

INTRODUCTION

The Scope of the Gazetteer

The Gazetteer represents an attempt to list all the secular buildings (including industrial sites) known by their surviving remains to have existed within the boundaries of the Kingdom of Jerusalem at any time between 1099 and 1291. Each entry consists of a site number and name (with Crusader, Arabic and Hebrew alternatives), a reference to the Palestine (or Israel) Grid, a very brief description of the nature of the surviving or recorded structural remains, and a list of sources. Since the Gazetteer is intended to be archaeologically rather than historically based, references to medieval primary sources are usually omitted unless they provide evidence for dating or important descriptive information about the structures concerned. In compensation for this limitation, it may be noted that in many cases the secondary sources quoted will themselves provide a means of entry into the primary sources; a fairly comprehensive survey of the primary sources relating to castle-building may also be found in the volumes by Paul Deschamps (1934; 1939a). Unlike *Churches*, however, no attempt has been made to include in the Gazetteer a full list of buildings that are known only from documentary sources and of which no archaeological traces remain.

The Gazetteer excludes all religious buildings, since churches are listed and described in detail in *Churches* and the Islamic buildings of medieval and Ottoman Palestine will be covered by another gazetteer, which is being compiled by Andrew Petersen. Among the various Muslim buildings constructed in Palestine at the time of the Kingdom of Jerusalem, however, may be noted in particular: a mosque built in 'Ajjul (Grid ref. 167.159), between Nablus and al-Bira, by Abū'l-Majd Ibn 'Abd al-Jalīl in Ramadan 572 H/June–July AD 1176–7 (PAM: report by S. A. S. Husseini, 3 Jan. 1935; squeeze

nos. 561–2; photo no. 9447; cf. Palestine 1948: 101); and a mosque at Bait Hanun (Grid ref. 106.105), built by the amir Shams al-Dīn Sunqur in 1239 (Sukenik 1946). Muslim cemeteries dating from the Frankish period have been excavated at Kh. Tall ad-Durur (no. 89), Tall Mubarak (Grid ref. 1434.2155; Stern 1978: 4–9, pl. 46.15; 1994: 31–3, fig. 7; Tombs 1985: 17–18), Tall Dair 'Alla (no. 81), Tall Qiri (Grid ref. 1610.2278; Ben-Tor and Portugali 1987: 5, 7–8), Kh. Tall al-Far'a (no. R4), Tall al-Hasi (no. R5) and Tantura (no. 218). Remains of possible Samaritan synagogues at 'Ain Sarin (Grid. ref. 176.178; Palestine 1948: 89; Kedar 1989: 85, 89–90) and Nablus (see *Churches*, II, q.v.) require further investigation.

Field surveys conducted on either side of the Jordan in recent years have begun to document archaeologically, from such evidence as pottery scatters and other surface remains, some hundreds of sites that were evidently occupied or used in the twelfth and thirteenth centuries. Such sites are only included in the Gazetteer if the surviving remains include (or seem likely to include) structures datable to either of those centuries or if they point to industrial activities being undertaken at the site (e.g. sugar production, iron smelting, glass production). The same criteria also apply to archaeological strata devoid of structures that have been identified during excavation.

Where structures do survive, of course, the ethnic identity of the builders is still not always certain. Depending on its location, for instance, a village house identified archaeologically could have been constructed by an indigenous Muslim, Jewish, Samaritan or Christian family, or even by Latin settlers. The justification for inclusion in the Gazetteer is therefore that the area in which the site lay was under nominal Frankish control at the time when the structure was erected. On this basis a number of structures identified as belong-

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ing to the 'Ayyubid period' have been included. However, the Ayyubid–Mamluk castles of 'Ajlun, or Qal'at ar-Rabad (Johns 1931; Bowen 1981), Subaiba (Ellenblum 1989; Amitai 1989; cf. Deschamps 1939a: 144–74), as-Salt (Meistermann 1909: 315; Duncan 1928; de Vaux 1938: 400–1; Johns 1937: 29; Franciscan Fathers 1977: 73; Gavin 1985: fig. 3), Mount Tabor (Battista and Bagatti 1976; see also *Churches*, II, *q.v.*) and Jazirat Fara'un (no. R9) must be excluded, as they were not Frankish constructions, despite being built on the edges of the Kingdom in areas that had once been under Frankish control. The Damascene castle at Jarash (Grid ref. 235.188), remains of which could at one time still be seen enclosing the temple of Artemis (Harding 1967: 98), must also be excluded, since it represents an example of Crusader deconstruction, rather than construction, carried out by Baldwin II's men in 1121 (William of Tyre, XII, 16); the same applies to the twelfth-century stone-robbing of a Byzantine building identified at Tall al-Akhdar (Grid ref. 1387.2058; Porath 1989a).

