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Rethinking Montfort

Some Thoughts and Reassessments on the Architectural Evolution of the Castle after a Decade and a Half of Research

Abstract

The spread of European architectural styles, building technologies and decorative elements to the Latin East is evident in every type of Frankish construction, but particularly in monumental buildings. Montfort Castle is in this regard a notable example of the cultural crossing of boundaries and barriers. This is very clear from material exposed by earlier excavations and finds from the Montfort Castle Project that has been running since 2006, with the main aim of expanding our knowledge of the castle, its location, history, functions, components, architectural form, development and destruction. The initial survey and subsequent excavations have thrown much light on all these aspects of the castle and its surroundings, and provide a vast amount of evidence regarding the material culture of the garrison: its furnishings, tools, clothing, food, weaponry, etc. The results of the digs carried out have rendered it necessary to rethink a number of our assumptions. This paper examines what we have learned and what has changed in our understanding of the castle relating specifically to its architectural development, with some thoughts on what existed on the site and in the immediate vicinity prior to the Teutonic acquisition in 1227/1228, chiefly on the castle itself, from its beginnings until its fall in 1271.

In his masterful, though now much outdated study of crusader castles, written as an MA thesis at Oxford University, and published in 1936 after his death, Thomas E. Lawrence described one of the greatest fortresses of the Latin East, Château Pèlerin at Atlit, in an uncomplimentary fashion, stating that the „design is simply unintelligent, a reworking of the old ideas of Procopius, only half understood“.¹ While noting the enormously thick walls and huge blocks of masonry, he went on to say: „Given unlimited time and

1 Thomas E. Lawrence, *Crusader Castles*, Oxford 1988, p. 71.

labour, anyone can make a ditch so deep and a wall so high of stones so heavy as to be impregnable: but such a place is as much a prison for its defenders as a refuge: in fact a stupidity. Such is 'Atlit'.²

It was only with the excavations carried out at the site some decades later by archaeologist Cedric N. Johns, that it became apparent how wrong Lawrence had been in his assessment, and that in fact, as Denys Pringle wrote in his introduction to a new edition of Lawrence's „Crusader Castles“ published in 1988: „... the walls of the Templar castle of 'Atlit (Pilgrims' Castle) do indeed betray the influence, direct or indirect, of Hellenistic principals of fortification“. ³ How could such an astute scholar as Lawrence having so badly missed the mark? Raymond Charles Smail gives an explanation for this in his masterful 1956 study „Crusading Warfare“:

„Those writers who have made a brief survey, of the kind attempted here, of the whole field of early crusader fortification have not emphasized the very limited value of their conclusions. It cannot be otherwise, for little but the surface of the subject has yet been explored. During the past century the castles have been visited by a succession of itinerant students for periods rarely exceeding a few days and often only for a few hours. These travellers have been handicapped, not only by the ruinous state of the monuments, but by the debris, vegetation, and modern buildings which encumber them; as a result their contribution to exact knowledge of the subject has been small compared to that made by the detailed field-work of Deschamps at Crac and C. N. Johns at 'Atlit'.“⁴

Archaeology indeed has the capability of entirely changing our appreciation of the form, function, and history of a site. Nine seasons of excavations at Montfort Castle (fig. 1) in the western Galilee have abundantly demonstrated this. Through our fieldwork it has become apparent that much of what was understood prior to the application of the spade was imprecise, and more often than not, wholly erroneous.⁵ For here too, destruction

2 Ibid.

3 Denys Pringle, Introduction to Lawrence, *Crusader Castles* (see note 1, 1989 edition), p. XXXI.

4 Raymond Charles Smail, *Crusading Warfare* (1097–1193), Cambridge 1956, pp. 243–244.

5 This holds true of many castles. The ingenuity of the design of Hospitaller Belvoir Castle on the Naphtali Plateau overlooking the Jordan Valley, was entirely missed by early scholars due to it being largely hidden by the remains of the village that had risen up over the ruins, and one need only look at the plan redrawn from a nineteenth century plan by Smail, *Crusading Warfare* (see note 4) (fig. 5, p. 249), and that of Charles H. C. Pirie-Gordon (copied by Lawrence) to see how little the



Fig. 1: General view of Montfort Castle in the western Galilee (© Adrian Boas and Rabei Khamisy).

and centuries of abandonment have misled us, as they have earlier visitors. Now at last, old claims, such as that this castle was first built in the twelfth century and incorporated ancient spolia, can be dismissed, and it has become possible to rethink many of the former theories regarding its chronology, the manner of its construction, the use of its components, and the stages of its history. As is the nature of such long-term and thorough studies, numerous unexpected discoveries have been made enabling us to achieve a greater insight into this remarkable building.

layout of the castle was understood. But when the village was cleared away and excavations carried out in 1968, the flawlessness of its design was revealed for the first time since the Middle Ages, and Belvoir could at last be recognised as being the apogee it was in medieval castle planning.



Fig. 2: Position of Montfort between two converging river valleys (© Adrian Boas and Rabei Khamisy).

The initial survey (2006–2011) and nine subsequent seasons of excavation (to date – until 2019)⁶ have illuminated many aspects of the castle and its surroundings, providing evidence for the furnishings and installations that the castle buildings contained, the tools, clothing, food, and weapons used by the Teutonic garrison, the various daily activities taking place within the castle, and the principal events that affected the buildings and life of the garrison, including construction works, sieges, repairs and the final dismantling after the Mamluk conquest. Our examinations have thrown light on how the various parts of the castle evolved, what purposes they served and functioned, and how life in the castle was made to adjust to the extensive damage caused during the siege of 1266.

