Burncourt Castle Excavations

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Excavation report on archaeological investigations at Burncourt castle, Co Tipperary. The seventeenth-century castle was only occupied from 1641 until 1650 when it was burnt and abandoned. One of the intriguing discoveries was the complete carcass of a cow which had been deliberately buried under the foundations of the building.

Introduction

Burncourt castle (Fig. 1) is a fortified house which was constructed in the years immediately before 1641 by Sir Richard Everard. A date stone of 1641 for the castle is incorporated in a wall to the south-west of the castle, in the nearby farmyard. The cultural background of Sir Richard Everard was Old English, his family having come to Ireland in the wake of the Anglo-Norman invasion, with branches in Fethard, Co. Tipperary and Randlestown, Co. Meath with a minor branch in Co. Waterford. The Everard landholdings spread across South Tipperary, Cork, Limerick and Waterford. Richard Everard, the second son of Sir John Everard, a former MP and judge, was created a baronet in 1622. An estate extending over South Tipperary, Cork and Limerick was settled on Richard on his first marriage, to Catherine Plunkett, in 1620 by Sir John.

Their residence was a thatched tower house at Ballyboy, just east of Clogheen village. After Catherine Plunkett’s early death, Sir Richard married Catherine Tobin of Killaghy in 1624 and the estate was regranted to them by his father. The second deed mentions specifically Ballyboy, Cloghyne (Clogheen) and Kilballyboy. Catherine’s family were also wealthy landowners in Co. Tipperary, her father had huge land tracts towards the east of the county. Like the Everards, they were Old English, Catholic and Royalist.

In 1639 Sir Richard received a grant from Charles I creating the Manor of Everard’s Castle, comprising the manor, castle, town and lands of Shanrahan, Cloghine (Clogheen) alias Everard’s Castle, Cloghine (Clogheen) alias Everard’s Market. Clogheen was the original name of the manor house which became Everard’s Castle and is now called Burn(t)court Castle (Everard 1988). Sir Richard and his family were still in Ballyboy in 1639 and Everard’s Castle was under construction. The new castle was financed by the sale of lands in Cork and Limerick in the early 1630s. The Everards moved to the newly constructed castle, superior in terms of space and magnitude to their previous home, in 1641.

Richard Everard is described as ‘modernising’ and ‘responsible for introducing of new tenants and initiating new settlements’ (Smyth 2006, 337). The construction of the mansion house at Burncourt ‘reflected the wealth, confidence and extensive connections of this branch of the Fethard family’ (ibid., 318). The Civil Survey indicates that Richard Everard’s estates in 1641 totalled 8,471 plantation acres or 13,926 statute acres (Simington 1931).

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1 Exact location: OS 6" scale Sheet No. 80, Co. Tipperary. 73.5m from W. margin, 59.2m from N. margin. NGR: 19524/11812.
Richard Everard's move to Burncourt coincided with the 1641 Rebellion and his 'concern was to give protection against attacks of the Irish rebels to the English tenants with whom he had planted the greatest part of his estate' (Everard 1989, 515). Richard maintained '30 families and he kept a number of families, poor and unable to move, consisting of 88 persons at his own charge till the middle of June 1642 when he conveyed them in the heat of the war to the English garrison at Mitchelstown' (ibid, 515-7). Richard Everard joined the Catholic Confederates at the Kilkenny assembly in 1642 and was a member of the Supreme Council. Catherine, Everard's wife was forced to leave the castle in advance of Inchquin's advance in 1648 and Inchquin's soldiers carried off goods to the value of £200 from the castle (ibid., 518). Catherine secured protection for herself, her children and tenants from Inchquin and this was reinforced by an order from the Marquis of Ormond in April 1648. She most likely had returned to the castle at this stage.

Oliver Cromwell, after his conquest of the south-east in 1649, resumed his campaign in January 1650 marching from Youghal to Tipperary, with the ultimate aim of reaching Kilkenny. In a letter to the Speaker of the House of Commons in England he records that he captured a castle in Kilbenny (Kilbheenny) on 31 January. He then marched to a 'stronghouse called Clogheen (Everard's Castle now known as Burncourt) where I left a troop and some dragoons' (Everard 1989, 513). Local tradition has it that Lady Everard burnt the castle in order to prevent the Cromwellians making use of it. Whatever the
Fig. 2. Plan of castle (after R. Stapleton with additions by H. Kavanagh).

Plate 1. General view of Burncourt Castle from west.
circumstances, the castle was burnt. Catherine returned to Ballyboy and Richard continued in the resistance to the Cromwellian campaign. He was a defender of Limerick during Ireton’s siege and although sentenced to death after the city fell in 1651, it appears he was imprisoned and died in 1660. The castle was therefore abandoned and never reoccupied.

The castle comprises a central block of rectangular plan, aligned north-south with a square tower at each corner (Fig. 2; Plate 1). The main door is on the west-facing wall and a sketch by Leask (1970, fig. 88) shows this was accessed via a flight of steps. A second entrance exists in the south-facing wall. Sweetman (1999, 191) describes the entrances at Burncourt as being at first floor level over half basements. Both doors are protected by gun-loops and these are also visible in the flanking towers. A bawn wall extended around the castle and portions of this are extant, including a mural turret on the south-east corner (Fig. 3).

Short excavations were carried out from 2003-05, commissioned by the Heritage Service in advance of remedial works, in the central block to expose the cellar and lower courses of masonry, including window apses and fireplaces and to record any other features that were uncovered. Little of the original castle occupation remained although some construction features and a foundation deposit under the east wall were recorded. A lime-kiln was subsequently constructed in the central block.

The site
Burncourt Castle is located on the east side of Burncourt village on the north end of the valley between the Galty and Knockmealdown Mountains. Burncourt River flows to the north and east of the castle (Fig. 1). The underlying geology is the interface between the

![Diagram of castle and bawn wall]

Fig. 3. Outline of bawn wall on south-east of castle, OS 25” scale 1842 map.

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2 Excavation Licence No. 03E1909 and Ministerial Consent No. 0002.
Old Red Sandstone of the Galty Mountains and limestone bedrock of the valley. A disused limestone quarry exists ½ mile to the west and this may be the source of stone used in the castle construction.

The central block of the castle is three stories high with a basement level. The castle originally had 26 gables and seven chimney stacks. The north-west and south-west towers have five floor levels, including the basement. The castle has a number of two- and three-mullioned windows, divided by transoms and crowned by ornamental square-ended hood mouldings (Plate 2). A basement level exists in the north end of the central block and in the north-west and south-west towers. That in the north-west tower is infilled to ground floor level while the basement in the south-west tower is partly infilled. The infill in the northwest tower is similar to the infill removed from the central block basement. The basement level had smaller windows than in the upper levels (Plate 2). The internal partition walls were presumably of wood and the floors were carried on wall plates supported on projecting corbels.

Defensive features in the castle include the gun loops and a gallery along the outer side of the east and west walls of the main block. The gallery along the east and west

Plate 2. West wall of central block.

3 The three-mullioned windows are located on the second floor of the central block in the east-facing wall (3) and in the north-facing wall (1). There are no windows in the south- and north-facing sides of the towers.
walls occurs between the towers and is now represented by projecting corbels along the wall faces. Part of a bawn wall with a corner turret, survives best along the east side, although it can be traced in the walls surrounding the castle to the north and west and the irregular line of a boundary wall along the roadside to the south may reflect an earlier enclosing wall (Fig. 3) The plasterwork around the windows is etched to look like brick surrounds and on the angles of the towers to resemble quoin stones. Plaster survives on part of the internal walls and is best preserved in the towers.

A mid-late eighteenth century house was built to the west of the castle. Francis Grose (1790) depicts that house from two perspectives. The house was gable-ended with chimney stacks on each gable and mansard-type dormer windows on the third attic floor level. A wall extended from the northwest castle tower to the house and beyond that an elaborate gate led into an ornamental garden to the northwest of the castle. The second view is from the east with the river in the foreground and bawn wall, with the south-east turret shown in good repair. The castle is shown to be in relatively good state of repair, minus the roof but with surviving chimney stacks and the walls of the east and west walls of the central block remaining to eave height.

The excavation
The cellar was located on the north end of the central block and recent infill was removed. The infill was at maximum a 1.20m thick layer of stone (F7) from an adjacent field boundary. Steps (F5) shown on a 1929 sketch leading into the cellar from the south side were uncovered adjacent to the east wall. The cellar floor was cobbled and a camber across the paving functioned as a drain that carried water out through an ope (F3) at the base of the east wall. The southern end of the camber abutted the southern cellar wall (F4) where a drain (F12) under the southern end of the central block exited. This drain linked into the south-west tower and was a primary feature that was constructed when the basal levels of the castle were being laid.

The floor area of the south end of the central block was also excavated. There, the primary levels were the sub-floor drain (F12), a series of small stake-holes driven into sub-floor level and concentrated in the south-east corner, three small pits (F40, F42 and F91) and a foundation deposit of an articulated butchered cow in a pit (F88) that extended under the east wall. An intermittent clay layer (F31) interpreted as post-abandonment sod regeneration, was visible in the southern end of the central block.

