THE EXPLORATION OF A CRUSADERS' FORTRESS (MONTFORT) IN PALESTINE

I. INTRODUCTION

Bleak spots there are in all collections. In European armor it has been ever our problem to secure for our galleries specimens of armor dating from the Crusades. But, unhappily, they could not be obtained even from the most complete museums abroad, and by tempting exchanges. A few dug-up arms may be had, it is true, but in the main they are not to be found, and the few fragments hitherto described are in hands immutably fixed. Where, then, should one seek for armor dating from the twelfth and thirteenth centuries? Of this epoch, in fact, the remains of the entire culture are meager, surprisingly meager, when we consider it as a time of a general awakening of the European mind, as shown in its struggles in pursuit of a true religion, order, art. Indeed, it is probably fair to say that of the material achievements of these centuries, important as they are, we should know less today than, for example, of the Egyptian Eighteenth Dynasty (which, as a chapter in human development, is four or five times as remote), were it not for the saving grace of the Christian Church, whose buildings retained painted windows, elaborate tombstones (showing interesting "documents"), ivories, enamels, sculptures, and illuminated books.

Secular objects of the twelfth and thirteenth centuries are today hardly to be discovered in European countries; whatever existed in towns and castles has been thoroughly picked over and lost since early times. Rubbish heaps (last resort of eager archaeologists) have been found well-nigh barren; buildings of the period have been despoiled of their ornaments, and often indeed so rebuilt that it is difficult to tell where the early leaves off and the late begins. Finally, there is no possible chance of securing permission whereby early Christian burials may be examined with the view of discovering cultural data.

In Palestine, on the other hand, secular objects of the twelfth and thirteenth centuries, European in origin, still exist. Perhaps, indeed, this is the only region in the world where they are retained in considerable number, in great variety, and of artistic merit. One has only to consider that Palestine, in certain parts at least, was practically a European province, or kingdom, for nearly two centuries; that it bristled with castles, swarmed with crusaders of all grades of society, led by great potentates of their several nations; that hosts of Christians evacuated their strongholds suddenly or within a relatively short space of time, able to take with them probably few of their European belongings: hence many objects of value are yet to be retrieved from ancient caches or dust-heaps, notably in regions where native villages were far from the European forts. Many specimens of their belongings must also be preserved in cemeteries, for the mortality of the Westerners was unprecedented, as a result of battles and epidemics. In such a region, in a word, might be found the answer to our problem.

These thoughts were in the writer's mind for years, especially after the World War, when it became reasonably evident that under an English mandate an explorational study of the crusading castles of Palestine (forbidden under the Turkish régime) would be permitted and that museums would be allotted representative specimens of their finds. Hence it was that in 1925 the opportunity was taken to visit Jerusalem and to make inquiry of the local authorities as to what had been done already in matters of
investigation and what might now be done with a reasonable chance of success. It was at this time that the writer met Major P. L. O. Guy, Acting Director of the Department of Antiquities of the Government of Palestine, and with him preliminary arrangements for a reconnaissance were made; these were confirmed during the following winter in Jerusalem, on the one hand by a Trustee of the Museum, George D. Pratt, and on the other by Dr. John Garstang, Director of the Department of Antiquities.

The suggestion was made by the English officials that the most promising site for our preliminary survey was the crusading fortress of Montfort (Kal'at el Kurein), (fig. 1). Here we should be able to discover, with least difficulty, whether by such explorational work we could advance our special problem, the study and exhibition of armor and arms, though we should naturally endeavor at the same time to trace other lines of culture.

II. THE CASTLE AND ITS HISTORY

The crusading ruin selected by the Department of Antiquities possessed many features favorable for our work. It had remained since the thirteenth century relatively unchanged, that is to say, severely dismantled, but about in the condition in which its besiegers left it. For one thing, its situation had been so remote that it had never been used as a source of building materials for existing towns. Then, too, should objects be found in it we had every reason to conclude that they would be of high quality, for as a castle Montfort was one of the most distinguished in Palestine—a veritable architectural monument. Thus, its keep was built of trimmed stones, smooth-laid, some of them great in size (nine feet long). Its buildings formed a mass of masonry ninety feet high in parts, in width eighty feet, and in length nearly three hundred and fifty feet—or four hundred and fifty if we include the tower and retaining wall of the residence and its "garden." Surrounding the castle the curtain with its tower extended fifteen hundred feet, and if a second outer wall were present (which is not beyond question), its circumference, measured by known landmarks, was not less than forty-five hundred feet.

Of so important a fortress an interesting history could be compiled, even after the lapse of centuries; for our present purpose, however, the following may suffice.

Its site was probably fortified from pre-historic times, doubtless with additions by Jewish kings and Romans. The great stones which form the base of its keep are of early date, the crusaders making use of them, just as they did of similar material, as Jacques de Vitry records, in the building of the great castle at Athlit. In fact, in or near the keep of Montfort coins dating from imperial Roman times were dug up; also, in the residence, an interesting sculpture in marble which the crusaders may have found locally. At the beginning of the thirteenth century the French built the castle on its present lines. Fifteen miles away they had built Toron, or were building it (1107); and the name, Montfort, sprang probably from the name of a distinguished family, which presently disputed with Hughues de Saint Omer for the possession of Toron, and which appears later in Jacques de Vitry's history of Jerusalem. Be this as it may, the castle was French until 1229; in this year the lords of Mandelée (Jacob de Armigdala)

1It had been visited about 1872 by Lieutenant (afterwards Field Marshal) Kitchener, who caused a view of it to be engraved which our fig. 5 resembles: also a ground plan which differs considerably from Major Harry F. Key's survey in our fig. 4, the latter having been based upon actual excavations. Cf. H. H. Kitchener & C. R. Conder, Survey of Western Palestine (edited by E. H. Palmer and Walter Besant for the Committee of the Palestine Exploration Fund. London, 1881). Of Kal'at el Kurein (Montfort), a short description (about a page) is given on pp. 186 ff., and a brief but accurate note concerning its history. Kitchener cites M. G. Rey, Monuments de l'architecture militaire des croisés en Syrie (p. 148) and William McClure Thomson's The Land and the Book (New York, 1859. 2 vols. Vol. 1, pp. 457-459).

2Jacques de Vitry, History of Jerusalem in 1180.

