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MAURETANIA CAESARIENSIS:
AN ARCHAEOLOGICAL AND GEOGRAPHICAL SURVEY.

by

R. I. Lawless, B.A., (St. Cuthbert's Society) .

A thesis presented in Candidacy for the degree of
Doctor of Philosophy in the University of Durham.

1969.

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VOLUME ONE

PREFACE

This study was undertaken while the author held a Major State Studentship, awarded by the Department of Education and Science, at the Department of Archaeology in the University of Durham.

I would like first of all to remember and acknowledge the special debt which we owe to Stéphane Gsell who laid the foundations of Algerian archaeology, and whose monumental work L'Atlas Archéologique de l'Algérie, published in 1911, first drew attention to the need for further investigation of the region that was Mauretania Caesariensis, and provided the basic reference work for such an investigation.

In the preparation of this thesis I have received generous assistance from many people. I am particularly grateful to Dr. J.C. Mann, Department of Archaeology, Durham, who has given me constant advice, who read the drafts and gave much valued criticism; to Professor J.I. Clarke, Department of Geography, Durham, for much help and stimulation at all stages of the work; to several French scholars - M. H-G. Pflaum (Paris), M. J. Despois, Institut de Géographie, Université de Paris, and M. X. de Planhöl, Institut de Géographie, Université de Nancy, - for their willingness to discuss particular problems which arose during this study; to M. P. Courtot, formerly director of the 14th archaeological division (Ouled Mimoun), who gave me as yet unpublished information about his excavations in and around the Roman city of Altava; to Professor W.B. Fisher, Head of the Department of Geography, Durham, for his encouragement

Finally I would like to thank the people of western Algeria for their courtesy and hospitality during my visit in the spring of 1968, a time when there was considerable friction between the governments of Algeria and the United Kingdom.

and for a generous grant toward the cost of a period of field-work in Algeria, without which a visit to Algeria would have been impossible; to the staff of the British Council in Algiers for their hospitality and many kindnesses during my visit to Algeria in March - May 1968; to M. Sid Ahmed Baghli, Director of Antiquities, Algeria, M. P-A. Février, Inspector of Antiquities, Algeria, Mlle. F. Kadra, Department of Antiquities, Algiers, and M. A. Nadjeh of Tiaret who directed my attention to libraries, museums and sites in western Algeria and without whose generous co-operation it would have proved impossible for me to have visited several important sites in western Algeria, which lie some distance from public transport routes; to Mr. W.W. Anson and Mr. J.E. Knipe, Department of Geography (Atlas of Northern England), University of Newcastle upon Tyne, for their practical assistance and advice in the preparation and reproduction of the maps and diagrams; and to Mr. W. Dodds, Department of Archaeology, Durham, who drew figures 8 and 9.

But above all I am grateful to Professor E. Birley, Head of the Department of Archaeology, Durham, who launched this study, read all the drafts, and made important corrections, and comments, who, over a period of three years has always been ready to place his expert knowledge and advice at my disposal, and whose visit to Algeria in March 1968 to advise the Algerian government on the organisation of their Antiquities Service did much to make my own period of field-work in Algeria so profitable. For these, and for many other things, my debt to him is great.

(over)

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GUIDE TO THE LAY-OUT OF THE THESIS.

VOLUME ONE

1. Notes and references together with any lists of information are grouped together for convenience at the end of each chapter.

2. It has not been possible to reduce the maps which accompany this volume to quarto size and still retain all the necessary detail. Maps 1 - 12 are therefore presented in a separate portfolio. In order that the portfolio should be of a suitable size for shelving, the distribution maps of native and Roman sites in our area of special study (maps 7 - 12) have been divided into two parts - a west and an east sheet - which have a common edge and fit together exactly. The maps are numbered, for example 7a (west sheet), 7b (east sheet) and the key has been included on the west sheet. Details of topography, and present-day pattern of settlement and communications (from the maps Afrique 1/500.000 Type Tourisme Oran and Alger, published by the Institut Géographique National, Paris) are reproduced on transparent film, again in two parts, a west and east sheet, which should be placed over the respective parts of the distribution map under study.

3. In Chapters 3,4, and 5, when reference is made to particular points which are discussed more fully in the descriptions of individual Roman sites included in Volume Two, first the name of the site is given, then its number - to indicate its position in Volume Two, and finally the number of the relevant sub-section; thus, Rapidum 78,2.

VOLUME TWO.

1. Individual native sites studied in detail in this volume (1 - 15) are numbered for ease of reference on map 7; and the Roman sites (16 - 86) on map 10.
2. Some sites of similar type and situated in close proximity to one another (such as the fortified villas in the western Ouarsenis) have been grouped together in one section, although each site is given a separate reference number.
3. The sections on individual Roman and native sites for which abundant evidence is available follow a set pattern. First the archeological evidence - i.e. observations made by early visitors and the results of excavations - is examined; then the epigraphic evidence; and finally an attempt is made to reconstruct the main stages in the development of the centre.
4. Illustrations referred to in any site description together with the notes and references are to be found at the end of the particular section.
5. Many Roman sites studied in this volume have produced dated inscriptions and this evidence is presented in the form of a series of histograms. The vertical axis of each histogram illustrates the length of time the Roman centre was occupied and the main stages in its evolution, while the horizontal axis illustrates the volume of evidence available for that site. Histograms have been drawn for the following sites:

- | | |
|-------------------------------------|--------------------------|
| 16. Damous | 34. ALA MILIARIA |
| 17. NUMERUS SYRORUM | 47. COLUMNATA |
| 19. PRAESIDIUM SUFATIVE/
ALBULAE | 48. Kherba des Aouissat |
| 22. POMARIA | 50. Souama de Mecherasia |
| 23. ALTAVA | 52. Tiaret |
| 30. Oued el Hammam | 55. Aioun Sbiba |
| 31. Guethna | 77. Boghar |
| 32. AQUAE SIRENSES | 78. RAPIDUM |

They are included in the portfolio for ease of reference and for comparison. This is a new technique and it is hoped that it may prove generally useful.

INDEXES OF PLACE-NAMES.

Throughout this thesis the Roman name for a site is used where it has been recorded, and the name is underlined. If the Roman name is unknown, the modern name is used. However, since Algeria achieved independence many French place-names have been replaced by Algerian names, although the latter have not been widely accepted either within or outside the country. Nevertheless, it has been thought only right to adopt them for the purposes of this thesis.

For reference, and to prevent any confusion, three lists of place-names arranged in alphabetical order are included below:

- A. Roman place-names with their French and Algerian equivalents;
- B. Algerian place-names with their French and Roman equivalents;
- C. French place-names with their Algerian and Roman equivalents.

LIST A.

<u>Roman</u>	<u>French</u>	<u>Algerian.</u>
ALA MILIARIA	Beniane	Beniane
ALBULAE	Ain Témouchent	Ain Témouchent
ALTAVA	Lamoricière	Ouled Mimoun
AQUAE CALIDAE	Hamam Righa	Hamam Righa
AQUAE SIRENSES	Bou Hanifia	Bou Hanifia
AUZIA	Aumale	Sour Ghozlan
BALLENE PRAESIDIUM	l'Hillil	l'Hillil
CARTENNA	Ténès	Ténès
CASTELLUM TINGI- TANUM	Orléansville	El-Asnam
CASTRA NOVA	Perregaux	Mohamedia
CEN[- -	Aioun Sbiba	Aioun Sbiba
COHORS BREUCORUM	Henchir Souik	Henchir Souik
COLUMNATA	Waldeck-Rousseau	Sidi Hosni
GADAUM CASTRA	St. Aime	<u>unknown</u>
GUNUGU	Marabout de Sidi Brahim	Marabout de Sidi Brahim
HIBERNA ALAE SEBASTENAE	Kherba des Ouled Hellal	Kherba des Ouled Hellal
ICOSIUM	Alger, (Eng. Algiers)	Alger
IOL-CAESAREA	Cherchel	Cherchel
KAPUTTASACCURA	Chanzy	<u>unknown</u>
LAMBDA	Medea	Medea
LUCU	Timziouine	Timziouine
MALLIANA	Affreville	El-Khemis
MINA	Relizane	Ighil-izane
NUMERUS SYRORUM	Marnia	Lalla Maghnia
OPPIDUM NOVUM	Duperre	Ain Defla

<u>Roman</u>	<u>French</u>	<u>Algerian.</u>
POMARIA	Tlemçen	Tlemçen
PORTUS MAGNUS	St. Leu	<u>unknown</u>
PRAESIDIUM SUFAT- IVE, (later ALBULAE)	Ain Temouchent	Ain Temouchent
QUIZA	Pont-du-Chélif	<u>unknown</u>
RAPIDUM	Masqueray	Sour Djouab
REGIAE	Arbal	<u>unknown</u>
RUSGUNIAE	Cap Matifou	Cap Matifou
RUSUBBICARI	Mers el Hadj- edje.	Mers el Hadjedje
SIGA	Takembrit	Takembrit
SUFASAR	Dolfusville	Amoura
TASACCURA	St. Denis-du- Sig	Sig
THANARAMUSA CASTRÆ	Berrouaghia	Berrouaghia
TIGAVA/ TIGAVA CASTRA	nr. Les Attafs	nr. Les Attafs
USINAZA	Saneg	Saneg
ZUCCHABAR	Miliana	Miliana

LIST B.

<u>Algerian</u>	<u>French</u>	<u>Roman</u>
Ain Defla	Duperré	OPPIDUM NOVUM
Amoura	Dolfussville	SUFASAR
El-Asnam	Orléansville	CASTELLUM TINGI- TANUM
El-Bayadh	Géryville	-
El-Khemis	Affreville	MALLIANA
Ighil-Izane	Relizane	MINA
Lalla Maghnia	Marnia	NUMERUS SYRORUM
Mechera Sfa	Prévost-Paradol	-
Mohamedia	Perrégaux	CASTRÀ NOVA
Oued el Hammam	Dublineau	<u>unknown</u>
Ouled Mimoun	Lamoricière	ALTAVA
Sidi Hosni	Waldeck-Rousseau	COLUMNATA
Sig	St. Denis-du-Sig	TASACCURA
Sour Djouab	Masqueray	RAPIDUM
Sour Ghozlan	Aumale	AUZIA
Tissemsilt	Vialar	<u>unknown</u>

LIST C.

<u>French</u>	<u>Algerian</u>	<u>Roman.</u>
Affreville	El-Khemis	MALLIANA
Ain Temouchent	Ain Temouchent	PRAESIDIUM SUFATIVE (later ALBULAE).
Aioun Sbiba	Aioun Sbiba	CEN[--
Alger (Eng. Algiers)	Alger	ICOSIUM
Arbal	<u>unknown</u>	REGIAE
Aumale	Sour Ghozlan	AUZIA
Beniane	Beniane	ALA MILIARIA
Berrouaghia	Berrouaghia	THANARAMUSA CASTRA
Bou Hanifria	Bou Hanifia	AQUAE SIRENSES
Bourbaki	Bourbaki	<u>unknown</u>
Cap Matifou	Cap Matifou	RUSGUNIAE
Chanzy	<u>unknown</u>	KAPUTTASACCURA
Cherchel	Cherchel	IOL-CAESAREA
Dolfussville	Amoura	SUFASAR
Dublineau	Oued el Hammam	<u>unknown</u>
Duperre	Ain De'la	OPPIDUM NOVUM
Geryville	El Bayadh	-
Hammam Righa	Hammam Righa	AQUAE CALIDAE
Henchir Souik	Henchir Souik	COHORS BREUCORUM
Kherba des Ouled Hellal	Kherba des Ouled Hellal	HIBERNA ALAE SEBASTENAE
Lamoricière	Ouled Mimoun	ALTAVA
Les Attafs	Les Attafs	TIGAVA / TIGAVA CASTRA
l'Hillil	l'Hillil	BALLENE PRAESIDIUM
Marabout de Sidi Brahim	Marabout de Sidi Brahim	GUNUGU

<u>French</u>	<u>Algerian</u>	<u>Roman</u>
Marnia	Lalla Maghnia	NUMERUS SYRORUM
Masqueray	Sour Djouab	RAPIDUM
Médeá	Médeá	LAMBDA
Mers el Hadjedje	Mers el Hadj- edje	RUSUBBICARI
Miliana	Miliana	ZUCCHABAR
Orléansville	El-Asnam	CASTELLUM TINGI- TANUM
Perregaux	Mohamedia	CASTRUM NOVA
Pont-du-Chelif	<u>unknown</u>	QUIZA
Prevost-Paradol	Mechera Sfa	-
Relizane	Ighil-Izane	MINA
Saneg	Saneg	USINAZA
St. Aime	<u>unknown</u>	GADAUM CASTRA
St. Denis-du-Sig	Sig	TASACCURA
St. Leu	<u>unknown</u>	PORTUS MAGNUS
Takembrit	Takembrit	SIGA
Tenes	Tenes	CARTENNA
Tiaret	Tiaret	<u>unknown</u>
Timziouine	Timziouine	LUCU
Tlemcen	Tlemcen	POMARIA
Vialar	Tissemsilt	<u>unknown</u>
Waldeck-Rousseau	Sidi Hosni	COLUMNATA

LIST OF ROMAN AND NATIVE SITES STUDIED IN

VOLUME TWO, ARRANGED IN ALPHABETICAL ORDER:

<u>Name of site</u>	<u>Site number</u>	<u>Name of site</u>	<u>Site number</u>
Ain Aouina	85	Ben Afifs	40
Ain Balloul	12	Ben Beha	61
Ain Chéira	81	Boghar	77
Ain Djabcha	64	Bourbaki	67
Ain Draham	58	Chellala	14
Ain ech Chema	83	COHORS BREUCORUM	
Ain el Aneb	66		53
Ain el Bridj	21	COLUMNATA	47
Ain el Turck	5	Damous	16
Ain Feradja	69	Djebel Guedale	49
Ain Grega	57	Dour-commune	
Ain Mekerreg	25	Ouled Lakred	46
Ain Nekrouf	6	El Aïoun	1
Ain Sarb	51	El Ksar	29
Ain Sidi el		Farm F'ages	20
Hadj	42	Farm Hordela-	
Ain Sidi Man-		lay	68
sour	72	Farm Jean Cuzange	
Ain Skouna	26		63
Ain Tamda	84	Guethna	31
Aïoun Sbiba	55	Guiard	18
ALA MILIARIA	34	HIBERNA ALAE	
ALBULAE	19	SEBASTENAE	74
ALTAVA	25	KAPUTTASACCURA	24
Ammi Moussa	41	Karkab	9
AQUAE SIRENSES	32	Kef el Keskas	70
		Kersout	7

<u>Name of site</u>	<u>Site Number</u>
Kherba Achlef	44
Kherbet bent Sarah	60
Kherba bou Zoula	39
Kherba de Sfi-sifa	82
Kherba des Aouissat	48
Koliaa	8
Koudiat - en - Nessara	4
Koudiat-er-Roum	3
Ksar bent el Solthan	79
Ksar Djerane	38
Ksar el Kaoua	35
Ksar Kebbaba	36
Letourneux	73
LUCU	33
Martimprey	54
Medjedel	86
MINA	28
Mtalsa	11
NUMERUS SYRORUM	17
Oued el Hammam	30
Ouekki	45

<u>Name of Site</u>	<u>Site Number</u>
Palissy	27
Plateau de Hamadia	80
POMARIA	22
PRAESIDIUM SUFATIVE	19
RAPIDUM	78
Sedadja	37
Sersou	13
Sidi bou Zid	59
Sidi Keddour	75
Sidi Medjahed	2
Sidi Rhanem	71
Souama de Mech-erasfa	50
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| 22. POMARIA | 50. Souama de Mecherasfa |
| 23. ALTAVA | 52. Tiaret |
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9. a/b Native Sites which show Evidence of Roman influences.
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11. a/b Roman Military Sites.
12. a/b Types of Roman Civilian Settlements and their Distribution.
13. a/b Transparent Overlays: - details of topography and present-day pattern of settlement and of communications.

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- A.E. Année Epigraphique
- A.E.S.C. Annales, Economies, Sociétés, Civilisations.
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INTRODUCTION.

Of all the North African provinces of the Roman Empire, Africa Proconsularis and Numidia (map 1) are the best known to us. No other areas show the creative force of Roman civilisation so clearly. Apuleius, the author of the *Metamorphoses* and the *Apologia*, one of the finest documents of Roman provincial life in the second century, was a citizen of Madaurus; Cornelius Fronto, the tutor of Marcus Aurelius, from Cirta; and here lived the Christian writers Tertullian and St. Cyprian. Furthermore the long decline of the intervening centuries has left relatively untouched the splendid remains of the densely packed cities of the coastal plains of Tunisia, and the inland site of Thamugadi, just as it developed from the veteran colony founded in AD 100. In recent times numerous excavations carried out in these regions have produced an ever increasing volume of new information about the classical period. It is hardly surprising therefore that in studies of Roman North Africa attention has invariably focused upon the eastern provinces. The problems of Africa Proconsularis and Numidia have imposed their primacy on those of other provinces which are often dismissed as 'frontier regions and regions of insecurity'. Although some attention has been paid to the problems of the province of Tripolitania, largely by British archaeologists, the Mauretaniae and particularly Mauretania Caesariensis have so far been ignored. As one writer has put it, "La romanisation d'une grande partie de la Maurétanie Césarienne relève de

témoignages encore peu étudiés et, somme toute, apparaît dérisoire en regard des régions plus favorisées de l'Est du pays." ¹ It is hoped that this study, which attempts to examine the character of the Roman occupation of Mauretania Caesariensis, will go a little way towards correcting this imbalance.

Few visible remains of the Roman presence in the region that was Mauretania Caesariensis (western Algeria and eastern Morocco) can be seen at the present time. This was the region the most profoundly transformed by European colonisation in the whole of North Africa, and the Roman ruins, many of which were still standing above ground-level at the time of the French conquest of Algeria, rapidly disappeared during the second half of the 19th century as the stone was taken by colonists for use in the construction of their villages and farmhouses. Furthermore, relatively few excavations have been carried out here in recent times; and not only have the archaeological techniques employed often left much to be desired, but the complete results of two excavations are still to be published. Nor do the literary sources include many references to events in this province; only the historian Ammianus Marcellinus, whose surviving work begins in AD 353 and ends in AD 378, devotes several passages to Mauretania Caesariensis. Nevertheless, evidence of the Roman and native occupation of this region is not lacking. From the middle of the 19th century onwards many European colonists, army officers serving in Algeria, and French archaeologists and historians, made plans and

published descriptions of numerous Roman and native ruins in this region before all traces finally disappeared, and recorded hundreds of inscriptions many of which have since been destroyed or incorporated in modern buildings. A summary of the archaeological activity which took place in the second half of the 19th century is included in Gsell's 'Atlas Archéologique de l'Algérie' which was published in 1911. This monumental work is still the basic source for any study of Mauretania Caesariensis. Since 1911 the results of further archaeological investigation in the western part of this region have been published in the journal of the Société de Géographie et d'Archéologie de la Province d'Oran, and, for the eastern part, in the Revue Africaine. Both journals are particularly valuable sources of information. In the early 1950's, after Algeria had been divided up into archaeological divisions, there was some increase in archaeological activity especially in the divisions centred on Tlemçen, Ouled Mimoun, Tiaret, and Teniet-el-Haad where Janier, Courtot, Cadenat and Salama were extremely operational. The many new inscriptions and sculptured stones discovered during these years were published in a new journal, Libyca, Archéologie-Epigraphie which each year included a comprehensive survey of recent archaeological work in the different parts of Algeria. However, during the troubled years which preceded Algerian independence, archaeological activity was very much reduced, and between 1960 and 1962 it ceased almost completely. Nevertheless, under the direction of the Department of Antiquities of the independent republic of Algeria work has been resumed, and in 1965

the first volume of a new archaeological journal for Algeria, the Bulletin d'Archeologie Algerienne was published.

As created in AD 39 the province of Mauretania Caesariensis stretched from the Oued Moulouya in the west to the Oued el Kebir in the east (map 1). In the south-east it extended at least to the northern edges of the interior High Plains and in the south-west to the northern slopes of the Atlas Tabulaire. The eastern part of this province, the area around Sitifis, present-day Sétif, had a very different evolution from the rest of Mauretania Caesariensis. The Sétif region is, in many ways, an extension of the High Plains of Constantine; it was much more densely settled during the Roman period than areas further west; and its links were from an early date with Numidia. At the end of the 3rd century Diocletian recognised its distinct character and made it a separate province, Mauretania Sitifensis. This region has, therefore, been omitted from the present study. Unfortunately the exact position of the western frontier of Mauretania Sitifensis is still uncertain, so that the eastern boundary of our region is somewhat arbitrary and has been chosen essentially for cartographic convenience (map 1). In the south it has been thought expedient to include some of the territory which lay beyond the frontier of the province - namely the Atlas Tabulaire, part of the interior High Plains, and the northern chains of the Monts des Ouled Naïl - particularly in view of the high density of native sites, occupied during the Roman period, which are found there (map 1).

In terms of modern political boundaries our area of special study embraces western Algeria, and part of eastern Morocco, (map 2).

Regional studies have been relatively rare in Roman North Africa,² so that no particular approach has come to be accepted as the rule. Because of our basic training the approach of the historical geographer has been adopted, and we would maintain that such an approach needs no justification. Any regional study of this type must, of course, be firmly based on a survey of the available evidence. Thus, our first task in this research project was twofold; to gather together new information - whether in the form of fuller descriptions of new epigraphic discoveries - about Roman and native sites included in the relevant sections of Gsell's Atlas; and to record the location and any detailed information concerning new sites discovered since Gsell's Atlas was published, or sites omitted from this monumental work. In the time available to us, it has been impossible to examine in detail and to present a written description of the archaeological and epigraphic evidence together with an outline of the origins and history of every Roman and native site in this region. However, since there has been little interest in the native sites, the amount of new information that has come to light since 1911 is fairly limited. We have therefore been able to examine in detail all the native sites in Gsell's Atlas for which further information is available, together with new sites discovered since the Atlas was published. These studies are included in Volume Two, sites 1 - 15. In contrast,

the volume of new evidence from Roman sites in this region which has become available since 1911 is considerable. Consequently, we have had to be selective in our choice of sites for detailed study. As much of the new evidence has come from the southern parts of the province we only present a written description of those Roman sites, situated on or between the 2nd and 3rd century military lines,³ which are not included in Gsell's Atlas, or for which further evidence has become available since 1911. These studies of individual sites are included in Volume Two, sites 16-86.

On the basis of a detailed study of a large number of individual Roman and native sites, together with the evidence from other sites presented by Gsell in his Atlas, the second stage in this project has been to classify sites of the classical period represented in this region into groups, namely native sites, Roman military sites, and Roman civilian sites, which are examined in more general terms in Volume One. In this volume in Chapter 2, we examine the spatial distribution of native sites in an attempt to determine those areas that were particularly favourable for native settlement; we consider the types of native settlements represented here, their origins, length of occupation, and the way of life of the inhabitants; and we look at the effect of the Roman occupation on the native communities of this region. Chapter 3 is devoted to the Roman military sites, and the changes in the organisation of the defences of Mauretania Caesariensis which they reveal. The basic chronology of the Roman occupation is established in this chapter.

In Chapter 4 we consider the types of Roman civilian settlements, their origins and evolution; we examine their spatial distribution against the background of the varying possibilities of the physical environment during the early historical period; and we present a picture of the economy of the Roman province. At the end of each of these chapters the main points are reiterated, and some of the avenues along which further research may be directed are suggested. By way of introduction, Chapter 1 is devoted to the geographical setting, and the present-day pattern of settlement in our area of special study. Here only the broad regional differences in relief, climate, vegetation and pattern of modern settlement are outlined, and a more detailed study of the physical environment of particular parts of our region during the classical period is included in later chapters, where it is relevant to questions under discussion. In the concluding chapter we attempt to draw together the main strands which make up the fabric of this study; we present an outline of the progress of Romanisation in Mauretania Caesariensis - though it must be emphasised that much more detailed work, especially excavation, is necessary before this can be amplified and corrected; we endeavour to define the main areas and the nature of Berber resistance to Roman rule in this province; and finally we suggest three principal factors which, in our opinion, have determined the character of the Roman occupation of Mauretania Caesariensis.

Notes.

1. Salama, P., 'Review of Charles-Picard, G., La Civilisation de l'Afrique Romaine, Paris, Plon, 1959', R.A., Vol. 104, 1960, p. 435.
2. The only one of note is Colonel Baradez' excellent study of the frontier region of southern Numidia (Baradez, J., Fossatum Africae, Recherches Aériennes sur l'Organisation des Confins Sahariens à l'Epoque Romaine, Paris, 1949).
3. To the north of the 2nd century military line, apart from the excavations carried out at Tipasa, very little new evidence has come to light since 1911. Several new inscriptions have been discovered, but for the majority of the Roman sites in this part of the province there is nothing to add to the descriptions included in Gsell's Atlas.

CHAPTER ONE:

THE GEOGRAPHICAL SETTING AND PRESENT-DAY

PATTERN OF SETTLEMENT.

North Africa, it has been said,¹ is a marchland where structural and climatic influences belonging to the Mediterranean realm engage in a struggle with the rigidity and aridity of the desert. In that part of this great region which forms the geographical setting of our study, namely the western part of what is now Algeria, and the eastern part of Morocco, it is not difficult to see which of these two forces is dominant, here, the Mediterranean domain is reduced to a long, narrow strip, and the steppe domain of the interior High Plains, the antechamber of the southern desert, advances northwards, in places to within twenty kilometres of the coast. Situated in the lee of the Middle Atlas and Rif of Morocco, (map 3) and the plateaux of the Iberian peninsula, and therefore sheltered from the rain bearing winds from the north, west, and north-west, this region, sometimes known as the central Maghreb, is much drier than neighbouring regions to east and west, (map 4). The mountains and plains of the Tell Atlas in the north, (map 5), which coincide with the Mediterranean climatic zone, cover less than a third of this region, and nowhere extend beyond a hundred kilometres inland. With the exception of some of the higher mountain slopes, all this zone receives less than 600 mm. of rainfall a year. The interior High Plains and the Saharan Atlas cover the remaining two-thirds and receive less than 400 mm. of rainfall a year. The High Plains of the central Maghreb

are arid steppelands, very different from the High Plains of eastern Algeria from which they are separated by the Hodna depression. The low and dissected chains of the Saharan Atlas form the least elevated and driest part of a mountain arc which extends from Agadir to Tunis, and they contrast in particular with the powerful and well-watered Aurès massif of eastern Algeria. These mountains have permitted the northward penetration of Saharan influences. The central Maghreb is therefore in many ways the least favoured part of North Africa, but each of the three, east-west zones which cross this region - the Tell Atlas, the High Plains, and the Saharan Atlas - present very different possibilities for human settlement.

1. Saharan Atlas.

The mountain chain known as the Saharan Atlas² is a distinct physical unit, more clearly limited in the south, where it dominates the Saharan piedmont, than in the north where it overlooks the High Plains (map 5.) The transversal divisions into Monts des Ksour, Djebel Amour and Monts des Ouled Naïl, are based on human rather than physical factors. The chain consists of a series of isolated ridges, orientated from south-west to north-east which rise to over 2000 metres in the south-west but rarely attain 1500 metres in the north-east. The ridges are almost always asymmetrical; they are the ruins of anticlines and synclines of simple structure which have known only one major period of folding, ⁱⁿ the Eocene. Later earth movements appear to have had little effect on this structure, although at the beginning of the Quaternary the

whole mass was uplifted above the Saharan platform. The evolution of relief is very advanced; but because the climate is arid the ridges are almost buried under their own debris and they are often separated by wide 'plaines de remblaiement'. The existence of wide, longitudinal depressions separating the ridges, together with several transverse corridors, make movement, both within and through these mountains, relatively easy.

The Saharan Atlas is not as dry as the interior High Plains or the Saharan piedmont. It forms the last obstacle to the passage of air-masses from the Mediterranean, and the northern slopes receive an average annual rainfall of 300 - 450 mm., and several falls of snow, although on the southern slopes the amount received decreases to 200 - 300 mm. The slightly higher rainfall received by the northern slopes of these mountains, the snow which remains on the ground for several days each year, together with the presence of important beds of limestones and sandstones, make these mountains relatively rich in water resources in comparison with neighbouring areas. There are numerous springs, although most of the oueds which flow south towards the Saharan piedmont or northwards across the High Plains have only short permanent sections in the mountains immediately below their source. Open forests of holm oak, Aleppo pine and juniper with an undergrowth of alfa grass still cover the northern slopes of several ridges. Those areas which are not wooded are covered with alfa and esparto grass and dwarf sage. During the early historical period an open forest vegetation was no doubt much more extensive.

