superior mobility is assessed as one of the important assets.

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## PREFACE

The work that follows is an attempt to assess the contribution made by mobility to the success of the Arab armies in their early conquests - from 622 to 656 A.D. Particular attention is paid to the role of the camel in transporting troops over long distances in arid conditions, sometimes at high speeds of march. Obviously no evaluation could be made without considering the effect of other significant factors and, in addition to the sections on Mobility and the Camel, chapters have therefore been included on: Conditions in the Near East on the eve of the Conquests; Geography; a brief historical survey of the Conquests; Military Affairs. I regard the chapter on Military Affairs as of equal importance and relevance as the chapter on Mobility and indeed the separation of the two subjects is largely artificial and is due only to the necessity for orderly presentation. Little research on Arab Military Affairs has been published in the English language and among the works I have consulted on this subject I must single out the thesis of Leo Beckmann as having given me the most assistance and guidance. Not only was the information of great intrinsic value but the identification of sources saved many hours of research.

On the subject of Mobility, having no first-hand experience of camel-mounted troops, I wrote to Lieutenant-General Sir John Bagot Glubb K.C.B. to ask him if I might draw on his knowledge. He readily agreed to my request, and answered every point in the questionnaire which I sent to him with great thoroughness, a courtesy for which I am extremely grateful. (References to this correspondence appear in the footnotes as 'Glubb - by letter').

I would also like to express my gratitude to the members of the staff of the School of Oriental Studies, especially Professor T.W. Thacker, Mr R.L. Hill, and Mr. I.J.C. Foster and his Library staff for the encouragement and assistance which they have always offered so readily.

Finally I acknowledge an especial indebtedness to my supervisor, Mr. F.R.C. Bagley, not only for the invaluable guidance and criticism which has given to me, but also for the sincere interest which he has taken in the progress of my studies.

## NOTE ON THE SOURCES

I have restricted my researches to those Arabic sources which embody the earliest traditions, mainly those of the Medinese authorities Ibn Ishāq and Wāqidi, where such traditions are sufficient. Thus for the first ten Hijrah years the material in Ibn Hishām, Wāqidi (Kremer), Wāqidi (Wellhausen), and Ṭabari is largely adequate. For later years Balādhuri, covering as he does all the main theatres of operations, was the best general guide, but it was necessary to have frequent recourse to Ṭabari, since he usually gives accounts of events at greater length and in more detail. Ṭabari quotes the 'Irāqi authority, Sayf b. 'Umar, very frequently, a source who must be used with circumspection. Ya'qūbi's accounts are much briefer than those of Ṭabari or Balādhuri, but are of value in many cases as supporting evidence. Ṭabari deals rather briefly with the western sphere and I have therefore used the 'Futūh al-Shām' of Lees for events in Syria, taking into due account the semi-fictional nature of this work. I have also used 'Abd al-Hakam for events in Egypt to supplement the meagre accounts in Ṭabari and Balādhuri. The Qur'ān has been used to a limited extent for subject matter which is directly connected with military affairs. Finally, I have consulted the poems of al-Khansā, the poetess of the Banū Sulaym, in order to obtain a contemporary view on warfare and the Badw conception of chivalry.

The chronicles of John of Nikiou, Sebeos and Michael the Syrian, and the Strategikon of Maurice were consulted for further factual data and as a counterbalance to the Arabic sources.

### Use of the Sources

It is clearly beyond the scope of this work to use source material to cover the whole field of the conquests in every aspect. Chapter I. has thus been derived mainly from works in European languages on early Arabia, Sāsānid Persia, and Byzantium. Chapters II. and III. do not require the use of source material. Chapter IV., a brief summary of the conquests, presents some difficulty. It is derived, in the main, from the works of such Orientalists as Caetani, Becker, Butler, Gibb, Musil, Watt and Wellhausen, whose critical examinations of the traditions have done much to clarify obscurities and determine the true course of events from conflicting versions. Even so it has been necessary sometimes to select the version most acceptable to myself from the evidence available, on the not infrequent occasions when the Orientalists themselves differ in their interpretations. I have not, therefore, used the European works in isolation, but in conjunction with the Arabic sources. In many cases references would be misleading, because the version given in any one tradition but rarely matches, in all details, the version arrived at by a detailed examination of the available material. I have therefore limited footnotes to references which indicate the sources for the more important events. For Chapters V. and VI. the Arabic sources have been used throughout and as far as possible conclusions have been drawn from examination of the traditions, although weight has been given to the opinions of eminent Orientalists. This latter is, however, less true of Chapter VI., mobility having received little attention from Orientalists, and here conclusions and interpretations of facts are based mainly on the sources.

## Sources Consulted

### (a) Arabic

1. Tabari: Annales quos scripsit etc.; ed. M. de Goeje, Leyden, 1879-1901, first series. (Tab 1.)
2. Balādhuri: Liber expugnationis regionum; ed. M. de Goeje, Leyden, 1866. (Bal)
3. Idem: the Origins of the Islamic State; trans. Philip K. Hitti, New York, 1916. (Not cited)
4. Wāqidi: Wāqidi's history of Muhammad's campaigns; ed. Alfred von Kremer, Calcutta, 1855/6. (Waq)
5. Idem: Muḥammad in Medina; ed. and trans. J. Wellhausen, Berlin, 1882. (WW)
6. 'Wāqidi': Futūḥ esh-Shām; ed. W.N. Lees, Calcutta, 1854. (Fut Lees)
7. Ibn Hishām: The life of Muḥammad according to Muḥammad ibn Ishāk, ed. F. Wustenfeld, Göttingen, 1858/60. (IH)
8. Idem: The life of Muhammad, a translation of Ishāq's Sīrat Rasūl Allah; ed. and trans. A. Guillaume, London, 1955. (IH Guillaume)
9. Ya'qūbi; Historiae; ed. M. Th. Houtsma, Leyden, Vol II, 1883. (Ya'q II)
10. 'Abd al-Ḥakam: Futūḥ Miṣr; ed. Chas. C. Torrey, New Haven, 1922, in Yale Oriental Series, Researches, Vol. III. (Fut Miṣr)
11. The Holy Qur'ān: Royal Qur'ān; Cairo, A.H. 1337; Sūrahs numbered in traditional Arabic order.
12. Al-Khansā': Poetry; ed. Karam al-Bustani, Beyrut, 1951. (Al-Khansā')

### (b) Coptic

13. Jean Evêque de Nikiou; Chronique; ed. and trans. M.H. Zotenberg, Paris, 1883. (J. Nik)

### (c) Armenian

14. Sebeos: Histoire d'Heraclius; trans. F. Macler, Paris, 1904. (Sebeos)

### (d) Byzantine

15. L'Armée byzantine à la fin du VI<sup>e</sup> siècle d'après le Strategicon de Maurice; trans. F. Aussaresses, Paris, 1909. (Strat)

### (e) Syriac

16. Michel le Syrien: Chronique; ed. and trans. J.B. Chabot, Vol II, Paris, 1901. (Mich Syr II)

## Works Consulted

17. Beckmann, L. Die Muslimischen Heere der Eroberungszeit, Hamburg, 1953. (Typewritten thesis) (Beckmann)
18. Becker, C.H. The expansion of the Saracens; in Cambridge Medieval History, Vol II, pages 329-390, Cambridge, 1912. (Becker)
19. Brehier, L. Les Institutions de l'Empire Byzantin, 2nd Section, Paris, 1949. (Brehier)
- \*20. Butler, A.J. The Arab conquest of Egypt and the last thirty years of the Roman dominion, Oxford, 1902. (Butler)

- \*21. De Goeje, M.J. : Mémoire sur la conquête de la Syrie, Leyden, 1901.  
(in Mémoires d'histoire et de géographie arabes, Vol. 2.) (de Goeje)
- \*22. Caetani, L. : Annali del Islam, Milan, 1905-1926. (Ca)
23. Idem. Chronographia Islamica, Paris, 1912. (Ca Chron)  
( N.B. References to Caetani, the great majority of which are to the Annali, are by Hijrah year followed by paragraph number)
24. Article 'Badw' in the Encyclopaedia of Islam, new Edition, pp 872-892, Leyden, 1958. (Contributors: C.S. Coon; H. von Wissmann and F. Kussmaul; W. Montgomery Watt) ( Badw, Coon etc.)
25. L'Antica Società Beduina - a collection compiled by F. Gabrieli, Rome, 1959. (Contributors: W. Dostal; G. Dossin; M. Hofner; J. Henniger; F. Gabrieli) ( ASB, Dostal etc.)
26. Montgomery Watt, F. : Muhammad at Mecca, Oxford, 1955. ( Watt, Mecca)
27. Idem. Muhammad at Medina, Oxford, 1956. (Watt, Medina)
- \*28. Hamidullah, M. : Les champs du bataille au temps du Prophète, in Revue des Études Islamiques, 1939, pp 1-13. ( Ham)
- \*29. Le Strange, G. : The lands of the Eastern Caliphate, 2nd edition, Cambridge, 1930. ( Le Strange)
30. Fisher, W.B. : The Middle East - a Physical, Social and Regional Geography, London, 1950. (Fisher)
- \*31. Musil, A. The Middle Euphrates, New York, 1927. (Mus ME)
- \*32. Idem. Northern Negd, New York, 1928. (Mus NN)
- \*33. Idem. Arabia Deserta, New York, 1927. (Mus AD)
34. Idem. Manners and customs of the Rwala Bedouins, New York, 1928. (Mus Rwala)
35. Noldeke, T. Geschichte der Perser und Araber zur Zeit der Sasaniden, Leyden, 1879. (Nol Ges)
36. Thesiger, W. : Arabian Sands, London, 1959. (Thes)
37. Gibb, H.A.R. : The Arab conquests in Central Asia, London, 1923. (Not cited)
38. Wellhausen, J. : Reste Arabischen Heidentums, 2nd edition, Berlin, 1897.  
( Well. Reste)
39. Idem. : Skizzen und Vorarbeiten, Vol. VI, Berlin, 1899. (Well. VI)
40. Glubb, Sir John Bagot. : War in the Desert, London, 1960. (Glubb WID)
- \*41. Oppenheim, M.F. von. : Die Beduinen. Vol I. Leipzig, 1939;  
Vol II, Leipzig, 1943; Vol III, Wiesbaden, 1952. (Opp)
42. Doughty, C.M. : Travels in Arabia Deserta, London, 1936. (Doughty)
43. Lammens, H. : Le Berceau de l'Islam, Rome, 1914. (Lam Berc)
44. Idem. : La Mecque à la veille de l'Hégire, Beyrut, 1924. (Lam Mec)
45. Smith, W.R. : Kinship and marriage in early Arabia, London, 1907. (Smith)
46. Diehl, C. : Histoire de l'Empire Byzantin, Paris, 1924. (Not cited)
47. Dussaud, R. : Les Arabes en Syrie avant l'Islam, Paris, 1907. (Dussaud)
48. Byzantium. A collection edited by N.H. Baynes and E. St. L.B. Moss, Oxford, 1961. (Not cited)
49. Dennett, D. : Conversion and the Poll-tax in early Islam, Cambridge (Mass) 1950. (Dennett)
50. Skosyrev, P. : Soviet Turkmenistan, Moscow, 1956. (Skosyrev)
51. Ritter, C. : Vergleichende Erdkunde von Arabien, Vol. II, Berlin, 1847.  
(esp. pp 609-759: Die geographische Verbreitung des Kamels in der Alten Welt) (Ritter)

52. Fries, N. Der Heerwesen der Araber zur Zeit der Omaijsaden nach Tabari, Tübingen, 1921. (Fries)
  53. Schwarzlose, F.W. Die Waffen der alten Araber aus ihren Dichtern dargestellt; Leipzig, 1886. (Schwarz)
  54. O'Leary, E. Arabia before Muhammad; London, 1927. (O'L)
  55. Beckingham, C.F. Bahr Fāris; article in the Encyclopaedia of Islam, 2nd Edition, Leyden, 1959. (Bahr Fāris)
  56. Walz, R. Zum Problem des Zeitpunktes der Domestikation der altweltlichen Cameliden; in ZDMG, 101, 1951, 29-51; (Walz I) 104, 1954, 45-87. (Walz II)
  57. Idem. Beiträge zur ältesten Geschichte der altweltlichen Cameliden etc.; in Actes du 4e Congrès internat. des Sciences Anthropologiques et Ethnologiques, Vienna, 1952, (publ. 1956) Val III. (Walz III)
  58. Wiesner, J. -- Fahren und Reiten in Alteuropa und im Alten Orient; Der Alte Orient, Vol 38, II, 1939. (Wiesner I)
  59. Idem. Probleme der frühzeitlichen Domestikation im Lichte neuer Forschung; in Actes du 4e Congrès internat. des Sciences Anthr. et Ethn., Vienna, 1952, (publ. 1955), Vol II. (Wiesner II)
  60. Albright, W.F. Zur Zähmung des Kamels; ZAW, 62, 1949/50, 315. (Not cited)
  61. Monteil, V. Essai sur le Chameau; Ifan, Mauretania, 1952. (Monteil)
  62. Field, H. Camel Brands and Graffiti; In supplement to JAOS, number 15, 1952. (Not cited)
- N.B. Following each work, in parentheses, is given the abbreviation used for that work in references.

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#### Note on the preparation of the map

Works marked with an asterisk in the above list have provided information for the preparation of the map, by identification of place-names. Many other place-names have been derived from modern maps; where the location of a place on the map tallies with the location given in the sources, it is assumed that its position has remained unchanged since the 7th century. For example, there are still watering places called Tha'libiyah, Zarūd and Sharāf on the route from Najd to lower 'Irāq, and these places are named in the sources as halts on the march of Sa'd's army from Medina to Qādisīyah; there is still a village called Mū'tah near Kerak.

Maps used include:

1. War Office and Air Ministry Survey, scale 1: 1,000,000 :- Beirut; Cairo; Damascus; Al-Jauf; Baghdad; Basrah; Medina; Mecca; Riyādh.
2. Transjordan: Palestine Survey 1941, scale 1: 500,000. (in Arabic)
3. As indicated above, maps included in the works of Caetani, Butler, Musil, etc. For the eastern part of the region I have relied almost exclusively on the maps contained in Le Strange's 'Lands of the Eastern Caliphate'.

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CHAPTER I

Conditions in Arabia and in the Persian and Byzantine Empires on the eve of the Muslim conquests.

## 1. Arabia.

One of the most important factors in the economic and political life of the Middle East, from ancient times to the present day, has been the passage of merchandise from the East to the Mediterranean. In Rome and later, in the Byzantine Empire, there was a constant demand for luxury goods from India, Arabia and Abyssinia. 1) These included spices, silks, precious stones and perfumes. 2) There were several routes by which these goods could be taken to their destinations: from the Indus valley via the passes of the Hindu Kush and Turkestan and thence to the Caspian and Persia; 3) by sea to off-loading points on the Euphrates, thence by river-boat to the great bend of the Euphrates (near modern Maskanah), the nearest point on the river to the Mediterranean, whence the goods were carried overland; 4) from the lower Euphrates by caravan via Petra and later via Palmyra; 5) by sea direct from India via the Red Sea to Egypt; 6) by sea to South Arabia and thence via Mecca to Syria and Egypt. 7) A combination of circumstances had, at the beginning of the 7th century A.D., made the last-named route by far the most important channel for this commerce.

1) O'L 65ff; Lam Mec 7ff; 12; Watt Mecca 3. 2) Lam Mec 26. 3) O'L 65.  
4) Lam Mec 11f. 5) Lam Mec 12; O'L 81ff. 6) O'L 79. 7) Watt Mecca 3; O'L 180f.

Carriage of merchandise by the northern routes, always liable to Persian interference as a means of applying economic sanctions against Byzantium, 1) was completely closed in the first decades of the 7th century by the long and bitter war between the two Empires. 2) In South Arabia the Kingdom of Himyar, successor to the ancient states of Saba and Minaea, and once prosperous through control of the caravan routes to the north, had long been in decline. This decline may have begun with the discovery of the principle of the monsoons in the 1st century A.D. and the consequent development, by the Romans and later the Byzantines, of effective sea traffic to the East via the Red Sea. 3) In the first centuries of our era, therefore, there was great economic distress in SE Arabia and many settled clans became nomadic and moved to distant parts of Arabia. 4) In the 6th century the Yaman became an arena for the economic rivalry of Persia and Byzantium, with the Abyssinians as the agents of the latter. The Kingdom of Himyar was finally overthrown by an Abyssinian army and the Yaman became subject to Ethiopia about 525 A.D. About 570 A.D. the Abyssinians were in turn conquered by the Persians and the Yaman became a satellite of Persia, and remained so until the advent of Islam. 5) During the 6th century Red Sea traffic had passed into Abyssinian control and had declined in importance. 6) At the same time the Meccans, who had previously been only middlemen and retailers, gradually gained control over most of the trade from SE Arabia to the North. 7)

1) O'L 115 ff; Watt Mecca 3. 2) Lam Mec 20 f. 3) O'L 79; Badw (Wissmann) 884. 4) Badw (Wissmann) 885; ASB (Höfner) 68.

5) Watt Mecca 12 f; O'L 207. 6) O'L 182. 7) Watt Mecca 3; O'L 180 f.

Thus the Meccans gained full control of the Arabian trade routes at a time when all other channels were blocked by warfare or decay, and the early part of the 7th century was a period of great prosperity for Mecca. 1) The city grew in importance as a commercial and financial centre with facilities for banking and credit transactions - all the institutions normally associated with a society organised on a capitalistic basis. 2) Economic and political control in Mecca was in the hands of the tribe of Quraysh, divided at this time into ten clans of varying affluence and importance; these clans, rather than the whole tribe, were the viable units from the point of view of group solidarity. 3) Nevertheless business interests may have begun to cut across lines of group loyalty and, in the pursuit of wealth, ancient obligations such as the protection of the weak and the care of orphans and the destitute, tended to be forgotten. At the same time the weaker clans and the less influential members of the important clans were excluded from the more profitable enterprises, and were naturally resentful. From these two classes, the poor and the would-be-rich, came the majority of the early adherents of Islam. The social malaise of Mecca arose from the grafting of an acquisitive mercantile system in which individualism tended to replace group solidarity onto a society which still retained the old nomadic attitudes and social institutions, which in the new environment became irrelevant and lost their moral force. In the desert a leader was entitled to the fourth part of booty taken on a raid and this enabled him to perform his traditional duty of looking after the poorer members of the tribe, but a merchant who had amassed wealth by his own shrewdness would feel no such obligation. 4)

1) Watt Mecca 3; O'L 180 ff. 2) Lam Mec 116-171; O'L 182.

3) Lam Mec 50 ff. 4) Watt Mecca 16 ff.

Nor would the pressure of public opinion be brought to bear against him; in the desert the poets had fulfilled a function somewhat similar to that of the modern press - his praises were sought, his satire was feared. But the most likely patrons of poets in Mecca were the rich merchants and a poet would be unlikely to criticise his source of remuneration. With the breakdown of morality was connected a decay in the religious life of the Meccans. There were numerous cults in Arabia connected with various shrines, of which the shrine at Mecca was among the most important, 1) but by the time of Muhammad these cults had ceased to have much relevance. The Arabs may be said to have lived chiefly by tribal humanism, the manifestation of the qualities of manliness and fortitude embodied in the tribe. The possession of such qualities in an individual is because he is a member of a tribe which is characterised by them. The honour of the tribe is what makes life meaningful and in this conception the poet played a key role; his function was to glorify the name of his own tribe by 'boasting' and tarnish that of others by 'satire'. In the Mecca of Muhammad, however, honour had ceased to exercise men's minds, since they found meaning in the acquisition of wealth and power, this being the objective not only of the very rich but also of the community as a whole. Thus the Qur'an recalls men to the practice of some of the virtues of nomadic life: it inveighs against men made arrogant by wealth, condemns the oppression of the weak, encourages the rich to be generous to the poor. More serious matters such as murder, theft and adultery were still adequately dealt with by traditional methods, especially the curb on murder by the blood-feud. 2)

1) Well Reste 1-94; 101-140. 2) Watt Mecca 16-29; Well Reste 186; 221.

Such then was the milieu of Muhammad's early ministry, a centre by no means isolated from the outside world but in touch with the great civilisations of Greece and Persia by means of a highly developed trading system. Especially was this the case with the Byzantine Empire in whose territory lay Syria, the main terminus of the Meccan caravans, although commerce with the Byzantines was interrupted by the Persian occupation of Syria, 614-627 A.D. The city of Busra was the market allotted by the Byzantines for the receipt of merchandise from Arabia and the arrival of the caravan and the storing of the goods was carefully superintended by Byzantine agents and Customs officers. 1) Through such contacts the Meccans doubtless had adequate intelligence of foreign affairs and internal conditions in the two states. The bankers and financiers of Quraysh had also, by their management of a commercial centre which was the means of their livelihood and by their dealings with the much more numerous nomads surrounding the town, developed a political sense which was to be invaluable after the conquests. 2) The political acumen of men such as Umar and Mu'awiyah was no accident. The possession of such sagacity was absolutely vital to the survival of Mecca since no agriculture can be practised there and trade was essential to its prosperity. 3)

Very different was the situation in Yathrib, except insofar as it arose from a somewhat similar cause: the unsuitability of nomadic customs and thought patterns for life in a settled, mainly agricultural, community.

1) Lam Mec 34;46;0'L 187;Opp I 280. 2) Watt Mecca 3;Lam Mec 59.  
3) Watt Mecca 2.

Rather than a compact city Medina consisted of a number of farms, hamlets and strongholds spread over a fertile tract of country which was in turn surrounded by barren hills, rocks and lava flows. The dominant section of the community was the B. Qaylah, who were sub-divided into two tribal groups, the Aws and the Khazraj, these in turn being fragmented into a number of clans. The B. Qaylah, perhaps of S. Arabian extraction, gained political control about the middle of the 6th century A.D. but two groups of Jews occupying fertile tracts of land remained strong enough to retain a large degree of independence. These were the B. Qurayzah and the B. al-Nadīr, while in Muhammad's time there was a third, less influential, Jewish group, the B. Qaynūqā'. There were frequent feuds between the Aws and the Khazraj which had erupted into a pitched battle, also involving the Jews, a few years before the Hijrah. What was happening was that, in a community dependent on agriculture, a petty warfare was engendered by the pressure of an increasing population on limited food supplies. The principle of force, of taking and keeping whatever one can by armed might, allied to the system of the blood-feud, works satisfactorily in the vast spaces of the open desert, but it is intolerable in a settled community. Security of life and tenure is not guaranteed and long-term improvements in agriculture are discouraged. What is required in such a case is a single supreme authority to act as arbiter between the various contending groups, and this is a conception quite alien to nomadic thought. Thus there was much to attract the Medinese in the idea of a community based upon a religious ideal, whose leader would be without bias towards any one section of the society.

(This page derived from: Watt Mecca 141-149; Lam Berc 265)

Apart from this sound material reason there was also a religious factor in the malaise of Yathrib: in the nomadic outlook the meaning of life is found in the honour and prowess of the clan, but such a concept is only relevant for small, closely-knit units and does not apply to a large group like the Anṣār, which had little contact with outsiders. Nor was there much glory to be found in the kind of petty murdering that went on at Yathrib and the people must have been heartily sick of the continual, senseless killing. Such briefly were the reasons that impelled the men of the Anṣār to accept Muḥammad in their midst. 1)

#### The Tribes.

Other important settlements in Arabia at the time of Muḥammad included: Jewish settlements at Khaybar, 2) Fadak, 3) and in the Wādi-l-Qurā; 4) the northern oases of Taymā', 5) al-Ḥijr, 6) Dedān, 7) Tabūk, 8) and Dūmat-al-Jandal; 9) the oases of eastern Najd with al-Yamāmah as the most important; 10) the Yaman, especially Sanā' and the thriving Christian community of Najrān; 11) the town of Tā'if. 12) Of more importance to Mecca and to nascent Islam, however, were the nomadic tribes, many of whom had sections who were settled in the oases.

- 1) Watt Mecca 141-149. 2) Bal 23 ff; Lam Mec 84; 195; 265; Watt Mecca 217 ff; O'L 173. 3) Bal 29 ff; Watt Medina 218; Lam Mec 83; O'L 173.
- 4) Bal 33 ff; Watt Medina 218; Lam Berc 154 f; O'L 173.
- 5) Bal 33 ff; Watt Medina 218; Lam Mec 83; O'L 173. 6) O'L 180 f.
- 7) O'L 103 f. 8) IH 894 ff; WW 390 ff; Lam Mec 258; 259.
- 9) Bal 61 f; Tab 1. 2065 f; IH 905; WW 403 f; Watt Medina 362-364.
- 10) Bal 88 f; Tab 1. 1941 ff; Watt Medina 135-137.
- 11) Watt Medina 128 f; O'L 103 f; (Sanā') Bal 64; Lam Berc 253 f; Watt Medina 127 f; O'L 143 f. (Najrān).
- 12) Bal 55; IH 869-876; WW 368-373; Watt Medina 101-105.

No detailed discussion of the tribal system at the time of Muhammad is possible here. (For which see especially: Opp I, 49-50; 279-280; II, 6; 171-173; 314-316; III, 5-9; 179-180; Watt Medina 78-150). It is important, however, to understand the complexity of the situation of the internal and external tribal relationships; both the Meccans and Muhammad needed tribal allies and in order to win and retain their allegiance had to have an accurate appreciation of the current situation. The tribal structure is presented in the traditions as based on kinship in the male line, although a person not in the direct line (not a sahīh or a samīm) could obtain some of the privileges of kinship, especially protection, in other ways. 1) He might do this as an ally (halīf), as a protected neighbour (jār), or as a client (mawlā). The parties to an alliance were formally equal, but if one person lived as a halīf in a tribe his position would tend to become subordinate. Jiwār implied some inferiority, while the status of mawlā was acquired by a slave on his emancipation: slaves were attached to the tribes, either Arabs who had been taken in raids as children, or Abyssinians. A man could be expelled from his tribe for harmful conduct and might then wander alone as a su'lūk or attach himself to another tribe as a jār. 2) The traditional view of patrilinear descent does not, however, correspond with all the facts, as for instance the many traces of matriliney which occur in Muhammad's time. 3) It has been argued (e.g. by Smith) 4) that these traces and relics of older, looser forms of marriage represent a phase in a transition from a matrilinear to a patrilinear system.

1) Badw. (Watt) 890; ASB (Henniger) 79. 2) Badw. (Watt) 890; Smith 40 ff.  
3) Badw. (Watt) 890. 4) Smith 1-39; 156-190.

Henniger suggests, on the other hand, no such regular evolution but a development from a society in which several forms of nomadic social cultures existed simultaneously. 1) Nevertheless, the genealogies, however marred with inventions and fabrications, do on the whole describe real relationships, and for units of up to five hundred persons they represent real organisms. 2) Before Islam the leader was called the sayyid not the shaykh and was chosen from the leading families for his personal qualities: the choice was not directly based on descent and a minor could not be selected nor could one lacking in judgement or courage. Survival in the desert was too hazardous to be left to a man of dubious personality. 3) The sayyid was thus a 'primus inter pares' and led the majlis, whose adhesion he could only gain by persuasion, never by force. Other leading men were the military commander (ra'īs or qā'id) and the judge or arbitrator (hakam), both also without coercive powers. 4) Weight was given to the words of those who were reputed to have supernatural powers (kāhin) 5) and to the poets (shā'ir), whose eulogies and invectives had an effect upon the listeners akin to magic. 6) The tribal structure was constantly in a state of flux: some tribes would prosper, become too numerous to function effectively as a unit and would split up into two or more sub-tribes. 7) On the other hand a tribe which did not prosper and dwindled in numbers had the choice between becoming dependent on a stronger tribe, allying itself with another weak tribe or disappearing. 8)

1) ASB Henniger 69-93. 2) Ibid. 81. 3) Lam Berc 203f; 327f.

4) ASB Henniger 83; Lam Berc 203ff. 5) Well Reste 130ff. 6) Lam Berc 229.

7) 8) Basw Watt 891.

In some cases where a strong leader arose in an important tribe he might induce other tribes to join in a confederation out of fear or self-interest, but such an ascendancy was always resented and the confederation usually dissolved on the death of the leader. Thus there was a bewildering proliferation of tribes, sub-tribes, clans, alliances and confederations to say nothing of rivalries, disputes over leadership etc. inside single units. 1) The Meccans and later Muhammad took care to be informed about tribal politics of this sort and were able to manage the nomads by a skilful combination of diplomacy, 'divide and rule', largesse, force and matrimonial alliances. It should not be forgotten, of course, that while the Meccans needed the friendship of the nomads to ensure a safe passage for their caravans and as allies in war, financial benefits accrued to the Beduins as a result of their co-operation in these fields. The advantage was not all one-sided. 2) In the early years after the Hijrah Muhammad had to rely for his military strength on the Emigrants and the Ansar, although in the years between the battle of Badr and the failure of the Meccan siege of Medina he received adherents to Islam from individuals of the smaller, weaker tribes in the vicinity of Medina and Mecca. He also entered into alliances, at first with tribes to the west and south-west of Medina who were within the Medinan sphere of influence and later, as the power and reputation of Islam grew, with other tribes. He paid particular attention to the tribes to the north, along the road to Syria.

1) ASB Henniger 80f; Watt Medina 78f. 2) Watt Medina 142-150; Lam Mec 185f.

At first such alliances were pacts of friendship and non-aggression, but when Muhammad grew stronger he was able to insist on further terms such as recognition of himself as the 'messenger of God' and the payment of tribute. The terms varied from tribe to tribe, and to the end of his life he was probably willing to make alliances with strong tribes, especially those in a position to invade Irāq, without insisting on acceptance of Islam. After the fall of Mecca and the battle of Hunayn the trickle of deputations from tribes or sections of tribes wishing to enter into alliance with the new community became a flood, and by the end of Muhammad's life most of Arabia had some form of connection with Islam, ranging from full integration to a loose alliance with the weaker section of a tribe. 1)

1) Watt Medina 142-150.

2. The Arab buffer states in the North.

(i) Ghassān.

The tribe of Ghassān occupied the region of the Hawrān and by the 6th century A.D. had become the most important Arab group in the borderlands of Byzantium. They were used by Byzantium as a buffer state to prevent incursions from Arabia and also as a counter to the similar Arab state of Hīrah in the Persian sphere of influence. In 529A.D. their chief, Hārith IV, was honoured by Justinian with the title of phylarch and the rank of patricius, and at about the same time other minor phylarchs in Syria disappeared and control of the Syrian Arabs was in the hands of the chief of the Ghassān. Thereafter for nearly a century, with intervals when the tribe was out of favour, they were the watchdogs of Byzantium on the southern limes and took part in the frequent wars between Byzantium and Persia, although their activity often took the form of raids against their fellow Arabs of Hīrah. 1) For these services they were paid a subsidy by the Emperor. 2) At the height of their power they controlled the border steppes which they patrolled with dromedary troops, and their cavalry was renowned; they ruled the oasis of Dūmat al-Jandal and mounted raids as far south as Khaybar. 4) Nevertheless by the 6th century they were semi-nomadic; 5) probably they never departed from such well known, well watered routes as Hawrān-Tabūk-Khaybar or Wādī Sirhān-Dūmah-Hīrah. The prestige of the Ghassānid aristocracy among the desert Arabs and in Mecca and Medina, backed as it was by the might of Byzantium, was considerable and survived their decline for a time. 6)

1) O'L 164f; Lam Mec 243ff; Opp I 280; Dussaud 9; 35ff. 2) Lam Mec 265.  
3) Ibid. 262. 4) Ibid. 264. 5) Opp I 280. 6) Lam Mec 264; O'L 165f.

Associated with Ghassān at the time of their greatest powers were the northern tribes of Lakhm, Judhām, Kalb, and the many clans of Qudā'ah, and they may also have been paid subsidies by Byzantium. 1) All these Arabs were Christians of the Monophysite persuasion, and after about 540 A.D. there was a Bishop at Busrā charged solely with their supervision. 2) At the time of the Persian invasion of Syria (615/614) the Ghassānids had ceased to exist as an effective fighting force and the payments of tribute were not renewed, because of straitened financial circumstances, after the victory of Heraclius in 628. 3) Nevertheless the Ghassānids and their allies fought against the Muslims at Mū'tah and in the later battles in Syria the Ghassānids fought on the side of the Greeks; 4) at the Yarmūk the Lakhm and Judhām were allied to the Muslims although they deserted during the hostilities. 5) It is reasonable to suppose that, had the Ghassānids and their allies been at the height of their powers and in full concord with Byzantium at the time of the first Muslim incursions, and had they retained a fully nomadic culture, the task of the Muslims would have been incomparably more difficult.

1) Bal 135; Ca 12,305ff. 2) O'L 138ff. 3) Ca 12,305ff; O'L 165f.  
 4) Bal 135; Tab 1. 1610f; 2081; Waq 401f. 5) Tab 1. 2348.

## (ii) The Lakhmids of Hīrah.

Towards the end of Arsacid times lower 'Irāq was occupied by Arabs, the dominant element among them being the tribe of Lakhm: despising farming they exacted tribute from the Semitic peasants and spent their time in hunting, sport and warfare. The Sāsānids made unsuccessful attempts to expel them but in about 240 A.D. the settlement was recognised by Shapūr I, and their leader, 'Amr b. 'Ādi, was formally invested as king with Hīrah as his capital. Persia was a feudal state, and Hīrah was one of many autonomous provinces within the Sāsānid Empire; the Persians always invested a member of the tribe of Lakhm of the family to which the first king had belonged. 1) The role of the Lakhmids was thus closely analogous to that of the Ghassānids, and they enjoyed a similar prestige among the town dwellers and nomads of Arabia. They also had commercial dealings with the interior and sent delegates to all the great Arab fairs 2), and took care to safeguard their freedom of movement by cultivating the friendship of the Beduin chiefs of Najd and even the brigands (su' lūk pl. sa' ālik), not eschewing the judicious distribution of bribes. 3) For despite the fame of the black camels of Hīrah, 4) the Lakhmids were no more able to travel in the desert without the co-operation of the Badw than other travellers and armies both before and after their time. As Lammens says (Mecque 250): 'Ils savaient que le desert se ferait toujours le complice des Bedouins contre toute action militaire de grand style'.

1) O'L 154ff; Lam Mec 244ff; 2) O'L 155f. 3) Lam Mec 250f.

4) Lam Mec 252f.

Some centuries before Islam all the peasant population around Hīrah were Nestorian Christians, including some of the Arabs, although the Lakhmid dynasty remained pagan until comparatively late.<sup>1)</sup> The greatest prosperity of Hīrah was in the 6th century, reflecting the peak period of Sāsānid power: the summit was reached in 552 for when Justinian sued for peace with Persia, he was obliged to pay tribute not only to the Sāsānid king, Khusraw Anūshīrwān, but also to the ruler of Hīrah, Mundhir III. Nevertheless warfare between Hīrah and the Arabs of the Syrian frontier continued, perhaps with the tacit approval of the Persians.<sup>2)</sup> The end of the Lakhmid dynasty came in 605: relations between the Sāsānids and Hīrah became strained and the Lakhmid ruler, Nu'mān V, took refuge in the desert but returned later and was put to death. A Persian puppet ruler from the tribe of Tayy' was then installed but on his death in 614 Khusraw Parvīz made Hīrah an ordinary province under a Persian satrap.<sup>3)</sup> Thus, as in the West, an effective check against Arab infiltration and invasion was removed and the way was open for the arrival of the Muslim armies.

1) O'L 154ff; Nol Ges 451; Wall Reste 231. 2) O'L 159f. 3) O'L 160.

### 3. A note on the theory of progressive dessication in Arabia

The hypothesis that the climate of Arabia has become steadily drier from the Ice Age to the present day, with erosion and loss of topsoil increasing, causing an ever greater pressure on existing food supplies, has been put forward to account for the successive waves of Semitic invasion and infiltration into the more fertile countries of the north. (Ca 12, 105 ff.) The Muslim conquests are seen by Caetani as the last of this series of incursions. The bases for this theory, which is not now generally accepted, are as follows:

- (a) Many traces of irrigation exist:- buried dams; empty channels; dry wells or cisterns. These are often in places where there is no obvious water supply and this seems to indicate that surface water has become scarcer.
- (b) Archeological evidence for the existence of settlements in regions now barren.
- (c) Biological attestations such as the appearance of lions and crocodiles on Egyptian and Mesopotamian reliefs and traces in Libya of a type of snail which requires 20 inches of rainfall annually in order to survive.

Principal opponents of this theory have been: Musil (NN 304 ff); Lammens (Mecque 234, 509, 410; Berceau 118 f, 138 ff); Fisher (Middle East 52 ff). The arguments against it may be summarised as follows:

- (a) The lion was a desert-adapted breed which has been hunted out of existence and did not die out from climate changes; crocodiles would be known in the ancient world from Upper Egypt; the snail was probably a late Ice Age denizen which died out in Neolithic times.

- (b) There is little apparent change in environmental conditions in the Middle East; agricultural techniques depicted in ancient art and literature still survive; weather conditions described, in Herodotus for example, bear close resemblance to modern conditions; many relics of Ancient Egypt would not have survived in a damper climate.
- (c) There are no references in Greek, Latin or Syriac sources, nor in the Arab traditions, of starvation or dessication. On the contrary, the period which is being considered, 600 B.C.-600 A.D., was mainly a prosperous one.
- (d) Existence of ancient caravan routes - why should Damascus and Aleppo have functioned for millenia as points of departure for caravans if they did not lie on the borders of the desert? Medina, Petra, Jerash, Busra, Damascus, Palmyra, Aleppo and Dura Europus lose their raison d'être if the desert boundary is moved further inland.
- (e) The ruin of irrigation works and hence the settlements based thereon was due to war, invasion, misrule, neglect and silting. The fall of the water-table may be due to the lowering of river beds by erosion and/or loss of sub-surface water by de-forestation.
- (f) The Arabs could not have been so effective in war if they had been in a state of semi-starvation.
- (g) Another factor, not mentioned by these authors, is the existence of the camel in Arabia, an animal which cannot live in a damp climate.
- (see Ch.5)

### Conclusion.

Conditions were wetter in late Tertiary and early Quaternary periods and during Neolithic times a period of desiccation accompanied the final retreat of the ice-cap, but by the opening of historic times this increase in aridity had ended. The environmental changes over the last 5/6,000 years are due to:

- (a) Lowering of the beds of streams due to normal erosion; this also lowered the water-table and left many irrigation intakes above the new water level.
- (b) Soil erosion due to wasteful agricultural methods and destruction of vegetation.
- (c) Misrule, war and invasion.

4. Byzantine and Persian affairs in the century before the Hijrah

This brief summary is derived from Works Nos. : 18,19,20,22,35, 46,48,50.

The wars of Justinian (527-565) which regained some parts of the Roman Empire in the West, and his lavish expenditure on public buildings and fortifications, while raising the prestige of the Empire in some areas, had serious after-effects. In regions other than the West a policy of passive defence, supplemented by careful diplomacy and a network of alliances had barely held the frontiers but had been expensive in subsidies and damaging to prestige. Under his successors Justin II (565-582) and Maurice (582-602) war was renewed with Persia and the main Byzantine objectives were attained by 591, with the cession by Persia of her portion of Armenia and the fortresses on the approaches to Asia Minor. In Italy, however, the Lombards had invaded the country in 568 and by 580 they were in possession of more than half the peninsula. In the Balkans, after ten years of warfare Maurice succeeded in checking the advance of the Avars and by 602 Imperial troops were again astride the Danube. These successes were swept away by the revolution of 602 when the troops, angry at having to winter on the Danube, rebelled and proclaimed Phocas, a brutal centurion, as Emperor. Maurice and his family were murdered and a reign of terror ensued. Internal disorder and anarchy and bankrupt finances threatened the very existence of the state, while in the East Persian raiding forces captured the outlying provinces of Byzantium and ravaged even her Anatolian possessions.

The almost hopeless situation was saved by Heraclius, son of the governor of Carthage, who in 610 sailed for Constantinople, overthrew Phocas, and addressed himself to the task of repairing the ravages of the years of misrule. The demoralized armies were re-organized, finances were repaired by strict economy and the city factions were sternly repressed. The Persians, however, could not yet be met in open combat and in wave of conquest the Sāsānid forces rolled over the Middle East. In 611 Antioch fell, in 613 Damascus, and Jerusalem was sacked in 614 and its Patriarch together with the relic of the True Cross were carried off to Persia; in 619 Egypt was invaded and rapidly subjugated. Heraclius based his counter-attack on the Caucasus, boldly leaving Constantinople to her fate. He began his operations in 622, recruiting the local tribes and descending at intervals to raid northern Persia. In 626, before his final preparations were complete, Constantinople was attacked in his absence by an alliance of Avars, Persians, Slavs and Bulgars, but they were defeated by the resolution and unity of the city and the prowess of the Byzantine fleet. In the following year Heraclius advanced into the heart of Persian territory and won a great victory near Mosul. Although he was unable to reach Ctesiphon, the murder of the Sāsānid king, Khusraw Parvīz, in 628 and the disturbed state of the Persian realm, forced the Persians to sue for peace. Egypt, Syria and Asia Minor were restored to Byzantium, the True Cross was returned to Jerusalem, and in 629 Heraclius entered that city in a blaze of glory.

Internal weaknesses, however, in Egypt and Syria undermined the security of the restored Byzantine power. The Greeks were an alien ruling class with little sympathy for their foreign subjects. In Egypt the civil and military services were filled by the ruling class to the general exclusion of the Copts: 'the whole machinery of government in Egypt was directed to the sole purpose of wringing profit out of the ruled for the benefit of the rulers.' (Butler p.42)

Nor were matters aided by the actions of Heraclius after his return to Syria. In order to prosecute the war with Persia he had taken a large loan from the Orthodox Church and he immediately set about collecting the sum due by taxing the Syrians before they had had time to recover from the miseries of the Persian occupation. Religion also played a part in embittering relations between the Byzantines and the native populations. The great majority of the latter, in both Syria and Egypt, were Monophysites, also known as Jacobites, bitterly divided from Orthodox doctrine by their divergent beliefs about the nature of Christ. Compromises, such as that devised and encouraged by Heraclius and known as Monothelitism, were equally odious to them. The natural result of this, at a time when religious tolerance was rare, was an almost continuous persecution of the native Christians by the Orthodox Church. This persecution went on throughout the 6th century and early 7th century, varying in intensity, but reaching its culmination in Egypt in the years immediately before the Muslim invasion, where it was organised with great diligence by Cyrus, the Orthodox Patriarch of Alexandria.

Nor were the Jews exempt from the effects of intolerance: in 630 Heraclius made the fatal blunder of permitting a massacre of the Jews in Jerusalem and the survivors later welcomed the Arabs as the instruments of their vengeance. Opinions differ as to the amount of co-operation given by the Syrians and Egyptians to the Muslim invaders, but there can be no doubt that useful assistance was given on many occasions, even if sections of the population were soon disillusioned by the outward manifestations of yet another religious fanaticism.

The social order in Persia was no less insecure. The Sāsānid kingdom was feudal, with the power of the king resting on the consent of the landed nobility and the Mazdaean priesthood. These two Estates, acting in concert, were strong enough to depose a king, but mutual jealousies and feuds prevented them from exercising their powers in oligarchic rule and they were always obliged to enthrone a new king. A strong, able king could wield power by diplomacy and by a policy of 'divide and rule', but even the best of them were forced to accord privileges to the nobility and the clergy, including exemption from taxes, so that it was the poor and not the rich who bore the brunt of the expenses for the frequent foreign wars. Another way of placating the clergy was by persecuting the Nestorian Christians of Irāq, and during the centuries of Sāsānid rule frightful persecutions of these Christians took place at intervals. Another weakness of the feudal structure was that the governors of large provinces exercised their powers almost as independent rulers, this being especially true of the remoter provinces. This tendency can be observed in the Arab accounts of the conquests, where such governors are described as negotiating with the invaders as if endowed with the status of independent kings.