3References to Montfort in 1229 as the "New castle," in the "land of Acre," may mean that it was already several decades old. Cf. Tabulae Ordinis Theutonici. Ex. Tabularii Regii Bero linensis Codice Potissimum. E. Strehlke, Berlin, 1869, p. 51. (For this note the writer is indebted to his colleague, T. T. Hoopes.)
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were in possession of the castle, and in this year they deeded it to Herman de Salza, Grand Master of the Order of the Hospital of Our Lady of the Teutons. And in the same year the Germans began to put it in order; they translated its name to “Starkenberg” and established it as the headquarters, seat of archives, and treasury of the order in Palestine. Apparently they were then having trouble to make both ends meet, for the original owner of the castle binds them closely to pay up when the proper time comes—the French had even then little neighborly affection for their German colleagues, these grim brothers of the Hospital whom we picture in the state hall of the castle at Acre, signing the docu-

mments and affixing their great seals of lead and wax, sitting upright in stiffly padded hauberks, with coiffes of mail falling cushion-like around their necks, their hands slipped through slits in their sleeves of mail; around them a score of “true witnesses” (testes vero) included Conrad of Nassau, Odo, Constable of the Kingdom of Jerusalem, Baliames of Sidon, Thomas of Acre, Richard Filangerius, Marshal of Sicily. But the Hospitalers were firm in their own faith: they gathered their resources, and they prevailed upon the Duke of Austria to intercede with Gregory IX to invite all Christians to help the German brothers to complete their castle and to maintain it, assuring Christian subscribers that this work was of “immense utility”: it fed the poor, it tended the sick, it released them from the thrall of the Saracens,

4Kal’at el Kurein has the same significance, according to the writer’s colleague, Dr. Ludlow S. Bull.
it caused them to be treated with respect, in the region away from the sea, etc.\(^6\)

The names of its Grand Masters are recorded. Kitchener\(^6\) notes the master earlier than Herman de Salza as Helmerich (1223), and after him Conrad (1240); then Jean de Nifland (1244): his was the great period of the castle. In 1266 came the
great siege of Montfort by Melek ed Dhahir Bibars, when the Order repulsed the Sultan. But in 1271 the Saracens came again, and with greater engines of siege. They worked their way up to the castle at

\(^5\)E. Strehlke, op. cit., p. 57 (no. 72).
\(^6\)H. H. Kitchener, op. cit.

\[\text{FIG. 2. DETAILS OF THE TOWER SHOWN IN FIG. 1}\]

FIG. 3. GROUND PLAN OF THE SITE OF THE CASTLE. 1 INCH EQUALS 300 YARDS

the rear (western end), probably tunneling, certainly protected by huge mantlets. Their operations are recorded by their historian Ibn Ferât, who describes how the outworks were taken and the lower court. The Grand Master, Jean de Saxe (1270-1272), is in straits; the enemy undermines a wide section of the south retaining wall of the castle (one sees this today, figs. 5–6); the defenders capitulate; the Sultan Bibars orders the demolition of the works; much gear of war is taken away; reservoirs are emptied (and searched ?); wooden structures are burned. Montfort was but one of many European fortresses evacu-
FIG. 4. SECTION AND PLAN OF THE CASTLE. 1 INCH EQUALS 85 FEET
ated in Palestine at this epoch; the Teutonic knights retired to Acre, then to their island outposts. Rhodes held out until 1522.

III. THE SITE AND EXPLORATION OF THE CASTLE

Plans for a Reconnaissance. In the winter of 1926 a permit was issued by the Department of Antiquities in Jerusalem to the Museum to enable our survey to be made. Funds were subscribed for the work by our present results are largely due, and to his notes in the field we are especially indebted. We had hoped also to enlist in our work the aid of G. F. Lawrence, of the London Museum, whose labors of many years in all parts of London have contributed in so great a degree to the extraordinary success of his institution; but unfortunately for our plan, Mr. Lawrence's leave could not be arranged by the Trustees of the London Museum.

Our program arranged that operations be begun at our site during March, 1926. Mr. Calver accordingly arrived in Jerusalem early in the month and obtained aides, overseers, and a number of trained workpeople—the latter from Egypt—together with a camping outfit, through the Department of Antiquities of the Government of Palestine, whose Director, Dr. John Garstang, befriended us with great courtesy. In fact, these arrangements were in train before Mr. Calver left New York. It took longer than anticipated to arrange technical details, and it was not until the end of the month that actual work began.

Meanwhile, Mr. Calver took the opportunity to visit various crusaders' castles,
FIG. 6. CLOSE VIEW OF MONTFORT FROM THE SOUTHWEST
TAKEN AFTER THE DEBRIS HAD BEEN REMOVED FROM THE CASTLE AND
THROWN DOWN THE HILLSIDE

FIG. 7. KEEP OF THE CASTLE AND, IMMEDIATELY TO THE RIGHT, THE
PROFILE OF THE MOAT
THE POSTERN WAS PROBABLY TO THE LEFT OF THE KEEP NEAR THE
CLUMP OF TREES
On May 11 Mr. Calver met a government commission in the new museum at Acre, this commission consisting of Mr. Guy, the Abbé Abeel, representing the museum in Jerusalem, and Mr. Ory of the Department of Antiquities. At this session the representatives of the government selected from our finds the objects desired for the Palestine museums, and presented representative specimens to The Metropolitan Museum of Art. It is with these specimens, accordingly, that the present review is largely concerned: we have not had the opportunity to examine the materials retained in Palestine, which in the nature of things are, and should naturally be, the better of those discovered.

It will be seen above that our field-work extended over a period only of about a month. This was due to the fact that Mr. Calver could not (unfortunately for us) remain absent during a longer time from his professional duties in New York. Considering these conditions, then, and bearing always in mind that in the Orient intensive effort is difficult, it is remarkable what an amount of work was accomplished. In point of fact, according to the estimate of Major Key, our reconnaissance disposed of debris equaling 71,000 cubic feet, weighing, if consisting of one-third soil and two-thirds limestone, about 4,500 tons. Fortunately, however, this material had not to be carried far, rarely more than forty feet, before it could be thrown down the side of the hill (see figs. 6 and 23).

It should be mentioned that as our excavations proceeded every effort was made to preserve the shattered walls. Especially in chambers J and K the collapse of masonry was prevented by underpinning and by building retaining walls. Also the surviving arch of the keep, which was in a precarious condition, was reinforced with concrete.

**Site of the Castle.** The position of the castle was a convenient one in crusading times. It lay half-way between Acre and Tyre, and only about six miles from the sea. From it or by it passed a trail of highway to the southeast leading to the Sea of Galilee, thence to the valley of the Jordan and Jerusalem. From the north—Beirut, Sidon—crusading hosts found their way south-

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**FIG. 8. DOORWAY OF THE KEEP**

not omitting those in Transjordania, and to learn what had been already accomplished in Palestine in their exploration. We here record our especial indebtedness to Dr. Garstang, to Major Guy, and to Major Harry F. Key, who became the engineer of our party, and to whom all of its members were indebted for help in technical directions. In the matter of obtaining unskilled help it was found, happily, that in the near-est village, Ma’lia, the ancient “castle of the King,” about four miles from Montfort, laborers could be hired, as many as fifty at a time.

Field-work, then, began on March 29 and continued until April 29 (incidentally, the best season for work of this kind in northern Palestine), when Mr. Guy arrived at the castle and recommended that the remaining days at Mr. Calver’s disposal (up to May 10) be devoted to “tidying up” the entire area excavated, building abutments, and introducing cement into walls whose condition was precarious. All finds were transported to Acre between May 3 and May 7.
ward through Tyre and could presently turn into the road through the mountains by Montfort, a road which for centuries has been largely abandoned—to such a degree, indeed, that our fortress appears today inaccessible, described only briefly in Baedeker's Palestine (1912) and little visited by tourists. Thomson, for one, did not know of the presence of this early road.

The site of the castle must have caused professional satisfaction to mediaeval engineers. It is an abrupt shoulder of a hill, jutting out between the arms of the stream Wady Kurn, which flows southwest into the Mediterranean. It is the natural place for an acropolis, six hundred feet higher than the stream, almost precipitous on its western end, and sloping by easy stages toward the east, thus furnishing desired changes of level in an approach to the castle.