Many of the structures included in the Gazetteer are identified as belonging to the Frankish period purely on the basis of their form or their method of construction. In some cases the attribution is not entirely certain and needs to be checked by additional field work and analysis. Ashlar bearing a diagonal dressing and masonry marks may almost always be safely attributed to the Crusader period, though the possibility of reuse has always to be borne in mind. Diagonal tooling and certain types of masonry mark, however, are also found, though not together, on buildings of the Ayyubid period. Rusticated or bossed masonry with smoothly drafted edges is also a characteristic of Crusader buildings, though here again masonry of a broadly similar type was used from the Iron Age to the Mamluk period. Pointed barrel-vaults or groin-vaults, particularly those with transverse arches of ashlar and with smooth fine white plaster applied to the interior surfaces, will often be Frankish, but may also be Ayyubid or Mamluk. Very little is known of the buildings constructed in Palestine in the two centuries immediately preceding the Crusaders' capture of Jerusalem in 1099. There is therefore every possibility that some of the structures attributed to the Crusaders may in fact belong to the periods of Fatimid or Seljuk control; indeed a number of the sites identified as 'Crusading' by the Survey of Western Palestine (and included on that basis in the *Atlas of Israel's* map of Crusader Palestine) have on further investigation turned out to be Byzantine. (On masonry and construc-

tion methods, see Deschamps 1934; Kalayan 1968; Pringle 1981a; Burgoyne and Richards 1987: 88–100; Ellenblum 1992.)

None the less, it is abundantly clear from the study of church buildings and castles, which are often datable through documentary references, that the period of Crusader control in the twelfth century resulted in the construction of buildings, both religious and secular, being undertaken west of the Jordan on a scale unknown since Byzantine and Umayyad times. In contrast, the interest of Mamluk builders seems to have been focussed mainly on the major cities such as Jerusalem and Gaza, fortresses such as Qal'at Subaiba, 'Ajlun and Karak, and on the network of roads, bridges and khans that assured communications between them and the more important centres of Syria and Egypt. Except in especially favoured areas, such as the sugar-producing region of the Jordan valley and the Ghawr dependent on Karak and in the Jaulan, economic investment in the countryside, and hence building works other than those on a purely village scale, seem to have declined significantly in the areas reconquered from the Crusaders by the Ayyubids and Mamluks in the late twelfth and thirteenth centuries. When doubt exists over the dating of medieval buildings surviving in villages west of the Jordan, the balance of probabilities will therefore often favour a Crusader attribution, though in some cases, such as the later additions to the Crusader *curia* at al-Bira, an Ayyubid one may also be possible.

Because of the uncertainty that so often surrounds the precise dating of architecturally undistinguished non-religious medieval buildings in Palestine, the main Gazetteer is followed by a supplementary one, divided into three parts. The first part contains a list of 'possibles' (designated by numbers prefixed by the letter P): these include sites where there is some evidence to suggest that there may be building remains of the Crusader period, but where further archaeological research is needed to provide conclusive proof. The second part lists 'rejects' (designated by the prefix R): these are sites where the identification of Frankish buildings has been suggested at some time in the past, but has since been shown to be erroneous. The Supplementary Gazetteer concludes with a list of 'don't knows': these comprise those 'Crusader antiquities sites' that are shown on the Crusader-period map in the *Atlas of Israel*, but whose identification it has proved impossible to confirm or deny.

It should be stressed that the boundaries between the 'definites/probables' in the main Gazetteer and the

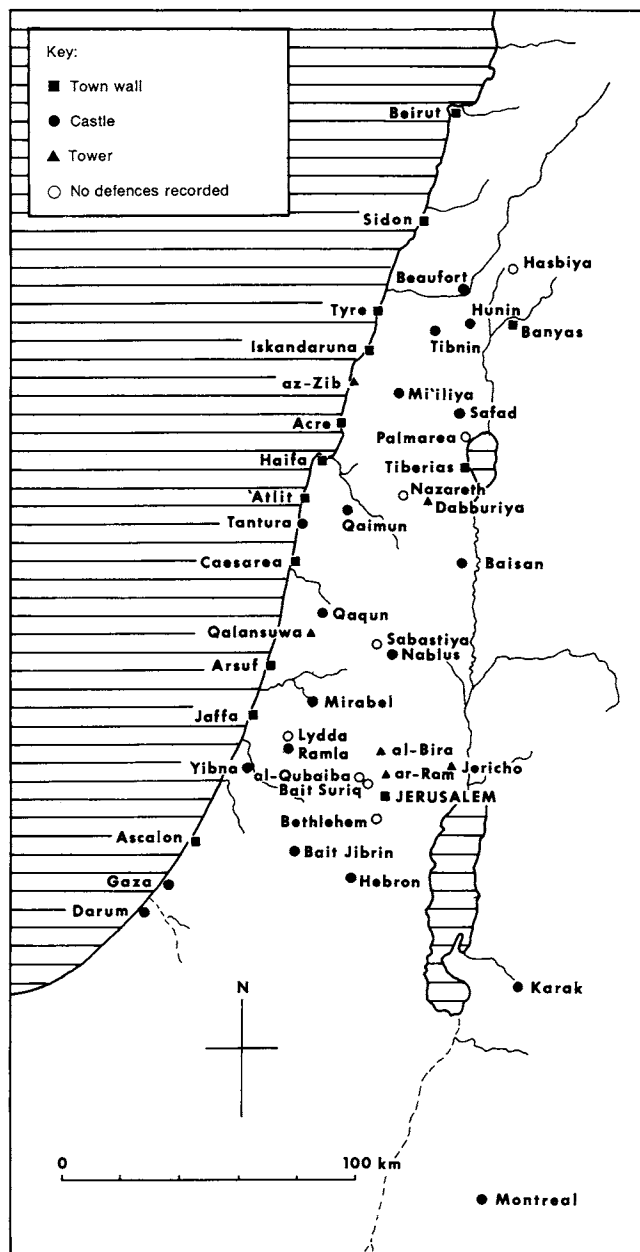
'possibles', 'rejects' and 'don't knows' in the Supplementary Gazetteer should not be regarded as fixed, and that certain sites may be expected to migrate from one category to another as archaeological research continues.