A lime kiln (F6) post-dating the abandonment of the castle in 1650, was recorded due east of the main door. Two trenches (F18 and F35) interpreted as ‘robber trenches’ were recorded within the southern side of the central block. Ceramic and glass finds from these trenches indicate an eighteenth/nineteenth century date for the backfill. The ‘robber trenches’ were excavated from a level below the later infill layers. The final phase of activity in the castle was the introduction of a series of modern infill layers including the infilling of the cellar.

The stratigraphy
All the layers between the pre-excavation floor level and the base of the cellar were of recent origin. The upper level of 0.10-0.15m thick sod and topsoil (F2) overlay an intermittent mixed layer (0.15-0.30m thick) of clay, mortar and stone fragments. A 1.10-

4 Local information. Many of the walls surrounding the castle are limestone, similar to the castle and may be from the mid/late eighteenth-century phase relating to the house and garden that stood to the west of the castle.
5 OPW files.
1.20m thick layer of stones (F7) was recorded below this and was the modern infill of the cellar. This stone layer comprised water-rolled Old Red Sandstone stones that were part of a field boundary removed in the recent past. Limestone fragments, including some architectural fragments and building stones were mixed with the river stone and some sand and soil were also in the fill layer. The stone fill was also used to block the basement window opes and infill the lower sections of ground floor window opes. Ceramic finds recovered from the stone layer included Red and Black glazed wares, a sherd of a Frechen vessel and a fragment of a North Devon ridge tile dating to the seventeenth century as well as nineteenth century unglazed earthenwares and stonewares and twentieth century pottery. Metal finds included a fire-dog and an ornamental Victorian mount fragment. The fire-dog was recovered from the base of the fill adjacent to the south wall of the cellar (F4) and may have been thrown in at any period after the castle was abandoned. The fire-dog is dated on the heraldic motif to the early eighteenth century and post-dated the castle occupation. The finds were all *ex situ* although the seventeenth century pottery may have been contemporary with the castle use.

The earliest post-abandonment layer in the southern end of the central block, south of the cellar wall (F4) was a 0.10m thick layer of sandy clay (F31) recorded over boulder clay (F85) and interpreted as sod regeneration. This intermittent layer extended across the southern end of the castle and northwards to the later lime-kiln (F6). Layers of stone and mortar (F33 and F38) shed from the castle wall were recorded over the sod layer (F31). F33 was a 2.50m x 0.80m x 0.10m thick spread of limestone fragments and mortar, north of the fireplace (F29) and F38 was similar in composition, 1.05m x 0.58m and 1.60m north of F33. Modern fills were introduced over the sod layer (F31) and in the cellar.

**Construction features**

**Southern end of central block**

The basal levels of the castle walls were exposed in the southern section of the central block. These rose directly from a boulder clay level (F85) and there was no base batter or foundation trench along the interior wall elevations. The external walls are also straight, without a base batter. A c.3m long section of an internal off-set footing at the base of the east wall extended 0.10m beyond the wall line (Fig. 4).

The ground had been reduced here prior to the construction of the castle although the amount of ground reduction is difficult to quantify but at least sod and humic soil levels were removed. This was probably carried out in tandem with the excavation of the pit for the cellar in the southern half of the building.

**Drain (F21)**

A drain (F21) comprised a trench (F27) and an ope (F12) on the south cellar wall. It extended N/S across the southern end of the central block and veered towards the South West tower (Fig. 4). The line of a drain trench (F27) was exposed on the southern side of the central block, but was not fully excavated as the morphology of the feature had been determined during work adjacent to the south cellar wall (F4) and further excavation was deemed unnecessary and possibly detrimental to the drain function. The drain trench (F27), south side of the cellar wall (F4) was ‘U’-shaped in profile, 1.40m wide and 1.10m deep to the top of large flagstones that covered the drain (Fig. 5). The drain was stratigraphically, one of the earliest features on the site and was clearly *in situ* prior to the construction of the south wall of the cellar (F4). The backfill comprised a 0.08-0.10m thick basal clay layer (F24) directly on top of the capstones that may have
Fig. 4. Overall plan of southern end of central block of castle.

been "plastered" over the top of the capstones to seal any fissures. Charcoal-flecked stony clay (F22) with mortar fragments overlay F24. The upper backfill was a 0.80m thick stony layer (F21) mixed with clay, mortar and redeposited boulder clay. The stones were angular limestone rocks varying from 0.10-0.17m long and were densest towards the base of the layer and probably derived from building detritus. The drain trench (F27) was cut from the boulder clay level (F85) and cut across thin mortar-rich layers (F83, F84, F86 and F87). The drain (F12) existed at the southern wall of the cellar (F4) and the water was channelled via a gully to the east wall of the castle. The drain was part of an internal drainage feature within the main block of the castle and the South West tower and linked to the gully across the cellar floor.

Layers (Figs 4 and 6)
Five 30-140mm thick layers (F82-84, F86-87) were recorded over the boulder clay level (F85). These are interpreted as layers of mixed sand and mortar discarded by the builders during the castle construction and may represent no more than cleaning of buckets or containers once a section of mortar-bonding of the stone walls was completed. Four layers (F83, F84, F86 and F87) were cut through by the drain trench (F21) and were in situ before this was dug. One layer (F82) located close to the west wall of the castle included a shard of window glass, seeds of flax and dock and an oat grain.

Stake-holes (Fig. 6)
Forty stake-holes were recorded in the south-east corner of the central block and due north of the fireplace (F29). With the exception of two stake-holes (F60 and F70), all were circular or sub-circular in plan and the diameters ranged from 40-170mm, with an average diameter of 67mm. The stakes were pointed or 'V'-shaped or slightly flat at the
Fig. 5. Sectional profile across drain trench (F27).

tip and all except F67 were driven at a right angle in the ground. The depth of the stake-holes ranged from 60-270mm with an average of 108mm. These stake-holes are interpreted as the tips of larger stakes. There was no clear plan to the layout of the stake-holes although F44, F45, F47, F49 and F50 were in a straight E/W line and F46, F53, F56 and F58 were on a line perpendicular to this. Similarly F57-60 were also on an E/W line. A cluster of stakes may be related to some structural work and may represent the vestiges of scaffolding in the south east corner. Stake-holes were not recorded elsewhere at the sub-floor level.

Pits (Figs 6 and 7)
A pit (F88) extended from under the east wall into the floor area of the south end of the castle. The pit was in place prior to the construction of the east wall and was dug for the

Fig. 6. Plan of features on southern end of castle. Layers F82-84, F86-87; stake-holes and pits (F40, F42, F88 and F91).
Fig 7. Plan of foundation deposit pit (F88).

Plate 3. Cow skeleton (looking south).
interment of an articulated cow skeleton and is interpreted as a foundation deposit. The pit measured 3.20m (N/S) x 1.30m (E/W) and was 0.25m deep with sloping sides and a flat base with a fill (F39) of stony clay mixed with some mortar. The cow burial was of a 4-5 year old animal that had been butchered and interred in the pit as a complete carcass (Plate 3). The animal had been sawn down the backbone and placed whole in the pit with the head severed from the body and placed on the upper backbone area. A large Old Red Sandstone boulder was also placed in the pit over the right tibia. A mouse bone was also recovered from the fill.

Two stake-holes (F89 and F90) were driven into the base of the pit (F88) and both were filled with material similar to that around the cow skeleton. F89 was 0.12m x 0.08m and 0.24m deep while F90 had a diameter of 0.09m and was 0.12m deep. The stake-holes were at a distance of 0.66m. The function of these is obscure but the location within the pit suggests that they were related to the pit use. One possibility is that the stakes supported a frame on which the cow was hung for butchering and dismemberment. A third stake-hole (F93), 0.10m (E/W) x 0.16m (N/S) x 0.29m deep was cut into the pit side (F88) and the fill included hazelnut shells. Similar to the other stake-holes (F89 and F90) it may have supported some type of frame.

The base of a shallow sub-circular pit (F91) was immediately north of the cow carcass burial (F88). The pit was 0.30m (E/W) x 0.20m (N/S) x 0.06m deep and the fill included sandy clay, mortar fragments, cattle and pig bone fragments, cereal grains, grass and dock seed. A small pit (F92) was recorded adjacent to the modern trench F18 and was cut into a mortar-rich layer (F86) on the north side and boulder clay (F85) elsewhere. The pit was oval in plan and measured 0.31m (NE/SW) x 0.23m (NW/SE) x 0.14m deep.

Two pits (F40 and F42) to the south of F88 were shallow and filled with stony grey charcoal-flecked clay with some mortar fragments. F40 was 0.29m (E/W) x 0.38m (N/S) x 0.06m deep and adjacent to the east wall of the castle. A stake-hole (F41) at the base of the pit was 0.05m in diameter and driven to a depth of 0.10m. A fragment of a large mammal bone was recovered from F40. F42 was 0.10m (E/W) x 0.22m (N/S) x 0.09-0.16m deep and barley, hazelnut shell, goosefoot/orache seed and pig bone were recovered in the fill.

Northern end of central block

The cellar (F1) (Fig. 8)
The cellar floor was exposed at a depth of 1.50-1.70m below the pre-excavation surface with a total infill of c.119.2m3 of modern material (Plate 4). The height from the cellar floor to the basement window sills was 0.90m. The area of the cellar was 74.5m2 and this was enclosed by the east and west walls which were 10.80m in length and the north wall which was 6.90m long. The south side of the cellar was delimited by an east-west wall (F4), 5.40m long and by a flight of steps (F5), leading to the ground floor (Plate 5). The wall (F4) was back-built against boulder clay. The cellar floor was cobbled with well-set cobble-stones of irregular sizes (0.10-0.20m long). The cobbles were mainly water rolled Old Red Sandstone. Part of the cobbbling was disturbed and displaced on the north-west end and on a smaller section, immediately below the fireplace in the east wall.

