# 13
# THE USE OF POSTERNS IN THE FRANKISH FORTIFICATIONS OF THE MIDDLE EAST

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THE QUESTION OF THE USE of posterns in medieval fortifications is usually quickly disposed of by authors; they are openings made in the walls, often under the protection of a tower, sometimes inset into the corner between a tower and a curtain wall, allowing the besieged to attempt sorties against their assailants.[1] As it will be seen below, although this definition is probably correct in some cases, detailed study of the measures present in the urban enclosure of Caesarea Maritima in the kingdom of Jerusalem suggests a rather different role for these openings.[2]

This urban enclosure was built by King Louis IX in barely 2 years (1251–2), using as its 'kernel' the substantial remains of an ancient Islamic enclosure that was probably built in the late Umayyad and early Abbasid period. The Frankish enclosure was constructed in two stages: initially new towers and new curtain walls were built on the ancient works thereby raising their height. Then, ditches were dug around the fortification, to form a glacis with a simple facing of stones on the scarp slope, and revetting the counter-scarp with a vertical retaining wall.

During the first phase of construction, which lasted a few months, at least three posterns were made in the curtain walls and since the ditches did not yet exist, they functioned at the same level as the outside ground surface. Intersecting the curtain walls at right angles and equipped with simple single-leaf doors, these posterns were structurally conceived to be completely blocked

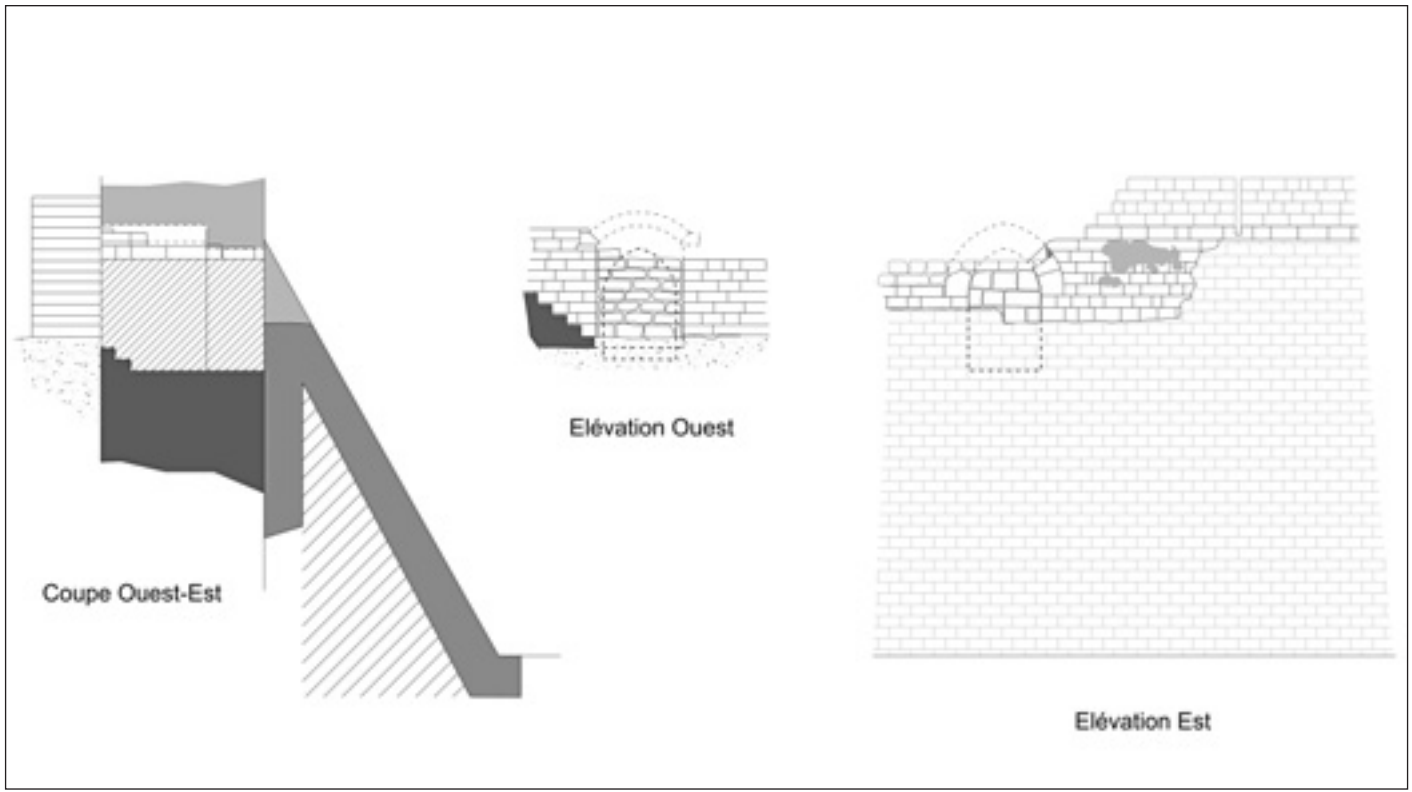


Figure 13.1 *Caesarea. Cross-section and elevation of the postern P5 hidden by the glacis ~~of the WORD MISSING~~. It was used during the short period of the construction of the* enceinte.

