I

LIFE AMONG THE EUROPEANS IN PALESTINE AND SYRIA IN THE TWELFTH AND THIRTEENTH CENTURIES

Any attempt to reconstruct medieval daily living in detail must result in a series of generalizations. Scattered remarks can be gathered from chronicles, travel accounts, and letters, with some attention paid to literature, and this evidence can be set into a framework which is acceptably accurate for the time and place. In a treatment of the social history of medieval Europe or its Syrian outposts, the framework is that of an unmechanized society with pale memories and incomplete records of the glories of ancient Rome. Members of western European society took for granted a common way of life which spread principally from France. True, we know much about certain non-royal Englishmen, Flemings, Germans, Italians, and Catalans, with a few from elsewhere, but we probably do not err too much in considering them all as a fairly homogeneous unit. Writing in 1148, Anna Comnena grouped them all together as "Franks," whom she characterized as shameless, violent, greedy for money, disrespectful, and possessed of a flow of language which was greater than that of any other race of mankind.[1] She feared, and sought to disparage, their remarkable military prowess. In Palestine and Syria, the extent of land held by the Latins varied in the centuries covered by this chapter. It was divided into the kingdom of Jerusalem, the county of Tripoli, the principality of Antioch, and the county of Edessa (until it fell to Zengi in 1144); the island of Cyprus was added in the Third Crusade.[2] Our present concern is with Jerusalem and Tripoli.

1. Anna Comnena, *The Alexiad,* trans. E. A. S. Dawes (London, 1928), pp. 248, 251, and *passim.*

2. On the history of the Latin States in Syria, see volumes I and II of this work.

The Christians lived in close proximity to the Moslems. On the surface the two peoples were frequently friendly, courteous, and even kind to one another. When they dwelt in each other's territory they had the discomfort of a few additional taxes and the unpleasantness of being called dog or infidel on occasion, but conditions were usually tolerable. Although underneath the surface lay emotion which could quickly flare into a fanatic desire for holy war, only the Franks who were newly come from home were rude and overbearing to the people of Islam.[3] Moslems in Acre would watch gangs of their co-religionists in chains, men and women, doing heavy work;[4] free themselves, they would piously toss them alms. The same would be true of Latins visiting Jerusalem after the fall of that city.[5] Among the Christians of the region the crusaders from the west remained a relatively small proportion. Besides the many Greek Orthodox, there were other Christians: the Jacobites, the Maronites (who adhered to Rome in 1182), the Nestorians, the Armenians, and the Syrian Christians, who dressed like Moslems but wore a special woolen girdle. Their bishop was Greek, and Saturday was their holy day; they frequently acted as servants in Moslem households.[6] The Armenian and Georgian priests wore white linen cloths over their shoulders and necks.[7] The Jacobites had their own archbishop; they impressed James of Vitry with their potential, although they had no auricular confession, made the sign of the cross with one finger only, and practised circumcision.[8] We can easily imagine the confusion felt by a moderately well informed incoming pilgrim, seeing these people who seemed to be associated with the Saracens, and who were considered by the Latins schismatics or heretics (and one could not be sure which they were).

Acre was notorious for its mixed population. Among the Latin Christians, schismatic sects, and Moslems of various types, there was an excessive number of curiosity-seekers and adventurers, many of

3. Usāmah ibn-Munqidh, *Kitāb al-i'tibār,* trans. P. K. Hitti as *An Arab-Syrian Gentleman and Warrior in the Period of the Crusades* (Records of Civilization, New York, 1929), pp. 163-164.

4. Ibn-Jubair, *Riḥlah,* trans. R. J. C. Broadhurst as *The Travels of Ibn Jubayr* (London, 1952), p. 322.

5. Ambrose, *L'Estoire de la guerre sainte,* trans. E. N. Stone as "History of the Holy War," in *Three Old French Chronicles of the Crusades* (Seattle, 1939), p. 156.

6. James of Vitry, *Historia Iherosolimitana,* excerpts trans. Aubrey Stewart as "The History of Jerusalem, A.D. 1180 [error for *c.* 1220]," *PPTS,* XI-2 (London, 1896), 67-84, including much bigotry and irrelevant theological musings.

7. Burchard of Mt. Sion, *Descriptio Terrae Sanctae,* trans. Aubrey Stewart as "A Description of the Holy Land [A.D. 1280]," *PPTS.* XII-1 (London, 1896), 109.

8. James of Vitry, *Epistolae,* ed. R. Röhricht as "Briefe des Jacobus de Vitriaco (1216-1221)," *Zeitschrift für Kirchengeschichte,* XIV (1893-1894), 109; *Historia,* pp. 73-76.

them dangerous.[9] They had come to the east usually to do penance, but some had stayed on to gain an "easy" livelihood. The weary pilgrim,[10] when he went ashore on the quay at Acre, had to hold his money in a tight grasp. If he were not able-bodied enough to be "persuaded" into military service by some ambitious count,[11] he was likely to be "sold the city gates" by a confidence man. Of course, most of the pilgrims were capable of bearing arms and were pleased to do so, deeming it an act of expiation to strike a blow at the infidel. Tancred of Antioch wrote an introduction for such a man, who wished to meet the Moslem horsemen (Arabic sing., *fāris*) who had nearly killed him in a skirmish: "This is a revered knight of the Franks who has completed the holy pilgrimage and is now on his way back to his country. He has asked me to introduce him to you . . . . Treat him well."[12] Not all crusaders were improved by their trip, according to popular feeling. Although the early branches of the *Roman de Renart* are quite bitter, and must be read with a grain of salt, they are informative. In one episode Renart offers to take the cross to go "outre la mer." Grimbert pleads that when Renart gets back in five months he will be needed, because he is brave. Noble the king replies: "That cannot be said. When he gets back he will be worse, for all of them have that custom: those good men who go return as evil men. He will do the same if he escapes from peril."[13] Note the mention of five months as the normal duration of a quick journey to the Holy Land and back.

Acre was the chief port and, after the loss of Jerusalem, the capital of the kingdom, located on a fine bay across from Haifa.[14] To the east was a swift stream which had stretches of sand along its banks—excellent for glass manufacture[15]—beside which the armed knights

9. James of Vitry, *Historia*, pp. 89-90.

10. On the pilgrims to the Holy Land after 1095, see chapter II, below.

11. Bahā'-ad-Dīn Ibn-Shaddād's biography of Saladin, *Kitāb an-nawādir as-sulṭānīyah* . . . , trans. C. R. Conder and C. W. Wilson as " 'Saladin'; or, What Befell Sultan Yûsuf . . . ," *PPTS*, XIII (London, 1897), 239. An old pilgrim had been pressed into service and captured by Saladin, who freed him.

12. Usāmah, p. 98; cf. "Assises de Jérusalem," ed. Auguste Beugnot in *RHC*, *Lois* (2 vols., Paris, 1841), I, xxi: a pilgrim should fulfil his vows, get a palm at Jerusalem, and then go home.

13. *Le Roman de Renart*, Branch I, vv. 1402-1410, ed. Ernst E. Martin (4 vols. in 2, Paris, 1882-1887), I, 39-40.

14. The city and harbor can be seen on a map in E. G. Rey, *Étude sur les monuments de l'architecture militaire des croisés en Syrie et dans l'île de Chypre* (Paris, 1871), p. 171. For comments on it by Arabic geographers see Guy Le Strange, *Palestine under the Moslems* (London, 1890), pp. 328-334.

15. *Itinerarium peregrinorum et gesta regis Ricardi*, ed. William Stubbs, in *Chronicles and Memorials of the Reign of Richard I*, vol. I (Rolls Series, XXXVIII; London, 1864), p. 76; this work is probably by one Richard of London.

were accustomed to pitch their tents. Some orchards and vineyards were immediately adjacent to the city, and there were many gardens in the nearby villages.[16] Two main roads led from there to Jerusalem: an upper road which passed through Nazareth and Nablus, and a seaside road which went by Caesarea and Lydda.[17] The walls of Acre had many towers, a stone's throw apart. On the land side of the peninsula the wall was double and bordered by a huge moat.[18] Inside the town there appears to have been a tower at each street corner, enclosed by chains. The nobles lived on the outer edge of the inhabited area, close to the walls; the mechanics and merchants were in the center, each trade having a special street.[19] Houses occupied by Christians had a cross marked on the front wall. Many banners and pennants were flying. Ibn-Jubair, who was a hostile witness, comments upon the filth; he says that pigs and crosses were everywhere, and that there was a terrific odor from refuse and excrement.[20] John Phocas also comments on the "evil smells."[21] The harbor was double: an inner one for local ships and an outer for the pilgrim traffic.[22] Like most port cities of the time, this outer harbor had a long mole with a central opening flanked by towers, between which a chain was stretched when needed, to close the entrance.[23] The Tower of Flies stood on a rock in the center.[24] Theoderic mentions the fine building of the Templars on the shore. This city was so crowded that we can surmise that almost everyone was renting rooms, or parts of rooms, to the travelers. Several hostelries were reserved for Moslems, and part of a mosque even continued in use.[25]

Ibn-Jubair approached the city from the landward side, in a caravan.[26] There was a customs house there, a plain building with a large room on the upper floor for sleeping accommodations. In front

16. Ibn-Jubair, p. 325; James of Vitry, *Historia,* p. 5; Burchard, p. 9.

17. Theoderic, *Descriptio Terrae Sanctae,* trans. Aubrey Stewart as "Theoderich's Description of the Holy Places (circa 1172 A.D.)," *PPTS,* V-4 (London, 1896), 69.

18. Bāhā'-ad-Dīn, p. 261.

19. Ludolph of Suchem, *De itinere Terrae Sanctae liber . . .*, trans. Aubrey Stewart as "Description of the Holy Land . . . A.D. 1350," *PPTS,* XII-3 (London, 1895), 50-53.

20. Ibn-Jubair, p. 318: Broadhurst annotates "pigs" as "(Christians)."

21. John Phocas, *Ekphrasis . . .*, trans. Aubrey Stewart as "The Pilgrimage of Joannes Phocas in the Holy Land (. . . 1185 A.D.)," *PPTS,* V-3 (London, 1896), 11. Ambrose (p. 123) seems to have been dissatisfied with his lodgings in Acre.

