

1. Introduction

1.1 Synopsis

Medieval town walls have often been suggested to be a sign of the wealth of a town's inhabitants and have been seen as important indicators of urban identity as they provide spatial definition of the tenurial agreements which create burgage plots and burgesses (O'Keeffe 1999, 9). This dissertation will test this theory by examining the faunal assemblage reports from two contemporary high medieval sites in Kilkenny, the site of No 1 Irishtown inside the town walls in the medieval borough of Irishtown and the site of Highhays potter's yard which is outside the walls. Through studying the faunal reports and historic sources this dissertation aims to see if burgesses and non burgesses expressed their different identities by utilising different animals in different ways. The dissertation will also study the faunal reports to try to discover if there is any truth in the view that a burgess really lived a better lifestyle than a non burgess (O'Keeffe 1999, 9; Pirenne 2006, 56).

1.2 Burgesses and Boroughs

In the medieval period a burgess was an inhabitant of a borough and an individual with a special legal status and privileges which were enshrined in a borough charter. A borough charter provided legal protection to burgesses as within the bounds of the borough they could only be tried by a court of their fellow burgesses, the hundred as opposed to a local lord. The only outside power that could negate this immunity was the king's jurisdiction. A charter also provided economic protection for burgesses as they were exempt from tolls at city gates, had free access to a borough's market and were allowed to form merchant guilds (MacNiocaill 1985, 375-376). Other privileges were also often granted in Hightown, Kilkenny for example the lord granted the burgesses the right to use his mills and the right to have common use of his forest (Otway-Ruthven 1961, 7). There was also usually an area of commonage on the outskirts of a borough which burgesses could use to grow crops or as pasture for their animals (Steane 1985, 157). This special legal status and privileges were ensured as long as the burgess paid the fixed yearly rent for a burgage plot. The burgage plot was a narrow strip of land located in a borough and aligned to a street. Each plot usually had a shop fronting on to the street, a house where the burgess lived and a space behind the house for a garden or for keeping animals. Burgage plots

could also be passed onto the heirs of a burgess or they could be disposed of freely (MacNiocaill 1985, 375-376). In Hightown, Kilkenny burgesses were also allowed to rent 20 feet of their burgage plot to free tenants. The Hightown charter also gave free tenants the same “common liberty” as burgesses which meant they had similar privileges to burgesses but could not vote or be elected to the borough’s council (Otway-Ruthven 1961, 7; Bradley 2000b, 17).

Those that were not a burgess or free tenant were usually of a far lower legal status and received little or no legal or economic protection. These non burgesses consisted of farmers, gavillers, cottiers and betaghs. All these individuals had to pay tolls when entering a town’s gate and had to pay to access a borough’s market. They were also obliged to provide labour to their lord and answered to his court in legal matters. Betaghs had the lowest legal status of non burgesses and were the Irish equivalent of villeins as they were tied to the land. They did not have to pay rent like other non burgesses but were obliged to provide labour for the lord at any time. They also had to pay to enjoy extra privileges such as using a hand mill unlike burgesses who often enjoyed free use of the lord’s mill (Otway-Ruthven 1980, 110-112).

1.3 Anglo-Normans and Gaelic Irish

In 1066 a Norman army led by William, Duke of Normandy defeated an Anglo-Saxon army at the Battle of Hastings making William King of England and leading to the Normans settling in England. The descendants of these Norman settlers in England then became known as Anglo-Normans (O’Keeffe 2000, 11). In 1169 the King of Leinster, Dermot MacMurrough invited an Anglo-Norman army led by Richard Fitz Gilbert De Clare to Ireland to restore his throne. The successes of the Anglo-Norman army allowed Strongbow to create the Anglo-Norman Lordship of Leister and many other Anglo-Norman lords also created lordships in the east of Ireland. The Anglo-Norman presence also expanded into the west into Connaught and Munster which weakened or destroyed many indigenous Gaelic Irish kingdoms. These Anglo-Norman lands eventually came under the authority of the English Crown in the 1170s when Henry II forced the Anglo-Norman lords to swear fealty to him (O’Keeffe 2000, 12-13). The interaction of the Gaelic Irish and Anglo-Normans was a complex process which changed both parties. This can be clearly seen in the Statute of Kilkenny in 1366 which forbid Anglo-Normans to adopt the Gaelic Irish language or customs (Bradley 2000a, 5).

1.4 A Brief History of Medieval Kilkenny

During the medieval period Kilkenny was both the largest and the most important inland settlement in the southeast of Ireland (Fig 1) (Bradley 2000a, 1). The town's origins lie in a pre-Norman monastic enclosure which is located at the present site of Canice's Cathedral. The evidence for this origin is quite apparent in the Irish name for Kilkenny, Cill Chainnigh which means Canice's Church. The 12th century tower located beside Canice's Cathedral belonged to this pre-Norman church and evidence for the enclosure around the church is provided by the curving alignment of Thomas Street, Dean Street, St Canice's Place and Vicar Street. Evidence for occupation outside the monastic enclosure is suggested by the discovery of occupational material to the south of the enclosure (Bradley 2000a, 1).

In 1169 the Anglo-Normans arrived in Kilkenny and by 1173 Strongbow had established a castle in Kilkenny which is located on the site of the later Kilkenny castle (Bradley 2000a, 2). There is also evidence for Anglo-Norman settlement in the area as there is a record of a burgess settling in the area near the castle in 1176 (Pembroke Estate Office 1891, 11). This Anglo-Norman settlement would go on to become known as Hightown or Englishtown. In 1207 William Marshall granted the town a borough charter which confirmed the rights and privileges that had been granted by De Clare's seneschal Geoffrey Fitz Robert to the occupants of each burgage plot (Otway-Ruthven 1961, 5-6). Hightown also had its own market which was located on High Street. It has been estimated that by 1307 Hightown had around 236 burgesses based on the total rent taken for the town in that year (Bradley 2000a, 2).

Hightown was also protected by town walls which were probably begun around c1250 when the town received its first murage grant which allowed the town to introduce taxes on goods to pay for the walls. It has been suggested that the walls were completed by the mid 14th century (Bradley 1975, 93). Between 1250 and 1440, 11 murage grants are recorded which reflect the construction and maintenance of the walls (Bradley 1975, 89-92). The walls were also attached to Kilkenny castle which had been constructed in the early 13th century by William Marshall (Bradley 2000a, 2).

The Anglo-Norman settlement also expanded onto the east bank of the river Nore to form the suburb of St John's which was administered from Hightown. St John's draws its name from

St John's Priory which was located in the suburb. It is estimated that St John's had 94 burgesses based on its total rent in 1307 (Bradley 2000a, 4). St John's wall is often suggested to be post medieval as the first historical mention of it being walled is by Cromwell in the 17th century (Bradley 1975, 98). Although recent excavations on Maudlin Street in St John's challenge this as a dry fosse dated to the 13th century was uncovered and it has been suggested that a medieval wall also existed but its stone was robbed (Stevens 2006, 56).

After the establishment of Hightown and St John's the older settlement based around St Canice's became known as Irishtown. Despite the name Irishtown, the Anglo-Normans were also involved with Irishtown with the Anglo-Norman Bishop Hugh de Rous replacing the original Canice's Church in Irishtown with a gothic cathedral in the early 13th century. Irishtown also had its own market and had its own borough charter although there is no date for when it received its charter. The Bishop of Ossory was the main authority in Irishtown and was likely the source of its borough charter. It has been suggested that the occupants of Irishtown may have been burgesses before 1169 and that the first Anglo-Norman burgess recorded in Kilkenny in 1176 may have even settled in Irishtown (Bradley 2000a, 2-4). Irishtown was also protected by its own set of walls and was separated from Hightown by a gate, the Watergate. The first mention of a murage grant for the town is 1377 and it has been theorised that the wall was probably finished at the beginning of the 15th century (Bradley 1975, 96-97).



Figure 1: Location of Kilkenny (Ó Drisceoil and Devine *Forthcoming a*, 159)

2. Methodology

2.1 Methods

First, the excavation reports from both sites were consulted to establish important background information on the domestic and/or industrial activities on each site and their chronologies. This was achieved through looking at the excavation reports and their interpretations on finds and structures from both sites. These reports and their interpretations were also used along with historical sources to try to work out the probable legal status and ethnicity of those that inhabited each site.

Secondly, the faunal reports and excavation reports from both sites were studied to discover what sort of contexts contained the faunal remains to assess whether the remains were likely associated with the activities on the site or else accidentally brought to the site. The reports were also examined to see if post depositional taphonomic processes on either site might affect the assemblages. The methods of retrieval and analysis listed in the reports were also examined to assess whether they were liable to produce any biases or errors during comparison.