In its position Montfort has numerous analogies of similar date in Europe from Scotland to Spain (cf. Segovia), notably in eastern France and western Germany. As one views it from the west its general appearance is shown in fig. 1, which gives the reader an idea of the present state of the castle as shown from the rear. The rounding wall, or curtain, and the tower mark an important retaining wall; the masonry behind it and at the right of the tower was a great square building; one sees here the farther wall of it marked by two arches. The ruins beyond this transverse wall will shortly be described. Partway down the hill are the remains of surrounding walls with curtain towers: these appear, however, only on the left (northwest) side of the castle, those on the steeper or south side having disappeared. This picture shows at

FIG. 9. KEEP SEEN FROM THE MOAT, Whose SIDE IS COVERED WITH FALLEN MASONRY
the base of the acropolis a winding road which leads today to the village of Ma'lia, and, in the lower right-hand corner, the brook or river Wady which flows from the right to the left, joining the northern branch as it passes to the sea (cf. fig. 3). In ancient times a road proceeded on either side of the base of the promontory toward the horizon directly behind the castle, and led the pilgrim through ancient villages to the Sea of Galilee, twenty-odd miles away. Major Key's sketch survey of the ground plan of the castle appears in fig. 4, together with his median section. The west end of the castle shown in fig. 1 appears at the right. We see the upper rounding curtain-wall about the region O, the tower at N, and nearby a part of the outer wall.

To understand the disposition of the present ruin, we have only to review the plan of an early thirteenth-century fortress such as, for example, Coucy, not far from Laon, classical from the drawings of Viollet-le-Duc. This comparison makes clear that the great square building enclosing K and L of our survey is the residence (palace) of the castle. The space to the left (east) is the inner bailey, which was en-

FIG. 10. VIEW FROM THE KEEP LOOKING NORTH OVER THE VALLEY OF THE WADY KURN
which formed the eastern end of the citadel and served for manoeuvring the retainers of the castle. The front wall (barbican) of the outer bailey was pierced by a great gateway furnished with bridges and drawbridges leading over the ditch, or fosse, which in Palestine was doubtless dry, and used only as a trap against besiegers. Somewhere in this neighborhood must also have been a postern gate which would enable the garrison to make sorties in time of need—perhaps at the point of the wall of the castle at the side of a wall of retention, or revetment, shown on the south side and forming here the boundary of the barbican.

The ground plan of the castle demonstrates that numerous rooms were present between the great wall which formed the outer (west) face of the inner bailey and the chapel. These chambers have been lettered B, C, D, E, F, and G. In the work of clearing these chambers, numerous objects were found which suggested the function of these several rooms—circumstantial evidence which confirms us in our conclusions that Montfort was similar in the disposition of its parts to a typical castle in France.

Better to understand the topography of the fortress, as shown by our clearing of the ruin, let us keep in mind its ground plan and section (fig. 4), and then, like visitors, pass through it from end to end by means of the photographs here reproduced. We follow the path coming in from the west (fig. 1) which curves around the south side of the ruin, then work our way up the side of the hill. Here we pitch our camp (fig. 5): looking upward at the ruin we see at the left (west) the retaining wall and tower which mark the "garden" of the residence; just below this (mid-distance) appear the masonry and a great round tower of the outer wall; above the line of bushes are traces of rubble showing that this wall continues to the right. At the top a transverse wall frames two great arches and marks the east wall of the residence whose block of masonry here forms a sharp corner; on the face (south) of this masonry we see two deep fissures or excavations running close and parallel to the foundation: these date from 1271 when the Sultan undermined the walls. We imagine with what heroism the Saracens, high up on a narrow ledge, maintained their position against the operations of the Hospitalers,
FIG. 12. CHAMBER B, VIEW NORTH FROM THE STAIRCASE TO THE KEEP

FIG. 13. VIEW FROM THE KEEP TOWARD THE RESIDENCE BEFORE EXCAVATIONS WERE MADE
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whose heavy rocks, dropped from fifty feet above, must constantly have crashed through the mantlets, enabling the German archers and crossbowmen to pick off survivors as they scurried down the steep hill. Farther to the right the ruin is margined by the tall masonry of the base of our workpeople had cast down. Continuing our clamber up the hill and to the right we glance at the great blocks of limestone which form the base of the keep, blocks which, as we have noted, probably date from Roman times, if not earlier (fig. 7). Also, above these great stones, at the left, in the neighborhood

the keep. Coming closer to the castle, we are able to discover new details. In the residence against the skyline we discern what is apparently a pedestal: this we will later recognize as the collective base of the arches which supported the roof of the second story of the residence. We now see more clearly the slope at the right of the ruined keep: this is the profile of the moat of the castle. Had we passed this way a few weeks later (fig. 6) we should have seen the hillside covered with stones and dirt which of the clump of trees, we seek for the position of the postern gate. We next reach the deepest part of the moat near its steep east wall; thence we climb to the keep over the masonry of the barbican (fig. 9). We find that the keep itself has crumbled away; vestiges of only its lower structures remain: these are a single arch of a doorway badly shattered (six feet wide with traces of a gate which opened to the south, fig. 8), and a bit of the transverse wall toward the side of the castle. Now, turning and facing
north, we obtain a fine view of the valley (fig. 10). Deep below us lies the Wady Kurn which forms a bend to the east where in early times may well have been a great mill pond at whose dam almost directly below us lies the ruin of a "mill," or "chapel," or "guardhouse," later to be referred to. (For a view of the castle from the "mill" cf. fig. 23.) Next we go down into the castle by a flight of wide stone steps (fig. 11). At the bottom we find a stone platform which runs across the castle (chamber B, fig. 4), from which on either side we see distant hills (figs. 11 and 12). Here our workpeople have cleaned out a mass of debris. We examine at close range the great blocks forming the base of the keep, numbers of stone projectiles of artillery, a great tank of stone (watering trough for horses?), a drain taking refuse down the side of the hill, sculptured arches, thirteenth-century carved capitals (the last from chamber F).

The Soldiers' Part of the Castle. Before our excavations, had we stood on the mound of the keep and looked westward, we could have seen at a distance of sixty yards (fig. 13) the transverse wall marking the nearer boundary of the residence, behind it the top of the tower of fig. 1, and running toward it a backbone of heavy masonry, on each side of which, rounding downward at the sides, lay a deep tangle of brush and trees. After all debris has been cleared away we view the same site in figs. 14 and 15 (the latter showing a bit more to the south), the only landmarks recognizable both "before" and "after" being the wall of the residence and the shadow of a deep
FIG. 16. VIEW FROM CHAMBER E LOOKING TOWARD THE STEPS LEADING TO THE KEEP

FIG. 17. VIEW OF THE CHAPEL BEFORE EXCAVATIONS WERE MADE, LOOKING TOWARD THE KEEP
FIG. 18  VIEW OF THE CHAPEL AFTER EXCAVATIONS WERE MADE, LOOKING TOWARD THE KEEP

FIG. 19. VIEW OF THE CHAPEL LOOKING WEST TOWARD THE WALL OF THE RESIDENCE
groined arch, dark and projecting, in the mid-distance. Into view have come, twenty feet below the surface, floor partitions of chambers, columns, doorways, and arches. These chambers we recognize by corresponding letters on the plan of fig. 4. On the left lie B, C, D, E, and J, and on the right B, C, F–H. H is the inner bailey whose border, many feet in width, has fallen down the hill, perhaps during the siege of 1271. If we walk through the chambers B, C, D, and from the chamber E turn around (fig. 16) and look toward the base of the keep (from which near the head of the stairs we took the former picture, fig. 15), we see under the great archway, which marks the height of these chambers, the interior of chamber D. Here are some poorly made partitions which Major Key notes as of later date than the remaining stonework.