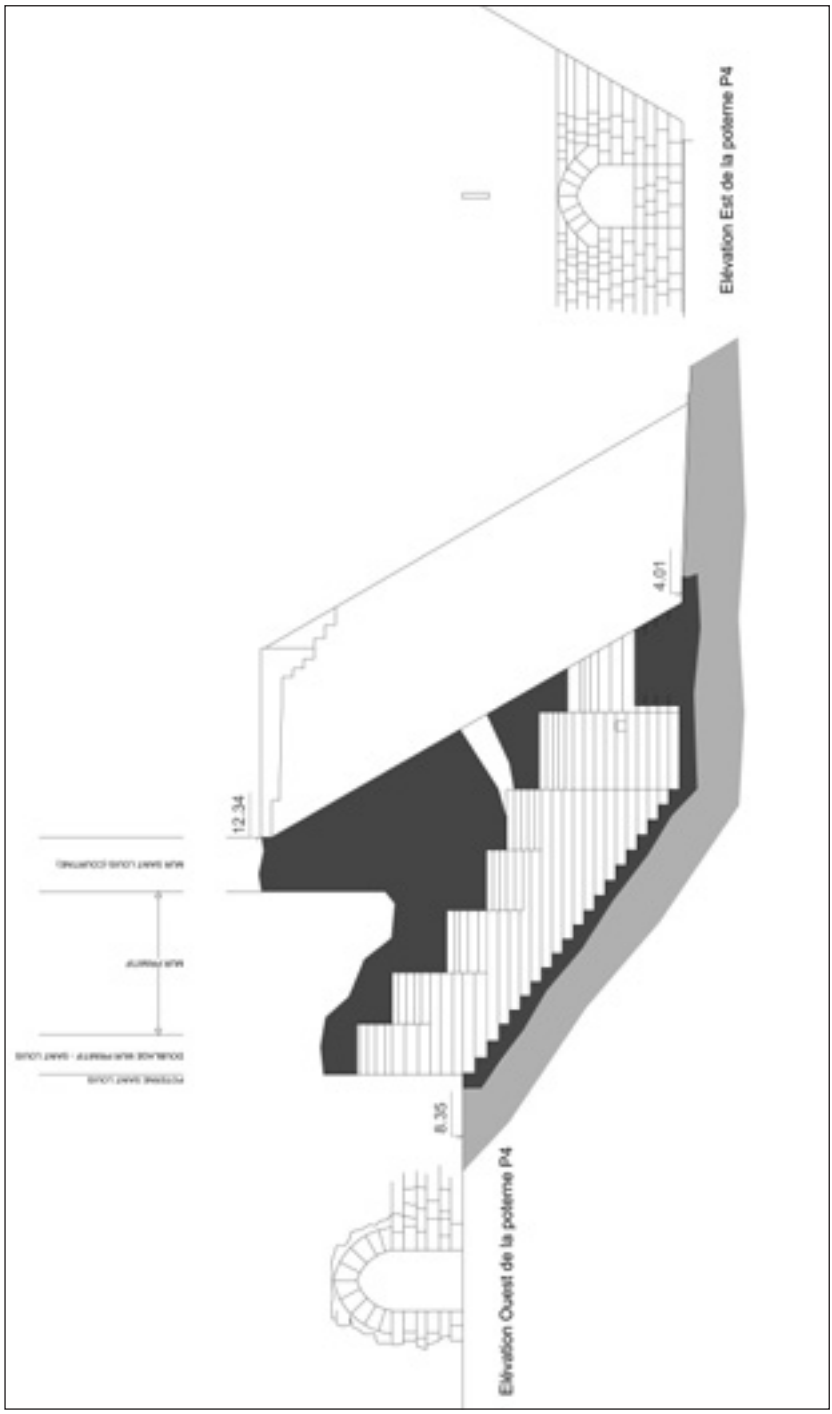


Figure 13.2 *Caesarea. Cross-section and elevation of the postern next to tower 8 (drawing by Jean Mesqui and Jean-Philippe Jouan)*

fig.13.1

by the future glacis once it was finished. Intended for use only during the construction phase, one cannot assign them any role other than that of gates facilitating the progress of work and movement for an easier circulation between the interior of the town and the outside. It should be remembered that, in fact, there were only three carriage gateways in use.

Three other posterns were, however, incorporated into the final plan after the construction of the glacis and ditches; each consisted of a door opened at the bottom of the ditch, placed directly under the protection of a rectangular tower defended internally by a leaf door, and a straight vaulted s

fig.13.2

ing to the ground level inside the fortification. Like the posterns of the first phase, these three doors and their corridors were perpendicular to the curtain walls, not benefiting from any particular protective cover. The distance between them varies between 250 m and 315 m.

