

was Haithabu (Figure 20.1), across the Schlei from Schleswig, its later medieval successor. Godofrid's action was a decisive step in the rise of this emporium which linked Scandinavia, the Baltic, and the North Sea economies. That the king did this, and that his risky application of violence seems to have worked, to judge both by the fortune of Haithabu and the utter disappearance of the old Baltic emporium, implies that the Danish king had at least a passing understanding of commerce and how to funnel it for his own profit. That the royal annalist tells the story in this detail, and that Charlemagne was angry about it, implies that both Franks also grasped the economic implications.²³ The point is only driven home two years later. When a Danish fleet attacked Frisia and collected one hundred pounds' tribute from the Frankish empire's trading people par excellence, the outrage finally drove an aging and ill Charles to the drastic decision of attacking Denmark directly.²⁴ Charlemagne's personal interest in commerce had already been made clear when he used it as an economic weapon against an Anglo-Saxon king ten years earlier. And it is hard for me not to see a practical grasp of the potential economic gain behind the complex and dangerous effort to subjugate Venice, even as the conflict with Denmark was escalating.²⁵ If one accepts that importantly, if not exclusively, Carolingian coins were meant for commerce, then the remarkable restoration of royal control over the coinage effected by Pippin III, Charlemagne, and Louis the Pious points in the same direction. Even if one doubts this position (on which more below, Ch. 23.1), there is no denying a probing analysis of Carolingian charters that touch on markets. So far as we can tell, the Merovingian kings and the first Carolingians were indifferent to markets. That changed with Pippin III and his successors, who got very interested in places of commerce, precisely because of the new revenues they supplied.²⁶

2. Trading worlds beyond the Carolingian empire

The places with which we have detected communications are what, compared with Frankish Europe, we might call the "developed" economies of the early Middle Ages. The Islamic lands and to a lesser degree, the more deurbanized Byzantine empire were societies with a full panoply of well-developed currencies, and juridical and administrative institutions, and which boasted permanent markets and real

23 As well, of course, as they grasped the political issue of a satellite people who had been pillaged in the Danish expedition; *Ann. regni Franc.*, a. 808, p. 126 ("quod [emporium] . . . magnam regno illius commoditatem vectigalium persolutione prae-stabat"), and a. 809, p. 128.

24 *Ibid.*, a. 810, p. 131.

25 Embargo on Anglo-Saxon merchants: *Gesta Font.*, 12, 2, p. 87; Venice: see e.g. R295-
Contra: Latouche 1966, 166.

26 Endemann 1964, 38-42.



Figure 20.1. Haithabu, aerial view from the south. This gives a clear idea of the nature of the site at the narrow base of the Jutland peninsula, on the long tongue of the Baltic known as the Schlei. The half circle of trees marks the wall put up in the tenth century; it enclosed an area of c. 24 hectares. The second founding of this trading town lit a fuse which exploded in war between Charlemagne and the Danes; the Frankish ruler's famous elephant died south of here during that campaign. In this place communications from an envoy and member of the Byzantine imperial family (Figure 8.1) arrived alongside freshly minted dirhams from Baghdad (A20 was discovered in a shipwreck just off the beach), and Carolingian missionaries and merchants rubbed shoulders with troops of enslaved Christians. Courtesy of the Archäologisches Landesmuseum der Christian-Albrechts-Universität, Schloss Gottorf, Schleswig.

cities. They command our attention. But they were not the only societies with which the Carolingian empire was geographically disposed to trade, and not all roads to the developed economies led through sunny Italy or Spain. Some roads ran to the mistier trading worlds to the north and the east of the Frankish empire. The northern arc in particular, as we have seen, stretched toward Central Asia. To the southeast, the Danube and Balkan corridors cut through forests and mountains toward the Bulgarian empire, the Black Sea, and Byzantium's doorstep.

The south: Mediterranean trading worlds

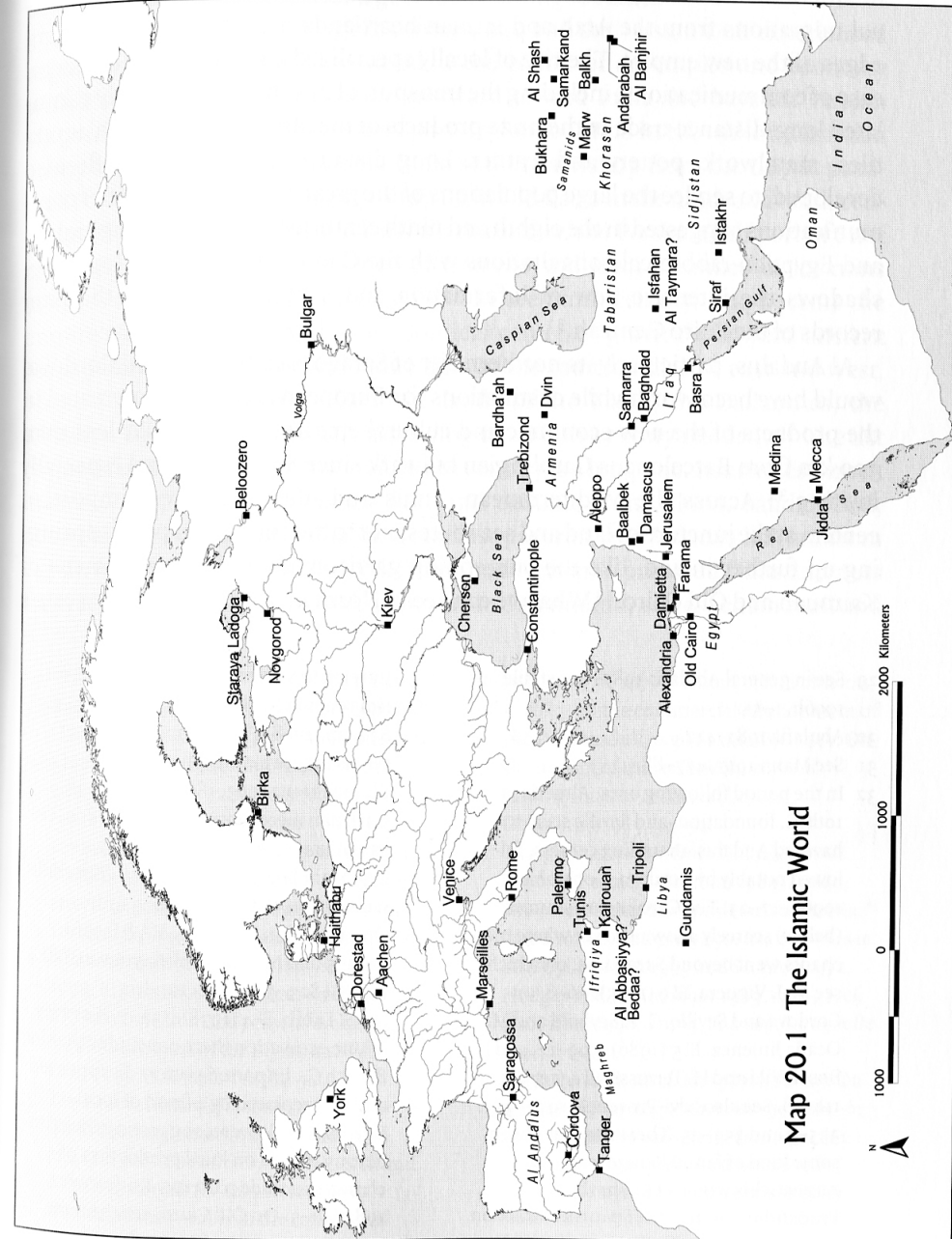
If much remains unclear about the directions, rhythms, and flow of trade in the Islamic lands in the eighth and ninth centuries, the situation is a little better for Byzantium. Our first task will be to characterize the main places and features of trade in both economies. We will then turn to the new evidence supplied by the sea bottom. Shipwrecks indicate some of the cargoes afloat on the early medieval Mediterranean, and supply new evidence that tends to confirm, in several instances, the changing patterns of shipping routes that issued from the entirely independent data of communications. They will show that goods traveled along at least some of the same routes as our travelers, strengthening the suspicion that the changing patterns of communications are connected with commerce.

By way of a very approximate order of magnitude, one estimate guesses that, a century or two after our period, in terms of inhabited area and population, the Muslim economy was roughly double the size of that of Byzantium.²⁷ One suspects that Byzantium, then at its medieval zenith, had gained ground on the house of Islam since the ninth century. Recent historical work is developing a new vision of the Arab economic expansion which attaches less importance to the role of trade. In its place, scholars are emphasizing the Arab "green revolution" which boosted agrarian productivity. Even so, market-oriented industry, particularly rural and urban textile production in early medieval Egypt, is reckoned to have played an important role, against the backdrop of what is thought to have been a slow demographic increase in the Muslim world, from the seventh century forward.²⁸ And, whether or not we assign it the primary role, the signs of trade are unmistakable.

27 For an interesting discussion and rough estimates of the relative sizes and populations of the Arab and the Byzantine empires, see Issawi 1981, 392: though the gross areas of the 10th-C. Arab and 11th-C. Byzantine empires were very different (9 or 10 million sq km vs 1.2 million sq km), the inhabited areas were much closer (2

million sq km vs. 1 million sq km). He reckons the Arab population as 35–40 million (30–35 million? c. 750: p. 387) vs. 15–20 million for the Byzantines.

28 For a succinct description of this new vision, Shatzmiller 1994, 43–50, emphasizing the contributions of L. Bolens, A. Watson and G. Frantz-Murphy. See also below.