6 An additional season of excavations in the mill / guesthouse below the castle, that was carried out by the MCP, Israel Antiquities Authority, and the Israel Nature and Parks Authority in 2021, under the direction of Dr Rabei Khamisy has not been considered in this paper.

A Brief Historical Overview

It was perhaps the pressure placed upon them by the older, more powerful, and wealthy military orders, the Hospitallers of St. John and the Knight Templars, that lay behind the decision of the Teutonic Knights to move part of their administrative activities to a new and more isolated location on property that they purchased in 1220 in the hills to the north-east of Acre, lands that constituted the former lordship of Joscelin de Courtenay. In 1228/1229 they commenced construction of what was to become their principal fortress in the crusader states. Montfort Castle occupied the western end of a mountain spur extending south-east between Nahal Kziv (Wadi Qurain / al-Qarn) to the north and a tributary to the south named Khallet Khzan (fig. 2). The steep slopes of the valleys either side provided it with an effective natural defence. On the north it stood about the 180 metres above Nahal Kziv, and the steep descent to the valleys on the north, south and west served as excellent natural defences. In spite of the advantages of its location, Montfort's siting had substantial flaws, most notably the fact that it was placed low on the spur, and consequently was approached from above by anyone advancing from the east. In addition, it stood opposite (north of) a somewhat taller hill that was close enough to serve as an effective position for enemy artillery. To enhance its defence, the castle was cut off from the eastern extension of the spur on which it stood by two moats and an enormous, massively constructed keep. This massively built „D“-shaped keep, which contained the castle chapel above a large vaulted cistern, was the first building carried out by the Germans on the site, and over the following decades its construction was followed by a series of additional buildings added consecutively along the spur descending to the west. An outer line of fortifications with two semi-circular towers and at least five gates, was progressively added along the northern and western sides, lower down the slope. Within these outer fortifications additional buildings were constructed, thereby forming an outer ward. Of the inner ward to the west of the keep there was a central, two-storey domestic building, with the residence of the knights and all its components, to its west a large three-storey structure containing basements, the castle's Great Hall and an upper domestic level, probably the Grand Master's residence, and adjacent to it on the west, an additional two-storey structure containing another hall on its upper level, above a large cistern. These were surrounded to the west and north by an inner line of fortifications with a three-storey gate tower on the north-west.

For close to half a century Montfort served as the principal Teutonic fortress in the Latin East. In its official capacity it was the residence of the *Hochmeister* (Grand Master) of the Order, although evidently few of them spent much time there. The castle took on some administrative functions from the main headquarters in Acre, among these, housing the order's archives and perhaps its treasury. It also served as the setting

limited aims of the expedition of 1926, it provided only a limited understanding of the functioning of the parts that it exposed, and little was understood of what constituted the major part of the castle – the outer fortification line and the outer ward. A decision was therefore made by the MCP early on, to examine specific parts of the castle's inner and outer wards, in single or double-season excavations, rather than spending several seasons exposing a single area. The intention was to gain a broad idea of the castle in its entirety, to try to understand how it developed over time, and how it functioned, and to lay the groundwork for more detailed studies of specific areas or features in the future. This decision proved expedient, as all of the nine seasons have been highly informative and have enabled us to get a much better understanding of the castle as a whole than would otherwise have been possible.

A: Possible Stages in Reconstruction of the Outer Enceinte

A line of outer fortifications enclosed the castle on the north and west. It included curtain walls of varying height and quality, four or possibly five gates, one with machicolation, crenelation, wall walks, a staircase, arrow embrasures, a guard house and two semi-circular towers. These fortifications run approximately 30 metres below the main buildings of the castle, extending down the northern slope from the keep on the east, and then turning west for some 150 metres before turning south. Until our season of excavations in 2016 it was not clear what happened to them from the surviving tower at the south-west, beyond which no evidence for this line of fortifications could be traced. Had they been entirely dismantled or were they never built? It is now understood that from the south-west this line of fortifications extended on a north-east angle up towards the western end of the main castle buildings, probably joining the curved inner western wall.

From our second season in the spring of 2012 when we excavated a section of the outer wall near its north-western corner, it became clear that the outer fortifications were not built in a single effort but in fact in sections, and that the construction extended over most of the half century of the castle's life. Indeed, the wall was undergoing changes and being reconstructed at the time of the two sieges and probably right up to the final siege, the 2012 season showing that this defensive system underwent substantial reconstruction, and that this most likely happened in the period between the sieges of 1266 and 1271. The first evidence for this came when we excavated a section of these defensive works at the north-west corner where there was a break in the wall with the two sections (one running from the north and the other from the south) were misaligned and did not quite meet. Between them a roughly made wall

