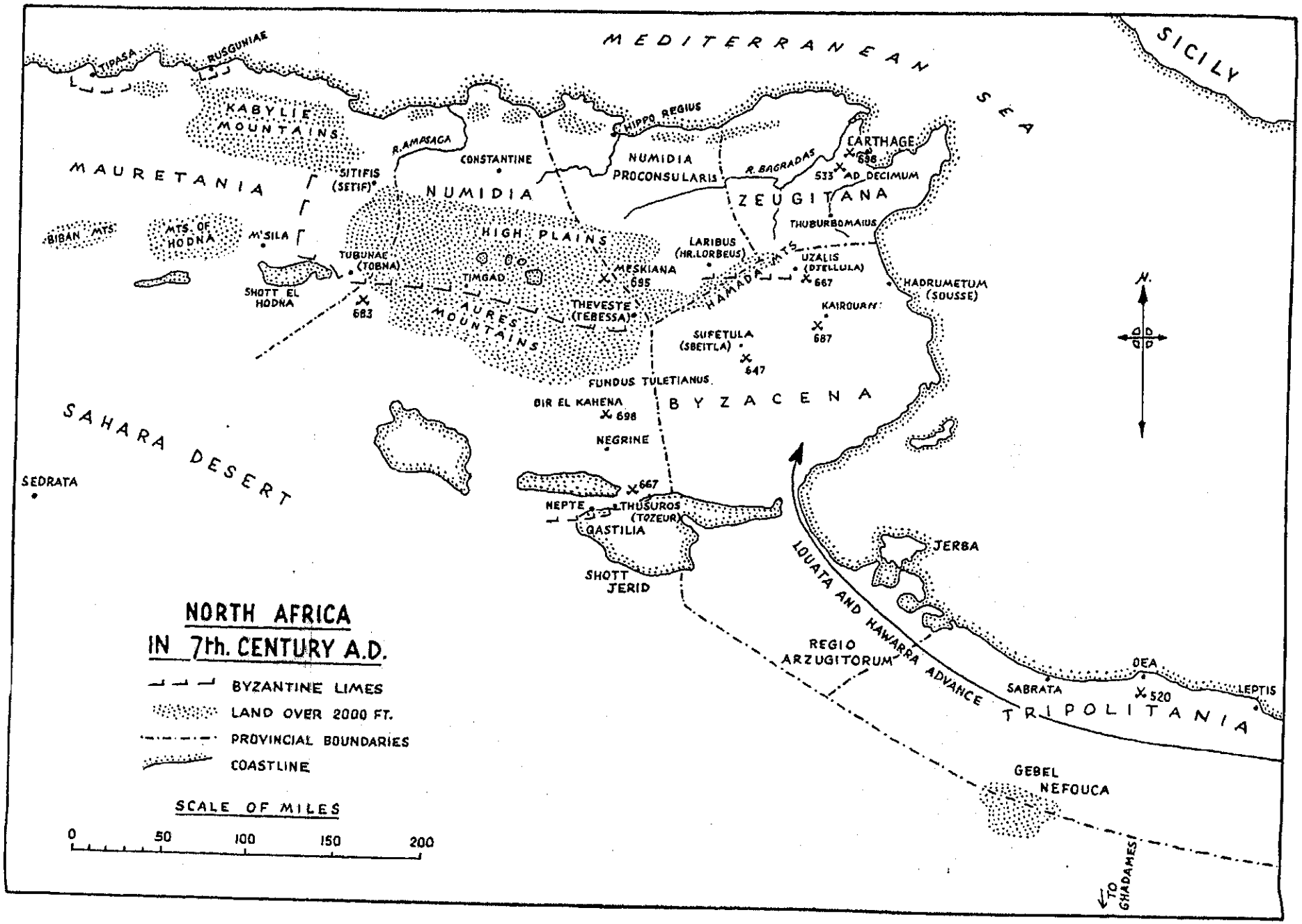
MEDITERRANEAN SEA
SICILY
TIPASA
RUSGUNIAE
KABYLIE MOUNTAINS
MAURETANIA
SITIFIS (SETIF)
R. AMASAGA
CONSTANTINE
HIPPO REGIUS
NUMIDIA
NUMIDIA PROCONSULARIS
R. BAGRADAS
CARTHAGE
698
533
AD DECIMUM
ZEUGITANA
THUBURBOMAIUS
BIBAN MTS.
MTS. OF HODNA
M'SILA
HIGH PLAINS
TUBUNAE (TOBNA)
TIMGAD
MESKIANA
695
LARIBUS (HR. LORBEUS)
UZALIS (DTELLULA)
667
HADRUMETUM (SOUSSE)
SHOTT EL HODNA
683
AURES MOUNTAINS
THEVESTE (TEBESSA)
HAMADA MTS.
KAIROUAN
687
SUFETULA (SBEITLA)
647
FUNDUS TULETIANUS
BIR EL KAHENA
698
BYZACENA
SAHARA DESERT
NEGRINE
SEDRATA
667
NEPTE
THUSUROS (TOZEUR)
GASTILIA
JERBA
SHOTT JERID
LOUATA AND KAWARRA ADVANCE
REGIO ARZUGITORUM
OEA
520
SABRATA
LEPTIS
TRIPOLITANIA
GEBEL NEFOUCA
TO GHADAMES
N.
NORTH AFRICA
IN 7th. CENTURY A.D.
BYZANTINE LIMES
LAND OVER 2000 FT.
PROVINCIAL BOUNDARIES
COASTLINE
SCALE OF MILES
0
50
100
150
200

NORTH AFRICA AND EUROPE IN THE EARLY MIDDLE AGES

By W. H. C. Frend, M.A., D.Phil., F.S.A.