After the exhausting struggle with Byzantium the last years of the Sāsānids were full of anarchy and sordid cruelty. Following the murder of Khusraw Parvīz in 628, disputes over succession led to suicidal civil wars, palace revolutions and assassinations. Internal order dissolved in chaos while adventurers and pretenders occupied and vacated the throne in quick succession. On the eve of the Muslim conquests a successor was found in Yazdagerd III who, nominally at least, was legitimate. By then it was too late to repair in time the ravages of misrule and anarchy. Not surprisingly the Christians of Irāq were ready to proffer assistance to the invaders who came to oust their persecutors.

CHAPTER IIGEOGRAPHY

This section is a brief description of the physical geography of the area as it would affect the activities of a military force on active operations: i.e. ground conditions; natural obstacles; water supplies; climate. The chapter is based almost entirely on Fisher, Le Strange, and personal experience and references will not be given except in the few cases where other authorities have been consulted. Place-names have not been accurately transliterated but are given in the form most usually accepted in English; modern place-names are used throughout, except where, for greater clarity, the old name is given alongside the new.

A map has been prepared which is intended to present, in convenient form, the place-names associated with the early Arab conquests in the form in which they appear in the sources. The maps and authorities used in compiling this information are given in the list of works consulted; obviously it has not been possible to include the name of every town, village and fortress mentioned in the sources but it is hoped that the information will cover all the important battles, raids, sieges and journeys. The map is purely toponomical and with the exception of seas, lakes and important waterways, no attempt has been made to include physical features.

The regions conquered or partially conquered in the Arab expansion up to the death of Uthmān comprise:

1. Arabia, including the northern steppes.
2. The coast lands of the Levant.
3. Egypt and Cyrenaica.
4. South-eastern Asia Minor and Armenia.
5. The lands of the Sāsānid Empire: in terms of modern frontiers this includes Īrān, Baluchistān, parts of north and west Afghanistān, and the ancient province of Khurāsān which was much larger than its modern namesake and embraced parts of northern Afghanistān and extended into modern U.S.S.R. as far as the river Oxus. Also within the Empire were lower Īrāq, Mesopotamia and Khuzistān (actually part of Īrān but having physical similarity to Īrāq). Although Mesopotamia, especially the north-east, was debatable land between Persia and Byzantium, it has been included in this section for convenience.

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#### 1. Arabia

Almost all of west and central Arabia lies at a height of at least 2/3,000 feet but the plateau is tilted so that the western edge stands much higher than the eastern. East of a straight line from Abū Kemāl to the Kuria Muria islands the surface (Uman excepted) is everywhere below 1,000 feet. Rise of magma in the west has further heightened the level by producing extensive basaltic plateaus with frequent volcanic cones exceeding 8/10,000 feet. Further inland, basaltic irruptions are less frequent and are almost absent in the east. The whole surface of Arabia is deeply dissected by fluvial action: the best developed wadis are those trending towards the Euphrates and the Persian Gulf.

Arabia can be divided into several fairly distinctive regions:

- (i) The western highlands.
  - (ii) The southern coastlands.
  - (iii) Uman.
  - (iv) The eastern coastlands.
  - (v) The interior deserts.
- (i) The western highlands.

From the head of the gulf of Aqaba to latitude 20 N is the Hejāz, divided into two sub-regions: the Madiān north of latitude 24 N and the Tihāma from latitude 24 N to 20 N. Madiān is a highland region with peaks reaching 9,000 feet, and the highlands drop abruptly to a narrow coastal plain. On the west of the range there are deeply incised wadis which carry torrents every few years for a few days. On this side the effects of rainfall are soon dissipated and the climate is excessively humid; there is thus no habitation and no important routes. On the east the water can be stored in the shallower, broader valleys, and in upland basins where alluvium occurs, rainfall collects and is shielded from the sun and hence well-irrigation is possible. Thus there is a line of oases on the eastern slopes:—Mudawwarah, Tabūk, al-<sup>Ḥ</sup>Ala, Medina where garden cultivation is practised and trade routes have developed with the far north and south.

South of latitude 24 N the range decreases considerably and in many places is only about 3,000 feet in height; the coastal plain is wider and routes inland are easier. This region contains the oasis of Mecca. Apart from these oases the whole of the Hejāz is barren, with only a few stunted bushes, and not even pastoralism is possible.

South of latitude 20 N lies 'Asīr, a region of extensive uplands mostly over 5,000 feet with peaks up to nearly 10,000 feet. There is a moderate rainfall and for several months of the year the wadis are filled by fast flowing streams which do not reach the sea except after exceptionally heavy floods. The steep valleys of the upper streams carry a dense jungle of bushes, thorns and moderately sized plants; away from the valley bottoms this changes to grassland with sizeable trees. The higher slopes have been cleared and terraced for cultivation. The coastland is arid and barren.

A similar pattern but on a larger scale occurs in the Yaman. Much of the Yamani highlands lie at 7/10,000 feet with one peak of about 14,000 feet. There is the same pattern of streams which fail to reach the coast and the coastal plain is barren with few inhabitants; access from the coast to the plateau is very difficult. On the plateau the winter temperatures are low with frost and snow, while in summer the heat is made less oppressive by the elevation. There is an annual rainfall of 20/40 inches in summer with other falls in March. Extensive areas of the plateau are cultivated.

(ii) The southern coastlands.

There is a gradual drop in elevation from west to east: in the west a narrow coastal plain 5 to 10 miles wide gives way to a tableland 4/7,000 feet high, heavily dissected with wadis which are often completely barren. North is the trough of the Wadi Haḍramawt and north again is a level plain stretching into inner Arabia. Rainfall is less than in the Yaman with perhaps 25/30 inches in the coastal plateau east of the Yaman, with the rainy season in the summer.

Over the rest of S. Arabia rainfall is below 7 inches annually, the rainy season is in the late winter and the summers are dry; towards Umān rain may only fall once in every five or ten years. Temperatures are high and most of southern Arabia is barren, with agriculture confined to a few scattered districts.

(iii) Umān.

Umān is isolated from the rest of Arabia by the Empty Quarter: the interior is a high tableland at a level of about 4,000 feet with the Jabal al-Akhdar rising to 9/10,000 feet. The plateau is dissected by numerous deep wadis. Rainfall is about 10 inches a year and many springs occur, but on the south-west side overlooking the desert water is scarcer and occurs in the form of a line of springs along the foothills. The coastline of the Ra's Musandam peninsula is of the fjord type with inlets that are excellent as harbours but the climate is hot and humid and there is no access to the interior.

(iv) The eastern coastlands.

This region is everywhere below a level of 600 feet. Annual rainfall is less than 4 inches, but a curious feature of the region is the occurrence of artesian springs which are thought to be fed from as far away as the western highlands. Where such springs occur, as in Bahrayn island and the oases of al-Ahsā, cultivation is possible. From about latitude 26 N as far as Kuwayt, however, the land is almost entirely bare and uninhabited. Apart from one or two small ports, even ships of shallow draught cannot approach within miles of the shore because of the shallowness, coral reefs, and shifting sand banks. Inland are extensive lagoons and salt marshes. Kuwayt has a good deep-water

harbour but land communications with Basrah are difficult because of the marshy nature of the ground.

(v) The interior deserts.

North of a line from 'Aqaba to al-Jawf and thence to Kuwayt lies the steppe country - the Bādiet al-Shām. South between al-Jawf and Hail is the Nefūd, a region of loose sand and bare rock, which is connected to the great southern desert, the Rub' al-Khāli, by the Dahnā' desert. Somewhat less barren is the Najd, a triangle lying between Medina, Mecca and Riyādh.

To the north the Bādiet al-Shām stretches as far as the banks of the Euphrates: its altitude increases slowly from 2,000 feet at the latitude of al-Jawf to 3,000 feet at the latitude of Damascus and then declines slowly again north of Palmyra. It is a vast plain intersected by shallow wadis trending north-east. These wadis often retain water and the lines of wells so formed have led to the establishment of routeways from east to west. One of the most important of the routes is the one from Karbala to Hail, and another leads from al-Jawf to the Wādi Sirhān and thence to the Hawrān. The northern steppes have a rainfall of from 2 to 6 inches annually and carry grass into the late spring; a variety of bushes provide camel fodder. Summer temperatures are high but there is an appreciable drop at night. In winter the days can be uncomfortably cold and the writer has recorded a night temperature on T.4 pumping station of 20 F. below freezing point.

This region has provided the essentials for pastoral culture in its fullest development, and even today many hundreds of camels are pastured in spring in the steppes of the Palmyrene.

Because of the relative ease of movement the region has been used in the past for the passage of commerce and as a route for military expeditions. There are few oases in the area, of which Palmyra and Qaryatayn are two examples.

The great Nafūd desert is a region of rocky outcrops with ridges worn down by water and wind action into grotesquely shaped pinnacles and crags. Between the ridges lowland basins mostly covered in loose sand occur, and in some of these, where an impermeable sub-stratum retains water, cultivation can be carried on. The largest oases are in the west, where the water from the Hejāz finds its way eastwards into artesian basins; the presence of such oases with populations up to 15,000 is in marked contrast to the Bādiyat al-Shām. Rainfall is very rare and the climate is one of extremes. In summer a diurnal range of 40 degrees F. is common, with maxima of 115/120 F.; frost is common in winter; violent winds spring up and die down with equal rapidity.

The Empty Quarter (al-Rub<sup>s</sup> al-Khālī) or the Sands (al-Ramāl) is the vast sandy desert of southern Arabia, covering 400,000 square miles, and it is almost a total barrier to normal travel. There are wells on the fringes of the Sands but the interior is almost completely waterless. 1) Huge sand dunes are a formidable obstacle even to Badw who are adapted to this desert and whose camels are bred for travel in these conditions. 2) Small tribes do, however, make use of the Sands for grazing 3) and for refuge. 4)

1) Thes. 103f. 2) ibid. 129f. 3) ibid. 112f. 4) ibid. 277.

The Najd is a diverse region of uplands, small plateaus, scarps, broad valleys and dry river beds. Granite massifs up to 4/5,000 feet occur and another feature is a series of scarps running north to south, the highest being Jabal Tuwaiq, 1,000 feet above the plateau. Upwelling of magma has occurred in places forming desolate lava fields like the Leja of Hawrān. Rainfall is low in the lowlands but more abundant in the uplands and a certain amount of precipitation finds its way into the lowlands or else is retained by occasional impermeable layers in the uplands. Hence some oasis cultivation is carried on in the lowlands and a lesser amount in the highlands. Only about one twentieth, however, is cultivatable and the rest of the region is given over to nomadism or hunting. Nevertheless the Najd is an island of relatively fertile country in an expanse of waterless desert and barren mountain ridges.

## 2. The coastlands of the Levant.

The region will be described from north to south.

The Jabal Anṣariyah or Alāwi mountains are of an average height of about 4,000 feet with the valley of the Ghāb to the east, a rift 50 miles long by 10 miles wide, in which flows the Orontes before turning west to the sea between the Anṣariyah and Amanus ranges. Its floor lies 3,000 feet below the summits of the Anṣariyah and until recently it was covered in winter by flood waters and in summer by malarial swamps. Only on the western slopes of the Anṣariyah is cultivation possible and much of the south and east is barren and thinly populated. East of the Ghāb the land rises to form an irregular plateau; it is very open and fertile and easily cultivated but because of its elevation streams are deeply indented and irrigation is difficult.

The Homs (Hims) gap separates the Anṣariyah range from the Lebanon, a single rounded upfold of remarkably uniform height, about 10,000 feet at the highest part. There are many springs at the 3/5,000 level but deep ravines in the lower zone make access difficult and in the past the Lebanon has provided sanctuary to refugees, who gained a living by agriculture in the fertile upper zone. To the east is the fertile plain of the Beqā' and then the Anti-Lebanon where water is much scarcer than in the Lebanon, and hence settlement is sparse. The defile of the Barada forms a gap between the Anti-Lebanon and Mt. Hermon which at 9,200 feet is 2,000 feet higher than the highest peak in the Anti-Lebanon.

A series of lesser ranges in Syria begin north of Damascus, trending south-west to north-east, and die out on the Euphrates. The lower slopes carry grass only for a few weeks in the year and nomadism is the predominant way of life.

South of Damascus the topography is dominated by lava flows. South-west Syria and northern Jordan is an irregular plateau at 1,000 to 2,000 feet. In the west towards the Jordan valley the landscape is open and rolling with level stretches and open valleys with occasional basaltic ridges or lava cones: this region, Hawrān, can with a good water supply be very productive. Further east the plateau becomes higher and more rugged, with vast numbers of boulders becoming an increasing obstacle to cultivation. The highest part is the Jabal Druze, an irregular dome of basalt capped by volcanic cones. North-west and north-east of the Jabal Druze lie two barren and desolate areas of lava, al-Leja and al-Safa, with al-Leja the more forbidding of the two.

Lebanon passes without break into the plateau of Galilee which is at an average height of 1,000/2,000 feet with some peaks at 3,000 feet. It is a region of smooth, rounded hills and grass-covered uplands; the whole massif ends in the plain of Esdraelon to the west and south-west which varies in width from 20 miles at the sea to a mere 1/2 miles inland, opening out again to 5/10 miles towards the Jordan. It has a very rich soil but until recently was malarial.

South of Esdraelon is Samaria, lower than Galilee but deeply dissected with many valleys, many of them mere gorges. Cultivation is possible in the wider valleys, otherwise the area is given over to pastoralism.

Samaria merges with the plateau of Judaea which commences about Nāblus; it lies at a level of 1,500/3,000 feet but it is much less eroded than Samaria due to lower rainfall. The landscape is dusty and repellent: wide expanses of bare rock, scattered boulders and scree, and occasional small valleys which are often dry. Vegetation is often little more than scrub and thorns. Cultivation is limited to patches of alluvium in the deeper valleys where water is available and there are only five settlements of importance: Jerusalem, Bethlehem, Ramallah, Hebron and Beersheba.

Another fault divides the main plateau from the Negeb, an irregular upland region 1,000/2,000 feet in its mean height but with occasional ranges 1,000 feet higher than the plateau.

The Sephalah is an intermediate zone between the uplands of Judaea and Samaria and the coastal plain, and a ridge 700/1,000 feet above sea level divides it from the plain. More rainfall and erosion with consequent alluvium in the valleys makes it suitable for cultivation and hence the population is denser. The coastal plain itself is narrow in the north where in some places the hills start almost at the sea but it widens in the south where the plain is 10/15 miles wide. The plain of Sharon is very fertile but the southern coast towards Gaza is less so because of blown dune sand. Beyond Gaza the true desert begins.

The Jordan trough is flanked along almost its entire length by the highlands of Judaea and Samaria and the steep, faulted edges of the Arabian plateau. There is thus a precipitous descent to the

floor which lies 1,300 feet below sea level at the Dead Sea. A number of small streams have carved deep notches in the plateau edges and some are used by roads, but otherwise direct communication across the rift is impossible.

The rainfall in the Levant is on the whole adequate: there is rain all the year round in north Syria but no summer rain in Lebanon or Palestine while beyond Gaza true desert conditions prevail. Annual rainfall varies from 50 inches in Lebanon to 14 inches at Gaza. On the coast winters are mild, frost is almost unknown and snow is rare; the Shlouq wind can raise the temperature considerably in winter. The summers are moderately hot but the high humidity is unpleasant and the nights are oppressive. In the mountain zone the winters are cold and snow is abundant; in summer temperatures are also lower with a marked drop at night. The inhabitants of Beirut, whenever possible, desert the city in the summer for mountain resorts such as Aley and Bhamdūn which can be reached by car in about half an hour. The Cedars of Lebanon has become, in recent years, a popular winter resort for skiers.

## The Nile valley and its Borders.

Comprising:

- (i) Sinai.
- (ii) The Eastern Highlands.
- (iii) The Western Deserts.
- (iv) The Nile Valley.
- (v) Cyrenaica.

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### (i) Sinai

The Sinai peninsula is an irregular plateau tilted upwards towards the south; the southern half is at an altitude of 2,000/2,500 feet with peaks rising over 5,000 feet higher. Along the Gulf of Suez the plain is  $\frac{3}{8}$  miles wide but along the Gulf of Aqaba the plateau falls abruptly to the sea. The coastal plain at the Mediterranean is broad and extends through al-'Arish to the lowlands of west Palestine; it has always been a corridor for movement between the Levant and the Nile valley. The entire region is dissected by dry river valleys; the rainfall is 6 inches annually in the north and  $\frac{2}{5}$  inches in the south. There is much loose sand and settlement is difficult because sand tends to build up against fixed objects. In the north there are some settlements where cultivation is possible in hollows where water is retained by basement rock. Otherwise nomadism is the principal way of life.

### (ii) The Eastern Highlands (between the Red Sea and the Nile).

This is a larger area than Sinai but lower in altitude - 1,000/2,500 feet with the highest peak at 7,480 feet. It is heavily dissected

with deep wadis running into the Red Sea and the Nile; water is very scarce and cultivation is almost impossible.

(iii) The Western Deserts.

About half the area is below 600 feet in altitude and few parts exceed 1,000 feet; a line of continuous scarps runs along the Cyrenaican border. There are many deep basins with artesian water of which the Qattara depression is the largest, while others include Dakhla, Siwa, and the Fayyūm (Egypt) and Jarabub, Jalo, and Kufra (Cyrenaica). The Qattara depression is not cultivated because of malarial conditions but many of the other basins support considerable populations. Outside the basins the desert consists of bare outcrops, stony wastes and loose sand.

(iv) The Nile Valley.

From Aswān northwards the river flows in a well developed notch valley with cliff boundaries, the valley being about 6 miles wide with the river occupying about half a mile. At Cairo the delta region begins with two main branches: the eastern or Rosetta branch and the western or Damietta branch which is about 14 miles longer. About half of the delta is covered by lakes and swamps. The river controls introduced in this century have materially affected the regime of the Nile at Cairo. Caetani, in his *Chronographia Islamica*, gives the maximum and minimum levels of the river for each year from the Arab conquests onwards, quoting Mahāsin. Figures for maximum annual rise vary from 5 to 15 dhira although for most years the figure is from 10 to 13 dhira. The dhira varies from 50 to 70 centimetres. Taking the mean at 60 centimetres, the minimum rise would be 3 metres, maximum 9 metres, while in most years the rise would be from 6 to 8 metres.

The climate in the Nile Valley is remarkably uniform due to the absence of relief although in summer the temperatures at the coast are noticeably less than at Cairo. Over the whole region, in summer, there is a marked drop in temperature at nights. The winters are mild, and frost is unknown in the Nile Valley but occasional cold spells occur with slight snow showers as far south as Aswān; the hot Khamsin winds blowing from inland are more harmful to crops than cold. Annual rainfall is 8 inches or less; the coast gets from 4 to 8 inches but south of Cairo the annual amount is 2 inches or less. Even this is a deceptive figure because a fairly heavy onset may only occur once in two or three years.

(v) Cyrenaica.

(a) The North.

The edges of the uplands are broken into several steps of which the lowest is the coastal plain, a narrow, often discontinuous strip. Sometimes only a few hundred yards wide, it reaches its greatest width of 12 miles at Benghazi. Because of the broken nature of the country, routes, especially in the east and south-east, must go inland. The second step appears as a series of ridges in the east and as a more open terrace in the south-west (plain of al-Barqah). In the east is a tangled country of deep wadis and isolated hills; most of the wadis are too bare for human habitation. The third step is a moderately high plateau, open and rolling in the west and narrower in the east, where it rises to just over 2,000 feet above sea level and forms in the extreme east the small dissected ridge of al-Hamrīn, the highest part of Cyrenaica. The entire plateau is known, by reason of its vegetation, as the Jabal al-Akhdar (see below).

(b) The South.

South of the Jabal al-Akhdar the surface slopes down towards the main Saharan plateau. Immediately below the crest the land is heavily dissected with deep wadis but farther south the relief is gentler, with shallow alluvium-filled basins separated by low ridges and an occasional higher hill. This region gives way to the true eastern Sahara until the sand sea of Calanscio is reached, covering several hundred miles with soft mobile sand. In the southern region occasional lowland basins with artesian water occur and in these limited settlement is possible.

(c) Vegetation and Climate.

The vegetation in the coastal plain of Cyrenaica is mostly garrigue - a thick covering of scrub and thorn with the occasional evergreen oak. On the second step there is extensive woodland which is widespread over northern Cyrenaica and this is most important, since it provides grazing even in a poor summer and seems to resist damage even by goats. The woodland ceases below the crest of the Jabal al-Akhdar and gives way to garrigue and grass-covered patches which in turn give way to steppe vegetation and eventually desert.

The high relief and the surrounding sea gives, in parts, an annual rainfall of 15 to 20 inches but the amount diminishes rapidly in the east and south. A serious disadvantage is the capriciousness of the rainfall in that once every 4 or 5 years there is a bad season and cultivation is therefore hazardous. Hence there is a strong bias towards pastoralism. With allowance made for slight differences of heavier rainfall on the plateau and a somewhat reduced summer temperature, the climate is typical of the Middle East and much resembles that of Egypt and south Palestine.

#### 4. Asia Minor.

In this section it is proposed to deal only with those parts of Asia Minor which were the scene of hostilities in the early conquests.

These were:

- (i) The East Mediterranean Coastlands.
- (ii) Eastern Turkey ( N. Jazirah and Armenia).
- (i) The East Mediterranean Coastlands.

The division between Syria and Turkey (Bilād al-Rūm) is a series of narrow but high mountain ranges. Running from west to east these are:

- (a) The main Taurus running north-east from Silifke; from the coast the range is cut by river action into four massifs, the highest of which reaches 12,000 feet. The river gorges offer practicable routes through the barrier, the most famous being the Cicilian Gates through the valley of the Yezilouk.
- (b) The anti-Taurus, lower than the Taurus, and running parallel to it to the east. It consists of five main ranges, four of which die away 40 miles north-east of Adana giving rise to the Seyhan plain. The fifth range, the Misis Dagh, continues further to the south-west.
- (c) The Amanus lies behind Iskanderun, so that the Gulf of Iskanderun is bracketed by the Amanus and the Misis Dagh.

There is a considerable population in the larger folds of the anti-Taurus and in the plain of Seyhan, which has access to the interior by mountain passes. The region is by no means arid and has an annual rainfall of 30 inches in the south-facing ranges of the Taurus system and from 20 to 30 inches on the coast. There is also some rain in summer, which is warm and humid; the winter is mild.

## (ii) Eastern Turkey.

There is little physical unity in the region; a series of mountain ranges, extensive and continuous in the north, fall away on the south, first into a broken plateau country and then into an undulating plain which continues through north Syria and Irāq. There are several large rivers such as the Aras, Euphrates and Tigris and a number of downthrow basins which include Lake Van. North-east Turkey forms ancient Armenia, a land in which soil cover is thin or entirely absent. The rivers have cut immense gorges and often lie several thousand feet below the level of the plateau. The lava uplands of Armenia are mostly uninhabited because of the barren surface and the altitude. Around Diyarbekir and Urfa the topography is much less rugged but the rivers are deeply slotted and the extent of cultivation is limited; the way of life is mostly pastoral.

Climatically this is one of the most inhospitable areas in the world with hot, dry, dusty summers and bitterly cold winters, while both spring and autumn are subject to hot or cold spells. The summers are naturally hotter and more arid in the south, towards the Syrian steppe, where temperatures may exceed 100 degrees F. Winters are cold even in the south but in the north they are extremely bitter and snow lies for 120 days in the north-east whereas at Diyarbekir it only lies from 7 to 10 days. There is a moderate rainfall of between 17 and 24 inches annually.

## 5. The Lands of the Sāsānid Empire.

The Sāsānid Empire comprised the whole of modern Īrān together with parts of what are now Afghanistān, West Pakistān, Baluchistān, south-west U.S.S.R. and the lowlands of Irāq and Mesopotamia. Not all these regions, however, were conquered or even effectively raided in the period under review. The area can be dealt with by covering modern Īrān in its distinct geographical divisions, giving for each division the equivalent names as used by the Arab sources. Khuzistān will be omitted from this section and described in the same section as Irāq and Mesopotamia, with which regions it has considerable physical affinity. (The small corner of west Afghanistān entered by the early raiders may be considered as similar to the Eastern Uplands region of Īrān). A second section will deal with the area between the Caspian and the Oxus, then east Khurāsān, now the Turkmen S.S.R., and a third with the lowlands.

### (i) Īrān (excluding Khuzistān).

Īrān is a high plateau ringed on all sides by higher mountain ranges and hence it has a physical unity based on separation from its adjoining regions. To the south and west there is a marked contrast between the Zagros range and the plains of Mesopotamia and to the north an equally abrupt descent occurs from the Elburz to the plains of Turkestān and the Caspian basin. Elsewhere the mountain ring continues without much interruption into the highlands of eastern Anatolia and the more broken massifs of Baluchistān and Afghanistān. The country may be divided by topography into four fairly distinct regions: 1. The Zagros folds; 2. The Northern Highlands; 3. The Eastern Uplands. 4. The Central Plateau.

## 1. The Zagros.

The Zagros can be sub-divided, from a physical viewpoint, into three regions:

### 1.a The North-West, between the 35th and 39th parallels.

(Adherbāyjān, part of Jibāl)

### 1.b. The Centre, between the 35th and 27th parallels.

(Fārs, part of Jibāl, part of Kirman)

### 1.c. The South-East, between the strait of Hormuz and Baluchistān (Makrān, Jabal Kufs, part of Kirman)

#### 1.a. The North-West.

This region gives the appearance of an extensive plateau which is tilted towards the south-east and is intersected by numerous deeply incised valleys so that relief is extremely varied. Some river valleys are no more than gorges but others are wider; for example the Aras which forms a corridor 10 to 40 miles wide and the Safīd Rūd which has a basin 15 miles wide around the town of Mianeh. The area also includes Lake Urmīyah and its basin, a total area of 20,000 square miles. Another feature is the occurrence of numerous volcanic peaks, often on the highest part of the plateau, producing imposing cones reaching 14,000 feet above sea level. The uplands are stony, very hot in summer and very cold in winter, and offer little inducement to settlement, which occurs mainly along the wider river beds and around Lake Urmīyah, usually on the higher reaches of its feed streams, before they are affected by the lake's salinity; Tabriz lies on such a stream, 35 miles from the shore of the lake.

### 1.b. The Centre.

The central Zagros is characterised by intense folding in densely packed ridges aligned in ranks; in the north the ridges are broader and higher, in the south smaller and finer. Again the rivers often run in steep gorges too narrow for even the smallest alluvium terraces to form. In some parts where there are no gaps through the ridges, the rivers follow a tortuous course from one syncline to another while others follow a shorter, precipitous descent to the Mesopotamian plain. Outstanding single peaks are rarer than in the north-west range but there is a greater extent of highland. Parts are covered with vegetation, especially in the north, but much of the region is of bare, startlingly-coloured rock. Some of the wider valleys can be cultivated by terracing into the hills but most of the population is pastoral. Another feature of the region is the occurrence of small lowland basins some of which, e.g. Shiraz and Niriz, are totally enclosed and hence have internal drainage with consequent formation of salt lakes or marshes; others have river outlets. These basins are intensely cultivated in the non-saline stretches.

### 1.c. The South-East.

This region is much less imposing than the central Zagros, its topography is more irregular and broken. A narrow coastal plain is succeeded by a zone of plateau country at an average altitude of 2,000/5,000 feet, crossed by lines of hills that occasionally reach 6,000/7,000 feet. Between these hills lie numerous river basins that discharge directly to the sea.

Northwards the plateau terminates in an extensive trough, the Jaz Murian basin, which is partly filled with a thick layer of silt and partly with wind-blown sand. There is no drainage from the basin and its centre is occupied by a brackish lake fed by two streams while other streams fail to reach the lake and are buried beneath the sand dunes. Beyond the basin is a single narrow line of highland dividing it from the central plateau. There is occasional cultivation in the south-east region where water is available, otherwise the landscape is desolate.

## 2. The Northern Highlands.

(Jīlān, Ṭabaristān, Qūmis, Jurjān, part of E. Khurāsān)

The Northern Highlands are divided into two groups: the Elburz range, and the more extensive chains to the north-east, chief among which are the Kopet Dagħ and the Ala Dagħ. Between the two masses lies a trough part of which is occupied by the Atrek river.

The Elburz is a series of narrow, steep folds, often reaching 10,000 feet in altitude within 30 miles of the Caspian. Erosion is very active in the northern slopes where great torrents run in deep gorges to the sea. Further south there are better developed rivers such as the Shāh Rūd and the Nur. There is a marked climatic variation, with much less rainfall on the southern flanks, and while the northern slopes are well wooded up to 7,000/8,000 feet the vegetation becomes much less luxuriant further south, passing in the extreme south to scrub and bare hillsides. The coastal plain varies in width from 10 to 70 miles and is covered in semi-tropical forest, cleared in places for agriculture.

The Eastern ranges have a north-west to south-east alignment: the Kopet Dagh reaches 10,000 feet in places. Between the Kopet Dagh and the Kuh-i-Aleh lies a well-defined valley in which flows the Atrek river, north-west towards the Caspian, and the Kashf river towards Afghanistan. This valley is the main corridor between the Caspian and the Turcoman steppes around Merv. The highlands are barren but the river valleys are very fertile with the richest part in the Kashf valley around Meshed.

### 3. The Eastern Uplands.

( Quhistān, part of Khurāsān, part of Sijistān )

These uplands extend from Region 2. to the south-eastern Zagros and are irregular in trend and topography with many wide lowland basins. In general the region is barren and unproductive with much loose scree, jagged peaks and drifting sand. The climate is one of extremes of heat and cold, great aridity and a persistent violent wind. Some agriculture is possible around the few rivers of which the most important is the Helmand; its lake, however, floods after rains in Afghanistan and its tributary streams change course without warning and flood adjacent districts so that settled occupation is very difficult.

### 4. The Central Plateau. ( The Great Desert )

The northern part is occupied by a series of closed basins filled with salt-encrusted mud; the sharp edges of the salt can cause serious injury and the surface can give way under a man's weight. Elsewhere there is a more normal stony or sandy desert. In addition to hazards underfoot, movement is made even more perilous by frequent fogs in winter.

Settlement is largely confined to the slopes of surrounding ranges and communications follow the circumference, avoiding the desert. In the Middle Ages, however, there were routes across the Great Desert, along which covered water-pits were maintained at staging points for the use of travellers. The east-west routes passed through one or other of the only three permanent oases in the desert waste. These widely separated settlements still exist; from north to south they are (old name first): Jarmaq-Jandaq; Naband-unchanged; Sanij-Nasratabad. (see Le Strange 322 f)

In general the climate of Īrān is one of high summer temperatures and very low winter temperatures; in summer much of the interior is intolerably hot and altitude does little to mitigate the intense heat, although there is a rapid fall in temperature at night. A feature of the climate is the frequency of very high winds. The heaviest rainfall is in the north-west, and in the Elburz and north-west Zagros, while it is much less in the Kopet Dagh and the Ala Dagh and the south-east Zagros, and insignificant in the central desert. On the Caspian coast humidity is always high, with a maximum in winter, while in the Persian Gulf humidity is highest in summer and in conjunction with the intense heat gives rise to very oppressive conditions.

Other Sāsānid provinces.

These include:

1. Eastern Khurāsān - now the Turkmen S.S.R.
2. The Lowlands - Irāq, Mesopotamia, Khuzistān.

- 
1. Eastern Khurāsān.

(This section is derived from Skosyrev)

Four fifths of this region is occupied by the desert now known as the Kara Kum, an arid area where, before the introduction of modern techniques, wells were infrequent and shallow, with a low yield of water. It is typical desert scenery and contains, in addition to areas of dune sand and salt pans, extensive tracts covered by hardy shrubs and small trees such as the tamarisk and the acacia. Until recently the traditional way of life in the Kara Kum was nomadic and the Turkmen tribes lived in a manner similar to that of the Badw in Arabia.

There are regions in this province, however, where an agricultural life is possible and cultivation has been carried on there since ancient times. First there are the oases in the foothills of the Kopet Dagħ, in the few places where the higher slopes are not so precipitous as to cause the torrents to fall to the plain with destructive violence. Some agriculture is based on irrigation but for most cultivation the rainfall is sufficient. The second region is the two oases based on the rivers Murghāb and Tedzhen (Arabic: Herāt River) which flow into the south of the province from Afghanistān.

In the Middle Ages the most flourishing settlement in this region, on the Herāt river, was Sarakhs, while the important centre of Marv was the chief town of the Murghāb region. Rain here is very scanty and agriculture is based on irrigation, having been tapped by irrigation canals: the two rivers flow to waste in the desert. The third region is along the banks of the Oxus where, however, cultivation is confined to those areas not occupied by jungle or swamp. Even so irrigation is difficult because of frequent shifts in the course of the river, the unpredictability of the water level, and the fact that the banks of the river are some feet above water level, necessitating some means of lifting aid. To the north lies the extensive oasis system of the Khwarizm, in the upper delta of the Oxus, where a considerable irrigation agriculture has been carried on since ancient times. At the time of the Arab invasion the principal city of this region was Khiva. To the east the important oases of Bokhara and Samarqand lie a short distance beyond the Oxus on the Zarafshān river.

With the exception of the Kopet Dagh foothills rainfall in the province is very scanty and in the past life was based either on irrigation or was fully nomadic. The climate is severe with hot summers, relieved by a big drop in temperature at night, and winters are very cold especially in the north, snow storms and heavy frosts being common. In the Kopet Dagh region the climate is less severe especially in valleys protected from the east winds, where frost is a rarity; in summer the altitude there brings welcome relief from the heat.

## 2. The Lowlands- 'Irāq, Mesopotamia or al-Jazīrah, and Khuzistān.

The Mesopotamian plain is divided into two parts: the northern half consists mostly of pasture lands covering a stony plain; the southern half is a rich alluvial region watered artificially. The Arabs called the northern half al-Jazīrah, the island, and the southern half al-'Irāq or al-Sawād. The term 'Irāq, therefore, must not be confused with the modern state of the same name which is much larger in extent. To the east of the plain of 'Irāq is the lowland Persian province of Khuzistān.

### (i) 'Irāq.

Great changes have occurred in 'Irāq since the time of the Muslim conquest, changes which have entirely altered the physical conditions in the region. This is due to two main causes: the alteration in the lower courses of the two rivers, and the decay of the irrigation system which was in existence at the time of the conquest and is only now being restored. There is no certainty as to the reason for the changes in the courses of the two rivers, except insofar as rivers with the regime of the Tigris and Euphrates, flowing with a low gradient through level plains, must always have a tendency to change direction. Fisher (Mid. East Ch. XV) attributes the alterations of course and the conditions of swamp and flooding in lower 'Irāq to the partial damming of the Tigris and Euphrates by silt deposited by the Kārūn and Karkeh rivers flowing from the Zagros.

This theory seems to be partially supported by Beckingham (Baḥr Fāris) who says that the Tigris and Euphrates leave most of their silt in the marshes above Qurna and that the Persian Gulf is affected only by silt from the Karūn. He challenges, however, the widely accepted theory that silt has caused the gradual recession of the waters of the Persian Gulf, and quotes G.M. Lees and N. Falcon (The Geographical History of the Mesopotamian Plains, GJ 1952) who have claimed that the area between the Arabian massif and the plateau of Irān is one of tectonic subsidence, mitigated but not counteracted by the deposit of silt. Beckingham finds no geological evidence that the head of the Gulf has been north-west of its present position since the Pliocene age and accepts the possibility that it may even have been further to the south-east in historical times.

Notwithstanding these divergencies, however, it is certain that in the 7th century lower Irāq was subject to the same conditions of swamp and regular inundation that are characteristic of the region today, but the topographical pattern was different. In the 7th century the Tigris, when it came about 100 miles below Baghdad, turned off from its present course into the channel now known as the Shatt al-Hayy and flowed south for a further 100 miles before it became lost in the Great Swamp, having expended most of its waters in irrigation channels. The main stream of the Euphrates was then the Kūfah branch, the present course past Hillah being then merely a great irrigation canal called the Nahr Sura. The Euphrates also discharged into the Great Swamp, a few miles below Kūfah.

The Great Swamp, al-Baṭā'ih, occupied an area nearly 200 miles in length and 50 miles across, and stretched from just south of Kūfah nearly to Basrah. (Its formation was attributed by al-Balādhūri 1) to neglect of the dykes by the Sāsānid authorities from the end of the 5th century A.D. onwards, the final irrevocable inundation occurring in 629 when both rivers were in exceptional spate.) The Great Swamp was not a bar to navigation: the estuary, the present Shaṭṭ al-ʿArab, flowed in the same channel as it does today and from a point near the modern Qurnah a line of lagoons connected by open channels led to the point where the Tigris entered the swamp. By this waterway cargo-boats went without difficulty from Baghdad to Basrah.

It is relevant to comment briefly on the regime of the two rivers, which also has a marked effect on conditions in Irāq. Both rise in the Armenian highlands and are fed chiefly by melt from winter snowfall; both at first follow a tortuous path round the east-west folds of the Zagros and later emerge in the plateau uplands of Syria and Kurdistān and thence take a direct south-easterly course. The Euphrates receives two important tributaries in the north Syrian steppe but otherwise it receives much of its water by slow percolation through porous rock strata. The Tigris, on the other hand, receives many tributaries from the Zagros and its effluent is due more to direct run-off from torrents. Hence local rainfall in the Zagros can cause considerable changes, and a rise of 8/12 feet in 24 hours is not uncommon. Both rivers have a steep gradient in the upper reaches, most of the fall being between Asia Minor and Baghdad, and a very slow fall in the lower reaches.

1) Bal 292f.

The gradient of the Tigris is greater than that of the Euphrates although the Tigris is the narrower river and has a greater flow. Both rivers carry much sediment. These conditions are naturally conducive to flooding, especially in the Tigris and also produce, in both rivers, a tendency to change course and flow in new channels. Both rivers are at their lowest in September and October; there is a slight rise in the Euphrates in November but the first onset of winter rains has a marked effect on the Tigris but is scarcely noticeable in the Euphrates. From December onwards both begin to rise rapidly; maximum flood of the Tigris is in April, of the Euphrates in May. It will be appreciated how much the condition of the rivers and the riparian lands at a given time of year could affect the course of a military operation.

It is not possible here to describe in detail the canal system which accounted, in ancient and medieval times, for the marvellous fertility of Iraq. Briefly, all Iraq north of the swamp and between the two rivers was then traversed by a succession of canals which drained eastward into the Tigris; while east of the Tigris a canal, 200 miles in length, called the Nahrawān, irrigated the lands on the Persian side of the Tigris.

## (ii) Al-Jazīrah.

This is a region of undulating plain bounded by the two rivers and on the north by the ranges of Asia Minor; the boundary between Irāq and al-Jazīrah was generally placed by Arab geographers at about the latitude of Takrīt. Its altitude is from 500 to 1,000 feet. To the east of the Tigris lies Assyria, a land which rises in steps towards the north-east, each step being marked by increasingly prominent ridges aligned north-west to south-east. Numerous tributaries of the Tigris have broken through the ridges. This landscape passes into increasingly broken country and eventually to the main ranges of the Zagros to the east and the Anatolian mountains to the north.

## (iii) Khuzistān.

The Persian province of Khuzistān may be regarded as an eastward extension of lower Irāq, with similar conditions of climate. It is an alluvial plain which eventually gives way to the foothills of the central Zagros. Its main waterway is the Kārūn river, known in the time of the Arab conquests as the Dujayl, and it receives many tributaries on its way from the highlands to the Persian Gulf. With a fertile soil and an efficient irrigation system, based on these waterways, it was a prosperous region at the time of the conquest, with many large towns and a thriving agriculture.

Climate

The climate in Irāq, Jazīrah and Khuzistān is basically one of dry, very hot summers and relatively cold, damp winters. North-westerly Shīmal winds blow in the summer, bringing the unpleasantness of blown dust, but there is some relief from heat at night. Temperatures for Basrah, Baghdad and Mosul are fairly uniform, although the nights are cooler inland. In the south the winters are milder than in the north and the summers are longer. The notorious conditions in lower Irāq are due mainly to evaporation over lakes and rivers, causing high local humidity, while a mile or two away there may be a sharp drop. It is a difficult physiological climate in which heat stroke and exhaustion can easily occur. Over most of the country the average annual rainfall is about 5 inches but towards the Zagros it is over 15 inches. The 15 inch isohyet is of great importance since above this level agriculture is possible without irrigation; below this level life must be either riparian or nomadic.

CHAPTER IIITHE CAMEL

## 1. General.

There are two types of camel, the Arabian one-humped Dromedary (*Camelus Dromedarius*), and the Bactrian or two-humped type (*Camelus Bactrianus*). These are two distinct species and not variants of one species. 1) For the sake of clarity the term Dromedary will be used when referring exclusively to the one-humped type and the term Bactrian when referring exclusively to the two-humped variety. The 'camel' will only be used in a context which embraces both types. Cross-breeding between the two species is possible and this has led to a wide variety of breeds in regions where the two species intermingle, e.g.  $\bar{\text{I}}\bar{\text{r}}\bar{\text{a}}\bar{\text{n}}$ , India, Afghanistan, Turkestan and Mesopotamia. 2) There are also many different breeds of dromedary in Arabia which are reared for specific purposes, e.g. for travel in the sands of the Empty Quarter or for travel in the mountains of S.E. Arabia. 3) The scope of this work does not permit consideration of the results of such cross-breeding and specialisation and for present purposes camels will be regarded as belonging to one of the two main species. The importance of the camel today is diminished due to the development of motor and air transport, the exploitation of oil resources in the Middle East and the policies of Middle Eastern governments in settling their nomads. When, therefore, the present tense is used here it must be understood as applying to a period of recent history before this decay in the importance of the camel set in, in general terms the 19th century and the 20th, up to 1925.

1) Walz 5. 193. 2) Ritter 659ff. 3) Badw (Wissmann) 882; Thes 249.

The camel is an animal which flourishes in the dry, desert or steppe regions of the old world and its existence as a domesticated animal makes possible a highly specialised nomadic culture in those regions. 1) It provides transport both for man and his goods, its hair is woven into tent-cloths, its flesh is eaten, its milk is often the sole sustenance of Badw families for most of the year. 2) The camels of Central Asia and Īrān, however, have never played the dominant role in men's lives as has the dromedary among the Arabs. The nomads of those regions have only one or two words in their vocabulary for the camel; 3) taming of the Bactrian in the ancient world was concurrent with the emergence of the horse as a riding animal and hence the Bactrian never became important for riding but only as a pack animal. 4) In Arabia, on the other hand, and later in N. Africa, the dromedary was completely integrated into the lives of the nomads. There is an extensive technical vocabulary in use by the Badw for the management and use of the animal; many hundreds of names are given to the dromedary, each with an exact connotation. Such names are descriptive of many characteristics: sex, age, colour, reproduction, behaviour and purpose (i.e. riding, load-bearing, water-raising etc.) 5) In addition the vocabulary has words for all other aspects of dromedary breeding: parts of the body, diseases, cries, pasturing, watering, harnessing and saddlery, riding and loading. 6)

1) Doughty I, 336. 2) Ritter 615 ff; Mus Rwala 348; Thes 244; Doughty I, 261; Lam Bere 51. 3) Ritter 741. 4) Walz 2, 57; Wiesner 1, 100 f; Badw (Wissmann) 882. 5) Ritter 741 ff; Mus Rwala 329-370. 6) As for 5, see also Monteil.

The camel thrives in a dry climate and cannot live in regions where there is high atmospheric humidity. It can tolerate extremes of heat and cold but not a climate with constantly high average temperatures. 1) The dromedary is more tolerant of such conditions, especially heat, since it is established in India, where the Bactrian cannot live. 2) The camel pastures on woody desert plants such as acacia, tamarisk, and thorn that all other animals, even the goat, would refuse. 3) Salt plants, of which it is especially fond, seem to be essential to its well-being. 4) In some areas the camel is given fodder such as flour or dates, 5) but this is not generally the case. 6) Frequency of watering varies with the season and type of grazing: on the salt plants they can only go without water for 4 or 5 days; on dry plants from 6 to 15 days; on juicy grasses in the spring for 30 days or more. 7) The camel is unique among ruminants in having a special compartment in its stomach, the tissue therein being divided cell-wise. In this cavity, as if in a damp sponge, water can be stored for a considerable time, remaining unmixed, comparatively fresh, and extractable. 8) When Badw are tormented by thirst they kill a few dromedaries, cut open the bellies, let the water settle, and then drink it. 9) The camel's ability to withstand the rigours of the desert is due not only to their ability to store water but also to preserve it. They can tolerate an increase of 11 degrees F. in normal body temperature without much water loss through sweating.