Map 20.1 The Islamic World

It is easy to enumerate the main places of the Islamic world liable to link with the west.²⁹ The cities which lay on that world's northern fringe concentrated the wealth of their own regions and conveyed that of more distant ones. Large internal migrations from the Arab and Iranian heartlands helped fuse the far-flung edges of the new empire. The rise of locally specialized craft centers and general ease of communications, including the transport of raw materials "greatly stimulated long-distance trade in the prize products of the Muslim towns, such as textiles, metalwork, pottery and leather. Long distance trade in foodstuffs also developed, to service the large populations of the great cities."³⁰ The ease of communications suggested in the eighth and ninth centuries by Spanish, Maghrebin, and Egyptian rabbinical consultations with the Gaonic academies in Iraq foreshadows the intensive flow of information and letters mirrored in the later records of the Cairo Genizah.³¹

Al Andalus, particularly its northern city of Saragossa and its capital Cordova, would have been worthwhile destinations for European merchants interested in the products of the new economic and cultural empire. Saragossa lay less than 300 km from Barcelona, a Carolingian bulwark since 801, and so was especially inviting.³² Across the Mediterranean, Tunis and Alexandria were important centers at the juncture of land and sea routes, not to mention other places springing up further inland, like the burgeoning garrison and government towns of Kairouan and Old Cairo.³³ What we can see in North Africa and Egypt suggests a

29 See in general Abulafia 1987; Constable 1996b, 1–51.

30 Abulafia 1987, 412.

31 See Mann 1917, 477–88.

32 In the period following ours, Almeria, a 10th-C. foundation, and Seville seem to have led Andalusian trading centers, followed notably by Cordova: Constable 1996b, 17–23. The Carolingian sources (below) scarcely allow us to see where merchants went beyond Saragossa, on which see M. J. Viguera, *El 9* (1995): 36–8; on Cordova and Seville: C. F. Seybold and M. Ocaña Jimenez, *El 5* (1986): 509–12, and J. Bosch Vilá and H. Terrasse, *El 4* (1978): 114–18. See also Lévi-Provençal 1950–3, 3: 335–9 and 353–95. There may have been some kind of fair in Saragossa in mid-August: this would explain why Prudentius – himself of Spanish extraction – specifies that Bodo-Eleazar, who had already sold his companions as slaves,

traveled to Saragossa by that date, "miserima cupiditate deuinctus." *Ann. Bert.*, a. 838, pp. 27–8. The allusion to cupiditas seems otherwise inexplicable: cf. Blumenkranz 1963, 183n3. For a local Christian merchant at Cordova in 850, see Paul Alvarus, *Indiculus luminosus*, 5, 277.1–22; Eulogius of Cordova, *Memoriale sanctorum*, 1, 9, 2.377.4–29.

33 On Tunis, e.g. G. Jehel, *LMA 8* (1996): 1092–5 and M. Talbi, "al-Ḳayrawān," *El 4* (1978): 825–32; on Alexandria in general, see S. Labib, *El 4* (1978): 132–7. A survey of one excavation there concludes that in the 8th C., imported pottery disappeared and was replaced by a flood of local Egyptian table ware, suggesting the stimulating effects on local production of changes in trade patterns: Rodziewicz 1982, 44–5. On Old Cairo, see the next note.

prosperous economy.³⁴ Toward the middle of the eighth century, for instance, the merchants of the coastal towns of Alexandria, Tinnis, and Damietta presented an appetizing target for a governor looking for cash.³⁵

In the second half of the eighth century, Iraq and the Persian Gulf experienced rapid economic growth. They stood at the center of an empire and economy which sprawled from the Atlantic eastward toward India and beyond. Persian ships and Muslim merchants sailed past Ceylon to China itself, while a Christian envoy traveled to Alexandria from India seeking a bishop from the Coptic patriarch.³⁶ Chinese ceramics begin to crop up in Old Cairo in the ninth and tenth centuries.³⁷ In the later eighth and early ninth century, the Persian Gulf port of Siraf took off. The combined presence of Chinese and Iraqi ceramics in its ruins testifies to the ambit of its commerce.³⁸ In the ninth century, Iraq became the empire's economic, as well as its political center of gravity.³⁹ Toward ancient Mesopotamia traveled a continuous flow of the merchandise of east and west, "from India, Sind, China, Tibet, the lands of the Turks, the Dailamites, the Khazars, and the Abyssinians," according to a ninth-century resident.⁴⁰ The list of goods imported there in the mid-ninth century is a long one. It includes Yemen incense, silk, cinnamon, paper, ink, and ceramic from China, sandalwood, ebony and coconut from India, fine textiles, papyrus, and Judaeian balsam from Egypt, felt from the edges of North Africa and Armenia, prepared fruits and nuts from around the Muslim world, paper from Samarkand, slaves, chain mail and

34 There are gleanings in Talbi 1966, e.g., 41–4, on cultural links with the east. On Egypt and Old Cairo, see Kubiak 1987, whose topographical approach illuminates how this administrative city mushroomed (76–94), but only alludes to its economic circumstances, its harbors (whose toponyms hint of different arriving goods: 117–18), trading streets (e.g. the Saddlers', attested c. 785, 112) and the short-lived canal linking the Nile to the Red Sea (118–20); cf. Scanlon 1994. Brighter flashes of commercial life c. 810–20 come from the papyrus archive of textile merchants of the Fayum and Old Cairo: e.g. *Marchands d'étoffes*, 5.1.

35 *The Arabic History of the Patriarchs of the Coptic Church of Alexandria*, 5.97, between 744 and 768. The often valuable Greek and Coptic materials for this history were translated into Arabic in the 10th C. and assembled in their present form in the 11th: Graf 1947, 300–6.

36 Ashtor 1976, 107–8; *History of the Patriarchs*, 5.36–7; on the commercial development of the Persian Gulf, e.g., Szymański 1991. On the impact of the Arab economy and trading links to India and beyond, Chaudhuri 1985, 34–52.

37 T'ang splash ware (from China), 9th-C. deposit, Fustat-B: Scanlon 1989, 40n49; two pieces from this "proletarian quarter," dated 10th C. and pre-1050: *ibid.*, 47–8; see also Gyllensvärd 1973 and Scanlon 1971.

38 Hodges and Whitehouse 1983, 134–41; cf. also, *idem*, 1996, 174–5, and esp. Rougeulle 1991.

39 See in general, Abulafia 1987, 402–23. On the rise of Iraq, e.g., Mantran 1991, 161–6; Ashtor 1976, 86–90, on its demographic growth; Hodges and Whitehouse 1983, 126–31 and 151–6 on the archaeological evidence.

40 Ya'ḳūbī, *Les pays*, tr. Wiet, p. 4.

helmets from the Khazars.⁴¹ We know from a Byzantine raid that merchants still congregated in Antioch in the first half of the ninth century, which hints at the continuing economic importance of Syria.⁴²

The general economic tendency in this vast economy, or series of interlocking economies, probably swerved more than once between the seventh and the tenth centuries. The initial decades of conquest and reorganization must have seen important shifts, as large amounts of wealth suddenly changed hands. When the enormous Persian treasury and countless private and public treasures of the Roman empire fell to the victors, a very important detheasaurization probably triggered a sharp spike in demand.⁴³ Substantial numbers of Arab immigrants migrated to new lands and founded new cities, attracting to them also a service population comprising large numbers of natives, if one can judge from the case of Old Cairo.⁴⁴ Pilgrimage will have helped to sustain the immense patterns of movements set in train by the conquest and migrations. In the eighth century, settlement and industrial growth – metal and stone production – jumped sharply at the head of the Red Sea, according to the most recent archaeology.⁴⁵ The ancient fiscal structures of the Roman empire, not to mention the Sassanian inheritance of Persia, underwent redirection toward the top, if not at their base and in their human staffing: in the new empire's western lands, until the eighth century, accounts were kept in Greek by people who look to be the descendants of late Roman bureaucrats in language, culture, and religion.⁴⁶ Initial generations of improvisation finally yielded a remarkable new and flexible monetary system that fused the Roman legacy of gold with the Iranian one of silver.⁴⁷ No later than the Abbasid dynasty, a general economic upswing was under way, a "boom," as it has been called.⁴⁸ When the economic expansion ended has been variously dated to the second or third quarter of the ninth century.⁴⁹

The level of exchange sustained permanent markets in the main cities. Merchants are well attested inside the economy of the Caliphate, and its very size

41 The anonymous treatise attributed to Al Djahiz, *A Clear Look at Trade*, tr. Pellat. On this text, see Lewis 1977, 13, and Miquel 1973–88, 1: 110–11.

42 R459; on the city's final decline, in the 9th and 10th C., Kennedy 1992, 194, 196–7; cf. 100 Ashtor 1977, 254–6.

43 For the traces left by the detheasaurization on 7th-C. monetary history, see Grierson 1960, 259–64.

44 Kubiak 1987, 79–82.

45 Avner and Magness 1998.

46 Theophanes, A.M. 6199, 1.375.31–376.7 and A.M. 6251, 1.430.32–431.3.

47 Grierson 1960. 9th-C. papyrus records from Egypt prove that transactions there involved silver coins as well as gold: *Marchands d'étoffes*, e.g., 5.1.10.4; 29.14–16.

48 Ashtor 1976, 70–114; "boom": 115; cf. Hodges and Whitehouse 1983, 130, about sea trade.

49 2nd quarter: Hodges and Whitehouse 1983, 149–51 and 160; 3rd quarter: Ashtor 1976, 115–21.

and dynamism probably contribute as much as cultural factors to explain why so few Muslim traders were tempted to wander off to the far less developed European markets. Periodic markets supplemented the permanent markets, including one at a time and place which made it very attractive to westerners.⁵⁰ This was the fair of Jerusalem, the holy site toward which Willibald, Bernard, the future doge of Venice, and so many other western Christians traveled in our period. A European eyewitness of the 680s reported that the fair attracted an "almost countless multitude of different peoples from everywhere." It was still going strong in the ninth century.⁵¹ That the fair was connected with the feast of the Exaltation of the Cross (14 September) meant that its conclusion coincided with the most favorable season for sailing to Europe against the prevailing winds.⁵²

These markets featured some goods that were not otherwise available to the Frankish empire. None was really indispensable to life, so demand for them in the west had to be culturally conditioned. To that extent, demand was elastic. They were typically very high value items: silks and other textiles, perfumes, spices, incense, and the like. Exotic foods perhaps might also be mentioned, as new edible plants spread through the Islamic world on a schedule which is obscure but which might extend back into our period.⁵³ Then there were the new drugs that announced the birth of Arab medicine (Ch. 24.3). The southern Mediterranean also continued to produce and transport the ancient staples of oil and grain, which were regionally available also inside the Frankish empire (Tables 20.1–20.7). Egypt was still manufacturing and exporting papyrus on a substantial scale.⁵⁴ Linen was also a major export.⁵⁵

Across the frontier, Byzantine economic expansion may have gotten under way in the ninth century. Things were certainly looking up by the tenth.⁵⁶ Trade

50 For an informative overview of cross-cultural and economic research into the history of periodic markets, see De Ligt 1993, 1–32.

51 Gil 1997, 241, citing Ibn Masawayh.

52 The Frankish pilgrim Arculf said it began on 12 September. Typically, his reason for telling us about the fair was less its economic significance than a miraculous rain-storm. This flushed away the dung heaps left by the merchants' camels, horses, donkeys, and oxen and which, he sagely observes, posed no small annoyance to residents' noses and feet. Adomnan, *De locis sanctis*, 1, 7–13, CCL 175.185.25–186.59; quote: "Diuersarum gentium undique

prope innumera multitudo." Sailing season: above, p. 451.