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RECENT discussions about Mediterranean trade in the early Middle Ages have tended to be based on two main assumptions. First, trade has been regarded as trade between ports in the eastern and western parts of the Mediterranean. Secondly, as a result of this view, the attention of historians has concentrated on the advance of the Arab fleets in the seventh and eighth centuries, which disrupted regular commerce and temporarily diminished the importance of the trading cities of Italy and Provence.[1]

My object in this paper is to supplement rather than to dispute that point of view. North Africa played an important and sometimes a decisive part in the policies of Rome and Byzantium down to the middle of the seventh century. Apart from its strategic importance, it produced goods which were in constant demand among the Mediterranean peoples throughout this period, and which had to be transported by sea. These included grain for Rome, olive oil for use in the public baths and for domestic cooking, cleaning, and lighting, and marble from the quarries at Simitthu (Chemtou). In the Byzantine period, camels were

[1] Of the abundant literature, see H. Pirenne, 'Mahomet et Charlemagne', *Revue Belge de Philologie et d'Histoire*, i (1922), 77–86, and 'Un Contraste économique: Mérovingiens et Carolingiens', *ibid.*, i (1923), 223–35; also Pirenne's final statement in *Mahomet and Charlemagne* (Engl. tr., London, 1939). Discussed by E. Sabbe, 'L'Importation des tissus orientaux en Europe occidentale au Haut Moyen Age', *Rev. Belge*, xiv (1935), 811–48; P. Lambrechts, 'Les Thèses de Henri Pirenne sur la fin du monde antique et les débuts du moyen âge', *Byzantion*, xiv (1939), 513–36; R. S. Lopez, 'Mahomet and Charlemagne', *Speculum*, xviii (1943), 14–38, and D. C. Dennett, 'Pirenne and Muhammed', *ibid.*, xxiii (1948), 165–90: in addition the able reviews published in the *Journal of Roman Studies* (= *JRS*), by N. H. Baynes, xix (1929), 224–35, and A. Momigliano, xxxiv (1944), 157–8.

employed as draught animals in Gaul and Spain.[1] These exports, together with a teeming native population, placed North Africa in a key position among the western provinces of the Empire. It fully deserved the importance which successive emperors from Constantine to Heraclius attached to its loyalty.[2]

One may ask whether the depredations of the Arab fleets and the activities of the first Arab governors during the eighth century were sufficient in themselves to account for the decline of these links between North Africa and Europe. We know, for instance, from the sources used by the ninth-century Arab historian Ibn Abd al Hakam[3] that even at the end of the Byzantine occupation Africa was still a vital source for the supply of olive oil to the Byzantine dominions. Two centuries later this was evidently no longer the case. In 879 we hear of a North African convoy carrying oil bound for Sicily being successfully raided by the Byzantines, but that the captured olive oil was not particularly welcome in Constantinople. In the intervening two hundred years the Byzantines had been obliged to seek for their supplies elsewhere, and the arrival of this windfall caused a glut on the market.[4] Yet as D. C. Dennett has pointed out, neither in the Koran, nor in the sayings of the Prophet, nor in the acts of the first Caliphs, nor in the opinions of the Muslim jurists is there any prohibition against trading with the Christians or unbelievers.[5] Naval operations in the Mediterranean by the Arabs appear to have been spasmodic and hardly calculated to disturb well-established commerce. Products from the Ummayad dominions such as papyrus from Egypt continued to reach Europe,[6] and Venetian fabrics were worn at

[1] For camels, Gregory of Tours, *Historia Francorum*, vii. 35 (ed. Arndt in *Mon. Germ. Hist., Scriptores Rerum Merovingicarum*, i. 315), and Julian of Toledo, *Historia Wambae*, 30 (ed. Levison in *M.G.H., Scriptores Rerum Merovingicarum*, v. 525). In general, R. M. Haywood, *Economic Survey of Ancient Rome, North Africa* (Baltimore, 1938), and R. Cagnat, 'L'Annone d'Afrique', *Mémoires de l'Académie des Inscriptions*, xl (1916), 247–77.

[2] Ammianus Marcellinus, *Rerum Gestarum*, xxi. 7.2: 'Africa . . . ad omnes casus principibus opportuna'; R. Cagnat, *op. cit.*, pp. 250–1.

[3] Ibn Abd al Hakam, *Futûh Ifrîqiya wa'l Andalus* (ed. and tr. A. Gateau. Algiers, 1942), pp. 44–5.

[4] Cited from Pirenne, *Mahomet and Charlemagne*, p. 181.

[5] D. C. Dennett, *art. cit.*, p. 168. On the desultory character of Arab naval operations in the western Mediterranean, *ibid.*, pp. 170–1.

[6] *Ibid.*, p. 174. See also R. S. Lopez in *Cambridge Economic History of Europe*, ii. 275–7.

the court of Baghdad.[1] In North Africa itself the early Moslem governors such as Musa ben Nuçair (698–711) continued to strike a gold coinage of Byzantine style, an indication perhaps that they did not intend to obstruct commerce between their provinces and the rest of the world.

One must look, therefore, for other causes which contributed to the removal of North Africa from the European to the Middle Eastern orbit during the early Middle Ages. In the writer's view, the main factor in this process, and one which has previously been underestimated, was the impetus which the Arab victories gave to nomadism. The nomad and the transhumant gradually replaced the settled farmer as the occupier of the soil in the territories which the Arabs overran. In this process the supply of agricultural products, such as olive oil and grain on which trade between countries bordering on the Mediterranean depended, was gradually cut off. In no other area were the consequences more marked than in North Africa.

It will be recalled that from the end of the fourth century A.D. until the great Arab invasions of the seventh century, the most persistent threat which Rome (or the Vandal Kingdom in Africa) had to face along the southern and south-eastern *limes* of the empire had been confederations of nomadic tribes. These had gradually come to dominate the steppes that lay immediately beyond the Roman frontier. Ghassanids, Saracens and Arabs on the borders of Syria and Palestine, Blemmyes in the deserts on either side of the Nile valley, Louata in Cyrenaica and Austures in Tripolitania, all these were possible enemies who had either to be overawed or bribed into quiescence. They were an ever-present menace to the Byzantines, and the victory of the Arab armies all along this frontier was indirectly their victory.

These events destroyed the uneasy balance which had existed in favour of the farmer during the five centuries of Roman and Byzantine rule. Henceforth, for more than a thousand years, the nomad with his destructive flocks of sheep and goats was lord of the arid but once richly cultivated plains. The fruit and olive trees

[1] *The Arabian Nights* (ed. Lane. London, 1889), ii. 85. Cf. F. L. Ganshof, 'Notes sur les ports de Provence du VIII[e] au X[e] siècle', *Revue Historique* (1938), 28–37.

planted by the farmers in the Negev and Numidia were gradually cut down as firewood or nibbled away by goats. The desert returned.[1] The farmer was pushed on to the defensive whence he did not emerge until the assertion of European influences during the last century.

In North Africa the Arab invasions led to two important results. First, communications and also cultural influences which previously had centred on Rome and Constantinople now tended to flow from east to west along the inland desert routes favoured by the Arab armies. Cairo became the source of cultural and religious inspiration to the North African Moslem and has remained so ever since. From the point of view of trade, the chain of oases that stretch along the 29th parallel from Siwa to Khufra and across Fezzan to Ghadames became as important as the old-established Mediterranean ports, and the first generation of Arab leaders in the seventh century took care to impose treaties of subjection on these oasis inhabitants.[2] Secondly, the withdrawal of the Byzantine garrisons from the massive fortresses on the frontiers and in the interior of the African provinces, probably between 647 and 680, left the native farmer without adequate protection.[3] The Berber nomads moved in along the coastal plain in the wake of the Arab invaders. The sedentary population either withdrew to the mountains or fell under their domination. The landward advance of these nomadic tribes was of far greater immediate consequence in the history of North Africa than the fluctuating fortunes of the Arab and Byzantine fleets.