The information in the faunal reports from both sites was then compared in relation to the range of species and to the quantities, ages, sexes, pathologies present, anatomical distribution, butchery marks and marks from working for each species when possible. The results of each comparison were then discussed and when applicable compared to primary historical sources like the *Liber Primus*, *Calendar of Documents*, the *Calender of Ormond Deeds* and *Corporation Book of the Irishtown of Kilkenny* (Otway-Ruthven 1961; Sweetman 1875-1886; Curtis 1932 and Ainsworth 1978). These documents were first consulted to see if any of the patterns in the faunal assemblages allude to the privileges or rights enjoyed by a burgess or to the obligations that a non burgess owed to their lord. The documents were also consulted to study food prices to examine which site ate more expensive food to discuss the probably social status of each site's inhabitants. The interpretations from other contemporary medieval sites with similar faunal assemblages were also used to help interpret patterns in the two assemblages.

2.2 Scope of the Study

One of the first constraints of this study is that the sample size is rather small at just two sites. This allows the study to be more focused but it could be argued that the patterns at both sites could be due to taphonomic biases or choice as much as social status or legal status. Therefore the study can only provide tentative findings which need to be tested by increasing the sample size in another study.

Another constraint is that it is sometimes hard to determine whether bones represent long term consumption patterns or individual meals. It is also important to realise that No 1 Irishtown also had a longer period of medieval use than Highways which may have a bearing on results.

In terms of historic documents there are also challenges, the Irishtown charter and many of its medieval records do not survive so some interpretations are based on the assumption that it was similar to the neighbouring borough of Hightown whose borough charter and records survive in the *Liber Primus* (Otway-Ruthven 1961). Although the murage grants from Hightown that are recorded in the *Calender of Documents* are also applicable to Irishtown as these taxes would also have been collected at the Watergate which separated Hightown from Irishtown (Sweetman 1875-1886).

Other interpretations draw on the *Corporation Book of the Irishtown of Kilkenny* from the early 16th century, which records prices for meat and laws on animals in the borough of Irishtown (Ainsworth 1978). Although the book can only be used as a rough guide as its records are 200 years later than the sites in this study. The *Calender of Ormonde Deeds* provides a list of purchases made by the Earl of Ormond and their prices in the late 14th century. These are useful documents as they give some prices from the period and show what individuals of high status consumed but the purchases only represent four days so it could be argued that they may not be a proper representation of prices or the earl's eating habits. Although the fact that some of the purchases come from different months with half of them from September and the other half from November may suggest that the purchases can indeed be used as an accurate representation of prices and the eating habits of a high status individual (Curtis 1932, 347-349).

3. Overview of No 1 Irishtown

No 1 Irishtown was excavated from 2002-2003 as part of the River Nore Drainage scheme. The site is located 300m east of the river Breagagh, 150 m from St Canice's Cathedral and 120m to the west of St. Francis' Abbey (Fig 2) (Doyle 2004, 1).

3.1 Structures and Features

The site consists of four phases of medieval activity which date from the 12th-14th century (Doyle 2004, 18). Phase 1 consisted of a wooden riverside barrier and the remains of a building, Structure A. Structure A was only partly exposed but it consisted of a series of floor surfaces, a possible roof support socket and had post and wattle walls. Structure A was probably a dwelling as it resembles Type 1 houses in Anglo-Norman Waterford and Dublin. Phase 1 is dated to the late 12th century based on the lack of pottery (Doyle 2004, 18, 67-68).

Phase 2 consisted of a post and wattle riverside fence, a masonry riverside wall, a revetment baseplate and a possible building known as Structure B. Structure B consisted of a series of floor deposits and fibrous deposit which is suggested to represent drips coming off a thatched sill beam structure. Structure B is also probably a dwelling as it resembles the sill beam houses uncovered in Anglo-Norman Dublin. The phase is dated to the late 12th/early 13th century based on the late 12th century dendrochronological date provided by the revetment and to the early 13th century based on the occurrence of Kilkenny-type pottery in Structure B and in the core of the riverside wall (Doyle 2004, 18, 23-27, 69).

Phase 3 consisted of riverside fences, a cess pit and more floor deposits and cuts in Structure B. The riverside fences constructed in this phase were part of land reclamation that extended the plot. This phase has been dated to the early/mid 13th century based on glazed pottery associated with the fence and on radiocarbon dates from the fences (Doyle 2004, 30-40, 76).

Phase 4 consisted of gravel deposits, a series of linear cuts and a fence. The gravel deposits are suggested to represent reclamation as they built up the area and the fence represents a new property boundary that subdivided the entire plot. The cuts only occurred to the north of the fence which shows their creation was associated with a particular property. The phase has

been dated to the 13th-14th century based on pottery sherds from the gravel deposits (Doyle 2004, 41-46).

3.2 Finds

No 1 Irishtown produced 647 sherds of pottery such as Ham Green B, Miscellaneous French Ware, Leinster Cooking Ware and Kilkenny-type ware which range in dates from the late 12th to mid-late 13th century. The majority of the sherds were locally produced with Kilkenny-type accounting for 75% of the sherds (McCutcheon 2004, 87-91). The Site also produced a number of medieval metal artefacts including two brass pins which were dated to the 13th-14th century and a stick pin dated to the 13th century (Herring 2004a, 128-131).

In terms of organic finds remains of leather shoes from the 13th/14th century were uncovered (Herring 2004b, 141). Plant remains such as seeds and cereal grains were also recovered from a cess pit deposit. Analysis of these plant remains indicated that farmed cereals such as wheat, barley and oats were consumed as well as wild fruits (Johnston 2004, 20).

3.3 Legal Status of the Site

The presence of riverside revetments and walls are suggested to define the back of a plot and a fence in phase 4 is suggested to represent a property boundary dividing up the plot (Doyle 2004, 71). As Irishtown No 1 is located in the medieval borough of Irishtown it would seem likely that the plot was a burgage plot. The legal status of the inhabitants would then likely be burgesses. Although the subdivision of the plot in phase 4 could perhaps indicate the presence of free tenants as burgesses in the neighbouring borough of Hightown were allowed to subdivide their plot and rent 20 feet of it to free tenants (Otway-Ruthven 1961, 7). Free tenants also had same privileges and protection as burgesses in Hightown except they could not vote so even if the subdivision in phase 4 represents the presence of free tenants this should not greatly impact the results.

The ethnicity of the site's occupants is problematic as the name Irishtown would seem to imply Gaelic Irish inhabitants but the finds and structures suggest the opposite. Structure A is very similar to Type 1 houses in Anglo-Norman Waterford and Dublin as they are also post and wattle structures with a similar length (Doyle 2004, 67). Structure B in phase 2 is suggested to be

a sill beam structure and finds its closest parallels in the Anglo-Norman centres of Dublin, Waterford and Cork (Doyle 2004, 69-71). A baseplate revetment from phase 2 also appears to have parallels in Anglo-Norman centres such as Dublin (Doyle 2004, 75). The pottery finds seem to further suggest Anglo-Norman occupants as Kilkenny-type wares have been found in the neighbouring Anglo-Norman borough of Hightown and other pottery such as Ham Green B has its origins in Anglo-Norman England (McCutcheon 2004, 89-91).

3.4 Context of the Faunal Remains and Taphonomy

The faunal remains from No 1 Irishtown came from 38 features on the site spanning the medieval phases from the 12th -14th century (Geber 2004, 24). The bone came from a variety of contexts most of which were likely associated with activity on site such as from the deposit in a drain near structure A, from a deposit in a drip gully associated with structure B, from a refuse deposit at the back of the plot and from pits and linear features in the plot. Although some bone also came from gravel deposits that were used for land reclamation and may have been transported to the site in the gravel (Doyle 2004, 19, 24, 26-27, 41, 45). The only post depositional process that is recorded to have damaged the bones in the faunal report is gnawing by animals. Gnaw marks were present on 1.9% of the cattle, sheep/goat and pig bones and this low percentage may suggest rubbish was buried quickly (Geber 2004, 25, 27, 28, 30-32).

3.5 Retrieval of the Faunal Remains

The faunal remains from the site were recovered by hand and not sieving (Geber 2004, 32). This is a problem as studies have shown that hand retrieval is more likely to miss the bones of smaller species and is therefore biased toward larger species (O'Connor 2003, 103).

3.6 Analysis of the Faunal Remains

The species of animals present at No 1 Irishtown were mostly identified using reference books and the osteological collection at the Natural History Museum in Dublin was consulted. The remains were quantified in two ways NISP and MNI (Geber 2004, 24). NISP stands for the Number of Identifiable SPecimens which means the number of identifiable bone fragments. MNI stands for the Minimum Number of Individuals which is based on a count of a particular skeletal element. NISP is generally better than MNI as MNI is usually not statistically significant or

suitable for urban sites as whole animals rarely occur. Although NISP can cause over representation if differential fragmentation occurs (O'Connor 2003, 133-134, 138).