53 Watson 1983; Al Djahiz, *A Clear Look*, 113, tr. Pellat p. 159, also mentions two plants which were reported to have been imported into the Caliphate from Byzantium.

54 Lewis 1974, 90–4. Grohmann 1954, 1: 63–71.

55 Mackie 1989, 82.

56 Opinions differ on this score. Kaplan 1992, 529–40, argues for demographic stability or growth, and extension of the arable down to the middle of the 9th C.; particularly in light of his arguments for technological stagnation, this implies that the

played a part, particularly in the capital, toward which ships converged from the north, the east and the west, as one observer put it in 801.⁵⁷ The livelihoods that benefited from Irene's tax breaks sketch the main sectors of trade in the capital: poor hunters and fishermen, swineherds, sheep merchants, wine dealers, butchers, weavers, coppersmiths, leatherworkers, dyemakers, spice dealers and architects, woodworkers and goldsmiths all rejoiced at the new arrangements.⁵⁸ Then there were the large shipowners from whom Nicephorus I extracted forced loans.⁵⁹

Although the volume is at present indistinct, scattered texts show that ships and commerce flowed along two main axes pivoting on the capital. One reached toward the north and the Black Sea, and seems to have developed considerably in our period.⁶⁰ By the later ninth century this stream branched off in three directions. Toward the northwest was the Bulgarian empire and the Rus traders beyond it. Northward, across the Black Sea, on the doorstep of the Don River and the Khazar realm, stood the fortified outpost of Cherson over which Theophilus (829–42) tightened Constantinople's grip.⁶¹ We may well have heard an echo of the businessmen established there in a homily by St. Constantine-Cyril (Ch. 7.2). Overland trading links connected this region and its merchants to central Asia. We have already seen that, whether or not they were interested in trade, Jews immigrated to the Khazar kingdom from Baghdad, Constantinople, and Khorasan, and extended the network of connections.⁶² Finally, toward the east, ships made along the southern shore of the Black Sea toward the Caucasus and its mountain passes leading into Iran. In the 790s, merchants from Amastris had been active further east at Trebizond, the meeting place of shipping and caravan

Footnote 56 (cont.)

general economic trend was broadly similar. But the conclusion has not found widespread acceptance: see Kazhdan 1994, esp. 87–8; Harvey 1995, 250–55, opposes to this recent archaeological surveys which point to demographic decline in 7th-C. Greece, and further evidence for renewed growth by the 10th C. See also Harvey 1989, 207–19, for the recovery of some towns and growing interaction with the countryside from the 8th and 9th C., and Haldon 1994, 79–80.

57 Theodore Studite, Ep. 7, 25.53–4.

58 *Ibid.*, 25.57–26.68.

59 On the conditions which funneled wealth to Constantinople: Hedy 1985, 554–69; on the possibility of a differing commercial

regime in the provinces, see Oikonomides 1993, 658–9; commercial installations of the medieval city: Magdalino 1996, 19–25, and 58, on the beginning of Constantinople's recovery in the 8th C. Forced loans: Theophanes, A.M. 6302, 1.487.11–13 and 17–19; as an attempt to stimulate trade: A. Laiou, ODB 1: 489. Patlagean 1993 argues that Constantinople was a "port of trade" in the technical sense of Polanyi.

60 Lillie 1976, 276–9.

61 Constantine VII, *De adm. imp.*, 42, 1.182.27–184.54; Sicilian coins at Cherson: above, p. 507.

62 Zuckerman 1995a, 251; cf. Ch. 7.2. For a Jewish trading diaspora reaching toward China, see Haussig 1989.

routes from the interior of Anatolia and Iran.⁶³ A generation or two later, a local man hailed Amastris as the market place where Byzantines and northern barbarians ("Scyths") met. Probably around 800, a hagiographer described a trip that reflects this shipping route along the southern coast of the Black Sea (cf. Map 20.3). His purpose was to investigate relics and St. Andrew's travels, and to escape the Iconoclasts. In so doing, he sailed to Nicomedia, Daphnusia, Herakleia, Amastris, "Dorape," "Karousia," and Sinope.⁶⁴ By the tenth century, customs duties on trade at Trebizond, particularly in textiles, were producing around a thousand pounds of gold for the imperial treasury.⁶⁵ In 911–12, the imperial authorities at Constantinople assumed that the bulk of precious substances used in the Byzantine fragrance trade entered the empire at Trebizond.⁶⁶ The history of textile production in central Asia appears also to reflect this Black Sea axis of trade. In the ninth or tenth centuries, the silks produced there underwent a marked transformation in decoration and technique which has been ascribed to the imitation of Byzantine textiles, presumably exported over one of these routes.⁶⁷

The second main trading current reached south into the empire's maritime heart, the Aegean Sea and, probably, beyond.⁶⁸ It may have been gaining strength in the eighth century. By then the important fair at Ephesus had sprung up (R229). Slave sales in the Aegean were active enough around 800 to elicit a surcharge from an emperor looking for money (R303). From the Aegean, one suspects trading links along the southern shore of Asia Minor, toward Attaleia and beyond. Cyprus, which paid taxes jointly to the caliphs and the Byzantine emperors, must have attracted merchants from both empires to its neutral ports.⁶⁹ Early in the tenth century, taxes on imports and sales of Muslim booty and slaves in the Byzantine port at Attaleia were producing some 300 to 400 lb. of gold.⁷⁰ In the ninth century, a regional shipping hub linked Cyprus to the southeast coast of Asia Minor (Ch. 18.3).

These two currents of trade met at Constantinople. Together, they defined the main axis of maritime trade within the Byzantine empire of the early Middle Ages. As an Iraqi observer noted in the later ninth century, ships from the Black Sea and

63 Merchants: e.g. R225; R415; market: Nicetas David, *Laudatio S. Hyacinthi* (BHG 757), 4, PG, 105.421C–D.

64 Epiphanius, *Vita Andreae apostoli* (BHG 102), PG, 120.221B–224A; cf. Beck 1959, 513.

65 Ibn Hawqal, tr. M. Canard, in Vasiliev and Canard 1935–68, 2.2.416–17, with Vryonis 1971, 13–16 and Hedy 1985, 174–5; Oikonomides 1993, 652–4. The sum is apparently an annual one.

66 Leo VI, *Liber Praefecti*, 10, 1–6, 110.470–7.

67 Muthesius 1997, 94–100.

68 Malamut 1988, 2: 538–43.

69 McCormick 1998b, 419n; and, in general on its status, Browning 1989, III, and Kyrris 1984. Cf. the anecdote from the later 7th C. preserved in al Mas'ūdī, discussed by Canard 1964, 49–50.

70 Ibn Hawqal, tr. M. Canard, Vasiliev and Canard 1935–68, 2.2.414–15. Ibn Hawqal's first edition gives the date A.D. 913, the second A.D. 932.

the "Syrian" sea plied the central segment of these two routes, between the Bosphorus and the lower Aegean.⁷¹ Archaeology does not yet yield so coherent a picture, but some of what can be discerned fits this pattern. Amphoras continued to be produced and shipped. But the general impression they make contrasts with the late Roman situation. In the eighth century, a multitude of small centers of production, many of which do not obviously continue the late antique ceramic series, appears to prevail.⁷²

Some amphoras sustain the two main commercial currents that can be deduced from the texts. A late seventh-century Cypriot imitation of Syrian amphoras (type Bii) has been found both on Cyprus and at Constantinople.⁷³ A series of amphora types that runs from the ninth or tenth to the twelfth or thirteenth centuries documents the northern current. What appears to be the oldest type (Günsenin I) occurs all around the Black Sea and at Constantinople, and then trails out along southern Asia Minor as far as modern Alanya, about halfway between Attaleia and Seleukeia.⁷⁴ A ship that sank off Crete (Table 20.5, ship 31) also carried this type. The production site has just been located at Mount Ganos (mod. Gaziköy, Turkey) on the Sea of Marmara, where seven new shipwrecks loaded with tens of thousands of amphoras have come to light.⁷⁵

The prominence of Cyprus and the links between Byzantine and central Asian silk weaving provide a first suggestion. This the customs' take at the Byzantine ports of entry of Attaleia and Trebizond confirms: trade linked the economies of the Muslim world and the Byzantine empire, at least in periods of peace.⁷⁶ Byzantine merchants seem to have been active on the Nile sometime between 715 and 718.⁷⁷ According to an eighth-century Syrian hagiographer, a Byzantine victory over the Arabs resulted in a seven-year truce, during which merchants from both states flocked to each other without interference and Byzantine pilgrims headed untrammelled for Jerusalem (R146). If this information is reliable, the merchants may have been traveling overland, for the fact that the last bubonic plague reached Constantinople from Sicily and Africa shows that direct shipping links with the Muslim Levant were not operative in 743-4 (Ch. 17.1). Abbasid legal treatises in any case imply that, after that date, foreign merchants

71 Ibn Khurradadhbih, tr. De Goeje, 76.

72 Although it must be conceded that a large proportion of the amphoras are still unidentified and typologies are incipient at best.

73 Arthur 1986, 659.

74 Günsenin 1989, 269-71.

75 Günsenin 1998, where she mentions dates of the 10th and early 11th C.

76 See in general the discussion of Canard 1964, 48-56.

77 *History of the Patriarchs*, 5.68-9, describes how the governor of Egypt hunted down "strangers," people lacking a passport, their boats, and Romans on the Nile, whom Canard 1964, 49, plausibly identifies as merchants. Canard's dating of the episode also explains it, for it occurred in the midst of the mobilization for the great assault on Constantinople, when there was good reason to curtail contacts with the enemy.

were active in the Caliphate, and some enunciated measures to facilitate and protect their operations.⁷⁸ By around 850, the Byzantine empire had become the supplier of a series of highly desirable goods to the much larger economy centered on the caliphal capital. A list of the most select imports was drawn up in Iraq at that time:

From the Byzantines' country [we import]: gold- and silverware, dinars of pure gold, medicinal plants, gold-woven textiles, *abrūn* [?], silk brocade, spirited horses, female slaves, rare copperware, unpickable locks, lyres, hydraulic engineers, agrarian experts, marble workers and eunuchs.⁷⁹

The detailed discussion of how to discern different qualities of silk textiles – sheen, designs, colors – includes the imperial workshops' silk and shows the importance and value of the silk exports. It also suggests that Arab merchants encountered competing imitations, presumably from the same Byzantine source.⁸⁰

We can detect the return flow of this commerce in the first decade of the tenth century, when the Byzantine silk trade with Syria and Iraq was closely regulated. Syrian merchants brought their textiles, spices, incense, and dyestuffs to the Byzantine capital. At the Byzantine end, other Syrian immigrants who had resided in Constantinople at least ten years were involved in the transaction. The merchants from the Caliphate were allowed to stay in the capital for up to three months, selling their wares and acquiring the kinds of goods we have just seen. The arrangement might have been new in the 880s.⁸¹

The caravans of Trebizond show that some part of the trade between Byzantium and the Muslim world traveled overland. Tenth-century Byzantine generals used as spies merchants who traded across the land frontier.⁸² But some of these external and internal trading currents traveled in ships. The vessels themselves have recently begun to emerge from the sea and tell their own tale, beginning with their cargoes. Although the numbers are still relatively small, and the dates, origins, and many identifications uncertain, we cannot neglect these extraordinary new data. Since ceramic typology of the early Middle Ages – and therefore dating and provenance – is still developing, it is wiser to cast a wide net, without losing sight of the probability that some of the ships went down before or after our period. The recent corpus of shipwrecks lists forty-six vessels which probably date from between the seventh and the tenth century.