Through a narrow doorway in C we next look into chamber B, against whose rear wall is the staircase which we descended. By our side in chamber E are steps leading to an upper apartment; on the ceiling was a rosetted keystone (fig. 35). Behind us is the wall which separates E from the chapel: to this led a doorway which had been closed with masonry, probably at the time when temporary partitions were built in chambers E and D.

Now let us retrace our steps through chamber D, where again an ornamental keystone was found (fig. 37), to C. Here we can find our way around to the rooms on the north side, for this chamber has a wing or annex leading to this side (figs. 4 and 14) in which are two staircases, the smaller ascending to the west, the larger to the east, the one leading probably to the defenses of

FIG. 20. CENTRAL COLUMN OF THE RESIDENCE, VIEWED FROM THE BREACH IN THE EAST WALL
the north wall, the other to the soldiers' quarters, according to a fashion not uncommon in the thirteenth century. Chamber C was probably a kitchen of the garrison: in it was found an array of great earthen vessels, some of them set up and in order, all clearly for provisions. In a niche near the entrance stood a huge jar. In one corner of this chamber, which is over twenty feet square, there may have been a booth for drugs, for here were found a mortar (fig. 44) in an upright position, probably occupying its original situation, and numberless fragments of small bottles or flasks. In the "annex," passing outward into chamber F, was probably the workshop of the castle in which armor was repaired. Here (fig. 14, bottom of picture, right) 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. Chambers F and G (fig. 14) retain a bit of their groined roof: here were found sculptured keystones (figs. 32, 34), many scraps of glass and pottery, and a few objects in iron. The outer wall of the castle beside these chambers has been destroyed, but from what remains of it nearer the keep it is quite probable that there was here 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, a suggestion the more probable when one recalls that no entrance of this kind occurs on the other (south) side of the castle.

Residence. When we pass through the passageway west from chamber G, we enter the forecourt of the residence, or inner bailey (fig. 14), a space measuring seventy-five feet in front of us and nearly forty feet wide. At our right the great side wall has suffered, and much of the neighboring earth and masonry of the inner bailey has fallen.
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down the hill. In front of us is the great transverse wall of the residence and the doorway. To our left was the façade of the chapel, a room measuring about seventy feet by twenty-five, broken into three sections by groined arches. Before making our excavations, if we had stood with our back to the residence on the south side and averaging thirteen inches in diameter (perhaps forty in all), which were doubtless shot into the chapel at the time of the siege—a circumstance which suggests that there were windows on the south side as well as on the north, filled, too, with stained glass, which proved a tempting mark for the besiegers; and finally, the great doorway

FIG. 22. CHAMBER K IN THE BASEMENT OF THE RESIDENCE

looked towards the keep, we should have seen (fig. 17) a corner of a groined arch of the chapel wall and a tangle of shrubbery and rubbish. Afterward, from the same position (fig. 18) we can follow the descending ribs of the groined ceiling: here we found a keystone rosette delightfully sculptured (at Acre), traces of crocketed ogive windows in whose sides are recessed borders (for panels of stained glass), a doorway leading to chamber E; also, scattered about, numbers of great round stone projectiles, (fifteen feet wide) of the chapel, which opened to the inner bailey as seen in fig. 4. The west end of the chapel appears in fig. 19, in which Mr. Calver is seen directing the work of the laborers who are cleaning out the debris near the great wall of the residence: here was found a well-carved head, helmeted, which probably served as a corbel (fig. 30). This wall separated the masters' quarters from the rest of the castle: here were the rooms of ceremony, probably the treasury of the Hospitalers
and their hall of archives, together with the rooms of the Grand Master—the brothers ordinary probably lodging in or above rooms D and E, the latter communicating with the chapel. The residence, then, was practically a building by itself: it measured sixty feet square and at least seventy feet high, having walls six feet thick.

great capital borne by a low, wide, abbreviated, octagonal column (fig. 20), from which eight ribs of a huge groined ceiling arose. If we approach this column and look back we see (fig. 21) against the transverse wall the imprint of two groined ceilings, one right, one left, which here spring from stout abbreviated columns (pilasters).

From the level of the inner bailey we enter the doorway shown in fig. 14; in front of us the floor of masonry has in no small part fallen down the hill (cf. figs. 4 and 20), notably at the right (north); in the middle, thirty feet away, stands a

7M. G. Rey, Documents inédits sur l'histoire de France, p. 149. Kitchener suggested that the valuables of the castle would have been kept in the keep.

8There may have been a door also on the north side of the building, whose wall, with much of the masonry on this side, has fallen down the hill.

From the evidence of our measurements and of the central column, it is clear that there was here a groined roof which spanned fifty-odd feet. If now we clamber down the hillside we may inspect on the floor below two rooms or vaults (fig. 4), section K and L, the former with part of the arched ceiling intact, running north and south (fig. 22). As this was the only room of the castle still roofed in, we expected to find here interesting objects: in point of fact, we discovered within a small space

FIG. 23. THE "MILL" ON THE WADY KURN AT THE FOOT OF THE CASTLE HILL, VIEWED FROM THE NORTH
FIG. 24. THE "MILL" ON THE WADY KURN AT THE FOOT OF THE CASTLE HILL

FIG. 25. GROINED CEILING IN THE GREAT CHAMBER IN THE "MILL"
two carved keystones (figs. 33 and 36), a fragment of a painting on a wooden panel (fig. 52), bits of stuff, glass, pottery, and moulds for leatherwork (figs. 38 and 39). From one corner at the south a chute projected refuse down the side of the hill.

Back of the residence we expected to find, thanks to European analogies, the garden of the castle: here was an enclosure sixty-odd feet in diameter, which may have been of such a nature; its retaining wall was roughly semicircular and of great strength, twelve feet in diameter; at one side (north) of it is still retained the fine tower (figs. 1, 2), prominent as we approach the castle from the west, the only well-preserved tower of the castle, unaccountably well preserved, when we recall that it was on this side of the fortress that the besiegers gained their entrance. This tower is of especial significance, since although not high (fifty-six feet on the north side), it exhibits in all probability the essential architectural features of other (if not all other) towers of the castle—small windows, loopholes, and entrance ports on the outer façade; and, toward the inside, deep-set balconies with high ceilings which provided grateful shade—as one sees in numerous crusading castles, e.g., Rhodes. The block of masonry, by the way, which surmounts one corner of our tower is possibly the last evidence of the type of machicolations that crowned the towers of Montfort.

Below the "garden" with its tower and retaining wall the shoulder of the hill descends steeply: here we obtain our best view of the curtain, or ring wall of the castle (cf. figs. 1, 3, and 5): a crumbling tower at the southeast is the best reminder of the defenses which appeared at intervals along a ring which today can be traced only with difficulty. On the north side (fig. 4) a bit of the wall is present in a line with chamber C, and below the keep a corner is preserved with steps.