Towns and Cities

There is no easy definition of what constituted an urban as opposed to a rural settlement in the Crusader Kingdom of Jerusalem (see Prawer 1977; 1980; Riley-Smith 1973: 62–98; Benvenisti 1970: 25–8; Pringle 1995a: 69–71). Legally the position is confused by the fact that virtually all Franks who were not clerics or knights were classed as burgesses. Burgess tenure therefore existed in settlements that in terms of their size and economy were no different from villages, while a variety of feudal tenures also existed in the larger cities. The existence of a cathedral church provides no convenient sign of urban status, since the choice of sees was largely, though not entirely, dictated by Byzantine precedent. From the economic point of view, it might be expected that a greater proportion of a town or city's population would have been engaged in economic activities not directly connected with the land; but even here the distinction is blurred, for the inhabitants of a small settlement like al-Bira, numbering some 500–750, included specialist craftsmen, and the agricultural exploitation of the city territories of Acre and Jerusalem by their Frankish inhabitants is well attested.

The size of a settlement's population should have obvious implications for determining its status, but in practice absolute numbers are rarely known. Where a sufficient number of Franks were living, however, there is usually evidence for the existence of a court of burgesses, presided over by a viscount. Some forty such settlements are listed in table 1 (see also fig. 1). To them may be added a further eight 'new towns' established during the Crusader period, which although small and agricultural in character were socially, economically and institutionally towns in the making (Pringle 1995a: 71). The physical size and aspect of these settlements, however, varied enormously (on the physical aspects of Crusader towns and cities, see Benvenisti 1970: 29–209).

In only fourteen towns is there evidence for a circuit of town walls (see table 2). In all but two of these cases (the *faubourg* added to the castle of 'Atlit from c.1225 onwards and the Montmusard suburb of Acre which was walled by 1212), the walls already existed before the Crusader conquest and were merely strengthened



1 Map showing the location of urban settlements in the Kingdom of Jerusalem (see also table 1).

or rebuilt by the Franks. Indeed, most of the documentary evidence for the Frankish construction of town walls dates from after the Third Crusade, when much of it was paid for by Western Crusading leaders. Where remains of Frankish town walls do survive in the Kingdom of Jerusalem, they never stand to their full height. Often they are strengthened with projecting rectangular towers, though a rounded one also occurs at 'Atlit, and rounded and triangular ones at Ascalon.

*Secular buildings in the Crusader Kingdom*Table 1 *Urban settlements*

Places listed as having a burgess court and/or viscount					
No.	Place	Cathedral	Church	Tower/ castle	Town wall
5	Acre	x	oxx	ox	o
19	Arsuf		x	o	o
20	Ascalon	(x)	xxx	o	o
21	'Atlit		x	o	o
26	Baisan			o	
32	Bait Jibrin		o	o	
42	Banyas	x		o	o
44	Beaufort			o	(o)
45	Beirut	o	xxx	x	x
48	Bethlehem	o	oo	o	
76	Caesarea	o	xxx	o	o
80	Dair al-Balah		o	x	
—	Gaza		oo	x	(x)
—	Haifa		xxx	x	x
100	Hasbaya			o	
101	Hebron	o		o	
106	Iskandaruna		o	o	o
110	Jaffa		xxx	x	o
114	Jericho		x	o	
115	Jerusalem	o	ooo	o	o
124	Karak	o	o	o	(x)
—	Lydda	o		x	
144	Majdal Yaba			o	
152	Mi'iliya		xx	o	
157	Montreal		o	o	
158	Nablus		oox	x	
—	Nazareth	o	ooo	x	
159	Qaimun		o	o	(o)
160	Qalansuwa			o	
164	Qal'at Hunin			o	
168	Qaqun		x	o	
—	Ramla		oo	x	
—	Sabastiya	o	o	x	
191	Safad		x	o	
201	Sidon	x	xxx	oo	o
218	Tantura			o	
222	Tiberias	x	oxx	o	o
223	Tibnin		x	o	
227	Tyre	o	oxx	x	o
235	Yibna		o	o	

Table 1 (cont.)

Other Frankish settlements				
No.	Place	Church	Tower	Hall/Curia
—	Bait Suriq	x		
54	al-Bira	o	o-----o	
61	Burj, Kh. al-			o
78	Dabburiya	o	o	
—	Palmarea (near Tiberias)	x		
178	al-Qubaiba	o		o
182	ar-Ram	o	o-----o	
237	az-Zib		o	

Key:

o = archaeological evidence surviving

x = attested only by documentary evidence

Table 2 *The areas enclosed by town walls*

No.	Town	Area enclosed in ha.
115	Jerusalem	86
5	Acre	51.5 < 85.5
20	Ascalon	50
227	Tyre	48
45	Beirut	19
201	Sidon	15
42	Banyas	13
76	Caesarea	10
21	‘Atlit	9
110	Jaffa	7
19	Arsuf	5
222	Tiberias	?
—	Haifa	?
106	Iskandaruna	?