78 Discussion in Canard 1964, 50-1, confirmed for North Africa by Ibn Sahnun, R515.

79 Al Djahiz, *A Clear Look*, 14, my translation from Pellat's French, p. 159.

80 *Ibid.*, 12, p. 158.

81 Leo VI, *Liber Praefecti*, 5, 94.263-96.295,

and Reinert 1998, 130-5, who stresses that the development was recent. For the range of goods of the *myrepsoi*, see also A. Kazhdan, *ODB* 3: 1627-8.

82 *De vellitatione bellica*, 7, 162.14. See also Canard 1964, 50, on Armenia; 52.

The geographic distribution of the ships makes an important point. Notwithstanding the far superior archaeological recording that prevails in the western Mediterranean, Tables 20.1–7 show that most (59 percent: 27 of 46) early medieval wrecks occur in the eastern Mediterranean basin. This contrasts sharply with antiquity, when the western Mediterranean dominates overwhelmingly.⁸³ This sample thus reinforces the general opinion that the eastern Mediterranean was economically more developed than the western basin in the early Middle Ages. The ships also cluster along the northern rim. This reflects both ancient shipping patterns and those of modern prospecting.⁸⁴ Most wrecks present some evidence of cargo, chiefly in the form of amphoras: indeed, amphoras are sometimes all that remain. Ships carrying materials other than amphoras are archaeologically less visible, so that the wrecks do not give a true picture of the range of cargoes actually transported across the sea. Just as in antiquity, the textiles, lumber, grain, spices, or slaves will almost never show up on the sea bottom. Even so, this first summation strikingly conforms to some of the patterns of communication uncovered in Part IV.

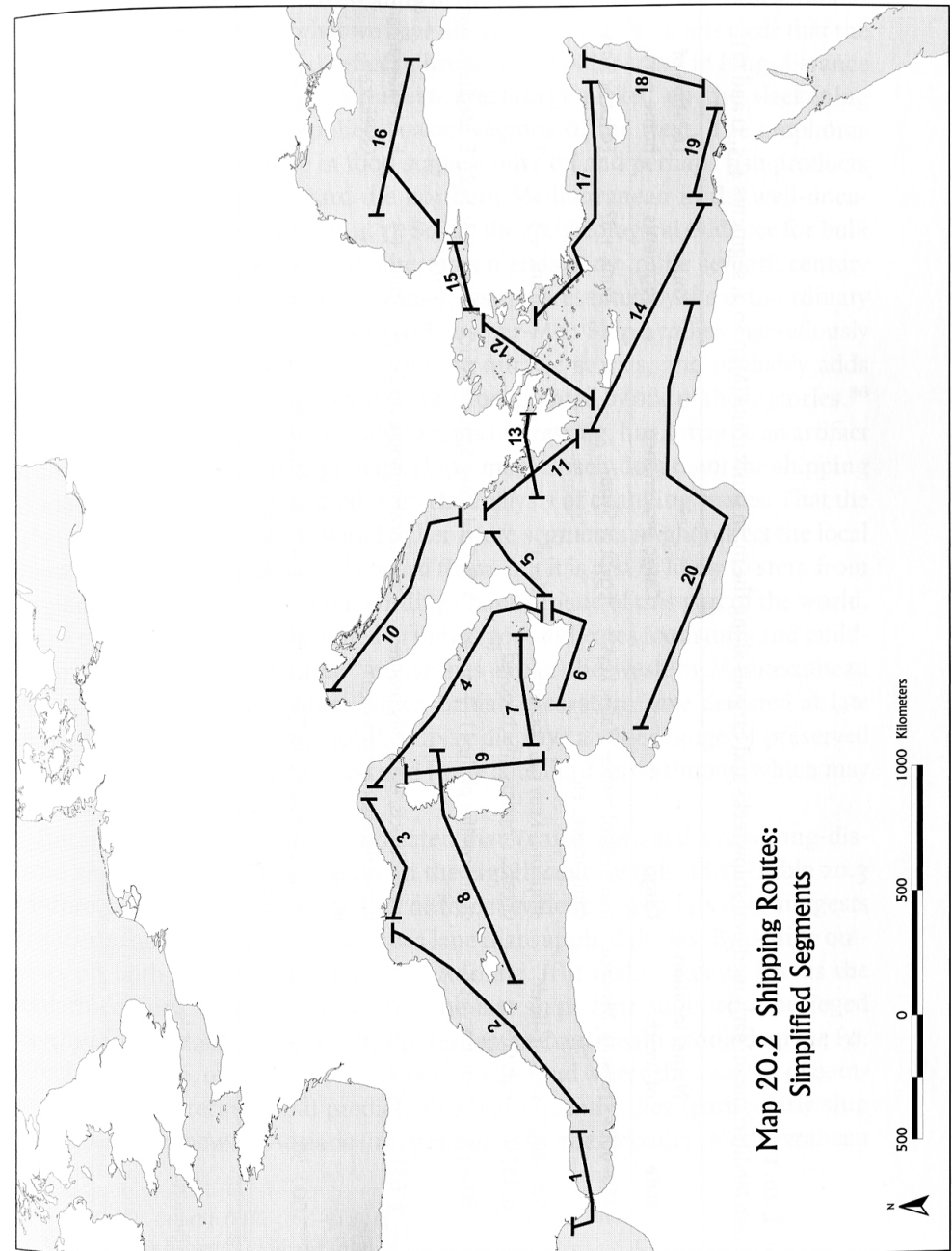
Tables 20.1–20.4 summarize the evidence from ships which sank in the western Mediterranean. Tables 20.5–20.7 record the wrecks found in the eastern basin. Each table, save the last, corresponds to a shipping route or zone, as they emerged from patterns of communications; the ships are given in chronological order. When the cargo or other evidence indicates where the ship was last loaded before she sank, or when the crew's possessions or other evidence points to a home port or region, it has been possible to deduce all or part of the ship's route.⁸⁵ The numbered segments on Map 20.2 identify the route; the location of the individual numbered wrecks appears on Map 20.3.

Here the ancient centrality of the main trunk route running toward the eastern Mediterranean is obvious. The clustering of the wrecks in the first half of the seventh century corresponds to the penultimate stage in the contraction of the late antique shipping world. Significantly, four out of the five seem to have had home ports in the Byzantine east. Just as revealing, eastern ship 3 appears to have been carrying a west Mediterranean cargo and working what looks like a western regional circuit. One could not hope for a better illustration of our earlier conclusion that, as antiquity ended, eastern ships predominated even in western waters. So far no wrecks unambiguously document the persistence of this route in the

83 Cf. Parker 1992, 6–7.

84 Only three wrecks have been located along the southern rim: Parker 1992: Dor, no. 367, 600–700; Israel, no. 525, 500–600 and Marsa Lucch, no. 660, 500–650? On the superiority of northern courses, Pryor 1992, 20–4.

85 The 11th-C. vessel excavated at Serçe Limani, Turkey, shows how much well-preserved wrecks can reveal. Its broken glass, orpiment, dried fruit, recycled amphoras, pork, and weights allow Van Doorninck 1991 to deduce it was carrying Greek-speaking merchants from Syria.



Map 20.2 Shipping Routes:
Simplified Segments

TABLE 20.1
Western Mediterranean: early medieval shipwrecks and cargoes along the main trunk route (Map 20.2, segments 4, 5, 11 and 12)

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route segments	Location of home port	Parker no.
1	450–600?	Favaritx, Minorca	hundreds of bronze plates, keys, coins, ingots, etc.	Egypt or Syria?	Trunk + 8?	Egypt or Syria	397
2	500–600? (c.550?)	La Palu, Ile de Port-Cros	amphoras Keay 62, one with Greek?; stoppers; much looted	Africa ^a	Trunk + 3	?	782
3	600–25	Saint-Gervais B	grain, conifer pitch, 41–9 tonnes?	S.W. Gaul, Italy, Spain or Africa	Trunk + 3; 1–2 or 6 or 9	E. Mediterranean	1,001
4	c. 631	Grazel B	metal objects, especially bronze; not all necessarily cargo; coin hoard	from Constantinople via Sicily ^b	Trunk + 3	E. Mediterranean Greek scale	483
5	600–50	Pantano Longarini	?amphora fragments; "large cargo ship"; C ₁₄ dating	ship from E. Mediterranean; Greek ship name?	Trunk + 6	E. Mediterranean	787

Notes:

^a On the north African origins of the amphoras Keay 62, including the exemplars from this wreck, classified as 62A, and the mid-sixth-century date, see Bonifay and Piéri 1995, 103.

^b This is implied by the hoard of 105 bronze coins recovered from the wreck: Morrison 1981. Source: Parker 1992; item preceded by ? might have been ship's gear, rather than cargo.

lower Tyrrhenian Sea that patterns of movement disclosed for the eighth and ninth centuries.