A 0.20m wide gully, which was in effect an adverse camber in the cobbled surface (Plate 6) extended from an ope (F12) in the south wall of the cellar across the paved surface to an ope in the east wall. The gully also extended from the cellar floor (unexcavated) in the North-West tower in an easterly direction and turned south to link
Fig. 8. Cellar plan.

Plate 4. Exposed cellar floor (looking north).
Plate 5. Steps (F5) from cellar to ground floor.

Plate 6. Camber in paving forming drain exiting from ope (F12) in south cellar wall (looking south).
to the gully extending from the south side and the channel thereafter continued into the ope in the east wall. Part of the adverse camber that formed the gully was displaced along the north-east section. The cellar wall ope (F12) was 0.34m wide and 0.30m high and capped by a large stone, while that in the east wall (F3) was 0.30m wide and 0.35m high and capped by a thin flag. The gully still functioned once it was exposed on the excavation and carried surface water from the cobbled surface to the ope (F3) in the east wall. The wall ope was under the fireplace and extended under the east wall of the castle and carried water via a sub-surface drain on the east side of the castle into the adjacent field or river.

*The south wall of the cellar (F4) (Fig. 9)*

This wall was adjacent to and west of a series of steps (F5) that gave access from the basement to the ground floor (Plate 5). The wall (F4) was constructed of roughly-coursed limestone blocks and was back-built against a clay bank on its south side. The clay was the unexcavated boulder clay left *in situ* by the castle builders. A backfilled drain trench (F27) had been cut across the clay and the wall (F4) also fronted the backfilled drain trench and the drain capstones.

The wall (F4) was exposed in 1929 and was subsequently covered by a layer of stone infill (F7). The wall (F4) stood to a maximum height of 0.90m on the east and west end and was 5.40m in length (E/W). The central section was lower and there the top of the wall was at maximum 0.50m high along most of the length (3.80m). The drain ope (F12) was 2.20m west of the steps and 2.70m from the west wall of the castle. The central section of the cellar wall may have been robbed out, perhaps for the construction of the later lime kiln (F6) and the layers above this central area comprised layers of burnt soil, with mortar inclusions. A 0.55m thick layer of fire-reddened clay (F8) was immediately over the top of the central section of wall and included mortar fragments and small stones and was part of the activity centring on the lime kiln (F6). When the cellar infill (F7) was being removed on the west side of the drain ope (F12) a slump of stony sandy clay with mortar was recorded extending northwards for 1.37m from the wall face (F4) and westwards for a maximum distance of 1.87m. This slump was not as fire-reddened as the layer (F8) over the wall (F4) but was clearly also oxidised through exposure to heat. A large iron object identified as an ornate fire-dog was recovered in this slumped clay, c.1m to the north of the wall (F4) and 0.30m above the cellar floor.

Only a small trench at the back of the wall (F4) was investigated because if the ground was reduced, this would leave the wall free-standing and possibly result in the feature collapsing. The trench confirmed that 0.04-0.10m thick layer of mortar (F25) lay

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**Fig. 9.** Elevation of south wall (F4) of cellar.
underneath the fire-redened clay. These layers overlay the top of the cellar wall and the rake out area (F20) on the west side of the lime kiln (F6) also overlay the cellar wall.

*The steps* (Figs 8 and 9; Plate 5)
A series of four steps (F5) led from the ground level below recent infill to the cellar. The steps were 1.22m wide (E/W) and the thread width was 0.30m. All the steps were built from flat limestone flags that were well fitted together. The step at cellar floor level was constructed from two large flags, with a riser between the step and cellar floor of 0.05m. The second step upwards was built from three flags with a riser between the first and second step of 0.20m. These flagstones extended beneath the third step and the riser to the third step was also 0.20m. The third step was one large flag and a riser to the fourth of 0.14m. The top step comprised three flags. A dump of mortar lay over part of the west section of the top step. The ground above the steps was recently infilled and prior to this there was a dip in ground level. A gap existed on the east and west sides of the second step and this may have held door jambs (Fig. 9). The door jamb socket on the east side was 0.10m wide at the base and 0.20m at the top and that on the west was 0.22m wide at the base and 0.25m at the top.

**Post-abandonment layers and features**

*Soil (F31)*
An intermittent layer of soil-like material (F31), 0.05-0.10m thick was recorded directly over the boulder clay (F85) in the southern side of the castle and was best preserved along the east wall and under the later infill layers (F28, F30, F32 and F33). The layer is interpreted as the regeneration of a grassy surface once the castle was open to the elements after the fire.

*Lime kiln (F6)* (Fig. 10; Plate 7)
The lime kiln was constructed due south of the cellar wall (F4) and slightly south of the west castle door. A layer of associated oxidised clay (F36) under the kiln rake-out areas (F20) extended from the west side of the kiln over the cellar wall (F4) and post-dated the cellar wall.

The kiln was aligned approximately E/W and comprised a central circular chamber or bowl with flues or splayed walls extending from the east and west sides of the chamber. These walls may have acted as draught area for the kiln. The overall length was 2.70m and the splayed ends were 1.20m wide. The kiln was delimited by low stone walls of dry-stone construction of variable sized stones, ranging from 0.14-0.50m in length. Larger stones were used in the construction of the central chamber and on the west flue. This circular chamber was 0.60m in diameter and best preserved along the south side. The south wall of the chamber was 0.70m high and was constructed of two courses of large limestone blocks of undressed stone. Two wall stones remained *in situ* on the north side of the chamber and the remainder was probably robbed out. A capstone or lintel rested over the west end of the chamber and a low opening existed below the capstone and the floor. This opening was 0.35m wide on the east side and 0.50m on the west side and c. 0.35m high. A similarly placed lintel may have existed over the east side of the chamber at the junction with the flue, but this did not remain *in situ* at the time of the excavation. The north side of the chamber and the north side of the east flue appeared to have had some stone removed and this may also indicate that part of the structure was dismantled in the past.
Fig 10. Lime kiln (F6).

The east flue was 0.50m wide at the west end and widened to 1.20m and the overall length was 0.90m. The west flue was also similar in dimensions. Both flues were delimited by low stone walls that decreased in height as they extended outwards from the chamber. The north wall on the east flue was one course high and the south wall was two courses high at the west side and one course at the east end. The north and south walls of the west side were both two courses high adjacent to the chamber and decreased to one course towards the end of the flue.

The floor area was paved with thin limestone flags in the chamber floor and this extended outwards to the flues. The paving also extended under the north wall of the chamber. The floor area immediately west of the chamber was covered by a thin layer of limestone chips.
A thin layer (0.01-0.02m thick) of lime was recorded adjacent to the north and south walls of the east flue and extended to the east and west outside the flues. A modern pit (F13) was dug immediately south of the steps and cut into the lime spread (F20). The lime kiln (F6) and lime spreads (F20) were covered by fire-reddened clay (F8). The fire-reddened clay (F8) also extended along the north side of the lime kiln (F6) to the top of the south cellar wall (F4) and a small tumble of this was recorded over the cellar wall to the cobbled floor west of the drain ope (F12). A layer of mixed clay and mortar (F10) partly overlay the fire-reddened clay (F8) and was partly over the western end of the wall (F4). Both these layers were post-abandonment phases and unrelated to the primary wall construction.

_Trenches (F18 and F35)_
A linear trench (F18) was recorded east of the drain (F21) and had an overall length (N/S) of 3.30m, 0.60-0.65m wide (E/W) and 0.86m deep (Fig. 5). This was excavated from the level of the sod layer (F31) and pre-dated the introduction of modern fills (F28, F30, F32 and F33). The basal fill (F17) was silt 0.06m thick suggesting the pit was open for a short time before backfilling. This was overlain by a 0.24m thick deposit of a mixture of clay, mortar and pebbles (F16) and the upper fill (F15) included stone, mortar, charcoal flecks, clay and redeposited boulder clay. The base of a wine bottle and some animal bone were recovered from the upper fill (F15).

A trench (F35) was recorded directly in front of the fireplace (F29) and abutted the eastern wall projection of the fireplace. Similar to F18, it was cut from the level of the sod layer (F31) and pre-dated the introduction of modern fills. The overall length was
3.10m and the width varied from 0.40m in front of the fireplace to 0.24m where it skirted the east wall of the fireplace. The fill (F34) was homogeneous and comprised a mix of silty clay with pockets of boulder clay and mortar and many small limestone fragments. The trench was probably backfilled soon after excavation with the dug out material. A Black-Glazed earthenware storage jar fragment was recovered from the fill.

Modern activity
The inside of the west doorway was investigated as it formed part of the excavation area south of the cellar. The stonework at the base of the doorway is modern infill and a stone trough has been used too as part of this stonework. A paved area exists immediately east of the inside of the door and this is modern and has been bonded together by concrete. The original door sill would have been at the level of the ground floor and this was c.1.20m above the modern paved area.