for an important general chapter of the order in 1244 during which the *Hochmeister* Gerhard von Malberg was forced to abdicate, and Heinrich von Hohenlohe was elected to replace him. In May 1266, the castle was besieged by two Mamluk amirs, Badr al-Dīn al-Aydamrī and Badr al-Dīn Baysarī. The garrison managed to withstand this attack, and the German order retained its hold on the castle for another five years. In June of 1271, following his successful siege of Crac des Chevaliers, the Mamluk sultan al-Zāhir Baibars al-Bunduqdārī brought siege machines from Safed to Montfort, and on the 8th of June he laid siege to the castle, forcing the garrison to come to terms and depart for Acre. Over the following weeks Baibars was dismantling the castle, completing this by 4th July. The ruined castle was abandoned and never subsequently occupied. It was occasionally visited by travellers, and in 1877 it was the subject of a detailed survey carried out by Horatio Kitchener on behalf of the British Survey of Western Palestine. The first archaeological excavations at Montfort took place in the spring of 1926. These were carried out by a team from the Metropolitan Museum of Art in New York, organised by Bashford Dean, then curator of the Arms and Armour Department of the museum, and led by amateur archaeologist, William Calver. This was the very first excavation of a crusader castle and, despite the conditions and methods employed at this early date, and the failure of its stated aim of recovering a suit of thirteenth century armour for the museum collection, it provided a great deal of information about the castle and its occupants. Within four weeks the team had exposed a large part of these domestic and administrative buildings at the heart of the castle, although no effort was made to extend the work to the outworks or the castle's outer ward. The results of this expedition were published by Dean in the museum bulletin in 1927.⁷ Almost no exploratory work was carried out in the years following the American expedition until the current research project, the Montfort Castle Project (MCP), was established in 2006.

Discoveries

The discoveries made at Montfort over the past decade and a half have significantly change our understanding of how the castle architecture evolved and functioned over close to half a century between its construction and final dismantling. They have also proved enlightening regarding its subsequent history. Because of the brevity and

7 Bashford Dean, The Exploration of a Crusader's Fortress (Montfort) in Palestine, in: The Metropolitan Museum of Art Bulletin, vol. 22, no. 9, part 2: A Crusader's Fortress in Palestine. A Report of Explorations Made by the Museum 1926, pp. 5–46, reprinted facsimile edition, Jerusalem 1982.



Fig. 3: Temporary wall blocking the space between the old outer wall and the new one (© Adrian Boas and Rabei Khamisy).

partly blocked the opening (fig. 3). It was noticed that the two sections of wall were quite different in construction, that to the south being thicker, of better construction and almost twice the height of the wall extending to the north. The northern section was preserved to its full height including its wall-walk and crenelation, whereas the southern section, although not preserved to its full height, was several metres higher, and the base of an arrow slit at its top shows that it originally stood at least two metres higher still. The hastily constructed blockage between the two sections suggests that the higher wall was under construction at the time when the castle came under siege, and that this necessitated a hurried, temporary construction in order to join the new replacement wall to what remained of the older one. There are two possible interpretations for the construction of the new wall. One is that at some point in time it was deemed necessary to replace the outer fortification wall which, although not very old was no longer considered strong enough to defend the castle. The other possibility is that damage caused during

the siege of 1266 necessitated the replacement of the outer wall and that the construction was underway but far from complete in 1271.

B: Decoration of the Great Hall and Grand Master's Apartments

In summarizing the Metropolitan Museum's work at Montfort in his report published in the *Museum Bulletin* in 1927, Bashford Dean wrote:

„The outstanding feature in the present study is the evidence that the knights of Montfort were living not under conditions of stress or hardship, but on very much the same material level which they would have occupied in western Europe. The objects about them were of similar quality, and the luxury in camp in Palestine would scarcely be less than among the besiegers of Péronne or of Carcassonne.“⁸

This is one of the more remarkable aspects of Montfort. The transmission of European architectural styles, building technologies and decorative elements to the Latin East, is evident in every type of Frankish construction, but particularly in monumental buildings, and Montfort Castle is in this regard a notable example of the cultural crossing of boundaries and barriers. This is abundantly evidenced from material exposed in the earlier excavations at the castle, and in the finds from the current project. It seems that an unusual degree of luxury when compared to other crusader castles, was to be found in the official and residential apartments of the castle – in the Great Hall, and the castellan's apartments, and in the knight brothers' apartments. Evidence for this is sometimes on a monumental scale. Elsewhere it is preserved in fragmentary finds that in spite their condition, are able to indicate the highly decorative aspect of these structures.

Being the main fortress of the Teutonic Order and its administrative headquarters outside of Acre, it is not surprising to find that Montfort Castle possessed a splendid and highly decorated ceremonial hall. As elsewhere in the main buildings of the castle, our excavations have found in the debris excavated from the remains of the Great Hall, and of the entirely lost domestic apartments above it, abundant evidence for the fine, early thirteenth century, gothic architecture. The hall was an imposing structure, and one of the most impressive structural features of the castle. Its four groin-vaulted bays were supported by a massive, central, octagonal pier, and by half and quarter octagonal

8 Dean, *The Exploration* (see note 7), p. 46.



Fig. 4: Remains of the Great Hall (© Adrian Boas and Rabei Khamisy).

pilasters around the side walls (fig. 4). It may perhaps be regarded as an architectural prototype for the slender-columned gothic halls found in later Teutonic castles in the West, such as the summer refectory at Marienburg (Malbork), Poland. The vaulting in the Great Hall and the chambers above it (as indeed the chambers of the upper storey of the adjacent domestic building), were decorated with exquisite keystones with deeply carved bosses featuring foliate motifs in the form of leaves arranged in various patterns. Other fragments of similar foliate decoration from capitals and various architectural elements were also found in 1926 and in 2011.

The walls of the Great Hall and the upper apartments were decorated with wall painting. This was not true fresco painting, but fairly simple painted decoration carried out on dry plaster and in some cases directly on stone. The degree of damage caused to these buildings in 1271 was such that these decorations were found in highly fragmentary form, mostly as tiny fragments scattered in the debris. The decoration was simple, mainly geometric, and mostly of pale yellow or salmon colour (fig. 5). There was also moulded plaster, again displaying simple geometric designs. Some of the fragments display painted lines in white on the coloured ground. Not enough of this material was recovered to



Fig. 5: Fragments of the painted decoration (© Adrian Boas and Rabei Khamisy).

enable a reconstruction of the decorative scheme. Several of the rib segments of both storeys displayed a mustard-coloured paint. In the 1926 excavations, rib-stones were found painted with designs in red, black, and ochre. These consisted of stripes, in one case foliate motifs and in another a large *fleur de-lis* outlined in black with a ochre background.