The course of events has been graphically described in the Berber tradition which Ibn Abd al Hakam drew upon.

> The Louata (he says) later split up and spread over this part of Maghreb (i.e. Tripolitania and Tunisia) until they reached Sousse. The Hawarra established themselves at Lebda and the Nefusa in the territory of Sabratha. The Rûm who were occupying these lands were forced to leave, but the Afariq who were subject to the Rûm remained, paying a tribute which they were accustomed to render to all who occupied their country.[1]

[1] Ibn Khaldoun, *Les Prolegomènes historiques* (tr. de Slane. Paris, 1863–8), i. 310.

[2] Ibn Abd al Hakam, *op. cit.*, p. 57.

[3] The dating of this phase of the history of North Africa is obscure. There seem to have been some organized Byzantine forces in the field as late as 683, when Sekerdid the Roum is mentioned as the ally of the Berber leader Koçeila in battles against the Arabs (Ibn Khaldoun, *Histoire des Berbères*, ed. de Slane (Algiers, 1852–6), i. 211, 288). On the other hand, the important fortresses placed near the south Tunisian shotts, such as Tozeur (Thusuros) and Nefta (Nepte), seem to have been abandoned about 667 (L. Poinssot, *Bull. archéologique du Comité des Travaux historiques* (= *B.A.C.*), 1940, Séance de 27 mai, pp. v–ix).

The Rûm were the Byzantines, and the Afariq the Latin-speaking Berbers. The great nomadic tribes of the Louata and Hawarra dominate the scene. The native inhabitants exchange subjection to a centralized and autocratic administration in favour of subjection to a nomadic host.

Let us now turn to the detail of these events, and follow out the fortunes of the native farmers who produced North Africa's most important single crop in late Roman and Byzantine times—olive oil.

The North African provinces were the chief source for the supply of olive oil to the western Mediterranean countries from the third to the fifth centuries, and they continued to be an important source until the end of the Byzantine occupation. Innumerable farms and villages containing olive presses of this period have been found all over the northern half of the African steppes. These latter extend in a broad band from the Babor and Biban mountains and the Shott el Hodna in the west as far as the Tripolitanian Gebel in the east. They include the Constantinian high plains which lie between the Aurès mountains and the coastal Atlas, and the great open expanse of central Tunisia. In Roman and Byzantine times they covered the southern part of the provinces of Mauretania Sitifensis and Numidia, practically the whole of Byzacena, and part of Tripolitania. The climate, except probably immediately south of the Aurès mountains and in some parts of Tripolitania where it has become drier, has not changed in historical times.[2] The rainfall over the most favoured areas is seldom more than twenty inches a year, and the more general average is between eight and fifteen inches. To some extent, the effect of this

[1] Ibn Abd al Hakam, *op. cit.*, p. 31. Cf. D. Oates, 'The Tripolitanian Gebel: settlement of the Roman period around Gasr ed-Dauun', *Papers of the British School at Rome*, xxi (1953), 113. The Hawarra were still in the area of Leptis in the eleventh century. See El-Edrisi, *Description de l'Afrique et de l'Espagne* (ed. R. Dozy and de Goeje, Leyden, 1866), p. 154.

[2] See S. Gsell, *L'Histoire ancienne de l'Afrique du Nord*, i (Paris, 1913), pp. 53–99, and A. N. Sherwin-White, 'Geographical Factors in Roman Algeria', *JRS*, xxxiv (1944), 1–10.

is offset by the presence of water-tables near the surface, but settled agriculture is always difficult. Drought and the salty nature of much of the soil has prevented the growth of an urban civilization based on mixed farming, such as developed in the Tunisian river valleys. This great area of country has always been the debatable land between nomad and settler. Its flatness and the vast expanses, coupled with the prevalence of drought, makes retrogression easy. Agriculture depends entirely on the natives' will to maintain the wells and irrigation channels, and that in turn depends on the amount of protection and encouragement provided by the administration.

In the first three centuries A.D. the Roman authorities applied a deliberate policy of settling the natives on the land. The movements of nomadic tribes were restricted, recalcitrants were expelled beyond the *limes*, penalties were imposed on sheep farmers who allowed their flocks to stray on to cultivated land.[1] Through decisions known as the *Lex Manciana* and the *Sermo Procuratorum* parts which had once been regarded as waste were leased to the native farmers on attractive terms.[2] By the end of the reign of Septimius Severus (A.D. 193–211) the whole of the high plains from the Hodna mountains to the gulf of Sirte had been protected from incursions from the Sahara tribes by a well-defended *limes* whose outlying forts, such as Messad, were placed at the furthest limits of the habitable steppe.[3] These measures were successful. For most of the third century Roman Africa and especially Numidia shared the distinction with Roman Britain of being a military backwater.[4]

The result was the steady growth of farming communities, living either as Mancian *coloni* on the great imperial or senatorial estates, or settled as farmer-soldiers (*limitanei*) near the forts on the frontier. Olives, whose trees drive their roots deep into the subsoil, were found to be the most productive crop, and enormous

[1] *CIL*, viii. 23956, l. 14 (Henchir Snobbeur).

[2] Best studied in Tenney Frank's two articles in the *American Journal of Philology* (= *AJP*), xlvii (1926), 'The Inscriptions of the Imperial Domains of Africa', pp. 55–73, and 'A Commentary on the Inscription from Henchir Mettich', pp. 153–70. See also J. Carcopino, 'L'Inscription d'Ain el Djemala', *Mélanges d'archéologie et d'histoire de l'Ecole française de Rome* (= *Mélanges*), xxvi (1906), 365 ff.

[3] Beautifully illustrated in J. Baradez' *Fossatum Africae* (Paris, 1949).