Some sedentary peoples occupy these mountains. They live in dry-stone villages which are surrounded by irrigated gardens where cereals, legumes and fruit trees are cultivated. These villagers are in a minority today, and nomadic and semi-nomadic tribes make up as much as four-fifths of the population in some areas; but the numerous ruins of small villages, which can be seen throughout the Monts des Ouled Nail and Djebel Amour, and in part of the Monts des Ksour, prove that a sedentary way of life was more widespread in the past. The nomadic tribes of the Saharan Atlas have important herds of sheep, goats, and camels, and each winter they lead them from the higher mountain slopes to the southern valleys or onto the Saharan platform. In summer certain nomadic tribes from the Sahara are attracted to the richer pastures which these mountains provide. But sedentarisation has gradually been taking place. With the extension of dry and irrigated cultivation of cereals in the northern part of the Djebel Amour and Monts des Ouled Nail fixed or temporary habitations, either 'gourbis' or isolated houses set up near the fields, have increased in number. Some nomads retain the tent, but no longer accompany their herds which they entrust to herdsmen for the annual journey south. A decline in herding itself has taken place as a result of the war of Algerian independence, and many nomads have left the area or have migrated to the main administrative centres, Ain Sefra, El Bayadh, Aflou, Djelfa, and Bou Saâda.

2. High Plains.

The vast, monotonous zone of the interior High Plains³ extends from the Oued Moulouya in the west to the Hodna depression in the east, a distance of 700 kilometres. At a height of 1200 - 1300 metres above sea level and 200 kilometres wide in the Dahra (eastern Morocco), the High Plains decrease in height and become narrower towards the east; at the meridian of Algiers their altitude varies from 650 - 800 metres, and they are rarely more than 110 kilometres wide. These 'plaines de remblaiement' are an area of inland drainage. With few exceptions, the torrents which flow after the rains from the isolated ridges and low hills which project above the general level of the plains, infiltrate and evaporate either en route or in salt lakes known as 'sebkha', 'zahrez' or 'chott' (map 5). This results not only from the arid climate but also from the earth movements which uplifted the Tell Atlas to the north. Since the Miocene, eroded material has not been transported to the sea but has accumulated within the area. These continental deposits of red, clayey sands alternating with yellow sands and conglomerates cover gently folded rocks of secondary age (Jurassic and Cretaceous) - which emerge in places to form isolated ridges and which belong to the same structural period as the Saharan Atlas.

The nature and colour of the continental deposits prove that the climate has always been more or less arid. The High Plains receive an average annual rainfall of between 250 - 350 mm. although in places the amount is as low as 200 mm. On average there is a rainfall maximum in December / January, and a minimum in summer with a secondary maximum in April / May. The amount of rainfall received varies from season to season, and from year to year. This immense zone is poor in water resources; springs are rare even near the edges of the neighbouring mountains, and the oueds have an irregular flow. Chellala in the north-eastern part of the High Plains has a January minimum of 1.6° C and a July maximum of 36.7° C; Mecheria in the south-west has an average January minimum of 1.5° C and an average July maximum of 35.1° C; these temperatures reflect the continental character of the climate, and the harshness of the winters. The High Plains experience an average of from 4 - 13 days of snow, and from 40 - 60 days of frost.

For the most part the High Plains are arid steppe - lands. The low rainfall and its highly seasonal incidence, insufficient for trees and shrubs, supports mainly alfa grass, which is well adapted to a rainfall of from 100 - 350 mm., and to poor soils as long as they are neither too moist nor too saline, together with esparto grass and dwarf sage. Tufted herbs and dwarf plants develop with the scanty winter rainfall and remain green for no more than the first month of the seven-month dry season. Several open and degraded forests still survive on the northern and western slopes of the narrow ridges which project above the plains.

The harsh climatic conditions are unfavourable for agriculture and livestock rearing alike. Cereal cultivation without irrigation is only possible in one small part of this zone - the High Plain of Sersou. In areas where irrigation is possible the cold winds or the sirocco, the sharp variation in temperatures, and the late frosts can do considerable damage; the interior steppelands are particularly unfavourable for tree crops. Snow, cold, winter winds as well as long, dry periods, are factors which limit the development of even an extensive form of livestock rearing. During the military conquest of Algeria in the first half of the 19th century French soldiers described the High Plains as 'le petit désert', and to this day, for the native of the Tell, this area is already 'le Sahara.'

The High Plains are thinly populated - (5 - 10 inhabitants per square kilometre). They are inhabited by semi-nomadic tribes who lead their herds of sheep, camels and goats to the edges of the Tell Atlas in summer in search of pastures. Some tribes have few animals and obtain a livelihood by collecting alfa grass,⁴ which is sold for use in the manufacture of good quality paper. But in recent times the extension of cereal cultivation along the northern edges of the High Plains has brought about some sedentarisation. Gourbis and isolated houses have multiplied and, in the Chellala district for example, now make up half the habitations. New wells have been sunk so that many tribes no longer need to leave their own district during the summer months.

Consequently the number of camels and horses has declined, although the number of sheep has steadily increased. In winter tribes from the Saharan Atlas, e.g. the Derraga and Ouled Ziad of the El Bayadh district, and from the southern edges of the Tell Atlas, e.g. the Ouled Nehar and Angad from El Aricha and the Ouled Allan from Boghari, lead their herds to pastures in the lower parts of the steppes. In summer the Said Atba and Arbaa, powerful nomadic tribes from the Sahara, pass through this zone with their herds of sheep and camels on the way to richer pastures in the southern parts of the Tell Atlas.

3. Tell Atlas.

In contrast to the emptiness and monotony of the High Plains, the Tell Atlas ⁵ is characterised by higher population densities (50 - 55 inhabitants per square kilometre) and variety of landscape forms. In this zone one finds in close juxtaposition undulating plateaux, vigorously folded massifs, low sublittoral plains, and longitudinal valleys (map 5). For a distance of more than 350 kilometres to the south of the Sahel d'Oran, the Dahra, and the Monts de Miliana (culminating in the Zaccar, 1579 m.) runs the longitudinal trough of the Sebkhah d'Oran, the low alluvial plains of the Macta and Mina, and the Chelif valley. South of the trough, from west to east, are a series of narrow mountain chains which are sometimes known as the 'Atlas plissée' - the Massif des Trara, Djebel Tessala, Monts des Ouled Ali and Beni Chougran, which rarely rise above 1000 metres, and then the important barrier of the Massif de l'Ouarsenis, the backbone of western

Algeria, and the most impressive mountain range whose crenulated bastion of limestone thrusts upwards to almost 2000 metres. The Massif des Trara forms a barrier between the Sebkhah d'Oran and the sublittoral depression of the lower Moulouya and the Plaine des Triffa of eastern Morocco, which are bordered to the south by the vigorously folded Monts des Beni Snassen (1535 m.). Further inland, from the Moulouya to the Mina, a series of interior basins, El Aïoun-Oujda, Marnia, Tlemçen, Sidi bel Abbès, and Mascara, are strung along the foot of tabular mountains known as the 'Atlas Tabulaire' (1100 - 1500 metres) - which are deeply cut by gorges; they are the Gada de Debdou, the Massif de Djerada, the Monts de Tlemçen, Daya, Saïda and Frenda. Beyond the Oued Mina and to the south of the Massif de l'Ouarsenis is the High Plain of Sersou which, although structurally part of the interior High Plains, receives an average annual rainfall of 400 - 500 mm., and must, therefore, be regarded as an 'annexe du Tell'. The longitudinal trough which crosses this zone from west to east is linked to the valley of the Oued Sahel - Soummam in eastern Algeria by the 'sillon de Médea'. This plateau is separated from the Sahel d'Alger and the Mitidja trough to the north by the narrow chain of the Blida Atlas (1629 m) and from the interior High Plains to the south by the Monts du Titteri which rise to over 1800 metres.

In Hercynian times the Tell Atlas, like the rest of the Maghreb, was extensively peneplained. Later, it was covered by thick sediments and remnants of the basement complex only thrust through the surrounding cover of Meso-

Tertiary rocks in the tabular hills which stretch from the Moulouya to the Mina. In the 'Atlas Tabulaire' the Hercynian block is covered by very thin deposits of Jurassic and Cretaceous sandstones and limestones, and fracture rather than folding is responsible for the modern relief forms. All the other massifs have a complex structure due to the plasticity of the rocks, and to several periods of intense folding. Earth movements during the upper Eocene and Oligocene uplifted and vigorously folded in a south-west to north-east direction sediments which had accumulated since the Permian. After a period of continental erosion and another marine transgression a new period of folding took place during the Lower and Middle Miocene. However, it is structural movements since the Pliocene that have given this area its actual configuration. The disappearance of the Pliocene gulfs, subsidence, fracture, and along some of the fractures, volcanic eruptions, have been characteristic of these movements. The mountain massifs have been vigorously eroded; the marls, schists, and clays have been cut by gorges throwing into relief the limestones and sandstones. But drainage is still incomplete. The low plains behind Oran are not drained to the sea; the plains of the lower Chelif and Macta and ^{the} Mitidja trough were covered by extensive marshes until the French carried out drainage work; and there are still some marshes in the Mascara plain. This gives a markedly youthful character to the scenery, not seen in the Tell of eastern Algeria.

The western Tell Atlas experiences a semi-arid climate; but there are marked contrasts within this zone between the plains and the mountains and mountain slopes with different aspects. Only the northern slopes of the principal massifs have an average annual rainfall of more than 600 mm.; the low plains and interior basins receive less than 500 mm., and several, - including the plains behind Oran and the plains of the lower Chelif and Mina, - less than 400 mm. Rainfall is irregular, and can vary dramatically in amount from one year to another. Spring droughts are often severe in the low plains, while in the interior basins very low winter temperatures are experienced. But in summer, temperatures are high everywhere; the summer temperatures recorded in the lower Chelif valley are comparable with those of Laghouat on the edge of the Sahara. Soils and vegetation reflect the differences in climate of the plains, hills and mountains. In the plains older and more recent alluvium have very different physical qualities according to the conditions under which they were deposited. In places, poor drainage of compact soils has rapidly led to the concentration of salts, particularly chlorides and to the formation of 'sebkhas' and 'chotts'. The camel thorn, or jujube (Zizyphus lotus) is the characteristic vegetation of the dry, alluvial plains with deep soils; it is replaced by the halophytes where the percentage of chlorides is high. On hills composed of varied Tertiary rocks the soils are also very different, but almost all have a high lime content. The basalts and andesites weather to form very fertile black soils.

Outside the alluvial plains the better soils were formerly recognised by the plant association Oleo-Lentiscetum - although this rapidly disappeared as European agriculture expanded in the latter half of the 19th century. Poorer soils are covered with garrigue scrub. In the mountains there are only small pockets of fertile soils, and poor skeletal soils are dominant. Many of the higher mountain slopes throughout this zone are covered with the holm oak, and no tree is more widely represented. The Aleppo pine is found in the Massif de l'Ouarsenis - where two forests of cedars also survive above 1500 metres - and in the Monts de Daya; forests of thuya cover part of the Dahra and the northern parts of the Monts de Saïda, and Frenda; the kermes oak is restricted to the plateaux de Frenda; and the cork oak appears only on schistose and sandy soils. European colonisation, the policy of 'cantonnement' and the dramatic increase in the Muslim population in recent times have resulted in widespread deforestation. At the present time only 30% of the Atlas Tabulaire, 20% of the Massif de l'Ouarsenis, and 15% of the Monts de Miliana are still forested, and almost all of these forests are open and often degraded; secondary plant formations, garrigue and maquis scrub, are widespread.

In the Tell Atlas the natural conditions therefore result in two very different types of region, each of which presents very different possibilities for human settlement; the plains and the hills favourable for agriculture but often dry, and the mountains which are wetter, but where there are few areas suitable for cultivation. European colonisation in the second half of the

19th century and the first half of the 20th century accentuated the contrast between these regions.

At the time of the French conquest, the Muslim societies which occupied the western Tell Atlas lacked cohesion. Semi-nomadic for the most part - except in the Massif des Trara and the Monts de Miliana - they lived in tents and had a subsistence/economy based on extensive stock rearing with some cereal cultivation. Only a small percentage of the population lived in towns - Algiers, Oran, Tlemçen, Mostaganem, Mascara, and Miliana. This urban population, which was often of foreign origin - Andalusian, Syrian, and Turkish - was composed of merchants, traders and civil servants who formed a pre-capitalist middle class. Unlike the deeply rooted peasant societies of eastern Algeria, the native population of the western Tell provided no real obstacle to European penetration and colonisation. By a policy of expropriation, confiscation and 'cantonement', large tracts of land in the plains and hills were made available for European agricultural colonisation.⁶ There followed the rapid transformation of these areas which were organised for the production of cash crops for export. The vine, one of the few cash crops which could be grown successfully without irrigation, became the basis of European agriculture. Cereals, especially soft wheat, also became important despite the relatively unfavourable climatic conditions; they soon covered vast areas in the Chelif plains, and the High Plain of Sersou. Several large irrigated areas were created for the cultivation of 'primeurs' and tree crops, with the construction of seven reservoir dams. The tent

disappeared almost everywhere to be replaced by an entirely new pattern of rural settlement - widely dispersed in areas of cereal cultivation but with a closer pattern where viticulture and market gardening were dominant. The state created a large number of colonisation villages, each laid out according to a rectilinear plan with a central square containing a church and other public buildings, and built, according to a standard plan, many farm-houses. Private colonisation introduced more varied types of settlement ranging from small, typically peasant dwelling, to the magnificent 'chateaux' that can be seen in the Mitidja and around Tissemsilt in the Sersou.⁷ Finally, many new towns grew up; some around military camps - e.g. Tiaret and Sidi bel Abbès; others following the establishment of a colonisation village - e.g. Le Sig and Mohamedia; and some of the older centres - e.g. Oran, Algiers, and Tlemçen, - rapidly expanded. The urban network of this zone now includes two cities with over 500,000 inhabitants; six towns with between 50,000 and 250,000 inhabitants; and nine with between 25,000 and 50,000 inhabitants.

But in the mountains events took a very different course. Rarely encroached upon by European colonists, these areas retained their traditional economies; but they were by no means unaffected by events in the European agricultural sector. In the plains and the hills, the advent of the European completely dislocated the ways of life of the Muslim population. Many sold their herds and went to work for the colonists; others were pushed into the mountain areas. Here, natural increase in population was

soon to bring about acute pressure of population on limited resources which, in many places, resulted in permanent ecological damage. As this was a period when viticulture was expanding in the European sector and there was a demand for agricultural workers, a movement of Muslims from the over-populated mountains to the plains and hills began, and rapidly gathered momentum. This movement was first of all on a seasonal basis, but later Muslims began to settle permanently on large European estates, and in the numerous 'villages nègres', which grew up outside the French centres of colonisation. For European colonists the Muslims formed 'une admirable armée du travail' and, while the European sector continued to expand, there was a constant demand for agricultural labourers. But a series of agricultural crises beginning in the 1930's brought this period of expansion to an end. From then on the demand for agricultural labourers declined rapidly. The movement from the mountain areas continued but was now directed towards the towns even though there were few opportunities for employment there. This 'urbanisation pathologique' gave rise to the first 'bidonvilles'. Between 1939 and 1954 the urban population of this zone doubled.⁸

In that part of our region which is now western Algeria, the war of independence accentuated the contrast between the plains and the hills and the mountains. The mountain areas became centres of terrorist activity, and it became almost impossible for the French army to maintain security. Large numbers of people fled from these areas and sought refuge in the towns. After 1958, the French army introduced a policy of regrouping the people

from mountain areas in new villages, specially constructed to receive them, in the piedmont zones. But this period was not only characterised by continued migration from the mountains to the plains; there began a parallel movement from the rural areas, where there was general insecurity, to the towns. After independence and the departure of the European population, the movement to the towns accelerated so that in 1965 Algiers had the same population (820,000) as in 1960, even though almost all of the 315,000 Europeans had left. In the ten years since 1954 despite a high rate of growth the total rural population has remained stable but the urban population has doubled.⁹ Population movements since the latter part of the 19th century have therefore led to the present situation where the population is heavily concentrated in the former European sector, although within this sector the last two decades have seen the beginning of a rural exodus in favour of the towns, while the mountain areas - especially the Blida Atlas, Massif de l'Ouarsenis, and the Monts des Beni Chougran - remain 'abandoned areas' to which their former inhabitants seem reluctant to return.

Marked regional disparities, not only within the 'zone tellienne' but also between the Tell and the steppe lands to the south, have been created by European colonisation, by the war of Algerian independence, and by the recent departure of the majority of the European colonists; this is perhaps the most urgent problem facing the independent governments of Morocco and Algeria, who are now responsible for this region.

Notes.

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CHAPTER TWO:

THE NATIVE SITES .

There are numerous remains of native Berber settlements - houses, enclosures and fortified villages - in western Algeria and eastern Morocco. Brief descriptions of these sites, based on the work carried out by de la Blanchère ¹ (1883) and Joly ² (1909) are included in Gsell's 'Atlas Archéologique de l'Algérie', ³ published in 1911 and several have been studied in more detail by Blanché ⁴ (1913 and 1920), Voinot ⁵ (1913 and 1916), Doumergue ⁶ (1925) and Ruhlmann and Blachier ⁷ (1948). But in recent times these sites have received little attention. Although there was general agreement that some of them were pre-Islamic in date, many archaeologists and historians were convinced that there was no way of dating them more accurately. Therefore, they were not regarded as a profitable field for further investigation. In 1957, however, Marion published the results of his work on the ruins of native settlements in the 'dir' of the Ras Asrour ⁸, a small region in the western Atlas Tabulaire near the frontier between Algeria and Morocco. This was the first attempt to make a systematic study of all the native sites in a small but well defined area, and in particular to examine when these sites were established and how long they continued to be occupied. After visiting a hundred and thirty native sites, and carrying out a number of excavations, Marion concluded that many of these settlements were occupied during the pre-Roman and Roman periods. There is, therefore, the possibility that other native sites in

western Algeria and eastern Morocco were also occupied at an early date, and we would maintain that this type of site cannot be ignored in any study of the Roman occupation of this region.

The Native Sites in the Ras Asfour.

The area chosen by Marion for his study is dominated by the mountain barrier of the Ras Asfour which rises to 1589 metres (map 6). To the north is the 'dir' or piedmont of Beni Bou Said, which is crossed by a number of small streams flowing north to join the Oued Tairet-Bouchtat. On the south-west flank of the Ras Asfour is a continuation of the 'dir' known as the 'région des Jorf'. This is an area of north-west to south-east orientated valleys, each separated from the others by tabular hills, the Jorfs Henndia and Ouazzene and the Djebels Rhafas and Aourir. Beyond the Ras Asfour and its piedmont zone, along the south and south-east edges of the Plaine d'Oujda, are a series of low hills of which the most important is the Djebel Hamra. The natural vegetation of this region consists of forests of thuyas, junipers and holm oaks.

Marion observed that the ruins of native settlements are found exclusively in the mountain zone, from the summits at 1522 metres to the foot of the last spurs at 560 metres. There are high densities in two areas (map 6); in the valleys which cross the piedmont zone of Beni Bou Said which are sheltered from the dry, southern winds by the Ras Asfour, and where there are a large number of small springs; and in the 'région des Jorf ', where numerous springs with an abundant discharge emerge at the foot of the tabular hills at the

junction of the secondary limestones and the primary schists, and where the plateaux themselves provided excellent defensive sites.⁹

He then examines in turn the three types of settlement found in this area - villages, isolated houses, and enclosures. Map 6 shows the distribution of the three main types based on the detailed descriptions of sites included as an appendix to Marion's article.¹⁰ He recognises four village types:

- i. The village which occupies a long, narrow spur or plateau with steep, near vertical slopes on three sides, making lateral defences unnecessary (a solid wall, with only a narrow entrance, is usually constructed across the fourth side where a more gentle slope allows easy access to the site);
- ii. The village with a continuous enclosing wall. This type of site is often found on a wide plateau with little natural protection;
- iii. The unfortified village situated in the valley bottomlands;
- iv. The village protected in a very discontinuous manner, often with defences on only one side.

The villages are of very variable dimensions. Some are formed of only seven or eight houses, while others are more than one kilometre in length. Marion observed that in almost all the villages the houses were quite separate from one another, and were irregularly disposed. The number of houses in some villages was small, so that the

density of population must have been low, and there must always have been more open than occupied areas.

Ruins of isolated houses are extremely numerous. Their maximum density is in the small river basins at the southern edge of the 'dir' of the Beni Bou Said, where the oueds emerge from the mountain zone (map 6). Most of the isolated houses, like those in the villages are rectangular in shape, but differ greatly in size - the smallest is 5.40 x 2 m. and the largest 20 x 3.50 m. It might be noted here that in the smaller houses the restricted space, by modern standards, could only have served for shelter and storage, while the business of living must have been carried on outside the hut.

The enclosures are also characterised by great variety in form and dimension. Some are completely empty, but others contain one or more rooms either in the centre or at the edges. All the sites which Marion investigated, without exception, whether a large village or a single house, are situated so as to command the surrounding area.¹¹

The building material used is always the local stone, either sandstone or limestone, and Marion found no trace of either cement, lime or plaster. He observed that the walls of many enclosures and some of the perimeter walls of the villages consisted of a double row of large slabs, 1 - 1.50 m. in height, set 0.50 - 1 m. apart, with a core of earth and rubble. These walls could not have been very high, and timber must have been an important supplementary building material. According to Marion this is a typically Berber building technique. But he also found numerous remains of walls of a very different construction.

The inner and outer faces of these walls were constructed of coursed masonry of small and extremely regular dimensions, some of which may even have been worked. Again, the core was made of small rubble and earth. ¹²

The existence of numerous enclosures and the lack of a large number of grain silos led Marion to conclude that the principal resource of the native communities was live-stock rearing, although he did not exclude the possibility of some small-scale agriculture in favoured areas. He points out that the chief economic role of the forests, which formerly covered the piedmont, was as valuable pasture. ¹³

The infinite diversity of enclosure plans, and house dimensions, found in this area, where no two buildings or enclosures are identical, is striking, and points to an intense individualism. Marion suggests that the unit of society in the Ras Asfour, as in present-day Berber areas, was a grouping of several hamlets to form a small republic which vigorously defended its independence and customs against nearby groupings, and yet in which individual families had considerable freedom to manage their own affairs. ¹⁴

Marion turns finally to examine when the settlements were established, and how long they were occupied. He stresses that the extreme individualism of the Berbers and their isolation from outside influences explain, to a certain extent, the difficult chronological problem which the settlements present. The social organisation, customs, and building techniques of these people have remained

relatively unchanged for many centuries, and in some Berber areas it would be difficult to determine, from the visible remains, whether a village had been abandoned in relatively recent times or since the early historical period. But Marion points out that the Berbers who occupied the settlements in the Ras Asfour do not appear to have remained completely isolated from outside influences. He believes that the regular foundations of many of the houses and the walls constructed of small stones of regular dimensions laid in courses suggest the influence of Roman building techniques; but the existence of walls of monolithic slab masonry, an older and more rudimentary building technique, suggests that many of these settlements were founded before the Roman period. Although this area lay outside that part of Mauretania Caesariensis that was effectively occupied and administered by Rome, it was only twenty-five kilometres to the south-south-west of the Roman fort of Numerus Syrorum at the western extremity of the Severan frontier. Several Roman coins have been discovered among the native ruins, and although most of the sherds of pottery discovered by Marion during his excavations at site 99 (house 22) and site 100 (house 4) were coarse, hand-made wares, a few finer, wheel-turned wares were represented. Delpy, Inspecteur des Arts indigènes at Rabat, thought that the latter showed Roman influences and that a number of sherds might even be of Roman manufacture. Marion concludes that the majority of the native settlements in the Ras Asfour were constructed between the 1st and 2nd centuries BC., and the 7th century AD. ¹⁵

But how long did these settlements continue to be occupied? Marion was of the opinion that the peasant communities in the Ras Asfour flourished at least until the 13th century, when the invading Arab tribes of the Hilal and Ma'qil reached eastern Morocco. Until the end of the 12th century, eastern Morocco had remained free from the devastations of the Arab nomads. But at the beginning of the 13th century, at the same time as the Abd-el-Quadite dynasty was founded at Tlemçen, the tribe of the Ma'qil Dawi Obayd Allâh became established immediately to the west and north of the town. As this tribe was linked politically with the Merinides of Fez, traditional enemies of the Sultan of Tlemçen, the latter brought in another Arab tribe, the Zorbiens, and established them in the zone between Tlemçen and the Ma'qil tribes. Year after year the conflict between the Merinides of Fez and the Abd - el - Ouadites of Tlemçen and their allies ravaged eastern Morocco, and there were plenty of opportunities for destruction on the part of the Arab contingents, the Ma'qil and Zorbiens. Although the nomads rarely penetrated into the mountain zone to the south-east of Oujda, the Berber communities in the Ras Asfour were too near the plain to have survived a century and a half of devastation. Marion dates the almost complete disappearance of a sedentary way of life, and the abandonment of the settlements, to this period of conflict between the rulers of Tlemçen and Fez in the 13th and 14th centuries. At the end of the 14th century all eastern Morocco was under the domination of the Ma'qil. 16

The Distribution of Native Settlements
in western Algeria and eastern Morocco.

Map 7 shows the distribution of the ruins of native settlements in the whole of western Algeria and eastern Morocco, based on data from Gsell ¹⁷, Blanché ¹⁸ and Voinot ¹⁹. The native sites in the Ras Asfour, Marion's area of special study, are shown as an inset. This map does not of course give a complete picture of the distribution of native sites - it is a map of progress. But it does allow us to define those areas where there are particular concentrations of sites, and those areas where these sites appear to be absent. Moreover, we would maintain that the blank areas on this distribution map are in fact realistic. There are only a small number of native sites in the coastal mountains and plains of our region, and yet the relevant map sheets in Gsell's Atlas show that this does not simply reflect the lack of archaeological investigation in these areas. As there are numerous descriptions of the archaeological remains in these areas, dating from the first years of the French military conquest, it seems unlikely that a large number of native sites have been destroyed, without record, by later European colonists. However, there is one possibility that we should not ignore; scientifically conducted excavations might reveal evidence of native structures underlying some of the Roman settlements and forts in this area. But even if this proved to be the case, because the main areas of Roman settlement are in the plains and the piedmont zones, ²⁰ it would still leave the main mountain areas in the north - Blida Atlas,

Monts des Beni Chougran, Djebel Tessala, Monts de Miliana, Massif des Trara and the northern and central Ouarsenis mountains - without evidence of native settlement sites. In contrast, in the southern mountains - the Atlas Tabulaire, Monts des Ouled Nail and the southern slopes of the Massif de l'Ouarsenis, together with the High Plain of Sersou - there is a high density of native sites, and Marion's work has proved that intensive field-work within these areas can produce an even denser distribution.

We now look at the detailed distribution of native sites within each of these areas.

1. The Atlas Tabulaire.

There is a marked concentration of native sites to the east of the Ras Asfour in the northern and central parts of the Monts de Tlemçen. These mountains, rising to between 1400 and 1600 metres, represent the highest and most rugged part of the Atlas Tabulaire, but they enclose several small, sheltered mountain basins where numerous small streams emerge as springs to form the upper courses of the Oueds Tafna, Khemis, en Nehef and el Fernane; these are the areas which attracted the native Berber population, and where one finds a high density of their settlement sites. The important Seb dou basin, on the other hand, appears to be almost devoid of native sites.

At the eastern end of the Atlas Tabulaire there is a high density of native sites along the valleys of the Oueds Tebouda and Saïda, near the town of Saïda, and on the surrounding plateaux of the Monts de Saïda. These mountains, where plateaux formations dominate, are not as high as the Monts de Tlemçen, and they are more easily

accessible. Most of the Berber sites recorded here are villages, and they are situated at heights which range from 800 to 1000 metres.

Few native sites are recorded in the northern parts of the Monts de Daya, which lie between the Monts de Tlemçen and Saïda. In the Monts de Daya, (1000 - 1400 metres) limestones, which dominate in the rest of the Atlas Tabulaire, are replaced almost everywhere by sandstones, which give rise to a series of plateaux separated by wide valleys. Remains of native settlements are only found in the southern parts of these mountains - on the plateau de Bossuet; on the Djebels oum el Guemel and Tazenaga near the headwaters of the Oueds el Khrechba and ouidi el Abd, which flow north to the plain of Sidi bel Abbès; and to the north of Marhoum near the headwaters of the small streams which flow south towards the High Plains. The native sites in this area are all villages situated at heights between 1100 and 1300 metres and, although numerous, they rarely form dense concentrations.

The Atlas Tabulaire is a relatively harsh environment. Although it receives an adequate annual rainfall of 600 - 700 mm., there are ten to twenty falls of snow a year, numerous frosts, and sometimes long, dry periods. The natural vegetation consists of forests of Aleppo pine, particularly on the sandstones of the Monts de Daya, and the holm oak, particularly in the Monts de Tlemçen and Saïda. Forests of thuya, although much less extensive, are found throughout this area.