Figure 13.3 *Caesarea. The interior view of the postern next to tower 8 (plate by Jean Mesqui) showing the hinges of the gate leaf, and the notch of the locking bar*

When Avraham Negev cleared the enclosure in 1960–3, these three posterns were found partially or totally blocked; the southern one had been partly re-opened during the modern occupation, but the other two retained their stone blocking. Archaeological examination shows that they had been blocked in medieval times; this could only have been done between 1252, the date of the completion of the enclosure, and 1265, the date of the enclosure's capture and destruction by Baybars' army. Yet this examination also showed that the three posterns had indeed been equipped with their wooden leaf doors, probably taken down when they were walled up. fig.13.3

Without much risk of error, it can be deduced that the three posterns were walled up during the siege by Baybars, probably due to the lack of human resources to ensure their defence. Given these circumstances, one might question the real role assigned to them by the builders. Is a primary reason for them really to allow the besieged to make sorties,[3] or should one not instead assign them a more utilitarian role, that of simple devices aimed at facilitating the maintenance of the ditches and any patrolling within them, without having to open the main doors? Some time ago, I had the opportunity of asking the same question while studying the urban enclosure of Provins (France, Seine-et-Marne), where posterns of the same type as those at Caesarea Maritima are cut through the curtain walls[4] and some of the towers, opening straight onto the front liable to attack without any protection other than the wall-top defences.

This leads in a more general way to questioning the functions that posterns may have had. Yet, in truth, although small openings do indeed exist, more or less under the protective cover of the fortification, in Frankish fortifications in particular, they often serve fairly diverse objectives. First, isolated 'escape exits' found in some castles can be excluded, particularly those in mountainous areas. One can cite Saône/Qalʿat Ṣalāḥ ad-Dīn in Syria, where the large rectangular tower in the south-east, enrobing an ancient Byzantine circular tower, had a low postern accessible through a long interior staircase; this one was, in fact, used to go down on to the south-eastern escarpments, which at the time of building in the twelfth century had not yet been re-cut vertically by the conquering Ayyubids.[5] The rest of the enclosure of this enormous fortress, town rather than castle, contained gates in the tower-gates that were built solely as entrances. In the same vein, one could cite the castle of Arima/ Qalʿat ʿArīma in Syria where, in the flank of the north-west tower, there is a rectangular postern suspended in mid-air above the escarpment; this type of organisation is particularly visible in mountain fortifications, where they are intended to serve areas that are hard to reach that fall outside the circuit of the enclosure.

These examples, which can be found in all mountain fortifications across the world, whether antique or medieval, can be left aside; the innumerable isolated posterns placed here and there in a fortification with no other purpose than to provide access, in order to address cases more characteristic of siege warfare, can also be left aside. There are two perfect examples of posterns for purely defensive use: Belvoir/Kawqab al-Hawāʾ and Château Pèlerin/ʿAtlīt in the kingdom of Jerusalem, often cited in the literature because they are so characteristic.

In Belvoir castle, the insides of the square towers of the outer enclosure contain staircases leading to posterns placed in recesses between the curtain walls and the towers, providing complete cover for the doors from adverse fire.[6] This almost unique arrangement brings to mind what would come into use much later in the bastioned fortifications of the sixteenth–seventeenth centuries, where posterns were often placed behind the orillons of the bastions. In one of the corner towers, there is even a postern leading to each of the flanked curtain walls; this allowed each curtain wall, about 38 m long, to be covered thanks to a postern. These were clearly intended to allow rapid sorties, precisely aimed and concentrated on the immediate vicinity of the postern; one might imagine sorties destined to attack siege engines. In analysing them, one is reminded of the recommendations made in the ninth century by the emperor Leo VI, themselves probably derived from the recommendations of Philo of Byzantium in the second century BC.[7]

In a less sophisticated way, but with the same regularity, one finds a series of posterns in the bottom of the ditch at the Frankish castle of Jubayl built on the principle of a *quadriburgium* with rectangular towers: here, two posterns are placed in each corner, with the exception of the north-west corner where there is only one because of the presence of a second tower flanking the door. In one of the corners, the two posterns are pierced in the faces of the tower, as in the south-west tower of Belvoir; in the other cases they are in the curtain walls, at the corners of these and the tower faces and under the protection of an arrow loop that covers them.[8] The length of the curtain walls being about 36 m, this was equal to covering the exterior with an exit every 18 m, double that of Belvoir.

