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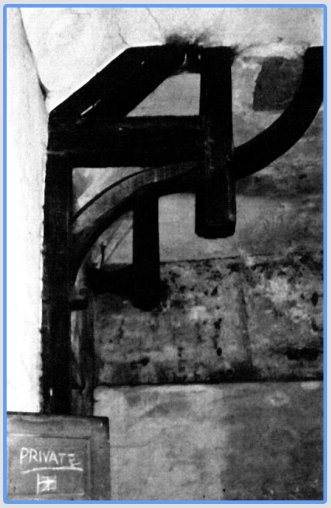

The Tanyard and Quaker burial ground, Bromyard, Herefordshire: archaeological excavation and monitoring

Daniel Lewis and PJ Pikes
2004

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Report number 03/29

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Cover Photograph: roof detail inside the former Quaker meeting house

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Summary

An excavation and archaeological monitoring was carried out by Archenfield Archaeology between late 2003 and early 2004 at a site near the centre of Bromyard, Herefordshire during construction of a new housing development. The site is within the medieval borough as described in the late 13th century Red Book of the Bishop of Hereford. Lying between Pipe Street and Frog Street, the site encroached upon an early 18th century Quaker burial ground to the rear of 16 Broad Street. At the end of the 19th century a tannery occupied the site and it was most recently used as a car-park.

The greater part of the excavation was concerned with the Quaker burial ground. A total of fifteen graves were recorded with twelve orientated east-west and three north-south. Eleven of the twelve east-west graves were excavated. Most of the skeletons were buried in a supine position with the skulls facing slightly to the south due to the natural contours of the area. Of these eleven graves seven showed remains of coffins which were identified by faint beige stains, iron nails and iron or copper alloy coffin handles.

The north-south graves were north of the excavation area and were left in-situ*. Two were investigated, establishing that stratigraphically they were of a later date than the east-west graves they inter-cut. Only one of these north-south graves had evidence of a coffin.*

Quakers were supposed to keep all aspects of their lives plain and simple and this included distaste for extravagant burial practices. No distinction was allowed between the richer and poorer families; however this rule was regularly ignored and coffins tended to display many differences in wealth and means among the Quaker families. That wealthier families could afford more elaborate coffins and fittings than poorer ones would have been reflected in the selection of wood, coffin linings, and, perhaps, even in the dressing of the corpse. Copper alloy fittings were found in some of the coffins – these were of better quality than the iron ones which suggests that there was a degree of difference in status.

Outside the burial ground the archaeological monitoring of ground works recorded features associated with the 19th century tannery. Wooden dye pits, a brick-lined oval pit and walls of former buildings associated with the tannery were exposed by ground works. Two stone culverts were also located; one was rectangular in shape and approximately 1.30 metres wide and 0.75 metres deep with a base and a cap of flat stone flags. The other was of similar construction and still had water running through it.

Introduction

1.1 Planning background

NGR 36547 25454
Herefordshire Sites and Monuments Record - Event number: 31059
Hereford City Museum – Accession number 2001-7

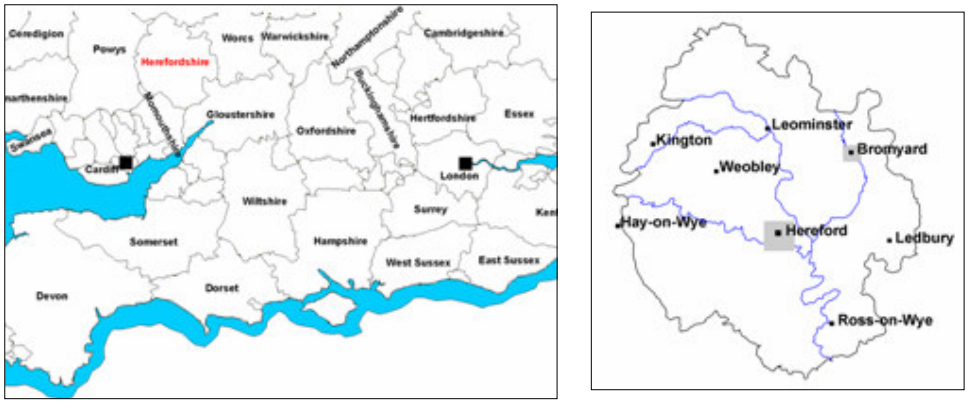
In November 2003, Harper Group Construction Limited (the Client) commissioned a programme of archaeological excavation and monitoring following consultation with Herefordshire Council Archaeology Service. This was issued in response to a planning application for permission to construct new houses on the site of the former Tanyard, Pump Street, Bromyard. The site also encroached upon a disused 18th century Quaker burial ground associated with a meeting house which was demolished in 1976.