2. The High Plain of Sersou.

The ruins of a large number of native villages are recorded in the High Plain of Sersou. The limits of this plain are, in the north, the Djebel Guezoul, in the south, the Djebel Nador, and in the west the Plateaux de Frenda. From the northern borders of the plain, situated at an average height of 1000 metres, the land slopes gently towards the east where the height at Burdeau is 905 metres, and rises gradually to an average height of 1200 metres immediately to the north of the Djebel Nador in the south. The plain experiences a continental climate - (January minimum $+2^{\circ}\text{C}$ - 0°C , rarely rising above a maximum of 10°C ; July minimum 16°C - 18°C , maximum 34° - 36°C). The Mina depression between the plateaux de Frenda and the western Ouarsenis, allows rain-bearing winds to penetrate to the Sersou so that it receives an average annual rainfall of between 350 and 500 mm., whereas to east and west the rainfall decreases to below 250 mm. The Sersou is a very windy area and the most formidable wind is the sirocco; it is most frequent in summer with the highest averages in May and June. All the plain is drained towards the Mediterranean; the western part by the Mina and its tributaries; the eastern part by the Nahar Ouassel and its tributaries. Alfa grass, which covers large areas of the High Plains proper, is absent in the Sersou where/^{the}natural vegetation is camel thorn or jujube (Zizyphus lotus.)

There is a high density of native sites:

- i. along the small streams which drain to the Mina between Tiaret and Palat;
- ii. along the small streams which join to form the Oued el Ferch, a tributary of the Nahar Ouassel;
- iii. on the northern slopes of the Djebel Nador and along the small tributary streams of the Oued Soussellem.

A number of native sites - villages, isolated houses, and enclosures - are recorded, at heights of between 1000 - 1100 metres, to the south-west of the Sersou in that part of the interior High Plains which lies between the Plateaux de Frenda and the Chott ech Chergui. High densities of settlement sites, characteristic of the Sersou, are absent here. Elsewhere in the High Plains native sites are only found on the narrow ridges which emerge from the 'plaines de remblaiement'.

3. The southern Massif de l'Ouarsenis.

There is a marked concentration of native villages and isolated houses at heights of between 700 and 1400 metres on the southern slopes of the Djebel Taguennsa between Letourneux and Boghari. Further east, around Ain Boucif in the southern Titteri mountains, a few isolated houses are recorded at heights of between 1100 and 1200 metres.

4. The Monts des Ouled Nail.

The Monts des Ouled Nail consist of a series of narrow chains, orientated from north-east to south-west, which rise to heights of between 1400 and 1500 metres and are separated by wide synclinal plains. The northern chains still carry degraded forests of Aleppo pine and holm oak, but even during the early historical period the natural vegetation of this area can only have been open woodland. This reflects the small and irregular rainfall which these mountains receive: 300 - 500 mm., with several falls of snow in the north; 200 - 300 mm. on the southern slopes. But the area is composed of limestones of the Upper and Middle Cretaceous and despite the relatively small annual rainfall they give rise to numerous small springs. Large numbers of native sites - villages, isolated houses and enclosures without evidence of internal buildings - are recorded at heights of between 900 and 1200 metres on the slopes of the Djebels Senalba, Sahari, Chouaif and Serdoum in the northern parts of these mountains near the headwaters of numerous streams which flow north towards the Zahrez Rharb. Few sites are recorded in the large synclinal basin of Djelfa.

What is striking is the difference between the main areas of native settlement. The Monts des Ouled Nail and the Atlas Tabulaire - two very different mountain environments - were both attractive for native settlement. The Monts des Ouled Nail present certain advantages for peasant communities. Because of the open forest vegetation the region was easy to penetrate

and only a small amount of clearing would be necessary in order to establish a settlement. There was a plentiful supply of building materials, both timber and stone. Although these mountains only receive an average annual rainfall of 300 - 450 mm., the thick beds of limestones give rise to numerous small springs. The Atlas Tabulaire, on the other hand, are much wetter (600 - 700 mm.) and consequently have a denser forest vegetation; in fact this area is known locally as El Ghaba - the forest. Movement is more difficult in these mountains and a lot of clearing would be necessary in order to establish a settlement. However, there are valuable pastures in the forests of this region, which also has numerous springs and permanent streams. It is interesting to note that the highest densities of native settlements are in the limestone areas, in the Monts de Tlemçen and Saïda, which are in part covered with fertile terra rossa soils, whereas there are fewer settlements in the Monts de Daya where sandstones are dominant and give rise to poor siliceous soils. In contrast to the two mountain areas, the Sersou, where many native villages have been recorded, is a wind-swept high plain with a natural vegetation of jujube scrub. While it is the only part of the interior High Plains to receive sufficient rainfall for regular cereal crops, and has some rich pasture land, it has an exposed position and lacks timber resources. It is therefore difficult to understand exactly why this high plain became an important area of native settlement. One would expect peasant communities to be attracted to

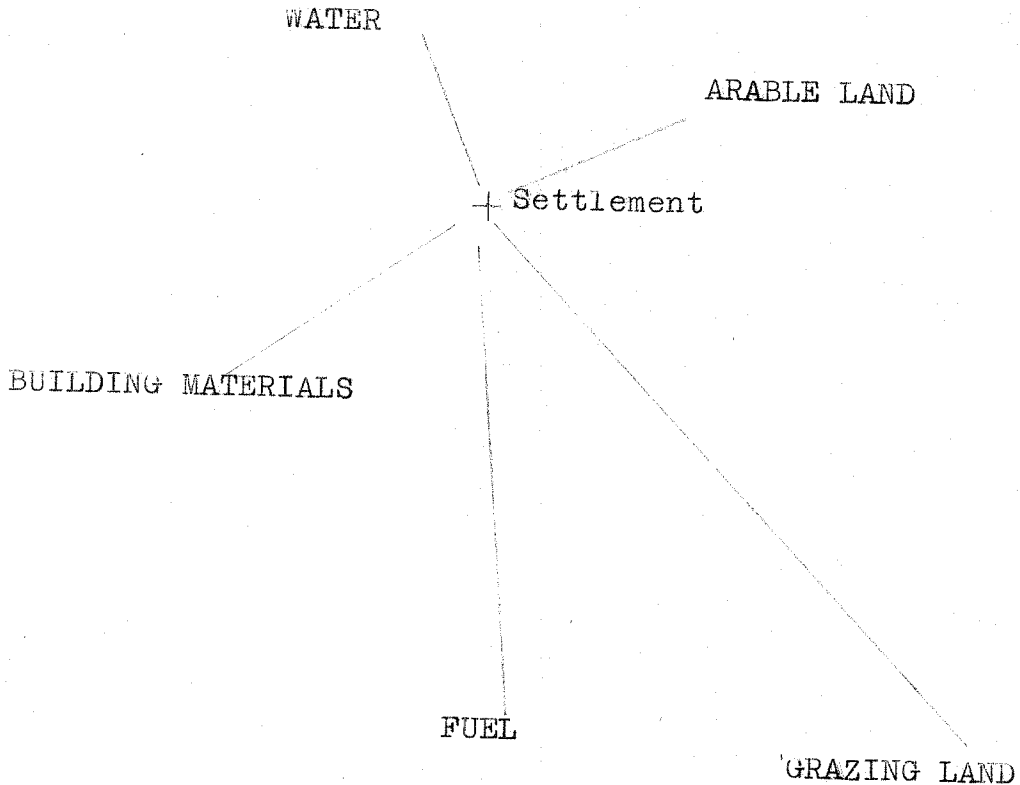
areas where all the resources necessary for their livelihood - water, arable land, pasture land, building materials, both stone and timber, and fuel - were available, if not in abundant supply (diagram 1).

Types of native settlements, the way
of life of their inhabitants, their origins
and history.

None of the native sites in our region have been scientifically excavated but detailed descriptions of several individual sites and groups of sites have been published, and they help to supplement the information available in Gsell's Atlas. The following conclusions are based on this rather fragmentary evidence.

All the main types of native site found by Marion in the Ras Asfour - fortified villages, isolated houses and enclosures with or without internal buildings - are represented, together with the interesting site at Sidi Medjahed (2) ²² which was probably the fortified residence of a Berber chieftain. The fortified village is the type most frequently found. Map 7 reveals a strongly nucleated pattern of settlement particularly in the Atlas Tabulaire, and the High Plain of Sersou. Unfortunately the pattern may not be realistic. Isolated houses and single enclosures may exist but may simply have remained unrecorded. It is only when all the native sites in one particular area have been examined that a complete picture of the pattern of settlement for that area emerges. Even then, it is possible that not all the native sites were occupied at the same time, and that one or more types of settlement

The Five Basic Elements in the Economy
of the Native Communities.



In seeking places in which to build their habitations such people would have to bear in mind the availability of the universal economic needs of agricultural communities - arable and grazing lands, a supply of water for man and beast, fuel resources and ease of obtaining building materials. Moreover, while such communities might be willing to travel some distance to grazing lands, and perhaps also in search of fuel, one would expect them to occupy areas where building materials, (which are bulky and awkward to handle), water, (which is used at frequent intervals during the day and is difficult to carry and store in large quantities), and arable land, (because crops need to be protected and require constant labour), were readily available in close proximity to their settlements, (Chisholm, M., Rural Settlement and Land Use, London, 1962, pp. 114-116).

are characteristic of particular chronological periods. But any attempt to define the changing pattern of native settlement must await more detailed field-work and in particular, excavations paying careful attention to stratigraphy.

The majority of these settlements occupy sites with some natural protection. Although perched siting is recognised today as traditionally Mediterranean, related to economic and social circumstances rather than specifically to defence, most of the villages in our region also have stout ramparts to reinforce the sides most open to attack, and it seems most probable that the need for some measure of protection against attack was the dominant factor determining the sites chosen by these communities for their settlements. Building in dry, unworked stone is almost universal although on several sites where the inhabitants were influenced by Roman building techniques - Sidi Medjahed (2), Koudiat-er-Roum (3) and Koudiat-en-Nessara (4) - worked stones joined together with mortar can be seen. Walls constructed in dry stone could not have been very high, and timber must have been an important supplementary building material. With so few published plans or detailed descriptions of individual sites it is difficult to divide the native villages into distinct types as Marion was able to do for the sites in the Ras Asfour. Of those sites which we have been able to examine in detail, Tidernatin (10) appears to belong to Marion's category 1, i.e. the site naturally protected on three sides with a stout rampart constructed across the fourth side where a more gentle slope allows easy access to it; Kersout (7), Koliaa (8) and Karkab (9) occupy similar sites but they also appear to have had

a perimeter wall; Koudiat-er-Roum (3), Koudiat-en-Nessara (4) and Mtalsa (11) belong to Marion's category 2, - the village with a continuous enclosing wall. The villages vary greatly in size - (some cover only one or two hectares, others fifty hectares) - and in plan. At Tidernatin (10) there were only a few houses compared with the total area enclosed, and they were irregularly disposed; but at Mtalsa (11) there was a high density of houses inside the perimeter wall, and they were arranged with a certain regularity. In fact, one doubts whether sites like Tidernatin should be called 'villages' as there is little in their pattern to suggest the element of organisation or community inferred by the term 'village' as it is understood today. Indeed, the most striking feature is the apparent total disregard for arrangement of individual huts to form an ordered settlement.

Marion was of the opinion that the principal resource of the inhabitants of the native settlements in the Bas Asfour was livestock herding, although he admitted that some small-scale agriculture was probably carried on in favourable areas. He points to the large number of animal enclosures found there, and the absence of grain silos. Traces of large courtyards were discovered by Voinot in several native villages around El-Aïoun (1) in eastern Morocco; houses with large courtyards and enclosures with one or more small rooms inside were described by Joly in the Monts des Ouled Nail, and the Djebel ben Hammad (14,15) and by de la Blanchère in the Atlas Tabulaire (7). All these facts suggest that livestock rearing played an important part in the economic life of

many, if not all, of these native communities. Moreover, it is possible that the large, open spaces inside the perimeter walls of some of the villages (Tidernatin, 10) were to allow herds of animals to be driven inside the enclosed area at night, and also in time of danger and attack. However, these were sedentary, not nomadic, communities. The villagers probably practised short range transhumance, leading their herds to higher mountain pastures in summer and down into the lowland plains in winter. Mixed livestock, cattle, sheep, goats and swine, were no doubt reared, but because of the absence of bone evidence it is impossible to determine the proportions of different species reared by particular communities. But there is evidence that agriculture was also important. Grain silos, towers in which grain was stored, corn-mills, and carbonised cereal grains have been discovered on many native sites (map 8). Some of the communities living in the Atlas Tabulaire and the Monts des Ouled Nail constructed small dams across the oueds to retain the soil that was being carried away by the irregular torrents. The small terraces created in this way would be favourable for small fields of cereals and for tree crops.²³ Many villages were surrounded by gardens which were probably irrigated, principally in summer, and where tree crops, legumes and cereals would be grown.

The conclusions which Marion reached about the economic life of the native communities in the Ras Asfour cannot therefore be applied to all these communities. Our evidence suggests that both agriculture and herding were important to the inhabitants, but that the balance was tilted in favour of one or the other activity depending on local resources. We should not forget that the natural vegetation, especially the forests, would also have presented certain economic possibilities to these native communities.

In the present state of our knowledge it is difficult to identify native building techniques and artifacts with particular chronological periods. Different building techniques can be noted, but only those which clearly reflect one of the major outside influences - Roman or Arab - on this region are of chronological value. No site has been scientifically excavated so that we have no native pottery from sealed levels which could be one way of working out a rough chronology. Only those artifacts of Roman or Arab manufacture or which show traces of Roman or Arab influences are distinctive and help us to date these sites.

Map 9 shows the relationship between the native settlements and the Roman limes that was established at the beginning of the 3rd century.²⁴ The sites in the Atlas Tabulaire and the High Plain of Sersou are situated immediately to the south of the frontier; those in the southern Ouarsenis mountains are situated inside the frontier zone; and we know that the Monts des Ouled Nail, where there are numerous native sites, were occupied, if only for a short time, by units of the Roman army. Roman coins, although not very sound evidence for

Romanisation, have been discovered on native sites in the Monts de Saïda and around Zenina in the Monts des Ouled Nail. Roman pottery has been found among the ruins of many native settlements. Roman inscriptions and masons' marks were discovered at Sidi Medjahed (2) and a crudely worked column base at Tidernatin (10). But the main Roman influence appears to have been on the building techniques used by these native communities. Dressed stones joined together with mortar and carefully laid in courses can be seen at Sidi Medjahed (2), Kouddiat - er - Roum (3) and Kouddiat - en - Nessara (4). The use of worked stones is found at Mtalsa (11) and at a number of native sites around Zenina and Djelfa in the Monts des Ouled Nail. There is a cistern of Roman construction at Koliaa (8) in the Monts de Saïda, and the remains of a water conduit of dressed stones at Ben Yacoub in the Monts des Ouled Nail. The regular foundations of the houses at Kouddiat - er - Roum (3) and Kouddiat - en - Nessara (4) and of the main ramparts at Ain Balloul (12) also reflect Roman influences. This evidence proves that several native sites were in existence during the Roman period and that the inhabitants became in some degree Romanised. ²⁵

It is possible that a number of native settlements, where we know that the inhabitants became Romanised, were first established during the Roman period - (Kouddiat-er-Roum (3) and Kouddiat-en-Nessara (4)). But the existence of a much older and clearly indigenous building technique, involving the use of monolithic slab masonry, suggests that many native sites were established before the Roman period. A pre-Roman Libyan inscription

was discovered among the native ruins at Karkab (9). On some sites the two building techniques, one native the other Roman, co-exist; the older indigenous technique maintaining itself even among people who came under Roman influences, e.g. at Tidernatin (10) and Koliaa (8).

It seems most probable that this peasant civilisation continued to flourish until the second Arab invasion. The Vandal invasion of the 5th century and the first Arab invasion of the 7th century do not appear to have resulted in widespread changes in this region. The number of people involved in the first Arab invasion was not large, and they were mainly townspeople. It was in the new Arab capitals that Islamic civilisation flourished, and in the rural areas we must assume that there was continuity of occupation on many sites, both Roman and native, from the late Roman and immediate post-Roman periods to the early Islamic period. For many years it has been maintained that the second Arab invasion had a catastrophic effect on sedentary life in Tripolitania and the Eastern Maghreb. Recent research, however, has shown that the economic life of the Eastern Maghreb was extremely unhealthy and that many of the settlements were already declining before the Arab tribes - the Beni Hillal and the Beni Solaym - reached this area. Some destruction must have taken place but the invasions are now seen as one of the symptoms rather than as the main cause of the decline of these regions.²⁶ The Arab tribes who penetrated into the 'Maghreb Centrale' had already been established in the east for some years. They were often called in as allies in conflicts between local rulers and were only firmly established in this region in the 13th

and 14th centuries; the Arab tribes only occupied the fringes of the Maghreb el Aqca (Morocco). The intervention of these nomads in the central Maghreb no doubt caused some destruction but the main effect that the Arab tribes had on the peasant communities there was to convert most of them to their own way of life. Few native settlements show traces of being destroyed, and the majority appear simply to have been abandoned by their inhabitants, whether by pressure or after the example of the invaders, in favour of a pastoral economy, a nomadic way of life, and a more mobile habitat - the tent.

In one part of the central Maghreb - the Atlas Tabulaire - the intervention of the Arab nomads had particularly interesting results. This is one area where one might have expected a sedentary way of life to survive, and the forested nature of these mountains to have been an obstacle to Arab penetration. But here the Arab tribes themselves adapted to the harsh mountain environment. They evolved a way of life which continued until the end of the 19th century, based on the interior basins and river valleys on the one hand and the higher mountain slopes on the other. They spent the winter months with their herds in the lowlands, where they also had fields of cereals, and passed the remainder of the year in the forest clearings. Yet despite the fact that this type of economy involved only short range transhumance movements, the tribes still retained the camel and the tent. They mixed with the local Berber peoples who abandoned their villages for the tent and were converted to a more pastoral economy and a semi-nomadic way of life.

However, isolated in the valleys of the upper Tafna and Khemis, the tribe of the Beni Snous, who still speak Berber, have maintained and preserved an economy and way of life which must have been found throughout the Atlas Tabulaire before the Arab invasions of the 13th century. These peoples live in dry-stone villages built on the edges of the valleys above the small, irrigated terraces where they grow tree crops, vegetables, and sometimes cereals. Sheep and goats are reared and provide an important complementary resource; the animals are sheltered in courtyards or in natural grottoes and caves in the limestone. Forest resources are important to these communities, especially the acorns from the holm oaks which they gather in October, and crush and mix with flour.²⁷ Despois points out that the terraces and dry-stone houses in the 'pays des Beni Snous' are reminiscent of the villages in the mountains of the pre-Saharan zone.²⁸

Summary of Conclusions.

De la Blanchère visited many of the archaeological remains in western Algeria during the second half of the 19th century, and in his book 'Voyage d'étude dans une partie de la Mauretanie Césarienne', which forms one of the basic reference works for this area, he described both the native and the Roman sites found there. More recently, however, archaeologists and historians working in Algeria have concentrated on the Roman sites, especially the large towns, completely ignoring the native sites; if any reference was made to the indigenous population they were portrayed as nomadic or semi-nomadic peoples. In this chapter an attempt has been made to correct this imbalance.

Our study suggests that during the early historical period there was a fundamental difference in the way of life of the native peoples who occupied the coastal mountains of our region on the one hand, and those who occupied the interior uplands on the other. There was a peasant civilisation established in the south, in the Atlas Tabulaire, the High Plain of Sersou, the southern Ouarsenis mountains, and the Monts des Ouled Nail, before the Roman period. This civilisation flourished until the 13th and 14th centuries, when Arab tribes from the east converted the settled communities to a nomadic or semi-nomadic way of life. These peasant communities lived in dry-stone villages but also in isolated houses; they constructed irrigated terraces and reared cattle, sheep, goats, and swine. It is quite possible that not all the native sites shown on the distribution map (map 7) were occupied continuously from the pre-Roman period to the 13th century. Over such a long period of time one would expect some settlements to be abandoned and new settlements to be founded. But when Rome annexed the Kingdom of Mauretania there were important native communities living in the south ²⁹ and at a later date many became in some degree Romanised.

In the northern mountains there are few native settlement sites. ³⁰ But as the Romans found it necessary to construct numerous forts with permanent garrisons, and to build many strategic roads, in this area, it must have been inhabited by native communities. While it is possible that these people lived in timber houses, all trace of which have now disappeared, it seems more probable

that they lived in temporary shelters established in clearings in the forests. We know from Arab sources that during the early Middle Ages the coastal mountains were still densely forested, so that until that time they must have been relatively thinly populated by native communities living in equilibrium with their natural environment. These forest peoples may have practised primitive agriculture and some herding, but hunting and collecting, a much less sophisticated economy than that of the native communities further south, must have been their principal resources.

The interaction of Roman and native in western Algeria and eastern Morocco, as in North Africa as a whole, is a field of study that has so far been ignored but which is worthy of further investigation. In the northern parts of our region many Berbers came to settle down alongside veterans in the civil settlements outside Roman forts.³¹ The presence at each of these forts of a military unit in which each soldier received regular pay must have been a considerable attraction to the native peoples in the surrounding areas; they could provide many of the services required by the soldiers. This was probably their first experience of life in permanent settlements. In the south, we know of the existence of some sedentary native communities at the time of the Roman conquest. Many of these natives became in some degree Romanised, but it is difficult at present to determine when and in what way this took place. However, the establishment of a new limes by Septimius Severus, at the beginning of the 3rd century AD,

must have brought these communities into contact with Roman military forces. In these areas where the immediate need was security, it is possible that any degree of Romanisation achieved was a by-product of the military occupation rather than its purpose. But evidence from other provinces suggests that the Roman administration may also have seen those areas occupied by sedentary native communities in economic terms, as sources of supply of certain commodities, particularly leather and corn. We do not know whether such commodities were exacted as tribute or as a form of taxation, or whether they were purchased at official prices; but the economic aspect of the interaction of Roman and native may have led to the expansion of certain sectors of their economy.

Further work on native settlement sites would be one way of casting more light on this problem, and our preliminary survey of the available evidence indicates some of the avenues along which this work should be directed. First of all, a number of very general surveys of native sites would be valuable. They would provide information about the present state of many of the ruins, and sites where there are still visible remains could then be accurately surveyed. Secondly, there is the need for more detailed studies of all the native sites in a number of small but well-defined areas along the lines of Marion's work in the Ras Asfour. Such studies would not only provide valuable information about the different types of native sites represented but would give a more complete picture of the pattern of native settlement.

In this connection it is interesting to compare the general distribution of native sites shown on Map 7 with the distribution shown in the Ras Asrour after intensive field-work there by Marion. While it is possible that not all the settlements in any one area were occupied at the same time, no attempt to define changes in the pattern of native settlement can be made until we know more about the relative dates of particular types of native site.

Both of these approaches, the general survey and the detailed area study, would provide us with enough information to divide the native settlements into types, and it may then be possible to recognise types of native sites which are early, and others which appear to represent later developments. Excavations paying careful attention to stratigraphy could then be carried out at a number of sites which appeared to represent good examples of their respective types. The primary aim of such excavations should be to try to establish when the site was founded, and the duration of the period of occupation. In this connection, we would suggest that sites where there is good evidence that the inhabitants became Romanised (map 9) be chosen in the first instance. On such sites, and particularly if there was good stratigraphy, one would expect to find one or more levels producing artifacts, especially pottery, or Roman manufacture or showing Roman influences which are distinctive, and can be roughly dated. It might then be possible to date other levels in relation to these.

Careful attention should be paid to the native pottery. The archaeologist may be able to isolate types of native pottery found exclusively within a level which has also produced Roman pottery, or a type found exclusively in a pre-Roman level. In time it may then be possible to work out a rough typology of native pottery even if the individual types can only be assigned to broad chronological periods, i.e. pre-Roman, Roman, and post-Roman. They would be of inestimable value in dating sites without evidence of Romanisation. The thickness of the occupation layers will provide a clue to the length of time a site has been occupied, and it is to be hoped that attention will also be paid to bone evidence, and any other evidence - e.g. of metal working, spinning and weaving - that will enable us to reconstruct in more detail the economic life of these native communities. 32

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 9. Marion, J., 1957, idem., pp. 120-126.
 10. Marion, J., 1957, idem., pp. 165-173.
 11. Marion, J., 1957, idem., pp. 126-140.
 12. Marion, J., 1957., idem., pp. 140-145.
 13. Marion, J., 1957, idem., pp. 146-149.
 14. Marion, J., 1957, idem., pp. 149-153.
 15. Marion, J., 1957, idem., pp. 153-158.
 16. Marion, J., 1957, idem., pp. 158-160.
 17. Gsell, S., 1911, idem.
 18. Blanché, F., 1913 and 1920, idem.
 19. Voinot, L., 1913 and 1916, idem.
 20. The distribution of Roman civilian settlements in this region is studied in detail in Chapter Four.
 21. Perrin, R., 'Le Sersou ', Méditerranée, 1960, nos. 2-3, pp. 63-84.
 22. When individual native sites studied in detail in Vol. Two are referred to in this chapter the site number, which indicates their position in Vol. Two, is also given.
 23. Joly, A., 1909, idem., pp.16-17.
 24. The chronological changes in the organisation of the defences of Mauretania Caesariensis are examined in detail in the next chapter (Three).

25. To this list we should perhaps also add the site known as Souama de Mecherasfa (Volume Two, site 50).
26. Poncet, J., 'L'évolution des genres de vie en Tunisie', C.de T., 1954, pp. 315 - 323.
27. Djilani, F., 'Oued Khemis - Le Pays des Beni-Snous et les Azail', B.S.A.V.T., 1954, pp. 42 - 44.
28. Despois, J., and Raynal, R., Géographie de l'Afrique du Nord-Ouest, Payot, Paris, 1967, pp. 117 - 118.
29. It is interesting to note that in this area at Aïoun Sbiba, there are stone ramparts enclosing an area of 475 hectares. These ruins appear to represent a native town of some importance in the independent kingdom of Mauretania. When the kingdom was annexed by Rome it evidently did not attain the political importance of Iol-Caesarea (Volume Two, Aïoun Sbiba, 55, 5).
30. The Phoenicians established settlements along the coast of this region in the 6th and 5th centuries BC, but we only know of three native towns in this area. One of these towns, Siga, was the capital of Syphax, king of the Masaesytes in the 3rd century BC, and it continued to be occupied after Rome annexed the Kingdom of Mauretania.
31. This development is studied in more detail in Chapter Four.
32. In Britain, our knowledge of native settlement sites beyond the Hadrianic frontier was extremely limited until Mr. George Jobey, Staff Tutor in Archaeology, Department of Adult Education, University of Newcastle upon Tyne, began intensive field investigations in Northumberland. He has surveyed 350 native structures, as well as carrying out excavations at several native sites which appear to represent good examples of their type, (see Jobey, G., 'Homesteads and Settlements in the Frontier Area', in Rural Settlement in Roman Britain, C.B.A. Research Report 7, ed., Charles Thomas, 1966, 1 - 14; and Jobey, G., 'A Field Survey in Northumberland', in The Iron Age in Northern Britain, ed. A.L.F. Rivet, Edinburgh, 1966, pp. 89 - 109).

CHAPTER THREE:

THE ROMAN MILITARY SITES:

Chronological changes in the organisation
of the defences of the province.

From 33 BC to the creation of the province
of Mauretania Caesariensis.

Rome had not annexed the whole of North Africa at one stroke. A century had elapsed between the creation of the province of Africa and the annexation of Africa Nova (Numidia) by Caesar, which brought a large increase of territory to the original province towards the west and south. It was not until the death of Bocchus II in 33 BC that the Kingdom of Mauretania, which stretched from the borders of Numidia to the Atlantic Ocean, lapsed to Rome. After the battle of Actium in 31 BC Augustus was faced with the problem of providing for a vast number of soldiers released from military duties since the end of the civil wars. One solution to this problem was to settle groups of soldiers in colonies and provide them with land to cultivate in newly annexed territories like Mauretania where all land was public land. Between 31 and 25 BC colonies of veterans were established at Rusguniae, Gunugu, Cartenna, Aquae Calidae and Zucchabar (map 11) in the eastern part of Mauretania (later Mauretania Caesariensis), and at Tingi, Zilis, Babba and Banasa in the west (later Mauretania Tingitana). They were no doubt also intended to forward the organisation of the new province. Stevenson has maintained that many of the colonies acted as a substitute for a legionary garrison in so far as the original settlers

were generally men who had served in the same legions and were accustomed to co-operate with each other in putting down disorders.¹ Their military role has, however, been overestimated. Few if any of the colonies were capable of maintaining security in surrounding areas and they were sometimes unable to defend themselves against attack.

In 25 BC Augustus decided upon a change of policy. Mauretania ceased to be a Roman province and reverted to its former status of a client kingdom. Juba II, the son of the last king of Numidia, who had been brought up in Rome and who later married Cleopatra - Selene, a daughter of the union between the ill-fated Anthony and Cleopatra, was installed as the new client-king with capitals as Iol-Caesarea and Volubilis. The Roman colonies, however, remained outside the jurisdiction of the new king, and for judicial purposes and no doubt also for the purposes of taxation, those in the west were attached to the province of Baetica, and those further east were probably attached to the province of Africa. This policy inaugurated by Augustus and maintained by his successors until AD 39 appears to have been successful. For over half a century Mauretania remained peaceful without the intervention of Roman legions, and on two occasions, in AD 5 and 18, detachments of Mauretanian troops helped the governor of the neighbouring province of Africa to put down a Numidian revolt. But the organisation of a client kingdom was only a temporary measure, and it was regarded

as inevitable that this area would eventually be absorbed by the Empire. In AD 39 Juba's son Ptolemy, who became king in AD 23, was executed by order of the Emperor Caligula, and his kingdom annexed. The pacification of the new province, however, fell to Caligula's successor, Claudius, who, during the years AD 41 and 42, had to suppress a revolt in the western part of Mauretania led by Aedemon, one of the late king's supporters. At an early date, and perhaps during the year of annexation, the new province was divided into two parts, Mauretania Tingitana to the west of the Oued Moulouya, and Mauretania Caesariensis to the east.² (Mauretania Caesariensis was officially established as a province in AD 39).