Infill layers (F28, F30, F32 and F33)
A modern introduced mixed layer (F28) of limestone fragments, some sandstone, mortar patches and soil lay over the sod (F31) and the stone and mortar layers (F33 and F38). The thickness varied from 0.30m at the southern end to 0.10m towards the north. This may have been introduced at different times and the upper level included some plastic, iron nails, rodent bones and clay pipe stems. The layer post-dated nineteenth century trenches (F18 and F35). The southern end of the central block was also covered by an introduced layer of modern fill, varying in thickness from 1.20m at the southern door, where a ramp was created to access the castle; c.0.50m towards the north and 0.70m around the fireplace (F29) in the south wall. These layers comprised mainly stony fill and were introduced in modern times. The cellar infill (F7) was also modern and probably introduced some time in the 1930’s. The central block of the castle was used to house stock and the infilling of the cellar prevented injury to cattle.

Discussion
The architectural tradition from which the mansion house may be traced is to the construction of Rathfarnham Castle, Co. Dublin, built by Adam Loftus in c.1590 and which was the first of the fortified houses (Craig 1982, 117). These houses were built by people of different backgrounds including the Old English such as Everard, Scottish adventurers (Loftus) and Gaelic lords as at Kanturk. The construction of large houses marked a change in the native tradition where comfort and space replaced the more primitive conditions of tower houses. Tower houses were also enlarged as at Lemenagh, Co. Clare and Loughmoe, Co. Tipperary.

Everard’s Castle is considered by Craig (1982, 117) as part of a group of six stemming from the Rathfarnham tradition and the last in a sequence that includes Kanturk (c. 1609) and Portumna (before 1618). All the houses have a rectangular or square central block with flanking towers at each of the four corners. Burncourt and Manorhamilton, Co. Leitrim (built c.1634) differ from the others in the absence of a central thick wall providing an internal division and both had ‘only timber partitions subdividing the same space’ (ibid., 117). Of the Rathfarnham tradition, Kanturk and Everard’s Castle are architecturally similar with two- and three-mullioned windows and the corbels for machicolations. Other fortified houses at Monkstown and Mountlough in Co. Cork also belong to the same tradition as Burncourt. Monkstown Castle is similar in plan to Burncourt and the Celtic motifs on the doors at both castles are identical (de Breffny and ffolliot 1975, 51).
The internal layout of Everard’s Castle as indicated by the extant shell is of a central block, one room thick. Craig (1982, 119) suggests that the main hall was entered to the right of the west door due to the asymmetrical position of the main door in the west façade. The ground floor may have been divided into two rooms suggested by two fireplaces at this level. An ornate fireplace surround survives in the room to the left of the main door and this may have been the main hall. Little survives of the surrounds of the fireplace in the south wall and this may also have been ornate. The large fireplace size and the proximity to the cellar steps may however, indicate that the room to the right of the main door was a kitchen. A timber partition must have divided the room and the base of this may have rested on the southern wall of the cellar.

The use of stud partitions as room divisions is suggested by Craig (1982, 124) using the evidence from surviving structures where the ‘ghosts of original partitions may be traced’ and also quoting Lord Charleville in his description of Charleville Castle, Co. Offaly ‘according to the fashion of the time, with many small and ill-connected apartments, but on the whole not destitute of much comfort and convenience. The interior divisions were uniformly constructed by strong partitions of oak’ (ibid., fn 24, 329).

It was clear from the removal of fill that the cellar area must have been cleaned out after the castle was burnt in 1650. The castle was abandoned after the fire and this suggests that it was considered beyond repair either due to financial considerations or because of structural damage or perhaps Catherine Everard lacked the inclination to return to the castle. The fire probably resulted in the collapse of the inner structural timbers and roof must have partially or fully caved in. There were no remains of any material in the cellar or in the southern end of the central block that could be associated with the fire of 1650 and it can only be assumed that any debris from the castle burning was salvaged for use elsewhere.

The cellar floor was cobbled and a drain extended across the cobbles to an ope (F3) at the base of the east wall. The drainage system also extends to the South West and North-West towers. The drain network was integral to the construction phase of the castle. The estimated height of the cellar is c.2m (Fig. 11) and is based on the level of the extant plinth at the southern door and the sole plates supporting the floor joists. The cellar was presumably used to store foodstuffs where subterranean conditions would provide a cool atmosphere.

Nothing remained to indicate the type of roofing used in the castle. A few fragments of slate were recovered from the infill of the cellar (F7), from the interstices of the cobbled cellar floor and from the backfill of the drain trench (F27). The cost of slates in the seventeenth century may have been an incentive to salvage the slate and lead flashings from the site. A single fragment of a seventeenth century ridge tile was

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**Fig. 11.** Projected floor levels.
recovered from the site and this may indicate the use of ceramic ridge tiles. There remains the possibility that the roof was thatched as was the local tradition suggested by the Civil Survey description of the Everard home in Ballyboy. Alternatively the roof may have been shingles and support for this suggestion comes from Lord Charleville’s description of Charleville Castle as follows: ‘with a ponderous and double roof, also of the same material [oak], and covered with shingles of oak’ (Craig 1982, fn 24, 329).

In all, little remained of the castle contents and it may be that Catherine Everard removed her entire chattels from the building. A fragment of a Frechen jug and a North Devon jug are the only finds that may be contemporary with the occupation of the castle in the seventeenth century and this is remarkably little given the wealth and status of the owners. An ornate fire-dog recovered in the cellar fill post-dates the castle occupation and may have come from the later house to the east of the castle depicted in Grose’s drawing of 1790.

One of the most unusual features of the excavation was the foundation deposit uncovered in a pit that partly extended under the east wall. A mature cow was killed, dismembered and placed at the foundation level of the wall. Some meat was taken from the carcass before burial. This type of practice is linked to pagan tradition, and perhaps a fertility cult, rather than to the traditions of the wealthy, educated Catholic upper class of South Tipperary. The deposit must reflect perhaps the continuing survival of earlier customs, perhaps even after the rationale for the action was forgotten. Alternatively, it may be that the builders believed that the burial of a valuable animal would bring luck and prosperity to those living in the castle. Given the history of the castle, this was sadly not to be.

Once the castle was abandoned, a sod layer formed over the southern end of the central block and all activity above this is eighteenth century or later. A lime kiln (F6) was recorded to the south of the cellar wall (F4). The morphology of the kiln suggests that it may be eighteenth or nineteenth century and the size could indicate that the lime produced in the kiln was not for land use but could have been for the production of lime-based mortar for the construction of nearby buildings. Lime kilns were used to produce quicklime whereby, when heated, calcium carbonate in limestone converts to calcium oxide or quicklime. Quicklime was used for buildings as a bonding agent in render, in whitewash and as a fertilizer. Lime-based mortar was also used for bonding stone courses.

The central chamber can be interpreted as the bowl of the kiln and the splayed areas to the east and west may have functioned as the flues/rake-outs. The west end of the central chamber had a lintel supported on the flue wall and a similar lintel may have existed on the east side of the chamber. This end of the chamber and the adjacent north wall of the flue were not intact and stone may have been robbed from this part of the structure. Fire-reddened soil was removed from the central chamber and this also extended toward the north across to the south cellar wall (F4). This soil may be interpreted as residue from burning at the kiln site. Some of the fire-reddened soil was initially interpreted as resulting from the burning the castle in 1650, but the probability is that it originated from the lime kiln. No lime was recovered from the bowl area, but thin lime lenses (F20) were spread on the east and west side of the structure. These may be the vestiges of lime rake-out. The side stones of the chamber area did not exhibit evidence of intensive burning in terms of cracking or fragmentation of the walls. An explanation for this may be that the kiln was only in use for a short period and only long term, intensive use would result in cracking of the stonewall face.
A similar lime kiln was excavated at Trim Castle (Sweetman 1978) and that kiln was dated to the seventeenth century. The kiln at Trim had a central bowl and splayed flues/rake-outs on the east and west sides. The central bowl of the kiln at Trim was 0.50m in diameter at the base and 1.30m near the rim and the rake outs/flues were c. 1.40m in length. The central bowl in Burncourt was 0.60m in diameter and the flues/rake-outs were 0.90m in length. The main difference between the kiln at Trim and that in Burncourt is the wall heights and the extant height in the Burncourt example is 0.55m whereas the Trim example was 1.50m.

A sherd of locally-made, late-thirteenth century pottery and a sherd of Saintonge pottery from the area around the kiln (F6) are residual from an earlier medieval settlement in the area. There is no evidence for medieval occupation close to the castle and the nearest medieval complex is at Rehill, c.1½ miles to the east. The Rehill site includes a castle, mill race and church and earthworks in a rectilinear pattern suggested a deserted medieval village.

Acknowledgements

The writer wishes to acknowledge the following: Dr. Ann Lynch, Heritage Service, who commissioned the project; Michelle O’Dea, Aighleann O’Saughnessy and John O’Connell OPW who provided facilities; Hugh Kavanagh for site surveys and finished plans; Vera O’ Rahilly, William Mulcahy and Eamon English who worked on the site and the landowners Richard and Siobhan Maher; the specialist contributors.