Gates might be either flanked by towers, as at Caesarea (east gate, first phase), Tyre and Jerusalem (St Stephen’s Gate), or set within a gate-tower. The three gate-towers on the town walls of ‘Atlit were straight-through, and two had portcullises and possibly slit-machicolations in front of their wing-doors. At Caesarea at least two and possibly all three gates were bent, with a slit-machicolation and a portcullis protecting an outer pair of wing-doors, and an inner pair of wing-doors protected by a slit-machicolation. Most walls had an outer ditch, often with a counterscarp wall; and at Ascalon (1244), Arsuf, Jaffa, Caesarea, Acre and Sidon the walls and towers were revetted with a sloping masonry *talus*. Outer walls or barbicans also occur; but although in the medieval West the appear-

ance and development of such outworks is unknown before the thirteenth century, in Palestine the Crusaders encountered multiple systems of defence when they captured Jerusalem in 1099, Acre in 1103, Tyre in 1124 and Ascalon in 1153; further examples are also attested at Sidon in 1126 and Banyas in 1157 (for further discussion of town defences, see Pringle 1995a).

Most major towns had a castle (see table 1), representing the residence of the king, his castellan or the lord of the place. If the town was held by one of the military orders, as was ‘Atlit from 1217, Beaufort from 1260 and Sidon from 1260, the castle would also have constituted their local headquarters. In Jerusalem (no. 115) and Sidon (Land Castle, no. 201), the castle was joined to the town wall, while in Tiberias (no. 222) it was located on the lake side, affording its inhabitants the possibility of escape by boat in time of trouble (Razi and Braun 1992: 217). In Ascalon (no. 20), Arsuf (no. 19), Beirut (no. 45), Caesarea (no. 76), Sidon (Sea Castle, no. 201) and Tyre (no. 227), the castle stood at the point where the land wall met the sea. In Bethlehem (no. 48), Lydda, Nazareth and Sabastiya, however, the principal lordly residence was that of the bishop, which may or may not have been fortified (see *Churches*, nos. 61, 137, 169, 225). In addition to its Citadel, excavations in Jerusalem have also revealed parts of the adjacent royal palace (no. 115). In the smaller new towns, a tower or hall represented the residence of the steward who was given the task of administering the settlement on behalf of the land-owner (see table 1).

Archaeological excavations in recent years have shed light on the medieval urban topography of Acre (no. 5), Arsuf (no. 19), Banyas (no. 42), Caesarea (no. 76), Jerusalem (no. 115) and Qaimun (no. 159), though the results of excavations in Ascalon (no. 20), Beirut (no.

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45), Jaffa (no. 110) and Tiberias (no. 222) have to date been more disappointing in this respect. Virtually all that we know of the layout of the new towns of al-Qubaiba (no. 178) and Kh. al-Burj (no. 61) is also derived from excavation.

Among the port cities, man-made harbours are attested at Acre (no. 5), Arsuf (no. 19), 'Atlit (no. 19), Caesarea (no. 76), Beirut (no. 45), Sidon (no. 201) and Tyre (no. 227). At Jaffa (no. 110), a natural harbour was protected inadequately by an off-shore reef, while at Ascalon (no. 20) goods and passengers seem to have been landed on the beach.

Two types of urban house are mentioned in documentary sources. Houses of an oriental type, consisting of rooms set around a central courtyard, below which there was normally a cistern, have been identified archaeologically in Acre (no. 5) and Caesarea (no. 76). Houses of a south European type, with vaulted shops, store-rooms or commercial premises on the ground floor and several floors of domestic apartments, or solars, above have been recognized in Acre (no. 5), Jerusalem (no. 115) and Caesarea (no. 76), and one with a ground-floor *loggia* in Nablus (no. 158). Houses with barrel-vaulted basements containing evidence for agricultural or industrial processes set end-on to the street and with living areas above, have been recorded in the new towns of al-Bira (no. 54), al-Qubaiba (no. 178) and Kh. al-Burj (no. 61). The remains of houses that survive within the protective circuit of castle walls at Mi'iliya (no. 152) and Montreal (no. 157) have yet to be fully studied.

Covered market streets (*sūq*, pl. *aswāq*) dating from the Crusader period still exist in Acre (no. 5) and Jerusalem (no. 115), though one that once existed in Nablus (no. 158) was destroyed by an earthquake in 1927.

In addition to the urban cemeteries that were associated with churches or chapels (details of which may be found in *Churches*), Christian cemeteries of the Crusader period have also been investigated in 'Atlit (no. 19) and Caesarea (no. 76).

Examples of urban water supply and drainage, bath-houses, stables, kitchens, bakeries and other industrial activities are listed below.