The programme is different at Château Pèlerin. Here, the front liable to attack consists of walling flanked by three rectangular towers at intervals of 46 m, each being equipped on its lateral sides with two posterns, each covered by a portcullis and murder-holes; the density was more or less the same as at Belvoir, but on a rectilinear front of less than 200 m.[9] These six posterns opened

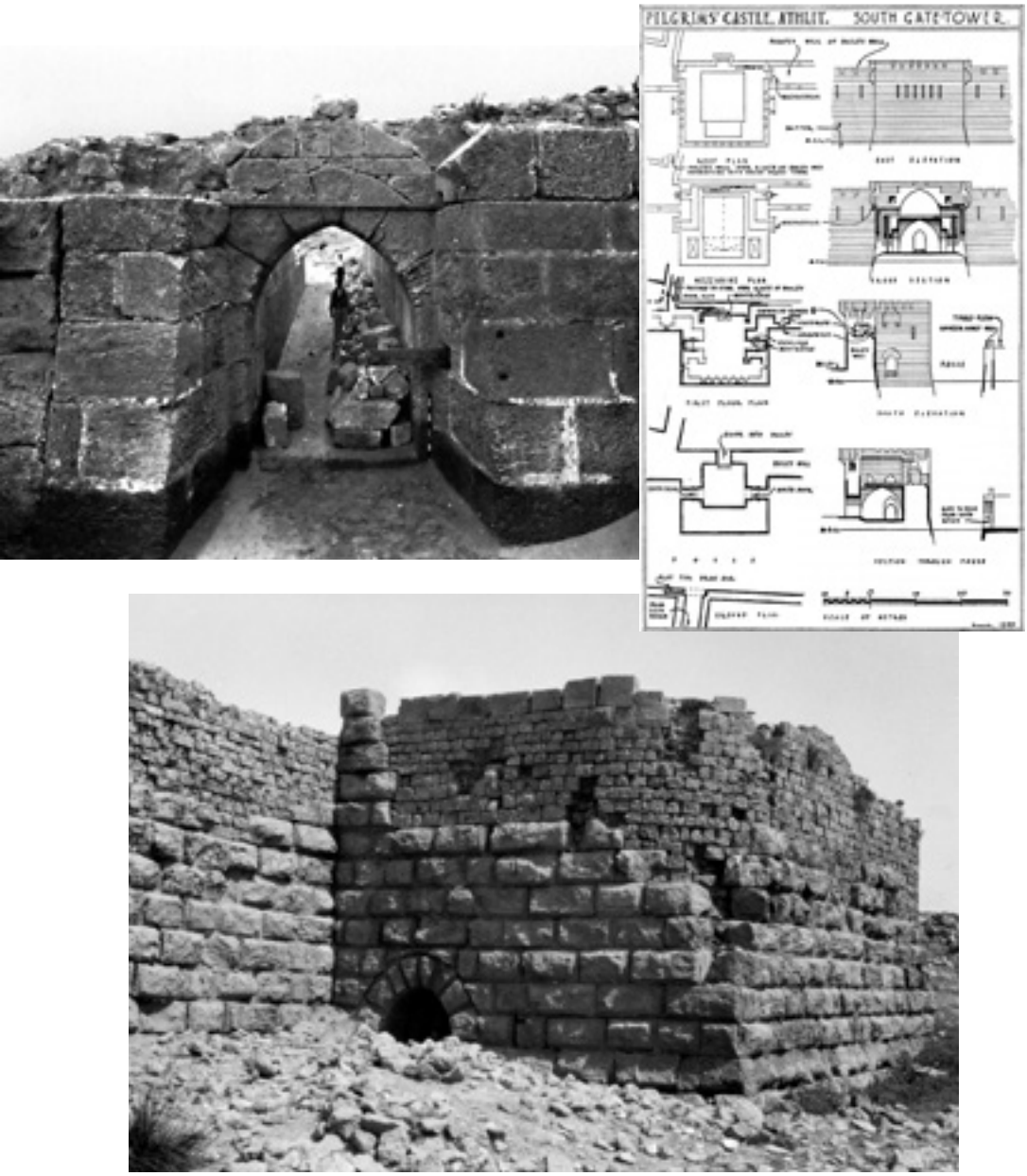


Figure 13.4 *Chastel-Pèleriin (Athlit). A collection showing the manner of entry. Top left, the south gate tower, taken from the south around 1932 (plate by G. and E. Matsin, Library of Congress, LC-M33-7049-E (P&P). Bottom left, view of the south entrance door of the moat and of the eastern access ramp, from the moat, from the west (from Johns, 1932). On the right, plans and cross-section of the south tower, by C.N. Johns in 1932*

fig.13.4

into a ditch whose counter-scarp is pierced by two single-leaf doors manoeuvred from the inside, set up symmetrically 100 m apart from each other; these open onto two inclined ramps leading up to natural ground level. Like the previous one, this layout is clearly related to the precepts used in Hellenistic fortifications and re-employed in Byzantine fortifications; nevertheless, it is more sophisticated in that, thanks to the number of exits, a troop of cavalry could probably exit rapidly from the castle through the six doors and gather in the ditch before making a sudden sortie using the two inclined ramps. For me, Château Pèlerin is the only edifice where a function linked to the sortie of cavalry is so clearly implemented.[10]

In these three examples, there is no doubt that the system of posterns results from deep theoretical reflections; if the layout of Jubayl seems to have been more dependent on a less organised context,[11] then the two cases of Belvoir and Château Pèlerin are probably the most successful of the Frankish productions in the Middle East and it can probably be linked to those overseeing the construction: in the first case, the Knights Hospitaller perhaps right before Hittin[12] and, in the second case, the Knights Templar, beginning in 1218.