- 1) Walz 2, 55; Ritter 649; 652-2; 755. 2) Walz 2, 65. 3) Ritter 614; Badw (Wissmann) 882; Doughty I, 425. 4) Mus Rwala 337 f; Walz 2, 55; Lam Berc 54 f. 5) Thes 249; Ritter 651. 6) Mus Rwala 336 ff; Ritter 614. 7) Mus Rwala 337 f; see also Ritter 615; Thes 112 f; Walz 2, 56; Doughty I, 260 f. 8) Ritter 615. 9) Mus Rwala 368; Thes 138. 10) Badw (Coon) 872.

A Bactrian in a caravan carries 480 to 600 pounds for a daily march of 20-25 miles, 1) while a strong dromedary will carry about 600 pounds at a march speed of two miles in the hour or about 300 pounds at a speed of three miles in the hour. 2) The dromedary is smaller, more agile and swifter than the Bactrian 3) and is preferred as a mount for couriers and raiders. 4) The female is favoured for riding as it can go longer without water or pasture than the male and does not weaken even in the rutting season, when the male becomes exhausted. 5) The Bactrian is better adapted for travel in mountainous terrain than the dromedary and can ascend to heights of 4,000 metres on the caravan routes. 6) On the routes across the Gobi they are worked only in the winter months when the air is at its driest and are rested for one or two weeks at the end of the month-long journey before the return trip. For four to five months in the summer they are allowed to graze and store up fat in the humps as a reserve of strength. 7) The dromedary needs at least three months rest to recuperate after a long, exhausting journey. 8)

In general the Badw treat their mounts kindly: they do not beat them but give their orders with the traditional words of command, riding them without bit or bridle (even the use of the nose-ring is not universal), and guiding them with a gentle pressure of the foot or camel-stick. On the march the rider will sing and recite to his dromedary and the animals appear to appreciate this so that it acts as a palliative to the hardships of the journey. 9)

1) Walz 2, 56. 2) Mus AD 453. 3) Ritter 639 f; Badw (Wissmann) 882; Walz 2, 57. 4) Ritter 651. 5) Mus Rwala 349. 6) Walz 2, 56; Ritter 639. 7) Walz 2, 56. 8) Mus Rwala 357. 9) Ritter 618 ff; Thes 44; Lam Berc 231.

As opposed to popular belief in the West, the dromedary is normally a patient, easily controllable beast and is treated with great consideration by the Bedw; real affection between master and mount is common. 1)

2. The geographical spread of Camel-culture and the historical development of Camel-nomadism.

The present-day regions of camel-culture are as follows:

(i) The Dromedary.

Arabia; North Africa as far south as the beginning of the tropical wet regions along the Niger and Senegal river valleys and the lower Sūdān; Irāq and Mesopotamia; Syria and Lebanon; Palestine and Jordan; Kurdistān; Asia Minor and Armenia; the dry areas of the north-west Indian sub-continent; Afghanistān; west Turkestan. 2)

(ii) The Bactrian.

South-west Siberia; Manchuria; Mongolia; Chinese and Russian Turkestan; Afghanistān; north Irān; the Turanian and Kirghiz steppes; the Caspian basin and thence westward as far as Asia Minor; the Black Sea steppes of Russia. Thus its habitat is mainly in East and Middle Asia between the 40th and 50th parallels of latitude; only in the trans-Baikalian steppes are they reared as far north as the 56th parallel, and never beyond the 60th. The northern limit may be taken as the beginning of the sub-polar regions and the Reindeer zones. 3)

As has already been noted, there are large areas where both breeds are in use and where considerable cross-breeding has taken place. North Africa and Arabia with its northward extension into Palestine, Syria, Jordan and Irāq has remained the exclusive preserve

1) Ritter 615ff; Theis 56; 69; 235; Doughty II, 501. 2) Walz 2, 65; Ritter 659; 650; 651; 655f; 754; 755 etc. 3) Walz 2, 54-55.

of the dromedary, 1)while the nomads of the more northerly steppes of Central and East Asia have a camel-culture based solely on the Bactrian. 2)

When and where was the camel first domesticated? Much research has been done on this problem but the question cannot yet be answered with certainty. 3)For the purpose of this work it is not essential to know the answer with exactitude, since we are more concerned to establish the situation prevailing at the beginning of the 7th century A.D., but even to this end a brief summary of the results obtained so far is necessary. This can then be extended from ancient times to the era of the Muslim conquests to arrive at an estimate of the situation prevailing at that time.

(i) The Dromedary.

The first mention of camel mounted nomads is the Old Testament reference to an incursion of Midianites into Palestine in the first half of the 11th century B.C. 4) From this fact Walz has developed the hypothesis that the earliest effective domesticisation took place, probably in the Najd, two or three centuries earlier. 5) He also maintains that this domesticisation took place without being given an impulse by the earlier taming of the Bactrian camel, although Wissmann points out that parallel inventions are rare in history and that it is unlikely that the Bactrian was not brought south from time to time in the turbulent years of the 2nd millenium B.C. 6)

1) Ritter 741ff; Badw (Wissmann) 887f; personal observation in Tunisia, Libya, Egypt, Syria, Lebanon, Iraq and Qatar. 2) Ritter 659.  
 3) Walz 1, 29. 4) Judges 6-8; Walz 1, 29ff. 5) Walz 1, 48-49.  
 6) Badw (Wissmann) 882.

Dostal has put forward a modification to the theory of Walz. 1)

He points out that there is attestation of dromedary riding from Tell Asmar in Mesopotamia in the second half of the third millenium B.C. In this representation, as in later ones in south Arabia, the riding position is on the crupper. The first evidence of the hump position for riding is a relief from Tell Halaf of the 9th century B.C. and Dostal thinks that it is permissible to place the adoption of this position a few centuries earlier. The riding position on the hump is a much more efficient position than that on the crupper, the animal can be ridden more swiftly and this would make possible the keeping of large herds and hence a fully nomadic culture. Dostal calls this period after the adoption of the hump position, 'proto-beduin'. In it the North, which had adopted this position and hence a beduin way of life, is differentiated from the South, which had retained the old method. The new stage of development would awaken needs that are considered the reasons for expansion into urban and agricultural areas: extension of grazing areas; increased need for barter; the first possibility for entering into urban culture, e.g. through caravan trade. Evidence of such increased intercourse is shown in the sudden appearance of new elements in dromedary saddlery, such as the saddle-cloth, breast-strap and tail-strap. These were taken over from horse riders in the 7th century B.C. - the first authentic contact between dromedary-shepherds and horse riders.

1) ASB (Dostal) 11-54.

Certain warrior skills were acquired but military effectiveness seems not to have been great, since the Assyrians were able to make deep inroads into Arabia. The situation again changes, according to Dostal, with the introduction of the saddle-bow principle to dromedary saddlery, the Arabs being thus enabled to fight effectively from camel-back for the first time. From this development Dostal dates the commencement of the full-Beduin period in north Arabia. This is dated at about the end of the first millenium B.C. or the beginning of the Christian era. The second part of this hypothesis is weakened by the fact that the dromedary is not an animal which can be used by mounted troops in combat and, as will be seen in Chapter 6, it was the custom of the Arabs to dismount or change to horseback before battle. Any increased military potential of the Arabs may have been due to the introduction of the horse after 500 B.C., or perhaps as late as the time of Christ. 1)

In any case it is indisputable that the dromedary was fully domesticated in Arabia at the beginning of the first millenium B.C. whence it spread gradually to the regions which it occupies at the present time. The dromedary was introduced into Ethiopia from south Arabia about 500 B.C. or perhaps three or four centuries earlier, and spread thence via east Sūdān and the Saharan oases to North Africa where it was first established in the closing years of the first millenium B.C. and it was first established in Egypt in Ptolemaic times. 2) Its spread to the north was extensive: to Palestine, Syria, Asia Minor, Mesopotamia and Jibāl (Media), mainly to those areas where it was necessary as a beast of burden on the many caravan routes. 3)

1) Badw (Coon) 872. 2) Walz 1, 32-41. 3) Ritter 755.

In the first millenium B.C. Mesopotamia was already the borderland between the dromedary and the Bactrian. 1) In the period between the third and sixth centuries A.D. there was great insecurity in Arabia and a decline in the caravan trade, and increasing numbers of settled peoples became nomadic. In the north such nomads as could not sell their dromedaries for the declining caravan trade were probably attracted by the wars between Rome and Persia to serve as dromedary troops on the side of one of the two opponents. 2)

The following is a number of attestations for the spread of the dromedary to the north and east:

- (a) Relief of D. rider from Tell Halaf in Mesopotamia, 9th century B.C. (Walz 1,44; Badw(Wissmann) 882.)
- (b) Cuneiform records of D. mounted nomads fighting Assyrians in 880 B.C. and 854 B.C., the latter being Arabs from the area between Syria and Irāq, including Wādi Sirhan and the Palmyrene. (Badw(Wissmann) 882.)
- (c) Arab D. riders with Xerxes in his invasion of Greece. (Ritter 637f.)
- (d) Distinction made between the two breeds by the early Persians. (Ritter 639, quoting the Zend-Avesta.)
- (e) Distinction made between the two breeds by Aristotle and Diodorus; D. used by Medes against Greeks in Media in 514 B.C. (Ritter 639f.)
- (f) D. used by Alexander in his march from Persepolis to Khurāsān in 330 B.C. (Ritter 640.)
- (g) D. possessed by Goths when they appeared on the lower Danube to menace Byzantium, in the 4th century A.D. (Ritter 642f.)

1) Walz 2,71. 2) Badw(Wissmann) 885.

(h) D. brought to China in small numbers as tribute not later than the Han Dynasty (202 B.C. - 221 A.D. )but its existence was reported in China by Chang K'ien after his expedition to west Turkestan in 125 B.C. (Walz 2,62 and note 1.)

(i) First mention of camel in India about 300 B.C. but it is not known which species this was. The D. first became widespread in north-west India after the Muslim conquests in the 8th century A.D.

(Walz 2,64f;Ritter 635f.)

Thus by the time of the first Muslim expansion, the dromedary had been fully domesticated as a herd and riding animal in Arabia for nearly two thousand years and in those intervening centuries had spread to the desert and steppe lands of North Africa, Egypt, Syria, Irāq and Mesopotamia. It had also been introduced into Irān and Turkestan and it seems likely that its superiority over the Bactrian as a riding animal must have been appreciated early, especially from contacts with Arabs mounted on dromedaries, either as opponents, allies or traders. This superiority would have the greatest relevance in regions where water was scarce, since it would then be difficult to maintain horses in any numbers and the dromedary would be a satisfactory substitute as a riding animal. In such regions it would be natural for the dromedary to displace the Bactrian altogether because the former is as effective as a pack animal while being the more efficient mount. Such a development may well have taken place by the 7th century A.D. in very arid areas such as south-east Persia and more especially in the Central Desert, while in Khurāsān and Sijistān a mixed culture based on horse, dromedary and Bactrian may have developed.

(ii) The Bactrian camel. (This note is taken from Walz 3,196-197.)

Since wild Bactrian camels still exist in the steppes of Central Asia and East Turkestan it is a reasonable supposition that this region was the centre for the earliest domestication of the two-humped camel. The first attestation is from Shāh Tepe in north Irān between 3,000 and 2,500 B.C. and at about the same time, at the latest at the end of the third millenium B.C., it was known in West Turkestan. There is attestation at Minussinsk, on the southern border of the Central Asian steppes, at about 1,200 B.C. First evidence for the Bactrian camel in Mesopotamia was about 1,500 B.C. but it remained a rarity until the 9th century B.C. In the first millenium B.C. the use of the Bactrian spread across the Iranian plateau in the wake of Iranian horse breeders and much later, towards the end of the first millenium B.C., it was introduced into China and north India. It was first used in the caravan trade between China and western Asia in the 4th century B.C. but it had been known as a domestic animal in north Irān for 2,000 years before this time.

CHAPTER IVTHE COURSE OF THE EARLY CONQUESTS

A brief historical survey.

The military activity of the Muslims began soon after Muhammad settled in Medina; in the year 623 (A.H. 1) the practice of raiding Meccan caravans was adopted, 1) the main purpose presumably being to obtain a livelihood for the Emigrants, although deliberate provocation of the Meccans may also have been intended. The first raids were unsuccessful, either because the guards were too numerous for the small forces of the raiders or because they failed to make an interception. Then, early in 624 (Rajab A.H. 2), a small party of Emigrants ambushed a Meccan caravan at Nakhlah, 2) on the road between Mecca and Ṭā'if, killed one guard, took two prisoners, and returned with the booty to Medina. This raid was the first serious provocation of Mecca and, since it took place in the holy month of Rajab, may also have caused some misgivings in Medina.

The first large-scale engagement in Islam was the battle of Badr in March 624 (Ramadān, A.H. 2). 3) Muḥammad had received word that a large Meccan caravan was returning from Syria and collected a force of over 300 men to intercept it. Meanwhile, news of the danger had reached Mecca and a force of about 950 men set out thence for Badr. The caravan, led by Abū Sufyān, managed to elude the Muslims, who camped at the wells of Badr, where they were approached by the Meccans. Probably neither side had intended from the outset to engage in hostilities, but a position was reached from which honourable retreat was impossible. The Muslims blocked up all the wells except one, around

1) WW 35. 2) Tab 1. 1272 ff; WW 34 ff. 3) Tab 1. 1281 ff; 1291 ff; Waq 21 ff.

which they were stationed and the Meccans, in need of water, were forced to attack Muhammad on ground of his own choosing. The result was a decisive victory for the Muslims, from 45 to 70 Meccans being killed and a similar number taken prisoner.

The year after Badr included the expulsion, after a siege, of the Jewish clan of the Banu Qaynūqā; several raids against tribes to the east and south-east of Medina; the capture of a large Meccan caravan; a token raid by 200 Meccans under Abū Sufyān to the outskirts of the oasis of Medina. Then in March 624 (Shawwāl A.H. 5) came the main Meccan riposte; 1) an army of about 3,000 men advanced to Medina and on arrival pastured their animals in the standing corn in order to provoke the Muslims to come out and fight. This tactic was successful and Muhammad was persuaded against his will to take the field. During the night, using their superior local knowledge, the Muslims took up a tactically sound position on the lower slopes of the hill of Uhud, with the enemy camp between them and the oasis of Medina. A group of archers was stationed on a spur to guard the left flank. The battle started with single combats followed by a general melee in which the Muslims gained the advantage and seemed to have victory in their grasp; the Meccan cavalry could not make any headway against the Muslim archers. Finally, however, the archers left their post to join in the advance and the quest for plunder and the way was open for the Meccan cavalry under Khālīd b. al-Walīd to attack the Muslim flank and rear. Great confusion ensued, particularly as the cry went up that Muhammad had been killed.

1) Tab 1. 1342-1343; 1384-1426; Waq 198-310.

The report was untrue, but the Muslims were dispersed and Muhammad, wounded in the face and leg, reached the slopes of the hill with a body of his followers and some sort of order was restored. The Meccans were unable to follow up their success: many of their horses were wounded; an important part of the Medinan forces had remained in the town; and perhaps most important of all, the Meccan infantry had once again been shown to be inferior to that of the Muslims. The following day the Muslims set out in pursuit; for the victim of a raid not to have done so would have been contrary to custom and would have been regarded as cowardice. The two parties camped a few miles from Medina some distance apart from each other but neither side attempted to give battle. After a day or two the Meccans set out for home.

During the two years after Uhud military activity was confined largely to expeditions against tribes to forestall any hostile moves against Medina. Some of these raids were successful, others were without fruit, and there were some Muslim casualties. To this period also belongs the expulsion of another Jewish clan from the oasis of Medina, in August 625 (Rabi' 1, A.H. 4); this was the Banu Nadir who surrendered to the Muslims after a siege lasting fifteen days.

In April 626 (Dhu al-Qa'dah, A.H. 4) a force of about 1,500 Muslims with 10 horse, led by Muhammad, went to Badr perhaps in order to keep a rendezvous made at Uhud between Umar and Abū Sufyān. 1) Abū Sufyān appeared at Badr with a force of 2,000 and 50 horse but there was no contact between the two sides; presumably both parties wished to avoid fighting and merely to make a show of strength.

1) Tab 1. 1457ff; WW 167ff.

In June 626 (Muharram A.H. 5) Muhammad led a raid against a hostile concentration of tribes to the east of Medina but the tribesmen took to the higher ground and there was no engagement. Again, however, the danger of taking up arms against the Muslims was demonstrated. In the summer of the same year Muhammad led an expedition to the oasis of Dumat al-Jandal nearly 400 miles to the north, the whole journey of 750 miles taking only 25 days. This expedition may also have been mounted to show the Muslim strength before the men of the oasis became involved in hostile activities against Muhammad, but it is chiefly interesting in demonstrating the early interest taken in the routes to the North.

Proof of Muhammad's growing power is given by his expedition in December 626 (Rajab A.H. 5) against a tribe to the north-west of Mecca, an area in which Mecca had hitherto been supreme. The reason for the raid was that the tribe was arming for an attack on Medina, doubtless in collaboration with the Meccans. The group was taken by surprise, and after a brief resistance were all taken prisoner, together with a considerable amount of booty.

The last attempt by the Meccans to break Muhammad's power began on the 31st March 627 (8 Dhu al-Qa<sup>h</sup> dah, A.H. 5) and is known as the expedition of the Khandaq or Trench. 1) The Meccan force consisted of about 7,500 men, including tribal confederates, with some 600 horse. To counter his weakness in cavalry Muhammad had a ditch constructed along the vulnerable flank of the town, the other approaches being protected by hills or by lava fields.

1) Tab 1. 1463ff; Waq 362ff.

The harvest had already been gathered so the Meccans were not able, as at Uhud, to provoke the Muslims into giving battle in the open plain; so they remained behind the trench for the duration of the siege. It is strange to reflect that the Meccans were unable to find an answer to the simple defence of a dry ditch, but neither cavalry nor foot was able to make any impression on the Muslims. Dissension in the ranks of the Meccan alliance, fostered by Muhammad's diplomacy, split up the confederacy into its various sections and inclement weather also hastened the lifting of the siege. By the middle of April the besiegers had departed.

As soon as the safety of Medina was assured, Muhammad summoned the Muslims to invest the strongholds of the Banu Qurayzah, a Jewish clan who were accused of intriguing with the Meccans during the siege of Medina.<sup>1)</sup> After a siege lasting twenty-five days they surrendered unconditionally; all the men were put to death and the women and children sold as slaves.

In the period from the siege of Medina and the execution of the Qurayzah to the pact of al-Hudaybiyah in March 628 (Dhu al-Qa'dah, A.H. 6) expeditions against potentially hostile tribes continued to be mounted. There were also two more moves to the North, one of them an expedition to Syria, the other once again to Dumat al-Jandal. The purpose of both of these expeditions was probably trade. In the same period a Meccan caravan was successfully intercepted and booty and prisoners were taken.

1) Tab 1.1485ff; WW 210ff.

The expedition of al-Hudaybiyah was actuated primarily by religious and political motives; it resulted in a treaty according to which the Meccans were to evacuate their city for three days in the following year to allow the Muslims to perform the lesser pilgrimage. 1)

The next military action by Muhammad was against the Jewish settlement of Khaybar, 2) to the north of Medina. The Jews had some warning of the danger but the march was executed with great speed and secrecy and they were taken by surprise with insufficient preparations to withstand a siege. Khaybar consisted of several groups of strongholds and these were attacked piecemeal; after the first two had surrendered the remainder also yielded, on terms similar to those imposed in the later conquests. The Jews were to remain on the land and continue to cultivate it, giving up half the produce to the Muslim owners (the members of the expedition, to whom the land was apportioned in lots). Treasure, arms and armour, and animals were taken as booty and a fifth part was allotted to Muhammad. Several smaller Jewish colonies in the vicinity also submitted to Muhammad at this time on similar terms. After Khaybar raids against tribes continued but the more interesting feature of this period is the mounting of further expeditions towards the North. The largest of these, in August/September 629 (Jumāda 1, A.H. 8), was to Mū'tah, in the district of Kerak in Jordan. It was composed of about 3,000 men under the command of Zayd b. Ḥarithah and appears to have fought an engagement against a superior enemy force. Zayd and two other leading Muslims were killed but very few of the rank and file, and the force was led safely back to Medina by Khālid b. al-Walīd. 3)

1) Tab 1.1528ff; WW 241. 2) Bal 23ff; Tab 1.1575ff; WW 264ff.

3) Tab 1.1610ff; WW 309ff.

The accounts of the events leading up to the submission of Mecca are obscure, and are beyond the scope of this work. In January 630 (Ramadān A.H. 8) Muhammad set out for Mecca at the head of some 10,000 men. A high degree of secrecy was maintained and the Meccans were kept in ignorance of his intentions until the Muslim force was in the neighbourhood of the city. Abū Sufyān with some leading Meccans came out to meet Muhammad and formally submitted to him. Muhammad proclaimed a general amnesty from which only a few leading enemies were excluded; some of these were later pardoned but several were executed. There was very little other bloodshed.<sup>1)</sup>

While Muhammad was at Mecca assuming his new responsibilities a new threat was taking shape to the east. A confederation of tribes known as the Hawāzin were assembling an army of about 20,000 men, which included the tribe of Thaqīf, the tribe inhabiting the town of Tā'if, and many nomadic clans who had allied themselves with them in this confederation. On the 27th January 630 (6th Shawwāl A.H.8) Muhammad set out to meet the enemy with about 12,000 men, and on the evening of the 30th January he camped near the Hawāzin at Hunayn. The following morning the Muslims moved down into the wadi, but the enemy cavalry had concealed themselves in the turns and gullies of the wadi and when they issued forth to attack some of the Muslim vanguard fled. Muhammad himself, together with a group of his Companions, stood firm and this eventually turned the tide. The men were dispersed, taken prisoner, or killed and the women and children were made captive. <sup>2)</sup>

1) Bal 35ff; Tab 1.1618ff. 2) Tab 1. 1653ff; WW 354ff.

A large amount of booty was assembled and left at a place called Ji' rānah while Muhammad went on to besiege the town of Tā'if. Despite the fact that the Muslims had some siege engines with them they were unable to make any impression on the defences of the town and after fifteen days they returned to Ji' rānah for the distribution of the booty taken at Hunayn. 1)

The last, and from the numerical viewpoint the greatest, of all Muhammad's expeditions took place from October to December 630 (Rajab - Ramaḍān A.H.9) and was directed to Tabūk, near the Gulf of Aqaba. Treaties were concluded with small Jewish and Christian settlements on and near the Gulf and a detachment under Khālīd b. al-Walīd was sent to Dumat al-Jandal and a similar treaty was made with its ruler. 2)

This concludes the summary of the military events during the lifetime of Muhammad, who died on the 8th June 632 (13th Rajab, A.H.11). Before the Muslims could embark on the expeditions which were to develop into wars of foreign conquest they had first to establish a firm position in the Arabian peninsula.

1) Bal 55ff; Tab 1.1669ff. 2) IH 895ff; WW 590ff.

### The wars of the 'Riddah.

The death of Muhammad was the signal for the outbreak of disorders in Arabia; this movement is described by Muslim historians as the 'Riddah' or apostasy from Islam. In fact, however, at the time of Muhammad's death only part of the Hejāz was united to Islam while the tribes of central Arabia - Ghatafān, Bāhilah, Tayy, etc. - were in the position of loose political dependence on Muhammad. They may have been partially Islamised. In the rest of Arabia - Yaman, Najrān, Yamāmah, and the south and the east - Muhammad either had no connections at all or had alliances with isolated tribes or with minorities inside other tribes. In many cases Muslim agents had been sent to such tribes to propagate Islam and to collect tribute, and the time of the Riddah most of these agents were compelled to flee back to Medina. Thus most of the Ahl al-Riddah had never been Muslims and the wars against them were wars of conquest for political domination and tribute; they were the real starting point for the expansion of Islam.

One of Abū Bekr's first acts on becoming Caliph was to order the sending of a large expedition to southern Jordan in accordance with the plans Muhammad had been making at the time of his death.<sup>1)</sup> This was a rash act since it left Mecca and Medina denuded of troops, and for this reason was opposed by some of the other Companions. Indeed the danger became acute when, in the absence of this expeditionary force, the infant state was menaced by hostile concentrations of Hejāz tribes. The expedition, however, returned in time to reinforce Abū Bekr

1) Tab 1. 1848ff.

against the local insurgents and their camp in Dhu al-Qassah was taken (Aug-Sep 632, Jumāda II A.H.11)<sup>1)</sup> Some of the fugitives fled to Buzākhah, in northern Najd, and joined the Banū-Asad who were led by the agitator Tulayhah. Against them Abū Bekr sent Khālid b. al-Walīd with 4,000 men (end Sep-Jan 633, Rajab - Dhu al-Qa'dah A.H. 11).<sup>2)</sup> Before the battle Khālid was joined by the tribe of Tayy' who had previously been uncertain. The encounter resulted in complete victory for the Muslims; the enemy was dispersed and the Asad and the Banū Amir submitted. From Buzākhah Khālid moved against the Tamīm, but without sanction from Abū Bekr and against the opposition of the Anṣār. He surprised the camp of the Tamīm in al-Buṭāh and defeated them, taking a number of prisoners some of whom he ordered to be executed. <sup>3)</sup> This appears to have been an act of personal vengeance and he was ordered back to Medina to explain his conduct. There he was exonerated by Abū Bekr against the wishes of Umar and given command of a new army to reduce the Hanīfah in Yamāmah. The incident at al-Buṭāh is given in the sources as the reason for Umar's supposed personal animosity towards Khālid.<sup>4)</sup>

The leader of the Hanīfah was the "false prophet" Musaylimah and the battle took place at Aqrabah, near Yamāmah in central Arabia.<sup>5)</sup> It was one of the most stubbornly contested battles in early Islam: after fighting in the open the Hanīfah retreated to their walled gardens where fierce hand-to-hand fighting took place.

1) Tab 1. 1874. 2) Tab 1. 1886ff. 3) Tab 1. 1922ff. 4) Tab 1. 1925ff.

5) Bal 88ff; Tab 1. 1930ff.

This part of the battle was known afterwards as Hadīqat-al-Mawt, the 'Garden of Death'. Musaylimah was killed in the fighting, which was a total victory for the Muslims (May-June 633, Rabī' I A.H. 12). After the battle Khālīd accepted the surrender of the strongholds on fairly lenient terms.

According to some reports Khālīd moved from Yamāmah to al-Bahrayn, this being the name at that time for what is now the coast of al-Ahsā', the island now called Bahrayn being then known as Uwāl. There he is said to have joined forces with al-'Alā' b. al-Haḍrami and assisted him in the siege of al-Zarah and the occupation of the small island of Dārīn (an island which carries the same name today and lies opposite al-Qatīf). 1) In the autumn, however, Khālīd was at al-Nibāj, en route to 'Irāq. The reduction of Bahrayn, 'Umān, Mahrah, and the Haḍramawt was perhaps only sanctioned later by Medina; it was carried out largely by tribes in alliance with Medina as opposed to troops sent out for the purpose. The reduction of those regions was not completed until several years after the first armies had left for Syria and 'Irāq; the conquests were never thorough and many areas in this quarter of Arabia were virtually independent fifty years later.

The Yaman seems to have had little to do with Muḥammad or with Islam during the Prophet's lifetime and what are called in the sources the "first and second apostasies" in the Yaman were in fact incidents in the civil wars among the Persian and Arab inhabitants of the region.2)

1) Bal 84; 90; Tab 1. 1957 f. 2) Tab 1. 1795 ff; 1851 ff; 1983 ff.

It was during the "second apostasy" that the Muslims first played an important role in the Yaman. A certain Qays b. Makshūh had seized power in San'ā, killing one of the Persian leaders and compelling the other two to seek refuge with an Arab tribe with whom they had blood ties. Qays was unable to enlist the aid of the Himyarite chiefs, the tribes of 'Akk and Masrūq turned against him, and he was obliged to flee to the region between San'ā and Najrān. There he sought refuge with his old colleague, 'Amr b. Ma'dīkarib, but there was now bad blood between them and he received no assistance. Meanwhile Abū Bekr had dispatched an army to the Yaman under Muhājir b. Abī-Umayyah which included contingents from Mecca, Medina and Tā'if, with tribal allies. Qays was also menaced from the south by the approach of 'Ikrimah b. Abī-Jahl through Mahrah. Muhājir met with little resistance and Qays and 'Amr were captured and sent to Medina in chains where they were later pardoned. The Christians of Najrān seem to have taken little part in the civil wars and concluded a pact with Abū Bekr when the opportunity arose.

## Syria

The 'little pilgrimage' of Abū Bekr in September 633 (Rajab A.H. 12) was the occasion for the orders being issued for the mobilization of forces for the invasion of Syria. The orders went to the tribes of the Hejāz and to some tribes of Najd and Yaman; they began to arrive in smallish numbers and as soon as sufficient were mustered they were given a leader and sent out. The first to leave was Yazīd b. Abī-Sufyān by the road through Tabūk, followed shortly afterwards by Shurahbīl b. Hasanah by the same route, and later by 'Amr b. al-'Āṣ, who took the Red Sea road through Aylah. The first to join battle was Yazīd, on 4th February 634 (29 Dhu al-Qa'dah A.H. 12). His cavalry surprised a Byzantine force in the Wādī al-'Arabah, at Ghamr, and routed them. The fugitives took refuge at Dāthinah, towards Gaza, but were pursued and again scattered and their leader was captured and put to death. 1)

The whole of southern Palestine was now open to Arab marauding parties and a series of devastating raids took place, only walled towns being safe. These raids ranged far: throughout southern Palestine, into trans-Jordan, and perhaps as far as the walls of Caesarea and to the vicinity of Jerusalem. Alarmed by these depredations, Heraclius assembled an army under his brother Theodorus who, seeing that the menace was most serious in Palestine, advanced to Ajnādāyn which lay to the south-east of Jerusalem. In view of this danger some of the Arab forces retired to the fringes of the desert, although significant numbers remained in Palestine. Reinforcements were requested from Medina with great

1) Bal 107 ff; Tab 1. 2108 f; 2112 ff; 2121 ff.

urgency and, towards the end of March 634 (Muharram A.H. 13) Khālīd left 'Irāq on the orders of Abū Bekr to go to the aid of the armies in Syria. Taking the route via Dūmat-al-Jandal to the watering-place of Qurāqir in the Wādī Sirhān, he then turned north and after a forced march of five nights duration through waterless desert he arrived at the wells of Sūwā in the steppes east of Damascus. (See Ch. VI for a full discussion of this journey). From Sūwā Khālīd made a surprise attack on a Ghassānid camp at Marj Rāhiṭ near Damascus on Easter Day 24th April, 634 (19th Ṣafar A.H. 13). Recognising the danger that the Arabs were in, by having scattered their forces to pursue their own selfish interests, he advanced southwards to the east of the Jordan and finally effected a junction with 'Amr and Yazīd in the Wādī al-'Arabah. They then advanced against Theodorus at Ajnādayn and gave battle. 1) The result was a complete victory for the Arabs and the whole of Palestine was now open to plundering raids. Only the large towns held out, although Gaza may have been put under tribute, and Arab armies reached as far as the walls of Hims. The Greeks now succeeded in concentrating an army which crossed the Jordan and occupied Baysān. The Arabs, once more united under the command of Khālīd, assaulted Baysān and forced the Greeks to withdraw over the Jordan. They were followed across the river and finally routed at the battle of Fihl (Jan 635, Dhu al-Qa'dah A.H. 13). 2) The Muslims now became masters of all Palestine and trans-Jordan. The victorious Arab army advanced to the region south of Damascus where they met and defeated

1) Bal 111 ff; Tab 1. 2125 f; Ya'q II, 150 f. 2) Bal 115; Tab 1. 2155 ff.

a Greek army under Baanes at Marj al-Suffar, and the Greeks then retired behind the walls of Damascus. After a brief pause the Arabs advanced to the city and laid siege to it (March 635, Muharram A.H.14); a force sent by Heraclius to relieve the garrison was defeated at Bayt Lihya and the city was left to its fate. There was dissension between the townspeople of Damascus and the Byzantine military forces and Baanes left the city and retired towards the north. The Arabs entered the beleaguered city which surrendered on terms on 4th September 635 (15th Rajab A.H.14). 1) After the cession of Damascus the Arabs moved further north and took possession of Hims where a formal peace treaty was also concluded. 2)

The siege of Damascus and its fall marked the end of the razzia phase of the warfare and the beginning of the war of conquest and the whole country was now pacified with the exception of the larger fortresses. The Arab armies wintered in Damascus and Hims; in this period Shurahbil b. Hasānah subdued the whole of the province of Jordan and took possession of Tabāriyyah, Baysān, Sūsiyah, and other cities of the region. Other groups occupied al-Bathāniyyah and the Hawrān while yet others penetrated to the north as far as Palmyra.

The winter of 635/636 was spent by Heraclius in feverishly assembling an army in Antioch and Edessa, and at the beginning of spring a large force moved southward while seaborne reinforcements landing at the ports of Palestine menaced the Arab flank. Realising the danger, Khālīd evacuated Hims and Damascus and in face of the superior force of the Greeks moved to the south-east of the river

1) Bal 120ff; Tab 1. 2146ff. 2) Bal 129ff.

Yarmūk. Here they were in a fertile part of Syria, and were across the roads leading from central Palestine to the east of the Jordan and to the south. They were protected in the rear by the deeply incised valleys of the Yarmūk tributaries and retreat to the desert or to Medina was secured. The Greeks pitched camp at Jilliḳ (today Jillīn), and a long waiting period ensued with activity confined to patrolling and skirmishes, and this delay acted in favour of the Arabs. The Greeks were beset by jealousy and insubordination: their commander was Theodorus Trithurius with Baanes in command of one division but a section of the army rebelled against Heraclius and declared Baanes Emperor. There were also desertions among the Arab auxiliaries. 1) The Arabs, on the other hand, received a steady stream of reinforcements from Medina and among them was Abū Ubaydah b. al-Jarrāh, who was sent by Umar to take over the supreme command of the armies. He appears not to have let this be known until after the battle in which Khālīd was the commanding general in the field.

When the Arabs had been adequately reinforced they again took the offensive; they outflanked the Greeks to the east and cut their lines of communication with Damascus, and by occupying the bridge over the Wādi al-Ruqqād they also cut the line of retreat to the west. Finally they forced the Greeks into the angle between the Yarmūk and the Wādi al-Ruqqād. Those who were not killed there plunged down the steep banks of the rivers but those who managed to escape were annihilated on the other side, since the Arabs by occupying the bridge were easily able to cross to the far bank. 2)

1) Ca 115, 499ff. 2) Bal 135f; Tab 1. 2087; Ya' q II, 160f; see also Mich Syr II, 420 f.

This was on 20th August 636(12th Rajab A.H.15) and was the decisive stroke in a battle which had lasted for several months; the Greek army was totally destroyed and Byzantine power in Syria was at an end. Soon afterwards Heraclius, having given up all hope, left Antioch and returned to Constantinople. 1)

After the battle the Arabs advanced to the north and occupied Damascus, this time permanently, in December 636(Dhu al-Qa'dah A.H.15). By now Abū Ubaydah had assumed control and distributed the various commands on a systematic basis. He himself advanced northwards with Khālīd and occupied the towns of Ba'alabakk, Hims, Ma'arrat al-Nu'mān, Qinnasrīn, and the rest of the country as far as Aleppō and Antioch. At the same time Amr b. al-Ās conquered Palestine, and Shurahbīl b. al-Ḥaṣanah subdued Jordan and the Mediterranean coastal towns of Akkah, Sūr, Saydā, Bayrūt, and Lādhiqīyyah. 2) The whole of Syria was now in Arab hands with the exception of the fortified cities of Jerusalem and Caesarea; Jerusalem finally surrendered in 638(A.H.17), 3) Caesarea not until 640(A.H.19). 4) Although summer raids into Asia Minor were mounted, sometimes on a large scale, in the years that followed, the Amanus range remained the effective frontier between the Arabs and Byzantium throughout the Umayyad Caliphate.

1) Tab 1. 2394. 2) Bal 116-117; 126; 128; 131-134; 139; 144-145; 146-151; Tab 1. 2349; 2393; 2394. 3) Bal 139. 4) Bal 140ff; Mich Syr II, 430 f.

Al -Jazīrah(Mesopotamia).

Al-Jazīrah was invaded in 639/640(A.H.18) by Iyād b. Ghannm with troops from Syria and was subdued without much opposition; the conquest of the eastern part of the region was completed in 641(A.H.20) by troops advancing from Irāq via Mosul. 1)

THE SĀSANID EMPIREIrāq

The first incursion into lower Irāq was in the late summer of 633 (A.H.12). While in al-Nibāj, Khalīd b. al-Walīd united his forces with those of al-Muthanna b. al-Hārithah of the Bakr b. Wā'il for the purpose of raiding Irāq. The combined force moved up the Euphrates raiding and exacting tribute and in the autumn reduced the town of al-Hīrah, although this was not a conquest in the formal sense but the classic type of nomad raid against a settled community. No attempt was made to take strongpoints by assault but the raiders would camp in the cultivated land around the town, pasture their animals in the standing corn, damage or threaten to damage fruit trees etc. The town would thus be forced into the payment of tribute, which would take the form of a monetary payment and provision of food, fodder, and other requirements for life in the desert. The attack on the fortress of Ayn al-Tamr, however, was of a different nature since the citadel was taken by force and its garrison put to the sword. It is probable that it was intended that it should serve as a base for other operations and seems to have been used for this purpose during the remainder of this phase.

1) Bal 149ff; 172ff; 178; 331ff; Mich Syr II, 426; 443 f.

Al-Muthanna and Khalid continued their raids to the north, both against settlements such as Anbar and Anah, and against the encampments of the Banu Taghlib, ranging as far north as the mountains of al-Bishri. Also in this period is the journey of Khalid to Dumat al-Jandal to support Iyad b. Ghanm who was attempting its reduction. 1)

After the departure of Khalid for Syria the Bakr b. Wa'il continued to raid along the Euphrates, but news reached them that a Persian punitive force was assembling against them. This, together with the desire for crossing the river to the more prosperous region to the east, induced them to ask Medina for assistance. Al-Muthanna himself is reputed to have gone to Medina for this purpose, arriving when Abu Bekr was on his death bed. No aid was given until the news arrived of the victory of Ajnadayn; the position in Syria being then more secure Umar appointed Abu Ubayd al-Thaqafi, a relatively obscure Muslim, to lead a small expedition to Iraq. After rapid preparations and a speedy march Abu Ubayd arrived in Iraq and united his party with that of al-Muthanna in the neighbourhood of al-Hirah. The point chosen for the crossing was near al-Hirah just above the bifurcation of the Euphrates where, with the co-operation of the local inhabitants, a bridge was repaired or erected. This was a simple pontoon structure or bridge of boats held together by cables. The Muslim force then crossed to the east bank, apparently without appreciating the grave danger to which they were exposing themselves, and soon after crossing they were attacked by the Persians who were accompanied by elephants.

1) See Bal 241ff; Tab 1. 2016-2075; for the whole of this early campaign.

Caught in swampy ground very different from the open terrain in which they were accustomed to manoeuvre freely, the Arabs could find no answer to the Persian tactics. In attempting to disable the elephants Abū Ubayd and another Muslim leader were killed and probably only further enraged the beasts. The Muslims took to flight but the weight of the fugitives broke the bridge and many were drowned, while others died attempting to swim to safety and yet others perished to the Persian swords or were trampled underfoot by the elephants. Only the bravery and skill of al-Muthanna averted complete disaster; fighting a stubborn rearguard action he held the Persians at bay while the bridge was repaired and then when the last of the Muslims had crossed he cut the cables of the bridge and thus severed the Persians' line of pursuit. The whole campaign from the departure of Abū Ubayd from Medina to the battle on 29th November 634 (29th Ramadan A.H.13) occupied only three months. 1)

The year following the Battle of the Bridge was relatively quiet. The Persians made no attempt to follow up their success by operating on the west bank of the Euphrates, and the only active force on the Arab side was that of al-Muthanna, who remained in the vicinity of al-Hirah whence he mounted small raids along the west bank of the river. Doubtless he kept Medina informed of the situation and continued to ask for aid, but the attention of Umar was once again fully engaged in Syria.

In the summer of 635 (A.H.14) a section of the Bajilah tribe from the Yaman moved into Iraq under the command of Jarir b. Abdallah,

1) Whole campaign of 'Bridge' in: Bal 250ff; Tab 1. 2159ff.

perhaps with the sanction of Umar, perhaps independently. They arrived when al-Muthanna had retired to the desert fringes in the face of the advance of a Persian force which had re-occupied al-Hīrah. There was considerable friction between the two Arab leaders since both were at the head of their own tribesmen and neither would acknowledge the other's authority, but they seem to have temporarily composed their differences when advancing to meet the Persians. The two sides met at Buwayb, to the south of al-Hīrah, and the Persians were defeated.<sup>1)</sup> They abandoned al-Hīrah but it was not re-occupied by the Arabs, who remained quiescent during the months that followed. The battle of Buwayb was fought in October or November 635 (A.H. 14 - Ramaḍān) and there was no military activity of any significance in Irāq in the year that followed. Any demands that may have been made by Jarīr or al-Muthanna were ignored in Medina while events in Syria were moving to a climax.

It is likely that the news of the Arab victories in Syria was known to the Persians and that this knowledge hastened their preparations for assembling a large army to expel the Arabs from the borders of Irāq. Al-Muthanna, before his death (late in 636), must have ensured that the news of these preparations reached Medina. By the autumn of 636 the battle of the Yarmūk had been won and Umar could now turn his attention to Irāq. After some deliberation he appointed Sa'ād b. Abī-Waqqās to lead the first real invasion against the Sāsānid power.

1) Bal 253ff; Tab 1. 2183ff.

The preparations began about September 636 (Rajab A.H. 12) and forces from the Hejāz and from the Yaman and elsewhere began to assemble at Sirār near Medina. Sa'ḍ later moved his camp to Sharāf or to Tha'libiyah, both in northern Arabia on the road from Medina to 'Irāq. He spent the whole winter 636/637 (Rajab to Dhu al-Hijjah A.H. 15) in that region attempting to gather an adequate force but got few recruits from the tribes of the north-east, many of whom had a tradition of friendly relationships with Persia. The recent memory of the disaster of the Bridge doubtless deterred others. The total force which Sa'ḍ was able to muster probably did not exceed 6,000 men; these included warriors from central and western Arabia, some Yamanites especially Bajīlah, and small numbers of Asad and Tamīm.

With this small force Sa'ḍ advanced to 'Irāq in the spring of 637 and camped at Qādisiyah on the desert fringe of the sown lands. It was his policy to induce the Persians to attack him in desert country where Arab knowledge of such terrain would offset the disparity in numbers (the Persian army was probably about 15,000/20,000 strong). The Persians, under their general Rustam, moved south and camped opposite the Arabs. A lull of about four months intervened before battle was joined and during this period the Arabs sent out many raiding parties who scoured the outlying villages and cultivated areas for food and fodder. The Persians were powerless to prevent them because of the superior mobility of the Arabs. Gradually the Arabs became more daring and carried their raids nearer the Persian camp.

It is possible that an incident in one of these raids precipitated the decisive conflict, with a skirmish growing into a battle as more and more reinforcements reached each side. The battle lasted for one day and was probably neither so bloody nor so hard fought as the Yarmūk. Nevertheless victory was complete and Persian losses were considerable, their general, Rustam, being among the dead. The Muslim cavalry, crossing the Euphrates, carried the pursuit without much opposition through the fertile land of the Sawād as far as the walls of al-Madā'in (Ctesiphon). 1) The battle of Qādisīyah was fought in June 637 (Jumadā I A.H. 16); after a brief respite the main body of the Arab army followed the cavalry to al-Madā'in, without meeting any resistance. They arrived on the west bank opposite the city, joining up once more with the cavalry, and were confronted with the unfamiliar problem of crossing a river without boats or a bridge, all means of crossing having been removed or destroyed by the Persians. Eventually they were led to a ford by a native and after some hesitation, spurred their horses into the Tigris and made the crossing. The city was entered without opposition in July 637 (Jumadā II A.H. 16). The king, followed by the court, Persian dignitaries, and finally by the Persian garrison had fled towards the Iranian highlands. Great quantities of booty were captured at the fall of the city, which points to a precipitate flight by the king and his followers. 2)

- 1) See Bal 255-262; Tab 1. 2213-2367; Ca 16, 3-117; for battle of Qādisīyah and events leading up to it; see also Mich Syr II, 421.  
 2) Bal 262 ff; Tab 1. 2419 ff; Mich Syr II, 423 f.