The 1st Century.

The governor of the new province of Mauretania Caesariensis did not have a legion under his command. The defence of the province rested on several auxiliary units which, during the 1st century, appear to have been concentrated at Iol-Caesarea, the capital of the province³ (map 11). There is convincing evidence that this military force was capable of maintaining security not only in the coastal areas but in areas as far south as the northern edges of the interior High Plains. Claudius established a colony of veterans at Oppidum Novum in the Chelif valley and there is evidence of 1st century occupation at Mina further west;⁴ both

centres are situated in areas that did not receive permanent garrisons until the 2nd century. A veteran from an auxiliary unit settled near Tissem-silt in the northern part of the High Plain of Sersou in the 1st century,⁵ although units of the Roman army were not stationed there until the reign of Septimius Severus. Rome no doubt annexed all the lands of the Kingdom of Mauretania but there is no evidence to suggest how far south the kings of Mauretania claimed to have authority or how far their jurisdiction extended in practice. However, it is possible that the vast steppelands of the interior High Plains, which must have had a very low density of population in the early historical period, formed a broad frontier zone for the eastern part of the kingdom. After annexation it was unnecessary for the Romans to define by a strict line where their authority ended and that of the barbarians began. The Empire was still expanding, and those areas which lay beyond effective Roman control were still regarded as potentially Roman; it was simply a matter of time before they too were absorbed into the Empire.

The 2nd Century.

Throughout the 1st century a large force of auxiliaries based at Iol-Caesarea acted as a powerful deterrent against native unrest, and it appears to have been extremely successful in keeping the peace. The texts are silent, and make no reference to revolts or incursions during this period. Beginning in the early 2nd century there was a change in the deployment

of the military forces under the command of the governor. Units were now stationed at intervals along the longitudinal trough of the Mléta plains, Sebkhā d'Oran and the Habra-Relizane-Chelif plains and on the plateau de Médea which links this low-land corridor to the valley of the Sahel-Soumman (map 11). Some units were stationed in already existing centres, others in newly constructed forts. The sites chosen were largely determined by the need for easy communications to allow rapid regrouping so that serious trouble in any one part of the province could be dealt with swiftly and effectively. The work of re-organisation was neither conceived nor executed as a whole; it was accomplished in stages beginning under Trajan and continuing until the reign of Commodus. A milestone set up in AD 114⁶ records the distance between Regiae and Tasaccura and at this date we must assume that it was set up along a military road; units may have been stationed at Regiae and Tasaccura. Further west, Praesidium Sufative was constructed by the 1st cohort of Musulamii in AD 119.⁷ At the other end of the province an inscription of AD 122 records the foundation of the camp of Rapidum,⁸ and it seems probable that the construction of Thanaramusa Castra and the stationing of a military unit at Auzia - which are both recorded on a milestone of AD 124⁹ - should be dated to the same year. In AD 167 a legionary vexillation constructed a fort at Tigava Castra¹⁰ close to the large Roman town of Tigava, and finally, between AD 183 and 185, forts and watchtowers were constructed or

restored and milestones re-established along the roads.¹¹ Other centres, situated in the lowland corridor which crosses this region from west to east, which are named in the Antonine Itinerary - Castra Nova, Ballene praesidium, Gadaum Castra and Castellum Tingitanum - are clearly of military origin and probably date from the 2nd century.

It is possible that these changes were, in part, a response to new pressures of a different nature. The military situation during this century may have involved a large number of small problems which could be dealt with more effectively if the military forces were divided into small units stationed across the province. There was certainly widespread native unrest in Mauretania Caesariensis in AD 145 - 47, in AD 167, and in AD 183 - 85. The native revolts during the reign of Antoninus Pius were extremely serious affecting the entire province and detachments of troops from Germany, Pannonia and Moesia had to be called in to help restore order.¹²

The line of forts linked by a military road, which came into existence during this century, was not a frontier marking the southern limit of the province or of that part of the province controlled and administered by Rome. The units stationed along this line were no doubt expected to do their fighting well away from it so that we can claim with confidence that the real limits of the territory controlled by Rome during the 2nd century lay some distance to the south; perhaps, as in the 1st century, along the northern edges of the High Plains. However, this reorganisation does mark one

stage in a movement away from the concept of the frontier as a broad zone where only general control was maintained towards a new concept of the frontier as a carefully controlled line separating and regulating in detail contact between Roman and barbarian.

The 3rd Century.

Septimius Severus completely reorganised the defences of the province.¹³ The forts established on the plateau de Medea, along the Chelif valley and in the lowlands of Oranie, were abandoned and a new line of forts established further south (map 11). The new defensive system in contrast to the earlier military line, was conceived and executed as a whole during the reign of the emperor, and a major part of the work was completed in the three years AD 198 - 201. Work began in the east in AD 198 with the construction of forts, under the direction of the procurator Octavius Pudens, at Grimidi,¹⁴ Ain Touta¹⁵ and Boghar¹⁶ along the southern foot of the Titteri mountains. But it was in AD 201 that the largest sector of the new line was accomplished. During the course of this year, along a front of over 300 kms., the governor Aelius Peregrinus inaugurated the Miberna Alae Sebastenae,¹⁷ (on one of the southern spurs of the Massif de l'Ouarsenis); established the camps of Cohors Breucorum,¹⁸ and Ala Miliaria,¹⁹ (between the Monts de Frenda and Saïda) and Lucu²⁰ and Kaputtasaccura,²¹ (at the foot of the northern slopes of the Monts de Daya); and constructed a road, the nova praetentura, to link these forts. Four years later in AD 205 the eastern

sector was reinforced by the burgus Usinaza ²², situated midway between the forts at Boghar and Ain Touta. To the west of Kaputtasaccura the forts of Altava, Pomaria and Numerus Syrorum ²³, situated along the foot of the northern slopes of the Monts de Tlemçen, were certainly in existence before AD 217, and it seems most probable that they too were constructed at the beginning of the 3rd century. But we still have a very incomplete picture of the disposition of military units between Cohors Breucorum and Hiberna Alae Sebastenae. There is good evidence that a military unit was stationed at Columnata ²⁴ during the reign of Septimius Severus, and the fort of Bourbaki, which was occupied by a unit in AD 238 - 244, probably dates from the reign of this emperor. ²⁵ The Roman centre at Aïoun Sbiba may also have originated as a Severan foundation ²⁶ and an inscription from Temordjanet ²⁷ proves that this fort was occupied during the early 3rd century. There is, however, insufficient evidence to substantiate Salama's claim that military units were stationed at Tiaret and Tissemsilt during the reign of Septimius Severus ²⁸. In spite of these gaps, the overall impression is of much greater regularity in the siting of forts than along the earlier military line.

Early in the 3rd century and perhaps as part of the Severan reorganisation, the western sector of the new military line was linked to centres further north and to the coast by a dense network of roads. This, together with the close spacing of the forts and the presence of the ala miliaria - a cavalry force a thousand strong, and the largest, single military unit

under the command of the governor - indicates that the main concentration of military strength under the reorganised defensive system lay in this sector. To the west of Numerus Syrorum, in what is now eastern Morocco, researches on the ground and from the air have revealed no evidence of Roman occupation.

This strongly suggests that the road between Numerus Syrorum and Siga to the north-east (map 11) marked the western limit of Roman military occupation, and was therefore of considerable strategic importance.²⁹

Roads were also constructed across the Titteri mountains to link the eastern sector from Ain Grimidi to Hiberna Alae Sebastenae with the line Auzia, Rapidum, Thanaramusa Castra but there is no evidence of roads from the central sector (Hiberna Alae Sebastenae to Cohors Breucorum) to centres along the Chelif valley. The central and eastern parts of the Massif de l'Ouarsenis are high and rugged, and must have presented a serious obstacle to road building; but at the western end of this sector the plateaux of Mendez and Montgolfier and the valley of the Oued Mina provide relatively easy routes north, and it is possible that the Romans made use of them.

Salama has suggested that the military line established by Septimius Severus was covered to the south by a number of isolated forts at Ain Balloul, Ain Benia, Ain Smir, Farm Romanette and Boughezoul.³⁰ The ruins at Ain Balloul, however, are those of a large Berber settlement³¹ and there is no evidence to indicate that the other four places named represent Roman forts. Further south, in the Monts des Ouled Nail,

Roman forts are recorded at Medjedel, Korirein, Ain el Hammam and Zenina (map 11). The fort at Medjedel was founded as early as AD 149 after the suppression of the Berber revolts under Antoninus Pius,³² but the other forts may not have been established until the reign of Septimius Severus³³. These forts are particularly interesting because there is good evidence to suggest that they were occupied not by Mauretanian units but by units under the command of the governor of Numidia³⁴. Although they lie to the south of the occupied area of Mauretania Caesariensis they are separated from it by the arid steppelands of the High Plains; the Monts des Ouled Nail are much closer to the heavily Romanised areas of central Numidia.

The complete reorganisation of the defences of the province in the early 3rd century can only be understood in the light of the changing conditions of the time. The Empire was no longer expanding and absorbing new territories. The Romans were less confident and the initiative was passing to the barbarians. During the phase of expansion when the Romans were confident of their military superiority the boundary between the territory which they controlled and the lands beyond was never closely defined; it remained a broad zone where only general control was exercised. When this phase came to an end it became essential to define in much stricter terms where Roman authority ended, and that^{of} the barbarians began. The new military line established by Septimius Severus was, at the outset

at least, an important righting platform, but it reflected more closely the southern limits of Mauretania Caesariensis and must be seen as an attempt to control and regulate the movement of people into and out of the province. It represented a 'frontier' in the modern sense of the word.

The massive Severan reorganisation did not, however, inaugurate an era of peace and security. The 3rd century was characterised by chronic insecurity. None of the literary sources record trouble in Mauretania Caesariensis during the reign of Septimius Severus himself but the province and its western neighbour Mauretania Tingitana were united under a single governor on two occasions between AD 201 and 211, which does suggest some native unrest. The procurators of Caracalla, Septimius Severus' successor, restored and strengthened the new defensive system³⁶ but there may have been renewed outbreaks in the western sector during the reign of Severus Alexander, when once again it was found necessary to have a united military command for the two Mauretaniae³⁷. The most serious Berber revolts occurred in the second half of the century. In AD 253 the Bavares, Quinquegentanei and the Praxinenses revolted against Roman rule,³⁸ and although most of the province appears to have been affected³⁹ the heart of the insurrection was in the eastern part of Mauretania Caesariensis, in Mauretania Sitifensis and in western Numidia. Peace was not restored until AD 262.

At the beginning of the reigns of Diocletian and Maximian there were more revolts causing widespread destruction in Mauretania Caesariensis,⁴¹ and neighbouring Sitifensis. The revolts were suppressed by Aurelius Litua, a very active governor, but the pacification was incomplete and in AD 297 Maximian arrived in Africa in person. During the next eighteen months the emperor, with reinforcements from Gaul, traversed the whole of Africa from Mauretania Tingitana to Carthage. This time the suppression of the rebels was complete and it was two generations before they again gave trouble.

The Later Empire.

With the return of peace the Emperors of the Tetrarchy took the opportunity to carry out a thorough overhaul of the defences of Africa. Until recently it has been maintained that in Mauretania Caesariensis they decided to reduce their military commitments by withdrawing from the western parts of the province. This theory of 'un repli tétrarchique' had its origins in a paper by Albertini published in 1928⁴². After examining all the milestones discovered along the Severan limes Albertini was surprised to find that milestones of the Later Empire were absent, and he concluded that during the reign of Diocletian regular troops were withdrawn from the western sector and replaced by limitanei who were left to maintain and defend the frontier. Carcopino took the argument a step further⁴³ by defining the area abandoned as

all the territory lying to the west of the mouth of the Chelif river and by endeavouring to find more scientific causes for the withdrawal. He maintained that Mauretania Caesariensis could not be considered in isolation; it was linked to the neighbouring province of Mauretania Tingitana by a Roman road constructed through the Taza corridor. Although there was little archaeological evidence to support this theory Carcopino cited as evidence the numerous occasions during the Early Empire when the two Mauretaniae were united under one governor and the existence of links between ^{the} cities of Altava (Caesariensis) and Volubilis (Tingitana) in the 7th century. The two provinces had a 'vocation stratégique commune'. Moreover, the disappearance of milestones in western Mauretania Caesariensis and the sharp break in the numismatic sequence in south and south-east Tingitana, particularly at Volubilis, both took place during the reign of Diocletian, so that Carcopino concluded that the decision to evacuate Volubilis and withdraw the southern boundary of Tingitana to the line of the Oueds Loukkos and Laon was a direct consequence of the abandonment of western Mauretania Caesariensis. For Courtois, writing in 1955, the withdrawal from western Mauretania Caesariensis was no longer a hypothesis; it was a certainty. ⁴⁴ He was of the opinion that it was the withdrawal from Tingitana which led to the evacuation of western Mauretania Caesariensis, and in place of Carcopino's suggestion that the western

boundary of Mauretania Caesariensis after Diocletian was 'the meridian of the mouth of the Chelif river', Courtois sought to trace in detail the line of this frontier. He chose the valley of the Oued Riou, a tributary of the Chelif rising in the southwestern part of the Ouarsenis mountains, where Gsell's Atlas indicated a line of castella of the Later Empire. From an inscription discovered at one of the villas, (Kaoua) recording Spes in Deo Ferini (or Fertni) he discovers the limes Fert(inensis) and compares it to the limes Fortensis of the Notitia. The limes Inferior of the Notitia is seen as the terminal sector of the frontier and was therefore located near the coast, along the valley of the lower Chelif. This concept of the 'limes de l'oued Riou' gained wide acceptance. However, as we shall attempt to show below, the evidence presented by Carcopino and Courtois for a 'politique de repli' and the 'limes de l'oued Riou' is not convincing, and in recent years new evidence has come to light which disproves the two theories.

The 'limes de l'oued Riou' as defined by Courtois is entirely without foundation and need not detain us. It will be sufficient to point out that the castella are in reality fortified villas, of economic rather than military importance, and they are located 40 kms to the east of the Oued Riou.⁴⁵ The existence of a Roman road linking the two Mauretaniae - a key point in the theory put forward by Carcopino - is equally unacceptable. Methodical investigations carried out on the ground and from the air over a period of ten

years have revealed no traces of Roman military or civilian occupation between Numerus Syrorum and Taza,⁴⁶ and Roman and Christian artifacts are rare⁴⁷ in this area. Of the remains indicated by Carcopino, the fort at M'soun is of the Muslim period and the Roman ruins at Oujda, to which abbé Barges drew attention, have never been rediscovered.⁴⁸ There is therefore no question of a series of military posts beyond Numerus Syrorum, and the absence of a Roman road through the Taza corridor appears to be confirmed by a discovery made at the Oued ben Hellou to the south-east of its confluence with the Oued Inaouène. This site, located between Fez and Taza, was known to be of the Roman period and aerial reconnaissance carried out by Colonel Baradez in 1955 revealed the outlines of a large Roman fort. It occupies a strategic position at the western end of the Taza corridor but in spite of methodical exploration no trace of a Roman road was found to the east.⁴⁹ We must therefore assume that the military units stationed at Oued ben Hellou and at Numerus Syrorum 300 kms to the east shared the task of patrolling these borderlands.⁵⁰ Without a road link between Mauretania Caesariensis and Mauretania Tingitana the two provinces can hardly have had a 'vocation stratégique commune'. The evidence for an evacuation of southern Tingitana under Diocletian is convincing,⁵¹ but it can no longer be maintained that this was a direct result of the withdrawal from western Mauretania Caesariensis.

Finally, a recent epigraphic discovery provides clear evidence that imperial authority was maintained in the western sectors of the province of Mauretania Caesariensis after the reign of Diocletian. In 1966 Salama published the text of a milestone dated to between AD 333 and 337 which was originally discovered at Oued el Hammam on the Roman road from Castra Nova to Aquae Sirenses, 130 kms to the west of the Oued Riou.⁵² This official inscription of Constantine II is not an isolated example; it is one of a series of milestones, other examples of which have been discovered near Tigava in the Chelif valley,⁵³ and near Bourbaki at the foot of the southern slopes of the Massif de l'Ouarsenis.⁵⁴ In the latter region Salama discovered two other milestones of the Later Empire between 1952 and 1955. The first, found near Annsour el Abiod, belongs to the reign of Diocletian and Maximian and is one of a series of milestones which attest the extensive road repairs carried out in Mauretania Caesariensis by the Emperors of the Tetrarchy after the Berber revolts at the end of the 3rd century; the second, discovered near Ain Kebaba, is dated to the reign of the Emperor Julian AD 360 - 363⁵⁵. There is therefore firm evidence for the continued presence of the central power to the west of the Ouarsenis mountains until the reign of Constantine, and to the south of these mountains during the first 60 years of the 4th century. But what of the later period? The imperial dedication from Altava in honour of the emperors Honorius and Theodosius II (AD 408 - 423)⁵⁶ is difficult

to interpret as a period of 60 years separates the reigns of Constantine II and Honorius. However, as Salama suggests, this inscription may well indicate an effective Roman presence in this part of western Mauretania Caesariensis until the Vandal invasion.

How were the defences of the province organised during the period of the Later Empire? As there was no withdrawal under Diocletian from those areas which lay to the south and west of the Massif de l'Ouarsenis it seems most probable that the frontier line established by Septimius Severus was maintained during the 4th and early 5th centuries. Sometime in the second half of the 3rd century - perhaps after the Berber revolts of AD 253 - 263 - the frontier had been divided into sectors each of which was called limes with the name of the sector headquarters to define it, and was under the command of a praepositus.⁵⁷ This system continued throughout the Later Empire, although in contrast to the province of Numidia there is no evidence that individual sectors were reinforced by new military foundations during the course of the 4th century.⁵⁸ The names of the frontier sectors as they were constituted towards the end of Roman rule are given in the Notitia Dignitatum but are only of value when individual sectors can be identified and located. This is rarely the case and of the sectors listed for Mauretania Caesariensis only the limes Columnatensis can be easily located to the south-west of the Massif de l'Ouarsenis with its headquarters at Columnata. The limites Inferior, Fortensis, Muticitanus, Caputcellensis and Augustensis appear to refer to the western part of the province but they resist all identification.

Each limes did not simply consist of a section of the military road and the forts along it - i.e. the frontier line itself; it included a certain amount of territory before and beyond this line. Within each sector the praepositus had two or three units under his command and his role was that of an intermediate commander between the local unit commanders and the dux. No units are listed in the Notitia but it is possible that the units stationed along this line in the early 3rd century were still there during the Later Empire.⁵⁹ Throughout the 4th century the praepositus could in theory be called upon to supply detachments of troops for a mobile field army in the event of serious trouble in the province. But in practice the units under his command became more and more immobile as their non-military duties increased. Many soldiers possessed land near the fort where they were stationed - land which may have been in their family for more than one generation - and it was only natural for them to try to obtain as much time off as possible from their military duties to ensure its proper cultivation. In time of peace with few military duties to perform it was no doubt possible for them to spend a substantial part of their time farming. This was gradually accepted by the military authorities and consequently it became more and more difficult to send troops to join a mobile force operating in some other part of the province as their farms would be left unattended. Moreover, the military effectiveness of units made up of troops who only spent part of their time undergoing

training was considerably reduced, and they became little more than frontier police. It should be remembered that the word limitanei simply means troops stationed along the frontier, and not, by definition, soldier-farmers. The transition from the effective military units stationed along this frontier during the reign of Septimius Severus to the groups of soldier-farmers only capable of carrying out the duties of border guards of the late 4th and early 5th centuries was a gradual one.

As the 4th century progressed and as it became almost impossible to form a field army from units stationed within the province, the security of Mauretania Caesariensis came to depend increasingly on the large mobile force made up of newly formed units under the command of the Comes Africae. This force was responsible for the defence of all the North African provinces with the exception of Mauretania Tingitana. When serious trouble threatened the security of any province, the African army might be reinforced by a mobile force brought in from other parts of the Empire.

There were no further important incidents in the military history of the province till well into the second half of the 4th century.⁶⁰ In AD 372 a native chieftain, Firmus, killed one of his brothers named Zammac who had pro-Roman sympathies, and was a favourite of the Comes Africae, Romanus. When prevented by the powerful friends of Romanus from having his excuses presented to the emperor, Firmus revolted. The insurrection began in the Kabylie mountains in

Mauretania Sitifensis but spread rapidly into the eastern part of Mauretania Caesariensis. Icosium and Iol-Caesarea were sacked and Tipasa besieged.

Theodosius, (father of the emperor) was summoned from Gaul with a small force and, having joined the army in Africa, succeeded in crushing the revolt in a series of campaigns which lasted two years (AD 373 - 375). They extended as far west as Castellum Tingitanum in Mauretania Caesariensis and over most of Mauretania Sitifensis.

In AD 397 Gildo, another brother of Firmus, who had been appointed Comes Africae by Maximus in AD 387, withdrew his allegiance from the emperor of the West, Honorius, and transferred it to Arcadius, emperor of the East. Early in AD 398 Honorius sent an army to recover the African provinces and although Gildo received some support from the local Berber peoples his army was ignominiously defeated by the imperial forces near Theveste - (Tébessa) - in Numidia. There is no evidence that this revolt had repercussions further west.

The last two decades of Roman rule in North Africa are characterised by two developments; the growing importance of the position of the Comes Africae, supreme military commander of the North African provinces, because of the extreme dependence of Rome and Italy on food from Africa; and the growing ambitions of individual counts who sought to exercise their influence over events in the capital. It was Boniface, the last Comes Africae, who, having been suspected of disloyalty, invited the

Vandals into Africa to help him against an army of Goths sent from Rome to recover the province for the emperor. Genseric, the king of the Vandals, crossed into Africa early in AD 429 with his whole race. Boniface, who by this time had been restored to favour, now sought to oppose the invaders but was heavily defeated. The Vandals quickly overran the eastern provinces, Africa Proconsularis and Numidia, but they did not extend their domination further west into Mauretania Caesariensis. For this province the Vandal invasion marks the end of Roman rule and the beginning of the 'dim centuries' ⁶¹ when this part of North Africa passed under the control of a number of independent Berber rulers.

Summary of Conclusions.

It has often been maintained ⁶² that Rome gradually extended its authority in Mauretania Caesariensis and that until the final advance under Septimius Severus large parts of the province lay beyond Roman control. Our study shows that the hypothesis of a conquest by stages is not supported by the evidence; those who have subscribed to it have not fully understood the changing concept of Roman frontiers. Throughout the 1st century the Romans were confident of their military superiority, and a large military force based at Iol-Caesarea, the capital of the province, was able to maintain security not only in the coastal areas but as far south as the northern edges of the High Plains. The southern 'frontier' of Mauretania Caesariensis was simply a broad zone where only general control was

exercised. It was unnecessary to define exactly where Roman authority ended and that of the barbarians began, because the Empire was still expanding, and even areas which lay beyond effective Roman control at that time were regarded as potentially Roman; it was only a matter of time before they were absorbed into the Empire. During the second century there was a change in the deployment of the Roman military forces. The large force based at Iol-Caesarea was separated into its constituent units which were stationed along the longitudinal trough which crosses this region. The new line of forts linked by a military road, which was the work of several emperors from Trajan to Commodus, did not mark the southern limit of the province. It was a fighting platform and the real limits of effective Roman control lay some distance further south, perhaps as in the 1st century along the northern edges of the High Plains. This reorganisation is significant because it represents a stage in the movement away from the concept of a frontier as a broad zone where only general control was maintained towards a new concept. Conditions were changing. The Empire had stopped expanding, and the Romans were less confident of their military superiority. As the initiative passed to the barbarians it became essential to define in strict terms the limits of Roman jurisdiction. The reorganisation of the defences of the province between AD 198 and 201 should be seen not as a conquest of territory which had until then been outside Roman control, but as an attempt to establish a carefully controlled line separating and regulating in detail contact between Roman

and barbarian. The new military line corresponded more closely to the southern limit of the province, and represents a 'frontier' in the modern sense of the word.

Secondly our study has shown that the theory of a withdrawal from western Mauretania Caesariensis after the Berber revolts of AD 289 - 298, and the establishment of a new frontier along the Oued Riou under Diocletian, is unacceptable. There is now firm evidence for the continued presence of the central power to the west of the Massif de l'Ouarsenis until the reign of Constantine II and some evidence to indicate continued occupation by Rome until the Vandal conquest. If there was no withdrawal, the frontier established by Septimius Severus must have been maintained throughout the period of the Later Empire. Some time in the second half of the 3rd century the frontier was divided up into sectors, each known as a limes under the command of a praepositus who acted as an intermediate commander between the commanders of local units and the dux. There is some evidence to suggest that the units stationed along this frontier in the 3rd century were still there in the 4th century although by this time their military effectiveness was considerably reduced as an increasing proportion of their time was spent in non-military pursuits. By the late 4th century they had become groups of soldier-farmers and were only capable of carrying out the duties of border guards. In the event of serious trouble the defence of the province came to depend on the African army commanded by the Comes Africae.

Thirdly, our study has revealed the chronic insecurity which beset Mauretania Caesariensis from the early 2nd century onwards. Only the revolt of Firmus is well attested from literary sources, but epigraphic evidence provides some information about the importance and extent of other outbreaks. The insurrections of the middle 2nd century, the late 3rd century, and the revolt of Firmus in the 4th century, all appear to have affected large parts of the province and were so serious that reinforcements had to be brought in from other parts of the Empire to restore order. Unfortunately there is very little evidence either from inscriptions or from the literary sources about the nature of the Berber resistance to Rome, and it is very difficult to determine those areas which remained hostile to Roman rule. In the neighbouring province of Mauretania Sitifensis the Kabylie mountains appear to have formed a centre of resistance to Roman rule, and it seems probable that some of the mountain areas of Mauretania Caesariensis remained outside Roman jurisdiction, even if their inhabitants were not actively hostile. The new defensive system established by Septimius Severus indicates that there was also danger from outside the province, and the heavy military build-up in the western sector of the new limes emphasises that this danger lay somewhere to the south-west. But did this danger threaten only Mauretania Caesariensis or were the military dispositions along the frontier part of a wider strategy to ensure the defence of the densely settled and heavily Romanised provinces of Numidia and

Africa Proconsularis further east? In spite of the lack of evidence, several theories have been put forward about the nature of the Berber resistance to Rome, and they are examined in the concluding chapter.

Finally, if it has been possible to define the main chronological changes that took place in the organisation of the defences of Mauretania Caesariensis, there is still a need for much more work on military sites. First, a preliminary survey - involving investigation on the ground, and study of air-photographs - of the central sector of the Severan limes, is vital in order to establish where possible the disposition of military units. Such a survey would fill an important gap in our knowledge of this frontier. Second, out of a total of 13 military sites examined in detail ⁶³ 9 have not been built over by modern constructions ⁶⁴ but only one fort site - Rapidum - has been excavated. We would suggest that the Department of Antiquities give careful consideration to the possibility of carrying out a series of excavations at one or more of these sites. In particular there is an urgent need for further investigation of the site of Ala Miliaria which is one of the few forts of a milliary ala still available for excavation. ⁶⁵ Scientifically conducted excavations aimed at revealing the detailed plan of this fort could produce decisive evidence about the strength and organisation of such units. Moreover, the building sequence of a fort, i.e. its foundation and the structural changes that

took place during the period of occupation - can generally be more closely dated from epigraphic evidence than that of a civilian site, even a large town. Roman pottery of local manufacture found in sealed levels and in association with chronologically well-defined building phases can therefore also be closely dated. Archaeologists working in western Algeria have so far paid very little attention to local Roman wares, and yet their value for dating purposes has long been recognised in other countries. A closely dated typology of Roman pottery from Mauretania Caesariensis acquired as a result of excavations at several military sites would be a valuable aid in establishing the length of occupation of some native sites (see Chapter Two) and more particularly of the civilian sites in this province to which we must now turn.

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 3. C.I.L. 9377, 9384, 21041, 21040, A.E. 1921, 31.
 4. Mina 28, 1.
 5. Tissemsilt 65.
 6. A.E. 1911, 125
 7. Praesidium Sufative / Albulae 19, 1.
 8. Rapidum 78, 2.