22. Theoderic, p. 73.

23. Ambrose, p. 53; "L'Estoire d'Eracles empereur et le conquête de la terre d'Outremer," *RHC, Occ.,* II (Paris, 1859), 108.

24. Ambrose, p. 58.

25. Ibn-Jubair, p. 318; he and his companions lodged with "a Christian woman."

26. *Ibid.,* pp. 313-317.

of this building there were stone benches covered with carpets where sat Christian clerks with ebony inkstands ornamented with gold.[27] They could read and speak Arabic and, of course, their European vernacular. Saracen scribes were, to be sure, employed by Europeans; for instance, the master of the Temple had one at his beck and call.[28] The customs officials had mostly to do with caravans that approached from Damascus and other commercial cities. One that the Franks captured carried gold, silver, silks, Grecian textiles, purple-dyed stuffs, quilted jackets, garments, tents, biscuits, barley meal, medicines, basins, leather bottles, chess tables, silver pots and candlesticks, pepper, cumin, sugar, wax, spices, and arms.[29] Large mule caravans from Damascus were wont to pass through Toron, twenty-five miles south of Sidon; other caravans approached Acre from Tiberias.[30] At the time Ibn-Jubair was writing, these caravans were composed of peaceful Moslems. The customs, working for the king of Jerusalem, collected at Chastel-Neuf (Ḥūnīn) one dinar plus one twentieth of the value of the goods. The toll at Acre was one twenty-fourth part of each dinar's worth of goods.[31]

The coins in circulation were the good bezant, the base silver (*billon*) or copper denier, and the obol or half-denier. The ratio of value must have varied. In Beugnot's notes to the *Assises de Jérusalem* it is stated that three bezants are the equivalent of twenty-four sous (288 deniers).[32] The amount required for the support of an individual for a month was between one and two bezants.[33] In order to secure men, Philip Augustus offered the large wage of three bezants a month; Richard topped him with four.[34] Bezants were required for the vast turnover of money in trade and ransom. Petty commerce still needed the base silver and copper denominations. For the kings of Jerusalem we find deniers and obols struck in a fair quality of billon by Baldwin II, Amalric, Guy of Lusignan, Henry of Champagne, and John of Brienne.[35] Some of the issues approach

27. *Ibid.*, p. 317.
28. Anouar Hatem, *Les Poèmes épiques des croisades* (Paris, 1932), p. 297, in *Règle du Temple.*
29. Ambrose, p. 139.
30. Ibn-Jubair, p. 324.
31. *Ibid.*, p. 316.
32. "Assises de Jérusalem," II, 36, note b.
33. *Ibid.*, II, 117.
34. *Itinerarium*, pp. 213-214.
35. The most comprehensive discussion of the coins is G. L. Schlumberger, *Numismatique de l'orient latin* (Paris, 1878-1882), pp. 130 ff.

copper; a few are respectable silver. There is a *pougeoise*, or half-obol, by Henry of Champagne, for which we possess the *piedfort* or engraver's model. It is the only one of all these coins which has its value marked on it, as *puges;* this was because it was a new value, and unfamiliar.

The counts of Tripoli had their own money. Bertram (1109-1112) struck a denier which is the oldest extant crusader coin. Under Raymond II (1137-1152) there was a silver denier, with no name on it, followed by a copper coinage. In 1148 began the *denier raimondin*, which shows the design of Toulouse—the crescent moon and eight-rayed sun surrounded by circlets. Money without a lord's name customarily means a regency or a vacancy: during the captivity (1164-1174) of Raymond III (1152-1187) the pennies do not bear his name. With Bohemond VI of Tripoli (1252-1275) the *gros* or groat was introduced. Secondary barons of the kingdom of Jerusalem who struck their own coins were the counts of Jaffa and Ascalon, the lords of Sidon, and especially the lords of Beirut and of Tyre. The lords of Toron also have left a few pieces. Certain other fiefs are mentioned in the Assises of Jerusalem as having the right of coinage, but we have nothing from them. These were held by the lords of Montréal, Tiberias, Arsuf, Belinas (Banyas), Bessan (Baisan), Blanche Garde, Ramla, and Scandelion. We have observed that the crescent and sun were peculiar to Tripoli. The *fleur de lys* occurs on some issues from Acre; the arrow appears to have been a mint mark of Sidon.

Presumably the currency of the Moslem lords also passed freely everywhere. The Near Eastern peoples had their own money, which was of gold, billon, and copper. Their dinar of gold was worth half a pound in western money.[36] For a little while these Moslem coins were actually imitated by the Venetians, who had their authorized mints (*zecche*) in Acre, Tripoli, and Tyre (after 1124). At Tyre in 1127 they began to make Christian imitations of the Moslem dinar, called *besanz saracinois au pois de Tyr;* the Moslems called them *dīnār Ṣūrī.*[37] These Venetian imitations were modeled after the Fāṭimid dinar of al-Āmir (1101-1130). This minting of Moslem imitations by Christians was considered a scandal in the mid-thirteenth century. As a result, on the initiative of Louis IX, a Christian bezant, but still with Arabic language and lettering, came into existence.

36. These dinars were so coveted by the crusaders that dead Saracens who might have swallowed their gold before being killed were "split open" and their bellies searched; Fulcher of Chartres, *Historia Hierosolymitana,* trans. Frances R. Ryan, ed. H. S. Fink as *A History of the Expedition to Jerusalem 1095-1127* (Knoxville, Tenn., 1969), p. 122.

37. On these coins see also below, p. 42.

Great quantities of silver must have been sent to the Near East from western Europe,[38] and individuals undoubtedly carried with them a considerable supply of money, for the most part silver (or billon) deniers or pennies. The English did not mint any other values than this penny of some 22 grains. The French had also half-deniers or obols (or *mailles*). Pennies and mailles were frequently cut into halves, with the half-maille thus made termed a *parti*, or farthing. Two knights at the siege of Acre had only a *denier angevin* between them, for which they drew lots by pulling hairs from a pellice. Ambrose has a reference to "not all the gold which is in Russia,"[39] which makes it likely that some of the gold in use in Asia Minor was brought across the Black Sea. Except when buried or lost, all these coins continued in use indefinitely, although the money-changers may have discounted many of them as they became obsolete or worn from handling. Although the practice of banking was still in the most rudimentary stage, that of money-changing was far advanced. Of the changers we hear of those "who sat upon the change . . . ."[40] These men must have handled by the scoopful money from all the areas which sent pilgrims to the Holy Land. Perhaps they were even capable of changing, at a liberal discount, the silver and gold that came from buried treasure. Oliver tells of a hoard that was uncovered when men were building Château Pèlerin, between Haifa and Caesarea: "coins unknown to us moderns were discovered in a clay jar."[41] (Such finds were made everywhere: William of Malmesbury speaks of ancient British coins "of which many are dug up in this age.")[42] Henry II of England stored his "treasure" with the master of the Temple,[43] who, both in Jerusalem and later at Acre, was doubtless the chief treasurer for the area.[44]

Conditions of housing are not well documented. Medieval commentators took houses for granted, and those that have survived were the more expensive ones made of stone, whose construction has been

38. Bahā'-ad-Dīn, p. 235.

39. Ambrose, p. 46.

40. "Eracles," p. 193: "qui se seoient sur la Change . . . ."

41. Oliver, *Historia Damiatina,* ed. R. Röhricht as "Die Briefe des Kölner Scholasticus Oliver," *Westdeutsche Zeitschrift für Geschichte und Kunst,* X (1891), 172.

42. William of Malmesbury, *De gestis regum Anglorum,* ed. William Stubbs (Rolls Series, XC; 2 vols., London, 1887-1889), I, 6.

43. "Eracles," p. 47: at Henry's command the master, Gerard of Ridefort, delivered this treasure to Guy of Lusignan to use in fighting Saladin.

44. John of Joinville (*Vie de Saint Louis,* ed. Natalis de Wailly, trans. Joan Evans, London, 1938, p. 123) also deposited his money with the Templars, and had considerable difficulty in getting it back.

much altered in the course of centuries. We can only generalize on the dwellings in crusader Acre. Any walled town, teeming with thousands of people, had a serious housing problem. Even the kings and nobles in their better quarters had to fill all available space with guests and retainers. In Acre, John of Joinville was given the quarters of the priest of St. Michael's; close by his bed was the entry into the church itself, from which he could hear the chanting of the burial service.[45] The simplest houses at Acre were probably one-room dwellings of wattle material daubed with clay, surrounded by a drainage ditch. Such a shed in Europe would have had a thatched roof; probably in the east it had a flat roof of sunbaked tiles. In the simplest style of dwelling there were no windows; light came from the open door and from the fireplace.[46] There would be a mud floor with a few stones set in the middle for a hearth. A hole in the roof acted as chimney. Huts of this type must have been erected in all available open spaces within the walls.

Better houses were made of the same material, if what Ibn-Jubair says of Damascus was true of Acre, but they would have an additional room on each floor and could be three stories high.[47] Tyre, which was cramped for space because of its peninsular location, had houses—considered very beautiful—that rose to five and six stories.[48] Certainly these better houses had the inevitable double windows on the principal floor, facing the street or courtyard. Young Henry of Champagne broke his neck when he fell from such a window and struck the stone coping of the town ditch of Acre.[49] There must have been a means of closing off the light from the windows, perhaps with glass, since it is recorded that James of Vitry opened his windows in the morning and gazed with longing toward Nazareth.[50] (He did not visit the towns which were in the hands of the Saracens.) There might be a balcony.[51] Windows on the lower floor could be barred.[52] Each house had its own well or cistern.[53] Theoderic says the houses of Jerusalem were tall and of squared

45. *Ibid.*, p. 124.

46. *Ibid.*, p. 177.

47. Ibn-Jubair, p. 295.

48. *Ibid.*, p. 319: Tyre's "dwellings are larger and more spacious" and "its roads and streets are cleaner than those of Acre."

49. James of Vitry, *Historia*, p. 117; *La Chronique de Rains*, trans. E. N. Stone as "The Chronicle of Rains" in *Three Old French Chronicles of the Crusades*, p. 272.