Because of the burial ground, a licence was required from the Home Office for the removal and re-interment of any human remains which might have been disturbed. This was issued under the Disused Burial Grounds (Amended) Act 1981. Section 7, paragraph 2(d) of the act gave permission for the work to be carried out.

A brief was issued by Herefordshire Council on 16th June 2003 and the work was carried out by Archenfield Archaeology in accordance with the stipulations of the brief during late 2003 and early 2004.

1.2 Site location and description

Bromyard lies on a spur overlooking the River Frome in the north-east of Herefordshire, with the A 44 running from Leominster to Worcester by-passing the south of the town.



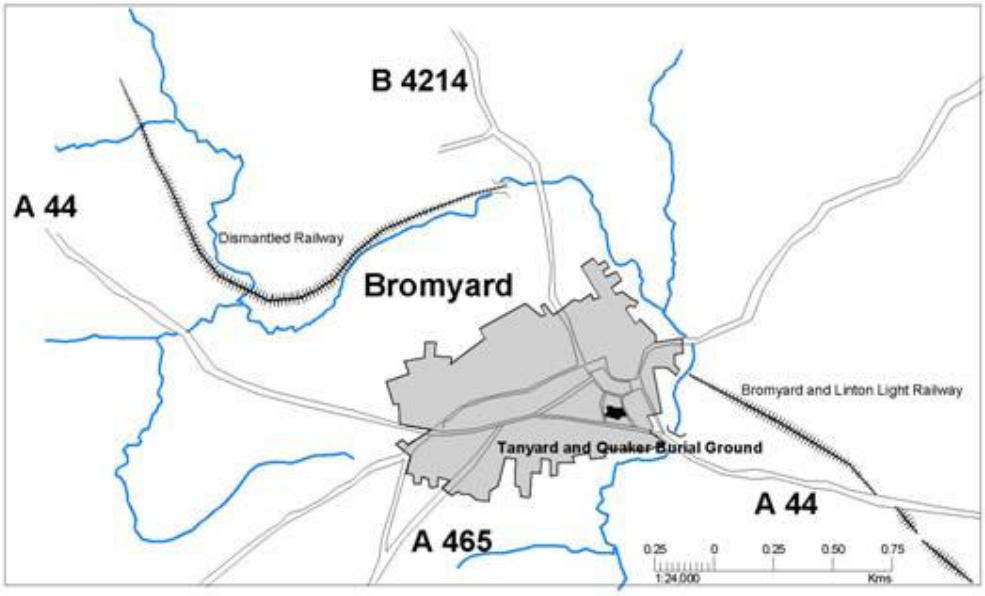


Figure 1: Location plan of the site within Bromyard

The site lies very near to the centre of Bromyard, immediately south of the rear boundaries of properties facing onto Broad Street – part of the main street of both the medieval and modern town. The western boundary is formed by the rear of properties facing Pump Street, except for a 6 metre wide access to the street itself, to the south of these properties. The eastern boundary of the site is Frog Lane and the southern boundary is formed by the grounds of a former Primitive Methodist Chapel and the gardens of private houses.

2.0 Geological, historical and archaeological background

2.1 Geological background and land use

Bromyard lies on a spur overlooking the River Frome and on the St Maughans formation of the Old Red Sandstone (Brandon, 1989).