Castles

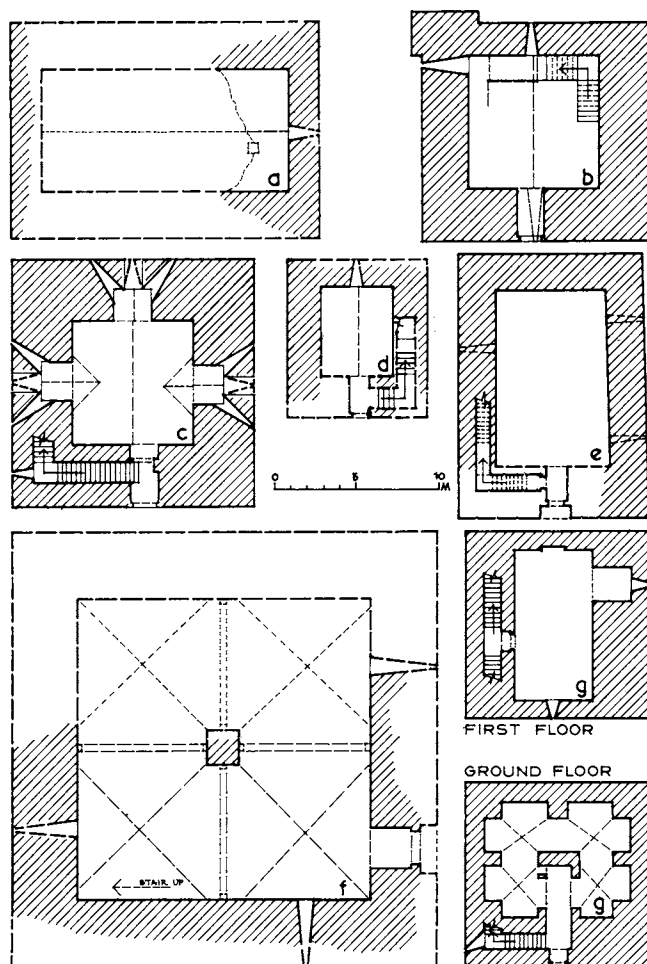
Castles have excited more interest and discussion than any other type of Crusader building, including churches (for general treatments of the subject, see: Rey 1871; Deschamps 1934; 1939a; 1973; Lawrence 1936; 1988;

Smail 1956: 204–4; 1973: 89–122; Fedden and Thomson 1957; Müller-Wiener 1966; Benvenisti 1970: 277–339; Prawer 1972: 295–318; Eydoux 1982; Pringle 1988; 1989; Marshall 1992: 93–144; Kennedy 1994). With a handful of notable exceptions such as Karak, Montreal and Belvoir, however, Crusader castles have survived less well in the Kingdom of Jerusalem proper than in other parts of the Latin East. Two principal reasons may account for this apparent imbalance in the rate of survival. In the first place, not only do the most impressive surviving Crusader castles, such as Crac des Chevaliers and Marqab, date essentially from the thirteenth century, when most of the Kingdom of Jerusalem itself was already in Muslim hands, but they were also repaired and recommissioned after they had fallen to the Mamluks. Secondly, and conversely, most of the castles in the Kingdom of Jerusalem that were not dismantled by Saladin after 1187 were systematically razed by the Mamluks from the 1260s onwards to prevent their being reused by the Latins.

Most of the castles in the Kingdom of Jerusalem of which traces remain therefore date from the twelfth century and are relatively modest works. Their study, however, sheds light not only on the development of military and domestic architecture in that period, but also on the processes of Frankish settlement in the countryside and of the formation of lordships (Pringle 1986a: 12–22; Tibble 1989; Ellenblum 1991; and forthcoming; Kennedy 1994: 21–61).

The most striking feature of Crusader castles is that from the very earliest phase of military conquest they are almost invariably constructed of stone. Earth and timber castles, however, are not entirely unknown. Remains of an early motte have been excavated below the Land Castle in Sidon (no. 201); and an eye-witness account of the construction of a motte (*Toronum in sabulo*) surmounted by a timber tower opposite Damietta in the Nile Delta is given by James of Vitry in April 1221 (*Lettres*, VII, lines 174–85, 197 (ed. Huygens, 139–40)).

The simplest and commonest type of castle is that consisting of a masonry tower. More than eighty towers of which there are surviving remains are listed in table 3. Towers could fulfil various functions. At the siege of Antioch (1097–8) they were used in an offensive military role. Later they were used to protect roads at Kh. Dustray (no. 90) and Bait Jubr at-Tahtani (no. 33), and a mill at Kh. Kurdana (no. 133). In Bethany (no. 47) and at-Tabgha (no. 213) towers served as refuges for isolated monastic communities. Urban towers on the Italian model are also attested in Acre (no. 5), and



2 Plans of towers: (a) Kh. al-Karmil (no. 126); (b) Majdal Yaba (no. 144); (c) Saffuriya (no. 192); (d) Qal'at ad-Damm (no. 162); (e) Qarawat Bani Hassan (Burj al-Yaqr, no. 170); (f) Umm at-Taiyiba (no. 228); (g) Jaba' (no. 108) (drawn by M. Pease).

église-donjons at Safitha in the County of Tripoli and possibly at Safad (*Churches*, II, no. 193). The majority of towers, however, seem to have served a residential purpose, containing on their upper floor either a chamber or a solar, dependent on other adjacent domestic buildings, or, in the case of those with an internal floor area exceeding 60–70 m², a principal domestic hall.