However, this theoretical reflection was not universally shared, to say the least. If one considers the large fortress of the Crac des Chevaliers in Syria in its finished state at the end of the Frankish period (1271), there was a total of two main gates and four posterns spaced irregularly on a perimeter of about 700 m.[13] On the western face, 230 m long and flanked by six towers from the first half of the thirteenth century, there are two posterns, one in the flank of a circular tower, the other in that of a rectangular tower: these are rectangular openings barely 1.7 m high and half that in width, placed high up at about 3 m, such that both exiting and entering must have been difficult. They were covered by *bretèches* (brattices) on the parapet. Later, in the second half of the thirteenth century, below the original enclosure to the south-east, a defensive work was added, composed of galleries with superimposed arrow loops. This work was provided with two posterns facing each other, placed under the protection of large *bretèches*; only one of these remains located 2 m above the slope but close to a rocky prominence, which would have allowed the possibility of building a walkway.

Do these posterns represent openings disposed in order to make sorties or are they simply openings to make life easier? The question still remains. In any case, the large fortress, Margat/Qalʿat Marqab, 'cousin' of Crac, also built by the Hospitallers, has only one postern leading outside on the whole length of its perimeter, on the south face. It is placed high above the ditch, accessed from

one of the castle's large outdoor halls, and it is hard to understand what its use was, other than as a simple precaution during building to allow the possible addition of a walkway.[14] It is interesting to see how this problem was solved in the castle of Jacob's Ford, constructed by the Templars in the 1170s, but that was never completed after its capture and destruction by Saladin's army in 1179.[15] The enclosure, barely flanked by a square tower, formed an elongated rectangle whose sides total 370 m; apart from the main entrance gate, there were four posterns pierced straight through the walls about 3 m above the outside ground surface at fairly irregular intervals (56 m, 45 m, 84 m, 107 m and 92 m). These posterns were interpreted as accesses for the construction site, particularly for spreading earth outside.[16] Their usefulness in case of a siege seems on the contrary to be quite random; one could even ask to what extent they might mark the future location of towers.

Crucially it must be noted that in most fortifications there are simply no posterns, which strongly suggests that builders did not view the concept as essential.

## COMPARISONS

This has not been an exhaustive review of all the examples of posterns present in Frankish fortifications of the Middle East. Nevertheless, at this stage let us establish a few comparisons by looking first to Muslim architecture in the region. Such openings are found fairly systematically in the large Ayyubid and Mamluk fortresses, where it seems that a ditch-bottom postern positioned in the flank of a tower is a fairly common generic element.[17]

The most emblematic case is certainly that of the Bosra citadel, where no fewer than seven ditch-bottom posterns exist in towers and the bases of curtain walls. In the towers, these posterns are accessed perpendicularly,[18] following the recommendations of the time, and are equipped with very particular monolithic leaf doors,[19] whereas the posterns in curtain walls are not pierced with any regularity. It is known that the fortification here was created by adding towers and curtain walls around the ancient theatre in several phases in the twelfth and first half of the thirteenth century;[20] at the end, the builders constructed a glacis at the base, which had the effect of masking all but one of the posterns, for which a recess was made in the glacis. There is no doubt that the successive architects had slavishly applied the principle in the towers and curtain walls that they built, but the final architect in the 1240s swept them all aside in one stroke.

Another interesting example, already cited above, is that of the Crac des Chevaliers, in Syria. In two of the massive towers built by Baybars' architects, they put posterns at the base, accessible through long staircases leading to the interior of the fortress. The postern on the south front was clearly a case of providing access to the ditches for maintenance, while the one on the east front was intended to control the emptying operations of the large reservoir and to access the ravine used for that purpose, the Frankish postern in the south-east work having been removed.[21] It is known that they also built the very curious north entrance, equipped with a portcullis, an extremely rare device in Muslim architecture, wrongly considered to be a hidden postern – its function remains uncertain.

These two cases are only the cream of the crop; there are countless examples of such ditch-bottom posterns that I will call isolated, to which any specific defensive role cannot really be assigned. It is edifying to read the advice of sheikh al-Harawī to an Ayyubid prince at the beginning of the thirteenth century: 'He [the prince] should hurry to guard the ditch and to protect the enclosure, but should be sure to cut off the bridges over the ditches only in the serious case of his being powerless. He should take care to close the posterns, which excite the greed of the enemy.'[22] This pragmatic vision brings us back to the archaeological reality noted at Caesarea Maritima.