References

Craig, M. 1982 The architecture of Ireland from earliest times to 1880. B.T. Batsford Ltd. London.
de Breffni, B. 1977 Castles of Ireland. Thames and Hudson. London.
de Breffni, B. and ffolliott, R. 1975 The Houses of Ireland Domestic architecture from the medieval castle to the Edwardian villa. Thames and Hudson. London.
Everard, J. 1907 Everard’s Castle, now Burncourt, near Cahir, Co. Tipperary. Journal Royal Society of Antiquaries of Ireland. 37. 76.
APPENDIX 1

The small finds

Clare McCutcheon*

Introduction
A total of 113 items, some of these multiples such as shards of glass, were recovered on the site. The material was identified visually and a report follows on each of the types i.e. ceramics, glass, clay pipes and metal artefacts.

Medieval and post-medieval pottery
A total of 22 sherds of pottery were recovered from the site, of which just two are medieval. The sherds have been identified visually and the information is presented in Table 1.

Table 1. Pottery and tile from Burncourt Castle (03E1909).

<table>
<thead>
<tr>
<th>Fabric type</th>
<th>Sherds</th>
<th>MNV</th>
<th>MVR</th>
<th>Form</th>
<th>Date</th>
</tr>
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<tr>
<td>Cahir/Cashel-type</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Jug</td>
<td>13th-M14th</td>
</tr>
<tr>
<td>Saintonge green glazed</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Jug</td>
<td>13th-14th</td>
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<tr>
<td><strong>Total medieval</strong></td>
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<td>0</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frechen</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Jug</td>
<td>17th</td>
</tr>
<tr>
<td>North Devon gravel free</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Jug</td>
<td>17th</td>
</tr>
<tr>
<td>North Devon gravel tempered</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Ridge-tile</td>
<td>17th</td>
</tr>
<tr>
<td>Black glazed ware</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>Storage jar</td>
<td>18th/19th</td>
</tr>
<tr>
<td>Glazed red earthenware</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>Pancheon, bowl</td>
<td>18th/19th</td>
</tr>
<tr>
<td>Unglazed red earthenware</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>Flowerpot, storage jar</td>
<td>18th/19th</td>
</tr>
<tr>
<td>Stoneware</td>
<td>6</td>
<td>-</td>
<td>3</td>
<td>Blacking bottle, conserve jar</td>
<td>19th/20th</td>
</tr>
<tr>
<td>Transfer printed ware</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Plate</td>
<td>19th</td>
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<tr>
<td>Mochaware</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Teapot/strainer</td>
<td>19th/20th</td>
</tr>
<tr>
<td>Carrigaline</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>Cup</td>
<td>M20th</td>
</tr>
<tr>
<td><strong>Total late and post-medieval</strong></td>
<td><strong>20</strong></td>
<td><strong>0</strong></td>
<td><strong>14</strong></td>
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<td></td>
</tr>
</tbody>
</table>

* Department of Archaeology, UCC.
Cahir/Cashel-type

The use of the suffix -type indicates that the ware is most probably locally made, although no kiln has yet been recorded (Blake and Davey 1983, 39-40). A possible area of production is at Crokerath, some three miles to the south-east of Cashel, mentioned in 1308-9 as part of the manor of Knockgraffon (White 1932, 147). Nearly thirty miles further east, at Callan, Co. Kilkenny, the name Pottlerath or Rath an Phoitaire may also indicate the presence of a potter. Both suggestions are based on the name of the rath, however, rather than any specific reference to the making of pottery. At the manor of Thurles, Philip, David, William and Agnes Crocker were listed as tenants in 1303 (ibid 79-80) and the name Crocker is a sure indication of pottery production, coming from the old English term for an earthenware potter (Le Patourel 1968, 102). It is possible that there was a very lively pottery production in the south Tipperary/Kilkenny area during the thirteenth and early fourteenth centuries. For this reason the generic term Cahir/Cashel-type has been provisionally assigned to such ware although it may be possible that the pottery was made in one larger urban centre such as Cashel.

The sherd probably represents a jug common to other locally made ware in Ireland in the thirteenth and fourteenth centuries. It is difficult to be certain of the date of production of such pottery but by comparison with similar assemblages, it may date from about the mid-thirteenth century. Glazed pottery was made in Ireland shortly after the arrival of the Normans in 1170, in both Dublin and Kilkenny but in both cases, the early wares were hand-built in a coarse fabric (McCutcheon 2006; forthcoming (a)). This was subsequently replaced by a wheel-thrown ware in a cleaner fabric, very similar to that found at Burncourt.

The ware is wheel-thrown and in an iron rich clay with few visible inclusions. The fabric is not very hard fired and there is a grey core. There are slight traces of glaze on the exterior, but as the sherd is a base, glazing was often discontinued above the base to avoid vessels fusing together in the kiln. The base is thumbed, three marks evident with spaces between each mark.

Saintonge green glazed

Saintonge ware has been found on almost every Anglo-Norman site in Ireland and was imported as a by-product of the extensive wine trade with south-western France throughout the thirteenth and fourteenth centuries (Deroeux et al 1994, 179). The presence of this green glazed ware from near Bordeaux has been seen as being closely linked with the very large quantities of wine exported from the area (Deroeux and Dufourrier 1991). The whiteware jugs were decorated with a lead glaze that contained copper filings, giving the vessels their characteristic mottled effect.

Frechen

The fabric is dark grey salt glazed stoneware. The single sherd recovered shows both the tiger glaze and the characteristic beard of the bartmann or bearded man jugs, so typical of the seventeenth century.

North Devon wares

North Devon wares were produced in the Bideford and Barnstable areas of North Devon from the late fifteenth century. A large-scale export trade to Ireland developed in the mid-seventeenth century and continued, to a lesser extent, in the eighteenth century (Grant 1983). One sherd is the coarser gravel tempered ware, used for the line of ridge-
tiles on many roofs of the seventeenth century. This clay mix was also used for the dairy and kitchen as these vessels were strong and could take considerable use. The second sherd represents the tableware, in gravel free clay, probably a jug.

**Black glazed ware and glazed red earthenware**
These wares were made in North Wales and Lancashire in the seventeenth and eighteenth centuries (Davey 1975) and also in parts of Ireland (Meenan 1997). Along with glazed red earthenwares or ‘brownwares’ these supplied the main dairy and kitchen wares, particularly in eighteenth and nineteenth century Ireland.

The black colour resulted from the addition of iron to the lead glaze applied to the earthenware vessels. The clay in these sherds is streaked with white, indicating an English rather than a local origin. The larger fragment is the handle of a wide-topped storage jar and the glaze is a very shiny metallic black. The pancheon form is a wide rimmed, narrow-based shallow bowl used for mixing, washing and many other general purposes.

**Glass**

*Bottle glass:* A total of 46 shards of bottle glass were recovered. These are primarily from later eighteenth and early nineteenth century wine and beer bottles.

*Window glass:* The majority of the window glass was recovered from a window ledge to the north-west of the main doorway. These fragments were often little more than slivers although marks of lead came were also evident.

*Vessel glass:* A single shard of vessel glass was recovered, the base of a wine or cordial glass.

**Clay pipes**
Seven stem fragments were recovered, one of which was decorated (7:13). This had a repeated lozenge pattern with a central mark, possibly a heart shape. A lozenge mark was noted on a stem from excavations at Christ Church Cork (E146:10751) but it was not possible to identify definite areas of origin for this design (Lane 1997, 234, fig. 99). No pipe bowls were recovered.

**Metal artefacts**
A total of 44 artefacts were recovered all but four of which are of iron. The largest of these is a considerable portion of a firedog, complete with coat of arms. The smaller items include four horseshoes, a staple, a bone handled knife and twenty-five nails and nail fragments. In addition, a steel pin, a copper alloy button and strap fragment and a piece of lead window came were recovered.

**Fireplace furniture**
Three items fall within this group. Two items are relatively modern dating to the early nineteenth century and were found in the modern infill of the cellar. One is the decorative foot (7:5), in the shape of a lion’s paw, from a fender, placed in front of the fire to contain any sparks or any fallen debris. The second item is a mount (7:1) with flower and leaf decoration, complete at one end but evidently part of a larger item. Given that the foot and mount are of similar date and construction, it may be suggested that the mount forms part of the actual fender with a row of such decorative motifs.

The third item is certainly considerably earlier that the other two. It is a cast iron fire-dog (8:1), and was found on the cellar floor below the recent infill. While
incomplete, it is still an impressive 0.83m in height with a maximum spread of 0.35m at
the base. The fire-dog is divided into various zones and consist of decorative scrolled
feet; a shield containing a coat of arms; a lion? head with a ring through the mouth
placed on a pediment base; a second animal face above and partially covered by the
ringed lion; and a finial or flat stop, now missing, which may also have had a further
face or even a date of construction (Plate 8). The fire-dog is not free-standing as the
projecting rivet at the rear, behind the shield, appears to be complete. Normally these
project out to the depth of the fire with two supporting feet to balance at the rear. It may
be suggested that two of these items may have been mounted onto the walls on either
side of the fireplace rather than having acted as fire-dogs. It is also possible that pieces
were inserted into a further supportive construction within the fireplace.

This item is stylistically typical of the late seventeenth or early eighteenth century
(Lindsay 1964, 8). Identification of the coat of arms by the Herald of Arms, however,
indicates the Earl of Shannon, a title created in the mid-eighteenth century.