For more than a year after the fall of the city Sa'd remained in al-Madā'in with the bulk of his army, presumably enjoying the novelty of a life of ease and luxury. The only event of note in this period was the battle of Jalūlā'. The Persians had assembled a force in Jalūlā', in the foothills of the Zagros, probably as a defensive screen for the city of Hulwān, in which the king had taken refuge. To deal with this force Sa'd sent a detachment of his troops who defeated the Persians, and the king was obliged to leave Hulwān and flee to the Iranian plateau. The battle took place in December 637 (Dhu al-Qa'dah A.H. 16). 1)

Eventually, at the express order of 'Umar, Sa'd left al-Madā'in and founded the fortified camp of Kūfah in the vicinity of Hīrah. This was in the winter 638/639 (end of A.H. 17). 2) Basrah, a similar foundation, also on instructions from 'Umar, had been made a little earlier, in 637 or 638, shortly after the battle of Qādisīyah. 3) These two settlements were at first merely encampments but later grew into towns. They were the military bases from which the conquests of Persian and central Asia were undertaken.

1) Tab 1. 2439 ff; Bal 264. 2) Tab 1. 2360; Bal 275. 3) Tab 1. 2378 ff.

Khūzistān 1)

The conquest of Khūzistān was largely the work of Abū Musà al-Ash'ari with troops from Basrah, although troops from Kūfah co-operated in the capture of Tustar, the final episode in the campaign. The inhabitants were of Iranian stock and thus not disposed, as were the Semites of Irāq, to yield to the Arabs without a struggle. Their defence was conducted with great energy by the marzubān, al-Hurmuzān, and four years elapsed from the first Arab incursion in 638 (A.H.17) to the conclusion of the conquest with the fall of Tustar in 642 (A.H.21). The province was a fertile land with many fortified towns, and the Arabs were handicapped by shortage of siege machines and lack of experience in siege warfare. The conquest was thus a slow progress from strongpoint to strongpoint which were reduced after sieges of varying duration, sometimes terminated by treachery on the part of one of the inhabitants. The Arab armies halted, for the time being, when they reached the mountain barrier of the Zagros.

1) Bal 376-385; Tab 1. 2533-2545.

The Iranian Uplands and the East.

The conquest of the heartland of the Sāsānid Empire was a process which took over a decade to complete and was followed by the slow conquest of the eastern regions, but reports on the period in the sources are very meagre. The signal for the beginning of this warfare was the battle of Nihāwand in 642 (A.H. 21): 1) the Persians, probably at the prompting of King Yazdagerd who was then in Fārs, assembled a large army at Nihāwand with forces drawn from all parts of the kingdom. On learning of this the Muslims mobilised an expeditionary force from the warriors of Kūfah with some additional troops from Baṣrah, and the overall command was given to Nu'mān b. Muqarrin. The battle which ensued was a complete victory for the Muslims, although Nu'mān himself was killed in the fighting. The immediate sequel to the battle was the mounting of a number of large-scale raids in different directions and under various leaders, although in most cases the complete subjugation of these regions followed some time later. Thus Jibāl was partially conquered in 643 (A.H. 22) by Kūfan troops who had fought at Nihāwand under Hūdhayfah b. al-Yamān, the successor of Nu'mān. 2) Ray, Hamadhān and Isfahān were conquered for the first time in this period but had to be re-subdued later. 3) Even the town of Nihāwand itself had to be re-captured in 645 (A.H. 24).<sup>4</sup> The southern part of Jibāl was conquered by troops from Baṣrah under Abū Musā, who was governor of the town from 638 to 650 (A.H. 17-29). They took Dināwar, Māsabadhān and Mihrajānkadhak, and ranged as far as Qum and Qāshān. 5)

1) Bal 302-305; Tab 1. 2596-2633. 2) Bal 305-307. 3) Bal 307ff; Tab 1. 2635ff. 4) Bal 309. 5) Bal 312-315; 307.

In 645 (A.H. 24) Abū Mūsā with Baṣran troops invaded Fārs, where forces from Bahrayn under 'Uthmān b. Abī-l-'Ās were already operating. They co-operated in their attempts to subdue Fārs but progress was slow and difficult. Sābūr was taken in 644 (A.H. 23) but rebelled and was reconquered in 647/26; Iṣṭakhr was conquered and reconquered three times, in 644/23, 649/27, and 650/28. The year 650 saw the appointment of 'Abdallāh b. 'Āmir as governor of Baṣrah and it was in this year that he completed the conquest of Fārs. 1) Following this the Muslims undertook a number of expeditions into eastern Irān under several virtually independent leaders. Ibn 'Āmir himself invaded Khurāsān in 651 (A.H. 30) with the astute and diplomatic al-Aḥnaf b. Qays as his lieutenant; 2) they took the desert route from Yazd to Tabas Gilak and thence via Qayin to Herāt. Herāt, Badghīs and Marw al-Rūdh submitted without opposition and the first serious check to the advance came in the Murghāb valley, where al-Aḥnaf with 5,000 men was opposed by the organised forces of lower Tukhāristān and had to retire on Marw al-Rūdh. 3) A second expedition under al-Aqrā' b. Hābis was more successful and defeated a weaker force in Juzjān and then advanced eastwards, temporarily occupying several towns including Balkh. Small parties made plundering raids in the neighbouring territories, not always successfully. A general uprising in the year 654/655 (A.H. 33/34) caused the Muslims to relinquish their hold on Khurāsān for a time although several raids by 'Ali's governors are recorded. 4)

1) Bal 386-391; covering the conquest of Fars. 2) Bal 403 ff; Tab 1. 2682 ff; 2884 ff. 3) Bal 407. 4) Tab 1. 2831 ff; 2905 ff.

Operations were resumed when peace was restored to Islam by the recognition of Mu'āwiyah in 661 (A.H. 41); Ibn'Āmir was again the commander and the operations followed the same pattern as before. Indeed for the whole period 650-665 (A.H. 29-45) the so-called conquests were little more than large-scale plundering raids. There was no ordered progress of the Arab arms until Khurāsān was brought under the control of Ziyād b. Abihi, who was nominated governor of Baṣrah in 665 (A.H. 45).

In the north a similar pattern of events developed; Armenia was first effectively invaded in 652 (A.H. 32) by a combined force of Syrians under Ḥabīb b. Maslamah and Kūfians under Salmān b. Rabi'ah, who was later killed in the Caucasus. Armenia, however, was never fully absorbed into the Arab empire in the early years and indeed it was a field of contention between Islam and Byzantium in the centuries that followed. 1) The first expedition to Adherbayjān was undertaken by Kūfan troops on the aftermath of Nihāwand under the command of Hudhayfah b. al-Yamān. 2) This was in 643 (A.H. 22) and it was little more than a raid, for in 647 (A.H. 26) a more thorough conquest was carried out by al-Walīd b. 'Uqbah, then governor of Kūfah, who then departed, leaving al-Ash'ath b. Qays as his deputy. 3) Al-Ash'ath completed the conquest and introduced the policy of settling Arab veterans in the land with their families. 4) Even so the region was not fully pacified since in 651 (A.H. 30), when Sa'īd b. al-'Āṣ was governor of Kūfah, he sent Jarīr b. 'Abdallah to Adherbayjān where he met and defeated a combined force of Armenians and Adherbayjanians. 5)

1) Bal 197-205. 2) Bal 325-327; Tab 1. 2660 f. 3) Bal 327-328.

4) Bal 329. 5) Bal 328.

The only mention of the lands to the south and south-east of the Caspian in the time of the early conquests was the raid by Sa'īd b. al-Ās in 651 (A.H. 30), but he seems to have achieved little except the exaction of tribute from a few towns. 1) At this period one source mentions the danger of the route to Khurāsān through Qūmis because of the opposition of the people of Jurjān. Instead one had to go from Fārs across the Great Desert, the route taken by Ibn'Āmir. 2)

1) Bal 334 f. 2) Tab 1. 2839.

Egypt.

The invasion of Egypt was undertaken by Amr b. al-Ās, probably with the sanction of the Caliph, although Umar may have later repented of his rashness and attempted to halt the expedition. Amr's force of 3,500 to 4,000 men reached the borders of Egypt at al-Ārīsh on 12th December 639 (10th Dhu al-Hijjah, A.H. 18) and took the westward inland road to Pelusium (Arabic al-Faramā<sup>2</sup>). 1) After a siege of one month the town was taken and, having no troops to spare as garrison, Amr had the walls razed to make it useless as a stronghold if re-occupied, and resumed his march, his losses having been more than made up by the Badw who flocked to his standard in expectation of booty. His route was inland via the modern al-Qantarāh to Bilbais; here an enemy force was cut to pieces but the town of Bilbais was strong enough to resist for one month. After its fall the Arab army advanced to Umm Dunayn north of the great fortress of Babylon, at the head of the Delta. 2) The Byzantines were now more alert and Cyrus, the Monothelite Patriarch of Egypt, (the 'Muqawqas' of the sources) moved towards Babylon with a large army under the Greek general Theodore. In view of the strength of the forces arrayed against him together with the formidable task of reducing such fortresses as Babylon, Amr now urgently requested reinforcements from Medina. While waiting for these reinforcements, having temporarily taken possession of Umm Dunayn, he crossed the Nile and mounted a swift raid against the Fayūm, where some cattle were taken as booty.

1) Bal 212; Ya q II, 167ff; Fut. Misr 56f. 2) Bal 213f.

The reinforcements - 4,000 men under al-Zubayr with two similar parties following - arrived at Heliopolis (Arabic Ayn al-Shams) in June 640 (Jumādā II, A.H. 19) and a junction was effected with Amr on his return from the Fayūm. Heliopolis was made the base of operations for the Arab armies. The Muslim army with all its reinforcements probably numbered about 15,000 men. The Greek field force, not including the garrisons, was about 20,000 strong. In July 640 (Rajab, A.H. 19) the Greeks advanced against the Arab positions; Amr had stationed on either flank of the Greek line of advance detachments of troops, and these forces attacked the Greek flanks after the battle was joined. The result was a complete victory for the Arabs. 1)

The defeat of the Greeks left the whole region at the mercy of the invaders; the Fayūm was now quickly and ruthlessly subjugated; Misr, Umm Dunayn and other towns in the apex of the Delta were occupied; a general panic drove the garrisons and many of the inhabitants of the Delta towards Alexandria. The siege of Babylon now began in earnest (September 640, Ramaḍān, A.H. 19). For reasons which are not entirely clear Cyrus seems to have been determined on surrender and after some negotiation he was ready to cede the fortress on payment of the jizyah. He left for Alexandria to communicate his proposals to the Emperor, the status quo in Babylon being maintained in his absence. He was, however, ordered to Constantipole to account for his actions, reprimanded, disgraced, and sent into exile. When this became known in Babylon hostilities were renewed and fighting dragged on in sallies and skirmishes outside the walls.

1) J. Nik 557; Fut. Misr 59; Tab 1.2592.

Amr himself went at the head of a detachment to check a relieving force but was severely mauled in doing so; the relief, however, never reached the beleaguered garrison. The final assault was mounted on Good Friday, 6th April 641 (18th Rajab A.H.20): Al-Zubayr with a small party succeeded in getting to the top of the wall using a ladder but was prevented from further advance by a cross wall. For the garrison, however, the incident was sufficient to precipitate surrender, wasted as they were by disease and disheartened by the recent news of the death of Heraclius. They were given three days to leave the fort on condition that they left behind all treasure and war materials. 1)

The way was now open to Alexandria and the army was set in motion along the western or desert bank of the Nile, although they crossed to capture and sack the town of Nikiou (13th May 641, 26th Jumada I A.H. 20). The advance was resumed but the Arabs were met by stubborn rear-guard actions by the Greeks who had been reinforced by seaborne contingents and by recruits from the lower Delta. The last battle was a hard-fought engagement for the fortress of Karyūn which lasted for ten days; the town and fortress were eventually taken but the Greeks retired in good order to Alexandria.

It was impossible for the Arabs to take the town by assault as it was protected to the north by the sea, to the south by Lake Mareotis and to the west by the Dragon canal. To the east and south-east it was open but the mighty walls were guarded by a formidable artillery. Amr left a detachment encamped before the city adequate to deal with sorties, and then went on to a series of plundering raids in the Delta, where he was unable to reduce any of the fortified towns. He then went

1) Bal 213-215.

south and completed, with relative ease, the conquest of Middle Egypt.

Meanwhile in Constantinople Cyrus had returned from exile and had impressed upon the feeble successor of Heraclius the necessity for surrender in Egypt. Armed with the Emperor's warrant he returned to Alexandria accompanied by troop reinforcements in case the negotiations should prove unsuccessful. Having been received with enthusiasm by the populace he set out in secret for Babylon where 'Amr, just back from Middle Egypt, received him cordially. The treaty was concluded on 8th November 641 (28th Dhu al-Qa'dah A.H. 20). Its terms were these:

1. Payment of a fixed tribute by all who were included in the terms of the treaty.
2. An armistice for eleven months during which the Arab forces were to maintain their positions but keep apart and undertake no military operations against Alexandria; the Greek forces to cease all hostile acts.
3. The garrison of Alexandria and all troops to leave by sea with all their possessions and treasure.
4. No Greek army to return or to attempt the recovery of Egypt.
5. Arabs were not to seize churches or interfere with Christians.
6. Jews to be allowed to remain at Alexandria.
7. Hostages to be given by the Greeks as a sign of good faith.

The first information of the surrender to reach Alexandria was when an Arab army appeared before the walls to claim the first payment of tribute. The riots that broke out at this news were quelled and Cyrus somehow managed to reconcile the Alexandrians into accepting submission.

Hope of financial relief, desire for religious toleration and a settled peace may have been the most potent factors in persuading them to acquiesce. The treaty was quickly ratified both by the Emperor and by 'Umar.

In the winter of 641/642 (early in A.H. 21) the military camp of al-Fustāt, just south of the site of Cairo, was founded and later grew into a large city. (This was a jund on a similar pattern to Kūfah, Basrah, Qinnasrīn, etc. )

In the armistice period the reduction of the coastal towns of the Delta was undertaken but stubborn resistance was encountered and it took nearly a year to complete the conquest. Long before this the conquest of Upper Egypt had been peaceably concluded.

On September 17th, 642 (16th Shawwāl, A.H. 21), the last of the Greek forces having embarked, 'Amr entered Alexandria at the head of his Arab warriors. 1)

The only other event of note in the conquest of Egypt proper was the recapture of Alexandria by Byzantium. At the end of 645 (about Muharram A.H. 25) a fleet carrying a large Greek force under the command of Manuel set out in great secrecy from Constantinople; on arrival at Alexandria they surprised the small Arab garrison who were overpowered and slain, very few making good their escape. At this time 'Amr was no longer in command in Egypt having been deposed by 'Uthmān in favour of 'Abdallah b. Sa'ād; he may even have been in Mecca. He was recalled to Egypt at the urgent request of the troops and set about organising his forces in Babylon.

1) See Bal. 220-221; Butler 249-309; 324-325; for the surrender of Alexandria and events leading up to it.

The Greeks had wasted valuable time in idleness in Alexandria and in plundering the towns of the lower Delta; had they attacked in 'Amr's absence while the Arabs were still disorganised they might have reconquered the whole country. When they finally advanced up the Nile 'Amr was ready for them. The battle took place near Nikiou and was desperately contested, the Greeks fighting with great valour. The Arabs were ultimately completely victorious and pursued the broken remnants of the enemy army to the walls of Alexandria. The Greeks took refuge in the city, closed the gates and prepared to withstand a siege. This time, however, one of the gates was opened by a traitor and the Arabs rushed in and carried the city by assault, looting and slaying until stopped by 'Amr's orders. Many of the Greek garrison were slain in the fighting although some escaped by sea; the women and children were taken as part of the booty. The fall of the city was in the summer of 646 (about Shawwāl, A.H. 25). 'Amr had the walls razed to the ground to prevent it being used as a fortress in another rebellion of the same kind. 1)

### Nubia.

Nubia was never subdued in the early years of Islam. A raiding force sent there by 'Amr was forced to retreat after suffering casualties from the accurate marksmanship of the Nubian archers. Later, in the time of 'Uthmān, a treaty was concluded with the Nubians; under its terms the Nubians were to supply an annual quota of slaves in return for provisions and a robe of honour. This was obviously a treaty between equal parties and not a treaty imposed by a victor. 2)

1) Bal 221. 2) Bal 236 f.

North Africa.

This region can be dealt with very briefly since, with the single exception of the Pentapolis, none of it came under permanent Muslim rule in the period here under review. Soon after the first conquest of Alexandria, in the winter 642/643 (A.H.21), 'Amr mounted the first westward expedition from Egypt. The Pentapolis offered no serious resistance, Barqah immediately accepting the payment of tribute, and thenceforward the Pentapolis was permanently incorporated into the Islamic domains. 1) From Barqah 'Amr moved rapidly on Tripoli which was taken by assault and plundered, after a siege lasting several weeks. 2) From Tripoli he advanced with great swiftness on Sabratha (Arabic Sabrah) which he attacked in a surprise raid at dawn; the town was taken by force and looted. This was the end of the swift campaign and 'Amr returned, laden with booty and captives, paused at Barqah to accept the submission of a Berber tribe, and then re-entered Egypt. In the next two or three years raids from Barqah were led by 'Uqbah b. Nāfi, one reaching as far as the Fezzān. 3) A large raid was undertaken by 'Abdallah b. Sa'd when he was governor of Egypt, 4) starting out about the end of 647 (A.H.26). The Byzantine authority was in dissolution at this time and the Patriarch Gregory of Carthage had revolted. Carthage does not seem to have supported him and he based his rule on the Berbers, residing at Sufetula (Sbeitla).

1) Bal 224f; Fut. Misr 170f; J. Nik 578. 2) Bal 225f. 3) Bal 224.  
4) Bal 226f.

ʿAbdallah raided Tripoli without being able to take the town itself and detachments of his troops may have got as far as Ghadames. Gregory did not take the field against the Muslims but when ʿAbdallah got as far as the site of Qayrawān he turned aside to Sbeitla and annihilated Gregory's army, Gregory himself probably falling in the battle. There was no consolidation, however, because ʿAbdallah was persuaded to retire on the payment of a large sum of gold: the whole expedition took a little over a year.

The remainder of the conquest and pacification of Tripoli and Tunis (Arabic Ifriqiyah) belongs to the period following Muʿāwiyah's assumption of power as the first Umayyad Caliph. Many of the most brilliant raids were carried out by Uqbah b. Nāfiʿ, but the effect was small because Uqbah made no attempt to win over the Berbers and the Muslim authority was only effective when a raiding force was actually in the area. The final pacification of Tripoli and Tunis was not achieved until the days of ʿAbd al-Malik, and was carried out under the leadership of Hassān b. al-Nuʿmān, who did adopt the policy of winning over the Berbers. 1)

1) Becker 366-369.

CHAPTER V.MILITARY AFFAIRS.Service and mobilization

In Medina there was no standing levy of troops similar to the ahābīsh (sg. ahbūsh) in Mecca: these were perhaps 'mixed multitudes' or the remnants of a number of small tribes who had banded together and were available for military service, with some form of financial incentive.<sup>1)</sup> They formed a contingent of the Meccan armies in their battles with the Muslims and had their own leaders. 2) In Medina, on the other hand, although there was no organised military service, no able-bodied man was excused by Allah. 3) Leave of absence could only be given by Muhammad 4) as when he excused 'Uthmān because of the illness of his wife Ruqayyah, the Prophet's daughter. 5) Muhammad himself initiated the summoning of the Muslims and the call was sent out by messengers 6) and the subsequent mustering was supervised by Muhammad in an assembly place ordained by him. 7) There is no mention that substitutes could be sent in one's place as was the case in Mecca. 8) Later, at the time of the expedition to Tabūk, a register of tribal rolls was mentioned but this was purely for the purpose of ensuring that booty was fairly distributed and was not a register of those liable for service. 9)

- 1) Watt Mecca 11; 154-157. 2) IH 556; 557; 561; 582; 614; Tab 1. 1599; 1418; 1470; 1538 f; 1635; Waq 199. 3) IH 909.  
 4) IH 909; WW 392. 5) Waq 272. 6) IH 428; Waq 526; WW 34; 391.  
 7) Waq 14. 8) IH 460; Waq 25; 26; WW 169. 9) IH 908.

Under the first Caliphs the summons to war went out in writing, usually to the town dwellers of, for example, the Najd, the Hejāz and the Yaman. 1) The warriors then came into Medina as soon as they were able to make the journey since they travelled with their women, children and movable belongings. 2) The motives that induced men to go to war were 'booty and the love of Paradise'; 3) the assertion that in the time of Abū Bekr there was a military levy which, for example, obliged the province of Mecca to provide 500 men, and each district of Tā'if 20 men, 4) was probably an anachronism and applied to a later era. 5) There was certainly no conscription in the modern sense up to the time of Muhammad's death. 6) At a later date the tax officials (umarā' al-sadaqāt) became responsible for mobilisation but no accurate date can be given for the commencement of this system. 7) Participation in the conquests was not confined to Muslims or even to Arabs: there were Christian Arabs with al-Muthannā in Irāq, 8) and non-Arabs (ahl al-hamrā') were mentioned at Qādisiyah. 9) There were also Persians fighting with the Arabs, 10) and in Hulwān there was a force composed of Arabs and non-Arabs combined (min al-afnā' wa min al-hamrā') which, if the tradition is reliable, was the first mixed army in the conquests. 11)

- 1) Tab 1. 2084,6ff; 2160,1f; 2082,2; 2085,10; Bal 107,13ff.  
 2) Tab 1. 2218,5.3) Bal 253,5.4) Tab 1. 1988,13. 5) Well. VI 63; 80.  
 6) Bal 63ff. 7) Tab 1. 2082,5.8) Tab 1. 2190,1ff; Bal 251.  
 9) Tab 1. 2261,4ff. 10) Tab 1. 2340,14ff. 11) Tab 1. 2463; 2473.

Also it is not certain that a leader such as al-Muthanna had accepted Islam at the time of his early raids in 'Irāq, and 'Umar permitted tribes who had taken part in the 'Riddah' to raid on behalf of Islam. 1)

In any army the warriors were known as the ahl al-quwah, 2) as distinct from the women, children, weak, aged and ill who were called collectively du'afā'. 3)

#### The provision of arms.

A warrior had to obtain his personal arms but assistance was given on occasions. Thus at Hunayn some of the weapons were provided by Muhammad, 4) and on another occasion weapons were bought from the treasure of the idol Rabbah. 5) Special care was taken in preparing for the expedition to Tabūk and the provision of arms for the warriors was called for by Muhammad as a voluntary offering: 'Umar, Abū Bekr etc. made contributions and even the women gave jewellery. 6) Of first importance was the provision of good mounts. 7) Every new victory brought fresh amounts of booty 8) but clothing, arms and mounts were always in short supply and it was frequently stipulated in the terms of peace treaties that the Muslims be provided with a set quantity of such items. 9) Weapons were also obtained as personal spoils on the battle-field; 10) arrows were gathered up and re-used. 11)

1) Tab 1. 2120; 2165. 2) Tab 1. 1880; 1988; 2121. 3) Tab 1. 2121.  
 4) IH 842. 5) WW 385. 6) WW 391. 7) WW 392.  
 8) Waq 96f; 184; 196f; 374; 420; Bal 453; Tab 1. 1359; 1674.  
 9) Bal 18; 20; 23; 60; 61; 64. 10) Waq 80; 95. 11) WW 307.

Weapons; Clothing; Siege Weapons; Equipment; Tools and Tackle.

Weapons.

In this section use has been made of Schwarzlose's work (see list of sources) which is a detailed survey of the arms used in Arabia, compiled from researches into pre-Islamic poetry. The scope of the present work, however, limits reference to those terms which are commonly used in the Arab sources.

The basic weapons of the infantry, the great majority of the army in the early years of the conquests, were:

The bow - qaws pl. aqwās. 1)

Arrows - nabl (coll.); sahm pl. siham, ashūm, suhūm; mushshāb pl. nashāshīb; qidh pl. aqdāh, aqduh, aqādīh. 2)

Nushshāb was usually used for the arrows of enemy troops; the qidh was a blunt arrow used for divination.

The quiver - kinānah or ja<sup>ʿ</sup>bah. 3)

A quiver was mentioned which contained 50 arrows. 4)

Archery was the only long range weapon in early Islam and seems to have been fairly effective, especially against cavalry. 5) Sa<sup>ʿ</sup>d b.

Abī-Waqqās was a noted marksman and at Uhud he killed a man who was protected by a rock, only his head being exposed. The arrow struck

him in the eye. 6) The bow, like other weapons of the period, was liable to break in combat, and at Uhud Muhammad's bow broke near the tip and was of no further use. 7)

- 1) Tab 1. 2356; Bal 260; Waq 222; 239; WW 53; 93; 116; 110; Fut Lees I, 3; Schwarz 274 ff. 2) Tab 1. 1409; 2178; 2236; Bal 173; 221; 237; Waq 52; 223; Schwarz 316 f. 3) Waq 222; WW 33; 116; Fut Lees I, 5; Schwarz 316 f. 4) Waq 240. 5) Waq 223. 6) Waq 239. 7) Waq 239.

That Muhammad and his Companions used the bow indicates that it was not considered beneath the dignity of a leader to do so, as would have been the case in the later Middle Ages. The enemies of the Muslims also used the bow, the Nubians being particularly accurate and deadly. 1) At Qādisīyah the Persians mocked the Arabs' arrows, calling them spindles (dūk), but the Arabs claimed that whereas the Persian arrows merely clung to the outside of their clothing, their own arrows penetrated armour and cuirasses. 2)

The sword - sayf pl. suyūf. 3)

The sword was the weapon used by both cavalry and infantry for personal defence; swords often became blunt or bent during combat and rendered useless. 4) At Yamāmah the Hanīfah had Indian swords which they held unsheathed in the sun to make them more flexible. 5) Famous swords were known by name. 6)

The shield - turs pl. atrās, turūs; hajafah pl. hajaf; darqah. 7)

The hajafah and the darqah were shields of plain leather without reinforcement.

Other weapons included the spear and the lance, the latter essentially a cavalry weapon; it was sometimes used as a symbol of office. 8) The helmet and armour were marks of prestige and authority but the wearing of armour was comparatively rare. The dagger was used for personal defence and in close combat.

1) Bal 257. 2) Bal 260. 3) Bal 258; Tab 1. 2350; 2425; Waq 62; 79; 98; 99; WW 97; 109. 4) Bal 254; Waq 79. 5) Bal 88. 6) Bal 120. 7) Bal 221; Tab 1. 1408; Waq 62; 86; 216; WW 116; 314; Fut Lees I, 37; Schwarz 351 ff. 8) Tab 1. 1660.

Stone-throwing was effectively used, especially in defence. Only a single mention has been found of the battle-axe and it is felt that this may be an anachronism for the early period.

The lance - rimh pl. rimāh. 1) Muhammad's lance had a head (zujj) made of brass. 2) There were Indian lances with shafts of bamboo, the qanāh pl. qunīyy, qanawāt, qanayāt. 3) Lances also broke during combat. 4) The spear - ʿanazah, harbah. 5) Muhammad used his spear (harbah) as a throwing weapon. 6)

The helmet - mighfar pl. maghāfir, a leather helmet like a cap, baydah, a metal helmet. 7)

Armour - dir 8)

Stones - 9)

Battle-axe - tabrazayn pl. -at. 10)

### Dress

There is little information in the sources about dress and a standard uniform was unknown. 11) Stockings were not worn but an under-garment and an over-garment (al-thawbāni) were obligatory to all Muslims. 12) Supply of clothing was stipulated in the terms of peace treaties. 13)

1) Bal 99; 264; Tab 1. 2262; 2423; WW 58; 93; Fut Lees II, 170.

2) Waq 214. 3) Tab 1. 2313; Waq 250; Fut Lees I, 54. 4) Tab 1. 2423; Waq 229. 5) Waq 80; WW 154 note 2; IH 565. 6) Waq 247; see Schwarz 210-245 for the lance and spear.

7) Tab 1. 1406; Waq 224; 241; 247; 248; IH 574; WW 113; 123; Fut Lees I, 3; Schwarz 349-351. 8) Tab 1. 1389; 2428; Bal 64; 518; Waq 33; 61; 202; 217; IH 679; Fut Lees I, 3. 9) Tab 1. 2197; WW 105; 192; 274. 10) Tab 1. 2462. 11) Fries 27 f; 29.

12) WW 264, note 3; 339. 13) Bal 215; Fut Misr 60.

### Siege Weapons.

There was no production of heavy weapons in Arabia but captured machines were used in the siege of Tā'if, without much effect. 1)

These machines included:-

The manjanīq pl. majānīq, majānīq - a mangonel or catapult. 2)

The arrādāh - similar to but smaller than the manjanīq. 3)

The dabbābah - a protective screen for advancing up to the walls under missile fire. 4)

The ḍabr pl. dubūr - similar to the dabbābah. 5)

Ladders and horse-ropes (wahq pl. awhāq) were used in an attempt to scale the walls of Damascus. 6)

In the early conquests attempts to take beleaguered fortresses by storm were nearly always unsuccessful 7) and only in Umayyad times was a regular artillery instituted. 8)

### Equipment, Tools, and Tackle.

There is no mention in the sources of baggage trains being used in the early conquests, the first mention being in Umayyad times. 9)

Troops operating far away from their home territory must, however, have carried a good deal of baggage with them, especially if they had been successful in obtaining booty; in 'Irāq Khālīd b. al-Walīd used

1) Bal 55; WW 370. 2) Bal 200; 389; Tab 1. 1669; 2427.

3) Tab 1. 2427; Bal 221. 4) Tab 1. 1669; 2427. 5) Tab 1. 1669.

6) Tab 1. 2152. 7) Bal 140f; 380; 389; Tab 1. 2396f; 2553; 2556.

8) Fries 45; 55f; see Schwarz. 319-322 for siege machines.

9) Fries 46.

boats to transport his infantry, baggage and booty and this suggests that the quantity of equipment may have been considerable. 1) Baggage is sometimes referred to, although not with the meaning of an organised pack-train. 2)

Tents were made from hides (khaymah pl. khiyām), from cloth woven from animal hair (fustāt pl. fasātīt), and from tree branches, (branches - qidāb). 3) Temporary shelters which could be dismantled and re-erected were constructed from reeds. 4)

According to al-Balādhūri complete sewing kits were carried by every man who went raiding with Kathīr b. Shihāb when he was governor of Ray and Dastaba; 5) in the early days, however, a man would prefer to exchange a torn shirt with a fresh one from the booty rather than mend the old one. 6)

In early Islam martial music was supplied by the women, who used drums and tambourines (duff pl. dufūf) to spur on the warriors in battle. 7)

1) Tab 1. 2038. 2) Tab 1. 2619; 2829; Fut Lees I, 89.

3) Bal 341; WW 47; 49; 53; IH 439f. 4) Bal 346f. 5) Bal 318.

6) Tab 1. 2695. 7) Waq 207; WW 44; 103; 109f.

Consideration of the numerical strengths of the armies.

Special, often magical, attributes are given by Orientals to numbers, the numbers 7 and 11, for example, having good and bad influence respectively. The number 4 (and its multiples) is lucky: the best expeditions are of 400 men, the best armies of 4,000, the safest tribe or people numbers 12,000. The number 4 and its multiples, therefore, often appears in the traditions. 1)

There follows an analysis of the numbers involved in the principal battles, as recorded in various sources.

The early battles: (M - men, H - horses, C - camels)

<u>Battle</u>	<u>Muslims</u>	<u>Meccans</u>
Badr	313 M 70 C (2)	950 M 700 C 100 H
Uhud (3)	700 M (4) (70 dead by name)	3000 M 3000 C 200 H (22 dead by name) (5)
The Ditch (6)	3000 M (6 dead by name) (7)	10,000 M (3 dead by name) (7)
Mecca (8)	10,000 M	
Hunayn (9)	12,000 M	
Tabūk (10)	30,000 M 12/15,000 C 10,000 H	

1) Beckmann 47. 2) Tab 1. 1296. 3) Tab 1. 1389; IH 561; 607 ff.  
 4) IH 607 ff; WW 138. 5) IH 610; WW 202. 6) IH 673. 7) IH 699.  
 8) IH 810; with strengths of individual tribes.  
 9) WW 355 f. 10) WW 395; 408.

Ajnādāyn 1)

<u>Source</u>	<u>Arabs</u>	<u>Greeks</u>
*al-Istī'āb 529 ff	36,000	70/320,000 (3000 dead)
*Dhahabi, Paris I, fol 118, r	20,000	
Bal 113		100,000
Fut Lees I, 71-129	47,500 (2) (475 dead) (4)	90,000 (3) (50,000 dead)

The Yarmūk 5)

*Asākīr fol 57, v.		80,000
*Asākīr, Cod. Damascus.		200,000
Ishāq in Tab 1. 2347	24,000	100,000 (12,000 Armenians)
Bal 135 f.	24,000	200,000
*Ibn al-Kalbi in Dhahabi, Paris, I, 126.		300,000
*Sa'īd b. al-'Azīz as above	24,000	120,000
Sayf b. 'Umar in Tab 1. 2089	27,000 plus 9000 under Khālīd	240,000
Losses	3000 (6)	70,000 (7) over 2000 (8)

- 1) Ca 13, 36-65. 2) Fut Lees I, 71; this number refers to the strength of the armies which left Arabia for Syria. 3) Fut Lees I, 127.  
4) Fut Lees I, 128. 5) Ca 15, 46-116. \* 6) al-Dawlabi in Furat, fol 64, v. 7) Tab 1. 2349. 8) Sebeos 98.

\* Sources marked with an asterisk are cited by Caetani but have not been verified.

Caetani (13,36ff see also 13,28 and 12,322 note 5) after referring to the insoluble confusion of the sources, both for Ajnādayn and the Yarmūk, estimates the Arab numbers at Ajnādayn at 9,000. He concedes that the Greeks may have been more numerous but insists that the numbers on both sides must have been quite small. For the Yarmūk, the agreement in the sources for the figure of 24,000 for the Arab strength is interesting, and it is probable, since the Arabs had been considerably reinforced since the first invasions, that this figure is approximately correct. The number for the Greeks can be taken as meaning "a vastly superior enemy", but the actual ratio was probably not more than two to one, i.e. 25,000 to 50,000 but the Greek force may have been even smaller. Belisarius had an army of 15,000 against the Vandals and 10,000 against the Ostrogoths, while Justinian never had more than 150,000 men under arms on all fronts. 1) Yet Justinian's military expenditure, with other extravagances, strained the national exchequer to the limit. By the end of the 6th century the whole tenor of Byzantine teaching was towards the husbanding of meagre manpower resources. 2) As the author of the Strategikon says; "In particular one should avoid pitched battles which decide irrevocably the fate of armies and peoples. Instead one should resort to cleverness, ingenuity and surprises, stratagems and ruses." 3) At this time a large Byzantine army exceeded 15,000 men with a maximum size of 20,000 infantry and 24,000 cavalry. 4)

1) Brehier 341. 2) Strat. 98ff. 3) Strat. 102. 4) Strat. 37.

It seems unlikely, therefore, that Heraclius, in the aftermath of the exhausting war with Persia, could have assembled an army more than 50,000 strong. The proportion of trained veterans was probably small, and the rest of the army would be composed of raw levies and unreliable Arab auxiliaries.

Qādisīyah 1)

<u>Source</u>	<u>Arabs</u>	<u>Persians</u>
Tab 1. 2356	6-7,000	
*Yusuf 16,19f	7-8,000	
*Ibn Khaldūn Prol. 1,525	over 50,000	120,000
Tab 1. 2351		60,000 plus slaves
Bal 255f	9-10,000	120,000 and 30 elephants
Tab 1. 2356ff	7,000	30,000 and elephants
*Mas'ūdi IV, 207, 24	38,000	60,000
Tab 1. (Sayf) 2250	30,000	120,000

Caetani (16, 127-129) estimates the numbers at 5-6,000 and 15,000 Persians.

In general numbers are always exaggerated in the sources to glorify victory and excuse defeat. With little more to expect from new material except perhaps research into population figures (see Caetani 13, 28 and note 2.) no exact result can be obtained. The number of men with

1) Ca 16, 3-117.

\* Sources marked with an asterisk cited by Caetani but not verified.

their families able to move out of Arabia at a given time, especially in summer, would be limited by the amount of grazing and well-water available. At the outset the total number of men in the field in each theatre probably did not exceed 10,000, rising in Syria to about 20,000 at the Yarmūk, with less than half that number at Qādisīyah. By the end of the first surge forward, about 640, as reinforcements exceeded the losses, the numbers in each region may have risen to 30,000. Not until 650 were the numbers sufficient to form the equivalent of a modern Army Corps. 1)

1) Beckmann 47-53; Well. VI, 76f.

### Troop Formations

No coherent picture is given by the sources of the battle formations in early Islam. The sociological structure of tribal relationships, both hostile and friendly, began to be split vertically with the rise of Muhammad. Al-Wāqidi gives lists of participants at Badr, whence it is apparent that almost all the families of Quraysh had members in both camps. 1) There are other cases of friends and relatives being divided by Islam. 2) Nevertheless the clans remained largely undisturbed for a time. At Badr the Emigrants and Helpers fought side by side for the first time 3) and, although in Medina the division between the Aws and the Khazraj continued, at Uhud they were regarded as distinct from the Anṣār, who were Medinese who actively supported Muhammad. 4)

Two battle formations were employed in early Islam - tribal and numerical. There are many allusions to tribal units, with the leader named. 5) Tribal affiliations were not destroyed or merged into a single loyalty to Islam, as is shown by the fact that, after the founding of Kūfah and Basrah, a man who had become detached from his tribe was able to rejoin it in one of those towns. 6)

The numerical unit, of ten men, was known as the ʿarāfah, or simply as the ʿasharah; 7) Saʿd b. Abī Waqqās wrote to the Caliph from Sharāf in ʿIrāq, and was ordered by ʿUmar in an answering letter to adopt the 'ten' formation. 8)

- 1) Waq 133 ff; 151 ff; 157. 2) Waq 106; 225. 3) Waq 141; 157.  
 4) Waq 276 f. 5) Tab 1. 1930; 2167; 2188; 2224. 6) Tab 1. 2487.  
 7) Tab 1. 2223; 2225; 2227; 2305; 2531; 2490; 2495. 8) Tab 1. 2223.

Sayf b. 'Umar, quoted by Tabari, asserts that the 'arāfah system was in existence in the lifetime of Muhammad and that it was used for the allocation of pensions ('atā'), 1) but it is unlikely that it was in use so early and there is no mention of it in al-Wāqidi or Ibn Hishām. An 'arāfah was the equivalent of the Section in a modern army and it is therefore perhaps a little strange that individual section leaders ('arīf') should be mentioned by name. 2) A "century" is also mentioned in Tabari 3) but it is unlikely that such a tight formation would have been tolerated at the time of the early conquests; even the 'arāfah, though nominally of ten men, could vary in strength and could include women and children. 4) There is no evidence to show that the 'arāfah system deliberately ignored tribal affiliations.

#### Command

According to Sayf b. 'Umar the following chain of command was operative in the early conquests in Irāq:- 5)

1. Amīr
2. Umarā' al-ta'biyāt
3. Umarā' al-a'shār
4. Ashāb al-rayāt
5. Al-quwwād
6. Ru'ūs al-qabā'il

1) Tab 1. 2224. 2) Tab 1. 2225; 2583. 3) Tab 1. 2327; 2328.  
4) Tab 1. 2496. 5) Tab 1. 2225.

Caetani, however, thinks that this is a mixture of ancient organisations with those in being at the time of Sayf, the second century of the Hijrah. 1)

The ra'as al-qabilah was by far the most ancient of these ranks and was in existence long before Islam. His tribe was his regiment and no Caliph would dare to try and depose him and substitute another in his place. Examples of such leaders are: al-Muthanna of the Bakr b. Wa'il, or rather the Shaybani clan of that tribe; Jarir of the Bajilah; al-Ash'ath of the Kindah. 2) When Umar joined a band of the Bajilah to a band of the Banu Amir he put Arfajah b. Harthamah in overall command, but Jarir complained that he had put a stranger over them. Umar reinstated Jarir and sent Arfajah back to Basrah; he had mistakenly assumed that Arfajah was of the Bajilah, whereas he was in fact a client. 3) Before troops set out on expeditions such tribal leaders were confirmed in their commands by the Caliph when they marched past him in review in Medina; 4) there were two leaders of the Banu Dubbah because of its size. 5) Difficulties arose when two tribal leaders were acting together as, for example, in Iraq when Jarir refused to take orders from al-Muthanna because he was his equal. Umar supported Jarir and eventually sent Sa'd b. Abi-Waqqas as supreme commander. 6)

1) Ca 14, 59, note 3. 2) Well VI, 78f. 3) Tab 1. 2200; 2201.

4) Tab 1. 1930; 2188. 5) Tab 1. 2189 6) Tab 1. 2202. see also

Bal 198f for a similar dispute between Habib b. Maslamah and Salman b. Rabi'ah in Armenia.

This dispute and the action taken by Umar is an example of the gradual development of a High Command, although the Caliph and his deputed general had no real basis of power over the tribes and could only exercise control by persuasion and by strength of personality. They were sometimes disobeyed, as when parts of Sa'd's army at Qādisiyah attacked before he gave the order. 1) No exact chain of command developed in the early conquests.

Up to Umayyad times the term amīr had no meaning of "rank" in the modern sense. Umara' al-ta'biyat meant leaders of tactical formations and could coincide with tribal leaders when, for example, such a leader led his men in vanguard, wings, rearguard, etc. 2) The meaning of the term umara' al-shar is not clear from the sources - it is rarely used in Tabari. 3) The name qa'id pl. quwwad is held by Wellhausen 4) to have been the official name for the Khurasanian officers of the Abbasids. The term sahib al-rayat is found only in the traditions of Sayf, quoted by Tabari. The conferment of the standard meant confirmation of command and also appointment as governor of a province. 5) At the Battle of the Bridge the command-in-chief and the bearing of the flag were synonymous, 6) but afterwards this practice was less often mentioned; perhaps with increasing responsibility the leader no longer actually carried the standard. 7)

1) Tab 1. 2330. 2) Bal 264; Tab 1. 2166; 2225; 2474. 3) Tab 1. 2225; see Ca 14, 59. 4) Well. VI, 65; see also Ca 15, 72. 5) Well. VI, 102, note 1. 6) Bal 251f. 7) Beckmann 60.

Tactics

The ideal battle formation to the Arabs and their opponents was the ta'biyah, 1) which was adopted on the march as well as before battle. 2) In its complete form, which was not always attained, the ta'biyah consisted of vanguard, muqaddimah, 3) the wings, mujannabatān, 4) divided into right wing, maymanah, 5) and left wing, maysarah, 6) the centre, qalb, 7) and the rearguard, sāqah. 8)

The various arms of the formation were also sometimes mentioned by name, especially cavalry, khayl, 9) mujarradah, 10) rikbān, 11) and infantry, rijl or rijālah. 12) Archers, murāmiyah, 13) and scouts, talā'i, were also occasionally referred to, 14) as was the reserve, rid', 15) and baggage, athqāl. 16)

There was nearly always a vanguard and two wings in the formation but less often a rearguard and centre, while the talā'i were usually separate detachments. 17) Baggage and reserve can also be considered as separate detachments in the rear of the actual field of battle. It is not clear in the sources whether cavalry, infantry and bowmen are additions to the ta'biyah formation or are to be identified with one of its five basic divisions.