It may be interesting to research whether practices were more codified in 'metropolitan' fortifications. But the number of fortifications and their geographic and chronological distribution are such that this exercise would be somewhat in vain. Thus, in order to provide a comparison with the great Crusader fortresses, questioning will be limited to the use made of posterns in fortifications built or inspired by Philip Augustus, where the architectural concepts are closest to the modern notion of standardisation. Yet posterns are virtually absent from castles built by Philippe Auguste. Only the one of Guainville (Eure-et-Loir, France), built after 1192, presents ditch posterns located at the base of two circular towers at the hinge between the high castle and the courtyard.[23] Placed at the junction between towers and curtain walls and protected by an interior murder-hole, these posterns were completely covered; one of them is even inserted into the glacis of the neighbouring curtain wall like at Belvoir. Bearing in mind the topography of the site, the use of the posterns could only have been utilitarian, for they are encased in the bottom of ditches with steep slopes and no access to the outside; this would have made the concept of a sortie fairly illusory. However, the completely abnormal character of the architecture developed here could lead one to suppose that they were the result of the application of a theoretical recommendation.

fig.13.5

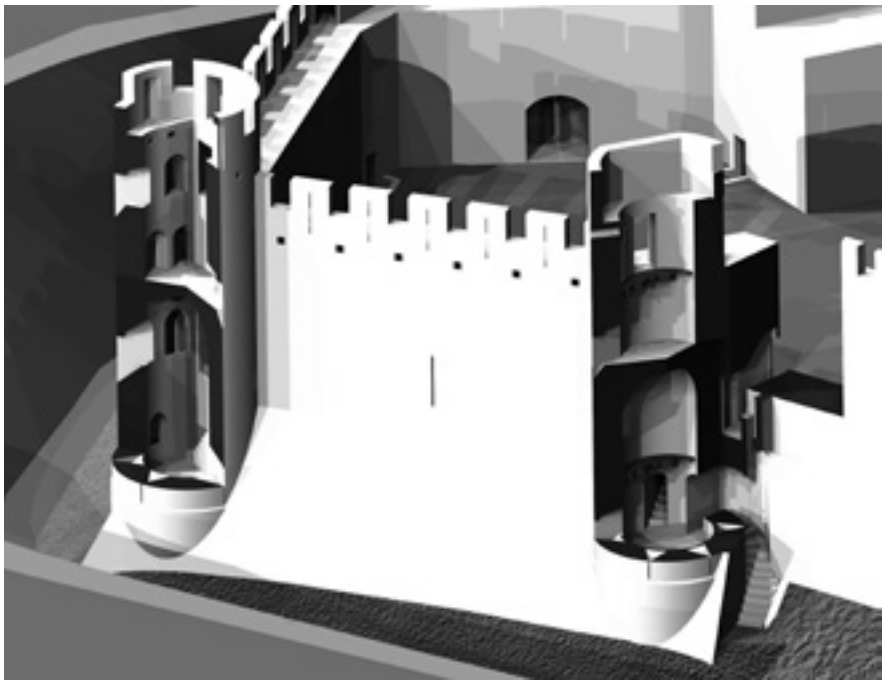

Figure 13.5 *Guainville (France). Axonometric cutaway of the south-west corner tower, showing the cross-section of the corner postern (drawing by Jean Mesqui)*

Contemporaneous and in the same vein at the castle of Noyers (Yonne, France), which was constructed after 1193, are two towers, 24 m apart, that flank the front liable to attack. These cover ditch-bottom posterns not dissimilar to those at Guainville with their straight, steep staircases leading to the interior.[24] Placed to create indirect access, they seem to reflect a theoretical logic of defence in the manner of Belvoir; unfortunately, the rest of the towers on the front liable to attack have not been exposed yet, so it is impossible to know if the same principle was applied systematically. If it were the case, then there would be no remaining doubt as to the nature of the building programme.

Finally, I shall mention here the ditch-bottom posterns at the castle of Saint-Gobain (Aisne, France).[25] Unfortunately, this castle has been razed to the ground and the bases of its towers and curtain walls have been buried by the ditch fill. But one can still recognise inside its bases a vaulted gallery around the perimeter for checking the ditches, crossed by four staircases going down to posterns located at the corners of bases of the towers; each of these staircases was interrupted just below the gallery by a portcullis and a murder-hole.