[4] Eric Birley, 'The Governors of Numidia', *JRS*, xl (1950), 68.

quantities were grown in places which to-day are desert. Archaeological evidence from Tripolitania,[1] Numidia,[2] and Mauretania Sitifensis[3] points to the middle or the end of the third century as the time when the villages began to expand and prosper. Their development is thus in direct contrast to that of the African towns. Their prosperity was, however, firmly based on the export of their oil, and when in about 350 the writer of the *Expositio totius mundi et rerum* declared that the province of Africa supplied the world with oil almost alone, he was not exaggerating.[4] We know, for instance, from St. Augustine that Italy depended on African oil for lighting,[5] and from other contemporary sources such as Symmachus and the *Codex Theodosianus* that this had the same importance as African wheat in the provisioning of Rome.[6]

A certain amount is known about the organization of these exports. The deliveries destined for Rome were handled by the state corporation of the *navicularii*. Evidence for eight groups who traded with African ports at the end of the second century has been found at Ostia,[7] and even earlier an inscription from Rome refers to an association of *mercatores frumentarii et olearii Afrarii*.[8] As Cagnat points out, the demands of Rome must have entailed in themselves a very large production of olive oil.[9] Landowners and the bailiffs of imperial estates in Africa seem to have benefited

[1] R. G. Goodchild and J. B. Ward Perkins, 'The Limes of Tripolitanus in the light of recent discoveries', *JRS*, xxxix (1949), 81–95, at p. 93.

[2] J. Guey, 'Note sur le "limes" romain de Numidie et le Sahara au IV^e siècle', *Mélanges*, lvii (1939), 178–248, pp. 221 ff.

[3] J. Carcopino, 'Les Castella de la plaine de Sétif', *Revue Africaine*, lxii (1918), 1–22.

[4] Ed. G. Lumbroso (Rome, 1903), p. 81; 'Paene ipsa (Africa) omnibus gentium usum olei praestat.'

[5] Augustine, *De Ordine*, i. 3.6 (Migne, *Pat. Lat.*, xxxii. 981). See E. Albertini, *Mélanges Paul Thomas* (Bruges, 1930), pp. 1–5.

[6] *Codex Theodosianus*, xiv. 15.3 (Ad Senatum, 15 April 397); Symmachus, *Ep.* ix. 55 and x. 55. See also the present writer's *The Donatist Church* (Oxford, 1952), pp. 47 ff.

[7] G. Calza, 'Il Piazzale delle Corporazione e la funzione commerciale di Ostia', *Bull. della Commissione archeologica communale di Roma*, xliii (1916), 187. On the dating, F. Walbank in *Cambridge Econ. Hist.*, ii. 47. A mosaic in the museum at Tébessa shows a galley laden with amphorae under sail, with an inscription *Fortuna Redux*.

[8] *CIL*, vi. 1625, 1626. Cf. ii. 1180. Dating probably end second century.

[9] Cagnat, *op. cit.*, p. 257. Also H. Camps-Fabrer, *L'Olivier et l'huile dans l'Afrique romaine* (Algiers, 1953), pp. 70 ff.

considerably from the export in bulk, for the exploration both of the Theveste (Tébessa) area and more recently of the Gebel escarpment of Tripolitania has revealed a close association of large-scale olive farms with lavishly-built houses often with private mausolea standing near by.[1] Those at Ghirza are an exceptionally fine example dating to the fourth century.[2] Much farther west, Madouros seems to have been one of the centres to which the Numidian olive crop at this time was sent for export.[3] The smaller producer also shared in the network of trade connections between North Africa and Europe. Oil lamps made in the comparatively unimportant settlement of Henchir es Srira in Byzacena have been found at Palermo, Syracuse and even Rome.[4] The itinerant merchant whom we learn from Synesius[5] acted as middleman between native producer in Cyrenaica and markets abroad probably had a similar rôle in North Africa. All available indications suggest that in the last century of the Roman Empire in the west, North Africa was one of the pivots of the economy of the whole Mediterranean area.

As Baynes points out,[6] the Vandal invasion of 429 brought this situation to a halt. Contemporaries such as Salvian or his African source regarded the Vandals as 'cutting off the vital channels of the Empire',[7] and for thirty-five years, from 440 to 475, the Vandal fleet was in control of the Mediterranean. The sack of Rome in 455 and the pillage of the Greek coastal towns which Procopius

[1] R. G. Goodchild, 'Roman Sites on the Tarhuna Plateau of Tripolitania', *Papers of the British School at Rome*, xix. 41–77. For the Theveste area, Commandant Guenin, 'Inventaire archéologique du Cercle de Tébessa', *Nouvelles archives des Missions scientifiques*, xvii (1909), 75–234.

[2] Illustrated by O. Brogan, *Illustrated London News*, 22 and 29 January 1955.

[3] See M. Christofle, *Essai de restitution d'un moulin à huile de l'époque romaine à Madaure* (Algiers, 1930).

[4] L. Hautecoeur, 'Les ruines d'Henchir-es-Srira', *Mélanges*, xxix (1909), 383 ff. The African abroad was proud of his title 'civis Afer negotians' (*CIL*, iii. 5230).

[5] Synesius, *Ep.* 52.

[6] N. H. Baynes in *JRS*, xix (1929), 234; also J. B. Bury, *The Invasion of Europe by the Barbarians* (London, 1928), pp. 123–4.

[7] Salvian, *De Dei Gubernatione*, vi. 12, 68; 'Postremo, ne qua pars mundi exitialibus malis esset immunis, (populi Wandalorum) navigare per fluctus bella coeperunt; quae vastatis urbibus mari clausis et eversis Sicilia et Sardinia, id est fiscalibus horreis, atque abcisis velut vitalibus venis Africam ipsam, id est quasi animam captivavere reipublicae.'

records[1] may be compared with similar activities by the Saracen fleet four centuries later. But the disruption of trade between North Africa and the rest of the Mediterranean was only temporary. Gaiseric's policy we know from the contemporary work of Victor Vitensis was directed against the Catholic Church and the senatorial landowners whom he identified with it.[2] It would be tempting to associate the decline of the coastal cities and the great olive farms of southern Tunisia and Tripolitania in these years with the effects of this policy, as well as with the raids of the nomadic Austures. But the two essentials for the maintenance of trade, the existence of an exportable surplus made available by the primary producers, and of merchants to handle it, were less seriously affected.

Archaeological evidence has added to what we know from literary sources about the condition of the people under Vandal rule. The detailed analysis of the *Tablettes Albertini*, discovered in a remote area sixty miles south of Tébessa, has provided interesting evidence for the comparative prosperity of the native farmers under the later Vandal kings.[3] They also testify to the continuity of Roman legal institutions and the Latin language at this time. The fifty wooden tablets which were unearthed are dated precisely to the latter years of King Gunthamund, A.D. 486–96. They were used as the deeds witnessing the buying and selling of small plots of land in the area. They show that at this period the district was known as the *Fundus Tuletianus*, and that its inhabitants were not petty nomads as they are to-day but *coloni* possessed of rights derived from the *Lex Manciana* which their ancestors had obtained three centuries before. In return for the payment of a rent in kind they had the right of 'freely enjoying, bequeathing and disposing of their holdings'.[4] They were

[1] Procopius, *De bello Vandalico*, iii. 22. 15.