50. James of Vitry, *Epistolae*, p. 113.

51. Usāmah, p. 154.

52. Joinville, p. 128.

53. Ibn-Jubair, p. 325; Fulcher of Chartres, trans. Ryan, p. 117: "The many cisterns inside the city, reserved for winter rains, have a sufficiency of water."

stone, with flat roofs; water was caught on these roofs and conveyed to the cisterns, for none had wells. Theoderic adds that wood could not be obtained for use as a building material.[54] The so-called crusader's house at Mt. Ophel in Jerusalem, which is given this name because the building had a cross over the door, had a paved court from which a small corridor led into a room with a lime-clay floor and a stone central hearth.[55] A house might have a stone bench placed beside the front entrance, where one could take the air.[56] A pole also might be set up on which things could be hung temporarily; a passing camel or ass might take a bite out of fruit hung in this way.[57]

The stabling of horses in any medieval town is difficult to picture. Horses were in constant use and must have been kept close by; on the other hand, there was little room for stable enclosures. Presumably horses when in quantity might be stabled below ground; it is probable that the Temple at Acre, like its counterpart at the Aqṣâ mosque in Jerusalem, had subterranean stalls.[58] This was a practice frequent in Europe: at Géronville above Bordeaux "a great cave which Saracens had made was in the castle, which was very old. The horses were in this underground place, as well as food–bread and wine."[59] One can see similar underground galleries, which may well have housed horses, at Château Gaillard, Montlhéry, Kenilworth, and elsewhere–medieval horses could go up and down stairs, evidently, unless there were winding ramps.

Two ever-present problems were lighting and sanitation. Lighting was done mostly by oil lamps of brass or clay resembling somewhat the ancient Roman type. Joinville mentions a candle set in a metal tray.[60] Candles, of course, had a religious use. One of the loveliest passages in Ibn-Jubair describes the observance of All Saints on the ship in which he was returning from Acre. Every Christian, man, woman, and child, had a candle, and the ship was ablaze with moving light, and there were sermons and prayers almost all night.[61] In a

54. Theoderic, p. 5.

55. R. A. S. Macalister and J. G. Duncan, "Excavations on the Hill of Ophel, Jerusalem, 1923-1925," Palestine Exploration Fund *Annual,* IV (1923-1925, publ. 1926), 133-137. Usāmah (p. 160) notes that the floors of his father's house were paved with marble.

56. "Assises de Jérusalem," II, 104.

57. *Ibid.,* II, 106.

58. John of Würzburg, *Descriptio Terrae Sanctae,* trans. Aubrey Stewart as "Description of the Holy Land (A.D. 1160-1170)," *PPTS,* V-2 (London, 1896), 21; John says there was room for 2,000 horses or 1,500 camels.

59. *Gerbert de Mez: chanson de geste du XIIe siècle,* ed. Pauline Taylor (Namur, 1952), p. 73, vv. 2791-2794.

60. Joinville, p. 196.

61. Ibn-Jubair, p. 328.

household the kitchen fire was the central one; when this was blazing brightly, no other light was needed, at least in the vicinity. We are not always certain about the whereabouts of the kitchen; in many instances, it may have been in a lean-to set against the house.

Sanitation, such as it was, was primitive. A ditch of some kind, or a pit, was the best that one could hope for. If there was a moat, temporary or permanent, that was considered an excellent place for the disposal of filth.[62] In places as crowded as the Syrian and Palestinian cities, it must have been extremely difficult for the more cleanly to construct proper *longaignes*. Our ancestors were not as concerned about odors and filth as we are. Urination took place almost anywhere: Usāmah tells us of a Saracen whose head was crushed by a catapult stone when he turned toward a wall for that purpose.[63] We may assume that the castles and the larger houses were properly provided with indoor latrines. Sometimes this may have been a mere gesture towards sanitation, because where a pit was impracticable such a latrine would lead no further than to open ground at the base of the house or castle wall. But Château Gaillard in Normandy, which Richard built to eastern specifications, had a double latrine pit, through which Philip Augustus was able to send invaders on that fateful night in 1204. In contemporary illustrations for Cantigas 17 and 34 of Alfonso X, which show a similar Christian and Arab mixed civilization, there are representations of a latrine seat—a circular hole in a slightly slanting board.[64]

Household furnishings in the Holy Land were even simpler than those in Europe. It was quite usual to follow the Moslem custom of sitting on rugs or mats, and not benches, when eating a meal; the tables were low enough to permit this.[65] It is clear that the crusaders seldom ate on the floor itself, though it is specifically stated in one reference that a cowardly Templar was required to eat on the floor for a year, with no napkin provided, as a matter of discipline; when the dogs troubled him, he could not drive them away.[66] Ewers and other containers could be made of wood. Presumably there were also cups and dishes of pottery, glass, and metal. A clothes pole, or rack,

62. *Itinerarium*, p. 100. Fulcher of Chartres (trans. Ryan, p. 119) says of Jerusalem, "There were gutters in the streets of the city through which in time of rain all filth was washed away."

63. Usāmah, p. 144.

64. José Guerrero Lovillo, *Las Cántigas* [*de Alfonso el Sabio*]*: Estudio arqueológico de sus miniaturas* (Madrid, 1949), pls. 21, 39.

65. *Las Cántigas*, pls. 44, 151, show tables; pl. 105 has a cooking tripod. Usāmah, p.158, mentions a wooden jar (ewer?); Joinville, p. 177, speaks of pots and glasses on the table.

66. "Anonymous Pilgrim V.2," trans. Aubrey Stewart, *PPTS*, VI-1 (London, 1894), 30.

fastened horizontally, is pictured in the house of a Mozarab in Spain;[67] doubtless the same device was used in the Holy Land, as well as in Europe. Wooden beds are mentioned: Philip of Novara had a hawk which perched upon his bed,[68] and Joinville had his bed so placed that he could always be seen from the doorway.[69] But where space was greatly needed, it is not unlikely that individuals slept on *coutes*, or thin mattresses, placed upon the floor.[70] Everywhere there were chests in which clothing and objects of all kinds could be stored; books were kept in this way.[71] In the walls of medieval buildings that are still standing one sometimes encounters a niche which gives no evidence of having been closed by a door. Probably these were quite frequent, and held shelves on which lamps and figurines could be placed. Where there was a door present the niche served as a cupboard. A description of a house in Egypt at this time states that it had "carpets, furniture, and a complete outfit of brass utensils."[72]

There were good craftsmen in the Holy Land. Many of the rich houses of the upper class of crusaders were ornamented by Arab artists.[73] Nails, doors, pipes, and cisterns could be made of iron.[74] which probably came from near Beirut. The mountain there was filled with iron mines,[75] and this iron took a good temper. A forest of pines stretched inland for twelve miles in all directions, as far as Mt. Lebanon. The city of Beirut had a good wall, but the town's chief attraction for pilgrims was an image of Christ which had reputedly itself been crucified.[76] Outside the wall were "spacious meadows" and the customary gardens.[77]

As one traveled north from Acre toward Beirut there was more fraternization between Christian and Moslem.[78] Tyre was an attractive port on the sea, surrounded by water on three sides. The port, enclosed by a mole, was a protection for ships, but it was not as good

67. *Las Cántigas*, pl. 28.
68. Philip of Novara, *Mémoires*, ed. Charles Kohler (Paris, 1913), p. 29.
69. Joinville, p. 152: "this did I to remove all wrong beliefs concerning women."
70. *Itinerarium*, p. 225.
71. James of Vitry, *Epistolae*, p. 102.
72. Usāmah, p. 30.
73. Hatem, p. 297.
74. Ibn-Jubair, p. 269; cf. P. K. Hitti, *History of Syria, including Lebanon and Palestine* (2nd ed., London, 1957), pp. 489, 620.
75. Hitti, p. 571; al-Idrīsī, trans. Le Strange, *Palestine under the Moslems*, p. 410.
76. Theoderic, pp. 71-72; "Eracles" (manuscrit de Rothelin), *RHC, Occ.*, II (Paris, 1859), 514; "Fetellus (circa 1130 A.D.)," trans. J. R. MacPherson, *PPTS*, V-1 (London, 1896), 51-52.
77. Phocas, p. 9; "Assises de Jérusalem," II, 458.
78. Ibn-Jubair, pp. 319-320.

as that at Acre. On the land side, there was a fine suburb where glass and clay pots were manufactured. A good weaving industry produced white cloth which was shipped far and wide.[79] Vineyards, gardens, fruit trees, and grain fields extended far on that side of the town. At Tyre lived people of all kinds, and bishop James of Vitry found that he had to preach through an Arabic interpreter.[80] The strange sect known as the Assassins had their territory not far distant, and many beduins were to be seen pasturing their flocks in the great plain. The fertility of the area was evident in the gardens, which reached to Homs and from there lined the road to Damascus;[81] there grapes were picked twice a year. Irrigation was accomplished with the aid of those huge water wheels which still persist in the Near East. Windmills were not unknown, though Lamb errs in stating that they had been introduced by German settlers.[82] A great plain extended east from Tyre, and on this plain about a mile from the city was a famous (artesian?) fountain, encircled by an octagonal tower, so high that it was a good observation post. It had spouts at the corners from which water splashed noisily onto the ground.[83] To the north, Sidon, with its fine ramparts and good markets, had hundreds of villages dependent on it. The nearby mountains were famed for their springs, one of which was supposed to have aphrodisiac fish.[84]

Still farther north was Tripoli, which, like Tyre, possessed a fine harbor and was well fortified and almost entirely surrounded by sea. Although rather small in area, this was the chief commercial and manufacturing town of its region, and many middlemen were active there. As usual, the surrounding land was rich with vineyards, olive groves, fig trees, and fields of sugar cane.[85] Tiberias, which the Franks lost in 1187, was on a hill beside the Sea of Galilee, a sweet-water lake about twelve miles in length; most of its provisions came across the lake from the Moslem side. This town manufactured beautiful mats called Sāmānīyah.[86] Oddly, the port of Haifa, across the bay from Acre, was not much used. Twenty-five miles farther south

79. Al-Idrīsī, trans. Le Strange, *Palestine under the Moslems,* p. 344; Theoderic, p. 73; cf. Phocas, p. 10.

80. James of Vitry, *Epistolae,* p. 117.

81. Ibn-Jubair, p. 270.

82. Harold Lamb, "Crusader Lands Revisited," *National Geographic Magazine,* CVI (1954), 843; Hitti (p. 619) points out that they were unknown in Europe before 1180; Ambrose, p. 51; Usāmah, p. 171.