- 1) Tab 1. 2092 f; 2265 f; 2305; 2225; 2474 ff; 2398; 2503; Fut Lees II, 168 f. 2) Tab 1. 2537; 2618. 3) Tab 1. 2224; 2265 f; 2305; 2398; 2474; 2618. 4) Tab 1. 2224; 2305; 2618. 5) Tab 1. 2166; 2358; 2474; 2503. 6) Tab 1. 2166; 2358; 2474; 2503.  
7) Tab 1. 2329; 2503. 8) Tab 1. 2225; 2305. 9) Tab 1. 2474; Ya'q II, 159. 10) Tab 1. 2185; 2224; 2621. 11) Tab 1. 2224.  
12) Tab 1. 2224; 2330; Bal 380 f; Fut Lees II, 169; 191; Ya'q II, 159.  
13) Tab 1. 2266. 14) Tab 1. 2185; 2191; 2224; 2266. 15) Tab 1. 2301.  
16) Tab 1. 2619; 2829. 17) See Ch. VI.

These divisions - vanguard, two wings, centre and rearguard - are the ancient oriental battle order; the same Arabic terms are used in the traditions to describe Greek and Persian battle groupings. 1) For battle-readiness the troops were drawn up in ranks (saff pl. sufūf), a practice already established in the lifetime of the Prophet. 2) At Badr Muhammad took great pains to make sure that the ranks were straight and presented a solid front to the enemy, supervising the assembly himself. 3) According to Sayf, the ranks of the Muslims at Qādisiyyah were thirteen deep and included infantry, archers and cavalry 4) but again it is impossible to determine from the description the position in the formation of the individual arms. Before the battle the troops were harangued to incite their valour, such speeches, full of pious exhortations, being frequently quoted. 5) Alternatively the Sūrah 'Booty' was read to the soldiers 6) and the ranks prayed in turn. 7) Single combats were very frequent, taking place either before the battle or while it was in progress, and there are many full descriptions of such encounters. 8) At Khaybar duels took place before the walls of the forts when the Jews made sorties. 9) The single combats were not to be started before the third battle-cry (takbīr). 10)

- 1) Tab 1. 2034; 2088; 2266. 2) Waq 82; 87; 219; 222; 256; WW 176; 292.  
 3) Waq 52. 4) Tab 1. 2329 f; see also Waq 52 f; 222; IH 444.  
 5) Tab 1. 2219 ff; 2289; 2331; 2597; Fut Lees II, 191 ff.  
 6) Tab 1. 2294 f. 7) IH 662. 8) Tab 1. 2033; 2101; 2296; 2306;  
 2422; 2638 f; 2687; Waq 65; 87; 223; 250; WW 365; IH 443; 567 f.  
 9) WW 272; IH 761. 10) Tab 1. 2294 f.

Caetani thinks that the conception of dense, well-ordered ranks opposing each other is erroneous and that a typical battle in early Islam would develop into a number of loose mêlées and single combats and that the battle would thus be fragmented over a wide area. 1) This does not accord with the sources, all of whom give similar descriptions of the drawing-up of the sufuf (see above). If the Muslims had broken their ranks in this manner in the early battles they could have been destroyed piecemeal by the numerically superior cavalry forces of their enemies. 2) In ancient and medieval times battles were invariably fought in tight ranks. 3)

The moment of starting battle was sometimes chosen with regard to religious considerations and weather conditions. 4) The signal to commence the battle was given by the battle-cry or takbir; the first cry signified 'tighten sandal-straps and see to your personal needs', the second 'secure your clothing and make ready', the third 'attack'. 5) These signals were sometimes given by shaking the battle-standard. 6) Usually the two sides faced each other in straight parallel lines 7) so that the right wing of one army was opposite the left wing of the other. 8) In the early days at least, the Muslim standard bearer stood in the van. 9)

1) Ca Vol. II, 285. 2) IH 561; Tab 1. 1396; Waq 250. 3) Beckmann 71.

4) Bal 305; Tab 1. 2622. 5) Tab 1. 2598. 6) Tab 1. 2605.

7) Waq 219; 222; 256. 8) WW 50; 108; 176; 271. 9) Waq 220; WW 274; 311.

Battles usually began in the morning, 1) and according to al-Wāqidi the first phase consisted of archery and stone-throwing, 2) although Sayf says that at Qādisiyah the cavalry started the fighting each day. 3) At the Yarmūk the cavalry appears to have acted as a harassment to the advancing Greeks while the ranks of the Muslim infantry were being aligned. 4) The battle was thus divided into three parts: missile discharge; cavalry charges; hand-to-hand fighting. 5)

Battle-cries were used to strengthen the courage of one's own side, to strike fear into the enemy, or as an identification in the heat of combat or in darkness. 6) If the issue of the contest was not decided by the end of the day the contestants usually retired to camp for the night. 7) At Badr, however, the Muslims remained in their ranks on the night before the battle, 8) and at Qādisiyah they remained on the battle-field all night. 9) The battle was regarded as won when the enemy was defeated or dispersed, the battle-field in possession of the victor, and the enemy camp open to plunder. 10) A reversal of fortune such as that which occurred at Uhud, when the Meccan cavalry under Khālid broke through and routed the Muslims after they seemed already to have won the day, would have been a considerable blow to Muslim prestige. 11)

Several anecdotes reveal that medieval standards of chivalry were in force, although harsher conduct might often be used in the heat of the battle or its immediate aftermath.

1) Bal 303; IH 757. 2) WW 163; 176; 199; 200; 212. 3) Tab 1. 2309.  
 4) Fut Lees II, 190. 5) Tab 1. 2319; Fut Lees II, 170f. 6) Bal 259f;  
 Tab 1. 1947; 2327; 2332; 7) Fries 76. 8) Waq 82. 9) Tab 1. 2335f.  
 10) Beckmann 74. 11) Waq 227f; 229f.

Thus Muhammad, before the battle of Badr, offered to allow the Meccans to withdraw, and permitted some Meccans to drink at the well occupied by the Muslims. 1) After Uḥud Umar and Abū Sufyān made a compact to meet the following year at Badr; 2) commanders urged their troops to refrain from treachery and from killing women and children. 3) In Irāq, when the river divided the two sides, the Muslims asked the Persians "will you cross over to us or shall we cross over to you?" 4)

The influence of the leader cannot be estimated in general terms because his personal qualities, such as courage, sagacity and foresight were all-important, and his men followed his example rather than his commands. He was the standard bearer and the flag was the holy symbol, not of his own rank, but of the tribe or cause which it represented. Thus the loss of the standard was equivalent to defeat and if the leader was killed it was handed on to another. 5) The flag was the rallying point for the troops and had to be defended at all costs; great bravery was shown by standard bearers in fulfilling their duty. 6) Nevertheless there were occasions when a standard bearer deserted his post. 7) The place of the commander was in the centre of the ta'biyah, as was also the case in later years; 8) at Qādisīyah Sa'd used the high turret of the castle of Udayb as a command post and encouraged the tribes therefrom by name; 9) in Syria Abū Ubaydah's position was at the centre (galb) of the army. 10)

1) Waq 56; IH 440. 2) IH 585; 666. 3) WW 236 f; Fut Lees I, 7.

4) Tab 1. 2185; 2387 f. 5) Tab 1. 2625; Waq 236 f.

6) Waq 225; 236. 7) WW 312. 8) Fries 76. 9) Tab 1. 2355.

10) Tab 1. 2503; Fut Lees II, 191.

In 'Irāq the Arabs had to deal with a new menace - the elephants which were with the Persians at the battle of the Bridge 1) and at the battle of Qādisiyah. 2) The elephants were provided with a 'howdah' (tābūt pl. tawābit) which was secured around their bodies by a girth (wadīn pl. wudun); 3) each howdah was capable of carrying 20 men and the elephant was guarded by a band of riders and infantry, the whole array forming a kind of mixed battle-group. 4) The vulnerable points of the animal were said to be the eyes and the trunk 5) and they were attacked by warriors in pairs, one of whom attacked the eyes with a spear while the other went for the trunk or the howdah girth. 6)

- 1) Tab 1. 2174; Bal 251 f. 2) Tab 1. 2266 ff; 2298. 3) Tab 1. 2501.  
 4) Tab 1. 2320; 2324; 2298; Sebeos 22. 5) Tab 1. 2325.  
 6) Tab 1. 2301; 2325; 2326.

Static Warfare and Defence.

From the earliest days of Islam the Muslims had to contend with fortresses barred against them by the hostile inhabitants; thus in the lifetime of the Prophet the Jews in Khaybar 1) and the city of Tā'if 2) had been besieged but, as in later times, the sieges were quite ineffective in carrying these places by assault. Unless a siege was given up as hopeless, only treachery among the defenders gave victory to the besiegers. 3) Towns were very rarely taken by assault. 4) A siege was not conducted under modern conditions since the besiegers fought by day and retired to the safety of their own encampments at night; 5) battles at night were an exception. 6) Although the besiegers attempted to cut off supplies this was seldom achieved, even by day, and it is doubtful if numbers were sufficient to accomplish this. 7) At Tā'if sharpened stakes (hasak min idān) were used in an attempt to cut off the town but this was unsuccessful. 8) (The Persians also used stakes of wood or iron - hasak min al-khashab or min al-hadīd - as a defence in open warfare). 9) This ineffectiveness was not confined to the Arabs, since both the Greeks and the Persians were more successful in defending fortresses than in attacking them. By the 7th century, in siege warfare, the defence was stronger than the attack. 10) How little the technique of siege warfare was understood is shown by an incident at Khaybar: a siege machine was captured through treachery 11) yet it was fourteen days before it occurred to Muḥammad to use it. 12)

- 1) Bal 23; WW 265f. 2) IH 869ff. 3) Bal 199; 313; WW 267; Fut Miṣr 80.  
 4) Tab 1. 2151ff; 2427f; 2475ff. 5) Bal 127; WW 271f; 369; Seb 100.  
 6) Bal 101; 198; 248; Tab 1. 2156ff. 7) Tab 1. 2147ff. 8) WW 370.  
 9) Tab 1. 2458; 2597; 2603; 2604. 10) Bal 127; WW 267; Seb 57; 65;  
 Fut Miṣr 79f; Strat 106f. 11) WW 269. 12) WW 277.

Even in the nineteenth century Doughty wrote: 'In Taymā' mud walls were sufficient protection - no-one had the ingenuity to use powder, or a palm trunk as a battering-ram.' 1)

During the seven year siege of Caesarea the city was assaulted for many months with a battery of 72 siege machines. 2) Ladders were used to scale the walls of beleaguered cities and fortresses such as Babylon in Egypt, where al-Zubayr reached the battlements but was unable to enter the fortress because his advance was cut off by cross-walls built across the ramparts. 3) More effective in gaining access to fortresses was entry by stealth, especially when some unguarded entry was revealed to the besiegers by a traitor. 4) Access was gained through water-courses (sarab pl. aṣrāb), breaches (naqb pl. anqāb), and through underground galleries (dhayl pl. dhuyūl) . 5) Sorties were sometimes made by the defenders. 6)

That the Arabs themselves understood the advantage enjoyed by the defenders over the attackers in siege warfare is indicated by the reluctance of the Medinese to leave the town to fight a pitched battle in the open. (Uhud.) 7) Muḥammad was advised to let the Meccans enter the town, where the superior local knowledge of the inhabitants would act to their advantage. The plan of the town assisted defence; the gaps between the houses being walled up, the men could defend themselves in the streets while the women and children assisted by throwing stones from the roofs. 8)

1) Doughty I, 329. 2) Mich Syr II, 430 f. 3) Bal 213; see Butler 270 f. 4) Bal 380; Tab 1. 2554 f. 5) Bal 141 f; Tab 1. 2554 f; WW 276. 6) Bal 84; Sebeos 65. 7) Waq 209 f; IH 558. 8) Waq 209 f.

Muhammad inclined to this view but was prevailed upon to go out by the younger men whose reasons were: remembrance of Badr; fear of being taunted with cowardice; desire for martyrdom and Paradise; the damage being inflicted on the crops by the Meccans and the fear that the Meccans would spoil the wells. 1) When next the Meccans attacked Medina in the battle of the Ditch the Muslims remained on the defensive with the ditch guarding their exposed flanks. 2) The ditch was more effective for its novelty, however, than because of the physical barrier - the Meccans called it unworthy of Arab warriors to employ such a device. 3) Later ditches came to be used as a normal means of defence. 4) Impediments like the garden walls at 'Aqrabā (Yamāmah) were also used for defence 5) and natural features such as mountain passes were used for refuge 6) as well as for ambush. 7) The Meccans also dug ditches as traps and Muhammad himself fell into one of these at Uhud. 8) At the approach of an enemy the women and children were brought into the town 9) and before Uhud the Medinese also took in the camels and farm tools. 10) Many towns had places of refuge near the town (uṭum pl. atām) which were kept in repair and provisioned for up to two years; women, children and the old could take refuge therein when an enemy was at hand. 11) The small number of references to defence points to an improvised, primitive battlecraft in this branch of military knowledge; only the Thaqif in Tā'if had any experience or skill in the art. 12)

1) Waq 210ff. 2) WW 192; 199; Hamidullah 8-10. 3) WW 201.

4) Tab 1: 245f; Fries 38f. 5) Tab 1. 1940; 1945; 1948. 6) Tab 1. 2464.

IH 576; 852f. 7) IH 844; WW 358; Fut Lees II, 152. 8) Waq 241;

IH 572. 9) WW 355. 10) Waq 207. 11) Waq 281f; IH 577; 674; 678.

12) Beckmann 83.

Deception.

The Arabs were masters of the art of using deceit in warfare. One of the objectives of deception was to keep the enemy in ignorance of one's true strength, e.g. by interchanging troops or by keeping part of one's force concealed in the rear. 1) At Āyn Shams Āmr placed one part of his army facing the advancing enemy and two other groups concealed on the flanks; these attacked from ambush and the Greeks were trapped between the three forces. 2) When Khālīd b. al-Walīd was in Basrah with Suwayd b. Quṭbah he was told by Suwayd that the Persians were being deterred from attacking by the presence of Khālīd and his men; Khālīd therefore led his men out of the camp during the day and returned by night. 3) In the pursuit after Uhud Muhammad ordered many camp fires to be lit in order to deceive the Meccans as to his true strength, and a friendly tribesman also helped by exaggerating the Muslim numbers to Abū Sufyān. 4)

Women were used in various ways to simulate fighting men: the Hawāzin put women on camels in the third rank of their battle formation, 5) and at al-Yamāmah, after the battle, women were stationed on the battlements of the forts to make Khālīd believe that they were well garrisoned. 6) In Irāq, when al-Mughīrah was fighting the Persians across the Tigris, the women, apparently on their own initiative, tied their shawls to poles to resemble banners and approached the battle-field; the enemy thought that they were reinforcements and fled. 7)

1) Tab 1. 2318; WW 312; 325. 2) Fut Miṣr 59; J. Nik 557. 3) BaI 241.  
 4) Waq 329. 5) WW 358. 6) Tab 1. 1951; Ya 'q II, 146f.  
 7) Tab 1. 2386f.

Ruses were sometimes effective in siege warfare, as when Abū 'Ubaydah at the siege of Latakia had ditches dug deep enough to conceal mounted men, who emerged and fell upon the inhabitants when they drove their beasts out to pasture in the morning. 1) To gain admittance to a town a man put on a blood-stained Persian garment and posed as a fugitive; after he was admitted he opened the gates to the Muslims. 2) On the battlefield the ancient ruse of the feigned flight was used with success. 3) At Nihāwand the Persians were provoked to leave their entrenched positions by the Muslim cavalry, who assailed them with arrows and then retreated in stages, gradually drawing the Persians towards the main body of the Muslim army. 4)

The Arab woman in battle.

In the Prophet's lifetime women, with his permission, took part in the campaigns, where they performed functions that in a modern army would be performed by a number of separate, specialised units. 5) They encouraged the men with songs and with beating drums and tambourines; 6) they brought food and drink and tended the wounded; 7) they repaired the water-bags; <sup>8)</sup> they were also used, as mentioned above, in ruses to deceive the enemy. At Uhud the Meccan women had with them kohl pots (mukhulah pl. makāhil) and pencils (mirwad pl. marāwid) which they handed to a man if he showed cowardice and told him he was a woman. 9) Women also occasionally took part in the fighting. 10)

- 1) Bal 132f. 2) Tab 1. 2564. 3) Tab 1. 2084. 4) Tab 1. 2597; 2621.  
 5) Waq 200; IH 562; 768; 847. 6) Waq 32; 206; 207; Fut Lees II, 197.  
 7) Waq 238; 246; WW 284; Fut Lees II; 221; 227. 8) WW 283 note 3.  
 9) Waq 267. 10) Waq 256; Fut Lees II, 221ff; 227.

Such a one was Nasībah bint Ka' b who fought bravely at Uhud, was badly wounded, and later went on to fight at the battle of Yamāmah. 1) Muhammad said he always saw her fighting, whether he looked to his right or to his left; no wonder that she spoke contemptuously of the inactivity of the Meccan women. 2) With the beginning of the foreign conquests Medina ceased to be both base camp and field encampment combined. On a journey of unknown duration in distant lands the warriors, especially the South Arabian tribesmen, could not leave families, herds and movable chattels unprotected in the homeland. 3) These therefore had of necessity to accompany the fighting men, forming a rudimentary kind of baggage train. 4) For protection women and children were left behind in camp when the men went out to battle 5) and they followed on when the fighting was over. 6) If the enemy entered the camp the women defended themselves with spirit. 7) It was characteristic of the virility of the Arab warriors that they contracted marriages both before and after battles. 8)

- 1) Waq 263ff. 2) Waq 266f. 3) Tab 1. 2217ff; Fut Lees I, 3ff.  
 4) Tab 1. 2218; 2362f; Fut Lees I, 71; 89. 5) Tab 1. 2386; 2419.  
 6) Tab 1. 2451. 7) Tab 1. 2347; Bal 135f. 8) Tab 1. 2363f; Bal 118.

Provisioning.

On expeditions in Arabia the Muslims usually took their own rations with them 1) but the diet could be supplemented and varied by hunting such animals as the wild donkey, gazelle and ostrich. 2) The staple meat, however, was camel and a slaughtered camel was sufficient for a day's ration for a hundred men. 3) Camels were taken with a force for the express purpose of slaughter 4) and were also killed to provide a meal for guests. 5) Dried dates were often mentioned as basic rations since they are easily obtained in Arabia, are non-perishable and occupy a small volume in relation to their value as food. Mixed with butter and curds and stored in skins they were known as hamit; 6) they were also mixed with milk, bread and fat. 7) When hunger became acute the diet of dates was supplemented with horse-flesh. 8) On an expedition to the Red Sea coast, led by Abū Ubaydah, the date ration had been provided by Muhammad and, as conditions became desperate, they were doled out by Abū Ubaydah in small quantities; the situation was saved when they found the body of a whale, which was eaten. 9) On this expedition as on others the men were reduced to eating the flesh of their riding camels. 10) Indeed shortage of food was not infrequent 11) and sometimes dried dates were the only form of sustenance available. 12)

- 1) WW 266; 392. 2) WW 406. 3) IH 722; Waq 48. 4) Waq 329.  
 5) WW 80; 317f. 6) WW 401. 7) IH 987. 8) WW 273f.  
 9) Tab 1. 1605f; IH 992. 10) Tab 1. 2206. 11) WW 36.  
 12) IH 992; WW 407f.

Fasting in wartime was an ancient custom pre-dating Islam. 1)

Al-Muthanna, before the battle of Buwayb, ordered that the fast be broken in order that the troops should not be weakened by lack of food. 2)

In the foreign conquests the troops usually lived off the land 3) and commanders sent out foraging parties (alāf) of cavalry for grain and cattle. 4) Provisions were also provided by the towns on the desert borders. 5) 'Umar seems to have been particularly prudent about provisioning 6) and it is possible that he sent camels and sheep for slaughter to the army in Irāq. 7) This was an exception, however, because the countries were always more fertile than the Arabian homeland. In 639 (A.H. 18), a year of drought and famine in Medina, Abū 'Ubaydah sent 4,000 camels to the city laden with provisions for the inhabitants. 8) In Medina two new storehouses were built for storing the incoming booty and each townsman had vouchers which entitled him to shares. 9) Up to the Caliphate of Mu'āwiyah the Prophet's bushel was used in the allocation of shares but this was later enlarged. 10)

The more luxurious fare of the Persians was unfamiliar to the Arabs and was found worthy of comment; 11) white bread in particular seems to have been much appreciated. 12) The Greeks thought that the Arabs would perish in the cold of winter because of their diet of camel meat and camel milk. 13) In Irāq camphor was used in cooking in mistake for salt. 14)

1) WW 402, note 1. 2) Tab 1. 2185. 3) Tab 1. 2257; Bal 256; J. Nik 555.  
 4) Tab 1. 2231ff; 2244; Bal 173; 257. 5) Tab 1. 2203. 6) Tab 1. 2257.  
 7) Bal 255f. 8) Tab 1. 2576f. 9) Ya'q II, 176f. 10) WW 288.  
 11) Tab 1. 2171; 2172; WW 402. 12) Tab 1. 2035; 2387. 13) Tab 1. 2390f.  
 14) Tab 1. 2237; Bal 264.

Vinegar, oil and honey were well liked and the inhabitants of Egypt were obliged to supply them to the Muslims in addition to other taxation. 1) Umar himself restricted his diet to very simple fare; he is mentioned as eating bread, oil and dates. 2) He seems to have been the first to organise a commissariat, for while he was at Jābiyah in Syria in 638 (A.H. 17) he divided provisions (arzāq) into summer and winter rations. 3) This was thus a development from the system whereby each man provisioned himself to a system of ration allowances, derived perhaps from the Greeks. The basic rations, as stipulated by Umar, were bread, oil and vinegar. 4) The fact that the rations were issued by the bushel indicates that they were given out in the raw and that their preparation was to suit individual taste.

The provision of water was seldom mentioned, presumably because water was more plentiful in the newly-conquered regions. 5) In desert regions, of course, lack of water caused hardships. 6)

1) Bal 214 f. 2) Fut. Misr 81. 3) Tab 1. 2523. 4) Ya'q II, 168.  
5) Tab 1. 2221. 6) Tab 1. 1966; 2112 f.

Care of the Wounded.

The type of wound inflicted depended on the type of weapon used and the manner in which it was wielded; most wounds were given by the sword, lance or arrow on vulnerable parts of the body, occasionally through gaps in armour. 1) Bad wounds to the leg and the foot were common since here there was no protection from the mail shirt, shield or helmet. 2) Wounds in the shoulder, hand and torso were mentioned less often, perhaps because these parts were most easily protected by the shield. 3) On the other hand the loss of an eye by an arrow was very common. 4)

The wounded of one's own side were taken to camp and cared for by the women, 5) although this could only happen if the issue of the battle were favourable; the enemy doubtless treated Arab wounded in the same way as the Arabs treated theirs - by killing them with clubs, a task performed by women and boys as well as by the warriors. 6)

Wounds were treated by water, 7) by poultices or fomentations, 8) and by cauterisation. 9) The flow of blood was stanchd by the application of ashes or crushed bones. 10) Household remedies were also used, 11) and even the spittle of the Prophet. 12) That care was necessary is shown by wounds incurred on raids, when there was no time for dressing the injury, turning septic and causing death. 13)

- 1) Waq 239; Tab 1. 2423. 2) Waq 63; 86; WW 53, note 3. 3) Waq 266; WW 120; IH 574. 4) Tab 1. 2101; Bal 135f; 237; IH 574.  
 5) Tab 1. 2304; 2317; 2363; Waq 246; WW 268. 6) Tab 1. 2341; 2362f.  
 7) Waq 244; 246; Bal 304. 8) Waq 265; 266. 9) Waq 309; WW 221f.  
 10) Waq 244; 246. 11) WW 284. 12) IH 552. 13) Waq 534.

### Treatment of the slain.

Enemy dead were plundered and left on the battlefield, 1) although at Badr the Meccan dead were thrown into a well. 2) Fallen Muslims were buried 3) in single or double graves; 4) prayers were said over them, the bodies were wrapped in cloaks, and the feet strewn with leaves of the harmal plant. 5) It seems to have been usual to wash the bodies, but the martyrs of Uhud were left unwashed, on Muhammad's orders, so that they would appear before God with their bloody wounds. 6) At Qādisīyah also, because of the great number of dead, Sa'd permitted them to be buried unwashed. 7) At Uhud Muhammad stopped relatives from taking their dead back to Medina for burial and they were buried where they had fallen. 8) Their graves must have been poorly marked because a few years later they were indistinguishable, with certain exceptions, from the graves of Badw who died in the Caliphate of Umar. 9) Women and children had to help with all the work of preparation and burial. 10)

### Treatment of prisoners.

The treatment of prisoners was very varied: in Arabia a prisoner could escape death by exchange 11) or by ransom; 12) the ransom price could be as high as 4000 dirhams. 13) In some ways Muhammad's views on the treatment of prisoners were not in accordance with the spirit of his times; it is often reported that he warned his followers to treat

- 1) Tab 1. 2319; 2338; 2339; 2344. 2) Waq 106 ff. 3) Waq 143; 300; WW 381; Bal 390. 4) Waq 262; 294; WW 400; IH 586.  
 5) Waq 261 ff; 301 f; WW 142. 6) WW 142. 7) Tab 1. 2316.  
 8) Waq 302; IH 585 f. 9) Waq 303; WW 143. 10) Tab 1. 2317.  
 11) Waq 134. 12) Waq 101 f; 124; WW 379; IH 426; 729; 983.  
 13) Waq 124; IH 462.

prisoners well and on occasions he forbade the killing of individual captives, 1) and if a prisoner accepted Islam he was freed. 2) Although proscribed captives were sometimes pardoned, dangerous enemies of Islam were always executed, 3) the Prophet being particularly obdurate against poets and singers who had mocked him or his religion. 4) In the foreign conquests prisoners were either killed or sent to Medina as slaves; 5) enemy leaders were sometimes crucified. 6) Some prisoners who had been sent by 'Amr to Medina were returned to their homes in Egypt by 'Umar on the grounds that they were dhimmis and hence could not be taken into captivity. 7) Women and children were divided from the men and placed under guard, 8) being considered as part of the booty; 9) they did not always, however, escape death. 10) In Medina 'Umar distributed the prisoners among the orphans of the Anṣār and some were used as scribes and others as labourers. 11) Owners of slaves obtained in the early fighting, and who had since died, had them replaced by other prisoners. 12) In Egypt a Greek commander succeeded in getting captives back from Arabia by agreeing with 'Amr to pay the jizyah 13) and one of 'Umar's first acts on becoming Caliph was to send all the prisoners of the Riddah wars back to their families. 14) Death, therefore, was by no means the inevitable lot of a prisoner.

- 1) Waq 75; 100; 101; 113; IH 446; 459; Bal 40. 2) WW 390. 3) Waq 106; 108; IH 458. 4) WW 334. 5) Tab 1. 2064; 2072; 2077; 2122; 2182; Bal 142; 216. 6) Tab 1. 2122; Bal 328. 7) Bal 215ff; Fut Misr 83. 8) IH 877; WW 177; 352; 389; Seb 21. 9) Bal 24; 86; 142. 10) Tab 1. 2070; 2072. 11) Bal 142. 12) Bal 142. 13) Tab 1. 2581. 14) Ya'q II, 158.

Booty.

Qur'ān Sūrah 8, 41: 'Know that when you take spoils one fifth belongs to Allah, to his disciple, to (his) near of kin, to the orphans, to the wayfarer - - - .' Perhaps no aspect of Arab military affairs is given as full a treatment in the sources as the question of booty, which is hardly surprising if one considers that the obtaining of plunder was not only an Arab warrior's sole means of enriching himself but, in the early conquests, it was also his only hope of being paid for his services. In general the rules as laid down by Muhammad were these: one fifth of the spoils (khums) was reserved for the common good of the Islamic community - this applied to booty taken in the enemy camp or without fighting, called al-anfāl; if, however, a warrior killed an enemy in combat then the personal spoils (al-aslāb - mount, weapons, movables, etc.) went to the slayer; if a man personally took an enemy captive then the prisoner (asīr) belonged to his capturer.<sup>1)</sup> After the fifth had been deducted the remainder was shared out by lot, each man receiving one share, with a further two shares if he was a horseman. 2) This practice, originated by the Prophet, of allotting shares to the cavalry and infantry in the ratio 3:1 was continued in the foreign conquests, 3) although at Qādisīyah the ratio is said to have been 2:1. 4) There is evidence to show that the rules for dealing with booty were strictly regarded; thus the Prophet consigned the soul of his dead slave to hell for having taken a mantle from the spoils of Khaybar; 5) 'Umar refused to allow a

1) Waq 93; 95; Tab 1. 2065; 2423. 2) WW 178; 226; 377. 3) Tab 1. 2477; 2627; Fut Lees II, 241f. 4) Ya'q II, 165. 5) Bal 34.

courier money to repay a loan which he had obtained in Basrah on the security of his share in some plunder which was as yet undivided; 1) nor could choice articles in the spoils be reserved by anyone before the booty had been distributed. 2) Muhammad did, however, confirm the right of a warrior to personal spoils as, for instance, when he allocated the belongings of Abū Jahl to his slayer. 3) The Prophet insisted on receiving the fifth even if he had not been present at the battle, and if plunder were gained by a direct surrender to the Prophet, without fighting, then that booty belonged entirely to Muhammad to dispose of as he saw fit. 4)

Gold was especially prized as personal booty and in Irāq the Muslims wore Persian golden armlets, looted no doubt from enemy dead; 5) al-Muthanna instructed his men to take gold, silver and portable goods but not heavy chattels. 6) Booty proper, i.e. that which was collected and distributed, included prisoners, women, children, cattle and mounts, arms and armour, movables and, when the Jews were evicted, land. 7)

The terms used for booty are: qabad pl. aqbād; 8) ghanimah pl. ghanā'im; 9) fay'; 10) nafal pl. anfāl. 11) In the foreign conquests the words most commonly used were ghanimah and fay'. An official (sāhib al-aqbād) was made responsible for the gathering, guarding and division of the booty and he was sometimes given assistants. 12)

- 1) Tab 1. 2702f. 2) IH 759. 3) Waq 82. 4) Bal 18; 29; IH 764; WW 166; 283. 5) Tab 1. 2423. 6) Tab 1. 2205. 7) Tab 1. 2234; 2257ff; 2440; 2704; Bal 23f; 34f; 173; Waq 96f; 184f; 196; 374; 336; 420; WW 166; 178; 215. 8) Tab 1. 2095; 2444. 9) Tab 1. 2598; Bal 145; 412. 10) Tab 1. 2444; 2467; 2598; Fut Miṣr 83. 11) Waq 93; Sūrah 8, 1. 12) Tab 1. 2367; 2385; 2444; 2451; 2454; 2465; 2477; Bal 385; IH 766; 857.

The right to receive a share in the spoils was not always confined to those who had taken part in the fighting; thus Muḥammad decreed that a share in the spoils of Badr be given to the weak 1) and absent Muslims were also sometimes rewarded. 2) After Nihāwand shares were allotted to the forces who had guarded the distant approaches to the battlefield. 3) At Ḥunayn, for political reasons, Muḥammad allotted much larger shares to some leading Meccans than to the Anṣār, causing dissatisfaction among the latter. 4) In the conquests, however, the basic system as laid down by Muḥammad was generally followed, with shares given only to the fighting men; Umar refused a portion of the booty to the Lakhm and Juḏhām because they had deserted to the enemy at the battle of the Yarmūk. 5) Slaves and women were not entitled to any shares but were allowed to receive only gifts. 6) Although the sources give lists of booty in dirhams 7) or in animals and corn 8) and report that the fifth was sent to Medina, giving the name of the leader of the escort, 9) it is doubtful whether the distribution of the spoils was a well-ordered affair, especially in the early days. 10) It is most unlikely, for instance, that the spoils taken by al-Muthanna in his raids along the Euphrates had the fifth reserved and sent to Medina, 11) and on the early expeditions into distant regions the plunder was probably divided on the field of battle. 12) At Qādisiyah the Persian camp seems to have been plundered on the spot with Sa'd's permission. 13)

1) Waq 93. 2) Waq 96f; WW 377. 3) Tab 1. 2628. 4) Waq 420f.  
 5) Ya'q II, 168. 6) WW 68; 283; IH 759; 767; Ya'q II, 165. 7) Tab 1.  
 2037; 2450f; 2464. 8) Tab 1. 2197. 9) Tab 1. 2168; 2170; 2392.  
 10) Ca 25,43; 11) Tab 1. 2202ff. 12) Tab 1. 2808f; Bal 197f.  
 13) Tab 1. 2356f.

Disputes 1) and irregularities 2) in the distribution of booty certainly occurred, and this sometimes led to intervention from Medina. Thus when 'Umar sent Qays b. Makshūh as a reinforcement to Qādisīyah, and he arrived after the fighting was over, 'Umar ruled that he and his men were entitled to a share of the booty if they arrived before the dead had been buried. 3) 'Uthmān had to arbitrate in a similar way between Ḥabīb b. Maslamah and Salmān b. Rabī'ah in Armenia. 4)

It is not within the scope of this work to discuss the complex question of land tenure and taxation in early Islam; the system varied widely according to circumstances and differed from province to province. The problem has been thoroughly treated by Dennett. In general land available for settlement by the Arabs was of three kinds: land which had been the private property of the royal power, either Sāsānid or Byzantine; land whose owner had fled or had been killed in battle; 5) land taken by force (kharāj land) which could, with the Caliph's permission, be confiscated and given as fiefs to Muslims, or it was sometimes bought. 6) This was not the rule, however, since it was the policy of the Muslims to leave the native cultivators with their animals in occupation of the land and tax the produce therefrom. 7) 'Umar said that land was not to be divided but left to the peasants, whose taxes could be included in the pensions of the Muslims; otherwise there would be nothing left for the Muslims who came after. 8)

- 1) Tab 1. 2815; IH 456; Bal 198; Fut Lees II, 241f. 2) Tab 1. 2464f; 2450. 3) Bal 256. 4) Bal 198. 5) Dennett 26; 60.  
6) Dennett 35; 37; 47. 7) Tab 1. 2028; 2427; Bal 447ff; Fut Misr 82f.  
8) Bal 266.

Arab garrisons were joined after the end of hostilities by their families and settled in the vicinity of their stations. They acted as landlords and collected taxes from the peasants who worked the land. 1)

The development of a system of command.

The Prophet and his first four successors were both religious and military commanders and they exercised the high command independently except that the four Caliphs were bound by their strict adherence to the known wishes of Muhammad. Advice was, however, sought in council by Muhammad in military matters, though never at other times. 2) Abū Bekr 3) and Umar 4) also sought advice, especially before important battles such as the Yarmūk 5) and Nihāwand. 6) In Arabia all warriors could take part in councils of war but in the conquests only the leaders took part. An exception to this was Umar's council at Jābiyah in Syria, when he consulted the Companions of the Prophet. 7)

There are many references to the Caliph appointing commanders 8) but it is likely that some of these cases are untrue; Umar could not, for instance, have given the leadership of the Bajīlah to Jarīr b. Abdallah without the consent of the tribe, and probably he merely ratified an arrangement that he had no power to alter. 9) Appointments of leaders from the Companions and the Quraysh, however, were made by the Caliph.

- 1) Bal 150; 164; 185; 197 f; 329. 2) Waq 209; WW 105; 192; 299; 244 note 5; IH 741. 3) Ya'q II, 149. 4) Ya'q II, 163.  
5) Ca 15, 64. 6) Tab 1. 2611 ff; see Bal 52, for war council of Quraysh in Mecca. 7) Tab 1. 2511 ff. 8) Tab 1. 2018; 2021; 2162; 2455; Ya'q II, 145. 9) Tab 1. 2201.

The Caliphs also moved commanders from one post to another 1) and deposed them for irregularities, 2) because their troops complained against them, 3) or for personal reasons. 4) There is no mention in the early years of election of commanders by the troops themselves as in later times, 5) or of the commander's baton which was his mark of office under the Ummayyads. 6)

There was an almost complete lack of unity in the early warfare in 'Irāq and Syria; in the absence of a real high command disputes over leadership were common. 7) Nor were matters helped by the quality of some of the generals selected by the Caliphs. Between the departure of Khālīd from 'Irāq and the arrival of Sa'd, the commander sent from Medina was Abū Ubayd b. Mas'ūd. 8) Despite his personal bravery he seems to have had little military ability since he insisted, against the advice of other leaders, in crossing the river where he was attacked by the Persians and his troops driven back, while he himself was killed ( Battle of the Bridge). Only the tactical skill and courage of al-Muthannā and other leaders allowed part of the force to cross back to safety. 9) In 'Irāq before Qādisīyah the conduct of the campaigns was marked by these defects: lack of a chain of command; a bias towards leaders from the 'believers' - not always the best commanders; frequent changes in command, so that a continuous, unified command was not possible. 10)

- 1) Tab 1. 2110ff; 2146; 2551; 2678f. 2) Tab 1. 2594; Bal 278f.  
 3) Tab 1. 2829. 4) Tab 1. 2393; Ya'q II, 191f. 5) Fries 16.  
 6) Fries 15; 64. 7) Tab 1. 2018; 2115; 2116; 2160; 2161; 2162;  
 2174ff; 2202; Bal 250; Ya'q II, 163. 8) Tab 1. 2174f.  
 9) Tab 1. 2175ff. 10) Beckmann 105.

The traditions for the first expeditions to Syria are somewhat confused: one states that there were four leaders, 1) the overall command being with the one in whose region the battle was joined. 2) According to Wāqidi, however, the sole commander was Abū 'Ubaydah, 3) and another report names four leaders, with Abū 'Ubaydah as commander-in-chief when all the groups were united. There may be an element of truth in all these reports, in that it is sensible for an officer to take command in the region which he knows, whereas a commander-in-chief could have been appointed for important battles. Who actually commanded in such battles remains an open question. 'Amr was mentioned as commander-in-chief before the arrival of Khālīd, 5) and Khālīd, at least up to the arrival of Abū 'Ubaydah, played a leading role. He is named as commander-in-chief, 6) as leader of the vanguard, 7) and as leading his own adherents. 8) According to Balādhuri, he was always chosen as commander when the-Muslims met for battle, 9) and it is probably true that the other leaders were content to let him command them because of his energy, prudence and tactical skill.

Beckmann, comparing the early campaigns in Syria with those in 'Irāq, says that in Syria, despite the independence of the leaders, there was a noticeable unity of action shown, for example in the rapid but orderly retreat to the Yarmūk in 636 (A.H. 15)

1) Tab 1. 2078; 2084. 2) Bal 108, 20 ff. 3) Bal 108, 5 ff.  
 4) Ya'q II, 150. 5) Bal 116. 6) Tab 1. 2109. 7) Tab 1. 2145; 2146.  
 8) Bal 109. 9) As for 8.

He points out that in Syria disputes over leadership were not mentioned nor were cases of exaggerated pride, as when Sa'd refused to visit al-Muthanna on his death-bed. 1) Nor were the leaders boastful of their prowess as was al-Muthanna at Buwayb and elsewhere. 2) He concludes that in Syria the Muslims were puritanical, with a discipline inculcated by fear of God. 3) The subject is important because no army can be victorious without good leadership. Yet it is not possible to give a fully satisfactory answer to the question: in the Arab conquests what part was played by religious ardour, desire for booty and good leadership and how much weight should be given to each factor? The answer must depend in part on personal opinion which can, however, be guided by the evidence available.

1. The reliability of Badw troops was suspect, especially those who were still heathen or only superficially converted to Islam. They could fight bravely, as did al-Muthanna at the Battle of the Bridge, but this was to extricate himself and his men from disaster. 4) At other times al-Muthanna followed the traditional methods of the ghazw - a sudden surprise raid, collection of as much plunder as could be conveniently carried, and a speedy retreat into the desert to elude the pursuit. 5) He had no patience with the Muslim desire for martyrdom. 6)

1) Tab 1. 2221f. 2) Tab 1. 2194; 2205. 3) Beckmann 106f; see also Well IV, 79ff. 4) Tab 1. 2178f. 5) Tab 1. 2202f. 6) Tab 1. 2179.

At al-Yamāmah Khālīd divided the Emigrants and the Anṣār from the tribes under separate banners so that it could be seen which of the groups fought more bravely, and in the outcome it was the Companions who bore the brunt of the fighting. 1) At the battle of ʿAyn Shams ʿAmr complained that the men of Yaman were not playing their part and he had to rely on the Companions for victory. 2) Doughty, commenting on the fighting qualities of tribesmen in nineteenth century Arabia, says: "There is so little concert among Beduins that sometimes a multitude may be discomfited almost as one man!" 3)

2. There was probably a higher proportion of townsmen in the armies in Syria than in the armies in Irāq, and many of these were believing Muslims. Hence there was a core of men who were prepared to fight stubbornly in a pitched battle; it is significant that the only record of indiscipline at the Yarmūk was the desertion of the Muslims' allies from the Lakhm and Judhām, 4) whereas at Qādisīyah Saʿd could not control the tribesmen during the battle. 5)

3. Beckmann's views on the unity prevailing in Syria are not valid for the period before the arrival of Khālīd. The leaders are described as not co-operating with each other 6) and forgetting their promises to Abū Bekr. 7)

1) Tab 1. 1946f; see also Fut Lees II, 191. 2) Tab 1. 2592.

3) Doughty II, 554; see also Doughty II, 36; Glubb W.I.D. 287f.

4) Tab 1. 2348. 5) Tab 1. 2330; 2332. 6) Tab 1. 2091. 7) Tab 1. 2111.

4. It is most unlikely that the manoeuvres in Syria after the arrival of Khālīd, such as the re-grouping before Ajnādāyn and the strategic withdrawal to the Yarmūk, could have been carried out without some form of unified command.

Without attempting to offer a final solution to this question the following suggestions are tentatively put forward:

A rigid distinction between the behaviour of the armies in Syria and 'Irāq should not be drawn; cases of indiscipline and lack of unity occurred in both theatres as did cases of bravery and concerted action. On balance, however, the army in Syria, which had the harder task, 1) was probably better led, more united and, having a considerable number of convinced Muslims, was better able to face the enemy in pitched battles.

Khālīd was not the nominated commander-in-chief but his reputation and the force of his personality must have been so great as to compel the others voluntarily to accept him as leader. He was thus commander-in-chief in fact if not in title and this enabled him to co-ordinate the strategy of the Syrian armies. 2)

'Umar must have realised that the conquests could not be continued and consolidated in the same manner as they had begun, with a number of equal leaders acting independently, and this led him to appoint a commander-in-chief to each theatre; Abū 'Ubaydah b. al-Jarrāh to Syria 3) and Sa'd b. Abī Waqqās to 'Irāq. 4)

1) Ca 16, 127f. 2) Ca 21, 331. 3) Tab 1. 2148. 4) Tab 1. 2216.

This was in 636 (A.H. 15), both appointments being made at about the same time, and it marks a turning point in the development of a high command, although the two commanders could not issue orders which would be obeyed without question but would have to obtain results by example and persuasion. In this respect Abū 'Ubaydah, in particular, was a happy choice; blameless in his private life, unselfish, and excellent in his dealings with others, he was well qualified to co-ordinate the efforts of the autocratic leaders in Syria. 1) Khālīd was thus not deposed - 'Umar would not have had the power to depose a man of his reputation and standing - but became, as he had always been de jure, one of several leaders of equal rank. 2) Under Abū 'Ubaydah they seem to have worked together in a sensible and statesmanlike manner to achieve the common goal. It is only fair to add that Abū 'Ubaydah might have had an easier task than Sa'd who had to try and exercise control over tribal chiefs to whom Islam was little more than a name. The leaders in Syria were from Mecca or Medina and most of them had fought under the Prophet; the idea that they were carrying out his wishes would be likely to make them listen with respect to the chosen deputy of 'Umar, the second successor of Muḥammad and one of his nearest and most trusted Companions. The trend towards unification, however, was interrupted by the epidemic of 639 (A.H. 18) in which Abū 'Ubaydah and Yazīd b. Abī Sufyān died, together with many other devout Muslims. 3)

1) Tab 1. 2144f; Well VI, 59. 2) Ca 15, 31ff. 3) Tab 1. 2520; Bal 139f.