Aging of animals was carried out at the site using epiphyseal closure using Habermehl (1975). Dental attrition was also used to estimate age using Grant (1982) and Vretemark (1997) (Geber 2004, 24). Although it is important to recognise that these methods can be influenced by environmental factors and can also vary between individual animals (O'Connor 2003, 165, 170).

Cattle were sexed by their pelvises and by measurements of horn cores bases using Ekman (1973). Sheep/goats were sexed by their pelvises and pigs by their canines (Geber 2004, 26-29, 31).

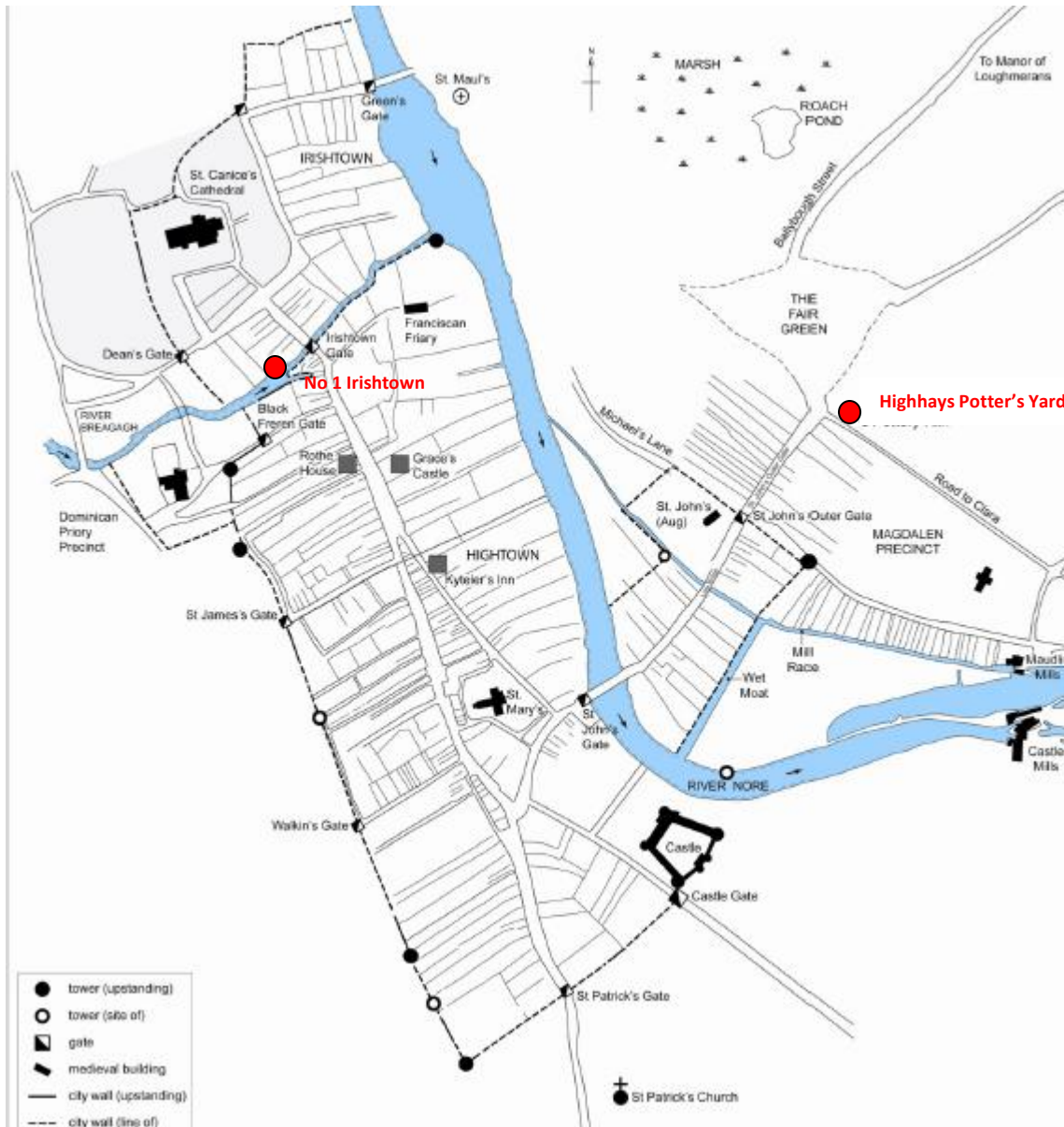


Figure 2: Map Showing the Locations of No 1 Irishtown and Highways Potter's Yard in Medieval Kilkenny (After Ó Drisceoil and Devine *Forthcoming a*, 161)

4. Overview of Highhays

Highhays was excavated in 2007 due to the development of a shopping centre. The site is located 200m outside the town wall of St John's and adjacent to St John's Green which was the site of the main medieval market place for the town (Fig 2) (Ó Drisceoil and Devine *Forthcoming a*, 1). The site's name is derived from the Highhays Townland which draws its name from an area of commonage and meadows that is recorded to have been in the area in the late medieval and post medieval period (Ó Drisceoil and Devine *Forthcoming a*, 16).

4.1 Structures and Features

The site consisted of two areas of medieval activity a baker's yard and a potter's yard. The potter's yard is the only part of the site that will be examined in this study. The potter's yard consists of a pottery kiln, three structures A, B, C, a drying kiln and numerous pits (Ó Drisceoil and Devine *Forthcoming a*, 19). The pottery kiln was a type 2c kiln and is the first discovery of a medieval pottery kiln in Kilkenny (Doyle *Forthcoming*, 86). Structure A is a timber framed building on a stone footing with a width: length ratio of 1:2. This method of construction and ratio resembles houses in Anglo-Norman towns in Ireland. Although the fact that the structure has an open sided east wall has led to the interpretation that it is a workshop/drying area like a similar structure at a potter's yard in Lyveden, England. Structure B consisted of the remains of a wall and is suggested to represent a clay store as clay deposits were found inside it and it is a similar size to clay stores at Lyveden. Structure C consisted of timber slots and footings. It has been suggested that it may be another workshop but there is no definite evidence (Ó Drisceoil and Devine *Forthcoming a*, 21-23).

It is unclear whether the potter lived on the site, there is domestic refuse but no dwelling has been uncovered unless we interpret Structure A as a house and it has also been suggested that potters did not usually live on kiln sites as it was too dangerous. It is also possible that the site may have extended further to the south and that more structures could potentially exist there. (Ó Drisceoil and Devine *Forthcoming a*, 47-48). The numerous pits on the site had many uses such as deposition of refuse, cesspits and water holes. The creation of these pits is also suggested to represent the extraction of sand and gravel for temper. A series of ditches were also uncovered

which may represent drainage ditches, boundaries or fire breaks but the fact that they truncate Structures B and C would suggest they represent a later phase of activity (Ó Drisceoil and Devine *Forthcoming a*, 31-33). The potter's yard is dated to the 14th century based on archaeomagnetic dating of the pottery kiln which indicate the kiln was last fired between 1325-1375 providing a probable terminus post quem for the site and a probable 14th century date for the potter's yard as kilns were usually only used for a decade (Ó Drisceoil and Devine *Forthcoming a*, 37).

4.2 Finds

The site produced 8,000 sherds of pottery which are currently being analysed (Ó Drisceoil and Devine *Forthcoming a*, 48). The site produced a number of metallic finds such as three copper alloy broaches, a copper alloy girdle decoration, a finger ring, a earscoop, knife blades, a jew's harp and horse shoe fragments (Scully *Forthcoming*, 110-113).

In terms of organic remains the site produced a number of plant remains. Analysis of the remains suggested that most plant remains came from wheat, followed by oat and legumes (Dillon *Forthcoming*, 133).

4.3 Legal Status of the Site

If the potter lived at Highhays, the potter would likely not be a burgess or free tenant. This would be suggested by the fact the site is outside of any known borough in the area and was located in an area that was probably commonage and also lacks any property boundaries that are contemporary with the pottery production phase on the site (Ó Drisceoil and Devine *Forthcoming a*, 33). The lack of property boundaries are of obvious importance as they define burgage plots which help define the legal status of a burgess. The fact that the site is a pottery site could also suggest something of the legal status of its inhabitants as potters did not form guilds like burgesses. Potters have also been suggested to be of the same or similar legal status to peasants or villeins in England as documents from most towns indicate that they paid the same poll tax as peasants and not the higher tax associated with craftsmen (Le Patourel 1968, 103). It has been suggested that potters were also of a low status in Ireland as they rarely appear in historic sources and they are also not mentioned very often in the historic documents from

Kilkenny (McCutcheon 2006, 19). This would mean the potter at Highhays was clearly not a burgess and was probably a betagh which is the Irish equivalent of a villein or peasant.