83. Phocas, p. 11.

84. Al-Idrīsī, trans. Le Strange, *Palestine under the Moslems,* pp. 346-347.

85. *Ibid.,* p. 350; James of Vitry, *Epistolae,* p. 115. Hitti (p. 597) says that it had a population of 20,000 in 1103, and that its principal manufactures were glass and paper.

86. Al-Idrīsī, trans. Le Strange, pp. 338-339.

was Caesarea, which had no convenient harbor, though it had the usual gardens and pasture-land.[87] At Jaffa, which was important because it was the rallying place for Jerusalem, there was little more than a castle and some gardens; pilgrims camped in open fields outside the walls.[88] Farther down the coast, Ascalon, when it was not being destroyed or rebuilt, had double walls and good markets, but there were no gardens or trees in the vicinity.[89]

One of the principal manufactured products was sugar; Burchard gives a brief résumé of the process. The canes were cut into pieces of half a palm's length; these were crushed in a press, and then the juice was boiled in copper boilers and allowed to settle in baskets of twig, where it dried quite hard. This product was known as honey of sugar, useful in making cakes.[90] No lime was added—later the chief ingredient for producing crystalization; this process was probably discovered in Jamaica, whence it was carried to Louisiana, many centuries after the last crusader was laid to rest. Acre was famous also for its peach preserves.[91]

Most important was the production of glass, at both Acre and Tyre.[92] The glass was formed from very sharp sand and "sea-gruel," identified as a sea plant (Sallosa) which, when burned, furnished soda. To this mixture of silicate (sand) and soda the workmen doubtless added varying quantities of lime, alumina, and oxide of iron (iron slag), to make what is today termed bottle glass. The glass discovered at Pompeii had this same formula, plus some oxide of manganese and copper. The ingredients must have been placed in an earthen pot of proper size and thrust through a hole into a furnace, heated very, very hot—some 2500°F. When the glass reached the right consistency, a workman would gather some of the molten material onto a metal blowpipe. After he had swung this and blown into it at intervals, the resulting glass globule would be thrust into an earthen bottle, or other form, and then blown into the required shape. It is probable that the earthen bottle form was in two segments, which were fastened together after the glass globule was inserted. We do not have a description of such manufacture from a source at Tyre or Acre, but no other process could have been followed. Glass enamel must have been manufactured in abundance. In

87. James of Vitry, *Historia,* p. 5. Al-Idrīsī (trans. Le Strange, p. 474) calls it "a very large town, having also a populous suburb. Its fortifications are impregnable."

88. Ambrose, p. 97.

89. Al-Idrīsī, trans. Le Strange, pp. 401-402.

90. Burchard, pp. 99-100; James of Vitry, *Historia,* p. 28.

91. Burchard, p. 100.

92. James of Vitry, *Historia,* pp. 92-93.

making this, oxide of tin was added instead of oxide of iron, and a coloring material was needed. Oxides of copper, cobalt, and manganese produced the colors.[93] As for painted glass, or stained glass as we are accustomed to calling it, the oldest of this in western Europe is probably in the cathedral at Le Mans, dating from around 1090; the very early glass at Saint Denis dates from the middle of the twelfth century. How much improvement in the process could have come from Syria we cannot say, but this was an art well practised in the Holy Land. The glass was made by the pot-metal process, where the lines on the figures are drawn with brown or black enamel, the whole then being fused by firing. The figures themselves were put into place in the pane by leading. Each stretch of glass of uniform color was produced in a roller mold, from soda glass.

The textiles made in this region are taken for granted in the chronicles and other accounts, but they were something very special. Silkworm culture had been brought to the Mediterranean in the sixth century, in Justinian's time. Persia and Constantinople became the important centers, and they continued to be so. Cotton also was grown.[94] In Marie de France's "Le Freisne" we find that "they wrap the lovely child and place it on a coin-dot cloth. Her husband had brought it to her from Constantinople where he was. Never had they seen so fine a one . . . ."[95] Probably the husband of the lady had been to Constantinople at the time of the Second Crusade. By the twelfth century nearly every noble in Syria, and probably in Palestine, Sicily, and Moslem Spain, had his *tirāz* or weaving establishment. The crusaders must have encouraged their own Christian servitors to practise this art while in Syria and Palestine, especially at Tripoli. The Koran forbids figure-weaving, and even frowns on such a luxury as pure silk. Many of the weavers were Christian slaves, working at times with a cotton warp to avoid the Moslem "sin" of pure silk. Basic Syrian designs were fantastic animals (such as griffons, unicorns, and basilisks), flowers, tigers, elephants, lions, eagles, wild ducks, and antelopes–all framed in circular bands, or in geometrical compartments, or sometimes in horizontal and parallel bands. Sāsānid hunting scenes from Persia were occasionally copied.[96]

93. R. G. Haggar, *Glass and Glassmakers* (New York, 1961), pp. 9-12, 19-21; cf. Alexandre Sauzay, *Wonders of Glass Making in All Ages* (New York, 1885), pp. 78 ff.

94. Cotton is listed along with dates, bananas, lemons, limes ("Adam's apples"), sugar cane, and balsam by "Anonymous Pilgrim V.2," p. 34.

95. Marie de France, "Le Freisne," vv. 122-126, *Les Lais,* ed. Jeanne Lods (Paris, 1959), p. 43.

96. Further information on textiles is in George L. Hunter, *Decorative Textiles* (Philadelphia and London, 1918). Hitti (p. 619) lists damask (Damascus), muslin (Mosul), baldachin (Baghdad), sarcenet (Saracen), atlas, taffeta, velvet, silk, and satin.

The basic foods demanded by those who came from Europe were much the same as those they ate at home: bread, wine, meat, and sometimes fish.[97] Joinville laid in a supply of pigs, sheep, flour, and wine, prices for which were apparently fixed by proclamation in each community.[98] According to their plentifulness these basic foods would be supplemented by the "roots," and by beans and peas of all kinds. Wheat and barley were made into those round loaves of bread observed in Europe. There was also a kind of biscuit which was favorite shipboard or marching rations.[99] Eastern grains were popular among these westerners: sesame, carob, millet, and rice.[100] There were many fruits, including olives, figs, apples, cherries, oranges, lemons, melons, apricots (called Damascus plums), and "apples of paradise"–bananas.[101] Medieval taste required much seasoning; there was always commerce in pepper, cumin, "e especes e laitueres": ginger, cloves, aloes, and alum. The damask rose and manufactured perfumes became popular. It was apt to be the monastic communities, among the Christians, which became most expert in the keeping of bees, the making of wine, and the growing of fruits and flowers.[102] Eggs and chickens were consumed in quantity. Meat, as usual, was kept on the hoof as long as possible: pigs, oxen, and sheep.[103] Young camels were eaten by the natives, and it is reported that crusaders took a bite now and then.[104] Horse, mule, and donkey were used for meat in time of necessity.[105]

Wine criers roamed the streets just as at home. A man would fill a bottle from a new supply and would proclaim its availability as he moved about the town to advertise his wares.[106] It is unlikely that this was a municipal employment in Syria and Palestine, as it frequently was in France. More probably the crier's reward for his

97. "Assises de Jérusalem," II, 243: "le pain et le vin, la char et le poisson, selonc le banc crié."

98. Joinville, p. 152; on p. 178 he also mentions his "hens."

99. *Ibid.*, p. 194; Ambrose, p. 80.

100. Hitti, p. 618. Ibn-Jubair (p. 316) says that most of the farmers were Moslems, who shared their crops evenly with their Frankish overlords.

101. Daniel, *Putesestvie* . . . , trans. C. W. Wilson as "Pilgrimage of the Russian Abbot Daniel in the Holy Land, *circa* 1106-1107," *PPTS*, IV-3 (London, 1895), 45; Burchard, pp. 100-101.

102. Hitti, pp. 487, 618-619; cf. Phocas, p. 26.

103. Abū-Shāmah Shihāb-ad-Dīn, *Kitāb ar-rauḍatain* . . . , extracts trans. A. C. Barbier de Meynard as "Le Livre des deux jardins," *RHC, Or.*, IV-V (Paris, 1848, 1906), V, 4, 8.

104. Ambrose, p. 140: "the young camels they killed, and ate the flesh thereof right willingly; for it was white and savoury, when it was larded and roasted."

105. "Eracles," p. 150: "les gens de l'ost manjassent . . . char de cheval ou de mule ou de asne." Cf. Fulcher of Chartres, tr. Ryan, p. 131.

106. Usāmah, p. 165.

efforts was the bottleful of wine. In the warmer months, the men of the west adopted with avidity the Saracen convention of drinking syrups cooled with snow brought down from the Lebanon mountains.[107] When Richard was ill he asked for fruit and snow:[108] a "sirop a boivre por le rafreschir."[109] Other Franks varied this by adding snow to their wine. Particularly in August the snow was brought down in journeys of two or three days, piled under straw in a cart.[110]

The favorite pastimes of the crusaders were sex, dicing, and checkers,[111] baths, hunting, and celebrations of an elaborate kind. It was said of count Robert of Flanders and his men that they kept playing *tables* (checkers) and chess, went about in their tents barefoot with light clothing, and repaired frequently to Antioch for baths, taverns, eating, and other "bad" practices.[112] Both Ambrose and the author of the *Itinerarium* report how the French knights when they got to Tyre gamed and danced, put on foppish attire and drank till matins, and waited in turn to get to the women, where they would frequently push ahead, cursing and swearing.[113] To be sure, this is an unfavorable comment on the French from followers of king Richard, but there is no reason to doubt its essential accuracy. At a time when venereal disease was not prevalent and in a place where female slaves could be purchased at a low price, it is to be expected that prostitution was rife in all its forms. It was more a problem of where than with whom. A Moslem captive woman could be ransomed for five hundred silver dinars or deniers,[114] which gives some idea of what her temporary services were worth. Ecclesiastics as well as laymen were accused of renting out quarters within the walls of Acre for purposes of vice, an immoral profiteering which James of Vitry deplores.[115] It seems that prostitutes paid higher than normal rent, so canons regular permitted them to use their houses.