The artefact is presumably part of a fire-dog which would be a likely thing to be decorated in this manner. The heraldic decoration is not a crest: it is a coat of arms. It does not resemble any coat of Everard nor any coat associated with any of the names mentioned in the notes supplied. The system of differentiating by the use of standard brissures (in this case, a crescent) is an imperfect one whereby two persons living at the same time may be using the same arms. This appears to be the coat of the second son of one of the Earls of Cork (family of Boyle). However, it is almost certainly the coat of one of the Earls of Shannon. The senior member of a cadet branch of the Boyles, the Earl of Shannon, uses these arms in each generation. Is there any known association, either by marriage or ownership of the property, of the family Boyle? (Micheál Ó Comáin, Herald of Arms pers.comm.).

It is most likely therefore that the fire-dog was commissioned for the nearby ‘big house’ and was removed and dumped as excess to requirements in the period of renovation which saw the introduction of the decorative fender, itself later disposed of so close by.

Horseshoes
Four fragments of horseshoes were recovered. The most complete (28:4) appears to be a front shoe and a nail head and rivet hole are clearly visible.

Other iron objects
Three of the other objects are knives of various sorts. The first is a fragmentary blade with a bone handle attached (7:6). The bone has been identified as a goose ulna. A separate piece at the end of the handle is a decorative finial, partially carved in the shape of the threading on a screw. The second piece consists of the fragments of a knife blade (16:2), the rounded end suggesting the shape of a butter knife. The third implement is a single-bladed penknife, complete but corroded, with bone mounts on the knife handle.

Nails
Twenty five nails were recovered and of these ten can be considered to be related to the castle construction or use. These varied in length from 9-78mm and all were rectangular in section. No heads survived. The remaining nails represent post-occupation phases.

Steel artefact
A modern steel dress or sewing pin was found in F8.

Copper alloy artefacts
A copper alloy button appears to be from the Royal Military Police based on the ornate crown above an entwined GR. The button is back stamped with the name of a Dublin buttoner supplier, W and E Jones of Cork Hill. The button is in good condition.

The second copper alloy piece is a partial cylinder shape, broken at both ends and one side. The other side appears to be a finished edge.

Lead artefact
A single strip of grooved lead was recovered. These are also known as ‘came’ or ‘turned lead’ (Noël Hume 1991, 233). The lead strips were cut into various shapes for use in the seventeenth century to glaze windows with diamond, rectangles and square (ibid.). The
small glass panes were known as quarries and are commonly found associated with house of the period. Similar pieces were recovered from a mid-seventeenth century house site at Drumlimmin, Co. Tipperary and parallels are to be found in Huguenot houses in Innishannon, Co. Cork (Cleary 1987, 136). A complete triangular quarry with attached lead came and a number of other pieces of came were recovered from the late seventeenth century burning levels at James Fort, Kinsale, Co. Cork (Quinn 2002, 53, fig.17.1).

Bibliography
Grant, A. 1983 *North Devon pottery: the seventeenth century*. Exeter.

APPENDIX 2

The plant remains

Meriel McClatchie*

Introduction
This report provides the results of analysis carried out on non-wood plant macro-remains from the excavations. Analysis was carried out on 20 deposits, all of which contained charcoal. Thirteen of the examined deposits produced charred non-wood plant macro-remains (Table 1). Small quantities of cultivated plants were recorded, in addition to the remains of plants that are likely to have been growing locally or alongside the cereals. This report will detail the types and locations of plant remains recorded, in addition to interpreting the remains in their wider context.

Methodology
The archaeobotanical material was extracted from each soil sample using a combination of conventional flotation and wet-sieving techniques, with the smallest sieve mesh measuring 0.25mm. The scanning, sorting and subsequent identification of the archaeobotanical material in all samples was carried out using a stereo-microscope, with magnifications ranging from x63 to x50. Each sample was scanned in order to extract the archaeobotanical material, which was then sorted into general groupings on the basis of visual comparison of morphological features. The archaeobotanical material was identified by comparison to reference material in the U.C.C. Archaeology Departmental collection of modern diasporas and the drawings from various seed keys (Anderberg 1994; Beijerinck 1947; Berggren 1969; 1981; Katz et al. 1965). Some of the material was distorted or fragmented and identified to genus level only. The identified taxa are listed in Table 1. Botanical names are listed following the order and nomenclature of Flora Europaea (Tutin et al. 1964-83) and common names follow those provided in New flora of the British Isles (Stace 1991). Seeds, achenes and utricles of plants are referred to as ‘seeds’ throughout the text for convenience (see Table 1 for botanical names). ‘F’ refers to feature number.

Archaeobotanical material present
Phase 1 deposits: F42, F64, F79, F82, F91 and F93
Phase 1 was interpreted as representing activity at Burncourt prior to and during castle construction. Nine deposits dating to Phase 1 were submitted for analysis, six of which produced plant remains (F24, F39 and F65 did not produce non-wood plant macro-remains).

A stake-hole (F93) that was driven into the north side of a pit (F88) (a foundation deposit that also contained the cow burial) and the fill (F39) contained a shell fragment of Corylus avellana L. (hazelnut). Another two stake-holes (F64 and F79) located at sub-floor level may have represented a scaffold structure erected during construction of the castle and the fills of these stake-holes contained a greater range of material. Grains of Avena spp. (oat) were recorded in both F64 and F79. Grains of Triticum spp. (wheat) and wheat/Hordeum spp. (barley) were also present in F79, in addition to a culm (stem)

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fragment from the Gramineae (grass) family. The wheat grains recorded in F79 appear
to be of a free-threshing variety. The identification of wheat species by grain alone is,
however, generally unreliable (Hillman et al. 1996) and well-preserved chaff (such as
spikelet forks and glume bases) is instead a more reliable indicator of wheat varieties.
Such chaff remains were, however, absent from all examined deposits at Burncourt.

A shallow pit (F42) located near these stake-holes contained a grain of *Hordeum
vulgare* L. (barley), hazelnut shell fragments and a seed of *Chenopodium/Atriplex* spp.
(goosefoot/orache). Species of the goosefoot/orache genera can be found growing in a
variety of environments, including disturbed ground around settlements and in arable
fields. Another pit (F91), located at the southern end on sub-floor level adjacent to F88,
produced grains of *Hordeum vulgare* subsp. *vulgare* (six-row hulled barley),
wheat/barley and oat. F91 also contained a grass culm fragment and a seed of *Rumex
spp.* (dock). Docks may have colonised ground around the site and may also have been
located in arable fields, entering the site with the harvested cereals.

A sample taken from a charcoal-flecked mortar deposit (F82) on the south side of the
central block produced further evidence for cultivated crops. F82 contained seeds of
possible *Linum usitatissimum* L. (flax), an oat grain and a dock seed.

**Phase 2 deposits**
One deposit from Phase 2 was submitted for analysis (F36), but was not found to
contain any non-wood plant macro-remains.

**Phase 3 deposits: F8, F11, F16, F19, F31a, F31b and F34**
Phase 3 was interpreted as representing activity at Burncourt post-abandonment of the
castle. Eight deposits dating to Phase 3 were submitted for analysis, seven of which
produced plant remains (F36 did not produce non-wood plant macro-remains).

Several of the examined Phase 3 deposits were associated with the lime kiln. A burnt
layer (F8) associated with the kiln contained two barley grains, one of which was of
hulled barley. A layer (F11) above the lime kiln, which is thought to be associated with
the kiln, produced oat grains, dock seeds and a hazelnut shell fragment. A disturbed
layer (F19) around the lime kiln produced the largest quantity of plant remains from any
of the examined deposits at Burncourt. Grains of oat and hulled barley were recorded in
F19, in addition to a substantial quantity of small grass grains. The grasses seem to be of
two types: the first type was a smaller, narrower grain measuring around 1mm in length,
while the second type was a larger, wider grain, measuring up to 1.5mm in length. The
grasses may have been growing alongside the cereals in arable fields and inadvertently
mixed with the cereals during harvesting activities. Plants that may have been growing
around the site were also present in F19, including seeds of dock, possible *Stellaria
graminea* L. (lesser stitchwort), *Ranunculus* sp. (buttercup) and *Carex* spp. (sedge).
Sedge may have been growing around damper areas of the site or on field margins.

F16 was interpreted as the basal fill of robber trench (F18), and this clay and mortar
deposit contained a single grain fragment of *Cerealia* (indeterminate cereal). The fill
(F34) of another robber trench produced an oat grain fragment, a goosefoot/orache seed
and a seed of *Sambucus nigra* L. (elder). Elder can quickly colonise abandoned ground,
and its presence its post-abandonment deposits is not surprising.

Two deposits (F31a and F31b) from a post-abandonment sod layer contained a wide
range of plant remains. Grains of oat and possible barley were represented, as well as
grass culm and culm node fragments. F31a also included seeds of sedge, dock,
goosefoot/orache, buttercup, *Chrysanthemum segetum* L. (corn marigold) and
*Polygonum/Rumex* sp. (knotgrass/dock), all of which are likely to have been growing locally or on arable ground. Several shrubby plants were represented, including *Rubus* sp. (bramble), *Prunus spinosa* L. (blackthorn) and elder. Bramble, blackthorn and elder will readily colonise waste ground, and conditions around the site after abandonment of the castle would have provided a very suitable environment for such plants. A small number of hazelnut shell fragments were also recorded in F31. Bramble, sloe and elder fruits, as well as hazelnuts, may therefore have been available for consumption to post-abandonment users of the area around the castle.