The 1926 excavations uncovered 164 pieces of coloured and colourless window glass and the 2011 excavations added a few more pieces (and subsequently, in 2017, additional pieces were found from an adjacent hall). The finest pieces show designs in black grisaille decoration on colourless glass, displaying straight and curvilinear strap-work, with intertwined vine stems, tendrils and trilobe leaves set against finely cross-hatched backgrounds (fig. 6). They are similar to the designs of medieval glass of French origin, consistent with examples of mid-thirteenth century, particularly from Île-de-France, Normandy, and the Poitou. In his 1927 publication, Dean compared them to French examples, placing fragments on a panel of mid-thirteenth century date from Auxerre in northern central France.

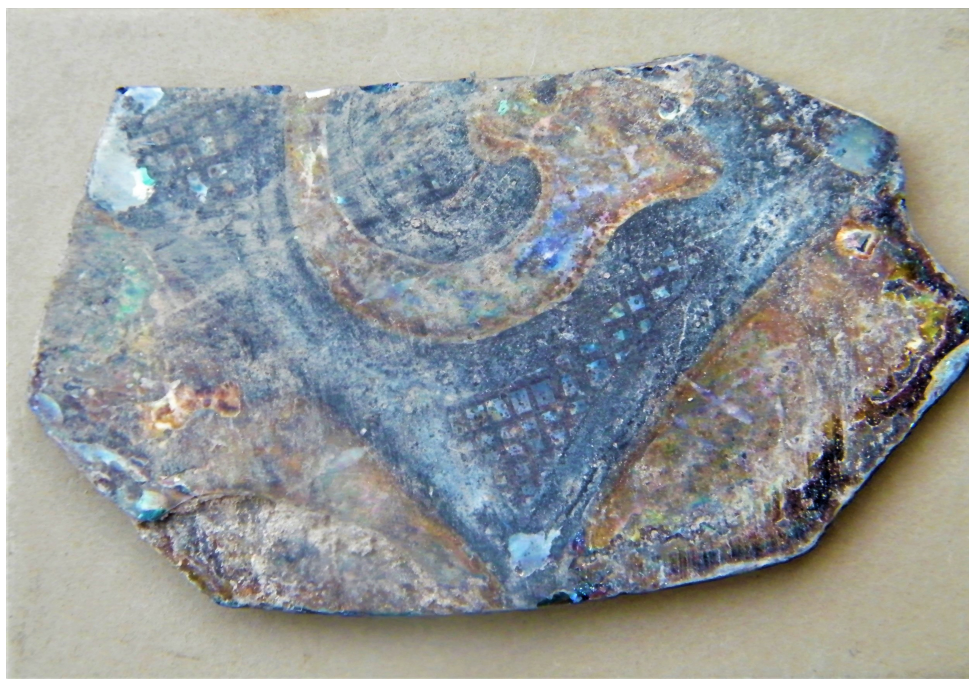


Fig. 6: Grisaille decoration on the stained glass (© Adrian Boas and Rabei Khamisy).

A few tiny fragments of gilded wood were discovered on the floor of one of the basement vaults below the Great Hall in 1926. Their small size precludes identification, but indicates the presence in the Great Hall or the apartments above it of luxurious furnishings. An additional piece of evidence from 1926 that might point to the highly decorative nature of these buildings is the discovery of two small stone matrices displaying a variety of carved designs that may have been intended to serve as moulds for decorative metal foil used in tin relief, a technique known as *pastiglia* that could have been used for furnishings or for wall decoration.⁹

9 On this technique cf. Andrea Wähning, *The Stone Matrices from Montfort. About Moulds, Tin Relief and the Polychromy of Shields in the Thirteenth Century*, in Adrian J. Boas / Rabei G. Khamisy (Eds.), *Montfort. The History, Early Research and Recent Studies on the Principal Teutonic Fortress in the Latin East*, Leiden 2017, pp. 266–272.

C: The Stables

A castle of the size and importance of Montfort would require large stables. However, until the current excavations, no structure serving this purpose had been identified on the site. In William Calver's field diary and his correspondence to Bashford Dean during the course of the excavations in 1926, no mention was made of stabling, and in the description of the Metropolitan Museum's expedition that was published by Dean in the museum bulletin the following year, the references to stabling and horses is minimal. Dean does mention: „a great tank of stone (watering trough for horses?) that was uncovered in the vestibule between the keep and the central ‚residential‘ building“¹⁰ and notes that on the north side there was „an alleyway, about ten feet wide, which led down from the keep to a gate of the inner bailey, and which was intended as an entrance for horsemen“, going on to say that this was „a suggestion the more probable when one recalls that no entrance of this kind occurs on the other (south) side of the castle“.¹¹ This vestibule between the keep and the domestic building was certainly not a place for stabling horses, but Dean appears to have been correct in identifying the gate on the north as „an entrance for horsemen“. The „great tank of stone“ was apparently a watering tank that was placed at the outlet of a channel from the cistern under the keep. Remains of it, in somewhat poorer condition than when it was exposed in 1926 are still located there today.