The oriental bath was particularly enjoyed, sometimes as often as three times a week. On occasion women entered with the men,[116]

107. "Eracles," p. 67.

108. Abū-Shāmah, V, 18.

109. "Eracles," p. 67.

110. James of Vitry, *Historia*, p. 92.

111. William of Tyre, *Historia rerum in partibus transmarinis gestarum*, in *RHC, Occ.*, I (Paris, 1844), 706; Joinville, pp. 121, 125.

112. William of Tyre, p. 1047, rendered in "Eracles" as "ès bainz et ès tavernes et ès mengiers; à luxure et à mauvès deliz . . . ."

113. *Itinerarium*, pp. 330-332; Ambrose, p. 115.

114. Usāmah, p. 100.

115. James of Vitry, *Epistolae*, p. 111: "non solum laici sed persone ecclesiastice . . . ."

116. Usāmah, p. 165.

but this could not have been a common practice. Monks and nuns also attended.[117] When requested, the bath keeper would shave the pubic hair.[118] Baths are described as having a number of rooms,[119] which would suggest a warm pool, a hot one, and a cold plunge; a special guardian watched the clothing of the bathers.[120] It is stated in one instance that such baths were kept undefiled from natural functions.[121] A stone bench is mentioned as being outside the bath building.[122]

Game was abundant in this region and the men from Europe adapted themselves easily to the chase. There were gazelles,[123] boars, roedeer, hares, partridge, and quail.[124] Fulk of Anjou was chasing a hare in the plain of Acre when his horse fell upon him, with fatal result.[125] There were also animals of a wilder sort: some lions in the north,[126] bears, camels, stags, and buffaloes.[127] Occasionally a lion won the hunt and ate the crusader; this was an infrequent, but constant, danger. The westerner was used to depending on his horse and personal strength, and these were insufficient equipment for opposing a lion. The Holy Land has its plentiful share of snakes, and snake-charming is noted in the thirteenth century.[128] There are mentions of a crusader thrusting his hand into a bundle of fodder or brush and being fatally bitten, probably by a desert saw viper—a small, thin, but deadly reptile.[129] The black flies could be very bad in June near Jerusalem; the warriors were obliged to make veils to cover their faces and necks.[130] Locusts were a perennial threat to the crops.[131]

Festivals and celebrations were very splendid in Syria. On a great occasion, hangings were stretched from house to house across the narrow streets, and the paving stones and the muddy, packed earth

117. James of Vitry, *Historia,* p. 63.
118. Usāmah, p. 165.
119. Ibn-Jubair, p. 265.
120. *Ibid.,* p. 289.
121. *Ibid.,* p. 265.
122. Usāmah, p. 166.
123. Joinville, p. 153; Usāmah, p. 223.
124. Burchard, p. 102.
125. "Assises de Jérusalem," II, 442.
126. Usāmah, pp. 97, 155, and elsewhere; Burchard, p. 102.
127. Burchard, p. 102.
128. "Ernoul's Account of Palestine," trans. C. R. Conder, *PPTS,* VI-2 (London, 1896), 58.
129. Ambrose, p. 131; Urban T. Holmes, "Gerald the Naturalist," *Speculum,* XI (1936), 115-116. Fulcher of Chartres (trans. Ryan, p. 300) discusses primitive antidotes.
130. Ambrose, p. 128.
131. Fulcher of Chartres, trans. Ryan, p. 218.

were covered with rugs. Censers with burning incense would be set in the streets and silk curtains hung before the houses;[132] rugs and incense were common commodities in the Near East. Musicians appeared, enjoyed perhaps not so much for their own sake as for the fact that they were an accompaniment for festive occasions. Timbrels, trumpets, horns, pipes, and flutes were played, and choruses went singing through the streets, as cups of wine were passed about.[133] On one occasion a string player and a singer, belonging to Saladin, charmed king Richard.[134] Later Louis IX was delighted with three Armenian brothers who performed a horn trio while tumblers did somersaults on a mat.[135] Many minstrels and acrobats, sets of dice, and, of course, public women were required to keep such a population amused. Horse-racing was not organized in our sense of the word, but it was there in the germ. "He who will first reach the *cité* and ride on to the Loire bridge, if he has witnesses, will win a thousand marks of white silver and a hundred of bright gold, and he shall do what he wants with the horses."[136] This elemental racing purse was offered in France, but similar races were doubtless arranged in the Holy Land. People were forced to compete in obstacle races of a ridiculous nature.[137] Medieval men enjoyed practical jokes; it seems a little sad that people who were only an uncertain step removed from disease and mutilation should have derived so much fun from mocking the blind, the stupid, and the helpless. But this was a society where one could be clapped into a foul underground dungeon for next to no reason, or for none, and be ruined physically for life, if indeed life continued.

A mention of "mulieres ducentes choros"[138] makes us wonder about the practice of using vernacular literature as an entertainment. There is considerable evidence of satirical songs, often directed by the English against the French and vice versa. Hugh of Burgundy had a biting song against Richard.[139] Arnulf, chaplain of duke Robert of Normandy and later patriarch, was attacked in much the same way.[140] In the next century Philip of Novara records a portion of the

132. Ambrose, p. 123; *Itinerarium*, p. 349: "mulieres ducentes choros."

133. Ambrose, p. 41.

134. Hatem, p. 297.

135. Joinville, pp. 158-159.

136. *Aiol: chanson de geste*, ed. J. Normand and G. Raynaud (Paris, 1877), p. 125, vv. 4298-4303; cf. Usāmah, p. 94.

137. Usāmah, p. 167.

138. *Itinerarium*, p. 349.

139. Ambrose, p. 141: "and a right villainous song it was."

140. Hatem, p. 300.

Roman de Renart which was composed for a similar purpose.[141] This device of using a song with animal names was quite safe because "ce qui n'i est ne peut on trover." Refrains were composed exalting prowess. When Richard was leaving for home people stood around and recited his deeds of valor and largesse; perhaps these were *cantilenae*, sung by women.[142] Ambrose speaks of something "since the days of Roland and Oliver," which presupposes familiarity with the *Chanson de Roland*. Indeed Ambrose, who was a minstrel, mentions several epics, such as the *Chanson d'Aspremont*, and songs of Charlemagne and of Pepin. He includes romances of Arthur of Britain, of Tristan, and of the death of Alexander, and a *Paris et Hélène* which has been lost.[143] Ambrose moralizes on several of the epics.[144] We have reason to believe that the first form of the *Chanson d'Antioche* and that of the *Chanson de Jérusalem* were pieced together in Syria. It is certain that the *Chétifs* reflects its Syrian environment.[145]

It is more difficult to estimate the extent to which men of the west were influenced by Arabic love poetry. We wonder how much of the pre-Islamic verse, not in great favor with the average follower of the Prophet, could have been heard by even a cultivated crusader. Orthodox love poets who could have been influences were 'Umar ibn-abī-Rabī'ah, Jamīl al-'Udhrī, and Majnūn Lailâ.[146] Those most affected would be Franks of the second and third generation in the Holy Land who spoke and read Arabic well, often better than their European vernaculars. We know some of the translators by name: Renard "de Sagette" (of Sidon), Baldwin of Ibelin, Yves le Breton, Nicholas of Acre—"drugemens qui enromançoient le Sarrazinnois."[147] In 1127 Stephen of Antioch translated the physician 'Alī ibn-al-'Abbās into Latin.[148] Fulcher of Chartres said of such people: "We who were occidentals have now become orientals . . . . We have already forgotten the places of our birth . . . . Some have taken [as] wives . . . Syrians or Armenians or even Saracens who have [accepted] baptism. . . . Some tend vineyards, others till fields. People

141. Philip of Novara, pp. 81-88.

142. Ambrose, p. 159.

143. *Ibid.*, pp. 63, 69.

144. *Ibid.*, p. 116.

145. Urban T. Holmes and W. M. McLeod, "Source Problems of the *Chétifs*, a Crusade *Chanson de geste*," *Romanic Review*, XXVIII (1937), 99-108.

146. See P. K. Hitti, *History of the Arabs* (2nd ed., London, 1940), pp. 250-251, and, for a full discussion, A. R. Nykl, *Hispano-Arabic Poetry* (Baltimore, 1946).

147. Hatem, p. 298.

148. *Ibid.*, p. 296.

use . . . diverse languages in conversing back and forth."[149] James of Vitry asserts that such Syrianized Franks are soft, effeminate, more addicted to baths than to battles, wearing soft robes, keeping their wives locked up in harems and letting them go to church only once a year, while the same wives will go to the baths three times a week, but under strict guard.[150] On the other hand, Usāmah thinks that these westerners domesticated in Syria are much superior to their confreres. He knew of one who had Egyptian women doing his cooking and who ate no pork.[151] Humphrey II of Toron's son had a perfect command of Arabic, and served as interpreter between Richard and Saladin. Of course, any influence of the Holy Land on Europe was minimized by the fact that those who knew Arabic well usually stayed in the east; those who went back to France and England knew the least. The casual pilgrim who passed through under arms seeking his palm must have carried home with him "horrible," or perhaps "gilded," impressions of a fleeting nature. A dreadful homeward voyage of up to three months could shake from such an observer any lyrical ideas he might have gathered. Moslem love motifs could have entered Europe through Sicily and Spain under much better auspices.