**DISCUSSION**

*Tracing change at Burncourt*

Archaeobotanical analysis of soil samples from Burncourt has provided evidence for a range of plants. Phase 1 deposits are mainly comprised of cultivated plants, including flax and a variety of cereals. By contrast, Phase 3 deposits contain a smaller variety of cereals and a greater range of weeds. Phase 3 deposits generally appear to be more mixed when compared with Phase 1 deposits. Phase 3 deposits also produced a range of plants that can quickly colonise abandoned ground, including elder, bramble and blackthorn. Such plants were absent from Phase 1 deposits.

It has been suggested that deposits dating to all phases of occupation at Burncourt may have been subject to disturbance. One might expect that such disturbance would result in mixed deposits throughout the site, with similarities in the range of plants being recorded across all phases of occupation. There are, however, clear differences between the plant remains from Phase 1 and Phase 3 deposits. Phase 1 deposits produced mainly cereals with a small number of weed seeds – the type of remains that can regularly be recorded in Irish medieval and post-medieval habitation deposits. Phase 3 deposits were more mixed and also included plants that are likely to have colonised ground after the primary phase of castle occupation had ended. These differences suggest, therefore, that the remains recorded in Phase 1 deposits may have been subject to less disturbance than previously suspected, with a greater degree of disturbance occurring in Phase 3 deposits.

*Arable plants*

Oat was the most regularly-recorded cereal type in Phase 1 and Phase 3 deposits at Burncourt, with wheat occasionally being recorded in Phase 1. Small quantities of barley, sometimes identified to the six-row hulled variety, were also present in Phase 1 and Phase 3 deposits. These cereal varieties recorded can regularly be found in Irish medieval and post-medieval deposits (McClatchie 2003, 398-99; Murphy and Potterton 2005).

In areas outside the Pale and the south-east of the country, numerous social commentators have maintained that oat was the most commonly grown and economically the most important cereal type in Ireland during the medieval and post-medieval periods (Evans 1957, 8; Lucas 1960; Clarke 1991, 173; McClatchie 2003, 398-99). Oat is well suited to the Irish humid, wet climate and will tolerate poorer soils that may have discouraged the cultivation of other cereal types. The dominance of oat in the archaeobotanical record has been displayed at other medieval sites in Tipperary, such as Ballyveeleish (Monk 1987a, 86) and Drumlummin (Monk 1987b, 143). The cultivation of wheat required an increased output of labour and a better quality of soil than other cereals and there seems to be a strong association between the cultivation of wheat, particularly free-threshing wheat and areas connected with Anglo-Norman and
other settlers in medieval Ireland (Monk 1985/6, 34; McClatchie 2003, 398-99). The correlation between wheat and these settlers may have contributed to the cultural significance that came to be associated with wheat. Wheat would have been regarded as a high-status grain and luxury foodstuff that would have produced superior bread. Barley, often of the six-row hulled variety, was also an important cereal in the economies of medieval and post-medieval Ireland. Cereals would have been used in a range of foodstuffs, including breads, ales, porridges, pastes and fodder. Cereal chaff and straw may also have been incorporated into fodder and the straw could have been used utilised in bedding and flooring material, as well as in the construction of baskets, mats, hen-roosts and mud-walls.

Evidence for possible flax was recorded in a Phase 1 deposit at Burncourt, representing a plant that would have been cultivated for cloth production, while its seed may have been retained for propagation or use in oil. Flax seeds have been previously recovered from medieval archaeological deposits in other parts of Munster, including Cork (McClatchie 2003, 399) and Waterford (Tierney and Hannon 1997, 889).

Non-arable plants
A range of other non-arable plants recorded at Burncourt may have been gathered for consumption or other uses. The collection of hazelnuts is more often associated with prehistoric societies in Ireland, but there is regular archaeological evidence for the collection of this nutritious foodstuff in medieval and post-medieval Ireland (for example, Geraghty 1996; Tierney and Hannon 1997; McClatchie 2003). Other locally-available plants may also have been gathered for consumption. A traveller in Ireland in the seventeenth century observed that the Irish ‘gladly eat raw herbs’ (Falkiner 1904, 320). Many of the these plants may not have been important in terms of nutrition, but used in conjunction with other foods, they could have been vital for palatability. The use of species of the dock genus as condiments, for example, was noted in Irish early medieval texts (Sexton 1998, 83). Gerard’s seventeenth-century Herball described how some species of dock could provide a ‘profitable sauce in many meats’ and were ‘pleasant to the taste’ (Gerard 1633, 398).

Cultivated plants, rather than gathered plants, are predominant at Burncourt. It should be remembered, however, that preservation by charring is biased in favour of plants that are more likely to come into contact with fire. Cereal grains, for example, are likely to have been exposed to fire during crop-processing and cooking activities. Such plants are therefore more likely to be represented in charred assemblages when compared with plants that are more often eaten raw or boiled. It is therefore probable that the inhabitants at Burncourt would have made use of an even wider range of plants than that represented in the examined deposits.

Conclusions
Analysis of the archaeobotanical material from Burncourt has provided evidence for a range of cultivated plants. Remains of oat, six-row hulled barley and possible free-threshing wheat were recorded, in addition to flax. A variety of plants that are likely to have been growing alongside the cereals or around the site was also recorded. Clear differences between the plants recorded in the Phase 1 and Phase 3 deposits can be observed. Phase 1 deposits are likely to reflect plants that were introduced to the site during construction of the castle. Phase 3 deposits are more mixed, with evidence for plants that were probably growing around the site post-abandonment of the castle.
<table>
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<th>Total</th>
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<td>cf. barley</td>
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<td></td>
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<td>grass</td>
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<tr>
<td>Gramineae</td>
<td>calym node fragments</td>
<td>grass</td>
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<td>Soil volume processed (litres)</td>
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<td>2.0 4.0 2.0 1.5</td>
<td>2.4</td>
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<tr>
<td></td>
<td>Plant components per litre of soil</td>
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<td>22.7</td>
<td>240</td>
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</table>
References
APPENDIX 3
The Faunal Remains
Margaret McCarthy*

Introduction
Burncourt Castle was built and occupied during the mid-seventeenth century and most of the animal bones recovered during the excavations originate from this period. Lesser quantities of material were recovered from deposits associated with a second phase of activity at the site linked to lime production. Animal bones were also recovered from modern deposits which accumulated following the abandonment of the site. The bone find of greatest interest was the discovery of a complete cow skeleton in a large rectangular pit partially beneath the east wall of the castle.

Condition
The various categories of unidentified material form a comparatively high proportion of the total sample from the site, which is indicative of a slow build up of deposits where bones were exposed to weathering and trampling over long periods. Many of the postcranial fragments were brittle and eroded and there was an abundance of loose teeth in all samples. There was a scattering of charred and calcined bone in many of the Phase 1 samples linked probably to the preparation of food for the occupants of the castle. Extreme calcination of some of the bones may have occurred post-depositionally when the castle was burnt down in 1650. Very little butchery was noted on the bones and this is also attributed to the poor condition of the material.

Methods
The bone material was recorded by individual feature and sorted into identifiable and non-identifiable specimens. Many bones could not be positively identified to species and these were sorted into three higher taxonomic categories. When a specimen could not be assigned to sheep or pig, the category ‘medium-sized mammal’ (MM) was used. In the same way, specimens that could not be positively identified as cattle and may also have belonged to horse or red deer were assigned to the category ‘large-sized mammal’ (LM). All ribs and many skull and vertebra fragments were classified as large and medium mammal remains only. The third group included those specimens that could not be identified to species, element or size category. These bones were counted and butchery marks, traces of burning and carnivore gnawing were recorded. The ageing of domestic animals was established using the epiphysial fusion rates quoted by Silver (1971) for limb bones. The relative frequencies of the animals represented were estimated by the percentage of bones for each species identified and by the minimum number of individuals present.

Phase 1
This primary occupation phase spans a period of nine years from the construction of the castle to its abandonment. The bone material originated from various layers (F9, F42,
F82), pits (F39, F40, F91) and stake-holes (F64, F79, F93) excavated on the ground floor of the castle. In all, a total of 100 bones were recovered and 98 of these came from soil samples processed for the extraction of plant remains (Table 1). Over 68% of the sample represented tiny fragments of burnt bone which could not be taken to species level. The largest quantity of bones and the greatest diversity of species occurred in two pits (F39, F91) and from a possible primary layer (F9) on a windowsill. Three of the stake-holes (F64, F79 and F93) located at sub-floor level yielded a total of five bones, a mouse from F93 being the only identified specimen.

Twenty six bones were diagnostic to species and eight of these represented livestock species. These included the identifiable remains of cattle, sheep and pig. With the exception of a small fragment of a pig skull, all the identified bones were loose teeth, indicating that poor preservation conditions lead to the loss of bone. Four cattle molars were recovered from a pit (F91) and the same feature produced a small fragment of a pig skull. A canine from a boar was found in the fill of a drain (F21) and a shallow pit (F42) also contained a pig tooth. Sheep was represented by a worn molar from an adult

<table>
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</thead>
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</tr>
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<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>S/G*</td>
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<td></td>
</tr>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>2</strong></td>
<td><strong>98</strong></td>
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</table>
individual from a windowsill deposit (F9). Ageing data was minimal but all of the teeth represented mature individuals at least over three years of age. The recovery of these peripheral elements suggests that slaughtering of animals was carried out quite locally.