The visible cargoes are also revealing of the tenor and tendencies of sea trade at the end of antiquity. From what we have already seen (Ch. 2.1), it is clear that the metal cargoes (ships 1 and 4) reflect a broader and older trend in long-distance trade, in which eastern Mediterranean metallurgy picked up the slackening western production and supplied coastal regions of the west. The amphoras point to the persisting trade in food staples: olive oil and perhaps fish products still flowed from Africa toward the northern Mediterranean in the well-documented late Roman pattern (Ch. 4.3). So far, the archaeological evidence for bulk grain shipping in the western Mediterranean ends early in the seventh century near the site of a Merovingian customs house, represented by the extraordinary find of the Saint-Gervais B wreck (3) off Fos-sur-Mer. Ship 4 tallies marvellously with two voyages mentioned in Byzantine miracle stories, and probably adds metalwork to the high-quality stone cargo documented by one of those stories.⁸⁶

The large size of the group in Table 20.2 is interesting, but it may be an artifact of circumstance. Ship 12 and perhaps ship 7 most closely document the shipping of southern Italy which appeared from the analysis of changing routes. That the other ships cannot be linked with further route segments might reflect the local character of the ceramics found aboard them, but it is just as likely to stem from the poor state of reporting and recording characteristic of this part of the world. In any event, what can be discerned of the cargoes indicates foodstuffs and building materials. The "Byzantine" millstones evoke the western Mediterranean trade in querns and millstones which British excavators have detected at late antique Carthage.⁸⁷ The "Saracen" ship 13 displays a wider range of preserved cargo, but the lack of information and fuzzy date limit its testimony, which may turn out to be important.

Patterns of communications indicated that Venice launched a new long-distance shipping axis in the Adriatic in the eighth century (Ch. 18.1). Table 20.3 reinforces those findings from quite different evidence. Ship 14's date suggests that it was following the traditional sea lane that supplied the last Byzantine outposts on both shores of the northern Adriatic. If it really sank as late as the seventh century, then it would typify the last ships that supplied a besieged Ravenna with the sort of goods the salt traders of Comacchio peddled up the Po. Wrecks 15 and 16, on the other hand, occur when and where the analysis of communications patterns would predict. Most significantly, they (particularly ship 15) attest to renewed Adriatic integration into the broader Mediterranean

86 R24 and Mir. Demetrii (BHG 516z–522), 6, 313–14, 1.239.9–240.12, with the Latin version of Anastasius Bibliothecarius,

Miracula S. Demetrii (BHL 2123), PL, 129.726A–C; cf. Ch. 4n104.

87 Peacock 1984, 27.

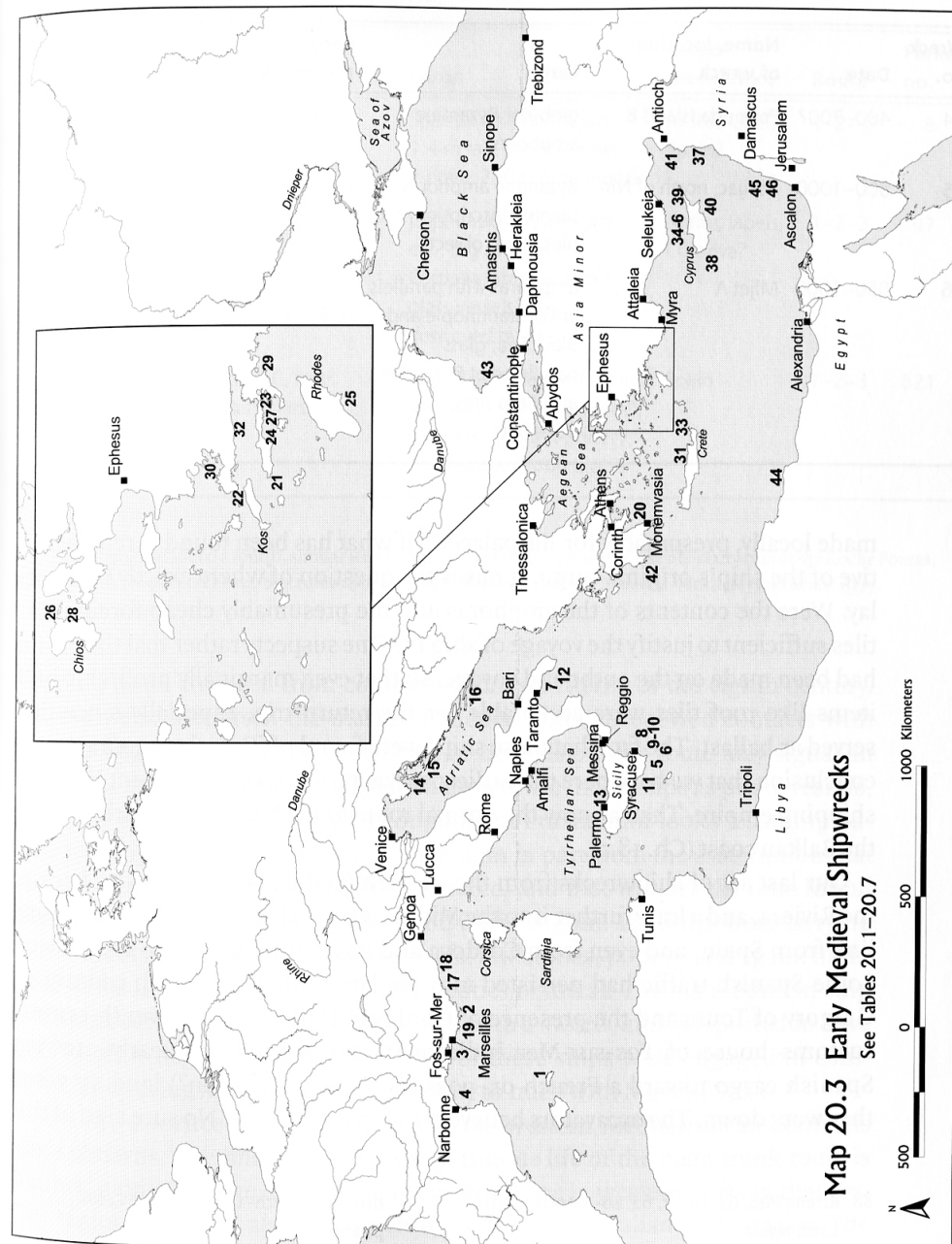
TABLE 20.2
Western Mediterranean: early medieval shipwrecks in the southern Italian zone

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route segments	Parker no.
6	400–650?	Cape Passero	roof tiles; a ?Byzantine amphora	Byzantine empire	6	245
7	450–650?	Taranto A	Byzantine millstones	Byzantine empire	5 + ?	1,131
8	400–700	Syracuse B, Great Harbor	"Byzantine amphoras"	Byzantine empire	6	1,092
9	400–700	Marzamemi J	amphora fragments "of various Byzantine types"; ?ballast stones	Byzantine empire	6	678
10	400–700	Marzamemi K	amphora fragments; not a wreck?			679
11	650–700	Punta Secca A–B	Byzantine coin found in one of two hulls destroyed by looters	Byzantine empire?	6	968
12	600–700?	Secche di Ugento C	1 globular amphora, from Sicily or S. Italy? With Greek names	Sicily or S. Italy?	5 + 6 or 4?	1,068
13	800–1100	Scoglio della Formica B	filter jugs, lamps, iron objects?	"Saracen" wreck	7 + ?	1,053

Note:
There is so far no evidence on the home ports of the ships in Tables 20.2–20.7.

economy. The presence of Byzantine amphoras means that all three wrecks were probably sailing into the Adriatic from elsewhere. Wreck 16 shows that, via the old trunk route, the Adriatic sea lane linked up with Byzantium's north-south axis of internal trade.

In Table 20.3, amphoras again testify to trade in foodstuffs in the ninth or tenth centuries. At least in the case of ship 16, they may have been loaded as far away as the Bosphorus or the Black Sea, so that it looks like more than local trade. The iron in ship 15 was mostly tools (including, possibly, a plowshare and a crucible). If, as the plowshare suggests, the tools were not ship's stores, they indicate that more distant regions were still supplying tools to this region of ancient metal production. Even more striking is a cargo of roof tiles and amphoras (no. 15), apparently sailing north from Greek-speaking territory along the route which led ultimately to Venice. Around 800, the duke of Istria had had roof tiles or bricks (*tegorias*)



Map 20.3 Early Medieval Shipwrecks
See Tables 20.1–20.7

TABLE 20.3

Western Mediterranean: early medieval shipwrecks on the Adriatic route

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
400–700?		Premuda Island B	globular Byzantine amphoras	Byzantine empire	Trunk + 10	902
800–1000		Ždrijac, north of Nin	Byzantine amphoras, painted inscription; roof tiles; ?iron objects	Byzantine empire	Trunk + 10	1,250
850–1000		Mljet A	amphoras with parallels at Constantinople and Black Sea; glass paralleled at Byzantine and Arab sites, 850–950	?Constantinople or Black Sea	Trunk + 10 + 15–16	703

made locally, presumably for his palace.⁸⁸ If what has been found is representative of the ship's original cargo, it raises the question of where exactly the profit lay. Were the contents of the amphoras and the presumably cheap foreign roof tiles sufficient to justify the voyage of ship 15? One suspects rather that the profits had been made on the outbound voyage, so that even marginally profitable bulk items like roof tiles were acceptable for the return trip, especially since they served as ballast. The fact that these ships were found off Croatia encourages the conclusion that we have here the earliest surviving ships of the nascent Venetian shipping empire. Then as now the normal route to the head of the Adriatic hugs the Balkan coast (Ch. 18.1).

Our last set of shipwrecks from the western Mediterranean takes us back to the Riviera, and a little further into the Middle Ages. Table 20.4 shows a shipping link from Spain, and even from Cordova and its Atlantic access, to the Riviera. Some Spanish traffic had persisted into the late sixth and seventh century, as Gregory of Tours and the presence of Cordovan leather in the seventh-century customs house of Fos-sur-Mer indicate.⁸⁹ The ships were clearly carrying Spanish cargo toward a French or, possibly, Italian (Ligurian?) landing when they went down. The excavators believe the ships are Arab.⁹⁰ No sure sign of this

⁸⁸ Rižana Plea, 64.29; cf. 62.20–2 and classical Latin tegula.

⁸⁹ Gregory of Tours, *Historiae*, 9, 21–2, 441.15–442.23; Chilperic II's confirma-

tion of two 7th-C. diplomas: Corbie, p. 236.

⁹⁰ See most recently Jézégou et al. 1997; cf. Brentchaloff and Sénac 1991.