9. Dessau 9372.
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13. This is discussed in detail by Salama, P., 'Nouveaux témoignages de l'oeuvre des Sévères dans la Maurétanie Césarienne', Part One, L.A.E., Vol.1, 1953, pp. 231 - 261, and Part Two, L.A.E., Vol.3, 1955, pp. 329-367.
14. C.I.L. 20845
15. C.I.L. 20846
16. C.I.L. 20847
17. Hiberna Alae Sebastenae 74.
18. Cohors Breucorum 53,2.
19. Ala Miliaria 34,2.
20. Lucu 33,2.
21. Kaputtasaccura 24,2.
22. C.I.L. 9228.
23. Altava 23,2; Pomaria 22,1; Numerus Syrorum 17,1.
24. Columnata, 47,2.
25. Bourbaki, 67,1.
26. Aioun Sbiba, 55,1.
27. Temordjanet 62.
28. Salama, P., 1955, idem., p. 359 note 124.
Tiaret, 52,1.
Tissemsilt 65.
29. This question is discussed in Salama, P., 'La Voie Romaine de la Vallée de la Tafna', B.A.A., Vol.2, 1966 - 67, pp. 202 - 216.
30. Salama, P., 1955, idem., p. 361.

31. Ain Balloul 12.
32. Medjedel 86.
33. Castellum Dimmidi (Messad) which lies in the southwestern part of the Monts des Ouled Nail but outside our area of study was founded in AD 198 during the reign of Septimius Severus (Charles-Picard, G., Castellum Dimmidi, Paris, de Boccard, 1948, pp. 45 - 81).
34. Castellum Dimmidi (Messad) and the forts at El Gahra and Ain Rich, which are situated in the southern Monts des Ouled Nail and therefore outside our area of special study, were all occupied by Numidian units; El Gahra by the Numerus Palmyrenorum; Ain Rich by the Ala Flavia; and Castellum Dimmidi by the Numerus Palmyrenorum, a vexillation of Legio III Augusta and the Ala I Pannoniorum.
35. Both Q. Sallustius Macrinianus and Cn. Haius Diadumenianus held the joint posts of procurator of Mauretania Caesariensis and Mauretania Tingitana during the reign of Septimius Severus. Haius Diadumenianus held office in AD 202 but no precise date can be given for the term of office of Sallustius Macrinianus (Salama, P., 1955, *idem.*, pp. 366 - 367.).
36. Reconstructions were carried out at Aïoun Sbiba for the Ala Parthorum between AD 213 - 217 (Salama, P., 1955, *idem.*, pp. 343 - 351).
- Milestones of Caracalla have been found at Glumnata (A.E. 1912, 173), Cohors Breucorum (B.A.C. 1919, p. CCXV no. 3), Kaputtasaccura (C.I.L. 22616, 22617, 22618,) and to the west of Martimprey (Salama, P., 1955, *idem.*, p. 353).
37. Carcopino, J., *idem.*, p. 239.
38. Carcopino, J., 'L'insurrection de 253 d'après une inscription de Miliana récemment découverte', R.A., 1919, pp. 369 - 383.

39. C.I.L. 20827, AD 254 - The procurator of Mauretania Caesariensis, M. Aurelius Vitalis, and the decurion of the ala Thracum celebrate a victory.

C.I.L. ⁹⁰⁴⁵/AD 255, - Conflict between Roman forces and rebels in the region of Auzia.

C.I.L. 21724, AD 257 - Incomplete inscription from Altava. If the man setting up this dedication is referring to the city being involved in local trouble then the inscription is good evidence for unrest in this area at this time; on the other hand, if he is referring to a military unit it is not evidence for local unrest as the unit may have been called upon to aid in the suppression of trouble elsewhere in the province.

C.I.L. 9047, AD 260 - Q. Gargilius Martialis was killed in the region of Auzia during a battle with the Bavares.

The fragment of an inscription found in 1951 at Cherchel together with two fragments of the same inscription discovered at an earlier date sets out the career of M. Cornelius Octavianus who was governor of Mauretania Caesariensis between AD 254 and 260, and who also held the unusual title of dux per Africam Numidiam Mauretaniumque. The appointment of M. Cornelius Octavianus as supreme commander of the occupying troops in these provinces proves that the Berber revolts of this period were widespread and serious (Escurac-Doisy, H., 'M. Cornelius Octavianus et les révoltes indigènes du troisième siècle d'après une inscription de Caesarea', L.A.E., Vol.1, 1953, pp. 181-187).

40. In 1919 Carcopino published the text of an inscription discovered at Zucchabar. It is a dedication to 'Fortune who leads one home' set up in AD 263 by the governor of Mauretania Caesariensis (Carcopino, J., 1919, *idem.*, pp. 369 - 375).

41. C.I.L. 9041 - a bridge at Auzia was destroyed by rebels and rebuilt in AD 290.
- C.I.L. 20836 - Reconstruction of the town of Rapidum captured and destroyed by rebels between AD 297- and 305.
- C.I.L. 21486 - Malliana - fighting in AD 297.
- A.E. 1912, 24 Columnata AD 290 - 292 - The governor of Mauretania Caesariensis, Aurelius Litua, returning to Iol-Caesarea from campaigns to the south-west of Columnata commemorates his victory over a famous Berber tribe.
- C.I.L. 21665 - Albulae AD 299 - Temple of the Dea Maura restored.
- Also see Salama, P., 'Bornes milliaires et problèmes stratégiques du Bas-Empire en Maurétanie', C.R.A.I., 1959, pp. 347 - 350.
42. Albertini, E., 'La route-frontière de la Maurétanie Césarienne entre Boghar et Lalla Maghnia', B.d'O., 1928, p. 48.
43. Carcopino, J., 1943, *idem.*, pp. 231 - 304.
44. Courtois, C., Les Vandales et l'Afrique, Paris, 1955, pp. 79-90.
45. The fortified villas of the western Ouarsenis (35-43).
46. Baradez, J., 'Deux missions de recherches sur le limes de Tingitane', C.R.A.I., 1955, p. 295.
47. Several Roman coins have been found (Marion, J., 'Les ruines anciennes de la région d'Oujda', B.A.M., Vol. 2, 1957, pp. 157 - 173,) but the only Christian object from this area is part of an altar, which can be assigned to the 5th century, discovered at Ain Regada (Boube, J., 'Ain Regada, Table d'autel paléochrétien', B.A.M., Vol. 4, 1960, pp. 513 - 519.).
48. Marion, J., 'La liaison terrestre entre la Tingitane et la Césarienne', B.A.M., Vol. 4, 1960, p. 442.
49. Marion, J., 1960, *idem.*, p. 446.

50. The exact role of these borderlands - which correspond to what is now eastern Morocco - during the Roman period remains something of an enigma. In fact we know very little about the nature and extent of human occupation during the early historical period as a whole. Situated in the lee of the Middle Atlas and the Rif, eastern Morocco experiences a very low rainfall; only isolated areas in the north receive an average annual rainfall of more than 400 mm., and the rest of the region receives below 300 mm. - The arid steppelands of the interior High Plains (Dahra) advance northwards to within 20 kms of the coast along the lower Moulouya and the Mediterranean zone is restricted to a narrow coastal strip. Nevertheless, there are some areas favourable for human occupation - the plaine des Triffa, the 'dir' of the Monts des Beni Snassen, the Gada de Debdou and the Massif de Djerada. The existence of sedentary Berber communities in the 'dir' of the Ras Asfour and around El Aïoun from the pre-Roman period to the 14th century (see Chapter Two) proves that the whole of this area did not form 'une frontière vivante', (Marion, J., 1960, *idem.*, p. 447) 'fréquenté uniquement . . . par certaines tribus pastorales de grands nomades sahariens remontant du Guir vers la basse Moulouya' (Salama, P., 'Occupation de la Maurétanie Césarienne occidentale sous le Bas-Empire romain', in Mélanges d'archéologie et d'histoire offerts à André Piganiol, Paris, 1966, p. 1309). The problem is much more complex.
51. The latest inscription from Volubilis implying Roman rule is from AD 283 - 84, and the coinage comes to an abrupt end at the same date.
52. Salama, P., 1966, *idem.*, pp. 1301 - 2.
53. C.I.L. 22572, 22578.
54. Bourbaki, 67, 2.
55. Bourbaki, 67, 2.
56. Altava, 23, 4.

57. C.I.L. 9025 is the earliest dated inscription from Mauretania Caesariensis recording a praepositus limitis. It was set up at Auzia in AD 301. Three other inscriptions record a praepositus limitis: C.I.L. 9790 from Regiae - this is undated but can confidently be assigned to the second half of the 3rd century; C.I.L. 9791 also from Regiae - this looks like another reading of the previous inscription; C.I.L. 9755 from Portus Magnus - undated but it can clearly be assigned to the 4th century.
58. For new foundations along the Numidian limes see Leschi, L., 'Le Centenarium d'Aqua Viva', R.A., Vol. 87, nos. 394 - 395, 1943, pp. 5 - 22 and Guey, J., 'Note sur le limes romain de Numidie et le Sahara du IV^e siècle', M.E.F.R., 1939, pp. 178 -
59. C.I.L. 21629 is the tombstone of a serving soldier²⁴⁸ of the Ala Parthorum and it was set up at Regiae in AD 355. This unit or detachments of this unit are attested at Ain Skouna near Kaputtasaccura, between AD 201 and 212 (C.I.L. 9826 - 28); at Aioun Sbiba under Caracalla, AD 213 - 217 (Salama, P., 1955, *idem.*, pp. 350 - 351); and at Altava during the reign of Severus Alexander AD 222 - 235 (C.I.L. 21720).
- C.I.L. 21779 is the undated tombstone of a soldier of the Ala Parthorum and was discovered at Pomaria.
- C.I.L. 9967 is the tombstone of a centurion who died at Numerus Syrorum in AD 353 at the age of 58 years. The man's unit is not named (see Numerus Syrorum 17,1).
60. For the military history of Mauretania Caesariensis and the other North African provinces during the Later Empire see Warmington, B.H., The North African Provinces from Diocletian to the Vandal Conquest, Cambridge, The University Press, 1954, pp. 8 - 19.
61. Gautier, E.F., Le passé de l'Afrique du Nord. Les siècles obscurs, 3rd edition, 1964.

62. Albertini, E., 'The Latin West, Africa, Spain and Gaul',
in The Cambridge Ancient History, Vol.11, p.482.
Salama, P., 1955, idem., pp. 355 - 6.
Courtois, C., 1955, idem., p.66 note 3.
63. Columnata 47, Altava 23, Aioun Sbiba 55, Rapidum 78,
Kaputtasaccura 24, Pomaria 22, Lucu 33, Ala Miliaria 34,
Cohors Breucorum 53, Praesidium Sufative 19, Bourbaki 67,
Hiberna Alae Sebastenae 74, Numerus Syrorum 17, and
Boghar 77.
64. Columnata 47, Altava 23, Aioun Sbiba 55, Rapidum 78,
Lucu 33, Ala Miliaria 34, Cohors Breucorum 53,
Bourbaki 67 and Hiberna Alae Sebastenae 74.
65. Birley, E., 'Alae and Cohortes Milliariae', in Corolla
Memoriae Erich Swoboda Dedicata, 1966, p.54.

CHAPTER FOUR:
THE ROMAN CIVILIAN SITES.

The main types of civilian settlements.

1. The cities.

The modern city defies a universal definition which would be acceptable to everyone. In some countries size is the criterion adopted - a town or city is bigger than a village community; in others, density of population or function are regarded as more significant. But for the Romans this problem did not arise; the city was so by definition - a settlement had city status if it had been granted the rights of a civitas, municipium or colonia or else if a new settlement had been founded as a colonia. Moreover, each city was responsible for the administration of a well-defined area around it - its territory. By the middle of the 3rd century when the urban pattern of Mauretania Caesariensis had reached its greatest development, the province, like the Empire as a whole, must be regarded as a mosaic of city territories. All Roman citizens - which since AD 212 meant practically all indigenous free inhabitants of the province - belonged to some civitas. In theory few areas lay outside the framework of the municipal system. They included imperial estates,¹ directly administered by the imperial government, and those areas in the frontier zone which remained under direct military control. However, while it is possible that municipal boundaries were contiguous it seems more probable that in practice the central parts of the main mountain massifs - the

Blida Atlas, Massif de l'Ouarsenis, Monts des Beni Chougran, Djebel Tessala and Massif des Trara - lay outside the jurisdiction of any city authority.

The Roman cities of Mauretania Caesariensis had very varied origins (list 1). Iol-Caesarea, Tipasa, and Icosium began as Carthaginian colonies - known in the literary sources as 'emporium' - which were established to serve as anchorages and watering places, and to which native inhabitants brought their goods to trade. Such settlements were, on the whole, small, although there is a little evidence to suggest that Tipasa became a town of some importance between the 4th and 2nd centuries BC. Siga on the other hand had its origins as a native stronghold and was the capital of Syphax, King of the Masaesyli, in the 3rd century BC; Quiza and Tigava also appeared to have developed from native settlements established before Rome annexed the Kingdom of Mauretania. Other cities grew from colonies of veterans settled by Augustus between 31 and 25 BC, and by Claudius between AD 41 and 54. But the greatest proportion originated as vici - civil settlements which grew up around the ports established during the 2nd century/^{and} around the permanent camps along the Severan limes (map 12).

Naturally they varied greatly in size (list 2), and in social and economic structure. The largest cities included the capital, Iol-Caesarea (370 hectares) Tipasa (60 hectares), Icosium (39.2 hectares) and Portus Magnus (40 hectares), which were all situated on the coast, together with Tigava (75 hectares) in the Cheliff

valley. They offered all the classic elements of Roman city life. There were enormous public bath-houses, magnificent temples, and, later, richly decorated churches, huge amphitheatres and shaded parks and gardens which were open to all the citizens and not simply to the wealthy. There were elegant private residences consisting of spacious apartments paved with intricate mosaics arranged around a central courtyard or garden. There was a well-organised system of public water supply. Aqueducts were constructed to carry water from mountain springs, often many kilometres away, to a series of basins located in the higher parts of the cities where it was purified before being led along conduits, which followed the main streets, to supply the public bath-houses, fountains, and last of all the private houses. Roman planning had brought a definite form to these cities which were of Carthaginian or native origin. A large part, but probably not all of the urban area, was divided up into square or nearly square blocks, known as insulae, by a symmetrical, almost chess-board pattern of wide streets. At or near the centre was the forum at the intersection of the cardo and decumanus. Around it were grouped the main public buildings - the council meeting house, the basilica, the temple, together with the market. One of the large public bath-houses - an important meeting place - would normally be found close to the political centre of the city. Other buildings - the amphitheatre and later, the Christian churches - were relegated to the outskirts. The remaining insulae contained one or more private houses.

But few of these cities could have afforded the luxury of total reconstruction, and it is quite possible that some of the older districts remained with irregular streets and houses of less sophisticated construction.

To what did these large urban centres owe their prosperity? What was their function? Each city was a market for the surrounding district to which the peasants came to sell their produce and to purchase imported goods and those manufactured articles which village craftsmen could not supply. There were therefore a number of retailers who marketed agricultural produce and also groups of artisans who made the simple articles which the peasants required. But the volume of such local trade was not large and because of the very limited purchasing power of the peasants, local industry was negligible. Similarly the area which each city served was small, since a peasant would normally prefer to visit the city and return to his village or farm within a day. The total volume of long distance commerce and large-scale industry was relatively small in the ancient world. Transport was slow and expensive; perishable goods could not travel far, and it was rarely profitable to carry bulky goods any distance. Apart from the state-controlled transport of corn and later oil to Rome, which can hardly be regarded as a truly commercial activity, trade was restricted to luxury or semi-luxury articles. Iol-Caesarea, Icosium, Tipasa and Portus Magnus as ports no doubt had some share in coastal trade, but it cannot

have been sufficient in volume to play any appreciable part in their economic life. The manufacture of luxury goods commanding an extensive market made the fortunes of a few cities in the Empire, but these did not include the cities of Mauretania Caesariensis. Both trade and industry were dependent on a rich urban class which cannot itself have derived any large proportion of its total wealth from these activities. How then did the municipal aristocracies make their money? Clearly, the greater part of their wealth must have been derived from the estates which they owned in the city territory, although it is difficult to say exactly how such estates were acquired. No doubt there had been a native land-owning aristocracy in the independent Kingdom of Mauretania and, during the reigns of Juba and Ptolemy, some may have tended to leave their estates in the charge of a steward and move to the cities which had become islands of Roman civilisation. Many estates must have represented the profits of a successful professional career. Others again probably resulted from gifts by Juba and Ptolemy and later by successive emperors to their favourites and trusted officials who had served them well. The large cities must therefore be regarded essentially as political and social centres; they were where the wealthy chose to live. Far from serving their territory they were economically dependent on the countryside. The bulk of the wealth from agriculture was drained to the cities. ²

Scientifically conducted excavations have been carried out at the site of only one of these large urban centres, Tipasa, so that although we know something of their plan and function our knowledge of their history and evolution is minimal. Moreover, any study of urban development during the Roman period faces many difficulties. Sites have often been built over by modern constructions; in the past crucial evidence about their later history was destroyed without record by archaeologists in their haste to uncover the fine mosaics and imperial dedications of earlier periods; finally, the problem of chronology is often acute since, although certain public buildings can be closely dated from epigraphic evidence, with present techniques and methods of analysis the majority of buildings cannot be assigned to narrow chronological periods. Iol-Caesarea and Tipasa are the only sites for which it is possible to reconstruct the main stages in their development, and it is worthwhile looking at each in more detail.

The main reasons for the spectacular growth of Iol-Caesarea, which is known to us mainly from literary sources, were essentially political. The city originated as a Carthaginian settlement known as Iol. In the latter half of the 1st century BC Bocchus II, the King of Mauretania and a contemporary of Caesar, made it one of his capitals, but the first period of urban expansion, which transformed what must have been a relatively small trading station into an elegant Graeco-Roman city,

did not take place until the reign of his successor Juba II . This prince, established as a client-king by Augustus in 25 BC, made Iol the principal capital of his new kingdom. He renamed it Caesarea and, being a cultured man and a scholar who had spent his childhood in Rome, he proceeded to embellish the capital with many new buildings of Graeco-Roman design; some of which are portrayed on his coins. The massive defensive wall enclosing an area of 370 hectares probably dates to the reign of this king.

After Rome annexed the Kingdom of Mauretania, Iol-Caesarea became the capital of the new province of Mauretania Caesariensis and received the status of a Roman colony. It must have profited enormously from the regular presence of the governor, as well as from its role as the base of the Western Mediterranean fleet, and, during the first century at least, as the base-camp of the army of occupation. This must have inaugurated a second period of growth which perhaps culminated in the brilliant period of urban development which corresponds to the reign of the African emperor, Septimius Severus.

The later history of Iol-Caesarea is obscure. During the revolt of Firmus in the second half of the 4th century, the city was captured and sacked by the rebels. Some rebuilding must have taken place after peace had been restored, but in or around AD 430 the city again fell, this time to the Vandals, who dismantled the defences. Yet despite these vicissitudes city life continued, although we know nothing of its character, until the 6th century when Iol-Caesarea was recaptured by Byzantine forces.³

Carefully conducted excavations carried out by Colonel Baradez have revealed the early stages in the growth of Tipasa. We have already noted that the small Phoenician settlement established on the summit of the rocky headland grew to some importance between the 4th and 2nd centuries BC. It was, however, politically dominated by Carthage, and when Carthaginian power had been destroyed, the settlement was incorporated in the Kingdom of Mauretania. The defensive wall which protected the early town was probably constructed during the reign of Juba I. Like nearby Iol-Caesarea, Tipasa was granted the status of a Roman colony by Claudius after the annexation of the Kingdom of Mauretania, but Colonel Baradez has shown that the main phase of urban expansion did not take place until the reign of Antoninus Pius. In AD 146 - 147 a vast defensive wall, enclosing an area of 60 hectares, was constructed across the cemeteries which surrounded the early town, in order to provide a base camp for an expeditionary force from Pannonia called in to help put down the widespread Berber revolt then threatening Mauretania Caesariensis. The presence of these military units, which must have acted as a not unimportant economic stimulus, together with the insecure conditions in the surrounding countryside, brought a considerable influx of people to Tipasa. After peace was restored many of these people decided to remain in the city. As the increased numbers could not be accommodated in the early town the vast area of

the base camp, which must by this time have been evacuated, was taken over for civilian occupation and laid out according to a regular plan with a system of wide streets intersecting at right angles. The ruins of some of the public buildings in the western sector of the new urban extension - theatres, temples, bath-houses and a large Christian church - can still be seen, and along the coast Colonel Baradez found that each insula contained a single house of very large dimensions. One of these houses, known as the 'maison des fresques', was completely excavated. It had been constructed soon after AD 150 and the interior was considerably modified during the reign of Septimius Severus. At the end of the 3rd century the house was destroyed by fire, and it does not appear to have been rebuilt. In the middle of the 4th century the building debris was cleared away and poorer habitations erected. It would be wrong, however, to conclude from this evidence that the city as a whole was declining during the 4th century. On the contrary, several large, richly decorated churches were constructed by the citizens during this period, and at the end of the century Tipasa, unlike Iol-Caesarea and Icosium, withstood a long siege by rebels during the revolt of Firmus. Tipasa fell to the Vandals in or around AD 430 and there is some evidence to suggest that it was retaken by Byzantine forces in the early 6th century. ⁴

Our picture of the evolution of Iol-Caesarea and Tipasa, as of ^{the} other large urban centres in Mauretania Caesariensis, during the Later Empire and in the immediate post-Roman period, is particularly incomplete.

All these centres/certainly continued to be occupied throughout the Later Empire - and some to the 6th century - but we know nothing about the character of city life during that period. It has been maintained by some writers ⁵ that the cities of the African provinces declined from the early 4th century onwards. This may have been the fate of the Mauretanian cities, but it is interesting to note that recent excavations at two sites further east, namely Sitiris (Sétir) and Cuicul (Djemila), ⁶ have shown that for them the 4th century was characterised by urban expansion and by the erection of public buildings and luxurious private residences. Equally significant is the evidence, from both centres, of continuity of occupation from the Roman and immediate post-Roman periods to the early Middle Ages.

Those cities which originated as veteran colonies (list 1) no doubt varied in size but they do form a distinct group and, if it seems unlikely that any grew to rival Iol-Caesarea, Tigava or Tipasa, the very brief descriptions that are available to us indicate that they became urban centres of some consequence. Unfortunately the sites of most of these coloniae are now occupied by modern constructions; few early plans of the ruins have been published; and little epigraphic evidence has come to light. But if direct evidence is lacking their evolution can be tentatively reconstructed by analogy with better known veteran colonies in other provinces, particularly Thamugadi (Timgad) in neighbouring Numidia.

Between 31 and 25 BC, Augustus founded five colonies of veterans in what was later to become the province of Mauretania Caesariensis. They were not established as part of any planned Romanisation of this region, which had lapsed to Rome on the death of Bocchus II, King of Mauretania, though the effect of these settlements must certainly have been to forward the Romanisation of the areas in which they were located. The real reason behind their foundation was much more practical. After Actium a large number of men who had fought in the civil wars were discharged, and Augustus had to find some way of rewarding them. This was achieved with no great strain on his financial resources by establishing colonies of veterans in newly acquired territory like Mauretania, where all land was public land at the disposal of the government. Consequently the siting of coloniae was more or less fortuitous. They were not located as part of any plan for the organisation of the new province; they were simply established where there was sufficient land available to support a colony. Similar considerations no doubt influenced the Emperor Claudius who settled a colony of veterans at Oppidum Novum in the Chelif valley between AD 41 and 54. The veterans presumably came from the IIIrd Augustan Legion stationed in Numidia.⁷ No other veteran colonies were established in the province after AD 54. Only legionaries were settled in colonies - a practice which itself did not continue after Hadrian's reign - and the permanent garrison in Mauretania Caesariensis did not include a legion; it was made up of a number of auxiliary units.

None of these veteran colonies had any strategic importance, but civic life must have had a strongly military flavour, and the military origin of these settlements was long remembered. Moreover, evidence by analogy suggests that the original lay-out of the coloniae resembled that of a legionary fortress. The veteran colony of Thamugadi, established by Trajan in AD 100, was some 12.6 hectares in extent and almost square in outline. It was protected by a stout wall which was cut by four principal gateways. The interior of the settlement was divided by streets into a chess-board pattern of small, square house-blocks. All the streets had well-built sewers beneath them. As planned, the colony had few embellishments, and the theatre, library, market and bath-house together with the colonnades along the main streets were all later additions.⁸

Each colony must have absorbed a relatively small number of veterans. About 1000 veterans took part in the original settlement of Thamugadi and it is unlikely that more than 3000 veterans were settled in any one place. At the outset therefore these coloniae were relatively small settlements. Moreover, their function was essentially agricultural - a village life was being lived in city trapping. Each colony was assigned a well-defined territory and some must have been fairly extensive.⁹ In addition to an urban plot each veteran received a plot of land in the territory where he could grow the necessary foodstuffs to support himself and his family. It is quite possible

that a part, but probably not all, of the territory was centuriated (i.e. divided into regular units, centuria quadrata, containing a hundred heredia, which were bordered by straight roads meeting at right angles) in order to facilitate the initial allocation of land. Most of the veterans who were settled in Mauretania Caesariensis by Augustus and Claudius originally came from the Italian cities. They therefore had some knowledge of municipal organisation but their knowledge of agricultural techniques must have been somewhat limited. How they adapted to their new way of life in new surroundings, particularly as some of the colonies were established in areas where there appear to have been no sedentary native communities practising agriculture is an interesting question, although it seems unlikely that evidence will ever come to light to provide an answer.

The later development of individual veteran colonies must have varied greatly, but from rather humble origins as small and essentially agricultural settlements they expanded in size and acquired more lavish public amenities. Theatres, bath-houses paved with mosaics, richly decorated churches and substantial town-houses were constructed, and the original plan must have been considerably modified. Outside the walls of the early settlement urban expansion may have taken a fairly regular form, as at Cuicul (Djemila),¹⁰ or it may have broken loose from the chess-board pattern, as at Thamugadi, where the streets outside the walls of the Trajanic colony are irregular and complicated.¹¹

This urban expansion was probably due in part to natural increase in the population. Also, from an early date, some of the local inhabitants must have settled down in or around the new colonies. The transformation of the urban landscape, on the other hand, reflected a change which had taken place in the function of these cities. Although each veteran had initially received an equal share of land in the territory assigned to the colony, some of the more enterprising were no doubt able substantially to enlarge their holdings at the expense of their less active neighbours. In this way, successive generations were able to create fair-sized estates, and it was these wealthy families who built new town-houses and who provided the necessary funds for the more comprehensive and more lavish public services. They assigned the day-to-day management of their estates to stewards, who probably lived in a farm-house or villa on the estate itself, ¹² or leased land to tenants. Consequently the coloniae gradually lost their agricultural function - they were no longer communities of peasant farmers - and became political and social centres where the wealthy landowners from their respective territories were able to enjoy the pleasures of city life.

The later history of the coloniae is obscure. We know that they were all occupied until the late 5th century because they sent representatives to the Council of Bishops which met at Carthage in AD 484; and at Rusguniae and Cartenna occupation continued until the 7th century. The form which urban life took during this late period is, however, uncertain.

Beyond the coastal areas the cities were smaller and their public amenities more limited. In origin the majority were vici - i.e. civil settlements which had grown up around the forts along the 2nd century military line and around the permanent camps established by Septimius Severus (lists 1 and 3). They only achieved the status of Roman self-governing communities at a later date.

The early stages of their development are not unknown to us. When a military unit moved to a new fort it took with it a number of camp-followers, and traders, who settled under the shelter of the ramparts. Although the soldiers received essential supplies of corn and oil through official channels many other commodities needed to be purchased locally from the natives living in the surrounding area, so that it was not long before some of the local inhabitants, attracted by the presence of 500 or 1000 soldiers each receiving regular pay, came to settle outside the fort. For many of these peregrini this must have been their first experience of life in a settled community. Furthermore, at an early date men from the ranks, who normally spent their entire period of service in one fort, began to cohabit with local women who lived with their children in the vicus. When these men were discharged few can have desired to return to their original homes where, after an absence of 25 years, conditions could have changed radically. They now had much closer ties with their place of service; this had become their real home. Many veterans therefore settled down with their families in the vicus and obtained a plot of land to cultivate in the surrounding area. Their sons became a valuable

source of new recruits for the local unit especially from the 3rd century onwards when local recruitment for the Roman army became the rule.¹³ The two forces which led to the growth of vici outside the forts are clearly illustrated by an inscription from Rapidum which records that in AD 167 the community of veterani et pagani living outside the fort constructed at their own expense, ramparts to protect the settlement.¹⁴

Where there were abundant and sufficiently varied local resources the civil settlements were able to achieve economic independence and to become viable communities in their own right, so that when the military unit was withdrawn they continued to flourish, and many grew in size and importance. In this respect the vici which grew up around the forts along the foot of the northern slopes of the Djebel Tessala, Monts des Beni Chougran, Tlemçen, Daya and Saïda were particularly well situated. These piedmont zones - zones of contact between mountain and plain - are characterised by abundant springs, a more open forest vegetation, varied and productive soils, and are within easy reach of the timber resources of the higher mountain slopes and the grazing lands of the lowland plains.