[2] Victor Vitensis, *Historia persecutionis*, i. 4. Roman state organizations such as the *navicularii* evidently went out of business in this period. See C. Courtois, 'De Rome a l'Islam', *Revue Africaine*, lxxxvi (1942), 27.

[3] *Tablettes Albertini*, ed. C. Courtois, L. Leschi, C. Perrat, and C. Saumagne, published on behalf of the Government General of Algeria by Arts et Métiers, 1952. E. Albertini's article in the *Journal de Savants*, Jan. 1930, on the preliminary results of the discovery is still valuable.

[4] *Tablettes Albertini*, p. 84. In all the transactions the vendor is described as selling his rights to the purchaser in the formula 'ut [is] eam rem habeat, teneat, possideat, utatur, fruatur, ipse heredesve eius in perpetuum'. Cf. Tenney Frank, *AJP*, xlvii (1926), 166.

evidently not tied to a particular plot of ground. Their main assets as revealed in almost every transaction were plantations of olive trees and figs.[1] In contrast, caravans of nomads were something of a curiosity. The name *via de camellos* mentioned in one of the contracts indicates the existence of a track which these caravans would be using.[2] Their presence does not seem to have given rise to alarm. It has been pointed out that the language and legal formulae used on these records have similarities with those in use in Visigothic Gaul and Spain.[3] No more than in those countries did the presence of a Germanic barbarian kingdom break the continuity of Roman civilization and institutions.

These farming communities on the edge of the Sahara were producing olive oil which continued to be marketed in Italy in the first part of the sixth century. From Cassiodorus (*Variae*, iii. 7) we learn of the onward transhipment of cargoes of oil for filling lamps in churches from Italy to Salona,[4] and Procopius refers to communities of merchants from Constantinople living in Carthage.[5] There were also African irrigation experts resident in Rome at this time.[6] We gather too from Victor Vitensis that in the latter half of the fifth century communications between Africa and Spain were open once more,[7] and an interesting piece of evidence of how North Africa continued to play a part in the general Mediterranean economy comes from Tipasa, a small port some thirty-five miles west of Algiers. In the immense cemetery which grew up from the fourth century onwards around the tomb of the martyr Salsa were graves, attributable to the Vandal period, of travellers from Tripolis in Syria and from Italy.[8] They are reminders of the existence of long-distance travel and trade between Vandal Africa and the rest of the Mediterranean world.

In the last twenty years of Vandal rule a new factor was making itself felt in the settled areas. This was the pressure of a great con-

[1] *Tablettes Albertini*, pp. 201 ff. [2] *Ibid.*, pp. 192–3. [3] *Ibid.*, p. 175.

[4] Cassiodorus does not say that the oil came from Africa, but he uses the term *orcae* in which the African oil was shipped. I am accepting Pirenne's view (*op. cit.*, p. 93) that the merchant John who was supplying the bishop of Salona originally got his cargo from Africa (Cassiodorus, *Variae*, iii. 7; ed. Mommsen in *M.G.H.*, *Auct. Antiq.*, xii. 83).

[5] Procopius, *De bello Vandalico*, iii. 20. 5 and 16.

[6] Cassiodorus, *Variae*, iii. 53.

[7] Victor Vitensis, *Historia persecutionis*, iii. 29.

[8] L. Leschi, *Tipasa* (Algiers, 1948), pp. 48 ff.

federation of nomadic tribes known as the Louata, resulting from their westward movement from Cyrenaica. It is not my intention to add to the discussion as to when the camel became a menace to civilized life in North Africa or when the Louata first enter on the scene.[1] It is difficult to-day to accept the view that the camel was actually re-introduced into Africa during the Roman occupation.[2] It seems to have been used as a domestic beast in small numbers in pre-Roman times, and to have continued as such, particularly in the southern part of the country.[3] On the other hand, it would be unwise to see in the raids of the Austurian tribesmen on Leptis Magna and Sabratha in 364–5 a starting-point in the decline of agricultural settlement in North Africa.[4] As one scholar has pointed out, in Tripolitania the country remained Christian, populous and agriculturally prosperous for another century and a half.[5] The same may also be said of the arid wastes beyond the southern *limes* of Numidia.[6] This could hardly have been the case if the area was dominated by hostile nomadic tribesmen. It seems evident that the Vandals had had no experience in dealing with a camel-mounted host when they rashly attacked Cabao's Louata tribesmen near Leptis Magna (*c.* 520). The defeat they suffered as a

[1] A study on the early history of the Louata is badly needed. They appear to have spread across the Gulf of Sirte from Cyrenaica during the fifth century until they reached the area of Leptis Magna *c.* 500. References to them have been collected by O. Bates, *The Eastern Libyans* (London, 1914), pp. 69–70.

[2] Suggested in a well-documented article by S. Gsell, 'La Tripolitaine et le Sahara au III[e] siècle de notre ère', *Mémoires de l'Académie des Inscriptions*, xliii (1933). See also the valuable discussion of the evidence by L. Leschi, *Rome et les Nomades du Sahara central* (Algiers, 1942), and E. F. Gautier's forceful pages in *Le Passé de l'Afrique du Nord* (Paris, 1937), pp. 210–14.

[3] Caesar, for instance, in *Bellum Africum*, 68.4, reports the capture of twenty-two camels which belonged to King Juba.

[4] Ammianus Marcellinus, xxviii. 6. Cf. Oates, *art. cit.* (above, p. 65, n. 1), p. 112.

[5] Goodchild, *art. cit.* (above, p. 68, n. 1), p. 65. On Christianity in Vandal and Byzantine Tripolitania, J. B. Ward Perkins and R. G. Goodchild, 'The Christian Antiquities in Tripolitania', *Archaeologia*, xcv (1953), 57 ff.

[6] Late, perhaps even seventh-century Berber ruins have been located along the Oued Itel some thirty-five miles south of the *limes* at Gemellae, in country which is to-day desert (P. Blanchet, *B.A.C.*, 1899, pp. 137–40). See also J. Baradez, *op. cit.*, pp. 141–2.

result of the nomads' tactics has been graphically described by Procopius and treated as a factor which was to confront Belisarius.[1] The conclusion we might come to is that for the previous century the southern frontier zone garrisoned by native *limitanei* had continued to protect the rest of the country even though there was no longer a Roman military command.