Although the identified assemblage contained some large bones representing food remains, most of the sample is made up of small rodents, in particular mice, which probably burrowed their way into the primary deposits in recent times. The small mammal bones included sixteen bones of house mouse, *Mus musculus*, which were scattered across five features and represented at least six individuals based on a cumulative MNI (Table 1). The single pygmy shrew, *Sorex minutus*, bone, a left mandible, was found on a window ledge (F9). The frog bone from the same deposit is almost certainly intrusive as this species is not recorded in Ireland until the eighteenth century.

**Cow skeleton**

A large rectangular pit (F88) partially beneath the east wall of the castle contained the articulated remains of an adult cow (Fig. 7). The carcass was divided into two by a clean cut through the midline of the vertebral column and both sides were then placed into the pit. The left hindlimb was articulated from the phalanges to the pelvis and was placed at the western side of the pit. The left forelimb was also complete from the phalanges to the scapula, the latter element being obscured by part of the vertebral column and the rib cage. The right forelimb was placed in the central area of the pit against the east wall where the east side of the pit extended under the masonry. The left forelimb was placed at the northern end of the pit and was also adjacent to the wall. The skull had been placed carefully over the ribs above the right pelvis. A large boulder was placed along the northern edge of the pit resting between the right femur and the left metacarpus.

The teeth were aged with references to modern specimens and to the descriptions in Silver (1971). An estimate of ageing from the state of fusion of the vertebrae and the main limb bones was also undertaken. The epiphyses on the cranial and caudal ends of the entire vertebral body were fused. All fusion was complete and enduring on the vertebral epiphyses, but the fusion line could be seen. All forelimbs and hindlimbs were fully fused and there was no trace of fusion lines. The estimated age at death is 4.5-5 years or older. The original size of the animal was calculated from the measurement of whole bones (Matolsci 1970) and these gave an average wither’s height of 1.35m. This measurement falls well within the range of sizes obtained for post-medieval sites in Cork (McCarthy 1988).

Examination of the bones indicated that some of the meat had been stripped from the carcass before it was placed in the base of the pit. There was evidence for superficial knife marks on some of the ribs and on the skull fragments. The skull was detached from the carcass following a sharp blow through the foramen magnum and corresponding chop marks were noted on the cranial aspect of the atlas. The only other chop mark observed on the skeleton was that caused during the medial division of the carcass into two sides. There was no evidence for chopping or breaking of the bones either for the eating of flesh or the extraction of marrow.

**Phase 2**

This phase of activity is associated with the construction of a lime kiln in the eighteenth/nineteenth century within the ruins of the castle. Four features produced faunal material and all of the identifiable specimens came from F8, a deposit of fire-
Table 2. Phase 2 - Species identifications.

<table>
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<td>18</td>
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reddened clay associated with the use of the lime kiln. The identified sample included a mixture of animal, bird and fish bone. Livestock remains included a handful of bones each from sheep and pig. The two pig bones were from the lower leg and suggested the consumption of pigs' trotters by the operators of the lime kiln. Sheep was represented by a single thoracic vertebra and there was no evidence for cattle. Despite the limited number of bones, the Phase 2 samples provided evidence for the transport of marine fish from the coast and also for the consumption of domestic poultry within the castle walls in the eighteenth/nineteenth century. A complete fish vertebra was identified as a member of the gadoid family, probably whiting. The specimen was from a relatively small individual, less than 20cm in length. The domestic fowl bones include the midshaft portion of an ulna and an almost complete scapula.

Phase 3: Modern activity
The final phase at Burncourt Castle was modern activity at the site after the lime kiln went out of use. Six features produced animal bones, four of which were post-abandonment layers which accumulated naturally on the surface. The two other faunal samples were recovered from robber trenches. A total of 103 bones were presented for analysis of which 34 were taken to species level. Most common amongst these were the remains of mice which accounted for 53% of the identified assemblage.

A modern layer (F28) contained a wide range of species including cattle, sheep and pig bones as well as bones from domestic fowl and duck. Evidence for the consumption of pigs' trotters was again found through the recovery of pig foot bones from the sod layer, F31 and three pig teeth were present in F34, the fill of a robber trench. Single finds of domestic fowl bones were made in F28, F31 and F34 and there were three domestic duck bones from F28. Wild species of bird included a crow humerus, which is probably a natural occurrence. There were also single bones from hare and rat, species absent from the two earlier phases.
Table 3. Phase 3 – Species identifications.

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Discussion

Little economic information can be derived from this faunal assemblage as it is dominated by the remains of non-food animals, in particular small rodents. Little can be said about the food debris other than that meat acquisition seems to have relied mostly on domestic cattle, sheep and pig. Domestic fowl and duck were present in the two later phases of activity and the Phase 2 sample is noteworthy for the presence of the only fish bone in the assemblage. Wild game and fowl may have been expected but the recovery of a single hare bone from Phase 3 represented the only non-domestic land based resource at the site.

The bone find of greatest significance is the complete cow skeleton recovered from a large rectangular pit stratified beneath the east wall of the castle. The carcass had been halved and the skull detached from the trunk by means of a sharp blow to the foramen
magnum. The skull was deliberately placed over the right rib cage prior to the pit being backfilled. It is difficult to interpret the careful placement of an articulated cow skeleton into this pit as anything other than a foundation deposit associated with the construction of the building. The custom of placing sacrifices, both animal and human, into the foundations and walls of buildings is documented all over the world from the Iron Age to the seventeenth and eighteenth centuries (Merrifield 1987). Human victims are more frequently found on earlier sites where their bodies were interred under the foundations of temples and houses in the belief that such a sacrifice should take place to placate the earth and water gods (Wilson 1999). The transition from human to animal sacrifice came about in the historic period and there is abundant evidence to show that the burial of animals and birds in foundation trenches or the insertion of animals into the walls of buildings was carried out in many countries up to the nineteenth century (Hartland 1937). Merrifield (ibid.) suggests that when open hearths were replaced by smaller fireplaces in the seventeenth century, the opportunity was often taken to enclose a protective deposit in the new structure. Horse bones and skulls have been found in the brickwork of old houses in Cambridgeshire, often in the chimney-breast, the intention being to protect the house from fire. At Lauderdale House, a Tudor mansion in London, a somewhat bizarre sacrificial deposit was found in a bricked up recess (Merrifield 1987). This consisted of the desiccated remains of four chickens, two of which had been strangled while the others may have been buried alive as an egg appeared to have been laid following their enclosure. The recess also contained a candlestick, a glass goblet and two odd shoes. The concealment of cats in the walls and floors of buildings is more common and has been well documented in Britain and Scandinavia (Howard 1951). Over twenty five dried cats have been recorded in Britain and they mostly derive from domestic buildings dating to the medieval and post-medieval periods (Merrifield 1987). A cat with a rat in its mouth was discovered beneath the woodwork of a sixteenth century house in Tewkesbury (Howard 1951). In Ireland, the desiccated remains of a cat were found concealed in the internal wall of Ennis Friary while restoration works were being carried out by the OPW (Sheehan 1990). The dismantling of the post-medieval and early modern additions to the original fabric of the nave of the friary church led to the exposure of a number of blocked arched recesses in the internal north wall. The cat had been placed into the recess prior to it being sealed in the seventeenth century.

The practice of burying horse and cow skulls under the floorboards of houses is well documented for this country and is usually linked to attempts at improving the acoustics in houses which were frequented by musicians (Ó Súilleabháin 1945, Gailey 1984, Wiliam 2000). People congregated in these homes for dancing and the positioning of hollow horse skulls beneath the floorboards is believed to have enhanced the sound effects. In Co. Kerry, the skull of a horse was placed beneath a level flagstone in front of the fire, the purpose being to create an echo in the room that was deemed not only to improve the quality of the dancing but also to increase the volume of the music being played (Ó Súilleabháin 1945). The placement of a horse skull under floorboards close to the fireplace in an eighteenth century house in Golden, Co. Tipperary may also have improved the acoustic qualities of the room (McCarthy, 1995). Sandklev (1949) cites the Scandinavian evidence where horse skulls were buried under threshing floors to enhance the echo and create the impression that a larger amount of corn had been produced than was actually the case. There are many examples of horse skull burials in the Iron Age in Britain and Willian (2000) argues that the continued practice into early modern times should be seen within the wider tradition of early ritual deposition. It is
recorded in many parts of Ireland, that horse and cow skulls were buried under the foundations of houses to ward away evil spirits and bring good luck to the home (Ó Súilleabháin 1945). A record for Co. Leitrim states that the head of the first cow that died after a new house was built was cut off and buried under the threshold stone at the kitchen door. The popular explanation for the burial of horse skulls within the living rooms of vernacular houses is disputed by Ó Súilleabháin (ibid.) who argues that the original reason for carrying out the practice has been forgotten and replaced with the more acceptable acoustic motif.

In other instances, coins were substituted for animals as foundation deposits and most of these had a cross incised on one side before being placed into the trench. Ó Súilleabháin (1945) records that a gold half sovereign was buried under each of the four corner stones of a house that was built in Ballyourney, Co. Cork in the early twentieth century. In the case of Burncourt Castle, a complete cow was placed in the foundation of the east wall, perhaps in the belief that it would strengthen the structure and render it capable of withstanding assault by attackers.

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