Some civil settlements were granted the rights of Roman self-governing communities at an early stage in their development; others at a much later stage. It has been noted that the vicus which grew up outside the fort at Rapidum was already of some importance by AD 167, but it did not achieve independent status until the reign of Septimius Severus.¹⁵ At the other end of

the military line established during the 2nd century, the civil settlement at Praesidium Surative also became a municipium at the beginning of the 3rd century.¹⁶ This suggests that the vici along this line only achieved independent status after the military units were moved south as part of the Severan re-organisation of the defences of the province. In contrast, the civil settlements at Altava¹⁷ and Pomaria¹⁸ on the 3rd century limes achieved independent status only two decades after the initial military foundation.

But how far did these settlements justify their new status? At Rapidum and Altava the civil settlements appear to have had a planned street system and a fairly methodical arrangement of buildings. At both sites the position of the forum is known. Evidence from other sites is less precise but from surface indications few represent merely ribbon development along roads leading from the forts, and it seems probable that they too had a fairly regular lay-out. But the scope and scale of the urban facilities which these cities provided for their inhabitants were much poorer than the municipal services which the large urban centres and the coloniae were able to offer. Bath-houses, which for the Romans were an essential element of civilised life, are recorded at Aioun Sbiba¹⁹, Bourbaki²⁰, Columnata²¹ and Lucu,²² though it is possible that they had originally been built for the military units stationed there, and had only been taken over for use by the civil population at a later date. The bath-houses in the fort at Rapidum were certainly in use more than a century after the unit had been with-

drawn.²³ Temples, and, later, Christian churches, are the only other public buildings of which there is evidence (list 4). It is quite possible that some cities had no permanent council meeting house, the curia meeting in one of the temples. Little is known about private houses. Leglay excavated a number of houses at Rapidum with evidence of a certain luxury and comfort in the style of life of the occupants; unfortunately, he does not assign a date to these constructions.²⁴ In contrast at Altava Courtot has excavated several houses in the northern suburbs which were small peasant dwellings, and which were constructed during the early 4th century.²⁵

The urban amenities which these cities provided for their citizens were modest because the funds available to the civic authorities were fairly small. There were few wealthy citizens. The majority of the vicani were peasant farmers cultivating plots of land around the cities. The clearest evidence of this comes from Altava, where excavations in the northern suburbs have revealed the ruins of several small houses each containing an olive press and corn mill.²⁶ Clearly, each family was cultivating fields of cereals in the surrounding area and grafting olive trees which formed part of the natural vegetation. Some livestock, cattle, sheep, goats and swine, must have been reared but as bone evidence is lacking we know nothing about the relative numbers of the different species reared. Evidence from other sites is abundant if less illuminating. Several olive presses were discovered

during excavations at Rapidum;²⁷ Madame Camps-Fabrer has described a small olive mill containing four presses at Aquae Sirenses;²⁸ and many fragments of olive presses and corn-mills have been discovered among the ruins of other cities (list 5). Apart from agriculture, small-scale industries, including the manufacture of pottery²⁹ and perhaps agricultural implements, would provide employment for a few of the inhabitants. Merchants and traders no doubt visited these cities but, as we have already pointed out, the total volume of internal trade in the province was small, and restricted to luxury goods, so that they cannot have formed a substantial proportion of the population.

The majority of the inhabitants of these cities never became more than partly Romanised. Veterans, who were leading members of these communities, must have become reasonably proficient in Latin after 25 years in the Roman army. But the background from which these men came was very different from that of the Italian legionary veterans settled in Mauretania by Augustus and Claudius. As auxiliaries they would have been recruited from the local population, and although they often gave their children Roman names it seems unlikely that they ever acquired more than a thin veneer of Roman culture. Among the rest of the citizens the Berber language must have persisted, and as language is the vehicle of culture they can scarcely have been touched by Roman civilisation. Even the richest citizens were therefore humble folk who had absorbed little of Latin culture, and if these cities had been endowed with all

the apparatus of a Roman self-governing community their decurions were very different people from those of the larger urban centres further north, where there were many great landlords, well-versed in Latin and Greek, on the citizen roll.

The later history of these inland cities, which were all occupied at least until the middle of the 5th century (list 6,) appears to have been somewhat varied. Rapidum was captured and destroyed by rebels during the Berber revolts at the end of the 3rd century. The main ramparts were rebuilt, but during the Later Empire the settlement steadily declined in size. Parts of the city were completely abandoned, and on two occasions new ramparts were constructed to protect those areas still occupied.³⁰ In contrast at Altava the 4th century was characterised by urban expansion and in AD 349 - 350 a defensive wall was constructed around the entire settlement.³¹ Other cities were protected by stout ramparts during the Later Empire, (list 7) and several sites show clear traces of smaller enclosed areas inside the main defences (list 8). These fortified enclosures may represent citadels to which the citizens withdrew in time of danger or attack - following the principle that the shorter the line of a city's defences the fewer the men who are needed to hold it - or they may represent an actual decline in size and an attempt to defend the areas that were still occupied.

At Altava and Pomaria in the western part of the province occupation continued at least until the middle of the 7th century. During this late period Christianity survived, and the inhabitants continued to

set up inscriptions written in Latin and dated to the year of the Roman province. When the Arab invaders penetrated this far west at the end of the 7th century these cities must still have been occupied, even if the urban landscape had undergone dramatic changes. Volubilis in Mauretania Tingitana, which had once been the capital of that province, was little more than a large and rather squalid agricultural village in the 7th century; such must have been the fate of Altava and Pomaria. Further east, evidence of continuity of occupation during the 6th and 7th centuries is lacking, but it seems most probable that the Vandal invasion of the early 5th century and the Arab invasion of the late 7th century destroyed few of the settlements which had grown up during the Roman period. Some of the inland cities in the eastern part of the province no doubt continued to be occupied until the intervention of the Bedouin tribes Beni Hillal and Beni Solaym in the 12th and 13th centuries, although their character must have changed during this period as the Romanised element declined and the Berber element grew stronger.

2. The rural settlements.

On the territories assigned to the cities of Mauretania Caesariensis villages, villas and isolated farms grew up (map 12) and there was no legal distinction between the urban and rural members of these communities. In recent times it has been the large urban centres with their monumental buildings and rich mosaics, and to a lesser extent the military sites, which have

attracted and kept the attention of archaeologists working in this area; with so many impressive sites it is little wonder that the more modest rural settlements have been ignored. Moreover, with present archaeological techniques excavations carried out at rural sites would not be very revealing. Little or no work has been done on Roman pottery of local manufacture, and the analysis of different types of wall construction has not advanced very far. Unfortunately there are no other ways of establishing the sequence of occupation. Such sites are unlikely to reveal very much epigraphic evidence and a single dated inscription from a village, villa or farm merely indicates that the site was occupied at the date recorded on the inscription.

But from the problems to the facts. The only village for which a plan is available is Sidi bou Zid, ³² situated to the north-east of Aïoun Sbiba. It has a compact plan with a number of rectangular buildings extending over one hectare and occupying the centre of a large enclosure (8 hectares). What appears to be an open space between the central built-up area and the perimeter wall may have been set aside for the village herds which would be driven there at night, or in time of insecurity and attack. One inscription has been discovered among the ruins. It indicates that at least one and possibly a group of veterans were living there in the 3rd century, but as yet no evidence has come to light to suggest when the village was founded or how long it was occupied. The Roman village at Kherba de Sfisifa ³³ near Rapidum was also occupied

during the 3rd century and the ruins of a Christian church indicate that occupation continued during the 4th century. There is abundant evidence from the villages at Ain Feradja ³⁴ and Kef el Keskas, ³⁵ to the north of Bourbaki, of occupation during the Later Empire. In contrast, some time in the first century a veteran settled down in a village near the site of present-day Tissemsilt, ³⁶ on the northern edge of the High Plain of Sersou. It would therefore be unwise to conclude that all villages in the frontier zone were only established after permanent garrisons were stationed to the south of the Massif de l'Ouarsenis and along the northern edges of the Atlas Tabulaire at the beginning of the 3rd century. Some may have been founded at a much earlier date.

The villas may be divided into two main types. Firstly there are those which have been recorded around large urban centres and coloniae such as Iol-Caesarea, Tipasa, Tigava, and Rusguniae. They were situated on private estates and it seems probable that many were built at an early stage of the Roman occupation. During the Early Empire, few of the wealthier landowners can have lived permanently in the country; they preferred the amenities and the active political and social life which only the cities could provide. Even though some of these country residences were extremely luxurious, many must have been occupied by stewards who were responsible for the day-to-day management of the estates. But when the financial burdens of civic office became increasingly onerous during the Later Empire some landowners must have decided to retire to their estates.

The only villa of this type for which a plan is available cannot unfortunately be regarded as entirely representative. It is situated a short distance to the south-east of Tipasa and appears to have been constructed as a private residence sometime during the 2nd century. In the early 3rd century it was converted for the manufacture of wine, and an inscription of AD 278 records that the villa was the property of M. Hortensius Gaudentius. There is some evidence to suggest that occupation continued during the Later Empire.³⁷

The second type, however, the fortified villas,³⁸ are located along the valleys of the Oueds Sensig and Ardjem on the western edge of the high, rugged and thickly forested central Ouarsenis, far from the highly Romanised parts of the province. They are tower-like structures, strongly built, and one of them was surrounded by a system of outer defences. Gsell in his 'Monuments Antiques de l'Algérie', classified them as military constructions³⁹ and Courtois saw them as castella protecting his imaginary 'lines de l'oued Riou'.⁴⁰ But both writers have perhaps over-emphasized the defensive character of these buildings which were essentially country residences and farms, and were not of any real military significance. Finally, all the fortified villas appear to have been constructed during the first half of the 4th century by landowners who intended to make them their permanent residences. Salama has put forward the theory that they were built on estates belonging to local families who had absorbed something of Roman civilisation, and whose fortunes had either been

established or consolidated by the Emperor Maximian after the suppression of the Berber revolts at the end of the 3rd century.⁴¹ The location of the villas far from the highly Romanised parts of the province, and their analogy with the praedia constructed by local families in the Kabylie mountains⁴² adds weight to this argument. Furthermore, an inscription⁴³ indicates that the fortified villa at Ammi Moussa was built by order of a certain M. Aurelius Vaseranes v(ir) p(er)fectissimus); whether this was an honorary title or whether it had been obtained by actual service, it indicates that Aurelius Vaseranes was a man of considerable wealth and without doubt a local notable.

The ruins of many isolated farms are recorded in Mauretania Caesariensis, but few of these sites have been described or investigated, and no plans have been published. Moreover, inscriptions are rare, and have only been discovered on two sites, both in the western part of the province. Near Palissy⁴⁴ to the south of Sidi bel Abbès ten dolia were discovered in 1931 marking the site of a Roman farm of some importance. The largest dolium bears a brief inscription which can be confidently assigned to the late 5th century. Further west, in the plain of El Ghor to the north of Altava, Courtot discovered two Christian tombstones of the 4th and 5th centuries respectively among the ruins of a small and typically peasant dwelling.⁴⁵ The occupation of these two farms at such a late date is particularly interesting, but there is no evidence to suggest the date of foundation.

We have already noted that there is some evidence to suggest continuity of occupation from the late Roman to the early Islamic period on several city sites in the province. After Roman rule ended profound changes must have taken place in the urban landscape so that when the Arab invaders reached the central Maghreb at the end of the 7th century these cities can have been little more than large villages. But the first Arab invasion does not appear to have caused widespread destruction. The numbers involved were small, and they were mainly townspeople - civil servants, merchants and traders. New towns were founded at Tihert, Achir and Qal'a des Beni Hammâd but because of the numbers involved it is unlikely that a new pattern of rural settlement emerged. And yet Arab writers describe flourishing farms and villages in this region. We must therefore conclude that, as well as continuity of occupation on some city sites, in many areas - particularly near the new Arab capitals which needed provisions from the countryside for their citizens - rural settlements established during the Roman period continued to be occupied until the second Arab invasion in the 12th and 13th centuries. This introduced the nomadic tribes Beni Hillal and Beni Solaym, who brought about a dramatic transformation of the countryside.

The distribution of civilian settlements.

Having examined the different types of civilian settlements represented in Mauretania Caesariensis we turn now to the spatial distribution of these settlements as shown by map 12.

The coastal regions of the province experience a truly Mediterranean climate; winters are mild, spring frosts are exceptional, and the summers are not too hot. Rainfall is the main factor responsible for regional differences, the humid east contrasting with the much drier west. Between Quiza and Rusubbicari to the east, a distance of approximately 300 kilometres, there were, during the Roman period, seven large coastal cities, some less than 30 kilometres apart. Behind Rusubbicari villages and villas grew up on the western slopes of the Djebel bou Arous, which receive an average annual rainfall of over 700 mm. but there is no evidence that Roman settlement spread into the low alluvial plain of the Mitidja. During the early historical period large parts of this humid plain were covered with marshes, and indeed they remained until the 19th century when French technical skill made it the showpiece of European colonisation in N.W. Africa. To the south, the rugged Blida Atlas, culminating in the Djebel Mouzaia (1603 m.) receives an average annual rainfall of between 800 and 1200 mm., and was formerly thickly forested. This mountain chain appears to have remained, during the Roman period, the preserve of primitive native communities practising hunting and collecting.

To the west of Icosium a string of low hills, known as the Sahel d'Alger, situated between the Mitidja and the sea, are dotted with ruins of Roman villages, villas and isolated farms. The Monts de Miliana, on the other hand, appear to have been scarcely encroached upon by Roman settlement. These rugged mountains, rising to over 1000 metres and culminating in the Bou Mad (1415 m.) and the Zaccar (1579 m.), receive an average rainfall of 600 - 1000 mm. each year. During the classical period they were heavily forested, and, like the Blida Atlas, were probably occupied by native communities practising hunting and collecting. This does not mean, however, that they did not come within the orbit of coastal cities such as Iol-Caesarea and, further west, Gunugu. Springs situated in these mountains were captured and the water led along aqueducts to the coastal cities. The many public and private bath-houses consumed an immense quantity of fuel, some, if not all, of which must have been obtained from forests on the northern slopes of these mountains. It seems highly probable, therefore, that the territories assigned to these cities included not only good agricultural land but also the thickly-forested slopes of the Monts de Miliana.

To the west of the meridian of Cartenna the landscape changes dramatically. Altitudes rarely exceed 600 m. and the low hills, which receive an irregular annual rainfall of between 400 and 500 mm., formerly supported open forests of thuya. In this region known as the Dahra oranais, there was a high

density of Roman villages and isolated farms, with a marked concentration along the valleys of the Oued Allalah and its tributaries behind Cartenna itself, and along the Roman road linking Cartenna to Castellum Tingitanum in the Chelif valley. A number of cities, including Arsenaria and Kalaa, also grew up here.

In contrast, between Quiza and the mouth of the Oued Moulouya the coastal regions - with the exception of the Monts des Trara and the Djebel Murdjadjo - receive an annual rainfall of below 400 mm. A number of cities grew up along the coast, some dating from Phoenician times, but only one, Portus Magnus, was of any consequence during the Roman period, and there is no evidence that rural settlements spread into the low plains to the south. Without the financial resources and technical skill possessed by the French, who drained the extensive marshes in the plains of Tlelat, Sig, and Habra-Macta and built vast irrigation works to remedy the absence of rain during the spring and summer months, this region must have been a particularly hostile environment during the Roman period.

The low plains of Mléta, Tlelat and Habra-Macta form the western section of a longitudinal trough which crosses the entire province. During the course of the 2nd century a series of forts was constructed along this lowland corridor - where a number of urban centres, - Mina, Tigava, Oppidum Novum and Zucchabar, were already in existence in the previous century, -

and some of the civil settlements which grew up around them later attained economic importance and independent status. A string of cities, Albulae, Regiae, Tasaccura, Castra Nova and Ballene Praesidium, developed at the point of contact between the low plains of Oranie and the Djebel Tessala, Monts des Ouled Ali and Beni Chougran. The attraction of this piedmont zone for early settlement has already been noted. There is no evidence that Roman settlement spread into the surrounding areas. The arid, low plains to the north were particularly inhospitable. To the south, the narrow massifs of the Atlas plissée which rise to between 600 and 900 m., are more humid (400 - 600 mm.) but are covered with poor skeletal soils, and the forest vegetation was formerly more extensive. Consequently even though they are crossed by the transversal valleys of the Oueds Tafna, Mekerra, and el Hammam, and therefore present no real obstacle to movement, Roman settlements are rare.

To the east of Ballene Praesidium the plain of Relizane and the valley of the lower Chelif are below 100 m. in altitude, and they offered few opportunities for settlement during the Roman period. Like the plains behind Oran they receive an average annual rainfall of below 400 mm. and until the 19th century poor drainage resulted in extensive marshes and a number of salt lakes. Only three Roman settlements of any importance developed there, Vagal, Inkermann and Mina, and beyond a few isolated farms between Mina and Ballene Praesidium there is no evidence that rural settlements grew up around these centres. The plains of El - Asnam, les

Attafs and El Khemis, through which the Chelif flows and gives a certain unity, are more elevated (200 - 300 m.) than the plains further west but were only a little more favourable for Roman settlement. Cut off from maritime influences by the Dahra and the Monts de Miliana winter temperatures can be low, and in summer temperatures have been described as 'saharan'. The annual rainfall is between 400 and 500 mm. The cities of Castellum Tingitanum, Tigava, Oppidum Novum, Malliana and Sufasar which grew up in these plains were surrounded by a number of villages, villas and farms, and some of the unclassified Roman ruins recorded there must represent rural settlements. ⁴⁶

Further west the marked absence of Roman settlement on the plateau de Medea and in the plaine des Beni Slimane is striking. This is an undulating region between 500 and 1200 m. in altitude which experiences a markedly continental climate, and receives an average annual rainfall of between 600 and 800 mm. The light soils of the plateau de Médéa are particularly fertile, and there are rich alluvial soils in the plaine des Beni Slimane. While the absence of springs in the plaine des Beni Slimane may account for the lack of Roman settlement there, it is more difficult to find reasons why the plateau de Medea, where springs are more numerous and which must formerly have had a more open forest vegetation than the Blida Atlas to the north, was not occupied. We must not exclude the possibility therefore that all surface traces of Roman occupation have been destroyed, and certainly no firm conclusions can be reached about the Roman occupation of this

region until the air-photographic cover has been examined. The main areas of Roman settlement lay to the south along the lowland corridor between the northern chains of the Titteri mountains (1000 - 1300 m.) and the Djebels Saebbah Rharbi (1001 m.), Sebah Chergui (1173 m.), Belgroun (1055 m.) and Si bou Gaoudene (1415 m.). Here civil settlements grew up around the forts at Auzia, Rapidum, and Thanaramusa Castra; and in the plaine des Arib, where two small towns, a number of villas, and other as yet unclassified settlements developed along the road from Auzia to Rusguniae.

Roman settlement spread south of the line Auzia - Rapidum - Thanaramusa Castra into the Titteri mountains along Roman roads linking that line with the centres at Ain Grimidi, Ain Touta, Usinaza and Boghar, all of which had originated as civil settlements around permanent camps on the limes established by Septimius Severus. Remains of isolated farms and villages are recorded along the roads linking Rapidum to Usinaza, and Thanaramusa Castra to Ain Touta. Between Rapidum and Ain Touta a Roman town developed at Chellala des Adaoura and was surrounded by numerous farms and villages. The Monts du Titteri, which rarely rise above 1500 m., consist of a series of narrow chains, orientated roughly from east to west, separated by deep valleys. They form an important watershed between tributaries flowing north to join the Oued Isser and others flowing south to join the Oued Leban. The region is characterised by a number of very large perennial springs, and by numerous smaller springs. The climate, however, becomes

increasingly continental towards the south, and extreme ranges of temperature are experienced. Although the northern chains receive an annual rainfall of around 600 mm., this decreases to 350 mm. in the south, overlooking the interior High Plains. At the present time, these mountains are almost completely denuded but, since they receive a relatively small annual rainfall, it is unlikely that they were ever as densely forested as the Blida Atlas or the central Ouarsenis. Apart from the presence of abundant springs and the light forest cover, allowing easy penetration, the attraction, during the Roman period, of this little known region, which was hardly penetrated by European colonists, is not immediately apparent.

Further west, beyond the road linking Boghar to Thanaramusa Castra, the central and eastern Ouarsenis mountains, which rise to almost 2000 m., were scarcely encroached upon by Roman settlement. This, the highest and most formidable section of the massif, is composed of schists and clays, with some limestones which give rise to deep valleys and narrow ridges. There are few areas where cultivation is possible, and with an average annual rainfall of 500 - 800 mm. the slopes were formerly covered with thick forests of holm oak and Aleppo pine. But to the south and west of the Oued Ardjem and particularly to the west of the Oued Riou, marls of the middle and upper Cretaceous and soft rocks of the Miocene predominate, and give a more gentle relief with wide plateaux (Mendez, Montgolfier, and Mecherasfa), and low, rounded hills which rarely rise above 800 m. This region, generally known as the

Ouarsenis oranais, receives an annual rainfall of 500 - 600 mm., and during the early historical period was covered with open forests of thuya, together with the plant association Oleo-Lenticetum. Roman settlement spread along the valleys of the Oueds Ardjem, bou Zigza, Riou and Tiguiguest, which rise along the southern edges of the Ouarsenis mountains and flow north to join the Chelif. Settlement was particularly dense along the upper courses of these oueds, and includes the urban centres at Columnata, Bourbaki, Kherba des Aouissat and Kherba Achlef, which are surrounded by numerous villages. Further north, a string of fortified villas was established during the Later Empire, between the Oueds Riou and Ardjem. There is, however, a marked absence of Roman sites on the plateaux of Mendez and Montgolfier, and only a few sites have been recorded along the valley of the Oued Mina. ⁴⁷

Along the southern edges of both the Monts du Titteri and the Massif de l'Ouarsenis important civil settlements grew up around the permanent camps established by Septimius Severus - at Ain Grimidi, Ain Touta, Usinaza, Boghar, Hiberna Alae Sebastenae, Bourbaki, and Columnata. Between Columnata and Bourbaki settlement spread beyond the frontier into the northern part of the High Plain of Sersou where the ruins of a number of Roman villages and the villa site near Trumelet have been recorded. With an average annual rainfall of 400 - 500 mm., this is the most favourable part of the

interior High Plains and the high density of native settlement there has already been noted. But to the east of Bourbaki the Severan frontier corresponded with the northern limit of the arid steppelands where an annual rainfall of below 350 mm., and great extremes of temperature, favour neither agriculture nor herding.

Between Columnata and Cohors Breucorum the exact position of the Severan limes is uncertain. Nevertheless, it seems most probable that the frontier road passed close by the Roman city which occupied the site of the present-day Tiaret, then south along the eastern edge of the Monts de Frenda to Aïoun Sbiba where it turned westwards along the lowland corridor between the plateaux de Frenda and the Monts de Saïda to reach Cohors Breucorum. Urban centres of some importance developed at Kherbet bent Sarah and Aïoun Sbiba which was surrounded by several isolated farms and villages. Along the lowland corridor between Aïoun Sbiba and Cohors Breucorum Fort ⁴⁸ indicated numerous Roman ruins some of which must represent isolated farms and villages. There is no evidence, however, that Roman settlement spread into the plateaux de Frenda (1000 m.), the easternmost section of the Atlas Tabulaire, where forests of holm oak still cover wide areas.

The other massifs of the Atlas Tabulaire - the Monts de Saïda, Daya and Tlemçen - remained outside the Roman province and to the west of Ala Miliaria the Severan limes was established at the point of contact

between the northern spurs of these mountains and the interior basins of Marnia, Tlemçen, Sidi bel Abbès and Mascara. This piedmont zone is particularly attractive for settlement, and at an early date important civil settlements grew up around the permanent camps along this sector of the frontier, at Numerus Syrorum, Pomaria and Altava and also at Kaputtasaccura, Lucu and Ala Miliaria. And yet relatively few Roman sites are recorded further north in the interior basins even though they were crossed by a dense network of Roman roads linking centres on the Severan frontier with those along the more northerly line and the coast. Between Castra Nova and Lucu, an urban centre of some importance grew up at Aquae Sirenses, where the Roman road emerged from the Monts des Beni Chougran, and to the south several farms or small hamlets are recorded in the Djebels Mellet and Kersout. Further west the site of a Roman farm has been discovered near Palissy on the Oued Mekerra between Regiae and Kaputtasaccura; a number of small urban centres grew up along the roads between Albulae and Pomaria; and on the road from Numerus Syrorum to Siga a small urban centre is recorded at Damous. Can this low density of Roman settlement in the interior basins be explained in terms of the physical environment? The interior basins at heights between 350 and 800 m. are situated 20 - 70 kms. from the sea and are isolated from maritime influences by the massifs of the Atlas plissée. Winters can be cold, late frosts are not uncommon, but summer

heat is somewhat tempered by altitude. The plains are drained by the Oueds Tafna, Mekerra and el Hammam, which rise high in the Atlas Tabulaire, but springs are rare. An average annual rainfall of between 400 and 500 mm., formerly supported a maquis scrub of wild olive, the mastic tree, dwarf palm and camel thorn. If not particularly attractive for early settlement, therefore, this region is far from inhospitable. It is possible that the low density of Roman settlement is to be explained by the lack of archaeological investigation. A close study of air-photographs may reveal new sites of the Roman period. On the other hand, the dense network of Roman roads and the fact that the main concentration of military strength along the Severan frontier lay in this sector suggest that the interior basins may have been particularly vulnerable to attack from outside the province. This would have resulted in insecurity and less favourable conditions for the spread of civilian settlement away from the protection of the permanent camps along the frontier.

There is no evidence that Roman settlement spread south of the Severan limes, which in this section by no means corresponds with the southern limit of the dry cultivation of cereals as has sometimes been suggested. The Atlas Tabulaire is a harsh environment. Although the Monts de Tlemçen, Daya, and Saida (900 - 1600 m.) receive an annual rainfall of 600 - 700 mm., there are often long, dry periods; winters are cold with 10 - 20 falls of snow a year; and frosts are common. Parts

of these mountains are still covered with important forests of holm oak, Aleppo pine and thuya which must have been much more extensive during the early historical period. However, they can hardly have been as impenetrable as the forests which formerly clothed the more humid Blida Atlas and the Monts de Miliana. Furthermore, only the high and rugged Monts de Tlemçen form a barrier to north - south movement, and the less elevated Monts de Daya and Saïda, where relief is characterised by plateaux formations separated by wide valleys, are easily accessible. Before Rome annexed Mauretania these mountains were already occupied by sedentary native communities practising agriculture and herding, and the fact that several of these communities became in some degree Romanised proves that they must have had contacts at least with the Roman military forces operating in this sector, and most probably also with the civilian population living around the forts.

All distribution maps of archaeological evidence are by their very nature maps of progress. On such maps blank areas may not be significant; they may simply reflect the lack of archaeological investigation in that particular area. Care has therefore been taken in the above discussion to distinguish between those areas where the absence or paucity of Roman settlement can reasonably be explained by unfavourable natural conditions during the early historical period,

and areas where an explanation in terms of the physical environment appears to be inadequate and where any firm conclusion must await further archaeological work, in particular the close study or air-photographic cover. With this cautionary attitude certain general points about the distribution of Roman settlement in Mauretania Caesariensis seem in order.

Unlike the provinces of Africa and Byzacena, with their vast, fertile plains closely settled with cities, farms and villages, in Mauretania Caesariensis the alternation of rugged massifs, longitudinal valleys, and narrow plains resulted in an uneven spread of Roman settlement. Areas of settlement were both restricted and fragmented. The main mountain massifs - Blida Atlas, Monts de Miliana, central and eastern Massif de l'Ouarsenis, Monts des Beni Chougran, Djebel Tessala and Monts des Trara - with their deeply-dissected relief and clothed in thick forests of holm oak, Aleppo pine and thuya, were scarcely encroached upon by Roman settlement. Only the Monts du Titteri, which receive^a lower rainfall and consequently had a more open forest vegetation, were penetrated during the Roman period. The low, alluvial plain of the Mitidja, the plains of Mléta, Tlelat and Macta behind Oran, the Relizane plain and the lower Chelif valley, which were formerly ill-drained and covered with extensive marshes, must have been particularly inhospitable for early settlement. The main areas of Roman settlement were the piedmont zones - e.g. along the northern

edges of the Djebel Tessala, Monts des Beni Chougran, Tlemçen, Daya and Saida - together with those areas like the western Dahra and the Ouarsenis oranais where instead of the sharp contact of plain and mountain there is 'un passage progressive', a transitional zone characterised by low, undulating hills and narrow but fertile valleys. With the advantages of a more open forest vegetation, abundant springs, varied and fertile alluvial soils permitting intensive land-use and with the complementary resources of mountain and plain close at hand, these zones of contact and transition were particularly favourable.⁴⁹

Away from the coastal regions, characterised by large urban centres, many of which had ancient origins, and by numerous villas, villages and farms, a number of settlements did grow up during the 1st and early 2nd centuries in the interior of the province.⁵⁰ But the main stimulus to the development of civilian settlements in this area was the military occupation - i.e. the establishment during the 2nd century of a number of forts along the longitudinal trough which crosses the province, and later, in the early 3rd century, a series of permanent camps along the Severan frontier further south. Around the forts a civilian population composed of camp-followers, veterans, local people and traders settled down at an early date and many of the vici later grew in size and importance. When the military units were withdrawn⁵¹ they left behind a string of flourishing settlements which were now viable communities in their own right, and no longer dependent

on those factors which had brought them into existence. However, it is significant that relatively few settlements grew up between the two military lines or beyond the Severan frontier. If isolated farms and villages are recorded along Roman roads through the Titteri mountains and along the fertile valleys in the southern Massif de l'Ouarsenis, it should be emphasised that there are few cities in the interior of the province which owe their development to factors other than the presence of a military unit.⁵² They include Kherba des Aouissat, Kherba Achlef, Souama de Mecherasfa and Chellala des Adaoura none of which were very large.