Had the castle an outer ring wall? This probably existed, judging by contemporary analogies, though it may have been little more than a mound surmounted by a pala- sade and enclosed with a ditch. There exist certain indications of this: notably the bridgehead (south) and the important ruin to the north (Kitchener's "mill") at the dam of the Wady Kurn, by which a lake—probably a thousand yards long—was created. The "mill" we have already looked down upon from the wall of the castle (fig. 10): it was, in fact, so large and costly a structure that it would hardly have been left outside of a ring wall in a country subject to constant incursions of a formidable enemy. Its ruins alone measure in masonry at least one hundred and fifty feet in length (figs. 23 and 24); several chambers show groined arches (fig. 25), springing from delicate clustered capitals and provided with ornamental keystones. In a word, the "mill"
THE EXPLORATION OF A CRUSADERS' FORTRESS IN PALESTINE

was a necessary unit in the economy of the castle: it may well, from the character of its rooms, have been used as a rest-house for windmills, for constantly filling the great cisterns on the neighboring hill six hundred feet above (fig. 23).

Of these cisterns three were explored in the castle. The largest, as one might expect, was under the keep, a great cemented chamber forty feet in length, twenty-eight feet wide, and over twenty feet deep, built with walls of masonry with a smooth lime-cement finish. The second cistern was, as one might also predict, under the kitchen (C). This was a bottle-shaped affair, about sixteen feet in transverse diameter and twenty feet deep. The third cistern, cylindrical, about fifteen feet both in diameter and in height, was under the chapel near the entrance. In this position such a cistern suggests the custom of sanctuary. All the cisterns were, by the way, found to be in good order but, much to our discomfiture, lacking in objects of interest: we hoped that

FIG. 28. CAPITAL WITH FIGURE MOTIVE, CHAMBER F

pilgrims, even providing them with a chapel, but surely with outlying farm buildings for provisions, cattle, and horses, the latter, following numerous analogies, only under exceptional conditions being cared for in the castle. None the less the "mill" may have ground the corn of the castle at certain seasons. But at all times it was clearly the guard-house of the dam which insured the integrity of a lake. In fact, it is hard to overestimate the care with which a crusading fortress guarded its water supply. There is a tradition at Montfort (Thomson) that a covered way ascended from the "mill" to the castle, and Kitchener states that here the bridge itself was really part of an aqueduct: in any event, means were at hand, probably in the shape of

FIG. 29. CAPITALS FROM CHAMBER F; ALSO STONE BALLS OF ARTILLERY (TREBUCHET)
the defenders of the castle might, in their agony, have used them as safe-deposit vaults—alas, a similar idea, five and a half centuries earlier, may well have occurred to the Saracens!

A final word about a possible outermost defense of the castle: this may have included the "mill" and the bridgehead southwest of the castle (fig. 4). Beyond this, over the Wady, four hundred and fifty yards distant, there are the foundations of a tower and an extensive quarry, out of which materials for building the castle were probably obtained.

IV. OBJECTS FOUND DURING THE EXPLORATION OF MONTFORT

Objects gathered by our exploring party consisted of (1) architectural ornaments, (2) other carvings in stone, (3) pottery, (4) arms and armor, (5) various objects in metal and wood, (6) glass, (7) tissues, (8) coins. These specimens were obtained in almost every instance in the debris removed from various chambers of the castle. The cisterns yielded little of interest, and no rubbish heaps were brought to light—a fact the more remarkable since the director of our reconnaissance has an incredible flair for locating ancient dust-heaps and making important finds in them. He speedily discovered in chamber K the rubbish chute through which refuse of the residence was dropped down the hill; he traced out this line of descent but ascertained that so much debris had covered it up in the past.
KEYSTONE ORNAMENTS FROM GROINED CEILINGS OF CHAMBERS K, G, E, K, AND D RESPECTIVELY, READING FROM LEFT. THE DIAMETERS OF THE ROSETTES AVERAGE 14 INCHES
centuries and distributed the materials over so great a distance that it proved impracticable to dig them out successfully. Nor were cemeteries investigated. The only graves or tombs in the neighborhood of the castle were believed to have been pre-Christian: these were rock-cut, found near the west foot of the castle, and had been examined a score or more years ago. Inquiry made in the neighboring village yielded little information about them: objects in glass had been taken from them, but apparently nothing more. No cemetery was discovered dating definitely from the occupation of Montfort, yet there can be little doubt that in the immediate neighborhood many burials were made. The fortress was occupied and garrisoned at least for threescore years; its people died in great numbers: it is generally admitted that Syrian fever and dysentery claimed at least as large a percentage of the Westerners as the arms of the Saracens. The unsuccessful siege of 1266 must have filled on either side a reasonably large cemetery. Until local burials are examined no exploration of the castle will be complete.

1. Architectural Ornaments. The sculptured stonework of Montfort yields valuable notes as to thirteenth-century ornament—capitals, corbels, keystone ornaments, crockets—none the less that these can be dated with reasonable accuracy. The decorations of the castrum novum were hardly earlier than 1229, even if the construction of the castle began early in the thirteenth century. They were, we concluded, added as finishing touches in 1220-1240. In details of style they seem in certain instances even a bit later. If earlier than 1229, they would have been French; if later, German, though it is possible that the Hospitalers retained the foreign stone-cutters. The motives appear French. Of capitals

![FIG. 38. MATRICES OF BADGES (?), LITHOGRAPHIC STONE CHAMBER K. SCALE 1:3](image)

9Kitchener speaks of “unimportant fragments of capitals carved with flowers and fleur-de-lys” —of the latter type nothing was noted; perhaps he had in mind the form shown in our fig. 29.
FIG. 39. MATRICES FOR LEATHERWORK (?), LITHOGRAPHIC STONE
CHAMBER K. SCALE 1:3
typical specimens appear in fig. 29: the most imposing specimen (fig. 28, chamber F) shows a figure quite twelfth century in treatment. The small head (fig. 26) has evidently been detached from a capital, and one of similar size (fig. 30, chamber J) is probably a corbel. Two small foliate crockets (fig. 27), boldly sculptured, formed part of the décor of a window of the chapel (J). Scrolls with foliation, as shown in fig. 32, are obviously ceiling motives. Especially decorative are the keystone bosses of which are illustrated of several cases in figs. 33-37, showing in relief conventional groups of leaves of vine, fig, cornflower, and oak (?). They are admirably cut, better indeed than the photographs suggest; in some cases they are undercut, almost ajouré. Noteworthy in the castle was the evidence of polychrome decoration; in some cases the ribs of the arches were painted in tempera with transverse bands and running motives. In one instance (fig. 31) fleurs-de-lis are represented in black against a yellow background; in another case the effect of porphyry is introduced by painting triangular spots in red on the ribs of rough limestone (fig. 36).

The foregoing details bear witness to the high quality of Montfort as an architectural monument. In fact, it would be difficult to find better stone ornaments of their period in any of the castles of western Europe, save of the highest rank.