For the remainder of the period under review there is no information as to the real chain of command; perhaps all the commanders were independent of each other, a view supported by the reports that the Caliphs often nominated commanders themselves, which they would hardly have done if there had been a commander-in-chief. 1)

Muhammad always appointed a deputy to command in his absence 2) as, for example, when he left 'Alī in charge at Medina when he went on the Tabūk expedition. 3) In the foreign conquests this practice was also followed and commanders nominated deputies. 4) There was no rigid system for appointing successors to a general should he fall in battle but it was done on occasions by Muhammad, 5) by the Caliph, 6) and by the general himself. 7) Wills were sometimes made before battle. 8) Apart from 'Umar's discussions with his commanders in Jābiyah 9) Mu'āwiyah was the first regularly to review his troops. 10)

- 1) Bal 197; 317; 325; 386; Tab 1. 2695. 2) WW 99; 163; 167; 174; 210; 242. 3) IH 897. 4) Tab 1. 2109; 2122; 2290; Bal 377; 387. 5) Waq 402. 6) Bal 302. 7) Tab 1. 2600ff. ( but note that refs. 6) and 7) contradict each other:- at the battle of Nihāwand Balādhuri says that 'Umar named the successors to Nu'mān, while Tabari says that they were named by Nu'mān himself). 8) Tab 1. 2107. 9) Bal 139; 151. 10) Ca 25, 25.

The Origin, Planning and Direction of the Early Arab Conquests.

When considering the decisions taken by Muhammad one has to take into account the intuitive nature of his thinking and the part played in his life by dreams and manifestations. Thus the battlefield of Badr was shown to him by Allah in a dream 1) and he had been promised either the capture of the caravan or victory over the Meccans 2). It is incorrect to argue that he used his revelations as a political instrument to attain his ends because this would assume a type of mind that was governed by calm logic and calculated policy. This was not true of Muhammad: he undertook the expedition to Tabūk in a period of great heat without adequate forethought to the supply of water and provisions; 3) at Tā'if he pitched camp so near the walls that the camp was within bowshot of the town and had to be moved. 4) He was also superstitious - on the way to Khaybar he took one road in preference to another because it was called markhab (wide, easy) 5) and he believed in lucky and unlucky omens. 6) Nor could the transmission of Muhammad's ideas by the medium of dreams and manifestations be an afterthought of the traditionalists since just such revelations are an essential feature of the Qur'ān itself, and the belief in dreams and omens was in keeping with the spirit of the times and was much older than Islam. 7)

1) Tab 1. 1288; Waq 45. 2) Sūrah 8, 7; IH 435. 3) Tab 1. 1696; WW 391ff; IH 894. 4) Tab 1. 1671; IH 872. 5) WW 266. 6) IH 559. 7) Well Reste 200f; 205.

In this prophetic or "revealed" vein are two remarks of Muhammad's about the lands beyond the borders of Arabia: when the Ditch was being dug he drew sparks three times from a stone that he was trying to break with his pick and interpreted " the first means that God has opened to me the Yaman, the second Syria and the west, the third the east. 1) On the ride to Tabūk he told Bilāl that God had allotted to him the treasures of the Greeks and the Persians and strengthened him with the warlike support of the Kings of Himyār. 2) Whether these reports are true or not Muhammad's interest in the routes to the north is shown by the series of expeditions which he either led or sent northwards; three to Dūmat al-Jandal in A.H. 5, 6 and 9 respectively; 3) two to Mū'tah, the first in A.H. 8 under Zayd b. Hārithah 4) to avenge the murder of the Prophet's emissary by Shuraḥbīl b. 'Amr al-Ghassāni, the second in A.H. 11 under Zayd's son Usāmah, who was instructed by Muhammad from his death-bed to go and avenge his father.5) (Although another source says only that he was told to range widely with cavalry in the lands of the Qudā'ah). 6) Finally there was the great expedition to Tabūk in A.H. 9, led by Muhammad and organised on the basis of a false rumour put about by some Nabatean merchants in Medīna to the effect that Heraclius was in Hims and had assembled a vast army of his Arab allies whose vanguard was in the Balqā'. 7)

While Muhammad's reasons for mounting these expeditions cannot be fully ascertained, his intuitive reasoning must have been influenced

- 1) IH 673. 2) WW 398. 3) IH 668; WW 174f; (1st) WW 236f; (2nd) IH 903; WW 403f; (3rd). 4) IH 791f; WW 309f. 5) IH 970; WW 433f. 6) Tab 1. 1851. 7) IH 893ff; WW 390f.

by hard facts. Thus the raid to Tabūk was made at the time when the Byzantine star was in the ascendant, after total victory over the Persians had been won and the Holy Rood returned in triumph to Jerusalem. The Christian Arab tribes to the north would thus have been inclined to renew their wavering allegiance to Byzantium and Muhammad's raid may have been intended as a counter-stroke to demonstrate the growing power of Islam. Furthermore, Muhammad must have seen that his policy of uniting the Arabs under Islam, his edict that "the Muslim is brother to the Muslim" 1) and hence the prohibition of raiding, would deny an outlet to the warlike spirit of the Arabs. It would also remove the means by which a tribe, in times of want, restored its fortunes at the expense of a richer neighbour. 2) There is every reason to believe, therefore, that Muhammad had in mind some form of hostile activity against Syria, although it cannot be known whether he intended to attempt a real conquest or merely to mount large-scale raids. In the case of 'Irāq there is less evidence: Muhammad and the people of Mecca and Medina were doubtless much more familiar with Syria through trade than they were with 'Irāq, Busrā in the Hawrān, for example, being an important terminus for Arabian caravans. 3) It is significant that the Meccans, when they wished to send a caravan to Syria by a route that would elude the Muslims,

1) Waq 434; see Lam Berç 171ff. 2) Watt Medina 105ff.

3) WW 391; Fut Lees I, 45; Opp I, 280; Dussaud 8.

and chose a road that in the first stages led towards 'Irāq, had to find a guide because the route was unfamiliar. 1) It is also significant that the early campaigns in 'Irāq were carried out by al-Muthannā, who was probably still unconverted to Islam, in conjunction with Khālīd b. al-Walīd and a small force of Muslims. It is possible that Khālīd had not obtained the prior approval of Abū Bekr for this venture. 2) On the other hand Abū Bekr had in mind the expedition to Syria as soon as he had finished with the wars of the Riddah 3) and he tied the banners of the leaders (i.e. confirmed their appointments) himself. 4) It seems very unlikely that such a pious Muslim as Abū Bekr, one of the closest associates of the Prophet, would have sanctioned an enterprise if he had thought that it would be contrary to the wishes of Muḥammad, and just as strange if 'Umar had given his approval. It is also worthy of note that, after Khālīd was recalled from 'Irāq, only the small force under Abū 'Ubayd was sent to 'Irāq before the despatch of Sa'd, 5) and that Sa'd's army was small and assembled with difficulty. 6)

In conclusion, therefore, it can be stated that the Arab expansion originated from the need to find an outlet for the warlike energies of the Arabs which were given an added bitterness by the Riddah wars, and to find a means of livelihood for the surplus population of Arabia. Muḥammad had perhaps intuitively recognised these necessities, and had given his approval to some form of military operations against Syria, though probably not against 'Irāq.

1) Waq 196.

2) Tab 1. 2018f; see Ca 12, 155ff. 3) Bal 107. 4) Bal 108.

5) Tab 1. 2159 ff. 6) Tab 1. 2216 ff.

### Planning

What evidence there is points to an original intention to send only large-scale raiding parties into Syria, and hostilities were begun in this way by the Muslims late in the year 633 (Rajab onwards A.H. 12). 1) Several independent groups moved from Medina to the borders of Syria, Jordan and Palestine, each group having a line of advance laid down by the Caliph, who also assigned to each army a region for its objective, 2) an arrangement well suited to the ancient Bedw methods of raiding. In the period that followed a constant stream of new recruits began to come to Medina and were sent to whichever commander they preferred. 3)

In the early years of the conquest the course of events was determined by circumstances beyond the control of Medina, since the military operations of the Muslims in Syria, apart from raiding, were mainly reaction to Greek action. Thus the recall of Khālid was prompted by the mustering of the Greeks at Ajnādayn, and he had to take speedy action to assemble, from the scattered Arab forces, an army large enough to give battle. 4) The strategic withdrawal to the Yarmūk before the advancing Greek army is another example of the movements of the Arabs being dictated by the movements of their enemies. 5) Only after the battle of the Yarmūk had destroyed the effective power of the Greeks were the Arabs able to operate with complete freedom of movement.

1) Tab 1. 2079; 2090; Bal 108; Ya'q II, 150. 2) Tab 1. 2090  
 3) Tab 1. 2082; 2108. 4) Tab 1. 2125; Bal 113 f; Ya'q II, 151; Fut Lees I, 101; Mich Syr II, 418. 5) Tab 1. 2087; Ya'q II, 160; Fut Lees II, 129 ff; Mich Syr II, 420 f; see Ca 15, 11 ff.

Much the same sort of picture emerges in 'Irāq: the early raids under Khālīd, al-Muthannā and Jarīr achieved little of permanent value but provoked the Persians into assembling a large army to drive the intruders away from their borders. 1) When this news was received in Medina, 'Umar held a council of war 2) and it was eventually decided to send Sa'd with an army to 'Irāq. 3) Meanwhile al-Muthannā retreated to the desert border 4) where he died shortly after. 5) After the battle of Qādisiyah and the rapid occupation of lower 'Irāq in 637 (A.H. 16) there was a pause of some years during which the only military activity was the conquest of Jazīrah and Khuzistān, which completed the Arab conquests of all the territory north of Arabia up to the mountain ranges of Irān and Asia Minor. There seems to have been a marked reluctance on the part of 'Umar to allow the conquests to go any farther: he forbade seaborne raids from Bahrayn to Fārs; 6) reproved a commander for leading his troops into mountainous country; 7) ordered that there should be no water barriers between him and his armies, so that a camel could be ridden from Medina to any of his forces; 8) wished there to be a 'wall of fire' at the mountain barrier dividing the Arabs from the Persians; 9) forbade 'Amr from entering Ifriqiyah (Tunisia) after his raid on Tripoli. 10) Abū Bekr had also been cautious but in a different manner. His advice to the leaders of the Syrian expedition not to penetrate deeply into enemy country until they had

1) Tab 1. 2214. 2) Tab 1. 2213 f. 3) Tab 1. 2216. 4) Tab 1. 2215.  
 5) Tab 1. 2222. 6) Tab 1. 2546. 7) Tab 1. 2545. 8) Tab 1. 2360;  
 Ya'q II, 179; 180; Fut Miṣr 91 f. 9) Tab 2545 f. 10) Ya'q II, 179; Fut Miṣr 91f.

cleared all hostile forces from their lines of communication was sound tactical common-sense. 1) Nor can 'Umar's attempt to recall 'Amr from his march into Egypt, 2) if true, be construed as reluctance to invade Egypt, since he must have realised that it would be dangerous to leave such a powerful reserve of Byzantine sea and land power on the flanks of Syria and the Hejāz. 3) His motive was probably to wait until the reinforcements under al-Zubayr, which later joined 'Amr at Heliopolis, 4) arrived from Arabia, so that an army of adequate size could be sent into Egypt. But his objections to advancing into the Zagros and elsewhere seem to have been of a different nature and his motives are hard to discern. Perhaps he was influenced by fear of the unfamiliar, or by remembrance of some injunction of the Prophet. He may also have wished to keep the Arabs as a pure-blooded élite and every conquest in wholly alien lands increased the numerical disproportion between the subject races and the Arabs. 5) In 642 (A.H. 21) his hand was forced by the pressure of the large numbers of immigrants arriving in 'Irāq, 6) and he gave orders for the advance to Nihāwand. 7) After the battle was won he gave permission for the Muslims to spread war (athkhana) into Persia and the slow conquest of the Iranian plateau began. 8)

- 1) Tab 1. 2111. 2) Bal 212; Ya'q II, 167 ff; Fut Miṣr 56 f.  
 3) Becker 349. 4) Bal 213; J. Nik 557. 5) Ca 25, 843.  
 6) Ca 18, 81; 20, 13. 7) Tab 1. 2596ff; Caetani (21, 40 note 1.) holds the view that the expedition to Nihawand was undertaken without the knowledge or approval of Umar, a theory which is unsupported by evidence in any of the sources.  
 8) Tab 1. 2634; 2682.

The following points, therefore, summarise the planning and development of the Arab conquests:

1. At the outset there was no plan for the systematic conquest of Syria and 'Irāq; the Caliph sanctioned only a number of large-scale raids into Syria, Jordan and Palestine.
2. As these raids developed and victories were won the raids turned into a war of conquest and a more systematic campaign was waged. 1)
3. The major effort was put into the operations in Syria, and 'Irāq was largely neglected until the battle of the Yarmūk had been won.
4. In both theatres the decisive battles were forced upon the Arabs by the advance of large hostile armies intent upon expelling them from the territories they had occupied: the Arabs accepted the challenge and destroyed the enemy power, but they did not deliberately seek out the enemy forces to offer battle.
5. After the battles of the Yarmūk and Qādisīyah the expansion continued into Jazīrah and Khuzistān, and the invasion of Egypt was ordered to remove the Byzantine menace to the west.
6. During this period 'Umar refused to allow the Arabs to penetrate the mountains of Persia, but was forced to do so in 642 (A.H. 21) due to the necessity for providing a livelihood for the immigrants arriving in 'Irāq.

1) Becker 342.

It is not easy to assess the degree of control exercised by the Caliphs over their commanders in the field, particularly in view of the suspicion that the chroniclers wished to show that the conquests were planned and directed wholly by the successors of the Prophet, and hence they exaggerated the role played by Medina. The position of Abū Bekr was very precarious and Umar, in his first two years in office, had to proceed with great tact and caution, because his power was insecurely based and his office was not universally recognised as that of supreme commander. It was only after reverses such as the battle of the Bridge and the retreat to the Yarmūk, which made many Muslims realise that unity of command was essential, that Umar was able to take effective control.<sup>1)</sup>

Abū Bekr, who died in 634 (A.H. 15) at about the time of the battle of Ajnādāyn,<sup>2)</sup> seems not to have had much influence on the course of the early campaigns. Not only was his position insecure, but the speed of deployment of the armies and their dispersion over wide tracts of country made it difficult for the Caliph to locate his commanders or to obtain early and accurate information. Almost his sole contribution to the operations, but a very important one, was his decision to order Khālid to Syria from Irāq, so that there was one leader able to combine the Arabs into an efficient fighting force.

The case of Umar, once his authority was established, is very different, both because of his character and because it was under his rule that the decisive phase of the conquests occurred, and a beginning

1) Ca 23, 824-829. 2) Bal 114.

was made in organising the administration of the conquered lands. Many of the traditions about his direction of affairs must be suspect, and some are patently untrue. 'Umar could not have known much about the geography of the more distant theatres of war - on one occasion he asked a courier to describe the region of Makrān to him. 1) Yet one report says, for instance, that he ordered Suwayd b. Muqarrin to go from Ray to Qūmis and that he nominated the leader of each division of the ta'biyah in Suwayd's force. 2) Sometimes it is revealing to compare traditions which report similar events. On one occasion the commanders in Syria wrote to 'Umar giving him details of Greek troop dispositions in Palestine. 'Umar is then said to have written to Yazīd ordering him to send Mu'āwiyah against Caesarea, to 'Amr telling him to attack Artabūn, and to 'Aqlamah ordering him to attack Fiqār. 3) Another tradition reports that 'Umar sent instructions to Abū 'Ubaydah which could be followed if things had not changed in the intervening time, and outlined the course of action that he thought the best. 4) The second tradition is more credible since 'Umar could not have known the exact position in the operational zone, and rigid instructions would have been out-of-date by the time they arrived.

There can be no doubt that 'Umar appointed the commanders-in-chief for important operations 5) and the governors (āmil) of provinces. 6)

1) Tab 1. 2707 f. 2) Tab 1. 2656. 3) Tab 1. 2397. 4) Tab 1. 2150.  
5) Tab 1. 2155; 2216; 2596; Bal 250; 255; 302. 6) Tab 1. 2425; 2578;  
2580; 2646; Bal 172; 351; Ya'q II, 166.

It is also recorded that he appointed the leaders of expeditions that were merely large-scale raids. 1) One tradition says he either ordered 'Abdallah b. Buḍayl to lead an expedition to Isfahān or that he wrote to Abū Mūsā, his governor over Baṣrah, and told him to send 'Abdallah. 2) There were other occasions when 'Umar sent his āmils such instructions, telling them which men he wished to be put in command, 3) but there are also many mentions of the āmils appointing the leaders themselves, 4) although 'Umar may have been informed after the event. 5) When, however, al-'Alā' b. al-Hadrami invaded Fārs from Bahrayn against 'Umar's orders he was dismissed from his post. 6)

Commanders asked 'Umar for reinforcements and he would then order these to be sent from other regions, 7) although here again it is likely that in many cases more direct action was taken. There are two versions for the relief sent to 'Uthmān b. Abī-l-'Ās in Fārs: one says that 'Umar ordered Abū Mūsā to go to the aid of 'Uthmān, 8) the other that 'Uthmān asked for help from 'Umar and from the governor of Kūfah, and that the latter sent Abū Mūsā to extricate him. 9) In fact, 'Uthmān probably asked for assistance from the nearest Muslim garrison, Baṣrah.

Other orders of a military nature were issued by Medina and included the sending out of independent battle-groups with orders for specific tasks, at first from Medina, 10) later from the standing camps. 11).

- 1) Tab 1. 2635; 2640; 2656. 2) Bal 312. 3) Tab 1. 2457; Bal 198; 301 f; 317; 325. 4) Tab 1. 2393; 2440; 2463; Ya'q II, 159; Bal 151; 309; 318; 394; 403. 5) Bal 224. 6) Tab 1. 2546 f; Bal 386 f. 7) Tab 1. 2305; 2349; 2499; Bal 256; 380; J. Nik 557. 8) Bal 387. 9) Tab 1. 2700. 10) Tab 1. 2080 ff. 11) Tab 1. 2505; 2604 ff.

Such were Abū Bekr's instructions to Khālīd b. Sa'īd to go to Taymā' and to collect reserve forces (riḍ') 1) by recruiting in the neighbourhood, except for the Ahl al-Riddah, but not to get involved in battle unless he were attacked. 2) For the expedition to Nihāwand 'Umar ordered two thirds of the forces from Kūfah to march against the Persians and the other third to remain in Kūfah as a defence force. The Kūfan troops were reinforced by an auxiliary force from Baṣrah, the whole army being under the command of Nu'mān b. Muqarrin. The troops in Syria and the Yaman were told to remain at their posts against possible attacks from the Greeks or Abyssinians, 3) and 'Umar also sent detachments to Fārs, Isfahān and Ahwāz to act as flank guards for the main Muslim army. 4) In A.H. 14 or perhaps later, 'Utbah b. Ghazwān was sent by 'Umar with 800 men to the vicinity of Baṣrah with orders to prevent the people of Ahwāz, Fārs and Maysān from assisting the Persians against the Muslims in the north. 5)

As well as appointing commanders the Caliph could also dismiss them, as occurred several times with both 'Umar 6) and 'Uthmān. 7) Although the sources must be in error in saying that 'Umar dismissed Khālīd in A.H. 15 he was in fact removed from his command about two years later when he was at Qinnasrīn. 8) Two reasons are given for

- 1) Tab 1. 2080; 2081; 2086; 2091; - see Tab 1. 2191; Ca 14, 54; for identification of riḍ' with reserve. For reinforcements from Medina the word maddah was always used:- Tab 1. 2082; 2084; 2221; 2350; 2367; 2584.  
 2) Tab 1. 2081. 3) Tab 1. 2598 ff; Bal 302 ff. 4) Tab 1. 2616 f.  
 5) Tab 1. 2378 f; Bal 341 f. 6) Tab 1. 2509 f; 2526 f; Bal 278 f; 332. 7) Tab 1. 2811; 2813; Bal 327. 8) Tab 1. 2526 f.

his dismissal: the first because he had amassed plunder, 1) and the second because 'Umar, although not angry with Khālid, felt that the people were turning away from him, and he wished to avoid strife. 2) Similarly, Shurahbīl was removed from command in Jordan in favour of Mu'āwiyah because 'Umar considered that Mu'āwiyah was better fitted for the post. 3)

'Umar seems to have been particularly severe with those who amassed wealth through plunder and went as far as to confiscate their possessions. 4) He also objected to luxury and ostentation in dress. 5) 'Uthmān's reasons for deposing leaders and appointing others were less worthy, since his nominees were often members of his own family. 6) A hint of the confusion prevailing towards the close of his reign and after his death may be gathered from the sources: when his affairs became disturbed his 'āmils in Sijistān and Khurāsān left their posts to go to 'Uthmān in Medina; 7) disturbed conditions in Egypt at this time, until the situation was stabilised by the triumph of Mu'āwiyah, are reflected in the number of governors listed by al-Balādhuri. 8)

One of the functions of the commanders in the field was the conclusion of peace treaties with conquered towns and territories, 9) and the Caliph does not seem to have interfered in these matters.

- 1) Tab 1. 2526 f. 2) Tab 1. 2528. 3) Tab 1. 2525. 4) Bal 219; 384; Fut Miṣr 146. 5) Tab 1. 2080; 2402. 6) Tab 1. 2828; Bal 222; Ya'q II, 191 f. 7) Bal 394 f; 408. 8) Bal 227 f.  
9) Bal 147; 150; 158; Fut Lees II, 151.

The role of the Caliphs in guiding and directing the early conquests can be summarised as follows:

1. In the early stages, before large-scale raids had developed into wars of conquest, the insecure position of the Caliphate, and the deployment of raiding parties over wide stretches of territory made it difficult for Medina to exercise effective control, and the commanders operated independently, co-operating with each other only when threatened by large enemy forces.
2. Soon after the accession of Umar, when it was realised that the raids had been transformed into wars of conquest, the control of Medina over the theatres of operations tightened. Commanders-in-chief were appointed by Umar and were dismissed if he thought that they were abusing their power or acting corruptly.
3. Nevertheless, the commanders had almost complete freedom of action in the field. Direct instructions could not be sent from Medina on tactical matters because Umar was ignorant of conditions obtaining in the distant territories and because his generals, with their strong Arab sense of individuality, would resent any checks upon their freedom of action. If orders did arrive from Medina they could safely be ignored and the excuse could be made later that conditions had changed since Umar had been informed of the situation, or he could simply be told that he had been mis-informed. It probably took some temerity to do this, and Umar's strong personality doubtless acted as a curb and prevented acts of open defiance to his known wishes. 1)

1) Ca 19, 1 ff.

4. Decisions of strategic importance were taken by Medina, e.g. the sending of the army under Sa'd b. Abī-Waqqās to 'Irāq and the decision to allow the Muslims to invade the Persian highlands. Such decisions were influenced by the arguments put forward by the commanders, which were in turn influenced by conditions prevailing in their own regions, and were made after consultation with leading Muslims in Medina.

5. The Caliphs sent out battle groups charged with specific tasks and these groups were independent of the commander to whose region they were assigned.

6. The central control from Medina was at its strongest in the reign of 'Umar. When 'Uthmān became Caliph he dismissed governors and installed his own nominees, often for the wrong reasons: this must have led to a lowering of morale, as must the frequent changes of governors during his reign.

7. The civil strife which marred the period before and after the death of 'Uthmān caused a breakdown in the system of administration and ended the first expansionary period of Islam. 1)

1) See also Mich Syr II, 449 f; for the civil strife following the death of 'Uthmān.

The military administration of the conquered territories.

As ever larger areas were conquered by the Muslim armies it became essential to divide the newly-won territories into regions under governors. Thus Palestine was divided into two regions, each with a governor, 1) and governors were appointed over Jordan, 2) Basrah and Kūfah, 3) and in Syria. 4) In Syria 'Abdallah b. Qays was responsible for coastal defence and for all fortresses along the shores of the Mediterranean, 5) and 'Amr b. 'Abasah was in charge of the granaries. 6) This was the beginning of an administrative organisation and by 638 (A.H. 17) all the regions were organised under 'āmils. 7) This first phase reached its culmination when 'Umar toured the conquered Syrian provinces and held a conference for about twenty days with all the troops operating in the area. 8) Here, at Jābiyah, the organisation of the system of border fortresses (farj pl. furūj) was decided upon, garrisons were organised and personal dispositions were made. A systematic control of commissariat was begun and rations were divided into winter (al-shawāti) and summer (al-sawā'if) provisions. 9)

The following is a sketch of the organisation of the theatres of operations and the division of the battle forces:

Between the enemy territory (dār al-harb) and the conquered areas (dār al-islām) lay the border regions (thaghr pl. thughūr), depopulated and devastated by constant passage of warring forces. 10)

- 1) Tab 1. 2407. 2) Tab 1. 2398. 3) Tab 1. 2578 f. 4) Tab 1. 2646.  
 5) Tab 1. 2523,8. 6) Tab 1. 2523,15. 7) Tab 1. 2526; Ya'q II, 181;  
 185 f. 8) Tab 1. 2401 ff. 9) Tab 1. 2523 ff; see Ca 17,162.  
 10) Bal 163 f.

The thughūr of Kūfah were the districts of Ḥulwān, Masabadān, Qarqisiyah and Mawsil each with its own commander. 1) In the year 646/7 (A.H. 26) the frontier provinces of Adherbayjān and Ray were directly under Kūfah, the first with a garrison of 6,000, the second with 4,000. The troops in Kūfah numbered 40,000 and since the garrisons were relieved each year "each man got the chance for booty once every four years." 2) Later on veterans (ahl al-ʿatāʾi wa al-diwān) were settled on the frontiers, in Adherbayjān for example. 3) These border raids thus replaced the rapid and extensive advances of the early conquests.

The conquered lands were also garrisoned, the words used being: maslah pl. masālih, 4) rābitah pl. rawābit, 5) or murābitah. 6) Such garrisons were usually small. 7) Umar ordered that Antioch be garrisoned by picked Muslims and that they should be generously paid, 8) while in Ḥulwān, on the other hand, al-Qaʿqāʿ formed a garrison of non-Arabs. 9) Many posts were only garrisoned in the summer raiding season in order to secure the retreat. 10)

From the great number of local garrisons a few favourably situated places were selected as headquarters for wider operations - the so-called ajnād (s. jund). 11) Since Balādhuri complains about the indiscriminate use of this term it is not to be expected that its exact meaning can now be ascertained. 12) On occasions the word jund was used as a synonym for maslah 13) and this indicates the development

1) Tab 1. 2497. 2) Tab 1. 2805. 3) Bal 328. 4) Tab 1. 2647.  
5) Bal 142; 185. 6) Bal 197f. 7) Bal 264 f; 301. 8) Bal 147 f.  
9) Tab 1. 2473 f; 10) Bal 127; 150; 185. 11) Tab 1. 2360.  
12) Bal 131 f. 13) Bal 127; 185.

of the jund, a standing camp of the army in the rear areas, from the maslah, a rest camp or garrison in operational areas. A typical development of this kind was at Basrah, which when first occupied was built of reed huts which were dismantled and stored away when the inhabitants went on raids, but later the settlement was constructed of sun-dried bricks. 1)

The development of large settlements occupied by Muslims was either in association with existing towns or their foundation was ordered by Medina. 2) The number of these amsār (s. misr) in Umar's lifetime is not known; al-Ya'qūbi says that there were seven, but owing to a lacuna in the text only five are named - Medina, Shām, Jazīrah, Kūfah and Basrah. 3) Probably the amsār developed from the ajnād just as the ajnād had grown out of the masālih but the precise nomenclature and the distinction between the three categories is not important in a military context. What is relevant is the fact that Umar felt it to be necessary to found such settlements so that the spirit of Islam should not be corrupted by the vices of cities such as al-Madā'in, and so that the conquerors should not mix with non-Arabs. 4) He ordered their foundation and gave instructions about the type of sites to be selected e.g. that they should be near water and pasture. 5)

In the early conquests none of the encampments in the west seem to have attained the same importance as Kūfah and Basrah, although Khālid and Iyād are mentioned as using Qinnasrīn as a raiding base. 6)

- 1) Bal 346; 342. 2) Ya'q II, 176; Fut Miṣr 91 ff; 128 ff.  
 3) Ya'q II, 176; see Well VI, 86, note 2. 4) Ca 16, 1-12.  
 5) Tab 1. 2560; Bal 275; 341 f; Ya'q II, 171. 6) Tab 1. 2526.

### Pensions

Pensions were paid to Muslim veterans of the early conquests and to their families: up to the time of the institution of the Diwān - the pension lists - the warriors, with one exception, 1) were not paid in coin but received their share of the booty. 'Umar is universally named in the sources as the originator of the Diwān, 2) but the date given for its establishment varies. The tradition of Sayf b. 'Umar puts the event at 'Umar's council at Jābiyah but his chronology must be at fault because he places this council in the year A.H. 15. 3) Another tradition for the date is the year 641 (A.H. 20). 4) The first tradition is suspect because it includes in the roll of the Tamīm non-Muslims and Islamised Persians, presumably to make good later claims to pension rights. It also places the Prophet's uncle, al-'Abbās, high on the list, although as a late convert to Islam he would not have been highly favoured. 5) The second source's reliability is enhanced by the support of al-Ya'qūbi, who is usually conscientious about dates. The year 641 seems the most likely time for 'Umar to have instituted pensions, since in this period between Jalūlā' and Nihāwand there was a pause in the Muslim expansion. Booty was not therefore available at that time, while recruits were pouring in from Arabia. The taxes of the conquered lands, which the warriors were forbidden to farm, 6) could be used for paying out pensions. 7)

- 1) WW 406. 2) Tab 1. 2411 f; 2486; 2496; 2750; Bal 448 ff; Ya'q II, 175 f. 3) Tab 1. 2411 f; 2486. 4) Tab 1. 2595; Ya'q II, 175; Ca 20, 247 ff; 21, 23 note 1. 5) Ca 20, 319; 20, 528. 6) Fut Miṣr 162. 7) Ca 20, 247 ff; Beckmann 127 ff.

The morale of the Muslim conquerors

The sources state that intense religious feeling, in the early Muslim armies, was the cause of their obedience and readiness for martyrdom.<sup>1)</sup> They also report that before battle troops were harangued and urged to fight with the knowledge that God was with them <sup>2)</sup> and that the hope of booty was often added as a more tangible incentive. <sup>3)</sup> The changed conduct of the Muslims seemed very strange to their non-Muslim contemporaries. Abū Sufyān commented, on first seeing them pray: "I have never seen such obedience, neither from the proud Persians nor from the Greeks with long forelocks." <sup>4)</sup> Similar remarks were made by 'Umayr b. Waḥb when reporting back to the Meccans from a reconnaissance at Badr. <sup>5)</sup> At Qādisiyyah the Persians were amazed at Muslim discipline and thought that they were about to attack when they assembled to pray. <sup>6)</sup> The trustworthiness of such reports is enhanced by the report of a Christian historian, Michael the Syrian, who quotes a Persian spy as saying, of the Muslims: "I saw a people barefoot, in rags, weak, yet very brave." <sup>7)</sup> Cases of cowardice <sup>8)</sup> and disobedience <sup>9)</sup> are mentioned but they sometimes refer to non-Muslims in alliance with the Muslims. <sup>10)</sup> The reports of cowardice on the first raid to Mū'tah are intended to vilify Khālid, <sup>11)</sup> whose subsequent career should afford ample proof of his courage.

1) Tab 1. 2123; 2290; Bal 377; Waq 52; WW 38; IH 445; 572.

2) Tab 1. 2219; 2289; 2331; 2597; 2623; Fut Lees I, 32.

3) Tab 1. 2031; 2095; 2295; Fut Lees I, 5; II, 150; 151. 4) Bal 38.

5) Waq 57; IH 441. 6) Tab 1. 2291; for similar remarks see also Fut Lees I, 32; Fut Miṣr 65. 7) Mich Syr II, 421. 8) Tab 1. 2176.

9) Tab 1. 2330; Waq 226 f; WW 111; Fut Miṣr 77. 10) Tab 1. 2347 f; WW 358 f; IH 844 f. 11) WW 309 ff; IH 798.

Khālīd's courage was tempered, as in all good generals, by prudence: he reproved Shurahbīl b. Hasanah at Yamāmah for attacking the Hanīfah with a small force of cavalry before the arrival of the main army, 1) and on his march to Syria he turned aside to avoid the Greek frontier fortresses. 2) There are grounds, however, for believing that Sa'd b. Abī-Waqqās was not over-endowed with courage, since he avoided the fighting on the expedition to Nakhlah, offering a lame excuse for his conduct, 3) and he directed the battle of Qādisiyah from the rear. In Tabari the reason given for this is that he was suffering from boils 4) but Balādhuri is non-committal and says that it was for 'a certain reason.' 5)

Muhammad's attitude to acts of violence and destruction appears at first sight to be equivocal. He permitted at times the felling of trees 6) and the burning of vines and houses; 7) he ordered the hands and feet of prisoners to be cut off 8) and sent men to assassinate his enemies. 9) At other times he forbade such acts. 10) His views, however, were not really contradictory, for his actions were dictated by circumstances. The destruction of crops and property was the method used to induce a besieged town to surrender 11) or to compel its garrison to give battle outside the walls. 12)

1) Tab 1. 1931. 2) Tab 1. 2112. 3) IH 424; 426; see Watt Medina 6 f.  
 4) Tab 1. 2288 f. 5) Bal 258. 6) Waq 361. 7) WW 369 f.  
 8) IH 999; WW 240 f. 9) IH 548 f; WW 170 f; 224 f. 10) WW 309 f.  
 11) Bal 246. 12) Waq 210 f; J. Nik 562.

When a new movement depends upon ideas, the most dangerous enemies are those who oppose the ideas on which it is based, especially those who can compose telling satires, and it was these foes that Muhammad sought to eliminate. 1) At other times he was opposed to senseless violence, or used clemency as an instrument of policy to win over his enemies, as when he chose ransom rather than death for the prisoners of Badr. 2) There is, nevertheless, evidence enough in the sources to show that hatred ran high between the Meccans and the Muslims 3) and its results are shown in such actions as the painful deaths inflicted on Muslim prisoners, 4) and the equally unpleasant treatment given by a Muslim to a tribesman who mocked Islam. 5) Mutilation of the dead also occurred, 6) but the disgusting behaviour of Hind, the wife of Abū Sufyān, at the battlefield of Uhūd, 7) is obviously regarded with distaste by the narrator and such actions may therefore have been exceptional. (This may, however, be a tendentious Abbasid report as Ibn Ishāq hints when he quotes Abū Sufyān as saying that mutilation gave him neither satisfaction nor anger). 8) In the Riddah wars and in the foreign conquests acts of cruelty such as wanton killings, 9) killing of women and children, 10) and crucifixion of prisoners, 11) occurred. Violence was in accordance with the spirit of the times and the Arabs could no doubt expect similar treatment from their enemies.

- 1) IH 819; see Watt Medina 18. 2) Waq 102 f. 3) IH 557; 562 f; WW 238; 361 f. 4) IH 640 f; WW 156 f. 5) Tab 1. 1438 f.  
 6) Tab 1. 1415; 2340; Waq 269. 7) IH 581; Waq 279. 8) IH 583.  
 9) Tab 1. 1925; 2182. 10) Tab 1. 2070; 2072; J. Nik 555; 559; 568 f.  
 11) Tab 1. 2122; Bal 328 f.

Even a hostile witness such as John of Nikiou, although he complains of the heavy load imposed on the people of Alexandria by the payments of tribute, 1) admits that 'Amr observed the terms of the treaty, despoiled no churches, committed no acts of pillage, and protected the people. 2)

Severity towards their enemies must have been tempered by a sense of comradeship among themselves without which no army can achieve success; even the severe 'Umar wept to hear of the Muslims killed at the battle of the Bridge, 3) and at the news of the death of Nu'mān at Nihāwand. 4)

The Muslim ideal also included simplicity and abstention from luxury. Here again 'Umar is the exemplar, 5) and his ascetic character is contrasted with luxury in dress 6) and living. 7) His example was seldom followed by his commanders; however, and they sought to enrich themselves by plunder; 8) on one occasion a wooden door built into Sa'd's house was said to have been burnt by 'Umar's order. 9) Such deviations were common and contradict the idea of an ascetic puritanism. 10) Nevertheless, from the reports of an opposing tendency given in the preceding pages, and from the external evidence, it must be inferred that some motive force in addition to the selfish greed for plunder animated the Muslim conquerors.

- 1) J. Nik 585. 2) J. Nik 584. 3) Tab 1. 2180. 4) Tab 1. 2598 f.  
 5) Bal 527; see Ca 20, 9. 6) Tab 1. 2080; Mich Syr II, 425 f.  
 7) Tab 1. 2171 f; Bal 527; Ya'q II, 168. 8) Bal 219; 384.  
 9) Bal 278. 10) Tab 1. 2149; Bal 108.

## CHAPTER VI

MOBILITYSECTION I: The Arab mounted on camel-back and horseback.

In the sources the commonest name used for the camel is ba'ir 1) pl. ab'irah, bur'an, ab'ir; the noun is of feminine gender, but in the Twentieth century the Badw use the term for camel, regardless of sex. 2) Other words which occur frequently are: nāqah, 3) an adult female; ibl, a collective noun; 4) jamal pl. jimāl, a male; 5) rāhilah pl. rawāhil, a female riding camel. 6) The term rikāb pl. rukub, rikā'ib, usually means riding camel; 7) in the Qur'an it is used of camel-riders as distinct from horsemen, in the expression: 'ma awjaftum 'alayhi min khayl wa la rikāb.' This means 'you urged not your horses nor your camels against it' (stronghold of B. Nadīr). 8) Occasionally other terms are used, including: nādih pl. nawādih, for a camel used to draw water from a well, but also sometimes ridden; 9) najībah pl. najā'ib, a throughbred riding camel; 10) this was the noblest of all camels and a tribe once boasted that its najā'ib were the equal of its khayl. 11) A bakr pl. abkār was a young camel; 12)

1) Tab 1. 1274; 1554; 1601; 2600; Waq 17; 96; 97; IH 424; 433; 437; 462.  
 2) Mus Rwala 330. 3) Tab 1. 1745; 2002; Waq 375; WW 39 note 3; IH 422; 663; 722; Ya'q II, 190; Fut Lees II, 142; see Mus Rwala 331.  
 4) Tab 1. 1419; Waq 15; 96; 181; Bal 276; IH 722; Fut Lees I, 27.  
 5) Tab 1. 1359; 1660; Waq 17; 80; Bal 99; Fut Lees I, 89.  
 6) Waq 34; 108; Bal 350; IH 807; Fut Miṣr 185. 7) IH 439; 440; Ya'q II, 162. 8) Sūrah LIX, 6; IH 655; Bal 18; 29.  
 9) Waq 18; IH 441. 10) Tab 1. 1981; al-Khansā' 91, and note 1.  
 11) Waq 333. 12) Waq 18.

both dhulūl pl. dhulul, 1) and matīyy or matīyah pl. matāyah 2) were other names for riding camels. Sometimes the term dābah pl. duwāb 3) is used but this word can mean any riding animal or pack animal.

In general the Badw treat their camels well, but in extremities, as during Khālid's march, 4) they will kill camels and water their horses with the contents of their stomachs. Caetani 5) thinks that this is an improbable story, being contrary to the nature of the Badw, but Thesiger says that an Arab who is really suffering from thirst will drink the water from a camel's stomach or even thrust a stick down its throat and drink the vomit. 6) Musil relates how a camel is incited to drink by special songs and by slapping the surface of the water in a rhythmic manner; many camels are trained to recognise by these sounds that they are to go on a long dry journey and to drink more greedily. After drinking they are allowed to graze for about an hour and are then brought back and incited to drink again; a strong, fat camel can be made to drink from 60 to 70 litres in this way. When the Badw are returning from a raid and, lacking water bags, fear that the wells en route may be blocked, they first force the camels to drink to excess as described above. Then the muzzles are tied, the lips may be cut to prevent grazing, and even the rectum sewn up to prevent excretion. The urethra may also be fastened with a stake to prevent staling. The water obtainable from the bellies of ten camels, when mixed with milk, is sufficient for from 80 to 100 horses. 7)

1) Tab 1. 1707. 2) Tab 1. 1888; Fut Lees II, 147. 3) Tab 1. 2464; Waq 326; Bal 406; IH 589. 4) Tab 1. 2112; 2125. 5) Ca 12, 419 f. 6) Thes 138. 7) Mus AD 570 f.

It should not be inferred that the attitude of the Badw to their camels is necessarily cruel or indifferent. The camel is their main support in the harsh life of the desert, providing transport, milk, meat and covering, and this fact is not unappreciated by the Badw when they refer to the camel as the Gift of God - Atā Allah. 1) Nor is affection lacking between man and beast; 2) a camel will answer the call of its master and may go over to its master in the night and place its muzzle against him as if to be assured of his safety. 3) Camels are sometimes called by name. 4) The practices described above are a last resort in the struggle for survival, not a symptom of the usual attitude of the Badw towards their camels.

The Badw are expert at identifying a camel by its tracks and can always identify their own camels in this way, while some can remember the tracks of every camel they have ever seen. They can distinguish the region a camel comes from by its pads: an animal from the gravel plains has polished pads, while one from the sandy desert has soft pads. 5) They can tell where a camel has grazed from its droppings. 6) Thus Abū Sufyān realised that two Muslim scouts had been at a well by examining the droppings, saying: "This is fodder from Medina" - "W'allahi alā if Yathrib hadhihi." 7)

Women were carried on camels in litters, a kind of cage made of wooden poles; 8) this was called the za'inah pl. zu'un and the same term was used, by extension, for the women carried therein. 9)

1) Thes 69. 2) Thes 44; 56. 3) Thes 69. 4) Tab 1. 1745.  
5) Thes 52; see WW 95; 172. 6) Thes 52; Tab 1. 1434. 7) IH 457;  
Waq 34; see also IH 807. 8) Waq 181; Fut Lees I, 91; see Mus  
Rwala 68 f. 9) Tab 1. 1390.

In the early sources camels are frequently mentioned in similies and other allusions, especially in poems; such references suggest that the originators of the isnād were familiar with the habits and management of camels. 1)

The availability of camels.

The poverty of resources in early Islam is indicated by the scarcity of camels on the march to Badr; there were over 300 men but only 70 camels, which were ridden in turn. 2) On other expeditions two men had to share one camel, 3) or the numbers of men exceeded the number of mounts. 4) Before the raid to Tabūk some Muslims wept because they had no camels and two of them were given a camel between them. 5) Even the Meccans at Badr 6) and the Ditch 7) had fewer mounts than men. More rarely, in operations outside Arabia, there were occasions when the number of camels was insufficient. 8) Nevertheless the situation must have slowly improved; camels were often taken as booty 9) and this, together with the adherence to Islam of camel-riding nomads, would tend to increase the proportion of camels to warriors. Long distance travel in the desert could hardly be contemplated without the camel, 10) and even the short pursuit to Hamrā al-Asad after Uhud was considered a hard journey on foot. 11) It seems likely that, by the time the foreign conquests were under way, the great majority of the Muslims had their own camels.

- 1) Tab 1. 2360; IH 564; 575; 631; 635; 667. 2) Waq 15 f.  
 3) IH 722; 793. 4) WW 229; 387. 5) WW 392; Ih 895 f. 6) WW 44.  
 7) WW 191. 8) Fut Miṣr 58; Fut Lees II, 147 ff.  
 9) Tab 1. 1359; 1554; 1674; Waq 96 f; 184; 333; WW 95; 226; 232;  
 297; 375; IH 877. 10) Mus Rwala 349. 11) Waq 326.