With the exception of the thirteenth-century keep at Montfort Castle (no. 156), towers are invariably rectangular, with a preference for square, or nearly square, over elongated ground plans (see fig. 2). They seem only rarely to have stood more than two storeys (or about 15 m) high, and in the Kingdom of Jerusalem there is only one recorded instance of a timber floor, at Kh. Kurdana (no. 133). The floors are usually barrel-vaulted, though in some cases the basements consist of

pairs of parallel barrel-vaults supported on a spine wall, and in others the basement and upper floors were covered by groin-vaults supported on one or more internal piers. The entrances are almost invariably at ground level and apparently undefended, though in some cases a box-machicolation survives at the wall-head. At Tall al-Badawiya (no. 24), however, there was a portcullis; and at Umm at-Taiyiba (no. 228) possibly a slit-machicolation. Stairs would often, though not always, be accommodated within the wall thickness. Although there are defensive arrow-slits at Qaqun (no. 168) and Kh. Kurdana (no. 133), windows were evidently more often intended for admitting air and light than for shooting from (for further discussion of the form and function of Crusader towers, see Pringle 1986a: 15–22; 1994b).

Towers associated with other masonry buildings are found at Kh. Bait Kika (no. 34), Kh. Istuna (no. 107), Qalansuwa (no. 160), Qula (no. 180) and az-Zababida (no. 236). At al-Burj (Qal'at Tantura, no. 57), Kh. al-Burj (no. 58), Burj al-Ahmar (no. 63), Burj al-Lisana (no. 65), Burj Bait Nasif (no. 72), Burj Baitin (no. 73) and Yazur (no. 233), towers were set within an enclosure wall which also contained other buildings. At Kh. Dustray (no. 90), which belonged to the Templars, the character of the surrounding structures, which included stables and cisterns, suggests a road station (no. 90). In some cases, such as Bait Safafa (no. 37), al-Bira (no. 54), ar-Ram (no. 182) and possibly Kh. Manawat (no. 145), the structures surrounding a tower have the character of courtyard buildings, or *maisons fortes* (see below). In other cases, such as Kh. Bal'ama (*Castellum Beleisium*, no. 41), Summail (no. 209) and possibly 'Ibillin (no. 103), a tower formed the central element of a fully defensible castle. Towers with fortified enclosure walls and an outer ditch are found in Baisan (no. 26), Kh. al-Burj (*Castrum Ficuum*, no. 59) and Qal'at ad-Damm (no. 162). At Burj al-Far'a (no. 64) a rock-cut ditch also protected the promontory on which the tower stands, while in Caesarea, another promontory castle with a central tower, the rock ditch was filled by the sea (no. 76). The structures surrounding the tower at al-Habis (no. 97) would also have been defensible, being sited on top of a rocky eminence. More complex castles, with inner and outer wards, could also develop in time from an inner core centred on an early tower; examples include Beaufort (no. 44), Latrun (no. 136) and Majdal Yaba (*Mirabel*, no. 144). At Suba (*Belmont*, no. 207) and at-Taiyiba (no. 215) on the other hand, the core of the castle has more the character of a *maison forte* (see below).

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Table 3. *Towers*

No.	Name	Ground floor		First floor		Storeys	Height m
		External dims. m	Wall m	Internal dims. m	Area m ²		
5	Acre (Burj as-Sultan)	c.17.5 × c.15					
7	'Affula, al-	19 × 19					
9	'Ain al-Habis	10 × 7.4	1.35/2.05	[6.2/6.5 × 4]	[25]	[2]	
16	'Aliya, Kh.	11 × 11					
21	'Atlit: suburb	14.1 × 11.7	1.2/1.35	[12 × 9.3]	[112]	[2]	
22	'Atlit, 1.3 km SSW of						
24	Badawiya, Tall al-	28 × 18.9	2.6/5.5	[22.8 × 8.3]	[189]	[2]	
25	Ba'ina, al- (?)						
26	Baisan	17.6 × 17.3	3	[11.5 × 11.3]	[130]	[2]	c.12
28	Bait al-Milh						
33	Bait Jubr at-Tahtani	c.9.5 × 6.6/8.1	0.96/2.08	[7.15/7.5 × 4.3]	[32]	[2]	
34	Bait Kika, Kh.	c.8 × c.8	c.1.7	[4.6 × 4.6]	[21]	?	
37	Bait Safafa	18.2 × 13.7	2.5-2.9	[12.5 × 8.65]	[108]	2	17
39	Bait 'Ur al-Fauqa						
41	Bal'ama, Kh.	> 8 × > 8				2	c.14
44	Beaufort Castle	c.12 × c.12	2.75	[6.5 × 6.5]	[42]	2	
47	Bethany	14.8 × 14.4	4	[6.3 × 6.4]	[44]	?	
48	Bethlehem	18.4 × 16.4	c.4.3	[9.8 × 7.8]	[76]	2	> 11.5
54	al-Bira	c.16 × c.14	2.4/2.7	[10.6 × 9.2]	[98]	[2]	
57	al-Burj, Qal'at Tantura	16.4 × 16.4	5	[11.4 × 11.4]	[130]	[2]	
58	Burj, Kh. al-					2	
59	Burj, Kh. al- (Castrum Ficuum)	25 × 20					
62	Burj, Kh. al- (Salome ?)						
63	Burj al-Ahmar	19.7 × 15.5	2.2	[15.3 × 11.1]	[169]	2	c.14
64	Burj al-Far'a, Kh.	11.0 × c.10.5	2.5	[6 × c.5.5]	[33]	2	
65	Burj al-Lisana	c.12.75 × 9.7	1.8/2.0	[8.9 × 5.7]	[51]	[2]	
67	Burj al-Malih (Turrus Salinarum)						
68	Burj al-Qibli						
69	Burj ash-Shamali						
71	Burj as-Sur	15.0 × 11.9	3	11.0 × 7.9	87	2	> 9.5
72	Burj Bait Nasif (near)	c.10 × 10					
73	Burj Baitin	11 × 9.5					
75	Burj Misr	c.12 × c.12	c.2.5	[c.7 × c.7]	[49]	2	
76	Caesarea						
78	Dabburiya						
85	Da'uk, Tall						
86	Dhahiriya, Kh, adh-						
90	Dustray, Kh.	c.15.5 × c.11.0	2.4	[10.7 × 6.2]	[66]	[2]	
97	al-Habis (al-Aswīt)	c.8.4 × c.5.3	c.1.0	[6.4 × 3.3]	[21]		
100	Hasbaya						
103	'Ibillin			[10 × 8.8]	[88]	[2]	
107	Istuna, Kh.						
108	Jaba'	11.4 × 11.4	1.1-3	9 × 4.8	43	3	> 9
111	Jaladiya, Kh.						
114	Jericho						
115	Jerusalem: David's Tower	20 × 16					
115	Jerusalem: Tancred's Tower	35 × 35					