The ethnicity of the potter who operated at the site would seem likely to be Anglo-Norman as type 2c kilns have only been found at Anglo-Norman centres in Ireland and Britain (Doyle *Forthcoming*, 84-86). Anglo-Norman ethnicity would seem to be further suggested by Structure A which was timber framed and had a width: length of ratio of 1:2 which is similar to houses in Anglo-Norman towns. The structure also resembles the possible timber framed house from phase 2 of No 1 Irishtown, Structure B which may suggest a similar ethnicity at both sites (Ó Drisceoil and Devine *Forthcoming a*, 22; Doyle 2004, 70). Although it might seem unusual for a recent settler to be of such a low legal status it was not unheard of and there were betaghs with Anglo-Norman names recorded at the manor of Lisronagh, Tipperary (Curtis 1936, 61).

4.4 Context of the Faunal Remains and Taphonomy

The faunal remains at Highhays were recovered from over 100 medieval contexts from the 14th century. Once more like No 1 Irishtown some bones were more than likely associated with activities on the site like the bones in the occupational deposit in structure A and the bones in the fill of latrines on the site and in pits which also contained waste or materials associated with pottery production. On the other hand some of the bones are from silted deposits in pits which could suggest they were not purposely deposited as refuse so could have been transported by water and therefore may or may not relate to activities at Highhays (Ó Drisceoil, C and Devine, E. *Forthcoming b*, 1-14). The only post depositional process that is recorded to have damaged the bones in the faunal report is gnawing by animals. Gnaw marks were recorded on 11% of the cattle, sheep/goat and pig bones and this high percentage may suggest that rubbish was not buried quickly (Svensson *Forthcoming a*, 137-138).

4.5 Retrieval of the Faunal Remains

The faunal remains from the Highhays were also recovered by hand like at No 1 Irishtown. Therefore the assemblages from both sites would be biased toward larger species (O'Connor 2003, 103).

4.6 Analysis of the Faunal Remains

The species of animals present at Highhays were identified without the use of a reference collection and instead used written sources and pictures which make it more difficult to identify the bones (Svensson *Forthcoming a*, 135). The remains were quantified using NISP and MNI like at No 1 Irishtown. It therefore also has the same benefits and problems associated with these quantification methods (O'Connor 2003, 133-134, 138). In contrast to No 1 Irishtown, Highhays also used MNE, the Minimum Number of Elements although when it could be calculated it produced results similar to NISP (Svensson *Forthcoming a*, 135, 140, 143).

Aging of animals was done when possible by epiphyseal closure using Silver (1969) as opposed to Habermehl (1975) which was used at No 1 Irishtown. Dental attrition was also used to estimate age using Grant (1982) and Vretemark (1997) like No 1 Irishtown (Svensson *Forthcoming a*, 135-136; Geber 2004, 24).

Cattle were sexed in a different way to No 1 Irishtown, using metric measurements of their metacarpal widths based on McCormick and Murphy (1997). Goats were also sexed in a different way to No 1 Irishtown by their basal horn core circumferences based on Pollock (1996) (Svensson *Forthcoming a*, 136). Pigs were sexed using their canine which was the same method as in No 1 Irishtown (Svensson *Forthcoming a*, 144).

5. Results

5.1 Range of Species Present

There were many similarities in the range of species at No 1 Irishtown and Highhays with cattle, sheep/goat, pig, horse, dog, cat, hare/rabbit, domestic fowl, domestic goose and fish being represented at both sites (Table 1). The presence of cattle and sheep bones at both sites suggests both site had contact with their hinterland as cattle and sheep require pasture (Butler 1989, 106). Horses also usually require pasture but can be kept in town if they are supplied with fodder like those kept at Kilkenny castle (Curtis 1932, 348). Goat, pig, domestic fowl, domestic goose, dog and cat can also be kept in towns.

The bone in the hare/rabbit category from No 1 Irishtown is of interest as it could be identified as a rabbit while the bones from Highhays unfortunately could not be identified beyond either hare or rabbit (Geber 2004, 32; Svensson *Forthcoming a*, 145). The presence of rabbit at No 1 Irishtown is of note as unlike hares, rabbits are not native to Ireland and are generally believed to have been introduced by the Anglo-Normans as the first historic reference to rabbits is in 1185 (Sweetman 1875-1886a, 89). Rabbits were also managed in warrens which were often found on or near the estates of high status individuals like the Archbishop of Dublin who is recorded as having a warren on Lambay Island in 1326 which produced an income of 100s a year (McNeil 1950, 30). The nearest recorded warren to Kilkenny is at Castlemore, Carlow which was recorded as in operation in 1286 (Murphy and O'Connor 2006, 57). The fact that rabbit is not native could suggest it was seen as a luxury and perhaps a mark of status as they were imported and managed by elites. Although murage grants from 1282, 1283, 1291 and 1306 suggest that rabbits and hares were viewed as being of a similar values in regards to their pelts as 100 rabbit pelts and 100 hare pelts were charged at the same tax of ½d (Sweetman 1875-1886b, 430, 494; Sweetman 1875-1886c, 409; Sweetman 1875-1886d, 158).

A closer examination of the fish category produces some interesting results as one of the fish from Highhays was from the cod family meaning that it was obviously not a local species as Kilkenny has no coastline (Svensson *Forthcoming a*, 145). Although the presence of cod in Kilkenny is not unusual and the murage grants of 1282 and 1283 have taxes of 1d placed on 100 cod. Cod also was not that expensive as Salmon would appear to be the most expensive fish as it

was taxed at ¼d each in murage grants from 1291 and 1306 (Sweetman 1875-1886b, 430, 494; Sweetman 1875-1886c, 409; Sweetman 1875-1886d, 158). Unfortunately the fish that came from No 1 Irishtown could not be identified to species so it may or may not have been a saltwater fish. Although comparing fish remains from both sites is particularly problematic as the lack of sieving would greatly affect accuracy as the small sizes of fish bone would cause them to be missed. Although both sites clearly had access to imports from the coast as oyster was present on both sites. Although oyster is not mentioned in the murage grants or in purchases made by the Earl of Ormond which could suggest that it was not of much value or status and was therefore not taxed.

A more obvious difference between the sites can be seen in how No 1 Irishtown had deer bone in the form of antlers while Highhays had no deer bone. The fact there is no postcranial deer bone at No 1 Irishtown has been used to suggest that the antler was imported or collected from nearby (Geber 2004, 32). If the antler was indeed collected from a nearby wood it could highlight a key privilege of the burgesses of Irishtown, as the burgesses in Hightown were allowed “common” use of the lord’s wood (Otway-Ruthven 1961, 7). If we assume that the burgesses in Irishtown also enjoyed this same privilege it could account for the presence of deer antler at No1 Irishtown as they would be allowed to gather antler while making common use of the wood. The absence of deer antler at Highhays could perhaps suggest that non burgesses were denied the common use of the wood and could therefore not gather deer antler.

Another minor difference is the presence of raven at No 1 Irishtown and its absence from Highhays. Its presence has been suggested to be due to it being a synanthropic species which was attracted to the site by human waste (Geber 2004, 32). Although it is important to realise that some ravens were also kept as pets in the medieval period (O’Connor 2000, 170). If the raven was a pet it would represent a form of conspicuous consumption as a raven could not be put to work like cats which could control vermin or dogs who could serve as guard dogs.

Table 1: NISP and MNI of Species at No 1 Irishtown and Highhays (Geber 2004, 47-48; Svensson *Forthcoming a*, 136-137)

Species	No 1 Irishtown		Highhays	
	NISP	MNI	NISP	MNI
Cattle	954	49	673	11
Sheep/Goat	307	18	473	12
Pig	125	7	126	4
Horse	51	2	32	2
Deer	5	-	-	-
Dog	50	4	25	2
Cat	6	1	12	1
Hare/Rabbit	1	1	5	1
Domestic Fowl	6	1	3	2
Domestic Goose	9	2	1	1
Raven	1	1	-	-
Fish	5	1	22	1
Oyster	*	*	*	*

*Oyster was found at No 1 Irishtown and Highhays but was not subjected to fauna analysis (Doyle 2004, 45; Ó Drisceoil and Devine *Forthcoming a*)

5.2 Species Quantities

Table 2: Quantities (NISP) of the Main Meat Providing Domesticates at No 1 Irishtown and Highhays (Geber 2004, 42; Svensson *Forthcoming a*, 136-137)

Species	No 1 Irishtown	Highhays
	%	%
Cattle	69	53
Sheep/Goat	22	37
Pig	9	10

The quantities of most species at both sites such as horse, dog, cat, hare/rabbit, domestic fowl, and domestic goose is not significantly different in terms of MNI or NISP (Table 1). The prices of domestic fowl and domestic geese was low in the medieval period as the purchases of the Earl of Ormond indicate that 5 hens cost 4½d and 2 geese cost 6d (Curtis 1932, 348-349). The small numbers of these species at both sites may be due to the lack of sieving.