2. Stone carvings other than architectural. In this group we call attention first of all to two blocks apparently of lithographic limestone picked up in the debris of chamber K: they were chiseled with ornaments in intaglio, and served evidently as moulds into which softened material, e. g., leather, could be pressed. One of these (7 x 11 x 3 inches) is carved on the wide side with an

![FIG. 40. WINE JAR, IMPERIAL ROMAN, FROM CHAMBER J](image_url)
FIG. 41. LAMP IN GREEN GLAZE, CHAMBER K

FIG. 42. EARTHENWARE PITCHER, CHAMBER C

FIG. 43. STONE BRAZIER CHAMBER K

FIG. 44. STONE MORTAR CHAMBER C. SCALE 1:12

FIG. 45. STONE TROUGH FROM THE KITCHEN, CHAMBER C
lozenges separated by strings of pearls after the manner of the diapered backgrounds in stained glass of the mid-thirteenth century (fig. 46). The second of these matrices (4 x 9.5 x 2.5 inches), broadly triangular in section, represents on its main face two fishes (fig. 39), evidently symbolized forms of the red or bearded mullet, *Mullus barbatus*. Possibly these ornaments were intended as symbols of the

![Image](image_url)

**FIG. 46. ARMOR OF ABOUT 1200 FROM STAINED GLASS IN THE ROYAL ABBEY OF SAINT WANDRILLE, SHOWING BODY ARMOR OF SCALES, AS WELL AS CHAIN AND PLATE**

Christian Church; they are admirably modeled, with quite a thirteenth-century touch of their own, especially in the barbels which terminate in little trefoils. The other faces of this stone provided moulds for ornamental bands, perhaps sword belts or girdles, perhaps running ornaments for caskets of hardened leather; also on one end of the block is a fine little palmette. This style of ornament occurs also in painted glass of the period, dating roundly from the middle of the thirteenth century.

Perhaps the most extraordinary object among the stone carvings is a great "wine jar" or pot, measuring nearly a yard in width and twenty-six inches high (fig. 40), which was discovered, badly broken, in chamber J. It is a curious affair, imperial Roman, with three leopard-shaped legs, great carved handles, and ornamented with projecting heads, also with wreaths and fillets. It is puzzling to suggest why an object of this kind should turn up in the debris of a thirteenth-century chapel: it may have been used as a fountain—and a fountain it was, since the mouths of the figures are pierced—or as a baptismal font or receptacle of holy water. In this connection we recall that in churches during the Middle Ages pagan objects were often used in ignorance of their early purpose, e.g., the Roman sarcophagus or bath which in the cathedral of Tarragona has served for centuries as a baptismal font. In the present case it is not impossible that the Ganymede and the Silenus with the infant Bacchus may have been given biblical names. Of other stone objects we mention here only three types: troughs of various sizes and shapes, e.g., figs. 12 and 45; mortars, e.g., fig. 44 the latter found near the staircase in chamber C; stoves or braziers, the one shown in fig. 43 discovered in the debris of chamber K.

3. Pottery. Fragments of pottery were abundant in all excavations: enough of them to fill forty baskets were examined and placed in the hands of the Palestine authorities. Most of this material consisted of common earthenware, cups, pots, dishes or saucers, occasionally a pitcher (fig. 42), most of them stout brown pottery; apparently no painted faience turned up. Many pieces were glazed in single colors, green being a common type ("jews' glass"). Of this material several green lamps were discovered, as in figs. 41 and 47. Of commonest type were the unglazed lamps seen in figs. 47 and 48, a form which with slight variation can be traced back a thousand years B.C. The most decorative lamp of pottery in our series is one (fig. 49) bearing a somewhat foliate ornament with an Arabic inscription. The most important lamp (fig. 50) is a hanging one, not in pottery but in glass, shattered, but retaining its form; it is transparent above, blue below, bearing on several zones a calli-
FIG. 47. LAMP IN GREEN GLAZE, GLASS PHIAL, ARCHAIC UNGLAZED LAMP. SCALE 1:3

FIG. 48. LAMP OF POTTERY, ARCHAIC. SCALE 1:3

FIG. 49. LAMP OF POTTERY WITH ARABIC INSCRIPTION IN CHAMBER K. SCALE 1:3

FIG. 50. GLASS "MOSQUE LAMP," TRANSPARENT ABOVE, BLUE BELOW, WITH BANDS OF ARABIC INSCRIPTION IN GOLD EGLOMISÉ, CHAMBER K
graphic inscription, Arabic, in gold eglogisée: this specimen remains in the museum in Acre.

4. Arms and Armor. In this field specimens were found representing various round or nearly round in section, not flattened as in typical European mail, but they do not demonstrate that the rivets passed straight through the ring in the fashion of oriental armor of all periods. Links of divisions of the subject, viz., (a) body armor, (b) helmets, (c) arrows, (d) spears, (e) swords and daggers, (f) crossbows, (g) buckles, (h) horse trappings, (i) artillery, most of this material (fig. 53) having been found in chamber C. It proved fragmentary and will find its place only in a study collection for specialists.

(a) Of body armor “documents” were found exemplifying both chain mail and defense of scales (jazeran). Of the former several “lumps” (U), badly rusted, were picked out of the debris in chamber C which show rings of large diameter (three fourths of an inch). These indicate that the “wire” was of the jazeran (of about 1200) shown in a glass panel from the royal abbey of Saint Wandrille (Dean Collection), fig. 46. In our actual specimens the holes for rivets, or rusted rivets themselves, are traced.

(b) Head-pieces were represented by fragments, which, none the less, prove of great interest to the student, e.g., part of a ventail of a pot-helm (A—at ven) show-
FIG. 53. ARMOR AND ARMS OF 1270, MAINLY FROM SPECIMENS FROM CHAMBER C OBJECTS ABOUT ONE THIRD NATURAL SIZE EXCEPT HELMETS (ONE EIGHTH) AND CROSSBOW (ONE TENTH)
ing rows of close-set perforations. Two sides of this fragment are intact; the fractures on the other sides are recent and show clearly that the rest of this plate, or some of it, was present when the workman dug it up. Indeed other parts of this helmet will probably be found among the specimens deposited in Acre. So far as we recall, no helmet of this type is extant: it is pictured abundantly in seals of the period and in manuscripts, notably in Mr. Morgan's splendid Old Testament of the mid-thirteenth century 10 (cf. fig. 51, a detail reproduced from Folio 24B): we here illustrate, A, a pot-helmet from this folio, indicating by dotted lines the position in which our fragment of a ventail occurred. There were also discovered parts of a basinet with brim, which in B we represent tentatively superimposed on the drawing of a similar casque copied from the above manuscript. On the back of one of these fragments were attached several links of the camail.

(c) Of arrows both heads (abundant) and shafts were found, the heavier of which are probably crossbow bolts. In O the arrow-point capped the shaft; in N and P the arrow-head was provided with a shank which fitted a cylindrical cavity, probably of a reed. Wooden shafts, V, are of cypress wood and were painted in transverse bands, blue and red alternating, and with "eyes" in color, as symbols of luck.

(d) Spear-heads were represented in various sizes. One in our series, Q, winged and socketed, is typical of the period.

(e) Of swords and daggers only fragments of blades and mountings were found. The latter include the iron "ferrule" of a scabbard of a sword, S, and bronze "ferrules" of scabbards of daggers, L and R; a plain chape, T, and an ornamented one, W (both sides figured).