A second location considered as having served for limited stabling was one of the two basement vaults under the Great Hall (Calver's chamber K), at the inner side of which a large trough was found. However, neither of these locations could have fulfilled the stabling needs of the castle. The vestibule was certainly only a watering place probably reserved for special visitor arriving at the main part of the castle and was too limited in size to serve for stabling horses and pack animals, and the basement chamber apparently served other purposes.

In two excavation seasons in 2014 and 2015 a large stable complex was identified in the lower ward on the north near the north-west corner of the outer fortifications and directly adjacent to the small gate on its east. This was an appropriate location, as travellers arriving at the castle would have been able to deposit their horses and mules in the stables here before proceeding up a path to the upper gate tower where they would enter the main part of the castle. The excavations exposed a large, roofed chamber running adjacent to the fortification wall. It was paved partly with natural rock and partly with large flagstone pavers. The roofing was supported by wooden beams held on protruding

10 Dean, *The Exploration* (see note 7), p. 18.

11 *Ibid.*, p. 22.



Fig. 7: The stables (© Adrian Boas and Rabei Khamisy).

stone corbels on the fortification wall and there would have been putlog holes, or perhaps corbels, on the inner wall as well. Because of the width of this building, wooden beams of sufficient length to cover the entire span could probably not have been obtained, and so an additional support apparatus of double arches on central piers was constructed, the arches springing from the fortification wall on the northern side and from a rock-cut ledge or platform on the south (fig. 7). A row of mangers was constructed at appropriate height for horses along this ledge between the arch springers. Along the centre of the chamber a row of six free-standing columns supported the arches and, in turn, the roofing beams. There may have been water troughs or additional mangers between the columns. Fragments of the roofing beams, carbonated and poorly preserved, were found along with, numerous large carpentry nails.

At the centre of the eastern end of the chamber were a number of areas of accumulation of ash and reddish clay. This appears to have been a work area. Two large bronze pans were found here, along with a small bronze bowl and well-formed rectangular stone basin, possibly a crucible, and a great deal of very fine ash, suggesting that this area served perhaps as a smithy (fig. 8). There was also a small quadrangular shaped walled-off area, perhaps used to steady a horse during shoeing.



Fig. 8: Vessels found in the stables (© Adrian Boas and Rabei Khamisy).

Among the material finds were several items that supported the identification of this area as a stable. These included horseshoes, fiddle-key type horseshoe nails, spurs, spur studs, and iron rings set in the floor. Also recovered were a small bell, stone mortars and pestles, a spade and an axe, arrowheads, coins, and ballista projectiles.

D: Installations and Industries

Any isolated structure having among its functions a domestic purpose, must contain installations and a certain manufacturing capability. The larger it is and the more isolated, the greater number of such components required. This is certainly true in the case of a large fortress such as Montfort. Providing housing for a garrison of knights and foot soldiers, and an administrative staff, it had to have a large auxiliary contingent of people providing services, including masons, carpenters, cementers and plasterers, butchers, cooks, bakers, launderers, millers, winemakers, metal workers, infirmarers, and perhaps gardeners, herbalists, and so on. Archaeological evidence occasionally points to their presence.

A large winepress (fig. 9) was exposed in 1926 and during the 2011 season of the current project was re-examined.¹² Located just inside the central domestic ward of the castle, it consisted of two elements: a treading floor and collecting vat with a large stone pipe connecting the two. The installation is slightly irregular, in shape, with the treading-floor paved with neatly laid rectangular slabs, sloping slightly towards the pipe. The walls and floors and collecting vat are covered in hydraulic plaster containing small pieces of pottery. A round sump in the floor of the vat assists in collecting the grape juice after the first stage of fermentation, that, according to the study took place in the vat itself. The wine produced in this large installation was certainly for consumption within the castle, where, as in all military order or monastic houses, drinking of wine took place daily at compline. Wine could also be supplied to the castle from local villages and perhaps from the recently discovered large wine installation outside the order's castle at Mi'iliya, but a winepress within the castle may have become particularly necessary during the last five years of Teutonic occupation of Montfort, when the Frankish controlled territory around the castle was probably abandoned following the siege of 1266. It is perhaps possible that the winepress was built at this time in order to make up for a loss of the local wine suppliers (although grapes, along with other supplies, would still have had to be brought in from further afield).

12 Cf. Rafael Frankel, *The Winepress at Montfort*, in: Boas/Khamisy (Eds.), *Monfort* (see note 9), pp. 168–175.



Fig. 9: The winepress (© Adrian Boas and Rabei Khamisy).



Fig. 10: Bone objects found in 2016 (© Adrian Boas and Rabei Khamisy).

At least two other manufacturing industries have been discovered in the castle grounds. During both the excavations of 1926 and the current excavations evidence was uncovered for the manufacture of metal objects. In 1926 a forge area was identified during excavations in what was labelled Chamber D, on the northern side of the building extending west from the keep. Dean referred to this area as:

„... probably the workshop of the castle in which armor was repaired. Here were found blooms of iron, a crucible, various tools, hammers, chisels, fragments of chain mail, pieces of a basinet, a bit of the visor of a great helm (would that we had more of it – it is unique!), scales of body defenses (jazerans), upward of forty bits of armor. Here also were heads of arrows, darts, lances, spikes, all lying in a bed of charcoal, indicating that they had remained there since the burning of the castle.“¹³

13 Ibid., p. 22.

Castles the size of Montfort would probably have had more than one forge. The MCP has found evidence suggesting metalworking being carried out in three places of the lower outer ward. In the northwest corner near the north-western gate and in the northeast near another outer gate, quantities of what is termed “bottom slag”, metal waste formed during the forging process, were found, and, as noted, objects, fine ash and a large stone crucible were found in the castle stables.