Probably built in the 1220s by the lords of Coucy, this arrangement was clearly conceived as a defensive work, to which the posterns probably belonged. In contrast, one cannot help but notice that the gigantic contemporary castle of Coucy, built at the same time, had only two posterns; one of them was notable because it was at the base of the 'chemise' of the main tower, accessed by a staircase in the thickness of the semi-circular wall. As at Saint-Gobain, it had a murder-hole and a portcullis.[26]

Apart from these few particular examples, how many others are simply useful openings? In some cases, like at Coucy (Aisne, France), Angers (Maine-et-Loire, France) and Montaiguillon en Champagne (Seine-et-Marne, France) in the 1220s and 1230s, there were even posterns under the entryway for carts in gates with two towers, thereby profiting from the protection afforded by the defensive works to create useful exits into the ditches.

To conclude this short paper, it should be noted that one must remain circumspect with regard to posterns and their uses. The number of posterns for defensive purposes, intended to allow sorties from the fortification seems to have been limited to a handful of works whose architects gave free rein to the expression of theories that were perhaps borrowed from Antiquity. Belvoir in the Holy Land and Saint-Gobain in France were expressions of this search, as were probably Jubayl, Guainville and Noyers, to cite but these few. For me, these theoretical considerations were more likely the prerogative of the last years of the twelfth and the first half of the thirteenth centuries; but they remained the exceptions.

Plausibility dictates that most of these openings at the bases of towers and curtain walls should be considered as functional, utilitarian openings that were closed by walling up as soon as a siege appeared to threaten the fortress. Their function could have been linked to the building site, or to the upkeep of the ditches or even of the walls; it could have been linked to the service and control of areas difficult of access that remained outside the fortress; it could perhaps also have been linked in some cases to the provision of supplies with the help of winches located higher up.

Ultimately, the best example of a system allowing sorties by the besieged is found at Château Pèlerin, a work so specific that one could argue about calling its 'posterns' its six gates.[27]

## NOTES

1 See, for example, H. Kennedy, *Crusader Castles* (Cambridge: Cambridge University Press, 1994), p.111, and especially R. Ellenblum, *Crusader Castles and Modern Histories* (Cambridge: Cambridge University Press, 2007), pp. 250– 3. The latter author relates the construction of posterns to the construction of 'concentric castles' according to his evolutionist theory of Crusader fortifications in the Middle East, which is probably far too systematic. Nevertheless, the chapter dealing with this subject presents the case of posterns as being one of the characteristics of these concentric castles, as a response to the defensive necessity of making sorties in troops; yet the posterns are not at all adapted to such a use, with the exception of Château Pèlerin, which we examine below.

2 J. Mesqui, *Césarée maritime, ville fortifiée du Proche-Orient* (Paris: Picard, 2014).

3 D. Pringle, 'Town Defences in the Crusader Kingdom of Jerusalem', in I. Corfis and M. Wolfe (eds), *The Medieval City Under Siege* (Woodbridge: The Boydell Press, 1995), p. 91: 'their main purpose […] was evidently to allow the defenders to sally forth and set fire to any siege machine or tower that had been brought too close to the wall for comfort'.

4 J. Mesqui, *Provins. La fortification d'un ville au Moyen Âge* (Genève: Droz, 1979).

5 See P. Deschamps, *Les châteaux des Croisés en Terre Sainte. II. La défense du comté de Tripoli et de la principauté d'Antioche* (Paris: Librairie orientaliste Geuthner, 1973), pp. 217– 47 and J. Mesqui, 'Die Burg Saône (Sahyūn, Qalʿat Salāh ad-Dīn)', in M. Piana (ed.), *Burgen und Städte der Kreugzzugszeit* (Petersberg: Michael Imhof, 2008), pp. 356– 66.

6 T. Biller, 'Die Johanniterburg Belvoir am Jordan', *Architectura. Zeitschrift für Geschichte der Baukunst* (1989), pp. 106–36.

7 *Institutions militaires de l'empereur Léon le philosophe, traduites en françois, avec des notes et des observations, suivies d'une dissertation sur le feu grégeois et d'un traité sur les machines de jet des anciens*, par M. Joly de Maizeroy (Paris : C.-A. Jombert fils aîné, 1771) : instution XVI) : 'On the right side of the towers one will have to make small doors through which the infantry will come out who, being well covered by their shield and protected by the projectiles that will be thrown from the defences, will go and capture the enemy's machines. These posterns must be well guarded, and only be opened at the moment when one wants to go out.' *Philo of Byzantium*, ch. I, no. 26 (Albert de Rochas d'Aiglun, *Traité de fortification, d'attaque et de defense des places par Philon de Byzance* (Paris: Tanera, 1872), ch. I, no. 26, is more specific, because he recommends 'to make sorties from the postern located in the right flank of a tower and re-enter the fortress by the left flank of the next one'.

8 There are no recent studies on Jubayl. See Deschamps, *Les châteaux des Croisés*, particularly p. 204.

9 C. N. Johns, *Pilgrims' Castle (ʿAtlīt), David's Tower (Jerusalem), and Qal'at ar-Rabad (ʿAjlun): Three Middle Eastern Castles from the Time of the Crusades*, D. Pringle (ed.), (Aldershot: Ashgate, 1997).