TABLE 20.4

Western Mediterranean: early medieval shipwrecks on the Spain–Riviera route^a

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
17	950	Agay, near Fraxinetum	Spanish amphoras; jars 1.4 m tall; 20 millstones; 1 brass, 250 bronze ingots	Arabic label, Spain?	1–2–3?	8
18	950	Le Bataiguiet, off Cannes	jugs, flasks, strainer jars etc.; big Arab jars; Cordova lamps; copper, glass vessels; ship destroyed by fire	Arabic labels, Cordova?	1–2–3	97
19	900–1000	Plane C, near Marseilles	corked jars; clay balls filled with asphalt (ship's store?); strainers; Spanish pottery; 2 millstones; ?iron tools	Spain	1–2–3	821

Note:

^a To these should be added a fourth, similar wreck, this one just off the presumed site of Fraxinetum at the Roche Fouras, off the Saint Tropez peninsula, that came to my attention too late to be fully included: Joncheray and Sénac 1995.

shipping route emerged from communications patterns of the eighth century. However, evidence from the market at Genoa hints at renewed contacts with Spain in 862 (Ch. 21.3), and Arab ships or cargoes on this route may signal an important new development. The inclination to see these ships as pirate vessels, or supply ships for the Saracen stronghold at Fraxinetum looks least implausible for ship 17; but the inclination may stem in part from the assumption that war at sea was incompatible with commerce, and that war set the tone for all relations between the House of Islam and Christendom. The ships were carrying some sort of foodstuff (oil?), raw materials, millstones, pottery, and again, high-value items in the form of glass and quantities of metal. The man found in ship 17's longboat was 25–35 years old, armed with a sword, and is reported to have had "slightly negroid features."⁹¹ If any of these ships were engaged in commerce, they bring important new testimony to trade with Muslim Spain.

So early evidence from the bottom of the western Mediterranean confirms some patterns. The final stage in the late antique life of the main trunk route is distinct, along with the dominance of eastern ships in western ports in that era. The regional pattern also seems clear in the south Italian shipwrecks. The

⁹¹ Parker 1992, no. 97.

Adriatic route looks just as the other evidence of communications would suggest: of the few ships overall that certainly went down after 800, they display most clearly the rise of a new shipping axis, and its implications for the vitality of the central segments of the ancient trunk route. The Spanish route also shows something new.

The eastern Mediterranean wrecks are, mostly, less well documented. Naturally, they give up fewer of their secrets. The total absence of wrecks from Alexandria and Constantinople, surely two of the most intensely visited ports, underscores how incomplete the undersea inventory remains. The rudimentary state of eastern ceramic studies means that early medieval typologies and production areas are even less well mapped than in the west. The result is that today we can usually see only zones where tomorrow may show us routes. Two main shipping zones appear, alongside four isolated wrecks. The Aegean zone is the best documented (Table 20.5; 14 wrecks), which is not surprising, given the convergence of modern recreational diving and the Aegean's position as one of the most active economic areas in the middle Byzantine period. The Cypriot zone (Table 20.6) is also well documented (eight wrecks), particularly given that it represents a much smaller area. This confirms the picture of the island's lively regional shipping; it fits with our information that, in periods of peace, Cyprus served the Byzantine empire and the Caliphate as a neutral meeting place, although the ceramics do not yet illustrate this process. Allowing for the uncertainties of dating, both the Aegean and Cypriot zones seem to display a continuous record of wrecks through the early Middle Ages. The fact that one of the best-studied types of amphoras (LR1, "Byzantine globular") was manufactured in many places between western Asia Minor and Cyprus makes it hard to detect movement between Cyprus and the Aegean. Wrecks 22 and 28 nonetheless point toward an eastern extension of the north-south axis of Byzantine trade. Within the Aegean itself we can twice glimpse eastern and northern extensions of the ancient main trunk route (wrecks 21 and 31). An isolated wreck off western Greece also points to the ancient trunk route (wreck 42). Shipwreck 31 was probably working the north-south route that we have examined from other evidence. When it went down off the north shore of Crete, it had transported across the Aegean amphoras that look to have come from the Sea of Marmara. Again, amphoras dominate, implying that much cargo consisted of foodstuffs. Wreck 22's wine cargo offers a contemporary eastern parallel to ship 3 with its grain and pitch. Manufactured goods occur too: the Byzantine plates (29), sarcophagi (36), perhaps glassware (39), and building materials like roof tiles (34). Much of what can be identified could be from the region where the ship sank, or neighboring ones. Some probably or certainly is (wrecks 22? 26, 28, 35, 46). One cargo may have come from as far away as Gaza (21). Contrary to what we find in the west, no eastern wreck has yet produced

TABLE 20.5

Eastern Mediterranean: early medieval shipwrecks in the Aegean shipping zone, including those on trunk and north-south axis routes (shown in bold type)

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
20	500-600?	Porto Cheli, Argolid	globular amphoras, ballast stones		12+?	884
21	575-600	Iskandil Burnu A, Datça Peninsula facing Kos	wine amphoras Riley LR4 ^a ("Gaza"), coarseware jugs, plates	Palestine; kosher cooking pot? Jewish captain or merchant?	Trunk 12 + 17 + 18	518
22	c. 626	Yassi Ada A south of Bodrum	900 Byzantine amphoras: Riley LR1-2; oil; wine; globular; labels: "lentils," "rice" etc. Some reused. ^b	Aegean/Cyprus/?Syria/?Cilicia	17+?	1,239
23	400-650	Bozburun, facing Simi	Byzantine amphoras		17+?	111
24	400-650?	Datça A, facing Rhodes	Byzantine amphoras		17+?	351
25	400-700	Pefkos, Rhodes, S. of Lindos	Byzantine amphoras, 1 globular; ?plate: internal green glaze	Aegean?	17?	795
26	400-700	Pras(sonisia, islet off Oinoussa, off N.E. Chios	globular amphoras (Riley LR2)	Aegean	17	900
27	650-725	Datça B	Byzantine globular and baluster amphoras (LR1 and LR2) ^c	Aegean ?Cyprus ?Syria ?Cilicia	17	352
28	650-750?	Ayios Stephanos, islet off N.E. Chios	> 1,000 Byzantine amphoras, resinous lining, including Riley LR1	Aegean ?Cyprus ?Syria ?Cilicia	17	71
29	700-900	Marmaris A, facing Rhodes	Byzantine plates		17+?	657

TABLE 20.5 (cont.)

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
30	900–1000	Mandalya Gulf (S. of Miletus)	3 or more layers of 50 pear-shaped Byzantine amphoras		17+?	644
31	900–1000?	Dhia B, Crete	Byzantine amphoras like Günsenin I	Mt. Ganos	12+15	360
32	300–1200	Kerme Gulf, near Kos, Bodrum	5,000 tiles, amphoras, coarseware		17+?	543
33	500–1400?	Cape Sidero B, Crete	Byzantine amphoras		12+?	215

Notes:

^a Parker "LR3" is presumably a misprint.

^b Van Alfen 1996, 201–10.

^c Thus *ibid.*, 212–13.

Source: Parker 1992.

TABLE 20.6

Eastern Mediterranean: early medieval shipwrecks in the Cyprus shipping zone

Wreck no.	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
34	400–650	Cape Andreas A, east tip	roof tiles		17	202
35	450–650?	Cape Andreas C	amphoras Riley LR1 and LR1A	Aegean ?Cyprus ?Syria ?Cilicia	17	204
36	450–650?	Cape Andreas E	"Byzantine baluster" amphoras, terracotta sarcophagi fragments		17	206
37	500–650	Arwad Reef B, Syria	rilled, pear-shaped Byzantine amphoras		18	59
38	500–700	Thalassinies Spilies, Cyprus	Byzantine globular amphoras (LR2?)	Aegean?	17	1,145
39	600–700?	Cape Andreas B	Byzantine amphoras (like Riley LR13), tiles, ?glass vessels		17	203
40	600–800?	Cape Kiti A, near Larnaka	Byzantine amphora fragments		17	212
41	800–900?	Syria	jars 1.7×1.2 m; Arab 3-handled amphoras	Caliphate	18	1,125

Source: Parker 1992

any cargo from the opposite, western basin. One ship (wreck 22) probably was from the Aegean Sea or Marmara region itself, judging from the cooking ware, while the possible evidence of a kosher pot might indicate a Jewish captain in a ship transporting Palestinian cargo (wreck 21). Some of the amphoras of wreck 22 were reused; it has recently been suggested that this ship was not a freelance merchant, but an ecclesiastical shipper and very late case of the state transport system.⁹²

Texts and shipwrecks thus begin to delineate some main currents of trading in the two great economies which lay to the south of the Frankish empire. But there were other economies, whose stage of development more closely approximated that of Frankland, and to which the geographic obstacles to communication were perhaps less oppressive.

⁹² Van Alfen 1996, 208–13.

ck	Date	Name, location of wreck	Cargo	Cargo provenance	Route	Parker no.
	400–650?	Porto Longo, Sapienza	"Byzantine potsherds"	Byzantine empire	Trunk (11) + ?	889
	500–625?	Neseber B, Bulgaria	amphora fragments, including 1 globular	Greek graffito	16 + ?	738
	500–650?	Marsa Lucch, Libya	amphoras, Riley LR8a, over 6×2 m; pottery funnel	N. Africa?	20?	660
	500–600	Israel	pottery, 6th C.; ballast stones; 2 m high		18	525
	600–700	Dor, 40 km S. of Akko	local storage jars, on rope, straw	Palestine	18	367

e: Parker 1992

West and east: new trading worlds

Across the Channel from Carolingian Frankland, the burgeoning Anglo-Saxon kingdoms had long welcomed Frankish exports. Hamwic was an important emporium in Wessex when Willibald and his family began their epic pilgrimage. There they boarded the ship that took them to a market at Rouen, the first stage in a long trip to the Levant (Ch. 5.1). Excavations have uncovered Hamwic's trading links to Frankland, and we shall see more of them shortly (Chapter 23). The Slavic lands to the east mostly lack written records. But, as Frankish power expanded eastward, they surely offered, at the least, the usual wealth of "forest economies," notably slaves. So far, this eastern trading world is visible chiefly through Frankish eyes, and we shall return to it as well in the next chapters. Further to the southeast was the growing power of the Bulgarian empire, toward and through which the new overland corridor connected the Frankish empire to the shores of the Black Sea. More than just ambassadors and armies marched along those routes.

For the central European corridor, the Raffelstetten inquest documents mostly local commerce on the upper Danube. It mentions salt, foodstuffs, wax, slaves, and horses as the goods that merchants and estate workers transported through this area around 900.⁹³ At the other end of the corridor, exchange between the

93 Raffelstetten Plea, I, 4–7, 9, pp. 250–2; see Mitterauer 1964 on local trade and transport. For a possible allusion to Jewish

traders in central Europe in the 840s, see above, ch. 17n75.