It is apparent that cattle are the most important on both sites followed by sheep/goat and then pig (Table 2). The quantity of pigs on both sites is rather similar. The Earl of Ormond's purchases suggest a pig cost 20d in late 14th century (Curtis 1932, 349). The position of joints of pork in the meat price hierarchy can be perhaps implied from *Corporation Book of the Irishtown of Kilkenny* which suggests that the best quarter of pork sold for 1s.6d in 1538, making it more expensive than the best quarter of mutton but cheaper than the best quarter of beef (Ainsworth 1978, 7).

The MNI of cattle at No 1 Irishtown is far higher than Highhays with over 4 times more individuals represented. Although it is important to note that the MNI at No 1 Irishtown was based on horn cores which might reflect horn working as opposed to meat consumption (Geber 2004, 25). Although the NISP which is based on all fragments is also far higher at No 1 Irishtown as there are 281 more fragments than at Highhays (Table 1). This could perhaps be seen as a difference in status as out of all the meat or fish purchases made by the Earl of Ormond, cattle is the most expensive at 22s. 6d for 2 cows suggesting that each cow sold for 11s.3d (Curtis 1932, 347-349). In terms of prices for joints the *Corporation Book Of The Irishtown of Kilkenny* suggests that the best quarter of beef was the most expensive meat as it sold for 3s.4d in 1538 (Ainsworth 1978, 7).

The MNI of sheep/goat at No 1 Irishtown is higher than that at Highhays but once more this may be due to horn working as the MNI at No 1 Irishtown was calculated based on horn cores (Tablet 3) (Geber 2004, 28). The NISP creates a different picture with Highhays having a higher NISP than No 1 Irishtown with 166 more fragments (Table 1). The number of bone fragments identifiable as sheep is higher than the number identifiable as goat on both sites. Although Irishtown No 1 has more identifiable sheep and goat fragments than Highhays (Table 3). This shows that sheep were more important than goat at both sites which suggests more sheep meat was consumed than goat meat. The price of sheep is difficult to calculate as unfortunately

the Earl of Ormonde purchases do not include any purchases of sheep or goat so it is more difficult to calculate their prices. The fact that sheep are not purchased by the earl could perhaps indicate their association with low status although this may be coincidental as purchases are only from 4 days. The *Corporation Book of the Irishtown of Kilkenny* sheds further light on the status of mutton as they tell us that the best quarter of mutton is the cheapest meat of the three main domesticates in 1538 as it is 6d (Ainsworth 1978, 7). Although the meat prices are likely to have changed, the position of mutton as the cheapest meat may perhaps have remained constant. Unfortunately there are no prices for goats in the Earl of Ormond's purchases or in the *Corporation Book of the Irishtown of Kilkenny*. Although the murage grants of 1282, 1283, 1291, 1306 and 1375/1382/1394 suggest that an equal tax of $\frac{1}{4}$ was paid for 10 sheep and 10 goats which could perhaps suggest that both animals were of a similar value (Sweetman 1875-1886b, 430, 494; Sweetman 1875-1886c, 409; Sweetman 1875-1886d, 158; Irish Records Commission 1829-1830, 69-70, 79-80, 89). Therefore the higher amount of sheep/goat at Highhays may reflect that they could only afford cheaper meat.

Table 3: NISP of Bones Identified as Sheep and Goat at No 1 Irishtown and Highhays (Geber 2004, 47; Svensson *Forthcoming a*, 140)

Species	No 1 Irishtown	Highhays
Sheep	70	20
Goat	36	6

5.3 Age

Cattle

The age patterns of cattle at both sites display some similarities as the slaughter of cattle began in the first year at both sites and most animals reached adulthood. It has been suggested that these patterns imply that the cattle at both sites were used to produce milk and meat. Although there are differences as the majority of cattle at Highhays were aged between 7-9 years of age which is older than the cattle from No 1 Irishtown who were mostly killed after 3 years of age (Geber

2004, 25; Svensson *Forthcoming a*, 139). This could perhaps suggest that the meat provided by these older animals at Highhays was of an inferior quality as it would be more tough or stringy as opposed to the meat provided by the younger animals at No 1 Irishtown which would likely be tenderer. If the beef quality was indeed better in No 1 Irishtown it could imply status or indicate that burgesses had access to a better selection of meat products as they had free access to a market.

The fact that cattle were kept to such an old age at Highhays could perhaps suggest that they may have been used for work as well as milk production. This would be of importance as the *Corporation Book of the Irishtown of Kilkenny* distinguishes between meat from oxen and that from cattle that were not worked as the best quarter of oxen was cheaper at 2s.6d while the best quarter of beef was 3s.4d (Ainsworth 1978, 7). Once more prices probably changed but it shows that the difference in meat quality between working and non working animals was recognised. This could suggest the burgess at No 1 Irishtown was of a higher status as he could afford younger animals that may not have been worked or worked for a shorter period than at Highhays as they were killed at younger age.

Sheep/Goat

The sheep/goat age patterns from both sites are rather similar as some sheep are slaughtered in their second year while other are kept alive for a few more years. This pattern has been interpreted at both sites as a sign that the younger animals were slaughtered for meat while the older sheep were kept to provide wool (Geber 2004, 28; Svensson *Forthcoming a*, 141).

Pig

The age patterns of pigs at both sites is significantly different, at No 1 Irishtown most pigs are slaughtered before 1 years of age while at Highhays most pigs are slaughtered after 1 years of age (Geber 2004, 30; Svensson *Forthcoming a*, 144). This is of significance as pigs do not reach their maximum size or maximum meat yield until between 1-3 years. The pattern at Irishtown was therefore suggested to reflect intensive animal husbandry (Geber 2004, 30). The killing of young pigs could also be interpreted in a number of other ways firstly it could perhaps suggest that there was a food shortage and the pigs were slaughtered as they were needed for food. Alternatively the killing of young pigs has also been seen as a mark of status like at the medieval

site of High Street, Waterford. At High Street the killing of young pigs was seen as a mark of status as it was a form of conspicuous consumption as the animals were killed before they reached their maximum meat yield (McCormick 1997, 831).

Other Species

The only other species that were aged were horse, dog, cat and rabbit/hare and they were all found to be adults at both sites (Geber 2004, 31-32; Svensson *Forthcoming a*, 144-145). The fact that no immature cats or dogs were uncovered is of importance as a high number of immature cats or dogs would have suggested that they were being killed for their furs or skins like at Peter Street, Waterford (McCormick 1997, 833-834).

5.4 Sex

Cattle

The sex patterns of cattle at both sites were similar as females dominated both assemblages. The main difference was that the sexed bones at Highhays were only female while No 1 Irishtown had some males and at least one bullock (Geber 2004, 26-27; Svensson *Forthcoming a*, 138). This has led to the interpretation that milk production was extremely important on both sites and that most males were killed as calves before their bones became sexually dimorphic (Geber 2004, 26; Svensson *Forthcoming a*, 139). Although female cattle also fatten faster than males which could suggest more females were kept to increase meat production (McCormick and Murphy 1997, 199-201). The few males and bullocks at No 1 Irishtown are suggested to represent the use of cattle for traction (Geber 2004, 26). This could imply that some cheaper meat from oxen was consumed at No 1 Irishtown.

Sheep/Goat

Unfortunately the sheep/goat sex patterns are not comparable as only sheep could be sexed at No 1 Irishtown where there were slightly more females but this was from a very small sample. At Highhays only goats could be sexed and all of them were female but once more this was a small sample (Geber 2004, 29; Svensson *Forthcoming a*, 141). The fact that there are only female goats at Highhays could perhaps imply that they were being used for milk as similar patterns were interpreted in this way at Peter Street, Waterford (McCormick 1997, 828). Although it also

possible that goat horns were imported and therefore reflect the use of goats for milking in the hinterland as opposed to on site at Highhays.