Perhaps the most striking contrast however is not between the coastal region, with its agreeable climate and humanised landscape, and the interior, with its harsher, more continental climate, where the cities of military origin were smaller and had fewer amenities, - but between the eastern and western parts of the province. The low density of settlement in that part of the province which lay to the west of the Oued Mina and the lower Chelif contrasts markedly with the high densities recorded in that part which lay to the east, and this can, to a certain extent, be explained in terms of the physical environment. The east is more mountainous but contains important piedmont zones, and zones of transition, and receives an annual rainfall of over 400 mm. (some of the higher mountain slopes receive over 1000 mm.). The west is much less favoured. It lies to

the south of latitude 36° N - Oran for example is situated at the same latitude as Boghar on the northern edge of the interior High Plains; it is sheltered from rain-bearing winds by the Moroccan mountains; and it is less mountainous, only the Monts de Tlemçen rising above 1400 m. All these factors combine to make this a dry region. The extensive plains behind Oran receive an annual rainfall of below 400 mm. and the Atlas Tabulaire only receive 600 - 700 mm. The most favourable areas for early settlement were limited to the narrow piedmont zones along the northern edges of the Djebel Tessala, Monts des Beni Chougran, Tlemçen, Daya and Saida. However, the close spacing of forts along the western sector of the Severan limes - particularly Numerus Syrorum, Pomaria, Altava and Kaputtasaccura which were, on average, only 32 kms. apart, the presence of the ala miliaria and the dense road network linking the frontier with centres along the earlier military line and the coast, suggest that this region may also have been more vulnerable to danger or attack from outside the province. The resulting insecurity may have acted against the spread of civilian settlement away from the protection of the forts, and may thus account for the low density of Roman sites in the interior basins of Marnia, Tlemçen, Sidi bel Abbès and Mascara.

At present there is very little evidence about the changing pattern of Roman settlement in Mauretania Caesariensis. It seems certain that in the coastal regions the expansion of the coastal cities and the founding of veteran colonies was followed at an early

date by the growth of villages, villas and isolated farms in the territories assigned to them, and beyond.⁵³ Similarly, in the interior, the development of civil settlements around forts established during the 2nd and early 3rd centuries was followed by the spread of villages and isolated farms into the surrounding areas. A certain dispersion therefore took place upon a primary pattern of strongly nucleated settlements, and the rural pattern which emerged was essentially intermediate in type, with a mingling of villages, villas and isolated farms. This pattern does not appear to have substantially altered during the period of the Later Empire. The growing insecurity did not lead to a new concentration of settlement, although a new type of rural settlement, the fortified villa, made its appearance in the early 4th century.

Finally it should be remembered that the investigation of civilian settlements in this province has hardly begun. Excavations have only been carried out at a few civilian sites - the cities of Iol-Caesarea, Tipasa, Rusguniae, Rapidum and Altava - and it is mainly from plans and early descriptions, together with epigraphic evidence, that our present information is drawn. Moreover, it would be foolish to embark upon a programme of detailed investigation of civilian sites until a dated, typological sequence of locally-made Roman pottery is available. As we have already noted in the previous chapter this can best be obtained by careful excavations carried out at military sites. Without a dated typology of local ware -

even if individual types cannot be closely dated - it is almost impossible to determine the length of time a civilian site was occupied or to assign particular building phases to narrow chronological periods. If and when such a typology becomes available we would suggest that, as the next step, the Department of Antiquities select one good example of each type of civilian settlement enumerated above, and then carry out a series of excavations aimed at revealing the evolution and duration of occupation of these sites. A study of the air-photographic cover for the High Plain of Médéa and the interior basins of Marnia, Tlemçen, Sidi bel Abbès and Mascara - areas where the absence or low density of Roman settlement sites cannot be adequately explained in terms of ^{the} physical environment - is also necessary but, we believe, of secondary importance. While such a study may reveal new settlement sites, it can tell us nothing about their evolution or length of occupation.

Conclusion:

The Economy of Mauretania Caesariensis.

The Roman Empire as a whole formed a vast common market stretching from Britain to Egypt. There was an excellent road network. Roads and bridges were maintained by the state, as were harbours and inland waterways. Security for travel by sea and land was on the whole good. And yet there was little movement of either goods or people within a particular province or between provinces. Transport of goods by land was slow and

costly so that the roads were mainly used by imperial officials and the army. Sea transport was much faster, but only when the weather was good. Contrary winds and storms caused delays and long waits in harbour, and during the winter season navigation was normally completely suspended. As a result there was little or no trade in foodstuffs, which were bulky and which were rarely moved any distance. Trade in manufactured goods was even more restricted. The mass of the people could afford only the cheapest and simplest articles, and these were produced locally. Only luxury articles, the majority of which came from industries in the eastern cities, e.g. Alexandria, could bear the cost of transport, and as the market for such goods was restricted to a very small percentage of the population the volume of production and trade must have been relatively small. Trade and industry can hardly, therefore, be called the 'life-blood' of the Empire, and it was agriculture which formed the economic base of the provinces.

As all basic commodities had to be produced locally Mauretania Caesariensis, like other provinces of the Empire, cannot be regarded as an economic unit. It was made up of a number of self-sufficient cells - the cities and their territories - and it was they which formed the only real economic unit during the classical period. There was a close link between the size of the territory and the size of the city which was its administrative capital and its economic and social centre. As a general rule a large territory had a large city as its focus and inversely, a small territory

a small city. In the coastal regions of the province the majority of the wealthy inhabitants of the large urban centres and coloniae were absentee landlords who owned estates on the territories administered by these cities. The main part of their income came from rents, and it was their contributions which made up the largest proportion of the revenues of these cities. Other sources of revenue - local dues and taxes - were relatively unimportant, and without substantial contributions from the wealthy citizens few of these cities could have constructed or maintained the comprehensive public amenities, or set up triumphal arches, columns and statues. Wealth was therefore drained from the countryside to the cities and it was the countryside which supplied the cities with foodstuffs and agricultural raw materials. In return the urban craftsmen supplied the rural population with simple manufactured articles. Under normal conditions the only articles which came from outside the self-sufficient cell formed by the city and its territory were a small number of luxury goods from the eastern Empire. However, if the harvest failed and famine was threatened it was the duty of the civic authorities to ensure that sufficient corn was purchased from outside to meet the needs of the citizens. 54

Few landowners possessed a compact estate, and their possessions were usually scattered, consisting of a number of farms or several villages. Most of the land was let out to tenant farmers who might pay a money

rent or hold a share-cropping lease. But on fundi where the landowner had built a country residence there would be a home farm to supply the household needs. This would normally be worked by a steward with the aid of labour services from the free tenants, and perhaps with agricultural slaves, although there are no references to the latter in the literary sources for the African provinces. Some peasant proprietors may have survived in the coastal regions, particularly around those urban centres which had originated as veteran colonies, but the majority were no doubt found in the interior of the province. Few estates are recorded to the south of the 2nd century military line⁵⁵ and most of the inhabitants of the urban centres which grew up around the forts along this line and around the permanent camps along the Severan frontier were peasant farmers. Veterans who obtained plots of land outside the fort where they had been stationed may have paid a nominal rent to the military authorities. But when the civil settlement outside the fort achieved the status of a Roman self-governing community it seems highly probable that those citizens who already possessed holdings in the territory assigned to the new city were able to consolidate their claims and become, in effect, peasant proprietors. Any unclaimed land, on the other hand, automatically lapsed to the new civic authorities who no doubt leased holdings to coloni. The properties of free peasants were, on average, smaller than rented farms. The size of leased farms was fixed by the landlord, whether a private individual or the civic authorities, and they were probably viable holdings

based on the amount of land which could be best cultivated by the tenant and which would adequately support him and his family. Peasant properties, on the other hand, must have tended to become smaller from generation to generation as they were divided amongst the heirs. Despite this, some of the more enterprising peasant proprietors enriched themselves and it is these 'kulaks' who dominated civic affairs in the cities of the interior. The contributions which they were able to make to the civic revenues were paltry compared to those of the wealthy inhabitants of the coastal cities, and the scope and scale of the municipal services varied accordingly. Because of the poverty of the market, few luxury goods from outside the province can have penetrated into the closed economic unit formed by each inland city and its territory.

It is unlikely that there were any fundamental differences between the agricultural methods employed on either home farms, rented farms, or peasant properties. Agriculture had to provide food, drink and the hides, skins and wool which formed the raw material for much equipment, as well as clothing, for both the farmer and his family. Consequently there can have been little specialisation. Almost everywhere dry-farming was practised, and few areas were irrigated; ⁵⁶ most of the hydraulic works in the province were to ensure that the inhabitants of the settlements and their animals received a regular supply of water and were not for irrigating the fields. Winter cereals - hard and

soft wheat, barley and spelt ⁵⁷ - were the main arable crops during the Roman period, and they were grown in rotation with pulses ⁵⁸ and alternating with a fallow period. ⁵⁹ Average yields were low. Columella states that in Italy a four-fold return was normal, while in Sicily the yield varied between eight and ten fold. ⁶⁰ As the aim of ploughing was to work the soil finely and frequently, and to do it with a minimum of draught power, the ard or aratrum, a light, wheel-less plough requiring no more than two oxen, ⁶¹ was particularly suitable. The simplicity of its construction no doubt made it possible for peasants of only modest wealth to possess their own plough. The crop was reaped by hand sickles, and sometimes only the ears were taken, leaving the straw to be ploughed back into the land.

Arable crops were supplemented by planted crops - perennial shrubs, trees and vines. The olive ⁶² was particularly important as olive oil was used universally for cooking, lighting, and for soap. Wine must have been the staple drink of all classes. ⁶³ Arable crops were frequently intercalated with vines and olives - a technique known as coltura promiscua. ⁶⁴ The vine, a wild creeper, is naturally suited to interculture with trees and as the roots of the vines, trees and arable crops occupy different soil levels there is no competition. ⁶⁵ Cattle, sheep, goats and pigs were reared. The cattle were mainly draught animals, for oxen were universally used for ploughing and hauling wagons, and also provided meat, milk and hides. The pig also provided an important part of the meat supply, and it was pork

which was the normal ration of the troops. Mules and donkeys were commonly used in rural areas for riding and as pack animals. Horses were reared for the army, the public post, and for private use. The forests must have been an important source of pannage for swine, of fuel, and of timber for construction.

Roman rule affected agricultural practice in relatively few ways. Cereals, pulses, olives and the vine had been known and cultivated long before Mauretania was annexed by Rome. The techniques of dry-farming and coltura promiscua, as codified in the writings of Roman agronomists, such as Columella and Varro, had originally been developed by the Carthaginians. Furthermore, no changes in agricultural methods are recorded during the Roman period itself. Palladius, writing in the 4th century, lays down the same rules as Columella had in the first, and the peasants appear to have followed their traditional routine from generation to generation.

But if Roman rule brought with it few outstanding technological innovations, the output of agricultural products was greatly stimulated. Between the coastal areas, which had been exposed to Carthaginian influences and where a number of cities had developed before AD 39, and the interior mountains, where there were native communities practising agriculture and herding as early as the 2nd and 1st centuries BC, there appear to have been no native communities practising agriculture before the Roman period. Here, as a result of the founding of veteran colonies, the development of civil settlements

around forts and the growth of farms and villages around these new urban centres, large areas were brought under cultivation for the first time. Secondly, during the period of Roman rule all peasants were encouraged to produce a surplus above their own needs and the needs of their families. Tenant farmers who held share-cropping leases had to pay a proportion of their crops to the landlord. Others, whose rent took the form of a money payment, were compelled to sell a part of their crops to obtain the necessary cash. Both the tenant farmer and the peasant proprietor had to pay a central government tax on their land, stock, and family. During the Early Empire these taxes, which were collected by the city authorities acting as the intermediary of the central government, were invariably paid in money. Diocletian later replaced them with a tax in kind. If the harvest failed the landlord and the tax-collector still exacted their due. Peasants were forced to give up their crops, or to sell them even if, as a result, they were left with nothing to feed themselves and their families. Moreover, there were other demands on the peasants. Essential supplies of corn and hides for the army units stationed in the province had to be provided by the city authorities at fixed, and probably fairly low, prices. This burden must, of necessity, have been passed on to the farmers living in the city territory. During troubled conditions, when reinforcements were called in from outside the province this burden must have been particularly onerous. Finally, there is no evidence that this province contributed

5. Notably Freund, W.H.C., *The Donatist Church*, Oxford, 1952, p. 47 and pp. 62 - 67.
6. Février, P-A., 'Notes sur le développement urbain en Afrique du Nord - Les exemples comparés de Djemila et de Sétif', C.A., Vol.14, 1964, pp. 1 - 33.
7. Mann, J.C., *The Settlement of Veterans in the Roman Empire*, unpublished Ph.D., thesis, University of London, 1957, pp. 23 - 25 and p. 65.
8. Charles-Picard, G., 1959, *idem.*, pp. 184 - 185. Haverfield, F., *Ancient Town Planning*, Oxford, 1913, pp. 109-113.
9. In 1937 an inscription marking the western boundary of the Augustan colony of Zucchabar was discovered between Littré and Duperré, over 20 kms from this centre. The territory of Zucchabar, which was situated on the southern slopes of the Djebel Zaccar, clearly included an important section of the fertile Chelif plain to the south and west (Leschi, L., 'Inscription Romaine de Miliana (Zucchabar)', Etudes d'Epigraphie d'Archéologie et d'Histoire, Paris, 1957, p.400).
10. Février, P-A., 1964, *idem.*, pp.2 and 4 and pp. 9 - 24.
11. This is clearly shown on an air-photograph of the ruins of Thamugadi (Charles-Picard, G., 1959, *idem.*, opposite p. 186).
12. Remains of farms and villas have been recorded to the south of the Augustan colony of Rusguniae (Salama, P., 'La colonie de Rusguniae d'après les inscriptions', R.A., Vol.99, 1955, p. 48, note 153).
13. Mann, J.C., 1957, *idem.*, pp. 81 - 82.
14. Rapidum 78, 4.
15. Rapidum 78, 4.
16. Praesidium Sufative / Albulae 19, 3.
17. Altava 23, 4
18. Pomaria 22, 3
19. Aioun Sbiba 55.
20. Bourbaki 67.

21. Columnata 47.
 22. Lucu 33.
 23. Rapidum 78, note 52.
 24. Rapidum 78.
 25. Altava 23, 8.
 26. Altava 23, 8.
 27. Rapidum 78, 6.
 28. Aquae Sirenses 32, 5.
 29. A potter's workshop was discovered during excavations at Rapidum (Rapidum 78).
 30. Rapidum 78, 5.
 31. Altava, 23, 4.
 32. Sidi bou Zid 59.
 33. Kherba de Sfisia 82.
 34. Ain Feradja 69.
 35. Ker el Keskas 70.
 36. Tissemsilt 65.
 37. Gsell, S., Les Monuments Antiques de l'Algérie, Vol.2, Paris, 1901, pp. 31 - 33.
 38. The fortified villas of the western Ouarsenis, 35 - 43.
 39. Gsell, S., Les Monuments Antiques de l'Algérie, Vol.1, Paris, 1901, pp. 102 - 106.
 40. Courtois, C., Les Vandales et l'Afrique, Paris, 1955, pp. 88-89.
 41. The fortified villas of the western Ouarsenis, 35 - 43, (general conclusions, 2.).
 42. An inscription (Dessau 9351), found in the Kabylie mountains, indicates the site of the praedium Sammacis. The owner, Sammacis or Salmaces, was a brother of the native chieftain, Firmus, who revolted against Rome during the second half of the 4th century.
- See also Gsell, S., 'Observations géographiques sur la révolte de Firmus', Rec.Const., 1903, pp. 21-46.

43. Ammi Moussa 41.
44. Palissy 27.
45. Altava 23, 9.
46. It is possible that other Roman ruins have been covered by the considerable amount of alluvium which has been deposited by the Oued Chelif and its tributaries since the Roman period. The boundary stone of the Augustan colony of Zucchabar, for example, was covered by 8 m. of alluvial deposits (Leschi, L., 1957, *idem.*, p. 400).
47. They include the villa at Ain Sarb (51) and the urban centre known as Souama de Mecherasfa (50).
48. Fort, 'Notes pour servir à la restitution de la frontière romaine au Sud de la Maurétanie Césarienne', B.A.C., 1908, pp. 261 - 284.
49. In many parts of North Africa the piedmont zones and zones of transition still remain regions where traditional economies survive and flourish (see notably Joly, F., 'Place des pays de piémont dans la vie économique et humaine du Maroc', N.M., Rabat, no. 13, 1960., pp. 97 - 102).
50. Along the longitudinal trough which crosses the province, apart from the large urban centre of Tigava and the veteran colony of Oppidum Novum the urban centres of Mina, Regiae and possibly Tasaccura were occupied during the 1st and early 2nd centuries. Further south, on the northern edge of the High Plain of Sersou, the Roman village situated near the site of present-day Tissem-silt was occupied during the 1st century.
51. It is possible that some of the military units stationed along the Severan limes in the early 3rd century remained there until Roman rule ended at the time of the Vandal invasion. However, when the soldiers were no longer paid (probably in the late 4th, early 5th centuries) they ceased to constitute a significant economic factor in the survival of the vici along this line.

52. Such factors as a location at the focus of Roman roads or at the centre of a particularly fertile region.
53. The Roman village situated near the site of present-day Tissimsilt in the northern part of the High Plain of Sersou was occupied during the 1st century.
54. An inscription from Rusguniae, published by Albertini in 1927 records that in AD 167 a certain Decius Honoratus, who was a decurion of the colony of Rusguniae and of the municipium of Tigava, arranged to send corn - presumably from his estates around Tigava - to Rusguniae which was threatened by famine (Albertini, E., B.A.C., 1927, p. 265).
55. Apart from the fortified villas in the western Ouarsenis, which must have formed the headquarters of substantial estates, there are ruins of an unfortified villa at Ain Sarb (51) and the estate on which it was constructed may have been part of the territory of the Roman city which occupied the site of present-day Tiaret. An inscription from Trumelet (43) records that a fundus was constructed there by a municipal authority sometime during the Christian period (i.e. 4th century onwards). Although the city is not named it is highly probable that it was either Tiaret, Columnata or Kherba des Aouissat.
56. There is evidence of irrigation works near Mina (Mina 28,6) and near Tigava (Yacono, X., La Colonisation des Plaines du Chélif, Vol. 1, Alger, 1955, pp. 182 - 184).
57. Carbonised grains of hard and soft wheat and spelt were discovered during excavations at Altava (Altava 23,8).

The cultivation of cereals is recorded around Tigava (Albertini, E., B.A.C., 1927, p. 265), and to the north of Bourbaki (Farm Hordelalay 68).

Numerous fragments of Roman corn-mills (mola manuaria) have been discovered among the ruins of the settlements in this region (list 5).

57. cont:

- The sowing of cereals is depicted on a mosaic from Iol-Caesarea of the early or middle 3rd century (Précheur-Canonge, T., Inventaire des mosaïques romaines d'Afrique du Nord, no. 5 (Photo 3), in La Vie Rurale en Afrique Romaine d'après les Mosaïques. Publ. de l'Univ. de Tunis, Paris, 1962, pp. 5 - 6).
58. Carbonised beans were discovered during excavations at Banasa and Volubilis in Mauretania Tingitana (Luquet, A., 'Blé et meunerie à Volubilis', B.A.M., Vol. 6, 1966, p. 302 note 5).
59. Fallowing not only rested the soil after an exhausting crop but preserved its reserves of moisture in a dry climate. In order to preserve moisture weeds had to be kept under, and Roman agronomists recommended three or more workings of the fallow. However, the claim that a biennial rotation permitted two years' moisture to accumulate and was necessary for one crop in the semi-arid lands is now denied. Research in Morocco suggests that in areas which receive an average annual rainfall of over 400 mm. the chief merit of worked fallow is the increase in soil nitrogen (Houston, J.M., The Western Mediterranean World, Longmans, 1964, p. 142).
60. Stevens, C.E. 'Agriculture and Rural Life in the Later Roman Empire', in The Cambridge Economic History, Vol. 1, 1941, p. 100.
61. This is clearly shown on a mosaic from Iol-Caesarea of the early or middle 3rd century (Précheur-Canonge, T., 1962, idem., pp. 5 - 6).
62. A mosaic from Iol-Caesarea depicts a ploughing scene in a field planted with olive trees (Précheur-Canonge, T., 1962, idem., pp. 5 - 6 Photo 3).

Numerous fragments of olive presses have been discovered among the ruins of the settlements in this region (list 5.)

63. A mosaic from Iol-Caesarea depicts two winter operations in a vineyard. On the first panel is a row of trellised vines under which three workers are carrying out an operation known as ablagueatio (i.e. trenching round the base of the vine so as to remove surface rootlets and to make a shallow depression, admitting heat and moisture to the base of the plant.) Columella states that this operation should be carried out in late October. On the second panel is a row of ground vines 'en cercles'. Two workers and perhaps an overseer are hoeing around the base of the vine - an operation known as sarritio. They each use a bidens - a two-pronged drag-hoe (Précheur-Canonge, T., 1962, *idem.*, pp. 5 - 6 and Photo 3).

A large mosaic, discovered near the Tennis Club at Cherchel and first published by Lassus, in 1959, depicts the vine harvest. Under a number of trellised vines two workers are cutting the grapes and placing them in large baskets. Some of the grapes have been loaded onto a wagon, pulled by two oxen. Another worker appears to be stirring the wine in a large dolium. Lassus suggests that the mosaic is 4th century in date (Lassus, J., 'L'Archeologie Algérienne en 1958', L.A.E., Vol.7, pp. 257 - 269). 1959.

Another mosaic from Iol-Caesarea shows the gatherers crushing the grapes in a stone trough from which the wine flows into large jars, (Précheur-Canonge, T., 1962, *idem.*, no. 39 p. 11).

A villa near Tipasa was converted for the manufacture of wine in the early 3rd century (Gsell, S., 1901, *idem.*, Vol.2, pp. 31 - 33.).

A small altar, discovered to the north of Bourbaki is inscribed with a prayer to Mother Earth for good cereal and vine harvests (Farm Hordelalay 68.).

64. A mosaic from Iol-Caesarea depicts the sowing of cereals in a field planted with olive trees (Précheur-Canonge, T., 1962, idem., no.5, pp. 5 - 6 and Photo 3).
65. There is very little direct evidence about the different kinds of livestock reared in the province. Very little work has been done on animal bones discovered during the excavations. A mosaic from Iol-Caesarea depicts a ploughing scene and the plough is harnessed to two oxen (Précheur-Canonge, T., 1962, idem., no. 5, pp. 5 - 6 and Photo 3). A second mosaic from Iol-Caesarea shows two oxen hauling a wagon loaded with grapes (Lassus, J., 1959, idem., p. 265). A mosaic from Rusguniae shows a herdsman with several sheep, both ewes and rams (Leschi, L., Etudes d'Epigraphie, d'Archéologie et d'Histoire Africaines - Paris, 1957, p. 405,).

LIST 1.The ORIGINS of the urban centres of
Mauretania Caesariensis.1. Native Towns.

QUIZA

SIGA

TIGAVA

2. Phoenician trading
stations

ICOSIUM

IOL-CAESAREA

TIPASA

3. Veteran Coloniesa. Established by Augustus,

AQUAE CALIDAE

CARTENNA

GUNUGU

RUSGUNIAE

ZUCCHABAR

b. Established by
Claudius

OPPIDUM NOVUM

LIST 1, continued.4. Civil settlements outside forts.

Ain Grimidi	CASTRA NOVA
Ain Touta	COLUMNATA *
ALA MILIARIA *	HIBERNA ALAE SEBASTENAE
ALBULAE *	KAPUTTASACCURA
ALTAVA *	LUCU
Aioun Sbiba	NUMERUS SYRORUM *
AUZIA *	POMARIA *
BALLENE PRAESIDIUM	RAPIDUM *
Boghar	THANARAMUSA CASTRA *
Bourbaki	USINAZA

* Those which we know achieved independent status.

LIST 1, continued.5. Urban centres - origins unknown.a. Centres between the coast and the 2nd century military line.

PORTUS MAGNUS

ARSENARIA

MINA

Evidence of 1st century occupation.

REGIAE

TASACCURA

Both centres are mentioned on a milestone of AD 114. It seems probable that settlements had grown up there during the 1st century and that military units were stationed there in the early 2nd century when they were linked by a military road. REGIAE had achieved independent status by AD 137.

Inkermann

LAMBDA

MALLIANA

SUFASAR

VAGAL

Date of origin unknown.

b. Centres between the 2nd century military line and the Severan frontier.

AQUAE SIRENSES *

Chellala des Adaoura

Damous *

Kherba Achlef

Kherba des Aouissat

Kherbet bent Sarah *

Oued el Hammam *

Souama de Mecherasfa

Tiaret *

* possible military origin.

LIST 2.Urban centres in Mauretania Caesariensisranked according to SIZE.

<u>Name of city</u>	<u>Area enclosed by ramparts (in hectares).</u>
IOL-CAESAREA	370
TIGAVA	75
TIPASA	60
GUNUGU	45
PORTUS MAGNUS	40
ICOSIUM	39.2
REGIAE	25
HIBERNA ALAE SEBASTENAE	25
Kalaa	25
MINA	22
AQUAE SIRENSES	22
RUSGUNIAE	21.25
SUFASAR	20
CASTELLUM TINGITANUM	18
Aioun Sbiba	17
POMARIA	16
RAPIDUM	15
Kherba Achlef	13
ALTAVA	12.2
NUMERUS SYRORUM	10
Damous	10
Tiaret	10
Inkermann	10

LIST 2 continued.

<u>Name of city</u>	<u>Area enclosed by ramparts (in hectares).</u>
Souama de Mecherasfa	7
Kherba des Aouissat	6
ALA MILIARIA	6

LIST 3.

Forts established during the 2nd and 3rd centuries.	Civil settlements attested by epigraphic evidence or surface remains.	Civil settlements which we know achieved independent status.
PRAESIDIUM SUFATIVE	X	0
CASTR A NOVA	X	
BALLENE PRAESIDIUM	X	
TIGAVA CASTRA		
THANARAMUSA CASTRA	X	0
RAPIDUM	X	0
AUZIA	X	0
Ain Grimidi	X	
Ain Touta	X	
USINAZA	X	
Boghar	X	
HIBERNA ALAE SEBASTENAE	X	
Bourbaki	X	
COLUMNATA	X	0
Temordjanet		
Aioun Sbiba	X	
COHORS BREUCORUM		
ALA MILIARIA	X	0
LUCU	X	
KAPUTTASACCURA	X	
ALTAVA	X	0
POMARIA	X	0
NUMERUS SYRORUM	X	0

(See note overleaf.)

Note to LIST 3.

There are only three forts where there is neither epigraphic evidence nor surface remains of a civil settlement : - TIGAVA CASTRA, COHORS BREUCORUM, and Temordjanet. The absence of a vicus outside TIGAVA CASTRA, which was situated opposite the large Roman city of TIGAVA, is easily explained. The reasons for the absence of civil settlements at COHORS BREUCORUM and Temordjanet, however, are not immediately apparent.

LIST 4.

A	Bath-house	C	Forum
B	Temple	D	Christian Church

Urban Centres . . . A . B . C . D .

ALBULAE *		X		
ALTAVA *			X	X
AQUAE SIRENSES	X			X
LUCU *	X			
ALA MILIARIA *				X
Souama de Mecher- asfa				X
Aioun Sbiba *	X		X	
Tiaret				X
COLUMNATA *	X			
Bourbaki *	X			
RAPIDUM *	X	X	X	

* Urban centres which we know were of military origin.

LIST 5.Economic evidence from Roman sites.in Mauretania Caesariensis.

<u>A.</u> Olive-mill	<u>C.</u> Trapetum	<u>E.</u> Corn-mill	<u>G.</u> Carbon- ised cereal grains.
<u>B.</u> Olive press	<u>D.</u> Establish- ment for the manufacture of wine .	<u>F.</u> Silo	<u>H.</u> Evidence of irriga - tion.