Table 3 (cont.)

No.	Name	Ground floor		First floor		Storeys	Height m
		External dims. m	Wall m	Internal dims. m	Area m ²		
120	Kafr Jinnis						
122	Kafr Sum, Kh.						
126	Karmil, Kh. al-	18.9 × 12.9/13.2	1.95/2.95	[13 × 7]	[91]	2	
129	Khuljan, Kh. al-						
133	Kurdana, Kh.	c.11 × 9.9	1.35/2.2	[7.3 × 7.2]	[49]	2	
136	Latrun	14 × 14	c.3/4	[8.5 × 6.5]	[55]	> 2	
139	Madd ad-Dair	c.16 × c.12.5	1.7/2.0	[12 × 8.5]	[102]	[2]	
144	Majdal Yaba	13.9 × 13.0	3	[7.9 × 7]	[55]	[2]	
145	Manawat, Kh.	8.9 × > 8	1.9/2.6				
146	Manhata, Kh. al-						
149	Maslakhit, Kh.						
151	Mazra'a, Kh. al-						
156	Montfort	(20 × 24)					
158	Nablus						
159	Qaimun, Tall: A	12.5 × 9	2	[8.5 × 5]	[42]	[2]	
159	Qaimun, Tall: B	22 × 18	3	[16 × 12]	[192]	[2]	
160	Qalansuwa	12.05 × 12.05	c.2-3	[7 × 7]	[49]		> 12.3
162	Qal'at ad-Damm	9.3 × 8.5	1.4/2.5	[5.4 × 4.3]	[23]	[2]	
163	Qal'at ad-Dubba	10.3 × 8.5	1/1.8	[7.8 × 4.9]	[38]		
165	Qal'at Jiddin: A	c.16 × c.15.5	3.3/5.4	[9.6 × 8.5]	[82]	2	> 13
165	Qal'at Jiddin: A	16.4 × 16.4	2.3	c.13 × c.13	169	3	> 14.8
166	Qal'at Rahib						
168	Qaqun	17.6 × 14.5	2.8	[12.8 × 9.7]	[124]	2	> 8.5
169	Qaratiya						
170	Qarawat Bani Hassan	16.0 × 11.3	2.2	[10.5 × 6.8]	[71]	2	> 11.6
171	Qarhata, Kh.						
176	Qasr ash-Shaikh Raba	8.85 × 8.85					
180	Qula	c.17 × 12.8	3	[6.8 × 11]	[75]	[2]	
182	Ram, ar-	14.3 × 12.7	2.1/2.7	[9.6 × 7.6]	[73]	[2]	
188	Rujm as-Sayigh						
190	Rushmiya, Kh.	20.8 × 13.2	2.5	[15.8 × 8.2]	[130]	[2]	
192	Saffuriya	15 × 15	3.75	[7.5 × 7.5]	[56]	[2]	> 13
203	Sinjil	c.10 × ?					
209	Summail						
213	Tabgha, at-	15.6 × 11.9	3/3.3	[9.5 × 5.8]	[55]	[2]	
215	Taiyiba, at-	c.15 × c.15					
216	Tall al-Fukhkhar						
224	Tira, at-	c.12 × 11.6	c.2.2	[7 × 7.75]	[52]	[2]	
228	Umm at-Taiyiba	26.3 × 26.3	4.1	18.2 × 18.2	327	2	
233	Yazur	12.8 × 12.6	2.8/2.9	[7.1 × 6.9]	[49]	[2]	
236	Zababida	14 × 12.5	1.4	[11.2 × 9.7]	[109]	[2]	
237	az-Zib						

Note: Square brackets indicate estimated figures and dimensions.

Secular buildings in the Crusader Kingdom

Castles of enceinte, in which the principal defensive provision was invested in the outer wall or walls, rather than in a central core, include Burj al-Malih (no. 66), Montreal (no. 157), Qasr al-ʿAtra (*le Chastelez*, no. 174) and Tibnin (no. 223). Rectangular or quadrangular castles enclosed by a dry ditch include Hunin (no. 164), Iskandaruna (no. 106) and Kh. at-Tuquʿ (Tekoa, no. 226).