Protobulgarian empire and Byzantium was sufficiently important that in 812 the khan added a clause regulating it when he proposed renewing an earlier treaty (c. 716). He suggested that traders dealing with both countries be recognized by means of documents and seals; any who lacked them would have their goods confiscated by the two countries' fiscal authorities. The treaty was rejected, but not because of its commercial provisions.⁹⁴ The khan's new proposal shows that Byzantine trade was important to the Bulgars and that money was to be made by placing it under stricter state control. A very similar treaty was finally signed three or four years later.⁹⁵ Early in the tenth century, Bulgarian merchants were importing linen and honey into Constantinople. There they purchased purple and other silk textiles, including, apparently, ones which had been imported into the Byzantine capital.⁹⁶ Bulgarian merchants seem also to have exported slaves to the Byzantines.⁹⁷

In the light of the disastrous wars triggered by the exclusion of Bulgarian traders from the capital, the trade in honey, linen, and textiles shows that c. 900 at least, Constantinople was one pole of Bulgarian–Byzantine commerce, feeding the north–south current we have observed above. Debeltos (mod. Stari-Debelt, Bulgaria), just inland from the Black Sea on the southern bank of the Sredecka river, was an important frontier post staffed with Byzantine trade officials (*kommerkiarioi*) no later than 832/3.⁹⁸ A second pole was Thessalonica. Seals of *kommerkiarioi* established there begin in 712/13. By around 800, a new official appears. He was apparently modeled on the toll collector at Abydos for he was called the *kommerkiarios* and *abydikos* of Thessalonica, and his office implies that trade was voluminous enough to warrant taxing. The quantity of *kommerkiarioi* seals has been taken to reflect the town's economic activities. If this is so, they surge in the ninth century; the *abydikoi* and related seals end in the tenth.⁹⁹ Some of this trade may

94 Theophanes, A.M. 6305, I.497.16–498.4; Beševliev 1981, 249–50; cf. 198–9.

95 Although its text is only partially preserved, the surviving segments have been taken to show that it essentially followed Krum's proposals, including those on trade: Nadpisi, no. 41 and Beševliev 1981, 276–9. Oikonomides 1988 has proposed an ingenious explanation of the 812 and 716 clauses, according to which controlled trade (not tribute) was the intent of the earlier one, and the proposals of 812 aimed to restore earlier commerce interrupted by war. Whatever the interpretation, the 812 proposals emphasize the importance of commerce at that date.

96 Liber Praefecti, 9, 6, 108.439–49; cf. too Koder's translation, *ibid.*, p. 109. Cf. *ibid.*, 5, 1, p. 94.264–6, which suggests that for some textiles, the Constantinopolitan merchants were acting as middlemen, retailing cloths produced in Syria or elsewhere in the Caliphate. On the Byzantine silk industry in general and the technical terms used in the Greek text, Muthesius 1995, 255–314.

97 Beševliev 1981, 414.

98 CBSDO I: 172, with no. 76.2; Oikonomides 1988, 31; TIB 6: 234–5; *kommerkiarioi*: Ch. 18.2.

99 See CBSDO I: 50; cf. Oikonomides 1992b, 247.

have traveled southwestward via the Gulf of Corinth route, for an imperial fiscal arrangement around 900 seems to connect Thessalonica to Kephallenia (Ch. 18.2). Geography suggests that some trade also came from Bulgaria. In the tenth century, Constantine Porphyrogenitus reckoned Thessalonica a natural point of departure for the Danube and the Bulgarian town of Belgrade.¹⁰⁰ So too we have already seen that the papal envoys of 869 who entered the empire at Thessalonica had traveled overland via Bulgaria (R592). The clincher comes in the observation that two of the *kommerkiarioi* of Thessalonica known from seals of the late ninth or early tenth century, Cosmas and Stauracius, show exactly the same names as the two greedy merchants from Greece who schemed c. 889–93 to bar all Bulgarian commerce from Constantinople and shift it to Thessalonica so that they could unjustly tax it.¹⁰¹ A brief florescence of *kommerkiarioi* seals from the main rivers of Thrace connecting with Bulgaria has suggested further commercial activity.¹⁰² The trade was important enough that the Bulgarian tsar Symeon protested against the changes introduced by Cosmas and Stauracius. When Leo VI turned a deaf ear, Symeon began the invasions in which he would pile up victory upon victory for over a quarter of a century.¹⁰³ In sum, by the late ninth century, at the eastern end of the Danubian route a trading world had sprung up whose commerce was valuable enough to start wars.

The northern arc

Scandinavia enjoys a unique archaeological tradition, reinforced by the circumstances of ancient pre-Christian burial practices and modern civic attitudes towards the law of treasure finds, not to mention the systematic exploration of the rich sites of Haithabu and Birka over several generations. All this makes the northern lands' long-distance communications with Asia, and also western Europe, the best studied of the early Middle Ages. The abundant archaeological and numismatic finds – more than 80,000 Near Eastern coins from the seventh through the early eleventh century (with significant deposits beginning c. 850) –

100 *De adm. imp.*, 42, 1.182.15–17; cf. Runciman, *ibid.*, 2.153–4, and Tăpkova-Zaimova 1979, no. XXVI, 169–70.

101 CBSDO 1: 66, no. 18.38, and 68, 18.44, with Oikonomides 1992b, 247 and Theoph. Cont., 6, 9, 357.22–33, *κακῶς κου. μερκεύοντες*, as punctuated by Oikonomides 1992b, 246. On the date and circumstances, Tsankova [=Cankova]-Petkova 1968, 88–97.

102 Oikonomides 1992b, 247, referring to

CBSDO, 1:125 and 126, nos. 44.5, A.D. 822/3? (could the unusual imperial portrait be that of the usurpers Thomas and his adopted son? Adrianople was in their hands that year) and 44.6, A.D. 838/9?; 1: 133, no. 50.1 (s. ix¹), and 1: 108, no. 39.5, with the references on 1: 107. About travel on the Thracian rivers, see Todorova 1984, 47.

103 Theoph. Cont., 6, 9, 357.30–4; cf. e.g., Browning 1975, 58–67.

have been plausibly construed into a vast “northern arc” of pre- and proto-historic contacts and trade. Paradoxically, some contemporary experts seem more and more cautious about deducing trade from the increasingly abundant numismatic and archaeological remains. Reacting perhaps against simplistic assumptions of earlier generations, they see instead plunder, tribute, or simply more neutral “imports” in the foreign objects discovered in northern soil.¹⁰⁴ Others continue to see trade as the primary vector of goods.¹⁰⁵ Another important qualifier to earlier enthusiasms is the growing evidence that some Islamic-looking material presumed to come from the caliphal heartlands actually was produced on their marches, closer to the northern homelands.¹⁰⁶ It is growing clearer that the exchange networks (to use a neutral term) with the east were complex and, in many cases, involved uncertain numbers of intermediaries, as well as varying degrees of violence. Nonetheless, some of the abundant material remains of eastern origin surely came by way of trade. For this we need not rely on the later and controvertible evidence of the sagas. We can turn to the unimpeachable testimony of contemporary and well-informed Arab observers, as well as the provisions for Rus merchants active at Constantinople codified in the Russo-Byzantine treaties of 911 and 944, not to mention the growing number of excavated settlements whose features seem hard to explain in other terms.¹⁰⁷ The same is true for the relations with the west, since the Frisians seem to have linked Scandinavia to the Frankish empire. King Alfred's milieu and the Old English Orosius supply moreover the contemporary testimony of Ohthere and Wulfstan, two men who indubitably were northern traders.¹⁰⁸

The webs of exchange began around the North Sea. A first network linked the southern reaches of England and the Continent to the Jutland peninsula. At the Frankish end, it reached into the lower Rhine and Meuse rivers, and particularly the Frisian trading settlements of Dorestad and of Domburg, whose Arab coins have already caught our attention (Ch. 12.2). In Jutland, it connected to the emporium of Ribe, on the west coast, and Haithabu, on the east. A very large market or craft zone (at least 200×50 m) was laid out at Ribe in 720/1; activities continued there into the ninth century.¹⁰⁹ The trading settlement at Haithabu was apparently peopled by travelers from the west c. 750–800, who settled there on

104 Oriental coins from plunder or tribute, not trade: Sawyer 1982, 124–6, and 123 on improving hoard evidence after c. 850; “imports,” not trade goods: Jansson 1988, 566; *ibid.*, 569, on the number and general chronology of coins; see also Ch.12.2.

105 Most insistently Hodges and Whitehouse 1983, 101–68, and esp. the systemic

overview in Hodges 1989. But see also, e.g., Steuer 1987a, 113–17.

106 Imitation Kufic coins, possibly from Volga Bulgars: Jansson 1988, 572.

107 For the Arabs, see below; Rus treaties: R780 and R811.

108 Frisians: Lebecq 1983, 1: 249–71; Old English Orosius.

109 Feveile 1994.



Map 20.4 The Northern Arc, from Space

Orthographic Projection
Central Meridian: 135 E
Reference Latitude: 70 N

the Baltic shore of the neck of the Jutland peninsula. As the presence of Ohthere and Wulfstan at Alfred's court makes abundantly clear – to cite only that example – even the southern reaches of Anglo-Saxon England were involved in this North Sea economy.¹¹⁰

The distribution patterns of traded or transported goods are especially distinct for raw materials, but, generally, they hold also for finished products. They reveal that the Dorestad–Haithabu route reflected a North Sea zone of exchange, even as Haithabu's Baltic connections are unmistakable and, in some respects, predominant. Western goods generally diminish as one moves east into the Baltic and north toward Sweden.¹¹¹ To judge from its cemeteries and overall archaeology, Haithabu grew steadily from the eighth century until its decline in the tenth century; at its largest it may have comprised 800 to 1,000 permanent residents, alongside a substantial number of transients.¹¹² Recognized Carolingian exports to Haithabu include wine and Rhenish ceramics.¹¹³ The pottery, however, was more for the personal use of rather numerous visitors than a commercial commodity.¹¹⁴ A later ninth-century Frankish visitor heard psalmody arising from a crowd of chained slaves who were being dragged past him at Haithabu. He recognized and redeemed a Christian nun.¹¹⁵ These were probably not the only slaves for sale in the history of Haithabu. The Christian slaves on view farther east, at Birka, decades before, must have transited through the Jutland peninsula.¹¹⁶ Some textiles might also have traveled toward Haithabu, but the natural conditions do not preserve them well; most of what has been found appears to be of local manufacture, except for grave goods and some possible imports from the west.¹¹⁷ Querns from the Eifel region of Germany, glass and the