Several finds of worked bone were found in various parts of the castle in 1926 and among these were some that hinted in local production, notably objects of raw material, such as a boar’s teeth, and various worked objects including cut bone disks with drilled holes, a number of small, thin, cut pieces of bone, perhaps inlays for furniture or other wooden objects, crossbow nuts (part of the crossbow mechanism), and bone rings. Evidence for a bone industry was found near the southwest gate where nearly 100 pieces of worked bone, including such items as buttons, toggles, handles and crossbow nuts, as well as several pieces of bones from which such items had been cut, were found, along with pieces of cut horn (fig. 10).

A plastered basin and channel excavated in one of the chambers of the domestic ward, probably dating to the very last phase of the castle between the two sieges, and large lumps of sulphur found in 1926 in one of the chambers below the Great Hall may be evidence of additional industrial activity. Although Montfort received much of its supplies from outside, from the hinterland of the castle and further afield, and mainly from Acre, in difficult times when the region was threatened by invasion, the castle had to be, to a degree, self-sufficient. Much of the outer ward of the castle is still unexplored, but we can assume more productive activities existed and may be discovered in future excavations.

E: The Lost Hall and a Change in the Chronology

In 2017, excavations were carried out in an area adjacent to the inner gate tower at the western end of the main castle buildings. Until this season it was believed that the westernmost structure of the upper ward was the three-storey administrative building containing the Great Hall and the Grand Master’s/castellan’s apartments. This was also believed to be the last building constructed in the upper ward, as it clearly post-dated the two adjoining buildings to its east. It had been generally understood that the three main structures of the upper ward, the keep, the central domestic building, and the administrative building had been constructed consecutively from east to west, beginning with the keep. The new excavations and renewed observation at the western end of the inner ward has necessitated rethinking in this regard. It had already been



Fig. 11: Fallen remains of the interior architecture of the newly discovered hall (© Adrian Boas and Rabei Khamisy).

observed that some sort of structure extended west of the administrative building and a large part of a plastered cistern vault survived here as well as remnants of a wall attached to the exterior of the administrative building. A section of the western wall of the cistern also survived, two metres thick, well-constructed and preserved to a height of over three metres. Nothing, however, was known of the function of the structure that once stood here and no reference had been made to it in any previous publication. The excavations were carried out just beyond this structure to its west, between it and the curved defensive wall attached to the gate tower. These exposed a layer of debris consisting of a large quantity of architectural elements of monumental size. Among these were chamfered rib sections, part of a half-octagonal pier, a decorated cornice, and a *tas-de-charge* (fig. 11). In addition, large sections of plaster flooring and a few pieces of grisaille-decorated stained glass were recovered. All of the architectural elements are similar to those of the vaulting in both the central domestic building and the two levels of the administrative buildings, but they could not have originated in either of those as their proportions are somewhat different. In fact, what was exposed here was the remains of yet another ceremonial hall that originally stood above the above-mentioned cistern. The architectural pieces were recovered as they had fallen when the building was undermined, and indeed as they had once stood in the lost hall about sixteen metres above – pier, cornice, *tas-de-charge*, and ribs. The hall had

been approximately half the size of the Great Hall, consisting of two rib-vaulted bays with half-octagonal pilasters in the middle of its north and south walls. Its walls were about 2 metres thick. When it was brought down by Mamluk undermining after the castle fell, most of it had collapsed down the southern slope, but a large part of it had fallen into this area adjacent to the curved wall, and so was preserved and exposed in the excavations. On observing more closely the other surviving walls of this building we noted that, as opposed to our initial thoughts, it in fact predated the administrative building, and that the latter had been attached to it. It appears that originally this two-storey building was a free-standing structure, and only later was joined to the buildings to its east when the administrative building was built between it and the domestic building further to the east.

F: The Extent of Destruction Caused by the 1266 Siege and the Changes Necessitated

Prior to the current excavations virtually nothing was known about the effect the siege of 1266 had upon the castle and its infrastructure, and its garrison. The only information regarding this siege comes from brief reference to it in a single Muslim source, and this only establishes that it indeed took place, throwing no light on why the siege failed, how intense it was, what methods were employed by the besiegers, or what efforts were made by the garrison to resist it. There is no mention of casualties, nothing about the degree of damage caused, or what impact it had on the lives of the besieged.

There can be no doubt that substantial damage would have been caused to the castle during the siege of 1271, including heavy bombardment by trebuchets from the southern hill, and during the fighting that took place within the castle once the Mamluks entered it. Added to this was the far greater destruction caused by the dismantling that took place after the castle had fallen into Mamluk hands. These two acts and in particular the latter, would have destroyed much of the evidence for damage caused by the 1266 siege. None-the-less, most of the nine seasons of excavations of the MCP have provided evidence relating to this siege, enough indeed for us to be able to estimate that already the upper stories had suffered badly, to the extent indeed that parts of them were no longer usable and that it became necessary to carry out fundamental structural repairs and to make functional changes. And these repairs and changes were carried out during the remaining five years until the final siege and conquest of Montfort put an end to them in the summer of 1271.