Pig

The sex patterns of pigs at both sites are rather similar with an almost equal number of males and females at either site. Although it has been suggested that the small number of bones that could be sexed means that the results from both sites are not statistically viable (Geber 2004, 31; Svensson *Forthcoming a*, 144)

5.5 Pathologies

Cattle

The cattle on both sites showed a similar range of pathologies with animals from both sites displaying a similar number of healed fractures and degenerative conditions (Table 4). The fact that the animals survived long enough for their fractures to heal and the marks of disease to appear suggests that cattle were important enough to be kept alive through injury and illness (Svensson *Forthcoming a*, 139). This could suggest that working animals were represented on both sites which could suggest that cheaper cattle meat was being purchased at both sites as 16th century prices show that oxen were cheaper than cattle that were not worked (Ainsworth 1978, 7)

Table 4: Pathologies on Cattle Bones from No 1 Irishtown and Highhays (Geber 2004, 27; Svensson *Forthcoming a*, 139-140)

No 1 Irishtown	Highhays
<ul style="list-style-type: none"> • Porous bone growth on a metatarsal due to it being infected by periosteal reactive periostitis • Two healed rib fragments • Osteophytic bone also developed at elbow joint on the humeral trochlea 	<ul style="list-style-type: none"> • Porous bone growth on a tarsal bone from infection • Thick bone and spiking in a rib suggest healed fracture • Healed fracture in a metatarsal

Sheep/Goat

The sheep/goat at No 1 Irishtown displayed no pathologies while one animal at Highhays had an unhealed transverse fracture in its rib (Geber 2004, 28-29; Svensson *Forthcoming a*, 143). The fact the rib is unhealed could perhaps suggest that sheep/goat were less important and were killed when they became injured. The fact no injuries detected at No 1 Irishtown might suggest higher quality mutton was consumed as perhaps only healthy animals were slaughtered as opposed to the injured one found at Highhays. Although the fact that only one injury found at Highhays means the sample size is very small.

Horse

There is once more a difference in the number of pathologies as the horses from No 1 Irishtown displayed no pathologies while a horse's pelvis from Highhays displayed an infection which was active at its death and which could have been caused by direct trauma (Geber 2004, 31; Svensson *Forthcoming a*, 144). This could suggest that work animals were treated poorly and had a harder life then at Highhays. This harder life for the horse at Highhays could perhaps be due to the fact that betaghs were often obliged to place their animals in the lord's service like at Lisronagh, Tipperary where betaghs had to use their animals not only for their own purposes but also to draw the lord's carts and plough the lord's land (Curtis 1936, 52-53). Although once more one must be cautious in drawing any interpretation as it would be based on very a small sample size as only one horse pathology was found at Highhays.

Other Species

None of the other species like pig, dog, cat or rabbit/hare displayed pathologies (Geber 2004, 31-32; Svensson *Forthcoming a*, 145). The fact that neither cats nor dogs displayed pathologies is of significance as it suggests that neither site purposely killed them for furs or pelts. This would imply that they were kept as pets or for work

5.6 Anatomical Distribution

Table 5: Anatomical Distribution of the Three Main Species at No 1 Irishtown and Highhays (Geber 2004, 41; Svensson *Forthcoming a*, 138, 140, 143)

Species	No 1 Irishtown	Highhays
	%	%
Cattle	59	60.2-67.8
Sheep/Goat	48	59.3-68.7
Pig	18	44.3-63.7

Cattle

The majority of cattle bones found at No Irishtown were from meat rich body parts which are all bones excluding the skull, mandible and any bones from the metapodial bones down (Geber 2004, 27). The majority of the cattle bones at Highhays were also meat rich although there was slightly more meat rich bones at Highhays, 1.2-8.8% more than at No Irishtown (Table 5). This has led to the suggestion that both sites imported beef products and that cattle were not slaughtered on either site as each animal only has 41% meat rich parts (Geber 2004, 33; Svensson *Forthcoming a*, 138). One major difference in the anatomical distribution is the high number of cattle horn cores at No 1 Irishtown and the lack of horn cores at Highhays (Table 6). This could suggest the cattle horns were being worked at No 1 Irishtown and not at Highhays as a high occurrence of horn cores usually reflects waste from horn working (McCormick 1997, 829).

Table 6: Anatomical Distribution of Cattle at No 1 Irishtown and Highhays (Geber 2004, 47; Svensson *Forthcoming b*)

	No 1 Irishtown	Highhays
Horn Core	101	-
Skull	64	16
Mandible	83	28
Vertebrae	58	82
Sternum	-	-
Ribs	296	141
Scapula	24	30
Humerus	22	19
Radius + Ulna	38	45
Carpal	-	2
Ci	1	4
Mc	30	27
Pelvis	23	44
Femur	28	19
Tibia	23	14
Fibula	-	-
Talus	3	20
Calcaneus	12	13
Ct	2	10
Mt	32	18
Phalanges	22	58
Mp	9	13

Sheep/Goat

The majority of sheep/goat bones at both sites were meat rich which once more implies that meat products were imported as each animal has only 41% meat rich parts (Geber 2004, 33; Svensson *Forthcoming a*, 140). Highhays had a higher proportion of meat rich body parts, with 11.3-20.7% more than No 1 Irishtown (Table 5). This difference is likely due to the fact that the majority of bones identified as goat at No 1 Irishtown came from the skull, horn cores or metapodials (Table 7) which has been interpreted as being evidence that goatskins were imported to the site and then used for tannery (Geber 2004, 33). The high number of horn cores at No 1 Irishtown could also suggest horn working as high numbers of goat horn cores at the medieval sites of Patrick Street, Nicholas Street and Winetavern Street in Dublin were interpreted in this way (McCormick and Murphy 1997, 202). Highhays on the other hand has more sheep/goat tibias phalanges and metapodials which could perhaps suggest that they were used in pottery manufacture such as at Lyveden where these small long bones were used as templates to form the rims on pots or to create incised decorations (Moorhouse 1981, 106).

Table 7: Anatomical Distribution of Sheep, Goat and Sheep/Goat at No 1 Irishtown and Highhays (Geber 2004, 47; Svensson *Forthcoming b*)

	Sheep		Goat		Sheep/Goat	
	No 1 Irishtown	Highhays	No 1 Irishtown	Highhays	No 1 Irishtown	Highhays
Horn Core	2	-	24	3	7	-
Skull	4	2	3	2	12	22
Mandible	2	-	-	-	36	20
Vertebrae	1	3	-	-	6	33
Sternum	-	-	-	-	-	-
Ribs	-	-	-	-	33	68
Scapula	4	1	1	-	7	19
Humerus	9	1	-	-	5	17
Radius + Ulna	17	6	-	1	9	34
Carpal	-	-	-	-	-	3
Ci	-	-	-	-	-	-
Mc	10	-	7	-	11	-
Pelvis	7	-	1	-	9	25
Femur	1	1	-	-	7	11
Tibia	7	3	-	-	17	30
Fibula	-	-	-	-	-	-
Talus	-	1	-	-	-	3
Calcaneus	1	1	-	-	-	6
Ct	-	-	-	-	-	1
Mt	5	1	-	-	24	20
Phalanges	-	-	-	-	-	21
Mp	-	-	-	-	2	13

Pig

The percentages of meat rich parts belonging to pigs vary greatly between the sites as Highhays had 26.3-45.7% more meat rich parts than No 1 Irishtown (Table 5). This would imply that meat products were imported at Highhays as its meat rich percentage is higher than the 36% meat value of pigs while the percentage from No 1 Irishtown is lower than this so animals were slaughtered on site (Geber 2004, 33; Svensson *Forthcoming a*, 143). The fact that the pigs were slaughtered on site at No 1 Irishtown and were also mostly young may perhaps suggest they were bred intensively on the site to produce meat which perhaps could be for economic purposes (Geber 2004, 30). Historic sources would seem to support the fact that pigs were kept in Irishtown as the neighbouring borough of Hightown had laws controlling where pigs could be kept in the town which implies they were kept in such numbers in the town to cause a problem (Otway-Ruthven 1961, 26). The *Corporation Book of the Irishtown of Kilkenny* lists a law from 1538 which prohibits Irishtown's inhabitants from killing sows that were trespassing which may suggest that pigs were kept in Irishtown in the 16th century (Ainsworth 1978, 8). Therefore it is possible that pigs were kept in Irishtown in the medieval period like at Hightown and that this practice then continued into the 16th century. The fact that the burgess at No 1 Irishtown possessed a burgage plot with a garden and boundaries fences would have provided a ready made pig pen and the right to commonage would help provide food for the animal. The burgess would also have had free access to a market which would reduce costs and increase profits. The betagh at Highhays on the other hand may or may not have had the right to commonage so could have found it costly to feed animals. Importing meat would have been costly due to the tolls at the city gates and the charges placed on accessing a market. Therefore meat production was not carried out by the betagh as it would have been unprofitable without the privileges and protections enjoyed by the burgess.