Name of Site Source	A	B	C	D	E	F	G	H
Kalaa 1.					X			
Farm Pommereau G.A. map 12, no. 59			X					
TIGAVA 2.								X
Farm Coulombel, near TIPASA, G.A. map 4, no. 41				X				
Castellum du Nador, near TIPASA, G.A. map 4, no. 31.				X				
AQUAE CALIDAE G.A. map 13, no.28.			X		X			
Attatba G.A. map 4, no. 58.							X	
Mouzaiaville G.A. map 4 no 1.					X			
Cheragas 3.			X					
Dra Zeg et Ter G.A. map 5 no. 67			X					
Souar G.A. map 14, no.16			X					
near AUZIA 4.			X					
Ksar bent el Solthan Volume 2 site 79.			X					

Name of Site Source	. A .	B .	C .	D .	E .	F .	G .	H .
Plateau de Hamadia Volume 2 site 80.					X			
RAPIDUM Volume 2 site 78		X			X			
Ain Chéira Volume 2 site 81		X						
Borély-la-Sapie G.A. map 13 no. 78					X			
MINA Volume 2 site 28					X			X
ALBULAE Volume 2 site 19			X		X			
Damous Volume 2 site 16		X						
near Montagnac G.A. map 31, nos.45/46								X
POMARIA Volume 2 no. 22		X						
ALTAVA Volume 2 site 23		X			X		X	
Ain Mekerreg Volume 2 site 25								X
Palissy Volume 2 site 27							X	
AQUAE SIRENSES Volume 2 site 32	X				X	X	X	
ALA MILIARIA Volume 2 site 34		X						
Oued Ferdja (south- east of Mrenda) 5					X			
Taugazouth Volume 2 site 56					X			
Kherba uta Ounès G.A. map 22 no. 96		X						

Name of Site Source	. A .	B .	C .	D .	E .	F .	G .	H .
COLUMNATA Volume 2 site 47		X						
Ain el Aneb Volume 2 site 66								X
Ain Feradja Volume 2 site 69						X		
Kef el Keskas Volume 2 site 70						X		
Sidi Rhanem Volume 2 site 71						X		
Kherba et Toula Aziz G.A. map 23 no 34		X						
USINAZA G.A. map 24 no.51						X		
Guelali G.A. map 24 no.152						X		

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1. Marion, J., 'Recherches archéologiques à Sidi-Bou-Chaïb (Haut Dahra - Région de Paul-Robert)', L.A.E. Vol.1, 1953, p.147.
 2. Yacono, X., La Colonisation des Plaines du Chélif, Alger, 1955, Vol.1, pp. 182 - 184
 3. Lassus, J., 'Cheragas (dept. d'Alger) Une huilerie', L.A.E., Vol.5, 1957, pp. 307 - 308.
 4. Parres, J., Etude historique sur la ville d'Aumale (depuis sa fondation jusqu'à nos jours), Alger, 1912, pp. 26 - 27.
 5. Fort, L., 'Notes pour servir à la restitution de la frontière romaine au Sud de la Maurétanie Césarienne', B.A.C., 1908, p.275.

LIST 6.

Urban centres in the interior of the province
which we know were occupied after the
Vandal invasion of AD 429.

<u>Name of Site.</u>	<u>Latest evidence of</u> <u>occupation.</u>
	<u>AD</u>
Damous	484
ALBULAE	544
REGIAE	484
TASACCURA	484
CASTRA NOVA	484
BALLENE PRAESIDIUM	484
CASTELLUM TINGITANUM	484
RAPIDUM	484
USTNAZA	484
COLUMNATA	484
Kherba des Aouissat	462 or 467
Souama de Mecherasfa	434
Tiaret	488
ALA MILIARIA	484
AQUAE SIRENSES	577
Guethna	524
ALTAVA	599
POMARIA	651

LIST 7.

Urban centres in the interior of the province
which were protected by ramparts during the
Later Empire.

ALTAVA	AD 349 - 50
Kherba des Aouissat	AD 346
NUMERUS SYRORUM	
RAPIDUM	
Tiaret	

LIST 8.

Urban centres in the interior of the province
with evidence of small, enclosed areas with-
in the main ramparts.

ALA MILIARIA	AQUAE SIRENSES	RAPIDUM
ALTAVA	POMARIA	Tiaret

CHAPTER FIVE:

CONCLUSION

A study of the archaeological and epigraphic evidence for that part of North Africa which was the Roman province of Mauretania Caesariensis has enabled us to distinguish the different types of Roman and native sites represented in this region; to examine, against the background of the varying possibilities of the physical environment during the early historical period, their spatial distribution; and for a number of Roman and native settlements to reconstruct their origins, evolution and functions. Our picture of Mauretania Caesariensis during the classical period is necessarily incomplete and much more work still needs to be done. Yet the existing evidence is not without a certain historical value, and it is possible to see in outline how Romanisation itself progressed in this province.

The first influx of Roman influence was during the reign of Augustus, with the founding of a series of veteran colonies in the region which formed part of the territory which had lapsed to Rome on the death in 33 BC of Bocchus II, King of Mauretania. The new colonists, the majority of whom were Italians, found themselves in a region with a relatively poor material culture. Only the coastlands had come under the influence of Punic civilisation, with the establishment of the Phoenician settlements of Portus Sigensis, Iol and Tipasa, which were absorbed by the Kingdom of Mauretania after the fall of Carthage. The humid and thickly forested coastal mountains appear to have been the preserve of primitive native

communities practising hunting and collecting. Sedentary native communities with a more sophisticated economy based on irrigated agriculture and livestock herding were mainly found in the mountains of the interior where a more open forest vegetation, the result of a lighter rainfall, favoured early penetration and settlement. There was, however, no attempt at this time to organise the newly acquired territory, and in 25 BC the whole of Mauretania reverted to its former status - that of a client kingdom. The new king, Juba II, was a scholar who had been brought up from childhood in Rome. He made Iol in the eastern part of the new kingdom into his principal capital, and proceeded to transform it into an elegant Graeco-Roman city. During Juba's reign and that of his son Ptolemy, Mauretania remained peaceful, and it is possible that Roman influences spread beyond the coastal areas. Roman merchants must have been active during these years, and some of the more enterprising may have penetrated into the interior of the kingdom.

But the status of Mauretania as a client kingdom was only temporary, and it was soon destined to be absorbed into the Empire. In AD 39 Caligula executed the king, Ptolemy, and annexed his kingdom which was divided into two parts, - Mauretania Caesariensis in the east, and Mauretania Tingitana. Iol-Caesarea became the capital of the new province of Mauretania Caesariensis and the base of the army of occupation, which was made up of several auxiliary units. Throughout this century and during the early part of the 2nd century, no recognisable frontier existed in the south, but the presence of a large military

force grouped for attack appears to have acted as a powerful deterrent to internal disorders or barbarian incursions. Although precise evidence is lacking, we may perhaps assume that the cities in the coastal parts of the province - some of which were of native, others of Phoenician origins - together with the veteran coloniae, continued to expand, and many of the villas, farms and villages which surrounded these urban centres were probably established during this period. Secure conditions enabled Claudius to establish a colony of veterans at Oppidum Novum in the Chelif valley, and a number of other settlements further west - Tigava, Mina, and perhaps also Tasaccura and Regiae - were occupied during the 1st century, though we know nothing of their origins; no military units were stationed in this part of the province until the 2nd century. Moreover, sometime during the 1st century a veteran settled in a village near the site of present-day Tissemsilt on the northern edge of the High Plain of Sersou; an area which did not receive permanent garrisons until the early 3rd century. However, apart from the settlements along the coast, these are the only sites where there is evidence of 1st century occupation, though it is quite possible that in the future excavations carried out at sites in the interior of the province will reveal indications of occupation before the 2nd and 3rd centuries.

Thus on present evidence the main stimulus to the urbanisation and Romanisation of the interior parts of the province appears to have been the establishment of permanent forts there in the 2nd and early 3rd centuries.

During the course of the 2nd century there was a change in the organisation of the defences of Mauretania Caesariensis, and a number of military units were established at intervals along the longitudinal trough or the low plains of Oranie, the Chelif valley, and the plateau de Medea, which crosses the entire length of the province. Outside the forts built to house these units traders and camp-followers, who had arrived with the soldiers, established themselves. The presence of the military units, composed of perhaps 500 men each receiving regular pay, also attracted some of the local inhabitants to the forts at an early date. Many of the soldiers, who often spent their entire period of service in the Roman army in one place, tended to settle down outside the fort where they had been stationed on their discharge from the army; some had already established families there. In this way, a string of civil settlements grew up outside the forts along the 2nd century military line. Many achieved economic independence and some city status - although they all remained relatively small urban centres - so that when the military units were moved south at the beginning of the 3rd century they continued to flourish. The new military line established by Septimius Severus at the southern foot of the Monts du Titteri and the Massif de l'Ouarsenis and along the northern edge of the Atlas Tabulaire reflected more closely the southern limits of the province; it was soon to take on the role of a fixed and visible frontier. Important civil settlements grew up around the permanent camps along the new limes,

and some Roman settlements, particularly farms and villages, spread along the Roman roads linking the two military lines. There are, however, very few urban centres in the interior of the province which can be shown to owe their origins to factors other than the presence of a military unit.

In view of the attraction of peregrini to civil settlements outside forts and the recruitment of natives into auxiliary units and their discharge as citizens, it seems fair to conclude that the army was perhaps the dominating factor in creating a new 'Romanised' social pattern in the interior of Mauretania Caesariensis. It should however be noted that away from the coastal areas there was no deep penetration of Roman civilisation and only certain aspects of Latin culture were assimilated by the local inhabitants. The citizens of the interior cities only acquired a veneer of Roman civilisation and they were separated by a great gulf from the wealthy aristocracies of the large urban centres along the coast.

All sectors of the frontier established by Septimius Severus were apparently maintained during the 4th and early 5th centuries. The military units stationed along this line, however, became less and less effective so that by the late 4th century the defence of the province came to depend on a newly-created mobile force under the command of the Comes Africae, who was responsible for the security of all the North African provinces except Mauretania Tingitana. The new pattern of settlement which had emerged in Mauretania Caesariensis in the Early Empire does not appear to have been radically altered during

this late period. There is no evidence of a new concentration of settlement in response to growing insecurity under the Later Empire, although ^anew form of rural settlement, the fortified villa, appeared during the first half of the 4th century. In fact, despite unrest as a result of the revolts of Firmus and later Gildo, this period may have brought further development with the expansion of existing centres and the founding of new farms and villages. Some of the cities certainly continued to flourish and a number of the larger centres were embellished with splendid new buildings. For other cities in Mauretania Caesariensis the later history is obscure, and if there were changes in the character of urban life during the Later Empire they will only be revealed by excavation.

The Vandal invasion in AD 429 brought to an end the period of Roman rule in Mauretania Caesariensis, and ushered in what Gautier has called the 'siècles obscurs', when this region passed under the control of independent Berber princes. Many Roman settlements did however survive, and as late as the second half of the 7th century some were still occupied by a Christian population who set up inscriptions written in Latin, and dated to the year of the Roman province. Furthermore, there is a strong possibility that in parts of the former province the pattern of settlement established during the Roman period continued into the early Middle Ages. The numbers involved in the first Arab invasion, which reached this region at the end of the 7th century, were relatively few, and although they established several new cities they

can hardly have brought into existence a new pattern of rural settlement. Arab writers, however, describe the prosperous farms and villages which surrounded new Arab cities such as Tihert, Achir and Qal'a des Beni - Hammâd, and we would suggest that many of these rural settlements had been founded during the period of Roman rule. The question of continuity of occupation from the Roman to the early Islamic period is of the utmost importance, and it is particularly unfortunate that in the past valuable evidence about the later occupation of Roman sites was destroyed by archaeologists in their haste to reach the richly decorated mosaics and imperial dedications of earlier periods.

But turning now from the chronology to the geography of Romanisation, our study has shown that Mauretania Caesariensis was unequally Romanised. Moreover, the arrangement of the areas where Latin culture did not penetrate is not fortuitous; they correspond to the mountainous parts of the province - the Blida Atlas, Monts de Miliana, central and eastern Massif de l'Ouarsenis, Monts des Beni Chougran, Djebel Tessala and the Massif des Trara. Courtois maintained¹ that these areas supported a substantial population during the Roman period and that it was the mountain peoples who constituted the principal danger to Roman rule in Mauretania Caesariensis from the middle of the 3rd century onwards. He points out that although the literary and epigraphic texts tell us little about the nature of Berber resistance to Rome in this region, the fact that urban centres throughout the province and not simply those in the frontier zone were protected by ramparts is good evidence that the main threat

to the Romanised areas came from within rather than from outside the province. Camps² is also of the opinion that the main areas of Berber resistance lay in the mountains of the province. He suggests, however, that the threat from the mountain peoples was particularly serious during the Early Empire and that from the 4th century onwards nomadic groups from the south became a more important danger.

For other writers, notably Leschi,³ Charles-Picard⁴ and Salama⁵ the main danger which threatened Mauretania Caesariensis throughout the Roman period came from outside the province. They were all profoundly influenced by the present-day situation beyond what were the southern frontiers of Mauretania Caesariensis, and neighbouring Numidia. They saw that camel nomads - the Arab Cheraga, Arab Gheraba, Said Atba, Ouled Nail and the Arbaa - who also possess large numbers of sheep, spend the winter months in the northern Sahara to the south of the Aurès and Nememcha, around Ouargla further south, in the Monts des Ouled Nail and around Laghouat on the southern edge of the Djebel Amour. The severe drought experienced by these areas in summer forces the tribes to migrate northwards in search of fresh pastures for their sheep. The tribes of eastern Algeria cross the Aurès and Nememcha to the rich pastures of the High Plains of Constantine, but the tribes of western Algeria - the Ouled Nail, Arbaa and Said Atba - only migrate to the northern edges of the interior steppelands of algerois and oranais, especially to the High Plain of Sersou. They were convinced that a similar situation prevailed when

Rome created the provinces of Numidia and Mauretania Caesariensis; and put forward the theory that pressure from nomadic tribes of the south was the chief threat to the security of these provinces.

Leschi maintained⁶ that because of this pressure from the south a system of defences known as the Fossatum Africae was constructed along the southern frontiers of Numidia.⁷ The 'fossatum' was intended to prevent any movement of tribes from the northern Sahara along the lowland corridors which cross the Aures and Nememcha to the High Plains of Constantine, which were densely settled from an early date with Roman cities, villages and farms. In contrast, further west, where the nomadic tribes did not migrate beyond the northern edges of the interior High Plains into the province of Mauretania Caesariensis, Leschi suggested that a system of defences like the 'fossatum' was unnecessary. During the 2nd century some attempt was made to survey and control these nomadic movements by establishing a fort at Medjedel⁸ and by periodic patrols carried out by Numidian units such as the Cohort of Commagenians, the ala Flavia, and detachments of cavalry from the 111rd Augustan Legion who set up an inscription at Agueneb in the Djebel Amour.⁹ But at the beginning of the 3rd century the Severan frontier was established at the northern limit of nomadic migrations and units stationed along the new line surveyed the movement of tribes further south, and prevented nomadic bands intent on pillage from crossing into the province itself. Salama,¹⁰ on the other hand, suggested that the Severan frontier in Mauretania Caesariensis was

established to prevent collusion between the mountain peoples within the province and the nomads outside it.

The theory which sees the whole problem of Berber resistance to Rome in Mauretania Caesariensis in terms of ^a conflict between the nomadic and settled way of life has gained wide acceptance.¹¹ This is mainly because French archaeologists and historians have been profoundly influenced by French military experiences in Algeria in the 19th century, and because of the small amount of evidence that has come to light about the nature of Berber resistance to Rome. It is however a theory which has little to recommend it. There is no evidence for the existence of nomadic groups beyond the frontiers of Mauretania Caesariensis, and our study¹² has shown that there were in fact settled native communities practising irrigated agriculture and livestock herding to the south of the limes, - in the Atlas Tabulaire, the High Plain of Sersou, and the Monts des Ouled Nail. These communities only became converted to a nomadic way of life after the second Arab invasion. Furthermore, recent research has provided evidence of the existence of peasant societies in the entire pre-Saharan zone of North Africa during the early historical period.¹³ They continued to flourish until the Middle Ages and still survive in a number of areas at the present time. The nomadic way of life which now characterises this zone is clearly of much more recent origin.

Moreover, it now seems fairly certain that although the camel was re-introduced into the southern parts of the eastern provinces of Roman Africa - Tripolitania and

Africa Proconsularis - during the Early Empire it only became widely diffused there in the Later Empire.¹⁴

It was during the course of the 4th century that warlike and extremely mobile tribes of camel nomads such as the Austuriani made their first appearance in the eastern provinces, and there is no evidence that in the 4th and 5th centuries they penetrated further west than southern Numidia. Although nomadic groups may have existed from the pre-historic period in the northern Sahara, until the introduction of the camel there can have been no 'aggressive nomadism'.¹⁵

But even without this evidence such a theory is open to a fundamental criticism. The attempt to see the whole problem of Berber resistance to Rome in Mauretania Caesariensis as a conflict between the nomadic and the settled way of life is to exaggerate the relationship between these two groups which have always been in many ways interdependent. The nomads who migrate to the High Plain of Sersou each summer for example buy their supplies of grain from the settled farming communities there, and sell their wool and hides in markets situated on the edges of the Tell. During the period of French rule nomads were hired as farm labourers for the harvest season by the European colonists of the Sersou, and before the railways were built their camels were hired to transport grain to the coast.¹⁶ As Lacoste has put it, "La théorie de l'opposition éternelle des nomades et des sédentaires sont en contradiction avec un grand nombre de faits qui relèvent de l'observation géographique le plus élémentaire. L'opposition totale, métaphysique des

nomades et des sédentaires en Afrique du Nord, thème de brillants développements littéraires n'a en fait aucune réalité." ¹⁷

Furthermore, the suggestion made by Leschi that the Severan limes in Mauretania Caesariensis was established at the northern limit of nomadic migrations is without foundation. Before the French conquest of western Algeria nomadic tribes from the south regularly penetrated as far as the Chelif Valley and sometimes to the coast, during their summer migrations.¹⁸ Later, as lands bordering the interior High Plains were developed by European colonists, the French army began to control nomadic movements and to prevent the tribes from penetrating beyond the northern edges of the interior steppe-lands.¹⁹ This line cannot therefore be considered in any way as a natural limit of nomadic migrations. In fact nomadic tribes will continue to expand their territory until they come up against an obstacle that makes further expansion impossible.²⁰

But to return to the theories of Courtois and Camps, there is some epigraphic evidence to indicate that the Quinquegentanei and a section of the Bavares, who inhabited the Kabylie du Djurdjura and the Monts des Babors in neighbouring Mauretania Sitifensis, were hostile to Rome. During the second half of the 3rd century they made a series of attacks on the Romanised parts of Sitifensis and eastern Mauretania Caesariensis.²¹ These insurrections may have encouraged the mountain peoples in Mauretania Caesariensis - who must always have been potentially hostile - to attack the Romanised areas of the piedmonts and plains below. In the 4th or early 5th century two men

from Regiae in the western part of the province were killed vi bavaru(m).²² It is possible that these events took place during a raid by the western branch of the Bavares who may have inhabited either the Massif des Trara, the Djebel Tessala, or the Monts des Beni Chougran. However, it seems unlikely that the mountainous areas within the province of Mauretania Caesariensis supported a dense population in the classical period. The coastal mountains of this region were still thickly forested during the early Middle Ages²³ so that during the Roman period they must have been relatively thinly populated by primitive native communities, practising hunting and collecting²⁴ and living in equilibrium with their natural environment.

However, if the mountain peoples must be regarded as a potential threat to the security of the Romanised parts of Mauretania Caesariensis the deployment of military units along the Severan limes points to another danger from outside the province. The close spacing of forts in the western sector of this frontier and the presence there of the ala miliaria strongly suggests that this danger lay somewhere to the south-west, perhaps in the mountains of what is now southern Morocco.²⁵ Recent work by Frézouls,²⁶ on inscriptions discovered at Volubilis referring to the Baquates, reveals the interest which Rome took in political events taking place in these mountains which lay immediately to the south of the frontier of Mauretania Tingitana. He has shown that there was intense diplomatic activity by Rome during the 2nd and 3rd

centuries to maintain the Baquate confederation, which occupied the northern parts of the Middle Atlas mountains, as a friendly client state and prevent it coming under the influence of larger political groupings to the south and west - the Macenites and the Bavares. Another piece of evidence to support the theory that the main danger to Rome lay in the mountains of southern Morocco is the inscription set up at Columnata by the governor, Aurelius Litua, to commemorate a victory over a famous Berber tribe.²⁷ The fact that it was set up at Columnata, where the governor stopped on his way back to Iol-Caesarea suggests that the military action took place somewhere to the south-west of Columnata.

Exactly what form this danger took is uncertain. Monsieur Pflaum has suggested to me that raiding bands from the mountains of southern Morocco intent on pillage crossed the interior steppelands and attempted to infiltrate into Numidia and Africa Proconsularis by way of the lowland corridors which cross the Aurès and Nememcha; they may have attacked Mauretania Caesariensis, but their main aim was the richer and more densely settled provinces further east. Bartle,²⁸ on the other hand, thinks that the heavy military build-up in the western sector of the frontier of Mauretania Caesariensis was part of a wider strategy for the protection of the North African provinces. Mauretania units acted in conjunction with units stationed on the western frontiers of Numidia to intercept raiders from the west. This is

an interesting theory, but it may be noted that in general there was very little co-operation between the military forces of one province and those of another. It is quite possible therefore that Numidian units were so successful in repelling raiders that the latter turned to attack Mauretania Caesariensis.

Thus, on present evidence, the only firm conclusion that we are permitted to make about the nature of Berber resistance to Rome in Mauretania Caesariensis is that the mountain peoples of the province were potentially and no doubt at some periods openly hostile to Rome, and also that there was a real threat to the security of the province from beyond the frontiers. Although there is good evidence to suggest that the mountains of southern Morocco represented the most important area of native opposition to Rome, the form which this opposition took is still obscure. Furthermore, it must be remembered that during the four centuries of Roman rule in Mauretania Caesariensis political groupings and perhaps even the social organisation in independent Berber areas are unlikely to have remained constant. The very fact of the arrival of the Romans on their borders must have brought about some changes in native society in areas beyond Roman control. The growth of large confederations like the Macenites and later the Bavares may have been a direct reaction to the Roman policy of divide and rule. It is therefore possible that periods of maximum Berber resistance to Rome correspond to the growth of large political groupings although, bearing in mind that the political horizon of the Berbers has always

been extremely limited, it seems unlikely that such groupings were of long duration.

Whatever the nature of Berber resistance to Rome, the chronic insecurity which beset this province in the 2nd, 3rd, and the latter half of the 4th centuries was one of the important factors which, we would suggest, combined to determine the character of the Roman occupation of Mauretania Caesariensis. Another is the limitations of the physical environment which restricted the areas favourable for Roman settlement; the absence of vast, fertile plains, and the predominance of thickly-forested mountain chains separated by narrow and often badly drained and arid lowlands. A third and perhaps the most important factor of all is simply that Rome occupied Mauretania Caesariensis at a much later date than the provinces further east. Africa Proconsularis, it will be remembered, was annexed as early as 146 BC, and Africa Nova, later Numidia, in 46 BC, but the province of Mauretania Caesariensis was not created until AD 39. It was one of the last provinces to be added to the Empire, at a time when the power of Rome, the creative force of Roman civilisation, the Romans' faith in their own destiny, had already begun to weaken. The initiative was soon to pass to the barbarians.

Février, the present Inspector of Antiquities for Algeria, in a recent article ²⁹ has emphasised the need for regional studies in Roman North Africa. Any study of a region like Mauretania Caesariensis, where recent archaeological activity has been extremely limited, must of necessity be somewhat superficial. Nevertheless, many questions have been raised, and if the present evidence permits only a partial answer to many of them, the directions which further research should follow have been laid down. Many vital questions will only be elucidated by excavation to which, we would maintain, such geographical studies as this are a necessary prelude.

Notes.

1. Courtois, C., *Les Vandales et l'Afrique*, Paris, 1955, pp. 118 - 126.
2. Camps, G., 'Les Bavares, Peuples de Maurétanie Césarienne', R.A., 1955, pp. 282 - 284.
3. Leschi, L., 'Rome et les Nomades du Sahara Central', T.I.R.S., Vol.1, 1942, pp. 47 - 62.
4. Charles-Picard, G., *Castellum Dimmidi*, Paris, 1944, pp. 37 - 41.
5. Salama, P., 'Nouveaux témoignages de l'oeuvre des Sévères dans la Maurétanie Césarienne' (Part One), L.A.E., Vol.1, 1953, pp. 256 - 259.
6. Leschi, L., 1942, *idem.*, pp. 54 - 57.
7. Work on this system of defences appears to have begun under Hadrian but was probably continued by his successors (Baradez, J., *Fossatum Africae*, *Recherches Aériennes sur l'Organisation des Confins Sahariens à l'Epoque Romaine*, Paris, 1949; and Baradez, J., 'Compléments inédits au Fossatum Africae', in Studien Zu Den Militargrenzen Roms, 1967, pp. 200 - 210.
8. Medjedel 86.
9. C.I.L. 21567.
10. Salama, P., 1953, *idem.*, p. 259.
11. Notably Marion, J., 'La liaison terrestre entre la Tingitane et la Césarienne', B.A.M., Vol.4, 1960, pp. 442 - 447.
- de la Chapelle, F., 'L'expédition de Suetonius Paulinus', Hes., Vol.19, 1934, pp. 106 - 124.
- Thouvenot, R., 'Rome et les Barbares Africaines - A propos d'une inscription de Volubilis', Publication du Service des Antiquités du Maroc, 7, 1945, pp. 181 - 183.
12. Chapter Two: The Native Sites.

13. de Planhöl, X., 'Caractères généraux de la vie montagnarde dans le Proche-Orient et dans l'Afrique du Nord', A. de G., 1962, pp. 115 - 117.

for further evidence see:

Brögan, O., 'The Roman ruins in the Wadi el Amud - an interim report', L.A., Vol.1, 1964, pp. 47 - 56.

Tixeront, J., 'Réflexions sur l'implantation ancienne de l'agriculture en Tunisie', Karthago, Vol.10, 1959 - 60 (1962). pp. 1 - 50.

Despois, J., Le Djebel Amour, Paris, 1957, p. 30.

Gattefossé, J., 'Juifs et Chrétiens du Dra avant l'Islam', B.S.P.M., 1935, pp. 39 - 65.

14. Demougeot, E., 'Le chameau et l'Afrique du Nord romaine', A.E.S.C., 1960, pp. 209 - 247.

15. This question is discussed at some length by de Planhöl (de Planhöl, X., 'Nomades et Pasteurs 1', R.G.E., Vol 3, 1961, pp. 291 - 297, and especially pp. 294 - 297).

16. It is interesting to note that in Tripolitania in the 5th century Augustine makes reference to barbarians living beyond the frontier who entered the province for short periods to assist in transporting goods and to act as 'crop-watchers' (Augustine Ep. 47). No further details are given, but at this date it is quite possible that these barbarians were nomads and that around harvest time they and their camels were hired by farmers in the frontier zone. Clearly not all the tribes living beyond the frontier of Tripolitania were intent on pillage and destruction.

17. Lacoste, Y., Ibd Khaldoun, naissance de l'histoire passé du Tiers Monde, Paris, 1966, p. 92.

18. Yacono, X., Les Bureaux Arabes et l'évolution des genres de vie indigènes dans l'ouest du Tell algérois, Paris, Larose, 1953, pp. 355 - 357.

19. Lehuraux, L., *Le Nomadisme et la Colonisation dans les Hauts Plateaux de l'Algérie*, Paris, 1931, p. 141.
20. It is highly probable that the actual position of the Severan limes was simply determined by the requirements of the military situation at the beginning of the 3rd century. It marked a new stage in the organisation of the defences of the province, and later, as military units stationed along its length became less and less effective and were only capable of police duties, the line came to represent a fixed and visible frontier.
21. C.I.L. 2615, 9047, Dessau 9006, B.A.C., 1907, p. 228, B.A.C., 1920, p. 108.
22. C.I.L. 21644, 21630.
23. Lombard, M., 'Le bois dans la Méditerranée musulmane (VII^e - X^e siècles)', A.E.S.C., 1959, pp. 234 - 254.
24. Their way of life must have been very similar to that of the inhabitants of the Petite Kabylie in the middle of the 19th century (Nouschi, A., 'Notes sur la vie traditionnelle des populations forestières algériennes', A.de G., 1959, pp. 525 - 35).
25. It seems unlikely that either the Atlas Tabulaire or the Monts des Ouled Nail - where there were settled native communities many of which became in some degree Romanised - were areas of active Berber resistance to Rome. The interior steppelands, which must have been very thinly populated, probably had the role of a vast 'pays de passage' during the Roman period.
26. Frézouls, E., 'Les Baquates et la province romaine de Tingitane', B.A.M.

Vol.2, 1957, pp . 115 - 116.

27. A.E. 1912, 24.
28. Bartle, S., Roman Cavalry (unpublished Ph.D. thesis, University of Newcastle upon Tyne, 1961, Vol.2, pp. 38 - 50).
29. Février, P-A., 'Notes sur le développement urbain en Afrique du Nord, - Les exemples comparés de Djemila et de Sétif', C.A., Vol.14, 1964, p.46.