The first efforts of the garrison would have been to contain the damage and prevent further collapse. Perhaps the best evidence for this was uncovered in the first excavation season in the summer of 2011. During excavations in the remains of the Great Hall a wall was exposed (fig. 12). Although massive (1.2 metres thick), it had been constructed



Fig. 12: Temporary support wall in the ruins of the Great Hall (© Adrian Boas and Rabei Khamisy).

of large, roughly shaped fieldstones but with no mortar. Built over the already damaged floor and against a damaged pier, its construction shows that it was clearly not a structural wall, and it appears to have been built in order to prevent further collapse of the surviving vaulting. Presumably it enabled the area of the hall to continue to function in a limited manner. It is one of a number of efforts made by the garrison to recover after what was apparently major damage caused by the Mamluk siege machines in 1266. If it did not enable the reconstitution of the Great Hall to its former ceremonial function it did at least enable it to fulfil another purpose, that of housing livestock and perhaps carrying out butchery activity. Along with supporting the damaged hall, were several other works, some of a temporary nature, others of permanent work, that constituted large scale restoration efforts of internal structures and the castle's fortifications. Evidence suggests that the Germans believed that restoration of the castle would be possible, and that they took initial measures towards this end, measures that proved futile when Montfort fell to Baibars and was dismantled in 1271.



Fig. 13: Stacked rib sections taken from the collapsed Great Hall after the siege of 1266 (© Adrian Boas and Rabei Khamisy).



Fig. 14: Animal bones found in the collapsed debris from the Great Hall (© Adrian Boas and Rabei Khamisy).

Substantial functional changes were necessitated by the damage caused by bombardment. Presumably the Grand Master's/Castellan's apartments above the Great Hall were so badly damaged as to be rendered useless, if they had not entirely collapsed. The Great Hall itself must have been on the verge of falling down, and a large part of its vaulting had indeed collapsed. Evidence for this uncovered in 2019 is a group of large rib segments from the fallen vaulting that the brothers carried down and stacked in the western basement vault, apparently in the hope of reusing them at some later time to restore the vaulting (fig. 13). Instead they were subsequently buried in the debris from the dismantling in 1271. But enough of the hall remained standing to allow it to still be used, and what emerges from our study in two seasons – 2011 when we excavated in the remains of the hall itself and 2019 when we excavated the basement vault below it – is that after constructing the support wall to contain the damage and prevent further collapse, the area continued in use now to house livestock and probably to slaughter them. Evidence for this is a large quantity of animal bones (not yet examined but apparently of cattle, pigs, sheep or goats and other small animals) that were found in the debris that fell from above into the vault during the final dismantling (fig. 14). The notable presence of pig bone rules out the possibility of this activity being connected to the Muslims who briefly occupied the castle while carrying out its dismantling. Part of the hall may now



Fig. 15: Cut brushwood from the rubble in the western basement vault (© Adrian Boas and Rabei Khamisy).

have also been used for cooking, for in 2011 we found on the damaged floor a cooking pot, ash, and pig bones. Within the debris of the basement there was also a quantity of cut brushwood (fig. 15). This too may have fallen from the ruined hall point to it having been used to store firewood as well, although the brushwood may possibly have fallen from a wooden mezzanine within the basement vault. Also found in the lower debris of the basement was a quantity of carbonized grain, which may also have fallen from the hall above, or from the mezzanine.

To sum up, it appears that the hall was so badly damaged that after the siege it could not be immediately restored to its former function and, after being made safe it was temporarily used instead for storing and preparing food for the garrison, quite a come down for what had formerly probably been the most splendid part of the castle, but perhaps a very practical effort to make the most of the situation as it was.

In the former domestic building to the east of the Great Hall a similar effort to deal with the damage by reassigning parts of the building to new functions, appears to have



Fig. 16: Strengthening of the domestic ward structure (© Adrian Boas and Rabei Khamisy).



Fig. 17: Plaster basin in the domestic ward ground floor (© Adrian Boas and Rabei Khamisy).



Fig. 18: Newly discovered blocked gate (© Adrian Boas and Rabei Khamisy).

taken place. Perhaps here too the damage to the upper storey was substantial enough to warrant it being abandoned or only partly used. As the upper storey apparently served as the dormitory and refectory of the brothers, and perhaps contained the chapter house and other functional rooms, its loss would have necessitated a major functional realignment, with new quarters needed to be found for the brothers. How this was resolved we do not know, but a careful examination of the ground floor level clearly shows that, like the Great Hall, quite late in the life of the castle, this building underwent a major strengthening, indeed, a much more substantial one, with massive new walls constructed between piers, in some cases encasing the original structure in new thick masonry (fig. 16). Then, at least along one side (the south) of this elongated structure, lesser dividing walls were constructed, and a series of very small chambers was created. Their function is unclear at present, though in one a large, plastered shallow basin with an adjacent plastered channel was found, suggesting some type of industrial activity (fig. 17).

A third example of rearrangement that appears to relate to the damage caused during the siege of 1266, is found in the stables on the northern side of the lower ward. Near the eastern end of the stable at the centre of this structure and on the line of the row of supporting piers, the above-mentioned installation was uncovered. It was possibly intended to serve to restrict a horse's movement when it was being shod. Incorporated in the roughly built walls of this installation were the remains of one of



Fig. 19: Undermining of the administrative building (a) and the south-western tower (b) (© Adrian Boas and Rabei Khamisy).

the piers that had formerly supported the roofing of the stable. Consequently, it would appear when this installation had been built the roofing of the stable was in a ruinous state. The presence of the installation shows that despite the apparently serious damage the stable continued to function. Perhaps part of the roofing had survived, or makeshift roofing had been constructed to replace the damaged parts. The location of the stable is fairly distant from the parts of the castle susceptible to damage by bombardment from the south. However, it is hard to see at this time what other possible explanation can be given for the apparent destruction of the stable roof.