Table 8: Anatomical Distribution of Pig at No 1 Irishtown and Highhays (Geber 2004, 47; Svensson *Forthcoming b*)

	No 1 Irishtown	Highhays
Horn Core	-	-
Skull	12	12
Mandible	14	13
Vertebrae	8	3
Sternum	-	-
Ribs	-	10
Scapula	5	6
Humerus	11	10
Radius + Ulna	20	10
Carpal	-	1
Ci	-	-
Mc	4	3
Pelvis	6	4
Femur	6	2
Tibia	13	10
Fibula	2	-
Talus	2	2
Calcaneus	-	-
Ct	-	-
Mt	2	4
Phalanges	-	8
Mp	2	-

5.7 Butchery Marks

At both sites butchery marks consisted of chop marks and cut marks which were only present on cattle, sheep/goat and pigs. This is of importance as the fact that cats and dogs do not display butchery marks suggest that they were not exploited for their fur and pelts at either site. The horse bones from both site also displayed no butchery marks which suggests that both sites honoured the church's ban on horse meat. The fact no butchery marks on any of the bird or rabbit/hare bones from both sites is likely due to small number of bird and rabbit/hare bones retrieved (Geber 2004, 25, 27, 28, 30-32; Svensson *Forthcoming a*, 137, 145).

5.8 Worked Bone

There are many differences in the worked bones at Highhays and No 1 Irishtown in terms of the species whose bone were worked and the use of the worked bone. Firstly evidence of worked horse bone only existed at No 1 Irishtown where one metacarpal diaphysis had both its ends cut off for some unknown purpose. Irishtown No 1 was also the only one of the two sites to possess worked antler as five pieces of sawn antler were uncovered (Geber 2004, 31-32). The site also had a finished antler item in the form of an antler comb. The comb was a single sided composite comb which was described as a Class F or G comb (Herring 2004a).

Highhays in contrast had no evidence of worked horse bone or worked antler but was the only site to have worked cattle bone in the form of a femur diaphysis which had been carved for an unknown purpose. Highhays also was the only site of the two where working was noted on a goat horn core. The horn core had cut marks at its base and has been suggested to have been used for burnishing pottery on the site before the pottery was fired in the kiln (Svensson *Forthcoming a*, 138; Ó Drisceoil and Devine *Forthcoming a*, 43-44).

Both sites therefore had some differences in the types of bones being worked and their use, the most significant difference would appear to be the antler as it could once more reflect the right of a burgess to common use of the lord's woods. The use of antler to make a personal item like a comb could have provided a visible demonstration and reminder of this privilege every time that the comb was used by the burgess.

6. Conclusions

Therefore there are few differences that may allude to how the burgess at No 1 Irishtown inside the town walls expressed a different identity or different privileges to the betagh from outside the walls at Highhays. The most important difference is the presence of fragments from antler working and the antler comb at No 1 Irishtown and the absence of antler at Highhays (Geber 2004, 32; Svensson *Forthcoming a*, 136-137). This could reflect that the burgess had the right to common use of the lord's wood and could therefore collect antlers unlike the betagh at Highhays. The fact that the antler was used to make a comb would serve as a constant reminder of the burgess' privileges whenever the comb was used.

Another important difference is that the burgess at No 1 Irishtown likely bred pigs for meat production unlike the betagh at Highhays which is indicated by the high occurrence of young pigs and low percentage of meat rich parts at No 1 Irishtown (Geber 2004, 33; Svensson *Forthcoming a*, 143). The breeding of pigs for economic purposes would only be possible due to burgess having a burgage plot with boundary fences which would provide a suitable pen for breeding animals while the burgess could make a profit as he was exempt from tolls and charges to access the market unlike the betagh.

The fact that no horses at the burgess site displayed pathologies while a horse at the betagh site of Highhays did could also be of importance as it could perhaps indicate that the betagh had to work their animals harder for both their needs and for their lord unlike burgesses who did not owe service to the lord (Geber 2004, 31; Svensson *Forthcoming a*, 144). Although there is only one injury at Highhays which may mean that there is not a significant difference in the amount of work carried out by animals at both sites.

In terms of differences in status there are similar percentages of meat rich body parts from cattle at both sites but a higher number of cattle bone fragments came from No 1 Irishtown which could suggest burgesses were indeed of a higher status due to cattle being the most expensive animals in the Earl of Ormond's purchases (Geber 2004, 41; Svensson *Forthcoming a*, 138; Curtis 1932, 347-349). Although it could be argued that the higher number of fragments was due to the longer period of use at No 1 Irishtown. Although the fact that there is more sheep/goat fragments at Highhays and that there are a similar amount of fragments from most

other species at both site may suggest that the longer period of use may not be a significant factor (Geber 2004, 47-48; Svensson *Forthcoming a*, 136-137). The presence of more sheep bone fragments and meat rich parts at Highhays then No 1 Irishtown suggests that mutton was more popular at the betagh site which could indicate lower status as mutton is not mentioned in the Earl of Ormond's purchases and is the cheapest meat in the 16th century records from Irishtown (Curtis 1932, 347-349; (Ainsworth 1978, 7). Although it is important to consider that this difference may be down to choice as it could be argued that the betagh simply preferred eating mutton as opposed to beef.

The burgess at No 1 Irishtown also ate cattle that were younger then the betagh who mostly ate animals in their old age, which would suggest that the burgesses ate better quality beef which was tenderer (Geber 2004, 25; Svensson *Forthcoming a*, 139). The fact that there are a higher number of older animals at Highhays could suggest more animals were being used as oxen. Although at the same time there are similar numbers of pathologies in cattle from both sites and both male cattle and one bullock were also found at No 1 Irishtown (Geber 2004, 26-27; Svensson *Forthcoming a*, 138-140). This could suggest that some oxen were also represented in the assemblage at No1 Irishtown which could suggest the use of cheaper cattle meat. Although the animals at No 1 Irishtown are still younger then those at Highhays so may not have been subjected to the same amount of work so their meat may perhaps have been of a higher quality and therefore more expensive. Although once more choice could be a factor perhaps the betaghs simply preferred tougher meat.

The sheep/goat bones from the site might indicate better quality meat was consumed at No 1 Irishtown as there are no pathologies suggesting meat came from healthy animals killed specifically for meat production while at Highhays there is an unhealed fracture which might suggest that some meat came from unhealthy animals that were killed when they were no longer of any use (Geber 2004, 28-29; Svensson *Forthcoming a*, 143). Although this is too small a sample to draw any definitive conclusions as there is only one unhealed injury sheep/goat at Highhays.

There are also some other differences which cannot be attributed to legal or social status and may relate to some of the different industrial activities on each site. The high number of horn cores from sheep/goat and cattle at No 1 Irishtown for example would suggest that horn working

occurred there. Horn working was practiced to a far lesser extent at Highhays with only one worked goat horn being uncovered. On the other hand Highhays had a higher number of small long bones from sheep/goat which were probably used as tools in pottery manufacture (Geber 2004, 47; Svensson *Forthcoming b*: Moorhouse 1981, 106).

Besides these few differences there are clearly many more similarities between the two sites. One of the first of these similarities can be seen in the range of species at No 1 Irishtown and Highhays. Both sites have non local imports from the coast and a similar range of domesticates. Both sites also had to import some of their animals from the hinterland such as cattle, sheep and goats which is suggested by anatomical distributions (Geber 2004, 41, 47-48; Svensson *Forthcoming a*, 136-138, 140, 143).

The sex patterns of some of the animals that could be sexed at both sites were also similar such as cattle where the majority of animals from both sites were females which suggest they were used to provide milk and meat. The age patterns of the slaughtered sheep/goats at both sites were also rather similar which indicates that sheep were used for meat and wool production (Geber 2004, 26-28; Svensson *Forthcoming a*, 138, 141).

Another similarity is that neither the cat nor the dog bones from either site displayed pathologies or butchery marks which suggests that both sites kept these animals for work or as pets (Geber 2004, 31-32; Svensson *Forthcoming a*, 145). This would suggest that both sites were not short on food if they could afford to maintain these animals.

Therefore there appears to be many similarities between how a burgess and a non burgess utilised animals, although there are also potentially a few differences between their uses of animals which may allude to their different legal or social statuses. The findings of the study are interesting as they suggest that it is possible to reconcile historical and scientific data but they are only tentative findings and a larger sample from more Kilkenny sites would be required to confirm whether these findings are due to the sample size, choice or are an accurate indication of the differences and similarities between a burgess inside the town walls and a non burgess outside the town walls.