The defeat of Thrasamund had important consequences. It marks the beginning of the long process as a result of which the Louata came to dominate the inland plains of North Africa. It showed, too, the weakness of the traditional infantry and cavalry tactics employed by the Vandals and the Byzantines when confronted by nomads. By the time Belisarius appears on the scene in 534, the Louata under their new king Antalas had been pushing their raids over the whole of the central Tunisian plain as far north as the Hamada mountains.[2]

After Belisarius, the Byzantine governors Solomon and John Troglita just managed to hold the Louata in check. But while they were able to inflict decisive defeats on the Berbers dwelling in the Aurès mountains they were never able to subdue the nomads. The Louata with their flocks and herds, their camels and their barbaric pagan rites form a permanent background to the pages of Procopius and Corippus. Moreover, the site of the battles fought by the Byzantines against them such as at Laribus (Hr. Lorbeus)[3] or near Theveste[4] and Sicca Veneria[5] show that the contested ground had become the great plain of central Tunisia. This was also one of the main olive-producing areas. Whereas Belisarius had fought the Vandals for the possession of Carthage, the military problem confronting his successors was to prevent the Berber nomads from dominating the immense and at that time fertile plain of Byzacena. We may attach a certain amount of significance to Procopius' statement that by 547 Byzacena was becoming depopulated and that some of its inhabitants were taking refuge overseas.[6] It may be at this period too that the great frontier area between Byzacena

[1] Procopius, *De bello Vandalico*, iii. 8. See also E. F. Gautier, *Genséric* (Paris, 1951), pp. 288–94. For the Louata's use of similar tactics against the Byzantines, Corippus, *Iohannidos*, ii. 93; iv. 598; v. 430; vi. 194; viii. 40.

[2] Procopius, *De bello Vandalico*, iii. 9, 3. Cf. Ferrandus, *Vita Sancti Fulgentii* (ed. R. P. Lapeyre), p. 30.

[3] Corippus, *Iohannidos*, iv. 22, 18.

[4] *Ibid.*, iv. 21, 19.

[5] *Ibid.*, iv. 24, 7.

[6] Procopius, *De bello Vandalico*, iv. 23, 27, 28, 52.

and Tripolitania known as the *Regio Arzugitorum* finally came under barbarian control. Its name was becoming forgotten by the time Corippus wrote (*c.* 550), and it was described as a desert.[1]

The death of Antalas seems to have brought a long respite. Archaeological evidence suggests that the natives' villages and small olive farms enjoyed a relative prosperity amid the general decay of the rest of the province. At Thuburbo Maius (Pont du Fahs) the Capitol and the forum were already in ruins when natives built their oil presses and squalid huts among the fallen masonry. The presses which were decorated with curious cabalistic symbols appear to have been their most prized possessions. Byzantine coins, including a hoard of *solidi* ending with Heraclius, were found in the ruins of one of the huts.[2] A further piece of evidence comes from Casae Nigrae (Négrine) on the edge of the Sahara one hundred miles south of Tébessa. There an *ostrakon* dated to 542–3 refers to a 'producer of oil' in the area.[3] On their side, the Arab writers on the conquest of North Africa speak of the first raiders riding through a land teeming with villages, and under the shade of olive trees all the way from Tripoli to Tangier.[4] There was a grain of truth behind this Eastern tale.

It seems clear that so long as the Byzantine administration continued to function, North Africa remained one of the main sources of supply of oil exported to Europe. This trade was both with the barbarian kingdoms and the Byzantine dominions. The importance of African olive oil to the latter in the first half of the seventh century is well attested by Arab tradition. The scene is near Sbeitla following the defeat and death of the Patrician Gregorius in 647 at the hands of the first Arab raiders. The Arabs demanded an enormous ransom, but soon to their amazement, a heap of gold coins began to pile up in front of Abd Allah ibn Saad's tent. He asked an Afariq (Latin-speaking Berber) how his people were able to pay this amount. The man scratched the surface of the ground and produced an olive stone. 'The Roûm,' he replied, 'have no

[1] Corippus, *Iohannidos*, ii. 146–8. Cf. R. G. Goodchild, *The Limes Tripolitanus* (II), *JRS*, xl (1950), 38.

[2] L. Poinssot and R. Lantier, *B.A.C.*, 1925, pp. lxxv–lxxxiv.

[3] E. Albertini, 'Ostrakon byzantine de Négrine', *Cinquantenaire de la Faculté des Lettres à Alger* (Algiers, 1932).

[4] En-Noweri (ed. de Slane, Appendix i to Ibn Khaldoun's *Histoire des Berbères*, p. 341). See also G. Marçais, *La Berbérie musulmane et l'Orient au moyen age* (Paris, 1946), p. 23.

olives themselves, and therefore they come to us to buy the oil, which we sell to them. This is the source of our wealth.'[1] The story is undoubtedly based on fact. There was a considerable quantity of gold in the hands of the natives at this period. An example is the hoard of one hundred and fifty *solidi* dating from Phocas to Heraclius Constantine (602–41) at Thuburbo just quoted.[2] The export of olive oil is the only obvious source of this wealth. Similarly, we know from Gregory of Tours that olive oil was being imported in considerable quantities into Merovingian Gaul via Marseilles throughout the sixth century.[3] Recently fragments of Mediterranean type amphorae unearthed on a Dark Age site at Tintagel, suggest that African oil may have been finding its way even farther afield.[4]

The arrival of the first Arab armies in 647 destroyed that element of security which the native farmers had enjoyed under the Byzantines. The immediate shock of their onset is perhaps indicated by the hoards of gold *solidi* ending with Heraclius which have been found in areas threatened by them, south of Kairouan, at Bou-Arada and near Carthage.[5] From the point of view of the cultivator there was little to choose between the Arab nomads and the Louata. Ibn Khaldoun noticed the similarity in the way of life of each. He says of these Berbers,

> They live in tents, they breed camels, and ride on horseback. They transport their dwellings from one place to another; they spend summer on the Tell (coastal mountains) and winter in the desert. They kidnap the inhabitants of the cultivated areas and they reject the rule of a just and regular government.[6]

It is perhaps small wonder that he records how following the withdrawal of the Byzantines the sedentaries rejected the rule of the Berber nomad queen, the Kahena, when the latter began wantonly to destroy the olive plantations in Numidia.[7] In the half century

[1] Ibn Abd al Hakam, *op. cit.*, pp. 44–5.
[2] Poinssot and Lantier, *art. cit.*, p. lxxxiii.
[3] Gregory of Tours, *Historia Francorum*, iv. 43. Also v. 5.
[4] Information from C. A. Raleigh Radford, F.S.A., who conducted the excavations.
[5] References to these hoards are given by Poinssot and Lantier, *art. cit.*, p. lxxxiii, n. 1.
[6] Ibn Khaldoun, *Histoire des Berbères*, iii. 179.
[7] *Ibid.*, i. 214. Cf. En-Noweri (ed. de Slane, p. 341).

of confusion that follows the death of Gregorius, it is clear that these nomads gradually predominated over the Byzantines and the native inhabitants.