Irregular castles sited on spurs or promontories cut off by a ditch include Karak (no. 124), Montfort (no. 156), Qalʿat Abuʿl-Hasan (no. 161), Qalʿat ad-Dubba (no. 163), al-Wuʿaira (no. 230) and Yalu (*Castellum Arnaldi*, no. 231). At Tantura (*Merle*, no. 218) and ʿAtlit (no. 21) the castle is surrounded on three sides by sea, while in Sidon (Sea Castle, no. 201) it is on an island joined to the mainland by an artificial causeway.

Regular rectangular castles with towers at the corners and sometimes also at intervals along the sides are also found. This type of castle is sometimes misleadingly and tautologically referred to by modern commentators as a *castrum*, though a four-towered castle or *quadriburgium* is a more apt description, at any rate for the smaller types. The origin of the type is doubtless Roman or Hellenistic, though more recent examples would have been available for study by the Frankish settlers among the early Muslim fortifications that they found when they arrived in Palestine. Early Muslim forts with trapezoidal plans, solid rounded or rectangular corner towers, gates set between rounded turrets and walls with external pilaster buttresses existed and were reoccupied in the Frankish period at Kafr Lam (no. 121) and Minat al-Qalʿa (no. 153). The Franks themselves built four-towered castles at Bait Jibrin (no. 32), Tall as-Safi (*Blanchegarde*, no. 194) and Yibna (*Ibelin*, no. 235), though in the latter two cases the evidence comes mainly from William of Tyre rather than from archaeology. St Margaret's Castle on Mount Carmel was also apparently of this type, though it was possibly based on an earlier Muslim fort (no. 196). At Miʿiliya (no. 152), a twelfth-century *quadriburgium* and its associated settlement and church were enclosed by a polygonal outer enceinte. Fully developed examples of regular concentric castle planning are to be found in the twelfth-century castles of Belvoir (no. 46), Dair al-Balah (*Darum*, no. 80), and probably al-Fula (*la Feve*, no. 96).

Cave castles include ʿAin al-Habis (*Cava de Suet*, no. 10), Magharat Fakhr ad-Din (no. 141), Tirun an-Niha (*Cave de Tyron*, no. 225) and the Templar castle situated on top of Jabal Quruntul overlooking Jericho (no. 109). A natural rock castle lacking man-made defences has been identified at Kh. as-Sila (no. 202) in Transjordan.

In Hebron the castle (no. 101) formed an annexe attached to the Herodian precinct enclosing the tombs of the Patriarchs and the cathedral church of St Abraham (*Churches*, I, no. 100).

Other castle remains of an indeterminate nature have been suggested or identified at Bait Dajan (no. 29), Dair Abu Mashʿal (*Belfort*, no. 79), Jezreel (no. 116), Tall al-Maʿshuqa (no. 148), Qaratiya (no. 169), Kh. al-Qasr (no. 173), Qasr al-Mantara (no. 175), Ras al-Qantara (*Sarepta*, no. 186), Ras Kikis (no. 187), Sidon (Land Castle, no. 201), Summail (no. 209), Tafila (no. 214), Tiberias (no. 222) and Shafa ʿAmr (no. P25).

Little remains of the castles built in the thirteenth century in the Kingdom of Jerusalem. The most extensive, though inaccessible, is ʿAtlit, built by the Templars on a sea-girt promontory from 1217 onwards and defended on the landward side by a double wall and outer ditch with counterscarp (no. 21). The Templars also reconstructed Safad (no. 191) to a concentric plan between 1240 and 1260, and from 1260 onwards they rebuilt the Sea Castle in Sidon (no. 201) as their order's headquarters in the lordship and added to the defences at Beaufort (no. 44). The Teutonic Order built the new castle of Montfort (no. 156) between 1226/7 and c.1240 with a D-shaped *donjon* and inner ward enclosed by an outer enceinte. The inner ward of another of their castles, Qalʿat Jiddin (no. 165), contains two residential towers and is likewise surrounded by an outer wall. Parts of the Jerusalem Citadel (no. 115) and the castle of Arsuf (no. 19) may also belong to the thirteenth century.

Military works associated with one or other of the medieval sieges of Acre (1189–91 or 1291) have been excavated at Tall Kaisan (no. 123) and Kh. at-Tantur (no. 217). Some of the features identified at Tall al-Fukhkhār (no. 216) may also be similarly explained.

Among the various defensive features that survive in the castles of the Kingdom of Jerusalem may be noted: indirect or bent entrances at Belvoir (no. 46) and ʿAtlit (no. 21); portcullises at Latrun (no. 136), Qasr al-ʿAtra (*le Chastelez*, no. 174) and Sidon (Sea Castle, no. 201); posterns at Belvoir (no. 46) and Qasr al-ʿAtra (*le Chastelez*, no. 174); slit-machicolations above entrances at Belvoir (no. 46), Baisan (no. 26), al-Baʿina (house, no. 25), Bait ʿItab (hall-house, no. 31), al-Burj (no. 57) and Sidon (Sea Castle, no. 201); box-machicolations at Kh. Kurdana (no. 133), ʿAtlit (no. 21), Montfort (no. 156), Sidon (Sea Castle, outer gate, no. 201) and in timber at Qalʿat Jiddin (no. 165); a *chemin de ronde* leading to a row of arrow-slits inside the wall at Qalʿat Jiddin (no. 165), Latrun (no. 136) and Safad (no. 191); arrow-slits