It was customary for a Latin in the Levant to be bareheaded and clean shaven, while the eastern Christian and the Moslem were bearded.[152] Franks were characterized as shaven, surrounded by pigs and crosses. A vogue for beards, however, became almost a fad for some of the crusaders. Washerwomen in the Holy Land were adept at washing heads, as well as linen, and they "were deft as monkeys in removing fleas."[153] We have already commented on what Ambrose and the author of the *Itinerarium* had to say about the Frankish knights vacationing in Tyre. Ambrose further reports that these "warriors" had openings in their sleeves which were closed by lacing. They wore fancy belts and showed the tails of their pleated *bliauts* by carrying their mantles twisted on their arms, in front, covering stomachs and not posteriors. They wore necklaces of gems, and had flower garlands around their heads.[154] To judge by their sexual behavior these men were not effeminate—they were just ultrafashionable. The basic European dress was the same in Tyre as it was in the

149. Fulcher of Chartres, trans. Ryan, p. 271.
150. James of Vitry, *Historia,* p. 65.
151. Usāmah, pp. 169-170.
152. "Anonymous Pilgrim V.2," pp. 27-29.
153. Ambrose, p. 81.
154. *Ibid.*, p. 115.

west. Every man began his dressing by putting on *braies* or linen underdrawers (unless he were a Scot or a member of the Cistercian order!).[155] Over these went a linen shirt, and over that a *bliaut*, which had open sleeves (not necessarily laced). A Phrygian-style cap might be worn, with the peak tilted forward, and in spring young folk often wore a wreath of flowers. There were, of course, shoes and stockings, the latter being held by a broad garter band above or below the knee. Working people omitted the linen shirt. They wore a *gonne* or *froc* instead of the *bliaut*, and this had long and tighter sleeves. A worker might wear a snood cap or a flat hat in the fields.[156] But in the Near East the fashion of wearing a scarf over the head was coming into use, imitated from the Moslem natives. The beduins, for instance, were a common sight, usually dressed in red shirt and flowing mantle, with a scarf over the head.[157]

It is assumed that the Frankish women also wore the basic European clothing: a long shirt, long bliaut (or *cote*) tighter above the waist, with a double (or single) belt, shoes and stockings, and a wimple over the head. In the thirteenth century varieties of stiff headdresses were placed under the wimple. Both men and women wore mantles draped over the torso and fastened often with a brooch, or a ring, at either the neck or the right shoulder. Jewelry was extremely common. The mercer's wife who was the mistress of the patriarch Heraclius was loaded with gold, samite cloth, pearls, and precious stones.[158] New dye shades were coming into use in the east among the Christians, notably indigo, lilac, carmine, and crimson. Sequins were being used. Some European women even went so far as to wear the Moslem veil when seen in the street and public places.[159] But most Frankish women did not impress Moslems by their desire to remain aloof. Usāmah has a famous comment on his astonishment that a Frankish man and his wife, on meeting another man, might separate to permit the woman to talk alone with the other.[160] He was disgusted too that a Christian captive who had become "mother of a son" of a Moslem potentate should seek an opportunity to escape and eventually marry a Frankish cobbler.[161] But such independence could have a charm and fascination.

155. Philip of Harveng, "De institutione clericorum," ed. J. P. Migne, *PL*, CCIII (Paris, 1855), col. 730.

156. On dress see further Urban T. Holmes, *Daily Living in the Twelfth Century* (Madison, Wis., 1952), especially pp. 159-165, 203.

157. Burchard, p. 105.

158. "Eracles," p. 60: "ele avoit nom Pasque de Riveti [or Riveri]."

159. Hitti, pp. 619-620.

160. Usāmah, p. 164.

161. *Ibid.*, pp. 159-160.

Ibn-Jubair describes a Frankish wedding and the bride very prettily. The guests, both men and women, formed two lines while entertained by trumpet and flute music as they waited. The bride appeared, supported on each side by male relatives, in a dress which had a train of golden silk. On her hair and across her breast she also had a net of woven gold, held on the head by a gold diadem. She walked "like a dove, or . . . a wisp of cloud." The men walked before her and the women came after. The musicians led the procession to the groom's house, where there was feasting which lasted all day.[162] Philip of Novara had described such a feast, doubtless of more prominent people, that continued for a fortnight, varied by tourneying, dancing, and the wearing of fine clothes.[163] The betrothal requirements are recorded in the *Assises*: the future groom swears "on the saints" that he has no living wife and no other fiancée, and two companions take the same oath for him; the woman swears that she has no living husband; the date for the solemnization of the marriage is then set. Banns were cried for three days at the first mass.[164] In such a land of violence, where fighting men died daily, there were a multitude of young widows; a widow could take *le ten de plor*, so that for a whole year she was not obliged to marry a new husband.[165]

We can say in general that the routine of men in the crusader states did not vary greatly from that to which they were accustomed at home.[166] One rose early, not long after dawn (sometimes before), and doubtless began the day with some liquid refreshment. Some individuals then went to mass, seldom receiving the Eucharist more than once a year except on a special occasion. Several hours of work could then be put in, followed by a little leisure before the principal meal at the end of the morning. This meal, usually about an hour in length, was followed by a siesta, when the individual was quiet or actually took a nap. Then came *relevée* and the afternoon work period, followed by supper at vespers, with entertainment, and after that might come study or reading. This kind of routine was not very exacting. Hunting, buying in the markets, even writing, provided variation. When there was fighting, or when a journey had to be made, these necessities became the chief occupation of the day. Even

162. Ibn-Jubair, pp. 320-321: "this alluring sight, from the seducement of which God preserve us."

163. Philip of Novara, p. 3.

164. "Assises de Jérusalem," II, 111-112.

165. William of Tyre, p. 1029.

166. See Holmes, *Daily Living*, for further information on daily routine.

then, the rest at the middle of the day was taken, if possible. Usually not more than six or seven hours a day were spent in travel on horse-, ass-, or mule-back, and consequently thirty to thirty-five miles a day was the average distance covered.

Tradesmen opened their shops shortly after dawn and continued till after dark, which makes their hours of work seem excessively long. But within this pattern they devoted time to meals and siestas like everyone else, and on the holy days, which were many, as well as on the days of absence required by feudal duties, they did not open their stalls at all. Merchants in Europe spread their wares on stalls, or shelf and table surfaces, sometimes in the complete open, more often in a shop open to the street;[167] those in the Near East were more used to spreading their things on the ground, on mattings or rugs. The pilgrim merchant who tried to sell at Acre or elsewhere probably mixed the two customs. Although merchants tended to congregate in the central area of Acre,[168] manufacture of heavy goods, which required furnaces, must have been clustered more on the outer edges of the towns, where fire and water could be used more freely. As in Europe, there was a tendency for merchants and workmen of the same specialty to dwell together, often in streets that bore the name of the trade. It was not uncommon for Christians and Moslems to hold fairs together.[169] In the neighborhood of Banyas, forty miles southwest of Damascus, Christian and Saracen farmers cultivated their land side by side, using the same irrigation system.[170]

We have described some of the routine of an average man in the Holy Land. The sources provide more detail on such a prominent figure as John of Joinville.[171] He had a considerable number of knights in his entourage, and two chaplains who said the daily hours. He slept alone, and his bed was set up facing the door of his room or of his pavilion. In the morning he bought meat on the hoof and tuns of wine, mixed well with water. While at table (which was low on the floor) he and his followers sat on mats. Each knight had a phial of water with his wine. The daily routine of bishop James of Vitry was more ascetic.[172] He said early mass and then heard confessions until noon. He ate with difficulty because he had lost his appetite. Proba-

167. *Las Cántigas*, pls. 120, 188.

168. Ludolph of Suchem, p. 51.

169. Hatem, p. 310.

170. Ibn-Jubair, p. 315; Ernoul, trans. Conder, p. 51, says this was true in many places on Mt. Lebanon.

171. Joinville, pp. 151-152.

172. James of Vitry, *Epistolae*, p. 113.

bly after his midday rest he visited the sick until vespers (three to six o'clock). At that point he would eat once more; then he received widows and orphans before hiding away somewhere where he could read. He prayed and meditated much at night. Such a severe routine, for a man who had a sufficiently light touch to compose the *Exempla*, shows how obsessed he was by the need for labor in the Holy Land. This same bishop used to purchase, and even pick up, young Saracen children in order to have them baptized. He would beg children from armed men who had captured them,[173] and would distribute these among the religious houses.

It was claimed that all Syrians and Samaritans knew something of herbs and medicines.[174] Eastern medicine was milder and less drastic than much of the treatment practised in the west. More use was made of herbs and less of talismans. But Usāmah has praise for a Frankish remedy for a skin disease, which consisted mostly of vinegar and glasswort.[175] Opium and spices were more easily obtained in the Holy Land. Perhaps the factor that made western medicine more ineffective, as practised in Europe, was an unavoidable reliance on *antibolomina,* lists of substitutes for more efficacious drugs which were not easy to obtain. The doctor in the east could get the real thing. Bishop James remarks upon the too frequent use of poisons in Acre.[176] In a land of so much violence it was automatic to attribute mysterious deaths to that cause, but infectious maladies were rife, and many an accusation of poison must have been false. James says that there were homicides constantly, day and night; men would slay their wives after dark, and wives bought fatal doses for their husbands openly in the streets.[177] The practice of establishing *maladeries* or hospitals of a kind may have spread to the Latins from the Moslems, particularly in the case of leper hospitals.[178] The many churches and secular places in Europe with the name Saint Lazare were probably a by-product of the crusades. Nursing care was understood. Mention is made of the sick in a castle being treated two in a room.[179] Jerusalem had a *maladerie* for men and another for women.[180] After a military foray the sick and wounded were loaded onto pack animals and returned to such a place as Acre, along with

173. Oliver, p. 171.
174. William of Tyre, p. 879.
175. Usāmah, p. 163.
176. James of Vitry, *Epistolae,* p. 111.
177. *Ibid.*
178. Hitti, p. 614; cf. Ibn-Jubair, p. 346.
179. "Eracles," p. 42.
180. *Ibid.,* p. 82.

the booty and the captives.[181] In the case of privileged patients, the parched throats were cooled by sherbet.