But equally the Arabs who conquered the Kahena were a nomadic horde. Their campaigns against North Africa were conducted over immense distances from bases over five hundred miles away in Cyrenaica. Like the Kahena herself they fought for control of the plains, in particular for the broad channels of communication which traverse the continent between Constantine and the Aurès mountains, and south of these mountains along the edge of the Sahara desert. The site of the battles fought by the Arabs in this period, at Sbeitla, and Djelloula in Byzacena, Tobna south-west of the Aurès, and at Bir el Kahena on the edge of the plains of Tébessa, illustrate these aims. The old centres of settlement in North Africa, such as the Tunisian river valleys and even Carthage itself, hardly figure in the narratives of the Arab chroniclers. It is noticeable that Sbeitla in Byzacena and not Carthage is Gregorius' capital. The selection of Kairouan, isolated on a great, open plain, as the Arab capital indicated a future for North Africa which turned its back on the Mediterranean, to become instead the desert highway that linked the Arab centres of Cairo and Cordova.[1]

The Arab victories had as their immediate result the permanent control of the cultivated steppes by the Berber and Arab nomads. The advance of the Louata has already been described, but farther west other nomads such as the Matghara swept up from the Sahara to establish themselves among the villages and olive plantations which had grown up on the plain of Hodna and near Tlemçen.[2] The process by which the cultivator reverted to transhumance was slow and unspectacular. In southern Numidia one finds evidence for the gradual decay of villages rather than their violent destruction. The churches become smaller and more crudely built, and the last signs of dwellings are untidy fragments of re-used stone robbed from ruined buildings.[3] On the other hand some hill-forts, notably Tiddis fifteen miles north-west of Constantine, show

[1] See E. F. Gautier's excellent analysis of the campaigns fought between the Arab and Berber armies in the last half of the seventh century, *Le Passé de l'Afrique du Nord*, pp. 247–54.
[2] Ibn Khaldoun, *Histoire des Berbères*, i. 237.
[3] A. Berthier, *Les Vestiges du christianisme antique dans la Numidie centrale* (Algiers, 1942), p. 172 (decay of churches in Numidia).

traces of continued occupation until the eleventh century,[1] and similar evidence for the prolonged occupation of native villages in the Moslem era comes from Tripolitania.[2]

Near the end of the ninth century an Abbasid official, Ibn Yakoub, drew up a report on North Africa for his masters, and this shows that the country was still in transition between its Latin and Christian past and Islam.[3] Ancient Numidia was by this time inhabited by numerous nomadic tribes among which the Louata were prominent,[4] but here and there were prosperous villages and olive farms owned and peopled by Latin-speaking Christians; and there were even a few Roûmi who claimed to be the descendants of Byzantines. On the whole these were survivals, without much chance of renewal from outside. The foreign communities which he mentions were those of Persians and Arabs, and not Italians and Franks. Relations even with Sicily appear to have been subject to treaty rights rather than of free exchange.[5]

At the same time the direction and the character of North African trade were changing. We hear no more about the arrival of cargoes of olive oil in north-west Europe after the Corbie charters of 673 and 716,[6] though some undoubtedly continued to reach Adriatic countries through Venice. On the other hand, ports which had handled this trade, such as Sousse, were becoming famous for the export not of olive oil but of turbans and fabrics.[7] African oil was being sent eastwards, probably by caravan, along with almonds, saffron, nuts, leather and water bottles with which Africa was now providing the Moslem world.[8] At the very time when Carolingian Europe was tending to consolidate round the great inland waterways rather than the Mediterranean, the Berbers were themselves looking away from Europe. Some of the ports on the north coast were becoming disused, and their road links

[1] A. Berthier, *Tiddis, antique Castellum Tidditanorum* (Algiers, 1952), pp. 50–2.
[2] Goodchild, *The Limes Tripolitanus* (II), p. 37.
[3] Analysed by G. Marçais in 'La Berbérie au IX^e siècle d'après el Ya'koubi', *Revue Africaine*, lxxxv (1941), 42 ff.
[4] Ibn Khaldoun, *op. cit.*, i. 233–4.
[5] Lopez in *Cambridge Econ. History*, ii. 276.
[6] Cited from Pirenne, *Mahomet and Charlemagne*, pp. 89–90.
[7] El-Idrisi, *Description d'Afrique et de l'Espagne*, p. 149.
[8] Al-Muqaddasi (writing *c.* 980), *Description de l'Occident musulman au IX–X siècle* (ed. and tr. G. Pellat. Algiers, 1950).

with the interior blocked, while M'Sila on the steppes north-west of the Shott el Hodna became a flourishing centre for trade across the Sahara, and its merchants famed for their wealth.[1] In the desert itself, Sedrata the capital of the Ibadite Berber kingdom has now been revealed as a prosperous city, preserving something of the science of irrigation and artistic achievement which had characterized the African peasant in late Roman and Byzantine times.[2]

These developments may be associated with another movement which expresses clearly the change in the relations between North Africa and Europe which was taking place. All through the early middle ages Christianity was losing ground in North Africa, and Islam was in the process of becoming the predominant religion of the country.[3] So long as the Byzantines remained, the rival parties of Catholics, Donatists and Manichees struggled for pre-eminence. In 645 the Patrician Gregorius built the last dated church in North Africa on a mound outside Timgad in Numidia.[4] Next year an African council at Hadrumetum (Sousse) declared itself against the imperial *Ecthesis* favouring the Monothelete heresy. A century later, the African cultivators appear still to have been Christian, but the nomads were not. A source used by Ibn Abd al Hakam states that among the Berbers, 'most of the Beranes (sedentaries) were Christian, and a few of the Botr (nomads)'.[5] About half the Botr seem to have been Louata and the rest were composed of other nomadic tribes. This difference between the religions of the nomad and the cultivator may be traced into the Byzantine period. The native farmers including the *limitanei* were Christian, while the nomadic tribes mentioned by Procopius and Corippus were pagan. Cabao, Procopius records, was 'ignorant of the Christian god'.[6] The Louata of a generation or so later performed human sacrifices.[7] When the Arabs defeated the Berber nomads they imposed on them the *kharaj* payable by non-Moslems, under pain of