10 In this respect, it answers the need underlined by Ellenblum, *Crusader Castles*, mentioned in note 1.

11 Paul Deschamps places the construction of the enclosure in the first half of the twelfth century; such a date seems too early, and is more likely to be in the decade preceding Ḥiṭṭīn, perhaps even the early thirteenth century. It should be remembered that Wilbrand of Oldenburg, in 1211–12, employed the ambiguous *term turris ampla et munitissima* (Deschamps, *Les châteaux des Croisés*, p. 208 n. 7).

12 Here I use the classic dating suggested by Thomas Biller. Nevertheless, some troubling architectural details, such as the systematic use of discharging arches above the door lintels, call for a degree of prudence with regard to this suggestion, which places the fortifications as a whole into a fairly short period. At this stage, and without additional analysis, it cannot be excluded that the towers of the outer enclosure and the glacis might be later than Hittin. We hope that the current French archaeological project, directed by Anne Baud and Florian Renucci, will provide answers to this question.

13 On Crac, there are two recent works, apart from the reference work published in 1934: T. Biller, M. L. Boscardin, D. Burger, G. U. Grossmann and H.-H. Haffner, *Der Crac des Chevaliers. Die Baugeschichte einer Ordensburg der Kreuzfahrerzeit* (Regensburg: Schnell & Steiner, 2006) and J. Zimmer, W. Meyer and L. Boscardin, *Krak des Chevaliers in Syrien. Archäologie un Bauforschung 2003–2007* (Braubach: Deutsche Burgenvereinigung e. V, 2011). Since 2014 Maxime Goepp and I have undertaken a consolidation of these three works with the addition of our analyses.

14 Nevertheless, in the big wall of the south face there is a door located at the join between the low curtain wall lining the original hall and the lower southern enclosure (see Deschamps, *Les châteaux des Croisés*, plan Marqab 1).

15 On the castle, see the description and analysis in Ellenblum, *Crusader Castles*, pp. 258–74.

16 According to Ronnie Ellenblum, the plan for the construction of the fortification would have been to build a second concentric enclosure, with the soil thrown out through the posterns along the walls, creating its platform. In the absence of the publication of this already old excavation, one can only register a certain degree of scepticism regarding this hypothesis by noting that the enclosure with rusticated stone would not easily have lent itself to becoming the inner skin of a second fortified *enceinte*.

17 C. Yovitchitch, *Forteresses du Proche-Orient: l'architecture militaire des Ayyoubides* (Paris: Presses de l'Université Paris-Sorbonne, 2011). C. Yovitchitch, 'Forteresses ayyoubides de la principauté de Damas. Contribution à l'histoire des fortifications médiévales proche-orientales en terre d'Islam', PhD thesis, Un Sorbonne, Paris, 2007, v. I, pp. 152–6. There is at least one towe large castles built by the Muslims in the thirteenth century; all named here.

Such a stone door is still

18 A door placed such that the enemy is obliged to present his right side, unprotected by his shield, to the arrow loops.

19 ~~A monolithic lintel over the main entrance is~~ visible at Qaṣr al-Azraq in Jordan.

20 C. Yovitchitch, 'La citadelle de Bosra', in N. Faucherre, J. Mesqui and N. Prouteau (eds), *La fortification au temps des Croisades* (Rennes: Presses universitaires de Rennes, 2004), pp. 205–18.

21 See note 13.

22 J. Sourdel-Thomine, 'Les conseils du Šayḫ al-Harawī à un prince ayyūbide', *Bulletin d'études orientales*, 17 (1961–2), p. 238. The epistle might have been written between 1192 and 1215, but the author tends more towards a date close to the death of the erudite pilgrim-spy.

23 J. Mesqui, *Les seigneurs d'Ivry, Bréval et Anet aux XI^e^ et XII^e^ siècles. Châteaux et familles à la frontière normande*, Mémoires de la Société des Antiquaires de Normandie, XLVI (Caen: Société des antiquaires de Normandie, 2011), pp. 198–201.

24 F. Cayot, *Noyers. 'Le plus bel chastel du royaume'. I Étude archéologique et historique* (Chagny: Centre de Castellologie de Bourgogne, 2013), pp. 154–95.

25 I. Peychès, *Notes sur le château fort de Saint-Gobain* (Dijon: Imprimerie Jobard, 1945) and G. Dumas, 'Saint-Gobain avant la Manufacture établie en 1692', *Mémoires de la Fédération des sociétés d'histoire et d'archéologie de l'Aisne,* XIV (1968), pp. 28–46,

26 The literature on Coucy is so abundant that we will limit ourselves to citing the excellent monograph by C. Corvisier, *Le château de Coucy et l'enceinte de la ville* (Paris: Éditions du Patrimoine, 2009).

27 I would like here to thank Maxime Goepp and Denis Hayot for the expertise and kindness with which they helped me conceive this paper.