We must say a few words about the judicial system as it appeared to the average man, but this is too specialized a subject for much attention here. It is true that "les institutions judiciaires d'un peuple sont le miroir fidèle de ses idées, de ses moeurs et de ses intérêts,"[182] although the reflection is not always immediately apparent. At Jerusalem, in addition to the Haute Cour of the principal lords and ecclesiastics there was a Cour des Bourgeois, which was transferred to Acre in 1187.[183] This latter court met on Mondays, Wednesdays, Fridays, and feast days. Its principal officer was a viscount, the *bailli de la ville.* He was assisted by twelve *jurés* or jurors, by a scribe, and by a band of sergeants. The town watch was headed by the viscount on alternate nights, and by the chief sergeant on the other occasions.[184] This court had banns cried and regulations promulgated prescribing good order and defense and fixing prices on grains, wines, oils, meat, fish, fruit, and herbs.[185] The same court had jurisdiction over sales, challenges, gifts, inheritances, and exchanges of property. It presided also over rents (limited and unlimited), partitionings, escheats, marriage arrangements, transferral of fiefs, freeing of slaves, and some criminal proceedings.[186] The scribe seems to have been the best paid. He received twelve bezants a month and extra fees: twelve pence for a sale, sixpence for a gift, and sixpence for a wager. He was obliged to submit his accounts every three months.[187] The records were stored in special *huches* or chests, each one having two keys, and these were placed in the house of a juror in whom the ruler had special trust.[188] Oaths were sworn on the Gospel.[189] The viscount collected his lord's rents and deposited them with the court every three months, as required by the *Segrete dou Roi.*[190] There was something similar to this in all the towns. There was also a Cour des Reis (magistrate), later Cour de la Fonde (bazaar), which handled Moslem affairs.[191] This consisted of the bailie, two Syrians, and two Franks. The lawyer

181. Oliver, p. 171.
182. "Assises de Jérusalem," I, i (introduction).
183. *Ibid.*, II, *passim.*
184. *Ibid.*, II, 240.
185. *Ibid.*, II, 250.
186. *Ibid.*, II, 251-252.
187. *Ibid.*, II, 243.
188. *Ibid.*, II, 250; probably each of two jurors kept one key, but the text is confused.
189. *Ibid.*, II, 237.
190. *Ibid.*, II, 241.
191. *Ibid.*, II, xxiv.

who spoke for his client before a court was called an *avantparlier*;[192] those who were required to appear received a summons;[193] the plaintiff or *actor* made his *clamor*, and the *reu* or defendant came back with his *respons*.[194]

Presumably the local lord's courts throughout the Holy Land functioned in those fiefs that had criminal jurisdiction. The system of a lord sitting in judgment with the aid of six or seven knights, perhaps with a trained jurist present, aroused the criticism of Usāmah, who felt that a lord should make his own decisions.[195] Criminal justice was not efficient, but it could be swift when it caught up with the guilty. Hanging was in great favor. One way of doing this was to erect the gallows on a wall or tower, and place the criminal on the ground beneath with arms tied and a rope around his neck; he was dragged aloft by ropes tied to his ankles and allowed to hang by the neck when he got on high.[196] Mutilation was much practised, and the stream of blind, one-armed, earless, and noseless criminals increased the throng of beggars, who were present everywhere; eyeballs or hands were pierced by hot irons.[197] A witch would be thrown into a fire.[198] For rape a man had three choices: to marry the girl, pay nun's fees for her, or be castrated.[199] There was much trial by combat, even among villagers or tradesmen.[200]

Winter was not a time for warfare because of the rains. We find such a question as this: "Sire, por quei avez vos assemblé ci cest ost contre yver?"[201] Ambrose indicates that the winter was spent repairing the fortifications.[202] The knights, and sergeants too, were usually mounted, though at times the sergeants fought on foot. Infantry formed the outer defense of the crusader host; horsemen were in the center, ready to charge from that vantage. Sometimes there was a tower on wheels in the very center, to which the standard of the leader was attached.[203] Bahā'-ad-Dīn portrays the crusader infantry at Arsuf as going first, followed by the horsemen, with a supporting division of infantry behind;[204] the infantry in the van

192. *Ibid.*, II, 245.
193. *Ibid.*, II, 249.
194. *Ibid.*, II, 21.
195. Usāmah, pp. 93-94.
196. Philip of Novara, p. 100.
197. Usāmah, p. 169; "Assises de Jérusalem," II, 68.
198. "Eracles," p. 54: the witch was a Saracen, charged with casting spells on Franks.
199. "Assises de Jérusalem," pp. 92-93.
200. Usāmah, pp. 167-168.
201. "Eracles," p. 35.
202. Ambrose, p. 51.
203. Abū-Shāmah, V, 13, 35.
204. Bahā'-ad-Dīn, pp. 290-291.

could be relieved by the reserve division.[205] Usāmah says that the Franks were most cautious and that they liked to make a stand on a hill.[206] The Saracens' method of fighting was to run away when chased and turn back against the Franks at the opportune moment.[207] Both Franks and Moslems observed the custom of making a terrific uproar when facing the enemy; horns were blown, drums were beaten, and there was great shouting.[208] Greek fire was thrown about very freely by both sides, to destroy any brush that might be used for cover and to burn wooden siege engines and supplies.[209]

The fighting equipment of the knight was just about the same as he used at home; he must often have envied his Saracen adversary, who usually wore no armor, but only a light quilted jacket, and who carried bow, mace, javelin, knife, and sword or short lance.[210] Usāmah stated that the Franks preferred their knights to be tall and thin.[211] The sergeants wore much the same equipment as the knights, but it was not always complete; a sergeant might be without shield or without helmet.[212] The Saracens remarked upon the thick quilted *cotes* or *gambisons* which the footmen wore under their armor, and most carried crossbows;[213] Joinville records how the *artillier* of the king of Jerusalem went to Damascus to buy horn and glue for such bows.[214] The defensive garments were so tight that arrows pierced them only with difficulty.[215] A hauberk, if in good condition, would resist many a thrust, particularly with a padded *cote* underneath. An instance is recorded where an attendant forgot to fasten the hook of the hauberk over the left breast, and the result was disastrous.[216] These coats of mail were rubbed with sand to take off the rust,[217] and then they may have been lacquered.[218] A

205. Abū-Shāmah, V, 34. On the whole topic see R. C. Smail, *Crusading Warfare (1097-1193)* . . . (Cambridge, 1956).
206. Usāmah, p. 42.
207. Ambrose, p. 81.
208. Ambrose, p. 53; Usāmah, p. 68.
209. William of Tyre, p. 723.
210. Fulcher of Chartres (trans. Ryan, p. 178) also mentions daggers.
211. Usāmah, p. 94. Cf. the description of Bohemond by Anna Comnena, *Alexiad,* p. 347.
212. Usāmah, p. 104.
213. Bahā'-ad-Dīn, p. 282.
214. Joinville, p. 134.
215. Abū-Shāmah, V, 34.
216. Usāmah, p. 80. Frankish arms are described by Anna Comnena, *Alexiad,* p. 341.
217. Ambrose, p. 119; *Itinerarium,* p. 338.
218. *Girart de Roussillon: chanson de geste,* ed. and trans. Paul Meyer (Paris, 1884), p. 93.

hauberk mentioned as "white and tough and stout"[219] may not have had this lacquer or protecting coat, since the gum usually carried some coloring matter. Swords and helmets were burnished to keep them clean and rust-free. The twelfth- and thirteenth-century swords in the Bavarian National Museum at Munich are wonderfully preserved. The blade is quite stout, with sharp hacking edges and a good point. The hilt is a crosspiece of metal—not hollow—and below this is the grip; the *pom* or counterweight is at the end. One wonders how the Saracen sword in the *Chanson de Roland* could have had "mil mangon entre les helz."[220] A small knife might be carried in the chauce, Scots-fashion.[221]

Many sumpter or pack animals accompanied an army. Some of these would be sent over a field of battle for gathering up the dead for burial;[222] otherwise beduins would swarm over the area and strip from the bodies all that they could use.[223] Richard, when in the Holy Land, did some head-hunting on the field of battle,[224] as a means of frightening the enemy; doubtless it provoked some reprisals. Men called *herbergeors* were sent ahead of the army to prepare for a stop.[225] They unloaded the tents from the pack animals and saw that they were unfolded. If the enemy pressed hard at that moment it was difficult to repack in a hurry.[226] As in Europe, siege engines were too heavy to transport; when required, they were built by *engignieres* on the spot, and were destroyed by fire when the siege was lifted.[227] The author of *Gerbert de Mez* writes of Maurin, an engineer who had been trained in Outremer, "he knew more about wood than a clerk did of Latin."[228] Ambrose speaks of an engine which threw a stone that took two men to carry, and goes on to say that these stones penetrated a foot deep into the ground when they landed. He claims to have observed how on one occasion a knight was hit in the back and did not even receive a bruise, as it so happened, by a rare chance, that the force of the

219. Ambrose, p. 149.

220. *Publications of the Modern Language Association*, LIII (1938), 34-37.

221. Philip of Novara, p. 19.

222. "Eracles," p. 44.

223. Usāmah, p. 67.

224. Ambrose, p. 121. See also *Gesta Francorum et aliorum Hierosolimitanorum*, ed. and trans. Louis Bréhier as *Histoire anonyme de la première croisade* (Paris, 1924), pp. 96-97, and Anna Comnena, *Alexiad*, p. 270, for earlier instances.