[1] El-Idrisi, *op. cit.*, p. 141. The merchants seem to have penetrated lands occupied by negroes and obtained gold from them.
[2] M. van Berchem, 'Uncovering a lost city of the Sahara', *Illustrated London News*, 31 Jan. 1953.
[3] W. Seston, 'Sur les derniers temps du Christianisme en Afrique', *Mélanges*, liii (1936), 101–24; Marçais, *La Berbérie musulmane*, pp. 32 ff.
[4] P. Monceaux, *Timgad chrétien* (Paris, 1911), p. 22.
[5] Ibn Abd al Hakam, *op. cit.*, p. 77; also Ibn Khaldoun, *Histoire des Berbères*, i. 215.
[6] Procopius, *De bello Vandalico*, iii. 8. 18.
[7] Corippus, *Iohannidos*, vii. 307–15; cf. ii. 109.

seizing their womenfolk if they did not pay.[1] Whether to avoid this or for other reasons the Berber nomads in their overwhelming majority accepted Islam, and by 710 were fighting under Arab leaders in Spain. For many tribes there was no intervening Christian phase. Ibn Khaldoun describes the important tribe of Sanhadja nomads in the neighbourhood of Sousse as having never been christianized.[2] Yet this particular area from the end of the third century until the middle of the seventh century had been completely Christian. Thus, the domination of the nomads both Berber and Arab entailed also the domination of Islam as against Christianity in North Africa. While the Arab historians never regarded the Afariq or latinized Berbers as enemies, and there is no formal proscription of Christianity, the Church became a minority religion. A slow but continuous decline set in, paralleled by the decline of the African villages. The Christian cemeteries of Ain Zara and En-Gila in Tripolitania show that it was not until the eleventh century that the religion of Donatus of Carthage and St. Augustine became extinct. Here the Hillalian invasions mark the end of the story.[3]

In these pages we have not been describing events peculiar to North Africa. Recent discoveries point to a rather similar development taking place in northern Syria following the Arab occupation. There too an amazingly prosperous rural society grew up between the mid-second and mid-seventh centuries in an area which until lately was almost deserted. Like their African contemporaries, these Syrian villagers were Christian and owed their prosperity to the careful cultivation of olive groves. As in Africa also, there was a tendency in Byzantine times for the regime of the single wealthy proprietor owning a large and well-built farm and oil press to give way to that of a farming community. At Qirk Bizze villas built earlier had been subdivided into tenements each equipped with its olive press.[4] I have seen the same thing in the

[1] Ibn Abd al Hakam, *op. cit.*, p. 31. See also Marçais, *La Berbérie musulmane*, pp. 35 ff. Ibn Khaldoun, *Histoire des Berbères*, i. 214, states that the Kahena's followers (i.e. nomadic Berbers) embraced Islam after the battle of Bir el Kahena in 698.

[2] Ibn Khaldoun, *op. cit.*, i. 212.

[3] Seston, *op. cit.*, pp. 121 ff. As late as 1140 the Aghlabids were using Christians or converts to Islam in the army and administration.

[4] G. Tchalenko, 'La Syrie du Nord: Etude économique', *Actes du VI^e Congrès international des études byzantines* (Paris, 1950), ii. 389–97.

ruins of the Roman houses at Sbeitla and in the 'bishop's palace' belonging to the church of Cresconius at Djemila. We may expect evidence for similar developments on Tripolitanian sites.[1] The eventual abandonment of the Syrian sites was not due to their destruction by the Arabs, but to the more general economic changes brought about by the presence of nomads and the insecurity caused by the presence of the frontier between the Byzantine and Arab realms. The natives gradually abandoned their villages and reverted to subsistence farming and transhumance. As in Africa, failure to maintain hydraulic installations automatically involved the return of steppe conditions in which the nomad was supreme.

Thus in two widely separated parts of the Mediterranean the Moslem invasions brought about similar results. It is fair to ask why the administrations of Kairouan and Damascus allowed the situation of the cultivators to deteriorate. Probably part of the answer must lie in the psychology of the new rulers. The Arab armies were, as Ibn Khaldoun points out, plundering hordes. Their main object was booty, and they despised those who were not riders like themselves.[2] On the other hand, the barrages and irrigation channels on which the native cultivator depended for his crops needed constant maintenance, and this was only worth while in relatively stable conditions. The Romans, Vandals and Byzantines had provided this stability, even though their officials taxed the natives harshly. The Arab administration seems to have left them to the mercy of nomadic tribes,[3] and cultivator and nomad cannot occupy the same area continuously together. This is particularly the case where the cultivator's main crop is olives, whose trees take between ten and twelve years to mature. Apart from this, the break-up of rural society in North Africa during the eighth and ninth centuries was hastened by the ferocious civil wars caused by the Kharedjite schism in Numidia.[4]

[1] Sites such as Gasr ed-Dauun in Tripolitania where smaller buildings have been built in the ruins of large olive farms have been surveyed but not yet excavated.

[2] Ibn Khaldoun, *Prolegomènes* (ed. de Slane, i. 309). See also J. Schumpeter, 'Les Conquêtes musulmans et l'Impérialisme arabe', *Revue Africaine*, xciv (1950), 283–97.

[3] The Hafsids also used the Louata as collectors of tribute from other Berber tribes (Ibn Khaldoun, *Histoire des Berbères*, i. 233).

[4] See Gautier, *Le Passé de l'Afrique du Nord*, pp. 281 ff.

The relations, therefore, between North Africa and Europe during the early middle ages may be characterized as those of gradual but lasting estrangement. The clue to this situation is to be found less in the domination of the Mediterranean by the Arab fleet or in the deliberate policy of the Arab conquerors than in the progressive transformation of the way of life of most of those who had once been the primary producers. In addition, such articles as now left North Africa tended to travel by camel caravan along the oasis routes rather than by sea. These changes coincided with gradual changes in taste and outlook which were taking place in Carolingian Europe and which lessened the demand for the oil which North Africa produced.[1] As a result, the geographical factors which have always tended to shut the country off from contact with Europe, such as the high coastal mountains, the lack of navigable rivers, and limited communications between the ports and the interior, reasserted themselves. The Berbers turned their ambitions southwards to begin the great movement across the Sahara which was to lead eventually to the establishment of Moslem kingdoms in the Niger valley. In Europe the Latin Church abandoned the use of oil lamps for the humbler but equally efficient candle while the court of Baghdad enjoyed the pleasure of the trickle of that precious substance that continued to leave the olive farms of Tunisia.

[1] Lopez in *Camb. Econ. Hist.* ii. 261.