The sources, however, hardly ever state specifically that a journey was undertaken on camel-back; they merely say "they went to such a place," even for journeys of several hundred miles. The terms used are usually sāra 1) for travel by day, sarā for travel by night, 2) and fawwaza for travel in the arid desert. 3) Nevertheless, for the warfare in Arabia, there are so many references to camels that it is certain that all the long journeys in Arabia were made on camel-back. 4) The same is true, although references are fewer, for the early campaign in Irāq; 5) for Qādisiyah; 6) for Syria; 7) for Khālīd's march; 8) for Jazīrah. 9) Amr's army for the invasion of Egypt is called a cavalry force in one source, 10) and John of Nikiou always refers to horses and horsemen, never to camels. 11) Camels are mentioned elsewhere, however, both in Egypt 12) and in N. Africa 13) and when they entered Egypt the Muslims were expecting to take camels as booty to replace their losses. 14) It has been shown above (Ch. III p. 70) that the dromedary had been domesticated in Egypt and N. Africa before the beginning of the Christian era, so there is no reason to doubt that Amr's men would find camels to loot when they arrived in the Delta. Amr's force may have included a higher proportion of cavalry than armies in other theatres, but it is likely that the invasion force and the N. African expeditions relied mainly on the camel for transport.

- 1) Waq 323; Bal 142; Ya'q II, 147; Fut Lees I, 40. 2) Tab 1. 2204; Bal 99. 3) Tab 1. 2122 f. 4) Tab 1. 1580; 1745; 1874; 1888; 1965 f; Waq 97; 108; 109; IH 767; 793; 900. 5) Tab 1. 2059; 2069; 2206. 6) Tab 1. 2309. 7) Tab 1. 2085; 2390; 2576; Fut Lees I, 27; Fut Lees II, 147 ff. 8) Tab 1. 2112 f; 2121 f; Bal 110 f; 250. 9) Tab 1. 2511. 10) Tab 1. 2592. 11) J. Nik 559 f; 561; 568. 12) Fut Misr 58; 81. 13) Fut Misr 184 f. 14) Fut Misr 58.

In all these desert and steppe regions, which have unbroken land communications with Arabia, with no sea barriers or large mountain ranges intervening, the dromedary had been domesticated for centuries before the Muslim invasions (see Ch. III). This continuity of terrain and camel-culture, together with the evidence of the sources, makes it highly probable that the methods of warfare and transport, in these areas, remained very similar to those used in Arabia, with the dromedary as the indispensable means of long-distance transport.

The accounts of the warfare in the highlands of Persia and Asia Minor, however, contain very few references to camels. Indeed in Tabari only two such references have been found. One is in the story of the disastrous expedition led by Mujāshi to Kirmān, when the troops perished in the snow, and a girl was saved by spending the night in the belly of a dead camel (ba'ir). 1) The second occasion was when camels were taken as booty in Kirmān and the troops were uncertain how to divide them; they asked Umar to give his judgement, and it is clear from his reply that the animals in question were Bactrian camels, since he referred, by way of comparison, to the normal method of dividing Arabian camels. 2) In this period camels were used by couriers to Medina. 3) It is possible that these animals were obtained in Basrah, 4) and that the troops were not on camel-back while on operations in the highland regions.

1) Tab 1. 2863. 2) Tab 1. 2704. 3) Tab 1. 2600; 2707 f.

4) Tab 1. 2702.

It seems likely that mules were used extensively in the mountain areas, and they are mentioned several times. 1) There is even a tradition that Abū Mūsā wished to lead an expedition from Basrah with his army all on foot; the men not unnaturally objected when forty laden mules for Abū Mūsā's personal use were led out from his mansion. 2) In the mountains the use of mules, pack-horses ( birdhawn pl. barādhīn), 3) and perhaps Bactrian camels, must have altered the traditional pattern of Badw warfare and movement. Since the Bactrian camel, like the mule, is a pack animal and not usually a riding animal, 4) most soldiers would no longer, as in Arabia, have mounts under them. There must have been a gradual transformation into the Persian style of warfare, with squadrons of cavalry forming an elite, while as a general rule the mass of the fighting men were foot-soldiers.

There is no evidence to indicate the method of transport in the arid lands of the Great Desert, Makrān and Khurāsān. We are told that that the first raids into Khurāsān took the desert route, 5) where water is scarce and conditions are not suitable for horses and mules. Since the use of the dromedary had been known in these regions for many centuries before the Muslim conquests, (see Ch. III, 72) it is probable that dromedaries were available to the Arabs for transport in the deserts and steppes to the north-east and east of the Iranian plateau.

1) Tab 1. 2504; 2549; 2552; 2829. 2) Tab 1. 2829. 3) Tab 1. 2623.  
4) Badw (Wissmann) 882. 5) Tab 1. 2682; 2885.

The Arabs as mounted infantry.

The dromedary is used by the Arabs as a riding animal, a beast of burden, or for agricultural work. It is not easy to fight from the back of a camel, and its use as a cavalry mount in the conquests was very infrequent. The warriors who had camels but not horses must be considered as mounted infantry, not cavalry. Only two references to fighting from camel-back have been found; the standard-bearer of the Hawāzin at Hunayn fought with the lance from the back of a red camel; 1) at Qādisīyah a party of infantrymen were said to have been mounted on camels and used to frighten the enemy's horses. 2)

On the other side the attestations are much more numerous and convincing. Sometimes it is stated specifically that the troops were on foot, 3) and there are many references to infantry as distinct from cavalry. 4) At Uhud the Meccans' camels were left behind in camp and guarded by slaves 5) and at Hunayn a woman held her husband's camel while he fought. 6) At the Yarmūk the Arabs' camels were hobbled and stationed around their encampment - the Greeks were also on foot. 7) The reinforcements from S. Arabia to the Yarmūk were infantry and travelled on camels. 8) Other references to fighting on foot occur in poems. 9) The fact that sandal-straps were tightened before battle implies that a firm foothold was necessary. 10) At Mū'tah a warrior even dismounted from his horse when hemmed in on all sides. 11)

- 1) Tab 1. 1660; WW 360. 2) Tab 1. 2309. 3) Tab 1. 1659; 2330; 2331; Waq 61; WW 359; 361; IH 846. 4) Tab 1. 2224; 2330; 2477; 2627; Bal 380; 390; Ya'q II, 159; 165; Fut Lees II, 169; 191; 241 f; Fut Miṣr 184. 5) Waq 227; WW 111. 6) IH 847. 7) Sebeos 97 f. 8) Fut Lees II, 149. 9) IH 624; 630. 10) Tab 1. 2598. 11) IH 794.

Travel on Camel-back.

There are descriptions of marches in the sources but the information given is usually very meagre. 1) Times of march are often omitted, and when they are given it is frequently impossible to identify the destination. Where the total duration of an expedition is known, events such as raids, battles and trading stops are included in the total time, so that the actual march time is unknown.

In the time of Muhammad the armies set out from an assembly point, such as al-Jurf, near Medina; 2) the armies destined for Syria assembled at Sirār, also near Medina. 3) In Arabia at least there seems to have been little discipline on the march and no-one objected, on the march to Hudaybiyah, when a man left the ranks to hunt and kill a wild donkey, and having cooked it, rejoined the march. 4) In later times the marching order was the same as the order of battle (ta'biyah) with vanguard, rearguard, etc. 5) but it is not known if the two wings acted as flank protection or were in file. Scouts were sent out when in enemy country and these were either volunteers or were guides hired from a tribe. 6) Sometimes the troops marched by day and by night. 7) Navigation was by guides 8) or by the stars. 9) On the way to Syria a party of reinforcements lost their way, and it was not until their leader saw a certain mountain which he knew to be near their destination that they were sure of their route. 10) En route to Hudaybiyah the guides lost their way on the secondary track which had been taken in order to try and achieve secrecy. 11)

- 1) Waq 214; WW 211; 229; 242; 300f; Tab 1. 1299.  
 2) Waq 13; 15; WW 226; 309; 326; 391; 434. 3) Tab 1. 2212 ff.  
 4) WW 245; see also WW 301. 5) Tab 1. 2537; 2618. 6) Waq 193; 337; WW 245. 7) Tab 1. 2617; WW 393; IH 727. 8) Tab 1. 2112.  
 9) Tab 1. 2113. 10) Fut Lees II, 148 ff. 11) WW 245.

Types of March - March Speeds.

For the purpose of considering march speeds it is necessary to divide travellers into three broad categories. These are:

1. Camel-mounted couriers.
2. Raiding parties, without women, children, or heavy baggage.
3. Tribal groups, with families and household chattels.

1. Couriers.

Couriers certainly rode hard: in one case a man returning to Kūfah from Medina set out at night and the next morning another rider was sent out by Umar to bring him back but could not overtake him before he arrived at Kūfah. 1) A courier from Basrah to Medina had to have his mount replaced for the return journey because his first camel was exhausted. 2) Even with expeditionary forces the camels became emaciated and had to be revived by grazing on fresh green pasture. 3)

Various times are given for the journeys of single riders: the time for the journey from Mecca to Medina, over 250 miles, was three 4) or four 5) days. Al-Muthanna is said to have ridden from Medina to Hīrah in ten days, a distance of about 670 miles. Some of the times given are ridiculous: thus a courier is supposed to have travelled from Ifriqiyah to Medina in twenty days, a distance of at least 2,000 miles, 7) and another from Medina to the Yarmūk, over 700 miles, in three days. 8) Additional information can be obtained from reliable modern sources. The tiger covered 115 miles in 25 hours and 450 miles

- 1) Tab 1. 2599 f. 2) Tab 1. 2703. 3) Fut Lees I, 27. 4) WW 102.  
5) Waq 323. 6) Tab 1. 2165. 7) Fut Misr 185. 8) Fut Lees II, 142 ff.

in nine days. 1) Musil quotes a journey by two couriers who rode 94 miles in 24 hours; 2) on another occasion a man rode 160 miles from sunrise to sunset, spent the night, and did the return trip the following day, also between sunrise and sunset. 3) Glubb says that a rider can cover 100 miles in a day, not by trotting but by travelling for 20 hours at 5 m.p.h., and sleeping for only 4 hours. On the second day he will do less, and on a trip of 5 or 6 days he will do 50 to 60 miles a day. 4) Similar figures are given by Doughty who, after citing various typical journeys by camel riders, says that a dhulūl in good condition may do 70 miles a day for short journeys, 60 to 65 miles a day for a week, and 50 miles a day for a fortnight. 5) It can be assumed, therefore, that the speed of couriers during the conquests would be similar to these: a rider would cover about 100 miles in one day, 400 miles in a week, and up to 700 miles in a fortnight.

## 2. Raiding Parties

Three expeditions will be considered: Tabūk; the raid led by Usāmah b. Zayd to the Balqā; the march of Khālīd b. al-Walīd from Irāq to Syria.

### The raid to Tabūk. 6)

No women were mentioned as accompanying the expedition, and it is unlikely that there were any, since women were usually mentioned when present, e.g. the twenty women who went to the siege of Khaybar. 7)

1) Thes 17. 2) Mus AD 120. 3) Mus NN 145. 4) By letter.  
5) Doughty II, 553. 6) WW 390 ff; IH 893 ff. 7) WW 283.

It is difficult to ascertain the time taken on the journey: the departure was in Rajab, 1) but the order was not given for preparations to start until Rajab had begun, and these preparations must have taken time. 2) It was still Rajab when Muhammad arrived at Tabūk and sent Khālid on to Dūmah. 3) The march, therefore, could scarcely have taken more than 20 days, perhaps less, for approximately 380 miles.

They stayed in Tabūk for 20 days 4) - Ibn Ishāq says 10 nights, 5) but even Khālid could not have done the round trip to Dūmah (450 miles) which included fighting and taking prisoners and booty, in such a short time. The army returned to Medina, arriving in Ramaḍān, and since a deputation of Thaḳīf came to see Muhammad later in that month, his return may have been early in Ramaḍān. 6) Wāqidi refers specifically to the speediness of the return march, 7) so the journey may have been completed in less than 20 days. Numbers are given as 30,000 men, 10,000 horses and 12/15,000 camels, 8) but are probably exaggerated, especially for horses. Muhammad expressly ordered that all the men should be well mounted, <sup>/9)</sup> but from the ratio of men to mounts this does not appear to have meant that every man had a mount to himself. Indeed, the sources state that two men had to share one camel. 10)

1) IH 895 f. 2) WW 391; IH 895. 3) WW 403. 4) WW 401. 5) IH 904.  
6) WW 414; IH 914. 7) WW 409. 8) WW 408. 9) WW 392.  
10) WW 392; IH 895 f.

## Usāmah's raid. 1)

Assuming the destination to have been in the vicinity of Kerak, the distance for the single journey is about 600 miles by the coast road, and about 660 miles via Tabūk. The party was absent from Medina for 33 days, 2) and since they took some booty 3) they must have stayed for some days before the return march. The speed of march, therefore, cannot have been less than 40 miles a day.

## Khālid's March. 4)

Certainly the most celebrated forced march in desert conditions (mafāzah) 5) in the early conquests was that of the force of about 600 warriors 6) led by Khālid b. al-Walīd from Irāq to Syria. The sources are more than usually confused about this episode, and Orientalists have been unable to agree on his itinerary. Many events which took place when Khālid was raiding in Irāq, or when al-Muthanna was operating along the Euphrates after Khālid's departure have been included in the accounts of the journey. There are certain events, however, which are mentioned by most of the traditions, without contradicting each other, and without introducing geographical absurdities. These form the basis of the following narrative.

While in Hīrah, Khālid received instructions from Abū Bekr to go and reinforce the armies in Syria. 7) He was told to return the women and children to Medina with an escort. 8)

1) Tab 1. 1848 ff. 2) Ca Chron. 11, 111. 3) Tab 1. 1851.  
 4) Tab 1. 2112 ff (Sayf b. Umar); 2121 ff ( Ibn Ishāq); 2109 (Madā'ini); Bal 110 f; 250; Ya'q II, 150 f; Ca 12, 392 f; Mis AD, App VIII; de Goeje 37 ff. 5) Tab 1. 2123, 10. 6) Bal 110. 7) Tab 1. 2121.  
 8) Tab 1. 2121.

Khālīd then left from Hīrah 1) or from Ayn al-Tamr 2) the date of his departure, according to Balādhuri, being Rabi<sup>c</sup> II, A.H. 13. 3) At some stage in his journey occurred the famous forced march through waterless desert from Qurāqir to Sūwā, 4) and the description of this is very vivid. In Qurāqir a guide was found who warned Khālīd that the route to Sūwā was difficult even for a single rider. 5) Khālīd, however, insisted on attempting the march, and preparations were begun, the men being told to provide themselves with sufficient water for the journey. 6) Presumably the water-bags were only enough to carry water for the men, because a means had to be found to provide water for the horses. The guide, Rafi<sup>c</sup>, selected twenty old, fat camels who were watered and then incited to drink again (al-<sup>c</sup>alal ba<sup>c</sup> d al-nahal) 7) until they were sated. Their lips were then cut to prevent them from ruminating. 8) The journey was five nights, i.e. six days, duration. 9) At each night halt four of the camels were slaughtered and the water from their bellies was mixed with milk and the mixture fed to the horses. 10)

When they approached Sūwā the guide, who was suffering from an eye affliction, 11) was unsure of the location of the well and ordered the men to seek for a distinctively shaped bush. 12) Eventually its stump was discovered and digging at its foot revealed the well. 13)

- 1) Tab 1. 2112. 2) Bal 250. 3) Bal 110; 250. 4) Tab 1. 2122 f; 2112 f; Bal 110 f. 5) Tab 1. 2112; 2122. 6) Tab 1. 2125.  
7) Tab 1. 2125. 8) Tab 1. 2112; 2125. 9) Tab 1. 2122, 15.  
10) Tab 1. 2113, 1 f. 11) Tab 1. 2113, 10. 12) Tab 1. 2113, 12.  
13) Tab 1. 2113.

Apart from the above narrative there is much confusion in the sources for the remainder of the itinerary. Some accounts mention places along the Euphrates and also towns along the road from Mesopotamia to Damascus, such as Arak, Tadmur (Palmyra), Qaryatayn and Huwwārīn. 1) Other details are given only in the account of Sayf b. 'Umar, 2) who says that Khālīd's route from 'Irāq was via Dūmah and thence through the desert to Qurāqir. While at Qurāqir he asked which way to travel in order to avoid the Greeks, lest they impede him from bringing help to the Muslims. He was told to make for Sūwā, which lay at the second gate into Syria, and one of the local inhabitants told him that he must set out with the morning star on his right eyebrow.

There are three main theories for the route taken by Khālīd: that of de Goeje places Qurāqir in the 'Irāqī desert north-west of Ayn al-Tamr and Sūwā in the Palmyrene, north of Arak on the road to Damascus, whence he followed the road towards the oasis of Damascus. 3) The Dūmah mentioned by Sayf, which is specifically named in one account in Balādhuri as Dūmat-al-Jandal, 4) is assumed, on the basis of another rather tenuous tradition in Balādhuri, 5) to be Dūmat-al-Hīrah, near Ayn al-Tamr. 6) This is a possibility, but it offers certain difficulties; why follow a difficult route through the desert when he could have followed the river to the high road? The names Qurāqir and Sūwā cannot be found in this area. Water in the vicinity of Arak is

1) Tab 1. 2109; Bal 110 f. 2) Tab 1. 2112 - 2113. 3) De Goeje 37 ff.  
4) Bal 110 f. 5) Bal 63. 6) De Goeje 10 ff.

plentiful; there would be no need to seek for it in the way described. 1)

This objection also applies to the second hypothesis, that of Caetani, followed by Becker. 2) Caetani maintains that, reading Rabi<sup>II</sup>, A.H. 12 for Rabi<sup>I</sup> II, A.H. 13 in Balādhuri, Khālid left Hīrah in December 633, and pursued a leisurely course up the Euphrates, raiding and plundering as he went. Having dealt with some Taghlib camps in the region of al-Bishri, he turned south and made for Suknah, which Caetani identifies with Sūwā; Qurāqir is assumed to lie in the area of al-Bishri. Thereafter his route was the same as that given by de Goeje. The most serious fault in this theory is in the distance between al-Bishri and Suknah, no more than 65 miles. The route is well-watered 3) but even if it were quite arid the distance is no more than a forced march of one day for an Arab raiding party. It is quite impossible that this could have inspired the remembrance of a difficult forced march of five nights duration. Furthermore, it is not in keeping with what we know of Khālid's character that, on receiving an order from Abū Bekr, he should have spent more than three months on the journey.

Neither of the two theories discussed so far includes positive identification of the two most important place-names: Qurāqir and Sūwā. There is a Qurāqir, however, at the western end of the Wādi Sirhān. It is the Qulbān Qurāqir and it is still marked on the map with a village of the same name close by. 4)

1) Personal experience. 2) Ca 12, 416 ff; Becker 341.

3) Personal experience. 4) War Office map, series 1: 1,000,000 - al-Jawf; Palestine Survey 1941, 1: 500,000 - Sharq al-Urdun.

It is here that Musil places the start of the waterless journey for reasons which appear to best fit the available facts. 1) The course of events as presented by Musil is as follows: Khālid set out from Hīrah in late March, 634, the date Rabi<sup>ʿ</sup> II being the middle of the season which was known to the Badw as Rabi<sup>ʿ</sup>. This was early spring and was divided into sections, this usage being especially prevalent in Irāq.<sup>2)</sup> That the use of the old seasonal names persisted into modern times is attested by Doughty who says: 'Rabi<sup>ʿ</sup> a is spring, autumn sferry to the nomads'. 3) He took the route through Dūmat-al-Jandal, the normal trading route from Irāq to Syria. When in the Wādī Sirhān he realised that the road to the west, regarded by the Badw as one of the two gates into Syria, was guarded by Greek fortresses which were still manned and sufficient to bar the path to his small forces. 4) He therefore turned north and would certainly have had to start off in a north-westerly direction (morning star on his right eyebrow) to avoid the worst of the lava flow. His destination was Sab<sup>ʿ</sup> Biyār in the desert east of Damascus, which Musil identifies with Sūwā; there is still a small hill and a small wādī (shi<sup>ʿ</sup>b) called Sūwā at Sab<sup>ʿ</sup> Biyār. While in that region he probably looted sheep from the shepherds of Qaryatayn, Hawwarīn, Arak, Tadmor, Ba<sup>ʿ</sup>alabakk, and Busrā who drove their animals to the Jabal al-Sharqi for the spring grazing. They still did in 1954, at least from the first four places named. 5)

1) Mus AD, App VIII, P 553 ff. 2) Well Reste 97. 3) Doughty I, 261; see also IH 612; and IH Guillaume 405, note 2.  
4) Dussaud 29 ff; 38 ff. 5) Personal experience.

This may account for the traditions which mention these places, having confused such depredations with assaults upon the towns themselves. The inclusion of Tadmor, Arak, and Sukhnah in some itineraries may have occurred because of events at a later date, when Khālīd's descendants living in Hims had dealings with towns in the Palmyrene. From Sūwā Khālīd moved on and, in a surprise attack, overwhelmed a camp of the Ghassān, on Easter Day, 24th April, 634, at Marj Rāhit, now Adhra<sup>c</sup>ah, north-east of Damascus. 1) Thereafter his doings become part of the conquest of Syria.

From Qurāqir to Sab<sup>c</sup> Biyār is slightly less than 200 miles; since the sun was hot when they were searching for water 2) it was probably late morning or early afternoon, so the march must have taken five and a half days, giving a march speed of about 35 miles a day. This is not very high but allowance must be made for the fact that they had baggage with them, 3) that a route through the lava had to be negotiated, and that there was no water to be found. It remains, therefore, a considerable feat.

From the evidence of these three expeditions it seems that the speed of march was similar to that of raiding parties in the 20th century, before motor transport was widely used. This varied between 35 and 50 miles a day, while in the night march before a dawn attack they would cover up to 60 miles to try and achieve surprise. 4)

1) Tab 1. 2125; Bal 112. 2) Tab 1. 2115. 3) Tab 1. 2123.

4) Glubb, by letter.

## 3. Tribal Groups.

The best example of the type of expedition in which the families of the tribesmen went on the march is the advance of the army under Sa<sup>c</sup>đ to Qādisīyah. Preparations for the expedition began in the autumn of 636 (A.H. 15) at Širār near Medina. 1) Most of the recruits were from the Yaman 2) and came with their women, children, and movable possessions. 3) After some time Sa<sup>c</sup>đ moved his force to Zarūd in northern Arabia on what later became the pilgrim road to Kūfah. 4) Here he distributed the assembled tribes around the neighbouring wells, 5) and reinforcements slowly joined him. 6) He had arrived at Zarūd at the beginning of winter 7) but he may have moved northwards in stages, since he was at Tha<sup>c</sup>libīyah 8) and then at Sharāf. 9) In the early spring he advanced slowly forward to the region of Qādisīyah. 10) There were 700 women with the Nakh<sup>c</sup> and 1000 with the Bajīlah at this time and many marriages were concluded both before and after the fighting. 11) When the army moved on to attack al-Madā' in the families and the sick were left behind at Qādisīyah with a guard, 12) and when the city fell they were sent for. 13)

For similar campaigns elsewhere we have scantier information.

We know, for example, that women were present at the battles in Syria, 14) and that they were sent to the rear for safety during the fighting. 15)

1) Tab 1. 2212 f. 2) Tab 1. 2217 f; 2219. 3) Tab 1. 2218.

4) Tab 1. 2220. 5) Tab 1. 2221. 6) Tab 1. 2222; Bal 255.

7) Tab 1. 2221. 8) Bal 255. 9) Tab 1. 2222; 2223 f. 10) Tab 1. 2349; see Ca 16, 119 ff for the prelude to the battle of Qādisīyah.

11) Tab 1. 2363. 12) Tab 1. 2419. 13) Tab 1. 2451. 14) Tab 1. 2100; Fut Lees I, 3 ff; 89. 15) Fut Lees I, 89; II, 190.

The reinforcements that went to Syria from the Yaman took their families with them. 1) It is unlikely, however, that the early incursions included family groups; they were probably composed of warriors only, on the pattern of Usāmah's raid. They would have the greater mobility of this type of force.

The march speed of tribal parties cannot have been high, and again was probably similar to the travel speeds of such groups in the early Twentieth century. Mobilization was slow, lasting several weeks, and the march speed was about 20 miles a day, perhaps reaching 30 miles a day over arid stretches. 2)

#### A year's itinerary.

It will be instructive to examine the operations of Khālid b. al-Walīd from the time he set out for Buzākhah at the end of September 632 (Rajab A.H. 11) 3) to his arrival at Hīrah less than one year later, 4) to observe the distances that could be travelled in that time in various conditions. Since there is some doubt whether he took part in operations in Bahrayn (al-Aḥṣā') 5) or that he returned to Medina before setting out for Irāq, 6) these two journeys have been omitted. It has been assumed that he went from Nibāj to Baṣrah, and not direct to Hīrah. 7) Distances are approximate as in all these calculations; we do not know the exact routes nor any deviations that may have been made. For some of these journeys there were women with the party, since families were sent back to Medina before the march to Syria; 8) on others he may have been alone or with a few companions. 9)

1) Fut Lees I, 3 ff; 71. 2) Glubb by letter. 3) Tab 1. 1886 f.  
4) Tab 1. 2026; see Mus ME App VII. 5) Bal 84; 90; 6) Tab 1. 2016.  
7) Tab 1. 2016; see Mus ME 284 f. 8) Tab 1. 2121. 9) Tab 1. 1928.

1. Sep. 632/Rajab 11. Medina - Buzākhah, 255 miles: negotiations with B. Tayy; battle of Buzākhah; acceptance of surrender from the B. Asad and B. Āmir. Tab 1. 1887 ff.
2. Jan. 633/Dhu al-Qa'dah 11. Buzākhah - Buṭāh, 300 miles; dispersion of other rebel tribes in Central Arabia; capture and execution of B. Tamim; marriage of Khalid. Tab 1. 1922 f.
3. March 633/Muharram 12. Buṭāh - Medina, 575 miles: reprimand by Abū Bekr; exoneration of Khālid; collection of new army. Tab 1. 1924f.
4. March 633. Medina - Yamāmah, 520 miles: battle of Aqrabah (June) and reduction of strongholds; peace with B. Hanīfah on lenient terms. Tab 1. 1950 ff; Bal 88 f.
5. June 633/Rabi' I - II, 12. Yamāmah - Nibāj, 280 miles: discussions with al-Muthanna and conclusion of agreement to raid Iraq. Tab 1. 2018.
6. June 633/Rabi' II, 12. Nibāj - Basrah - Hīrah, 690 miles: raids on route northwards from Basrah; transport of baggage by boat for part of journey; capitulation of Hīrah in Sep. 633/Rajab 12. Tab 1. 2018 ff; Bal 241 ff; see Mus ME 285 - 516.

Total distance: 2620 miles.

Since distances were measured in straight lines, and no deviations of route or unrecorded journeys have been allowed for, it is likely that the total distance covered was at least 3000 miles. This series of journeys, it seems, was in no way extra-ordinary and gave rise to no special comment in the traditions. In the course of the year there

were raids, battles, negotiations, distribution of booty, marriage - all the normal affairs in the life of an Arab warrior.

This is extremely relevant to the central argument of this thesis, more so than any individual feat of speed and endurance. It reveals an attitude of mind in which the undertaking of journeys over immense distances, full of hardship and danger, was almost a matter of routine. There is a story, mentioned previously, of a rider returning to Kūfah, after whom a second rider was despatched with orders to bring him back to Medina. The second rider could not overtake the first until he got to Kūfah; both then returned to Medina and the first eventually rode back to Kūfah. In other words he rode as a courier a distance of about 2500 miles, apparently without protest. 1) This point has been stressed because there is perhaps a tendency, inherent in European writers, to regard a long journey on camel-back with the dismay they would feel if faced with it themselves. Because of this feeling, a European may doubt that a certain journey took place, considering that the reasons for the journey were inadequate compensation for its length and hardship. His logic is not the logic of an Arab raider.

1) Tab 1. 2599 f.

The horse and horse riding

The attitude of the Arab towards the horse is reflected in the chronicles and in poetry. The horseman, the cavalry leader, is above all else the embodiment of the Arab idea of chivalry and manliness. He was the rider who was so swift that his horse appeared to be swimming, the bringer of gifts, the taker of booty, the leader that guided his horsemen when the way was lost, generous, the protector of those to whom his protection was extended, a wise counsellor in the assembly. He was straightforward and honest in warfare, a seeker after vengeance and poison to the enemy, the releaser of prisoners, the standard bearer, not afraid of death when the battle was at its height. The foregoing is taken from a poem of al-Khansa<sup>1</sup> lamenting her dead brother Sakhr, and while no doubt it presents an ideal that was seldom attained in practice, it is nevertheless valuable in listing the qualities that were most highly esteemed in an Arab warrior.<sup>1)</sup>

References to horses and cavalry abound in the sources, and although the camels, particularly in the early days, must have greatly outnumbered the horses, the references to horses are much more numerous. The horse is nearly always called faras pl. afrās 2) and the rider is called fāris pl. fursān. 3) Muhammad called female horses faras, 4) and the word is of feminine gender, but in modern times faras has come to mean any horse regardless of sex among the Badw, because with few exceptions only mares are bred. 5)

- 1) Al-Khansa<sup>1</sup> 9 f. 2) Tab 1. 2191; 2321; 2423; IH 794; Bal 258; Waq 60; 74; 214; 252. 3) Tab 1. 2096; 2297; Waq 206.  
4) Fut Miṣr 144. 5) Mus Rwalā 372.

Individual animals are often described in great detail: by colour; 1) markings; 2) temperament; 3) accoutrements; 4) and by name; 5) horses were sometimes armoured. 6)

The general name for cavalry is khayl pl. khayūl and is widely used for describing horse formations in various circumstances. 7) The word kurā' is used as a collective term meaning mounts, never as the designation of a battle formation. 8) Other names are used for cavalry units according to the functions they perform:-

1. The katībah pl. katā'ib. 9)

This was the equivalent of a cavalry squadron; sometimes the katībah was given impressive-sounding epithets to enhance its reputation, e.g. katībat-al-kharsā', the silent squadron, 10) and katībat-al-ahwāl, the fearsome squadron. 11)

2. The talī'ah pl. talā'i'

This was usually a small spy troop or reconnaissance patrol sent out to obtain information; 12) its size was between one and ten men; 13) but the expression is also used for a raiding party, 14) and in later years came to be used for a unit of the ta'biyah formation. 15)

- 1) Tab 1. 1614; 2195; Waq 74; 250; Bal 172; Fut Miṣr 144. 2) Waq 250; Tab 1. 2195. 3) Tab 1. 2191; Bal 99. 4) Tab 1. 2639.  
 5) Tab 1. 1509; 1510; 2191; WW 231; IH 575; Fut Miṣr 144.  
 6) Waq 251; 252. 7) Tab 1. 2019; 2085; 2297; 2432 f; Waq 33; 207; 219; Bal 149; 200; Fut Lees I, 129; Fut Miṣr 143 f. 8) Tab 1. 2420; Waq 57. 9) Waq 215; 365; 412; Ya'q II, 165; Fut Lees I, 14.  
 10) Tab 1. 2436; 2440. 11) Tab 1. 2436; 2440. 12) Tab 1. 2104; 2204; 2258; Fut Lees I, 10. 13) Tab 1. 2261. 14) Tab 1. 2686. 15) Bal 176.

3. The sariyah pl. sarāya

The term can have a similar connotation to the talī'ah, a patrol sent out for information or for forage. 1) In al-Wāqidi, however, sariyah is used to distinguish an expedition in which Muhammad did not take part from an expedition (ghazw) led by Muhammad. 2) The detachment of cavalry which routed the Greeks in the Wādi al-ʿArabah in the first engagement in Syria was also called a sariyah. 3)

4. The jarīdah pl. jarā'id.

Usually this term was used in the phrase jarīdah khayl, and described a horse troop which was acting independently, e.g. on long-distance raids into enemy country. 4)

5. The mujarradah. 5)

This was used of the cavalry arm of an army in battle formation.

6. The rābitah pl. rawābit. 6)

When a town or a region had been subdued it was often necessary to station a mounted garrison in the territory as a mobile guard force to put down revolts and discourage insurrection: this was the rābitah. The word murābitah has the same meaning. 7)

7. The kurdūs pl. karādīs. 8)

The account of Sayf b. ʿUmar of the battle of the Yarmūk is the only place where this term has been found. He divides the cavalry into many karādīs and gives the name of the leader of each one.

1) Bal 175. 2) Waq 1 f; see Tab 1. 1441; 1554; 1556. 3) Tab 1. 2108.  
4) Tab 1. 2641; Bal 226; Fut Miṣr 169; 172; 183. 5) Tab 1. 2618; 2621.  
6) Bal 175; 185; 221; Ya'q II, 150. 7) Bal 198. 8) Tab 1. 2093 f.

The possession of a horse in Arabia was, and is, a luxury; the inner desert is not the natural habitat of horses and they would perish did not the Badw look after them better than their own children. A runaway horse cannot live long in the desert, while a camel would survive even without man. Horses have no economic value, being used as weapons for obtaining booty and influence. 1) No mare can be without water for more than 24 hours. 2) A foster camel is necessary to every mare to provide milk for her. A camel may be reserved to carry water for one mare and in summer the mare may drink two or even three times a day; a camel-load of skins will hardly water her over two days. 3)

The numbers of horses available to the Muslims in the early days was very small 4) but must have been augmented by the accession of Mecca since the richer Meccans could always put an effective cavalry force into the field. 5) At Badr 6) and at the expulsion of the B. Qurayzah 7) there were horses in the booty but the numbers were small; no horses were mentioned in the booty taken at Hunayn although 6000 camels were captured. 8) Horses were bought from the spoils of the B. Qurayzah 9) and the B. Nadīr, 10) and in the peace treaty with Najrān it was stipulated that the Muslims be provided with 30 horses in case of war. 11) The figure of 10,000 horses at Tabūk 12) is certainly a gross exaggeration especially as the journey was undertaken at a time of great heat, and many thousands of camels would have been needed merely to keep the horses alive.

1) Mus Rwala 371. 2) Mus Rwala 382. 3) Doughty I, 305; 304.  
 4) Waq 57; 265; 333; WW 168; 175 f; 229. 5) Waq 32; 202; 383. 6) Waq 98.  
 7) Waq 374. 8) Tab 1. 1674. 9) Waq 374. 10) Bal 18. 11) Bal 64f.  
 12) WW 408.

It is certain that the numbers of horsemen with the Arab forces remained small until the victories of the Yarmūk and Qādisiyah opened up greater opportunities for taking horses as booty. We are told, for example, that there were horses in the spoils of Qādisiyah 1) and Jalūlā. 2) There seems also to have been a more systematic attempt to provide horses for the Muslim armies. 'Umar had horses collected from all areas for use on military operations and there were 4000 of these available in Kūfah. 3) There was a horse pasture for Muslim mounts in north Syria. 4) A certain Nafī' b. al-Ḥārith was the first to wean a colt in Baṣrah and he was granted a fief in Baṣrah by 'Umar for the purpose of rearing horses. 5)

Although we are told that all the Muslims were mounted after Qādisiyah 6) this is extremely unlikely and is not borne out by the statement that the cavalry that forded the river at al-Madā' in numbered 600; 7) this was probably the total number of horsemen with the Arabs at the time. Both in N. Syria 8) and in Persia 9) the cavalry is mentioned as distinct from the main body of the army under the commander-in-chief. Thus the cavalry of Ḥabīb b. Maslamah in Armenia roamed about (jālat khayluhu) subduing villages. 10) Cavalry was sent against a town and the main body of the army with the commander-in-chief marched until they caught up with them before the town. 11) In mountain regions, when the army was united, mules were ridden and the horses were led at their sides (verb: ijtanaba). 12)

1) Tab 1. 2420. 2) Tab 1. 2464. 3) Tab 1. 2499. 4) Bal 191.  
5) Bal 350f. 6) Tab 1. 2420. 7) Tab 1. 2433. 8) Bal 131. 9) Tab 1.  
2903. 10) Bal 200. 11) Bal 290; 312. 12) Tab 1. 2504; 2552.

This is, of course, an extension of the ancient *Badw* technique when on a raid of leading the horses by the side of the camels, changing to horseback immediately before launching the attack. 1) This is a very old practice and was employed by the Nabataean allies of the Romans in their attack on Jerusalem in A.D. 67. 2)

On horse management in general there is little information in the sources. The description of al-Muthanna's horse gives an indication of the affection of the Arab rider for his mount: the horse was called Shamūs for his gentle disposition and purity and was used only in battle, after which al-Muthanna always bade it farewell. 3) (Al-Muthanna must have had a sense of humour - Shamūs means headstrong, restive).

A rider is mentioned that always rode a female horse, never a male. 4) At the crossing of the Tigris at al-Madā' in the stallions were separated from the mares to ensure that both groups remained docile. 5) Solicitude for the horse did not apparently extend to the mounts of the enemy, which were sometimes disabled by cutting the leg tendons.

1) Tab 1. 2069; Waq 290; WW 138; IH 719; 797. 2) *Badw*(Wissmann) 885.

3) Tab 1. 2191. 4) Tab 1. 2521. 5) Tab 1. 2433. 6) Waq 61; 251.

The influence of terrain on mobility.

It must be emphasised that the mobility of the Arabs was most effective when they were in their natural environment - the open desert. Even in Arabia there were natural obstacles that riders found difficulty in negotiating. One of these was lava (harrah) which was a barrier to riders; 1) Medina, at the battle of the Ditch, needed no additional protection on the sides guarded by lava as this was regarded as impassable. 2) The ditch itself was a simple enough device, yet it completely nonplussed the Meccan cavalry, used as they were to the open desert. 3) En route to Hidaybiyah the Muslim army had difficulty on the march because of the broken nature of the country, intersected by many ravines (shi'b pl. shi'ab). 4) Wadis could be obstacles to movement, when the beds had become soft after rain; 5) a wadi became impassable when it was converted to a torrent after a downpour. 6) The desert itself was feared when it was unknown and waterless; 7) a poet describes the difficulties of travel in the northern deserts, where strong camels become feeble and where lie the skeletons of exhausted animals; 8) a force mounted on camels suffered greatly from thirst in crossing the narrow Dahna<sup>2</sup> desert. 9)

But these were difficulties that the Arabs were accustomed to encounter and surmount. Once out of the familiar surroundings of Arabia, however, each new obstacle presented itself as a formidable

1) Waq 216; WW 298; Dussaud 27. 2) Ham 8 f. 3) Waq 362 f.  
4) Tab 1. 1532; WW 245. 5) IH 439. 6) WW 308. 7) WW 298.  
8) IH 613. 9) Tab 1. 1965 f.

barrier the overcoming of which demanded a mental effort at least as great as the physical one. This apprehension is reflected in the attention which is paid to such episodes in the sources. Several pages are devoted by Tabari to the crossing of the Tigris at al-Madā'in and the whole enterprise is described as fraught with difficulty and danger. 1) On another occasion the Arabs were unable to follow the Persians, who were in boats, because of the intervening water. 2) The early Muslim invaders had no skill in bridge building and had to enlist the services of local inhabitants to do this work for them. 3)

In N. Africa and in the Syrian and Irāqi deserts, the mobility of camel-mounted troops could be used to the full. Conditions in the Bādiyat-al-Shām, in particular, where there are fewer natural barriers than in many parts of Arabia, are especially favourable for the movement of large forces on camel-back. In Egypt and Irāq, in Persia and Asia Minor movement is hampered by swampy conditions and rivers in the riparian regions and by mountains and rivers in the highlands. - Umar once reproved a commander for leading his men into impassable mountains. 4) In these areas the Arabs had to adapt themselves to a new form of warfare, without the ease of movement they had enjoyed in the desert. Their mobility in such conditions cannot have been greater than that of their enemies. 5)

1) Tab 1. 2432 ff; Mich Syr II, 423 f. 2) Tab 1. 2027 f; see J. Nik 561. 3) Bal 251 f; Fut Miṣr 73; J. Nik 559 f; Sebeos 100.

4) Tab 1. 2545. 5) See above 185-187.

SECTION II - Mobility as an instrument of war in the early conquests.

In warfare the purposes of mobility are these:

1. Concentration: the ability to assemble scattered forces and to receive reinforcements swiftly in order to have an army large enough to offer battle with some hope of success.
2. Disruption: to penetrate into enemy-held country, interfere with lines of supply and communications, and throw the country into administrative chaos.
3. To achieve surprise.
4. To evade pursuit.
5. For pursuit and exploitation.
6. For intelligence.
7. For communications.
8. For tactical use on the battlefield.

The use made by the Arabs of their mobility will now be examined under these headings; in many cases this will require an analysis of events which have already been described in earlier parts of this work.

1. Concentration.

All the evidence indicates that at the decisive battles of the Yarmūk and Qādisiyah the Arabs were inferior in numbers. Their victories must be attributed to tactical skill and high morale.

In the conquest of Egypt the ability of 'Umar quickly to despatch al-Zubayr to reinforce 'Amr certainly hastened the reduction of the Delta. Mobility therefore played a part in producing a force of adequate size in time for effective operations. (Bal 213)

It cannot be said that the ability of the Arabs to concentrate swiftly was an important factor in their success at Qādisīyah. We have already seen how slow were the preparations and how leisurely the advance of Sa'd's army to 'Irāq. It is true, however, that Sa'd requested reinforcements in the spring of 637 (A.H. 16) after he arrived in 'Irāq and discovered the size of the Persian army. Some veterans of the Syrian campaign came speedily to join him, 1) and although they were few in number, only a few hundreds, 2) they were doubtless welcome.

It is in Syria that we must look for advantages gained by the ability to concentrate forces which, although inferior in numbers to the enemy, were still sufficient for victory. An event which was to have far-reaching consequences was the sudden arrival of Khālid, admittedly with only 600 men, but a force of proven fighting ability. More important was the presence of Khālid himself, the outstanding Arab leader, with the energy and the will to unify the scattered Arab raiding parties. He succeeded in assembling a force which was large enough to defeat the Greek army at Ajnādāyn. 3) This was done between his arrival from the desert on 24th April 634 (19th Ṣafar A.H. 13) and the battle on 30th July 634 (28th Jumādā I A.H. 13). This is not a very long period when it is remembered that the armies were operating over large areas of Jordan, Palestine and Syria; a great deal of time must have been spent in interchange of messages, persuasion, councils of war etc. That this could be done over wide stretches of country

1) Tab 1. 2349 f. 2) Tab 1. 2350. 3) Tab 1. 2125; Bal 115 f; Fut Lees I, 101; Mich Syr II, 418.

shows that in these regions the Arabs must have been able to move about with speed and confidence.

The decisive stroke in the campaign was the battle of the Yarmūk. When the Greek army began its march south Khālīd was in Hims, and other leaders were operating in widely separated theatres. 1) The concentration of these forces and their strategic retreat to the Yarmūk, with Khālīd as the guiding hand, again shows the value of easy communications and mobility. The position taken up before the battle was astride the only feasible route to southern Jordan and hence to Medina. It was an excellent position from which to give battle, with the broad plain of the Jawlān to the north, and the barrier of the gorge carrying the Yarmūk and its tributaries dividing the plain from the broken, mountainous terrain to the south. The plain narrows to a corridor between these mountains and the lava flow to the east; it was across this corridor that the Muslim army stationed itself in the waiting period before the battle. During this time they were receiving reinforcements from Medina, and since their position was so strong defensively they could chose the right moment for battle, i.e. when they considered themselves sufficiently strong. 2)

In general, however, on the issue of concentration of forces it can be said that only in isolated cases did it play a part, not a decisive one, in deciding the outcome of battles. Disputes over leadership, and the tendency of individual leaders to pursue their own selfish ends probably more than outweighed, in this respect, any advantage gained by superior mobility.

- 1) Tab 1. 2087; Ya q II, 160; Ca 15, 11 ff; Mich Syr II, 420 f.
- 2) Tab 1. 2088; Fut Lees II, 147 ff; Ca 15, 118 f.

## 2. Disruption.

The effect of constant warfare and raiding by mobile enemy forces in a civilised country, is to weaken material strength and to undermine morale, so that the population is prepared for eventual submission. This kind of operation is to be distinguished from the rapid exploitation of success after a decisive battle; it is the 'softening-up' of an enemy before the mortal blow is struck. The best examples of this are the campaigns in 'Irāq from autumn 633 (Rajab A.H. 12) until the battle of Qādisiyah, and the Syrian campaign from the first inroads until the battle of the Yarmūk. The raids by 'Amr and his commanders in Egypt before the fall of Alexandria must also have caused disruption but information is rather scanty. 1) Other raids into enemy country such as that sent by al-'Alā to Fārs or by 'Iyād into Armenia 3) were buccaneering expeditions seeking for booty, and can have had little effect upon the later conquests.