An additional change of function was found in 2016 when, during excavations on the southwestern corner of the outer fortification wall, a blocked gate was discovered (fig. 18). Having gone out of use, and being blocked with stones and mortar, a plastered chute, possibly a sewage chute, was constructed against its outer face. The chute appears to have extended down the steep western slope from the buildings at the western end of the upper ward. A possible scenario for this is that after the damage caused in the siege of 1266 it was decided to block this gate, and some point of time during the remaining five years of the castle's life the chute was constructed.

G: Evidence for Undermining during the Siege of 1271 and during the Dismantling Carried Out Subsequent to the Fall of Montfort

At the base of the southern side of the administrative building is a support wall below the level of the basement vaults under the Great Hall. This wall is 5 metres thick. Along its length is a large cavity, one metre high, three metres deep and eight metres in length (fig. 19a). It appears to be the result of an unsuccessful attempt by the Mamluks at undermining the huge building either during the siege of the castle in the summer of 1271, or perhaps during the dismantling that took place after the castle fell. As there is a historical reference to Baibars offering payment to his soldiers for stones removed from a wall referred to as the „Sūr“, ¹⁴ this cavity may in fact be evidence for that episode and date to the siege itself. In any case, the undermining failed, apparently because this was not in fact a free-standing wall, as the besiegers presumably thought, but merely a layer of stonework covering the natural bedrock on the slope below the building and its removal consequently did not weaken the structure above but merely exposed the bedrock

14 Ibn 'Abd al-Zāhir, *al-Raw al-zāhir fī sīrat al-malik al-zāhir*, ed. by al-Khuwayṭir, 'Al-Riyāḍ 1976, p. 385.

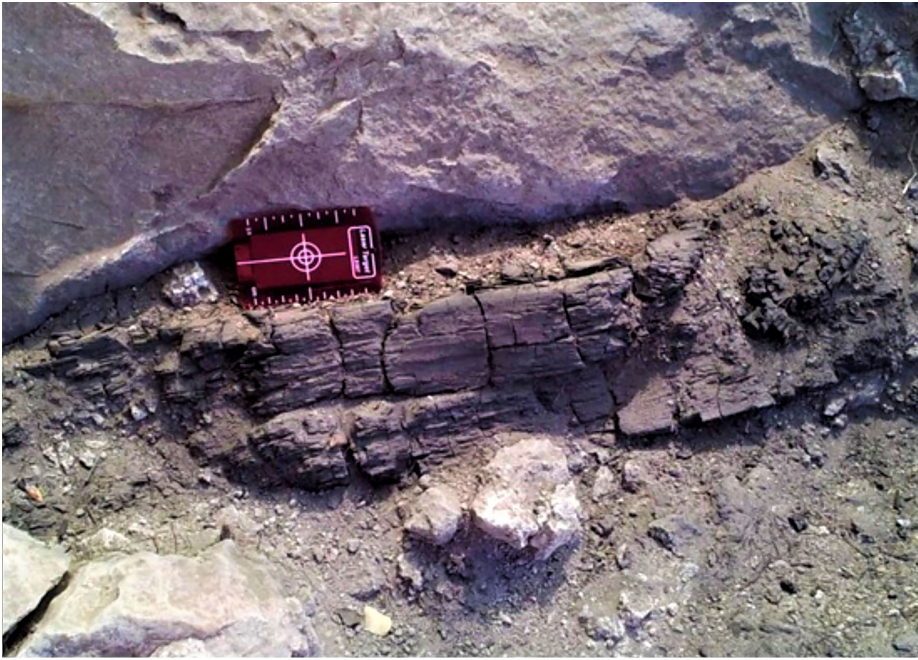


Fig.20: Undermining of the domestic building (a) and the westernmost building (b) (© Adrian Boas and Rabei Khamisy).

beneath. The unfinished state of this undermining suggests that after considerable effort had been spent, the miners became aware of the futility of their efforts.

A second case of undermining was found when work was carried out on the round tower at the south-western corner of the outer fortifications. A large, roughly excavated cavity can still be observed today at the base of the tower (fig. 19b). Similar in appearance to the undermining below the Great Hall, it too appears to have been excavated below floor level into the foundations of the tower and, perhaps similarly into the bedrock, and therefore did not cause the collapse of the tower.

Other examples of undermining that most likely took place during the dismantling of the castle after its fall, were found on the northern wall of the domestic building and on the north-western corner of the westernmost building of the upper ward that was excavated in 2017. In the first of these, as a result of the sapping, the entire wall except for its base (about two metres high and three metres thick) had collapsed down the northern slope. Within the surviving base of the wall were found in 2013 several large pieces of burnt wooden beams. (fig. 20a) These had apparently been placed deep within a cavity excavated in the wall and then set alight, and, to judge from the fragmentary remains of this wall, had very successfully achieved their aim in bringing it down. In the second case the undermining, evidenced by a thick layer of ash above what remained standing of the building's western wall, was also successful in causing almost the entire collapse of the structure including the gothic hall on its upper level (fig. 20b).

Conclusion

This paper considers the work carried out at Monfort Castle between 2006 and 2019 and specifically the discoveries made in the nine seasons of excavation that have taken place between 2011 and 2019, the last season (at the time of writing) within the castle. Together with the important discoveries made in 1926, the ongoing excavations of Montfort have revealed several aspects of the castle, its form and functions and the changes it underwent that were unknown in the past, and these have enabled the correction of a number of misconceptions that were the outcome of interpretations of what could previously be observed. These finds illustrate how important archaeological exploration is in understanding the ruins of ancient buildings.