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Bibliography

- Ainsworth, J .1978. “Corporation Book of the Irishtown of Kilkenny”, 1537-1628” *Analecta Hibernica* 28, 3-78
- Bradley, J. 1975. “The Town Wall of Kilkenny: Part 1”, *Old Kilkenny Review* 2, 85-103
- Bradley, J. 2000a. *Irish Historic Town Atlas No. 10: Kilkenny*. Royal Irish Academy. Dublin
- Bradley, J. 2000b. *Discover Kilkenny*. O’Brien Press, Dublin
- Butler, V. 1989. “Animal Bone Studies in Archaeology”, *Archaeology Ireland* 3.3, 104 – 7
- Curtis, E. 1932. *Calendar of Ormond Deeds Volume 2, 1350-1413*. Stationary Office, Dublin
- Curtis, E. 1936. “Rental of the Manor of Lisronagh, 133, And Notes on “Betagh” Tenure in Medieval Ireland”, *Proceedings of the Royal Irish Academy Section C* 43, 41-76
- Doyle, I. 2004. *River Nore (Kilkenny City) Drainage Scheme: Archaeological Excavations at Rear of No 1 Irishtown, Kilkenny*. Margaret Gowen & Co. Ltd, Unpublished Report
- Doyle, N. *Forthcoming*. “Appendix 1: The Pottery Production Material From Highhays, Kilkenny” in C, Ó Drisceoil and E, Devine (eds) *A Fourteenth Century Pottery Production Centre at MacDonagh Station (Highhays Townland), Kilkenny City. A Preliminary Report on the Archaeological Excavation 2007- Appendixes*, Working Draft, 79-87
- Geber, J. 2004. “Osteological Report on the Animal Bones from No 1 Irishtown, Kilkenny (02E1592)” in I. Doyle (eds) *River Nore (Kilkenny City) Drainage Scheme: Archaeological Excavations at Rear of No 1 Irishtown, Kilkenny – Specialist Reports on Dendrochronological Analysis, Macroscopic Plant Analysis, Faunal Remains and Timber. M*. Margaret Gowen & Co. Ltd, Unpublished Report, 24-58
- Herring, V. 2004a. “Appendix C: Finds of Ceramic, Skeletal, Metalwork and Bone Material” in I. Doyle (Eds) *River Nore (Kilkenny City) Drainage Scheme: Archaeological Excavations at Rear of No 1 Irishtown, Kilkenny - Appendixes*. Margaret Gowen & Co. Ltd, Unpublished Report, 103-136

- Herring, V. 2004b. "Appendix E: Leather" in I. Doyle (Eds) *River Nore (Kilkenny City) Drainage Scheme: Archaeological Excavations at Rear of No 1 Irishtown, Kilkenny - Appendixes*. Margaret Gowen & Co. Ltd, Unpublished Report, 140-147
- Irish Records Commission. 1829-1830. *Chartae, Privilegia, et Immunitates, Being Transcripts of Charters and Privileges to Cities, Town, Abbeys, and other Bodies Corporate: 18 Henry II to 18 Richard II (1171-1395)*. Irish Records Commission, Dublin
- Johnston, P. 2004. "Analysis of the Plant Remains from Excavations at No 1 Irishtown" in I. Doyle (Eds) *River Nore (Kilkenny City) Drainage Scheme: Archaeological Excavations at Rear of No 1 Irishtown, Kilkenny – Specialist Reports on Dendrochronological Analysis, Macroscopic Plant Analysis, Faunal Remains and Timber*. M. Margaret Gowen & Co. Ltd, Unpublished Report, 10-23
- Le Patourel, H.E. 1968. "Documentary Evidence and the Medieval Pottery Industry" *Medieval Archaeology* 12, 101-126
- MacNiocaill, G. 1985. "The Colonial Town in Irish Documents" in H.B. Clarke and A. Simms (Eds) *The Comparative History of Urban Origins in Non-Roman Europe: Ireland, Wales, Denmark, Germany, Poland and Russia from the Ninth to the Thirteenth century: Part 2*, 411-467, B.A.R, Oxford, 373-378
- McCarthy, M. 1997. "Faunal Remains: Christ Church", in Cleary, R.M, Hurley, M. F. and Twohig, E (Eds). *Skiddy's Castle and Christ Church Cork Excavations 1974 –77*. Cork Corporation, Cork, 349-359
- McCormick, F. 1997. "The Animal Bones", in Hurley, M. F. Scully, O.M.B. and McCutcheon (Eds), *Late Viking Age and Medieval Waterford: Excavations 1986 – 92*. Waterford Corporation, Waterford, 819-853
- McCormick, F and Murphy, E. 1997. "Mammal Bones" in Walsh, C (Eds). *Archaeological Excavations at Patrick, Nicholas and Winetavern streets Dublin*. Brandon, Dingle, 199-218
- McCutcheon, C. 2004. "Appendix B: The Pottery, Roof, and Floor Tiles from No. 1 Irishtown, Kilkenny" in I. Doyle (Eds) *River Nore (Kilkenny City) Drainage Scheme: Archaeological*

- Excavations at Rear of No 1 Irishtown, Kilkenny - Appendixes*. Margaret Gowen & Co. Ltd, Unpublished Report, 24-58
- McCutcheon, C. 2006. *Medieval Pottery from Wood Quay Dublin: The 1974-6 Waterfront Excavations*. Royal Irish Academy, Dublin
- McNeil, C. 1950. *Calendar of Archbishop Alen's Register c1172-1534*. Royal Society of Antiquaries of Ireland, Dublin
- Moorhouse, S. 1981. "The Medieval Pottery Industry and its Markets" in D.W. Crossley (eds) *Medieval Industry, CBA Research Report 40*, Council for British Archaeology, London, 96-125
- Murphy, M and O'Connor, K. 2006. "Castles and Deer Parks in Anglo-Norman Ireland" *Eolas: The Journal of the American Society of Irish Medieval Studies*, Vol 1, 53-70
- O'Connor, T. 2000. *The Archaeology of Animal Bones*. Sutton Publishing, Stroud
- O'Connor, T. 2003. *Analysis of Urban Animal Bone Assemblages: A Handbook for Archaeologists*. Council for British Archaeology, York
- Ó Drisceoil, C and Devine, E. *Forthcoming a. A Fourteenth Century Pottery Production Centre at MacDonagh Station (Highways Townland), Kilkenny City. A Preliminary Report on the Archaeological Excavation 2007*, Working Draft
- Ó Drisceoil, C and Devine, E. *Forthcoming b. Context Register from Highways*.
- O'Keefe, T. 1999. "Townscape as Text: The Topography of Social Interaction in Fethard, County Tipperary, AD 1300-1700" *Irish Geography* 32.1, 9-25
- Otway-Ruthven, A. 1961. *Liber Primus Kilkenniensis*. Kilkenny Journal, Kilkenny
- Otway-Ruthven, A. 1980. *A History of Medieval Ireland*. Billing and Sons, London
- Pembroke Estate Office. 1891. *Calendar of Ancient Deeds and Muniments Preserved in the Pembroke Estate Office, Dublin*. University Press, Dublin
- Pirenne, H. 2006. *Economic and Social History of Medieval Europe*. Routledge and Kegan Paul: London

Scully, O. *Forthcoming*. “Appendix 3: Report on the Metal Artefacts from Highhays, Kilkenny” in C, Ó Drisceoil and E, Devine (eds) *A Fourteenth Century Pottery Production Centre at MacDonagh Station (Highhays Townland), Kilkenny City. A Preliminary Report on the Archaeological Excavation 2007 - Appendixes*, Working Draft, 108-118

Steane, J. 1985. *The Archaeology of Medieval England and Wales*. Croom Helm Ltd, Beckenham

Stevens, P. 2006. “Four Excavations In Kilkenny City (1999-2001): Part 1 The Medieval Findings” *Old Kilkenny Review* 58, 47-66

Sweetman, H.S. 1875-1886a. *Calendar of Documents Relating to Ireland Volume 1, 1171-1251*. Longman, London

Sweetman, H.S. 1875-1886b. *Calendar of Documents Relating to Ireland Volume 2, 1252-1284*. Longman, London

Sweetman, H.S. 1875-1886c. *Calendar of Documents Relating to Ireland Volume 3, 1285-1292*. Longman, London

Sweetman, H.S. 1875-1886d. *Calendar of Documents Relating to Ireland Volume 5, 1302-1307*. Longman, London

Svensson, K. *Forthcoming a*. “Appendix 6: Report on the Animal Bone Material from MacDonagh Station, Highhays, Dublin Road, Kilkenny” in C, Ó Drisceoil and E, Devine (eds) *A Fourteenth Century Pottery Production Centre at MacDonagh Station (Highhays Townland), Kilkenny City. A Preliminary Report on the Archaeological Excavation 2007 - Appendixes*, Working Draft, 135-155

Svensson, K. *Forthcoming b*. *Animal Bone Database from Highhays*.