(f) At one point in chamber C a mass of crossbow nuts of bone for holding and releasing the spanned cord, M, turned up, half a dozen or more, all that remained of the crossbows themselves. Judging from the structure of these nuts these arms were highly developed by 1270 (cf. the neighboring Spanish crossbow of the sixteenth century).

(g) Of buckles five types are represented (F, H, I, J, G), all of bronze save J (iron). The first is oriental in style; the second is a belt buckle with a long attachment; the third has lobate corners (the earliest of this type known to the writer); the fourth, iron, heavy, square-cornered, having a strap-roller, is apparently the earliest of this form to be dated; the fifth, gilded, is singularly delicate.

(h) Of horse trappings bosses are possibly represented among copper disks and their attachments which were found in the "armorer's workshop" (C) and elsewhere, although it may be queried whether bosses were in general use by 1270. The disk shown in fig. 54, E, G, is supported on a stout iron shank articulating with remains of an iron ring; the shank may have joined its fellow in a loop in the mid-line of the horse's mouth, as in certain early bits, which functioned both as snaffle and curb. Such a boss may readily be confused with objects of similar form used, for example, as lamp-hangers or handles of cabinets, of which also specimens were found at Montfort (fig. 54, H, J). In K (fig. 53) a bronze ornament is pictured which is probably a loop for a rein. Curiously enough no spurs or stirrups or horseshoes were discovered.

(i) In siege artillery Montfort was unquestionably rich. Its only traces, however, occur in various parts of the castle in stone projectiles, "cannon balls," varying in diameter from about ten to seventeen inches, most of them roughly sculptured (fig. 29). None, in fact, compare in quality with numerous specimens from Rhodes, which also are larger in size, up to twenty or even more inches. In Rhodes admirable examples were seen by the present writer near the mole in shallow water. One may readily picture the size of the revolving slings (trebuchets) from which these huge stone missiles were shot. In the present case the greater number of the stones may have been slung into the castle by the besiegers (e.g., into the chapel); incidentally, we may assume that at the time of dismantlement

5. Various objects of metal and wood (fig. 54). Lamp-hangers of bronze (H, J) (or handles) and bits of chain (F) may here be mentioned; thimbles bilaterally symmetrical, not radially (I); chisels; a large carpenter's hammer with claw; needles (probes?) of bronze (C); a fine bronze kohlstick (B); iron nails and spikes of various sizes; structural ironwork, including rings for suspension with their anchors. Two large sheets of lead were found in cistern No. 2—perhaps the roof of the castle was encased in lead? Of ordinary knives nothing was observed; they had doubtless crumbled away, though a razor survived in excellent condition (A). Of spoons no specimens in metal are recorded; three wooden spoons, however, survived (D); their handles were slender, of rat-tail type. Wooden objects included various odds and ends, among them a wooden tent peg, three feet in length, on whose side was carved an heraldic shield (now in the museum at Acre). A bit of a wooden panel turned up in chamber K which on one face was covered with canvas and gesso and
painted in tempera (fig. 52)—interesting as indicating that in the scheme of decoration of the residence pictures were not lacking. The present fragment is but the lower edge of the picture, showing the feet of two personages, one of them, judging from his red shoes, portrayed in secular costume. So far as the writer recalls, this affords the only concrete evidence that mid-thirteenth century European paintings on panels occurred in Palestine.

FIG. 55. FRAGMENTS OF STAINED GLASS FROM THE CHAPEL, MONTFORT. CORNERS OF PANELS; ALSO IN THE CENTER A FACE IN GRISAILLE: SCALE 1:3

6. Glass. Glass, like pottery, survived in countless fragments (fig. 56). Scraps of numerous bottles or flasks indicate clearly that the bottoms of the flasks were shaped very much as in the modern wine flask, with a sub-conical eminence lifted up within the cavity of the flask. In most cases, apparently, the lower rim of the flask was reinforced with an attached (fused) border (G). In some cases the flasks were apparently “Florentine,” oval and ovate in outline (J), with neck short or long, simple or bordered; in other cases the neck of the flask was so blown as to suggest a string of beads (A). In numerous instances the opening of these vessels was lipped (C). In one instance a carafe-like neck appears, strengthened by a transverse ring blown fast to the bottle (G). Very small containers of glass turned up in chamber C, suggesting that there was here an apothecary’s shop: in rare cases the phials were square (fig. 47). Specimens of what we interpret as “feet” of glass vessels also occurred (fig. 56, E); these were formed out of bits of glass which were attached to the inside of a bowl, and which, after being again heated, were pushed through the wall of the bowl as hollow legs, an inch or more in height. This result was accomplished by pushing a four-sided core (iron?) into the lump of hot glass. Ornamented bowls and cups were noted (D, F); in some of these the outer surface was relieved with “nail-head” eminences, these attached to the surfaces of the bowl in such a way as to produce a pattern—a type well known in early glass. In other cases the surface of the object was decorated by spirally applied bands or threads. In certain instances (F) both the “nail-head” and “spiral-line” designs appear on the same object. In rare instances the applied ridges were arranged in a radial pattern; in one case (D) a radial design in bands was formed by moulding the surface of the object. A glass cover, defective, for a flask (or ointment box?) turned up in a single instance (shown below the present A); it is provided with a knob-like handle.

Among the most interesting objects in glass discovered were hangers of lamps. These, formed as lumps of cobalt blue glass about the size of the terminal joint of a man’s thumb, were fixed to a bowl of transparent glass; the blue glass had been drawn out and bent over so as to form hangers for chains or cords (B). The number of these hangers discovered indicates that lamps of this type were in common use. The finding of an important lamp in blue-and-white glass with Arabic inscription in gold has been recorded above, p. 34. In this connection may be noted certain scale-like ornaments white (I) or cobalt (H), applied to white glass, which were probably grouped as bands or wreaths surrounding the bowls of lamps.
FIG. 56. FRAGMENTS OF GLASS: BOTTLES, CUPS, BOWLS, LAMPS
SCALE 1:3
To the specialist probably the most unexpected discovery was that of numerous fragments of stained glass which turned up in the chapel (J) and sparingly in chambers E and D, demonstrating that certain windows of the fortress were richly decorated. Not only was "colorless" glass used, but green, blue, and horn-colored. Curiously enough no specimens of red glass appear in our series. The pieces show that the glass was painted in grisaille with both our fragments shown occupying their approximate places. In fig. 55 bits of glass are arranged showing corner-patterns of windows: in one specimen appears an ornament like a fleur-de-lis. It is worth noting that of some of the windows the background was crosshatched, in others plain. Our present evidence that human figures were shown in the stained windows of Montfort is based upon the single fragment of a head in white glass, grisaille, here figured.

FIG. 57. STAINED GLASS IN GRISAILLE, FRENCH, MID-THIRTEENTH CENTURY. ON THIS PANEL FRAGMENTS OF CORRESPONDING DESIGN FROM MONTFORT HAVE BEEN PLACED

bands and interlaced foliation, as well as with human figures, concerning which much additional information may be secured so soon as the remaining finds from Montfort are examined in the museum at Acre. At present, however, it can be definitely stated that windows were present similar to the ones shown in figs. 57 and 58. In fig. 58, the ogive of a window, North French, mid-thirteenth century, we have indicated how our fragments from Montfort may be interpreted, by apposing pattern to pattern. In such windows the borders would be in glass, blue or green or horn-colored. In fig. 57, a grisaille said to be from Saint-Denis, a similar arrangement is suggested,

7. Tissues. The specimens from our collection are unimportant. They represent fabrics—linen, cotton, and woolen—poorly made and badly preserved. No silk appears, and no pictured weaves; neither cords nor braids; no points, eyelets, or other definite structures of costumes. Of footwear a part of a sandal was unearthed, and the sole of a felt shoe of a child.