225. Ambrose, p. 85.

226. Usāmah, p. 40.

227. Philip of Novara, p. 80; "Eracles," p. 110, reports that Saladin did the same in 1187 after failing to take Tyre.

228. *Gerbert de Mez*, p. 72, v. 2724: "Plus sot de fust que nus clers de latin."

throw was spent at that very point.[229] Usāmah tells how a stone from a Frankish *perriere* crushed a man's head when it made a clean hit there.[230] Wooden towers, on wheels and covered with hides, were used for surmounting the walls of a besieged town, as were ladders.[231] Battering rams with metal heads were used against walls.[232] For checking the progress of the enemy, particularly at night, nets might be stretched and traps set.[233] Where a trench was required for holding a defense line, it was dug long, deep, and wide, and braced with timbers, while targes and long shields were placed along the upper edge for added protection.[234] Timber supports were used for destructive purposes as well. The wall of a town could be undermined by digging a trench at its base and shoring this up with timber supports as the sappers worked. When the wooden beams were set on fire, the sudden withdrawal of support would cause the wall to collapse.[235] Saracens were not above putting poison into wells; the Franks must have done the same.[236]

The principal reason for a castle was to serve as a forward point for attack against the enemy.[237] All the cities except Sidon, which received its crusader walls in 1227-1228, were well fortified, but the great castles were located nearer Moslem territory. East of the Dead Sea was Kerak, or Krak of Moab, south of it Krak de Montréal (ash-Shaubak). These made splendid points of support from which to attack caravans to and from Egypt, and they were used against the wild beduins. As crusader castles were usually on an eminence, one could get a view of neighboring castles. From Krak des Chevaliers both Chastel-Blanc and 'Akkār were visible; from Subaibah, the castle of Belfort. Signals could be exchanged by bonfires. From the Moslems the lords had learned to use carrier pigeons. In Acre there was a *colombier de l'Hospital*, the name of which speaks for itself. In 1271, when Baybars was laying siege to Montfort, he killed a pigeon which was conveying a message to the besieged from a Frankish spy in his camp. There is a passage in the *Chanson de Jérusalem* in which

229. Ambrose, p. 55.
230. Usāmah, p. 144.
231. Fulcher of Chartres, trans. Ryan, pp. 119-120, 153.
232. Ambrose, p. 58.
233. *Itinerarium*, pp. 102-103.
234. Ambrose, p. 49.
235. "Eracles," pp. 84-85; Fulcher of Chartres, trans. Ryan, p. 253.
236. Abū-Shāmah, V, 57.
237. R. C. Smail, "Crusaders' Castles of the Twelfth Century," *Cambridge Historical Journal*, X (1950), 143-144. On the castles see Paul Deschamps, *Les Châteaux des croisés en Terre Sainte* (2 vols., Paris, 1934-1939; vol. III now in press).

king Cornumarant sends out pigeons, all of which are captured or killed.[238]

The crusader castles were not slavish imitations of what the French, English, Italian, and German lords had left behind them in the west of Europe. They incorporated in their construction new influences from the Byzantines and from the Moslems. A European castle of the smaller type was primarily a tower set upon a hillock called a *motte,* surrounded by a curtain wall. Space between the wall and the tower was the court, which was often used for kitchen supplies on the hoof. A large European castle might have a rectangular keep in the midst of a wide court or bailey surrounded by a wall and moat and, at times, by a second wall beyond the moat. Other buildings would be built inside the bailey. Such strongholds were usually occupied by the castellan and his family, and the comforts of home were not neglected. But in the Near East the crusader was confronted with the need of housing larger bodies of men and of storing the vast supplies required for the forays. Then again, as the military orders secured control there was no longer any thought for the comforts of "home." The donjon or keep began to be placed in the weakest spot for defense; the storerooms were set in the middle of the court. Crusader castles were apt to be built massively on great heights. An example of such design carried to France by Richard the Lionhearted was Château Gaillard at Les Andelys, on the Seine below Paris; there is a rugged rocky court, with underground stables, storage buildings, and the keep on the very edge of the drop, all of which was reminiscent of the Holy Land. The inner chamber of the castellan might be attractively done, with bays and sculptures. The tympana of the windows were often beautifully carved, as they were back in Europe. The castle had its big hall or *salle*; at Krak des Chevaliers this opened onto a gallery or cloister portico. There were plenty of latrines: at the end of a narrow corridor at Krak des Chevaliers there were twelve toilet seats with a drain underneath. Castle construction after 1187 shows round towers and smooth stonework.

The crusader castles had mills for operation by human hands, animals, and even wind: there was a windmill on a tower of the outer wall at Krak des Chevaliers. The water supply was most important; aerial reconnaissance has confirmed the fact that there were wells some thirty miles apart up the whole inner line of the Palestine-Syrian area. During the rainy season, the occupants of the castles collected water in great artificial reservoirs of Moslem design

238. Deschamps, I, 99, note 1, and see I, 89-103, for "Les Conditions de l'existence dans les châteaux-forts."

(*berquils*, from Arabic sing. *birkah*). The Christians took care also to drain off the water from their terraces through terra-cotta drains into cisterns, which were constructed at a safe depth. Krak des Chevaliers and Krak de Montréal had wells also. A berquil in the open air could be used for bathing or for watering animals. Between the first and second walls of Krak des Chevaliers there was such a berquil, but usually these reservoirs were set outside the castle proper. An aqueduct sometimes brought water from a nearby summit to the berquil, as was the case at Krak. Chastel-Blanc stood on a hill more than a thousand feet above the valleys below. There were barbicans, on man-made hillocks, and then one approached the great outer wall, which was polygonal with three rectangular towers. This was entered on the northern side, past a barbican and then past a flanking tower. The large enclosed area must have been full of storehouses of all sorts of construction. In the very center was a rectangular donjon of which the immediate curtain wall was irregular in shape, somewhat resembling a maze. The entrance through this was not immediately obvious, and overlapping stretches of wall made it possible for defenders to catch attackers at a disadvantage. The lower floor of the donjon was a church. Above this was the hall where the occupants, the Templars, lived. Food must have been carried up through the church, and there was no water supply on the upper floor. It is not surprising that this donjon fell so easily when attacked in 1271.

Some details on the fortifications of Jerusalem concern us. This city extended lengthwise from north to south upon several low hills and was strongly provided with defense works.[239] There was a moat outside the rampart bristling with covered ways or barbicans. The city had seven gates, of which six were heavily bolted every night until sunrise. The seventh gate was walled shut and opened only on Palm Sunday and on the day of the Exaltation of the Holy Cross. The city wall had five corner angles; within the west gate, which was obtuse, was the Tower of David, which had annexed to it an upper gallery or solar and a newly constructed hall, well supplied with moats and barbicans.[240] It was the property of the king of Jerusalem. The squared stones of this tower were of extraordinary size, set with lead and with great bands of iron fastened from one block to the other "que a trop grant painne et a trop grant force la porent ruer jus."[241]

239. Phocas, p. 17.

240. Theoderic, p. 6; cf. Phocas, p. 18.

241. "Eracles" (manuscrit de Rothelin), p. 530; cf. Fulcher of Chartres (trans. Ryan, p. 117), who says the masonry blocks were "sealed with molten lead."

Turning to naval warfare, we cannot with certainty identify the types of ships used. There were *dromons, galions,* galleys (*galees*), and barks (*barches*), in that descending order of size,[242] as well as *catos*, for carrying siege engines.[243] The dromon was a heavy transport. The term *botsa* is applied occasionally to a Saracen galion; [244] Richard attacked a large fleet of these with forty of his own lighter-armed vessels and was victorious. A division of galleys might be termed a "caravan"; on one occasion the Genoese are reported as having a caravan of four galleys and on another one of nine. [245] Some of these vessels had narrow slits through which crossbowmen could shoot; [246] larger ships might be crenelated also—probably on the front and rear castles. [247] The largest galley could hold some five hundred men, including three hundred oarsmen;[248] it was intended for swifter movement than the dromon. [249] King Richard's galley at Jaffa was painted red, its deck was covered over with red awning, and it flew a red pennon.[250] Ibn-Jubair mentions a bark with four oars.[251] Probably all these vessels had oarlocks made of cords or rope. These galleys, or the larger galions, were the ships best suited for naval combat. Like the heavy transports, they must have had a long deck and a single mast with a single sail placed amidships, suitable for tacking.[252] Platforms stood fore and aft, where awnings could be stretched if there was no permanent roofing. There must have been a second deck, for a true galley had to provide space and seats for the oarsmen. The galley and the galion never had more than two banks of oars on each side—one bank to a deck. Shields were set along the gunwale on the upper deck, and sand and vinegar were carried on board for putting out Greek fire.[253] The oarsmen may have been slaves or prisoners even at so early a date as the crusades.

The most formidable weapon in all sea fights was Greek fire. Attempts were made on every occasion to send flaming arrows and other burning torches into the enemy's ship, while the men on both

242. *Itinerarium,* p. 80.

243. H. S. Fink, notes to Fulcher of Chartres, trans. Ryan, p. 296, note 3, with references.

244. Abū-Shāmah, V, 12 (Arabic, *buṭsah*).

245. Philip of Novara, p. 80.

246. "Eracles," p. 106.

247. *L' Histoire de Guillaume le Maréchal* . . . , ed. Paul Meyer (3 vols., Paris, 1891-1901), I, 348, vv. 9645-9668.

248. Joinville, p. 47.

249. "Eracles," p. 169.

250. Bahā'-ad-Dīn, p. 370.

251. Ibn-Jubair, p. 327.

252. *Ibid.*

253. *Itinerarium,* p. 81.

sides stood ready to shoot stray individuals and to prevent boarding.[254] A certain amount of ramming must have been practised, but this was no longer the efficient attack that it had been in the ancient world. Ships did not have the proper metal beaks for the purpose, and their crews could not develop sufficient speed at the oars. The captain of a ship stood aft on the deck, where he could handle a double steering oar [255] and direct the use of the capstan, a wheel with projecting marlin spikes which turned perpendicularly to the deck, not horizontally. The mast could be easily stepped with the aid of a rope around the drum of such a wheel, and by the same means a heavy sail could be raised or lowered. Presumably the kegs of Greek fire were lifted through a hatch from the hold. The owner or chief guest would repose under the awning of the rear castle, from which he could watch fascinated by the drive and labor of the oarsmen. The anchor was carried on the side of the ship's bow.[256] In the defense of harbors it was not uncommon to employ fishermen, who would stretch their nets underwater to catch swimmers;[257] for instance, a Turkish swimmer who was carrying Greek fire in a *pelle lutrina* was thus intercepted at Acre. Entry of strange ships into a harbor was prevented by heavy chains stretched across the entrance towers. Such ships might be privateers or pirate vessels, such as those maintained by Gerard of Sidon, which sometimes pillaged Christians as well as Moslems. (King Baldwin III of Jerusalem, "irrité contre lui," managed to capture and burn Gerard.)[258] The Venetians and Genoese, the crusaders' naval allies, kept control of the eastern Mediterranean until long after the fall of Acre in 1291; it was only this dominance that had enabled the remnant of the Latin states to survive for more than six generations.

254. *Gerbert de Mez*, p. 202, vv. 7526-7544.
255. Ibn-Jubair, p. 336; Joinville, p. 198.
256. As portrayed on many bas-reliefs of ships.
257. *Itinerarium*, pp. 105-106.
258. Michael the Syrian, "Chronique," *RHC, Arm.*, I (Paris, 1869), 354.