110 Lebecqz 1983, 1: 139–163 and 225–47; Jankuhn 1986, 115–17; 119–83; 204–5.
 111 Steuer 1987a.
 112 Jankuhn 1986, 204–5.
 113 *Ibid.*, 150–2.
 114 Janssen 1987 stresses that imported Frankish ceramic is significant, but less voluminous than previously believed. Its use is confined mostly to what appear to be higher status zones of the site. Overall, Frankish import ceramic constituted 7 percent by weight (90 kg) of the total ceramic finds uncovered as of that date at Haithabu; the other 93 percent was made locally or comes from the Baltic. Janssen's careful evaluation leads him to conclude that these finds represent not an export ware *per se* but the residue of personal-use materials of a limited group of

people present at Haithabu from the final decades of the 8th C. to the end of the 9th (and beyond). These people had strong connections to the Rhineland around Cologne.
 115 Vita Rimberti (BHL 7258), 18, pp. 95–6. Cf. Jankuhn 1986, 142–3. The fact that she resorted to psalmody might mean that she spoke a different language from the Frankish prelate – Protoromance, Anglo-Saxon or Irish. A more sinister interpretation might suggest that the lord archbishop had turned a deaf ear to the entreaties of his enslaved countrymen until the woman signaled her religious (and social) status.
 116 See below, 1129.
 117 Hägg 1991; Jankuhn 1986, 148–9.

famed swords were also imported from the Frankish empire.¹¹⁸ Conclusive evidence of grain imports is lacking, although some southern foodstuffs have turned up (e.g., walnuts, also used for dyeing). But it is for now impossible to go beyond the observation that Frisians purchased cereals along the Rhine, that a ninth- or tenth-century dock at Hamburg was covered with a thick layer of grain, and that during a famine, Charlemagne forbade the sale of food outside the empire.¹¹⁹ Toward Haithabu flowed also raw materials and products from Norway, Sweden, the Arctic, and even the east.¹²⁰ The picture bears comparison with the west Slavic settlement of Starigard/Oldenbug, some 80 km to the east.¹²¹

The flow of eastern goods into the Baltic delimits a second zone. Here the main sites are Birka, Gotland, and various places along the Baltic shore, such as a recently published craft and trading settlement of the ninth century, near Gdańsk. Among the Polish finds were ten complete dirhams, two Sassanian coins and fifty-four fragments. The dirhams were issued between 767 and 815.¹²² Such settlements communicated with the Slavic hinterland and the chain of trading towns associated with the Rus which, inland from the Gulf of Finland, ran south and east. In places like Staraya Ladoga and Beloozero, Scandinavians appear in the ninth century. Eastward these travelers continued down the Volga toward the Khazars and beyond them toward the Caspian Sea. Southward, the Rus boated down the Dnieper and took control of Kiev, en route to the Black Sea and Constantinople, which they first raided in 860.¹²³ Baltic amber seems to have been reaching Iraq toward 850.¹²⁴ Before 885, the Rus were already purveying beaver furs, black fox, and swords as far as Baghdad.¹²⁵ In the early tenth century, other Arab observers would add slaves, especially young women, to these merchants' wares.¹²⁶ If texts are so far the main source for exports to the Middle East, the earth has yielded a broad array of durable goods which traveled in the

118 *Ibid.*, 154–5; 158–9 and 161–3.

119 Lebecq 1983, 1: 26–8; Jankuhn 1986, 140; MGH *Capit.* no. 44, 4, 1.123.2–3.

120 Jankuhn 1986, 153–4; 156–8; 163–9.

121 Gabriel 1988 and 1991.

122 Jagodziński and Kasprzycka 1991.

123 See in general, Franklin and Shepard 1996, 3–138.

124 It is mentioned by al Kindi (d. 861), as quoted by al Biruni, as well as in a 9th-C. dictionary, and information on it increases considerably in the early 10th C., according to Lewicki 1963, 3–5, knowledge of which I owe to the thoughtfulness of Jonathan Conant.

125 Ibn Khurradadhbih, in Pritsak 1971, 256 (trans.); 253 (text). This segment of the text is in a jumbled position, within the famous account of the Radhanites, and was already so in his source: e.g. Pritsak 1971, 243–4. For the date of the treatise, see below, ch. 23n70.

126 E.g., c. 903–4, Ibn Rusteh, trans. Wiet, pp. 163–4 mentions the Rus' slave-hunting raids among the Slavs; cf. Ibn Fadlan, trans. Canard p. 115. The most comprehensive collection of Arabic material remains Jacob 1891, here 6–17.

opposite direction. They include the tokens of trade: coins, folding scales, and weights. Oriental ornaments, rock crystal and carnelian (a reddish chalcedony) beads, silk and metal-worked textiles and probably even clothing, including, certainly, the Islamic innovation of buttons, figure next to double axes (which Scandinavians adopted with such relish that they served as the distinctive weapon of those in Byzantium's imperial service) and domestic utensils. Find sites of eastern wares diminish as one advances westward across the Baltic.¹²⁷

They diminish, but do not stop. We know that ninth-century travelers, including Carolingians like the missionary St. Anskar and his followers, sailed to Birka. They presumably traveled via Haithabu, and so crossed from the western-dominated zone to the eastern one.¹²⁸ The Christian slaves they found at Birka must have come from the west; whether any of them were sold further east we do not know, but there is no evidence against it.¹²⁹ Brooches, buckles, and the like reached Haithabu from the eastern edge of the Baltic and beyond. A silver belt fitting found there seems to come from the land of the Khazars or the Volga Bulgars.¹³⁰ Folding scales of a type associated with the Caliphate spread generally throughout Scandinavia in the last decades of the ninth century, apparently in tandem with the large-scale penetration of dirhams. The connection between scales and Arab coins makes sense in terms of Bernard's eyewitness report that cash payments were always weighed in the Caliphate (Ch. 5.1). The scales have been found at Haithabu, where some seem even to have been produced.¹³¹ Distinctive fine weights triumphed across Scandinavia at the same time. Over 100 such small polygonal objects have been discovered at Haithabu, some bearing pseudo-Arabic inscriptions.¹³² Crystal and carnelian beads probably imported from the east are also well attested there.¹³³ Silk, eastern textile trim, and a button

127 See the systematic catalogue and discussion in Jansson 1988.

128 Rimbart, *Vita Anskarii* (BHL 544) 10–11, 14, 19–20, MGH SRG, pp. 31–3, 36, 39–46.

129 *Ibid.*, 11, p. 32: "Multi etiam apud eos captivi habebantur christiani, qui gaudebant iam tandem se mysteriis divinis posse participari."

130 Müller-Wille 1988, 741–62 and 778.

131 Steuer 1987b, 462–7 (his Type 3), with list 6, nos. 33–44 (p. 524).

132 Cf. Steuer 1973, 13 and 20, which states that they first appear in the late 9th C., at the earliest, but does not explicitly identify the grounds for this date; and Steuer 1987b, 470, Abb. 7. On the regional metrical considerations that explain the

frequency of glass weights for coins in the Caliphate, Grierson 1960, 248–57; Bates 1991, 53–60.

133 In addition to Jansson 1988, 584–91, cf. von Müller 1970, who dates the Haithabu finds to the first half of the 10th C., because similar beads show up in two graves so dated in Sweden, and Arrhenius 1978, who gives stronger archaeological evidence for a date in the later 9th C. for Birka and argues, from technical grounds, for the presence of eastern gem cutters, noting also, however, the possibility of a Scandinavian source for the raw material. According to Al Djahiz, *A Clear Look*, 15, trans. Pellat p. 159, Iraq's best carnelian came from Yemen.

have also turned up, though they are no more precisely dated than "Middle Viking" (c. 850–1000).¹³⁴ And we have already observed the Islamic coins deposited in Viking contexts of ninth-century Frankland and England (Ch. 12.2).

So goods flowed northward from western Europe and from the southeastern lands. To some degree, they overlapped at Haithabu. At least one distinctive product of western Europe made it across the entire length of the northern arc, to users in Baghdad: the famous Frankish swords (Ch. 25.1). With every decade, the picture of communications and exchange has grown more detailed. Excepting swords and Arab coins, few objects can be traced along the entire complex of routes, between the Frankish empire and Baghdad. But there is strong ninth-century evidence for a northern trading world comprising a series of interlocking exchange zones.



On every side, the Frankish empire was flanked by trading worlds which were coming to life. Whether we look to the great economies of the south, or the nascent ones of the North Sea and the northern arc, or Bulgaria, the pace quickens in the eighth and ninth centuries. It is true that, at least in the Byzantine world and along the northern route, the regional component of those trading worlds was pronounced, and perhaps predominant. One suspects something similar in the vast Muslim economy, or economies. Yet the economic regions overlapped. In the course of the ninth century, these different trading worlds began to intersect in new ways and in new places. The clearest example is the Black Sea and its hinterlands. Rus traders and raiders from the northern arc reached it and Constantinople itself, sailing past the shores of Bulgaria. Others trekked overland toward the Caspian Sea, beyond which lay Iran, and Iraq, the magnet for the wares of the world. Byzantines occupied Cherson on the northern shore of the Black Sea, while northerners crossed that sea to trade with Byzantines on its southern coast.

But this thickening web of connections, of commerce – of communications – was not confined to the Black Sea or Iraq. They merely happen to be the best-documented places. Syrian traders were immigrating to Constantinople by 900, and ships loaded with Cordovan and other Spanish goods were sailing along the Riviera at most a few decades later. The proverbial "big picture" of trade across the Muslim world, from Spain to the Persian Gulf, implies similar webs of trade, whether wide or narrow, linking the regions along the southern rim of the Mediterranean Sea. And, as the route by which the last bubonic plague reached Constantinople attests, these webs had taken shape since 746.

The southern and eastern places of prosperity in North Africa, Egypt, Syria–Palestine, Bulgaria, and Byzantium are the same ones to, from, or through

which our travelers moved. In general terms, the cargo-laden ships that sailed along these routes and sank confirm what the aggregate evidence of communications depicts. This brings us a step closer to recognizing a link between communications and commerce. The Carolingian empire was surrounded by a series of distinct trading worlds which were now beginning to intersect and interweave. Are we to believe that it alone went unwashed by currents of trade? No one contests that the Frankish world traded to some degree toward the northern arc: people using pottery manufactured in the Rhineland sojourned at Haithabu; we know that the places that supplied relics to Frankish hoards changed between the seventh century and 800, and came to feature particularly the Arab Levant, Constantinople, and Ephesus; we know that suddenly, around 775, Arab coins began to flow into Italy, at the same time that communications in general surged with the distant shores of the Mediterranean. It is time to return to the Carolingian merchants.

134 Jansson 1988, 639 and 640, with 606.