This is not to pretend, of course, that the operations in the early days in 'Irāq and Syria were inspired by reasons of long-term strategy. The primary objective was booty, 4) but the ultimate effect was wholly in the Arabs' favour. The raids by Khālid and al-Muthanna in the winter of 633/634 (end of A.H. 12) were directed against the towns of the Euphrates and against hostile Arab tribes such as the B. Taghlib. 5) Some of the operations were to exact tribute from

1) Bal 216 f. 2) Bal 386; Tab 1. 2545. 3) Bal 176.

4) Bal 249; Fut Lees I, 5. 5) Bal 248; Ya'q II, 150.

such towns as Anbār 1) and Hīrah. 2) The townsfolk seem to have been very ready to pay the small tribute which was demanded 3) and to provision the raiders 4) and to provide guides 5) in return for peace and the safety of their crops and orchards. 6) Other raids were against tribes such as the Taghlib and followed the classical Badw pattern, including the night march and the dawn attack. 7) The single instance of a deliberate attack on a strongpoint was the capture of Ayn al-Tamr where the Persian garrison was put to the sword. 8) After Khālīd's departure al-Mūthanna continued to raid on the same pattern. 9) The disaster at the battle of the Bridge was a set-back but the Persians did not follow up their success. 10)

Before the final advance of Rustam's army to Qādisīyah no Persian troops remained on the west side of the Euphrates; the northern Arab tribes had been given a sharp lesson which may have dissuaded them from wholeheartedly espousing the Persian cause; the riparian townsfolk had shown themselves unwilling to offer resistance and ready to give assistance to the Arabs. Furthermore, the Arabs had gained knowledge of the Irāqi terrain which was to prove valuable to them later. The effects of mobility were also felt in the lull before the battle since the Arabs were able to raid the surrounding countryside with impunity, supplying themselves with food and fodder and interfering with the Persians' lines of communications. 11)

- 1) Tab 1. 2056. 2) Tab 1. 2038 f; Bal 243; 244. 3) Bal 243.  
 4) Tab 1. 2203. 5) Tab 1. 2202. 6) Bal 244; see Mus ME 287 f.  
 7) Tab 1. 2202 ff. 8) Bal 246 f; Tab 1. 2062 f. 9) Tab 1. 2202 ff.  
 10) Bal 251 f; Tab 1. 2159 f. 11) Tab 1. 2234; 2235; 2257.

The operations in Syria were more extensive and more damaging. We hear from a Syrian source of the devastation and loss of life suffered by the settlements of Jordan and Palestine. 1) Large parts of the country were separated from any contact with the Empire, and cities were at times cut off from the regions that were still unoccupied. In the year 634/15 the Patriarch Sophronius of Jerusalem spoke in his Christmas sermon on the state of anarchy prevailing in the country. 2) A country torn by war, its communications disrupted, its organised communal life at an end, cannot have been a secure base for the mounting of the last effort of the Greek forces.

The effect of such disruption, however, must not be exaggerated; both the Greeks at the Yarmūk and the Persians at the Qādisīyah could still put forces into the field that were superior in numbers to the Arab<sup>6</sup> armies. What is significant is the very fact that the Arabs were victorious in those two decisive battles despite inferiority in both numbers and weapons. The effects of morale upon the outcome of a battle are real, but they cannot be measured; it cannot be doubted that the fighting spirit of the Greeks and Persians had been weakened by the effects of the mobility of the Arabs. Shortage of supplies, the sight of a ravaged countryside, the ability of the Arabs to revictual with impunity (and at the enemy's expense), must all have depressed the spirits of their adversaries. The lowering of morale was probably most marked among the Arab allies of the Greeks and Persians.

1) Quoted in Ca 12, 347. 2) See Becker 341 f.

### 3. Surprise

Intelligence (see below, sub-section 6.) and security are the two factors which decide whether surprise can be successfully achieved. Sentry duty, especially at night, was very important and was often undertaken by volunteers. 1) On one raid two men shared the night watch 2) but the first mention in the sources of regular watches was at the battle of the Ditch, where Muhammad set up observation posts; reliefs were organised and the posts were supervised by a cavalry troop. Muhammad himself made the round of the posts and when a night attack was impending he sent two units as reinforcement to the threatened sector. 3) At Hudaibiyah three night watches took turns at sentry duty. 4) By night sentries recognised each other by watchwords (āmit, āmit); 5) the watch ended at the morning prayer. 6) By day watching posts were placed on raised ground which commanded a view over a wide stretch of country. 7) Strangers were challenged by the sentries, 8) but cases of sentries neglecting their duty were not unknown. 9)

Probably the looser discipline of the non-Muslim tribes made them neglect such precautions, since surprise was sometimes achieved by Muslim forces. A tribe might feel itself secure if it had no information of the presence of hostile forces in the vicinity. It is certainly very difficult, in Arabia, to keep secret the movement of a sizeable body of men over a long distance and there may be a basis

1) Tab 1. 1585; Waq 47; 107; 208; 216. 2) WW 172. 3) WW 197; 198; 199.  
 4) WW 253. 5) Waq 258; WW 202. 6) WW 357. 7) WW 238 and note 3; 357.  
 8) WW 352; IH 687; 813. 9) Tab 1. 1585; Waq 380; WW 232.  
 10) Tab 1. 2124 f; 2207; Bal 248.

of truth in the story of the 'barīd al-jinn' by which Medina heard of the victory of Nihāwand before the arrival of the courier. 1) One of the chief occupations of the Badw is the exchange of news and when information is passed by word of mouth from one nomad to another it can be transmitted over great distances in a remarkably short time. 2) The Muslims were several times given valuable information by friendly tribesmen. 3)

Superior Muslim discipline may also have enabled them to keep a degree of secrecy and hence achieve surprise, as in the march to Mecca. 4) A common method of keeping the enemy in ignorance of one's intentions was to halt a considerable distance from the enemy camp and to set out on the final march at nightfall, arriving in time to attack at the first light of dawn; 5) Muhammad is said always to have attacked in the morning. 6) Other devices were to travel by night and hide by day, 7) following an unfamiliar route, 8) or setting off in one direction and then changing course later towards one's true objective. 9) Sometimes the attack was actually mounted during the hours of darkness. 10) Despite all such precautions the enemy was often alerted. 11)

On the strategic use made of surprise attacks in the foreign conquests there is little evidence to show that these played an important role in deciding the final outcome. As we have seen, the camps

- 1) Tab 1. 2629; see Well Reste 155. 2) Thes 109; 154. 3) Tab 1. 1874; 2203; Waq 196; 333. 4) Bal 37; IH 808 ff; WW 326 ff.  
 5) Tab 1. 1608; 1874; 2204; WW 152 f; 233; 235; IH 974; 990.  
 6) IH 757. 7) Tab 1. 1266; 1592. 8) Tab 1. 1372 f; 1532; Waq 335; WW 245; 298. 9) IH 718; WW 151. 10) Tab 1. 2038; 2070; Bal 248; WW 318. 11) Tab 1. 1501; IH 718; WW 151; 232; 237.

of hostile Arabs and the settlements on the borders of the desert were often taken unawares; doubtless, also, many villages in southern Jordan and Palestine awoke to find Arab raiders at their gates. But in no encounter of any importance was the element of surprise of any significance.

#### 4. Evasion of pursuit - the desert as a refuge.

There are many examples of the Arabs' use of the desert as a retreat and of the inability of any of their opponents to operate in the desert. The first notable instance was the raid to Mū'tah under Zayd b. Hārithah when, although Zayd himself was killed together with other leaders, the main body of the force was extricated and led back to Medina by Khālīd b. al-Walīd. 1) There is no doubt that, had the Greek forces been able to mount an effective pursuit, heavy losses could have been inflicted on the Muslims. The Greeks had Arab auxiliaries with them (musta'ribah) 2) but the tribe of Ghassān, the most powerful of the Greek allies, was no longer nomadic, 3) and was perhaps as fearful of venturing into the desert as the regular Byzantine forces. The raid of Zayd's son Usāmah to the Balqā, where he was instructed to 'range widely with cavalry against the tribe of Qudā'ah', 4) is very scantily reported in the sources but again there was no attempt at pursuit by the enemy. 5) A man of Tayy boasted that he was the best guide in the sandy desert; he used to bury water in the ground in ostrich shells and when he raided camels none dare follow him into the sands. 6)

1) IH 791 f; WW 309 f. 2) Tab 1. 1610f. 3) Opp I, 280. 4) IH 970; WW 433 f; Tab 1. 1851. 5) IH 970; WW 433f; Tab 1. 1870. 6) IH 985.

One of the best descriptions of the technique of using the desert as a safe refuge between raids concerns the operations of al-Mūthannā along the Euphrates in the period between the battle of the Bridge and the battle of Qādisīyah. 1) The services of two guides, one from Hīrah, the other from Anbār, were necessary to enable him to carry out these raids. 2) They guided him through the desert so that he avoided detection before a raid, 3) and so that he eluded the pursuit after he had taken his spoils. 4) When preparing for a dawn attack he sent scouts ahead and when they returned with their information he set out by night for his objective. He instructed his men that they were to take only gold, silver, and portable goods, so that their mobility should not be impaired. He attacked at dawn and, after plundering the village, rode swiftly into the desert. On the march he overheard one of his men whisper fearfully about pursuit and reproved him, saying that the news would not yet have reached the town, but that in any case fear would prevent pursuit. Even if the enemy caught up with them it would only mean another victory and more booty for them. He went on to boast about his own speediness and to say that Abū Bekr had told him to keep halts to a minimum and to make a series of rapid raids in quick succession. 5)

That the desert, even for such an experienced leader as al-Mūthannā, could be a menace as well as a refuge is shown by an incident at Siffīn (on the right bank of the Euphrates near Rasāfah).

- 1) Tab 1. 2202 ff. 2) Tab 1. 2202. 3) Tab 1. 2204. 4) Tab 1. 2206.  
5) Tab 1. 2204 f; for a similar surprise raid see WW 226.

The people of Siffīn crossed over to the left bank of the river and there fortified themselves; al-Muthannā was obviously unable to launch an assault and his force was reduced to such straits that they were obliged to eat their riding camels. 1)

These raids are interesting in that they throw light on the outlook of an Arab warrior and on the age-old methods employed for carrying out plundering raids with a minimum of risk. However, the application and development of those methods in the conduct of the decisive battles in Syria and Irāq is of greater importance.

In the early incursions into Syria the Arabs may have used raiding tactics, retreating to the desert after despoiling towns on the desert fringes. A tribesman advised Amr to use the desert as a refuge since the Greeks would not dare to leave their forts and villages and he could therefore fall upon them by surprise. 2) One reason for the choice of the Yarmūk battlefield was probably its position astride the road leading south to the desert. 3) In the event of defeat the Arabs could have extricated themselves and retreated to Arabia, where the enemy would not have dared to pursue them.

At the Yarmūk the reasons for the selection of the battlefield by the Arabs, or rather by Khālīd b. al-Walīd, are fairly clear but they have to be arrived at by deduction. 4) For the battle of Qādisīyah the sources are more explicit. Thus al-Muthannā is said to have written to Sa'd from his death-bed: "Fight them on the borders of their land

1) Tab 1. 2206. 2) Fut Lees I, 28. 3) On a modern map the line: Derā'ah - Ammān - Ma'an - Tabūk. 4) See Becker 343 f.

near the stones of the land of the Arabs and near the clay of the land of the Persians; then if God gives victory to the Muslims they (the Muslims) will take possession of what is behind them (the Persians); and if the other thing (defeat) then take refuge - you can be informed about their actions until God sends you in again." 1) 'Umar's orders to Sa'd had a similar tenor: he was to stay on the margin of the desert and let the enemy come to him. If defeated he was to retreat to the desert, for the Persians were "frightened of the desert and ignorant of it." 2) When Sa'd reported to 'Umar that both sides were waiting for the opportunity to attack 'Umar replied "stay where you are until God moves them against you." 3) The Persian general, Rustam, is reported as having opposed his king's desire to advance and give battle; he wished to remain inactive until the Arabs returned home in despair. 4) In earlier days his arguments might have been justified and opportunities for taking booty 5) might not have been sufficient incentive to keep an Arab army intact. Religion may have been the second factor which prevented Sa'd's force from disintegrating.

At no time, in fact, is there mention of either Greeks or Persians attempting to pursue an Arab force into the desert; even after the total defeat of the Muslims at the battle of the Bridge the Persian riposte was merely to pursue the Muslims to their camp and assail them ineffectively with arrows. 6)

The effect of such conditions upon the outcome of the early Arab campaigns can hardly be exaggerated. Their rear with its lines of

1) Tab 1. 2226 f. 2) Tab 1. 2228. 3) Tab 1. 2230. 4) Tab 1. 2248; 2249; 2251. 5) Tab 1. 2232; 2234; 2247. 6) Tab 1. 2179.

communications was completely safe from enemy interference; the despatch of reinforcements 1) and provisions 2) was without hazard; booty could be sent back to Medina without fear of interception, 3) When the men went out to give battle the women and children were left in safety at a desert well, 4) and the men would fight with greater heart in the knowledge that their families were safe. In the event of a reverse they could 'cut their losses' and retreat to the desert to await a more favourable opportunity for attack.

The effect of such elusiveness upon the enemy's morale can be conjectured. The Greeks at the Yarmūk and the Persians at Qādisiyah must have known that any victory short of total annihilation would bring only a temporary respite, since they must have been aware by this time that they were facing armies bent on conquest and not mere predatory raiders. It must have been disheartening, to say the least, to face an enemy knowing that the results of victory might be short-lived, while the result of defeat would almost certainly mean the loss of vast tracts of territory. The psychological effect of fighting on the borders of the desert, however, must also have worked upon the minds of the Muslims. During the long delays before the battles of the Yarmūk and Qādisiyah many of the Arabs must have been tempted to turn their backs on the prospect of desperate encounters and retire to the relative safety of the familiar desert. There is no record in the sources of such desertions and it is highly probable, had they

1) Tab 1. 2088 f; 2182 f; 2221; 2349. 2) Tab 1. 2257.

3) Tab 1. 2168; 2170; 2392; Fut Lees II, 240. 4) Tab 1. 2197; 2419.

occurred , that their effect would have been cumulative and that the armies of Abū Ubaydah and Sa'd would have melted away whence they came. It is true that water was available at both sites and the provisioning of the armies was probably at least adequate, conditions not always readily obtainable farther south. But both battles were fought in summer, the Yarmūk in August, Qādisiyah in June, and the waiting periods would be uncomfortable even for desert-bred Arabs. (Even more uncomfortable, of course, for their opponents, who cannot have found it easy to sustain their morale during the long months of waiting). It seems most unlikely, therefore, that desire for booty alone would have kept the Arab armies intact during those long pauses. There is an argument here, a negative one admittedly, for the view that the cohesive force of Islam was already effective as a curb on the traditional indiscipline of the Arabs, and that a core of genuine believers, in both armies, provided the necessary stiffening for the waywardness of the tribes.

### 5. Pursuit and Exploitation.

In Arabia it was a point of honour to pursue raiders after one had been attacked: the pursuers might be on horseback, 1) camel-back, 2) or even on foot. 3) Apart from the question of honour, the main object of such pursuits was to recover booty, and there were occasions when the raiders were overtaken and the spoils retrieved, 4) while at other times the raiders made good their escape. 5) A typical example of a pursuit mounted solely for reasons of prestige was when the Muslims followed the Meccans for a few miles out of Medina on the day after the battle of Uhud. 6) There appears to have been no intention of engaging the enemy in battle, and the pursuit was intended to demonstrate that the spirit of the Muslims was not broken and that they could still put battle-ready forces into the field.

With the extension of the Muslim conquests into the lands of the Persian and Byzantine Empires the pursuit is nearly always mentioned as the aftermath of battles. 7) The word for pursuit is talab and, once past the borders of Arabia, it was always undertaken by cavalry. 8) The cavalry would follow the fleeing enemy and cut down any fugitives they encountered 9) but the pursuit was often broken off at nightfall so the remnants of the enemy forces must have frequently been able to escape under cover of darkness. 10) At other times, however, the pursuit

1) Waq 193. 2) Waq 326f. Tab 1. 1270. 3) Tab 1. 1508; WW 229.

4) Tab 1. 1504 f. 5) Tab 1. 1555; 1601; Waq 334. 6) Tab 1. 1427 f. Waq 325 f; IH 588 f. 7) Tab 1. 2034; 2194; 2349; Bal 135f.

8) Tab 1. 2018; 2198; 2339; Bal 313. 9) Tab 1. 2422; 2463; Bal 264.

10) Tab 1. 2339; Bal 264.

seems to have been more effective; for instance after the battle of Qādisīyah, when the Muslim cavalry advanced rapidly through lower Irāq, clearing the countryside of hostile forces as they went and, on arriving at al-Madā'in, containing the enemy within the walls of the city until the arrival of the main Muslim army. 1) After the battle of Nihāwand the pursuing cavalry overtook the fleeing Persians when they were attempting to cross a ravine and inflicted further severe losses on them. 2)

Exploitation is pursuit on a strategic scale - the rapid subjugation of large tracts of country after the destruction of the enemy's regular army in pitched battle. Examples of such operations are: the conquests in N. Syria after the Yarmūk; 3) the conquest of the Pentapolis; 4) the subjugation of Jazīrah. 5) The most remarkable of these campaigns was the conquest of Jazīrah, undertaken by 'Iyād b. Ghanm in the two years 639-641 (A.H. 18-20). Although the region contained many large, strongly-fortified towns such as Raqqah and Nasibīn its conquest was said to have been the easiest of all the lands conquered by the Muslims. 6) Some isolated strongholds held out against 'Iyād and had to be reduced by his successor, 7) but most of the towns made terms without offering much resistance. Jazīrah is a large region and the list of places visited and subdued by 'Iyād in the year 19 A.H., for example, shows that he must have commanded mobile forces. 8)

- 1) Tab 1. 2420 f; 2438. 2) Tab 1. 2625 f. 3) Tab 1. 2349; 2393 f; Bal 150. 4) Bal 224 f; J. Nik 578; Fut Miṣr 170 f.  
 5) Tab 1. 2505 f; Bal 172 f; Mich Syr II, 426; 443 f. 6) Tab 1. 2507.  
 7) Bal 175 f. 8) Bal 175 f; Ya'q II, 172.

It is most probable that the main body of 'Iyād's force were mounted on camel-back, although the sources do not say so explicitly. We are told, however, that when al-Walīd left Jazīrah after being dismissed from his post as governor of Kūfah he left 100 camels in the charge of Hurayth b. al-Nu'mān, 1) an incident which confirms that camels were used in Jazīrah at this period. The expeditions in Jazīrah were probably similar in many ways to the traditional Badw methods of raiding: for instance Raqqah was invested at harvest time and cavalry troops (rawābit) were stationed at the gates to prevent sorties; horse squadrons were then sent into the surrounding countryside and brought back food and prisoners. After five or six days the 'patrician' capitulated, presumably to avoid further depredations and to enable the harvest to be gathered. 2)

Whether the main body of Muslim troops were equipped with camels, mules, or other pack animals the pattern of movement and warfare seems to have been basically the same in all the non-desert regions. The cavalry, usually under a renowned leader such as Ḥabīb b. Maslamah 3) or Jarīr b. 'Abdallah, 4) were often detached from the main army and roamed about the countryside plundering and devastating. 5) Doubtless in many cases the actions of these headstrong commanders were not easily controllable by the commander-in-chief and their operations were probably often carried out without reference to the nominal leader. This is not to imply, of course, that the cavalry always lacked direction; in this kind of mobile operation over wide stretches of country

1) Tab 1. 2511. 2) Bal 173. 3) Bal 147; 149; 174; 185; Mich Syr II, 441.  
4) Bal 254; 264; 301. 5) Bal 200; 226.

able generals seem to have used their mobile forces effectively.

In the operations in Jazīrah there were no regular enemy troops in the field to oppose the Muslim forces and the object of the operations was to conquer the region by reducing, one by one, the villages, towns and fortified places. The cavalry usually went ahead of the main force to the next objective: 1) and, by making a show of force, contained the inhabitants within the walls until the arrival of the rest of the army. 2) There is just a suggestion of the use of camels conferring additional mobility on 'Iyād's army: in the accounts of his actions the cavalry is seldom mentioned as acting as a detached unit, 3) while in the accounts of the operations in Persia and Asia Minor, 4) for example, such independent actions are frequently described. Once a town had capitulated a guard of horsemen (rābit) was often left behind to act as garrison. 5) Cavalry were also sent out to guard the flanks of an advancing army. 6) There was an occasion in Syria, at Bayt Lihyà, when the Muslim cavalry screen met Greek reinforcements advancing towards Damascus; the Greeks were defeated and pursued towards Hims.

In general the Arabs seem to have quickly appreciated the value of their augmented cavalry forces and to have used them effectively in reducing large areas of enemy territory. The consolidation of their position would be made when the main force caught up with the cavalry, and the follow-up would be quicker when the army was camel-mounted than when they were equipped with mules or other pack animals.

- 1) Tab 1. 2420; Bal 176. 2) Bal 173; 312. 3) Tab 1. 2505; Bal 172 f.  
 4) Tab 1. 2682 f; Bal 200; 307. 5) Bal 185; 198; 221; 264.  
 6) Tab 1. 2616 f; 2628. 7) Tab 1. 2152; Bal 130; Fut Lees I, 75 f.

## 6. Intelligence.

The word for spy is ʿayn pl. ʿuyūn 1) and they were sent out before every enterprise, 2) sometimes singly, 3) sometimes in pairs. 4) Captured spies were usually killed, 5) so in order to save his life or to deceive the enemy a spy might assume another name. 6) In Muḥammad's time spies were usually mounted on camels, 7) but also on horseback; 8) the terms taliʿah and sariyah are used in this context to mean a small reconnaissance patrol on horseback. 9) The members of such patrols often showed considerable daring: a taliʿah of three men was sent to reconnoitre the Ghūtah of Damascus and one of the riders waited by the gate of the city and killed the gatekeeper when he emerged at dawn; 10) before Qādisiyah a single spy entered the Persian camp by night, stole a horse and was pursued by three men, two of whom he killed with his lance, while he took the third back to Saʿd for questioning. 11)

It was usual to maintain spies in enemy territory 12) and permanent spy troops were often used to keep a commander informed; 13) for instance Khālīd kept permanent spy troops in Damascus. 14) It was frequently stipulated in the terms of peace treaties that the inhabitants were to provide spies and guides for the Muslims. 15)

- 1) Tab 1. 2152; 2184; 2208; 2232; 2235; 2597. 2) Waq 11 f.  
 3) Waq 57; 207; 290; WW 208; 307; 327; 389; 4) Waq 11; 14; 33; IH 434.  
 5) WW 176; 299. 6) WW 175; 225. 7) Waq 11; 33; 202. 8) Waq 208.  
 9) Tab 1. 2185; 2191; 2224; 2225; 2266; (taliʿah) Tab 1. 1724; 2145; Bal 173; (sariyah) see Tab 1. 2261. 10) Tab 1. 2104f.  
 11) Tab 1. 2260. 12) WW 303; 327; 356 f. 13) Tab 1. 2126; 2232.  
 14) Tab 1. 2152; Fut Lees II, 116. 15) Bal 150; 158; 159; 242.

As in modern warfare, reconnaissance patrols were sometimes instructed to bring back prisoners for questioning. 1) Umar is even said to have had his own spies in every Muslim army. 2)

The term 'spy' in connection with the Arab armies is perhaps a little misleading: in modern usage a spy is a civilian operating in enemy country, but in the 7th century there was no uniform and hence the functions of spies, scouts, and reconnaissance patrols were not always separate and distinct. Thus the term talā'ī was used for scouts who went ahead of the army as well as for independent spy patrols; 3) a prudent commander would camp at a considerable distance from the enemy and send out a patrol to reconnoitre the intervening tract of country and ensure that there were no advanced enemy forces barring his path. 4)

Whatever method was used to obtain information, the Muslims seem to have been largely successful in obtaining advance knowledge of their enemies' movements and intentions. Thus the Meccans were seldom able to carry out operations without the Muslims being apprised of their plans, and the sending out of caravans was often known to the Muslims in time for an interception to be organised; 5) they were usually informed of the approach of hostile forces and were able to organise effective counter-measures. 6) The Khuzā'ah were said to have kept Muhammad informed of everything that happened at Mecca. 7)

1) Tab 1. 2253; Bal 173. 2) Tab 1. 2208. 3) Bal 176. 4) Tab 1. 2617f.  
5) Waq 196; IH 547; WW 38. 6) Waq 32 f; 209 f; 362 f; WW 102;  
IH 557f; 670. 7) IH 743.

Nor, apparently, were the Muslims any less well informed during the period of foreign conquest. The information of the Greek advance to Ajnādayn was known to the Arabs in time for them to re-group into an adequate fighting force; 1) when Heraclius made his great effort to regain Syria the Arabs knew of the southward advance of the Greek army and were able to collect their scattered forces and make a strategic withdrawal beyond the Yarmūk. 2) Similarly, the fact that the Persians were amassing a large army with the object of expelling the Arabs from the borders of 'Irāq was known in Medina. 3) Later, the mobilization of the Persian army at Nihāwand, deep inside enemy territory behind the mountain barrier, caused warlike preparations to be put in hand in Kūfah and Baṣrah. 4) (This is accepting the traditions as substantially true; but see Caetani's theory that the Arab incursion was a sudden raid led by Nu'mān acting without orders from Medina - an aggression and not a reply to a Persian threat). 5) It is probable that information of this kind, of great strategic value to the Arabs, must have been transmitted by Semitic subjects of the Greek and Persian Empires to their kinsmen in the border tribes and thence to the Muslims. In some cases such information might also have been obtained from prisoners. 6) It seems very unlikely that intelligence such as the news of the Persian preparations at Nihāwand could have been obtained by mounted spy patrols detached from the main Muslim forces.

1) Tab 1. 2125 f. 2) Tab 1. 2086 f; Ya'q II, 160. 3) Tab 1. 2214.  
4) Tab 1. 2600 f; Ya'q II, 179. 5) Ca 21, 32 ff. 6) Tab 1. 2600.

As local inhabitants were also used for assisting the Muslims as spies and guides in small-scale operations such as raids upon settlements and camps, 1) there is no reason why they should not have passed on information of strategic value.

The Arabs, of course, used mounted patrols for tactical reconnaissance with the usual objectives of determining the enemy strength, dispositions and intentions. 2)

In conclusion, it appears that the Arabs used the same methods for the collection of information that are used by modern armies: interrogation of prisoners; maintenance of permanent spies in enemy territory; employment of renegades from the enemy as spies and guides; the use of mounted patrols for espionage and security. Initially information of strategic value probably came from traitors and sympathisers in the enemy territory and such men were also of use during active operations in the field. Although mounted reconnaissance patrols were used effectively by the Arabs there is nothing to indicate that they enjoyed a significant advantage over their opponents in this respect. The only part of any importance played by superior mobility in the field of intelligence was in the transmission of information to Medina; thus once news had reached the advanced Muslim forces it could be speedily passed on by camel courier to Medina and the Caliph could begin arrangements for mobilisation and appointment of a leader. 3)

1) Tab 1. 2203 f. 2) Tab 1. 2104; 2617; 2686; WW 310.

3) Tab 1. 2111; 2159 f; 2214; 2349; 2807.

## 7. Communications.

The word 'communications' in this context is used in a limited sense: it is the means of transmitting orders or factual information from one person or group to another person or group. The wider sense of the word, e.g. as used in modern industrial life, concerns human relationships. It implies that the reasoning and motives of management (say) shall be made fully comprehensible and acceptable to the employees; the phrase 'a failure in communications' really means 'a failure in human relationships.' An examination of this problem, the interaction of personalities, was attempted in Chapter VI, pp. 150-172 and 177-180.

The question of the spread of literacy in Mecca and Medina at the time of Muhammad is complicated by theological arguments about the literacy of Muhammad. It is not possible here to discuss the meaning of Qur'ānic expressions such as al-nabi al-ummi, 1) or ummiyūn. 2) The meaning of ummi in Islamic theology is 'illiterate', hence Muhammad is the 'illiterate Prophet', but some European scholars consider that the word may mean 'heathen' in a non-derogatory sense. 3) There are reports in the sources, probably tendentious, that support the view that the art of writing was not widespread in the early days of Islam, thus implying that Muhammad could easily have been illiterate. Balādhuri asserts that there were only seventeen of Quraysh who could write at the beginning of Islam, and quotes Waqidi to the effect that writing in Arabic was rare among the Aws and Khazraj in Medina. 4)

1) Surah VII, 157, 158. 2) Surah II, 78; LXII, 2.

3) Shorter Encyclopaedia of Islam, London 1961, p. 604. 4) Bal 471 f.

‘Umar was said to have been the first leader in Islam to organise an administration and to order documents to be signed and sealed. 1) Statements with a similar tendency occur in the accounts of the foreign conquests: one tradition says that al-Sā’ib b. al-Aqrā’ was sent to the troops in Persia to act as a scribe and as an accountant for the division of booty; 2) another states that Ziyād b. Abihi was given a similar appointment although "he was but a lad with curls on his head" because he was the only one who could read and write. 3) When ‘Amr sent a courier to Medīna he was said to have refused to give him a letter, saying "are you not an Arab, able to report a message (verbally)." 4)

There are many reports which show the opposite tendency. Wāqidi says that on the departure for Tabūk the warriors were so numerous that a record (listing those entitled to booty) could not be kept, so this practice may already have been usual. 5) It is hardly credible that a commercial centre like Mecca could have transacted business without considerable use of written material; that Muḥammad had absorbed this commercial atmosphere is attested by his use of metaphors in the Qu rān. He uses words like hisāb (reckoning), 6) hāsib (reckoner), 7) wazana (to weigh), 8) and mīzān (a balance); 9) his instructions about loans include regulations for the recording of debts, in writing and before witnesses, by a notary (kātib). 10) Muḥammad's treaties were in writing, for example at Ḥudaybiyah, 11) and at Dūmat-al-Jandal, where he is said to have signed with his finger-nail. 12)

- 1) Tab 1. 2749. 2) Tab 1. 2598. 3) Bal 343. 4) Fut Miṣr 81.  
 5) WW 391 f. 6) Sūrahs III, 199; XIII, 21. 7) Sūrah VI, 62.  
 8) Sūrahs XVII, 35; XVIII, 105. 9) Sūrah VII, 8, 85.  
 10) Sūrah II, 282 f. 11) WW 257. 12) WW 404; IH 903.

There seems no reason, therefore, to doubt the many reports which state that written correspondence was sent from commanders to Medina and from the Caliph to his generals. 1) News was, of course, carried by couriers, 2) who reported to the Caliph in person when they arrived at Medina. 3) Mu'āwiyah sent two couriers to Medina with the news of the fall of Caesarea, and then sent a third after them in case they delayed on the journey. 4) The news of Abū Bekr's death must have reached the troops in Syria by courier. 5) There was no question at this time of the use of relays: the first relay station may have been set up by Nafi' b. al-Hārith who had a horse stud in Baṣrah, 6) and this development was continued by Mu'āwiyah who must have realised its necessity after his experience at Caesarea. 7)

The question of the degree of control exercised by Medina has been discussed in another section (Chapter V, pp. 166-172); a camel courier averaging 50 miles a day could cover great distances in a relatively short time, and news from Syria or Irāq, for example, could reach Medina in less than two weeks. The Caliph, therefore, could be fairly well-informed about recent events and this would facilitate his control over his generals and over the broad strategy, but not over the tactical conduct of the battles.

- 1) Tab 1. 1929; 2081; 2082; 2084; 2107; 2111; 2223; 2366; 2397; 2398; 2611; Bal 252; Ya'q II, 158; 166. 2) Tab 1. 2599; 2703; WW 102; Waq 202; 523; Fut Miṣr 185; Fut Lees II, 142 ff.  
 3) Tab 1. 2629; 2702 f; Bal 303. 4) Bal 142; Ya'q II, 172 f.  
 5) Tab 1. 2155. 6) Bal 350. 7) See Fries 87.

### 8. The tactical use of cavalry on the battlefield.

In the early days the battles were fought on the Muslim side almost entirely by infantry, but the Meccans possessed sufficient horses for a cavalry force. At Badr there is little mention of cavalry, although the Meccans had 100 horses with them, 1) and it is significant that no attempt was made to assault the Muslim ranks with a cavalry charge. Neither was the cavalry effective at the battle of the Ditch, being unable to gain a footing on the Muslim side of the trench. 2) At Uhud, however, the horsemen, under Khālid b. al-Walīd probably played a decisive role in the Muslim defeat, but again it is interesting to note that no frontal attack was made by the cavalry on the Muslim defensive positions on the slopes of Mt. Uhud. Instead, Khālid adopted the sound tactics of attempting to turn the Muslim flank by going round Mt. Uhud and advancing westwards along the Wādi Qanat until he was halted by a company of archers stationed to the south of the wadi on Mt. Rumat. He was unable to make any headway against them as long as they maintained their position; here, as in later medieval battles, archers were a serious threat to mounted troops. It was only when most of the bowmen left their posts that the cavalry broke through and fell upon the Muslims, whose ranks were disorganised in the quest for plunder. 3) The horsemen were then operating in conditions favourable to cavalry, with room to manoeuvre and to wield the lance. 4) There is confirmation at a later date that it was considered risky for cavalry

1) Waq 32. 2) Waq 365 f. 3) Waq 217 ff; see Ham 5-8. 4) Waq 250.

to attack ranks of disciplined infantry when unsupported by their own foot-soldiers: at Qādisīyah the cavalry were warned not to attack alone because the enemy could then restrain the horses and prevent them from returning to the main body of their army. Presumably they could then be unhorsed and killed. 1)

By the beginning of the 7th century the Greek armies had already been re-organised for dealing with mobile enemies such as the Berbers and their cavalry had become the best-armed and most numerous of their troop formations. 2) The Persians also, with their horse-mounted knight-hood, the Asāwirah, 3) could presumably put much larger cavalry forces into the field than the Arabs. The type of country best suited to cavalry is well described by the author of the Strategikon:

"In order to charge, lancers need a level terrain, vast in extent, without swamps, ditches or trees to break the line. Scarped terrain, on the other hand, is most unsuitable for them." 4) One of the Hawāzin at Hunayn commented on a piece of land that "it was a fine place for cavalry, not a hill with jagged rocks or a plain full of dust." 5)

The mobility of the Arabs, so superior to that of their enemies for movement over long distances in desert or steppe, became inferior when they faced their opponents in pitched battle. There is considerable evidence to show that the Arabs, before pitched battles, chose their positions with great care and tactical insight, but they chose them to give the greatest possible advantage to their most numerous and reliable arms - infantry and archers. It is quite

1) Tab 1. 2330f. 2) Strat 9; see Brehier 344. 3) Bal 280 f; see Nol Ges 441. 4) Strat 51. 5) IH 840 f.

erroneous to visualise these encounters as taking place in the open plain, with squadrons on camel-back and horseback charging in attack and pursuit; the Arabs had no wish to fight battles in terrain suited to cavalry. The defensive pattern of Uhud was often repeated, with the Muslims drawn up behind a ditch or watercourse, wherever possible on the forward slopes of a hill. Such was the position at the Yarmūk, with the deep trough of the river in front of the Muslims, broken country behind them, and an easy line of retreat to the desert in case of defeat. 1) In the Strategikon generals are advised to choose the battlefield carefully, with regard to the race of the enemy and the relative strengths of the armies, and of the various sections of the armies. "For instance, if the Byzantines are superior in cavalry then a level plain is chosen, if the enemy has many archers one should avoid the feet of mountains." 2) This is precisely what the Greeks were unable to do at the Yarmūk, where they were forced to fight at a disadvantage on ground chosen by the Arabs, a fact which undoubtedly played a large part in deciding the outcome.

Although the battle of Qādisiyah was fought in the plain the Muslim position was behind the channel of the 'Atīq, which the Persians had to fill with soil, reeds, and pack-saddles (barādhi) in order to make the crossing. 3) It was the intention of the Muslims to retreat to the desert if they were defeated but if they were victorious the pursuit and the occupation of 'Irāq would be easy. 4)

1) Tab 1. 2088; see Ca 15, 11 ff. 2) Strat 100 f. 3) Tab 1. 2286.

4) Tab 1. 2226 f; 2228.

Thus in the early battles, before the organised military power of the Greeks and Persians had been decisively broken, the Arabs chose positions where the prowess of their infantry could be used to the best advantage, from which the retreat was secure and from which the line of advance lay through country suitable for the deployment of pursuing cavalry in the event of victory. It was only when the second phase began, with the invasion of the Persian highlands and the battle of Nihāwand, that the Arabs passed over to the offensive: at Nihāwand the Persians were enticed from their fortifications by a feigned retreat and destroyed in the open. 1) Even so, the Muslims chose defensive positions on occasions. There is a story that Umar dreamt one night of his army in Fārs and 'saw' them in the open desert; this made him uneasy and he wished them to give battle on the side of a mountain so that they could only be attacked from one direction. The Muslims heard Umar's 'voice' urging them to do this, took up their position on the slope and were victorious. 2) When al-Ahnaf was hard-pressed in Khurāsān he took his stand in a narrow pass with the river Murghāb on his right and a mountain on his left. 3)

The conduct of the Arabs in pitched battles must not be confused with the tactics used on raiding expeditions, which were frequently mounted both before and after Nihāwand. Examples are: Jazīrah; 4) Armenia; 5) the expeditions following the victory of Nihāwand, to

1) Tab 1. 2620 f. 2) Tab 1. 2701; Ya'q II, 179. 3) Tab 1. 2901; Bal 407. 4) Tab 1. 2474 f; Bal 172 f. 5) Bal 197 f; Ya'q II, 180.

Jibāl, 1) Qūmis, 2) Jurjān, 3) Adherbayjān, 4) and Khurāsān. 5) There are several indications that these expeditions were of a ghazw nature and, with the exception of Jazīrah, no permanent conquests were made at this time. Forts were left alone if they resisted; 6) towns were said to have rebelled after having been conquered in this period and had to be subdued again later, but it is probable that these early raiders had merely exacted a single payment of tribute before continuing their march. 7) Even later, in the time of Uthmān, troops from Kūfah were stationed in the frontier regions, the thughūr, and there were 10,000 men in these garrisons. The number of fighting men in Kūfah was 40,000, so that "each man got a chance for booty once every four years." 8) When in the same period al-Walīd raided Adherbayjān, Jilān and Mūqān he returned to Kūfah after his expedition. 9) There is a marked contrast, therefore, between such expeditions where a maximum use was made of mobility for long-range transport and the pitched battles of Badr, Uhūd, the Yarmūk and Qādisiyah where the Muslims chose positions which restricted movement and ensured that the issue would be decided by hand-to-hand fighting on foot.

When cavalry was used in combat its position in the order of battle varied; sometimes it was on the wings, 10) sometimes in front of the main body of troops. 11) There were three phases to an engagement: stone-throwing and missile discharge, the cavalry charge, and the

- 1) Tab 1. 2635; 2650; 2653; Bal 309 f; 312 f. 2) Tab 1. 2656 f.  
 3) Tab 1. 2657f. 4) Tab 1. 2660 f; Ya'q II, 180. 5) Tab 1. 2682 f.  
 6) Tab 1. 2479; 2660. 7) Bal 309; 319. 8) Tab 1. 2805 f.  
 9) Bal 322. 10) Waq 219. 11) Tab 1. 2330.

hand-to-hand struggle between the ranks of infantry, which was always the last phase. Discharge of missiles usually preceded the cavalry attack, 1) but at Qādisiyah the cavalry charge (mutaradah) was said to have been first 2) and to have been repeated thirty times. 3) It is hard to believe that the cavalry at Qādisiyah was very effective on the battlefield, particularly as their numbers were limited. There were probably a number of charges, although these may not have been concerted attacks but separate charges by the horsemen of different tribes. 4)

Some details are given of fighting from horseback; there is frequent mention of foot-soldiers being attacked by cavalry. 5) At Uhud Khālīd b. al-Walīd was mounted on a jet-black horse with a white blaze on its forehead and white markings on its legs, and he rode among the Muslims, when their ranks were disorganised, killing them with his lance. 6) The Muslim woman, Umm Umārah, who fought as a warrior at Uhud, was attacked by a rider and her son went to her aid and incapacitated the rider by laming his horse; 7) disabling the horse by cutting the leg tendons was a method sometimes used by the infantry as a defence against their mounted opponents. 8)

Duels were also fought between two horsemen in a style reminiscent of the familiar tourney of later mediaeval times. 9) A Muslim rider and a Persian rider fought each other in this manner, first with the

1) WW 163; 176; 199; 200; 212. 2) Tab 1. 2319. 3) Tab 1. 2311.

4) Tab 1. 2330. 5) Tab 1. 2099; 2104 f; Waq 276; IH 570; 677.

6) Waq 250. 7) Waq 265. 8) Waq 61; 251. 9) Tab 1. 2262; Fut Lees II, 173 ff.

lance and then with swords, until both were unhorsed, the Muslim finally killing his enemy with his dagger (khanjarah). 1) At Isfahan, when a Muslim and a Persian were duelling on horseback, the saddle-bow of the Muslim's horse was broken and the girth and breast-harness were cut, so that the saddle and saddle-blanket fell to the ground; the rider landed on his feet and remounted bareback. 2)

1) Tab 1. 2423. 2) Tab 1. 2639; Bal 313. Vocabulary:- saddle - sarj pl. surūj; saddle-bow - qarabūs pl. qarābis; breast-harness - labab pl. albāb; girth - hizam pl. -āt, ahzimah, huzum; saddle-blanket - libd pl. lubūd, albād.

### CONCLUSION

The role of mobility in the early Muslim conquests may be considered in two ways; as in the foregoing pages in relation to its effect upon the tactical and strategical conduct of the warfare, or as part of a way of life. In the latter context there can be no doubt that it was a decisive factor. Because the way of life in Arabia was nomadic and based on camel transport the Arabs were able to mobilise sufficient forces to invade the lands of the Byzantine and Persian Empires with some hope of success. Had the camel not been domesticated and had the prevailing culture, therefore, been primarily confined to oasis agriculture in widely scattered, mutually isolated areas, no combination of forces and no mass movement would have been possible.

Looked at from the other viewpoint the picture is not so clear, i.e. how important was the superior mobility of the Arabs when they were in the actual theatre of operations? Other factors intrude. Acting in favour of the Arabs were their own religious fervour coupled with their rapacity, the passiveness or active co-operation of the indigenous populations, and the exhaustion and low morale of the Byzantine and Persian powers. Acting against them were their poor organisation, lack of a unified command or proper chain of command, intractability of individual Arab leaders, inadequate weapons and shortage of cavalry, lack of experience in military engineering and siege warfare. Certainly mobility can be added to the favourable factors, but not from a tactical point of view. The pitched battles

were fought defensively by the Muslims, and the issues were decided by infantry.

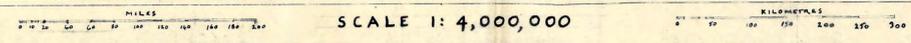
Strategically, however, mobility played a weighty part. The Arabs' most important asset was their familiarity with the desert, conferred upon them by the integration of camel-culture into a fully nomadic way of life. Their enemies were unable to penetrate the desert, and the Arabs were therefore in possession of secure lines of communications; more important, they could use the desert as a safe refuge and as a base from which attacks could be launched, at points of their own choosing.

When all the other questions discussed in Chapter VI, Section II are taken into account - disruption, surprise, intelligence, concentration of forces, etc. - all of which conferred advantages on the mobile Arab forces, it must be concluded that their use of the camel was an important contribution to their victories.



TOPONYMICAL MAP ACCOMPANYING  
 THESIS :-  
**THE MOBILITY OF  
 THE ARAB ARMIES IN  
 THE EARLY CONQUESTS**  
 FOR THE DEGREE OF MASTER OF  
 LETTERS. BY D.R. HILL

SCALE 1: 4,000,000



ON THE SAME SCALE