8. Coins. A score or more coins were picked up at various points. Of some of these rubbings were made which were submitted to the Secretary of the New York Numismatic Society, Sydney P. Noe, whose determinations were later confirmed by the President, Edward T. Newell. To
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both of these experts we are greatly indebted for the present information. Of Roman coins one is of Elagabalus, of an issue intended for Tyre, about 220; another is possibly of Alexander Severus, 222-235. Of “crusaders’ coins” we have several deniers of Henry I, as King of Cyprus (1218-1253). Later than 1253 his deniers bear the title King of Jerusalem. In the case of one coin we have apparently a Levantine counterfeit of a denier of Blois.

V. MASON'S MARKS

During the excavations numerous marks were found on blocks of stone which probably represent the signatures of masons working in the castle, together with memoranda as to the progress of building. These marks have been carefully copied by Major Key and are here reproduced (fig. 59) in the hope that they may ultimately be linked up with marks in various castles in France and Germany. By this means might be discovered not only the place of origin of the builders of the castle, but the dates at which various parts of the castle were built.11

VI. RÉSUMÉ AND CONCLUSIONS

Inquiries made by the writer when in Palestine in 1925 indicated that up to that time the crusading fortresses of Palestine had been examined only as architectural monuments. Other objects which threw light on epochs of the Crusades were practically unknown. Little or no archaeological materials had been obtained from burials, and little effort had been made to retrieve objects of any nature from thirteenth-century sites in either Palestine or Syria. Their arms and armor, which in early days must have been present in great numbers,

11Clement Heaton calls the writer’s attention to the series of similar marks (talechons) on the outer wall of the chancel at Vézelay (near Autin).
remain practically unknown. In the museums in Palestine objects in iron of the crusading period were not found; what was said to date from this period was of relatively late date. The spur of a crusader in one museum turned out to be a Mexican spur of the eighteenth century; the spurs and sword preserved in a famous shrine as relics of a crusading prince were, while ancient, certainly later than 1500. The only objects indisputably of the age of the Crusades were two swords which were found in the hands of an antiquary in Jerusalem, which had turned up locally. Hence, as Mr. Guy assured the writer, whatever the present reconnaissance could discover in a crusaders' fortress would provide desirable materials for research.

From this point of view our examination of Montfort is of value, as a first step in the direction of learning concretely what manner of people were the European hosts of the thirteenth century. Our present collection, accordingly, sparing as it is, pictures their material surroundings and belongings. We now know, for example, what kind of mail they wore, at least as to the size and weight of the links, finding for the first time specimens which may be dated with reasonable accuracy, that is to say, 1271 or possibly a few decades earlier. Our evidence is also final that a basinet worn at this time had a wide and down-turned brim; also that a heaume was borne with a finely perforated vential. We are familiar with the types of arrows which the crusader used in his engagements, and the points of his lances. We are now convinced that he used crossbows which in size and mechanism were not unlike those retained in use in Europe even to a relatively late date. We have seen the moulds, finely chiseled in stone, into which he pressed his straps in decorating his belt for sword or dagger, or his badges worn as marks of recognition—objects delightfully designed and spirited. As works of art, in scarcely a European collection can one find a more carefully devised heraldisic eagle or fleur-de-lis than the ones discovered in Palestine. We know today many objects associated with the crusader's daily life—his pottery and glass, his pitchers and bowls, his wooden spoons, his thimbles and needles, even the kohlstick which he may have presented to an ambient friend. We have seen his tent peg carved with heraldic bearings which his people hammered into the ground probably with the type of heavy hammer which here turned up, and carved possibly with the very chisels; or the rings to which he tethered his steed, and how they were fastened to the wall. We may even picture him carrying his pottery lamp, long beaked, green enameled, as he picked his way up the steep stairs, or may see his outline and the sheen of his mail by the light of transparent glass lamps swinging from the ceiling by chains attached to handles of cobalt blue glass. We know even definitely what buckles he wore in his costume, and we can suggest what manner of bronze bosset touched his hand when he held his stallion's bit.

His architectural background also becomes clear to us in the light of these studies. From kitchen to palace we know a bit more of the ornamentation of his rooms. A corbel showing the head of a crusader of the first half of the thirteenth century, with its curious small basinet held in place by a single chin strap, is a precious document as a portrait no less than as an objet d'art. If one looks above him, one may see the art of the early stone-cutters (who left their marks on the masonry) in brackets, capitals, corbels, and crockets, or if one stands beside him in the chapel one will see his pictures of saints painted on gesso and canvas over panels, or, brilliantly lighted, his stained glass windows, even as they would appear in his home in northern France or on the Rhine; indeed we may reasonably infer that his taste in stained glass windows was by no means limited to the simpler types, for he had figured windows as well as windows showing taceries in grisaille. The date of his windows is of some interest to us, and one may query whether the present specimens are German rather than French. Certainly it is that in its material the glass behaves differently from that familiar to us from French sources. It is more like the Persian glass of the period, made with better sand, either marvelously transparent or showing a yellowish cast.
FIG. 59. MASONS' MARKS OCCURRING IN VARIOUS PARTS OF MONTFORT. THE LETTERS CORRESPOND WITH THE ROOMS SHOWN IN FIG. 4.
instead of the pale green which one associates with the French glass dating from the end of the twelfth and the first half of the thirteenth century. So far as the painting goes, the design of the grisaille traceries can hardly be distinguished from that of Saint-Denis, Chartres, or Bourges. But this assumes or indicates that the stained glass windows of Montfort were completed before the epoch of the German Hospitalers, who would probably not have employed French artists to complete their work. Indeed, if this grisaille be of German origin, one may say with reasonable confidence that it is the earliest glass en grisaille of central European workmanship, for similar windows of Austria or Germany date hardly earlier than 1330, or sixty years later than the specimens at Montfort. At least, however, the fragment showing the human head is hardly of French origin; its treatment is quite unlike any which the writer has seen in a large series of French windows. The ear, eye, and nose are painted differently, suggesting rather the German glass of a later date.

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. In the matter of the concrete results of our reconnaissance, our regret is only that well-preserved specimens of artistic importance were not forthcoming. But our work extended over so short a time (a month) that we could hardly have expected better results. In arms and armor, our especial interest in the present trip, little was found which, from the Museum’s viewpoint, could be regarded as material for exhibition. In fact, all objects of iron turned out to be very imperfectly preserved, an indication that the conditions in Palestine were far from favorable for the study of objects in iron. Even, indeed, had we had considerable time at our disposal and unlimited funds, Mr. Calver and his staff were firm in the faith that we could not expect to obtain, under local conditions, such objects as a complete helmet or a well-preserved sword. It is this, indeed, that leads us to believe that further work would not be fruitful in our special field. This does not, however, imply that the great castles in Palestine do not deserve careful exploration from other archaeological viewpoints.     BASHFORD DEAN.