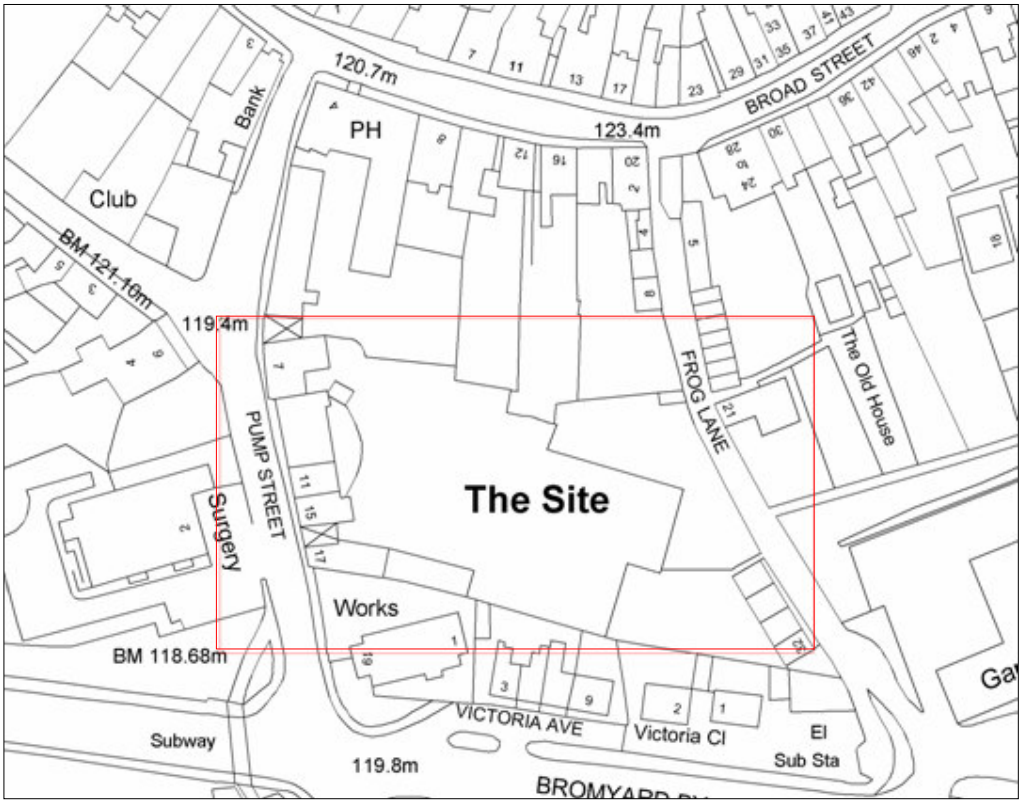


Figure 2: Location plan (OS Super plan data reproduced under license ref Number 26103979)

The site at the time of the field project was in the initial stage of ground works associated with building development.

2.2 Historical background

In 840 Bishop Cuthwulf of Hereford, with the consent of Beorhtwulf, King of Mercia, granted certain lands next to the river Frome for a period of three lives. At the expiry of these, the land was to be returned to the Minster called Bromyard – '*monasterio qui dicitur Bromgeard*' (Pearson, 1970).[1] By this time then, there was already a church at Bromyard. The place name Bromgeard simply means 'Broom Enclosure' (Ekwall, 1960).

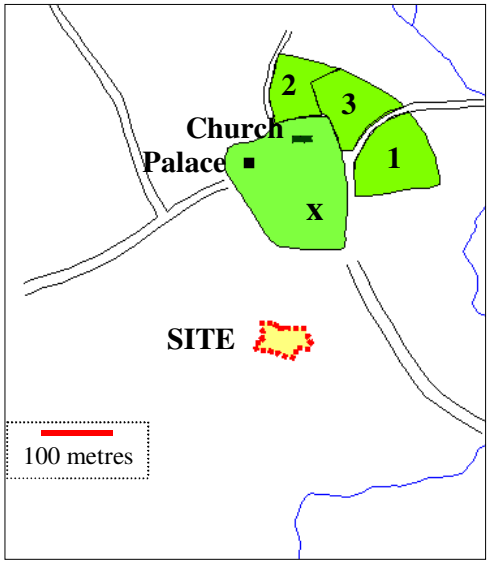


Figure 3: The late 11th century ecclesiastical enclosure. A village presumably clustered around this core.

The bishop's palace would have been separated from the churchyard which would have been larger than the present one – an Anglo-Saxon burial is recorded at the position marked X.

The probable positions of the portioners' houses, based on the later known positions, are marked 1, 2 and 3.

Each house, the bishop's and the three portioners', would have had its own range of out-buildings – barns etc.

The manor belonged to the Bishops of Hereford in the time of King Edward the Confessor and it presumably had done for many years previously. Therefore the manor house, as an occasional residence of a bishop, was technically a palace.[2]

In Domesday, *Bromgerde,* in Plegeliet Hundred,[3] was a large manor with 42 villeins, 9 borderers and 6 slaves with 39 plough-teams in demesne. Three of the bishop's men-at-arms held 9 hides with 11½ ploughs and an additional unspecified number of men[4] who had 20 plough-teams between them. There were also 2 priests and a chaplain, together with a reeve and a radman (Thorn and Thorn, 1983).

Bromyard was one of a series of large vills on the upper Frome; where otherwise the population was rather thinly distributed (Aitkin, 1971, p109). In contrast, the lower Frome area was one of the richest areas according to Domesday Herefordshire (*ibid,* p110).

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1 When this grant was made Mercia's security must have seemed fairly assured – Mercia's defeat by the West Saxons under Egbert at Ellendun in 825 led to a brief period in 829 when it was subjugated by Wessex. King Wiglaf seems to have regained independence for Mercia in 830 and returned it to more or less its former territories. Beorhtwulf was Wiglaf's successor. The first Danish raiders had reached Sheppey in 835, and in 851 put to flight Beorhtwulf and the Mercian army. In 855 the Danes were in the Wrekin. By 873 King Burgred of Mercia was forced into exile in Rome and the Danes appointed a Mercian thegn, Ceolwulf, as puppet king, and Mercia was partitioned.

2 The site of the palace (Herefordshire Sites and Monuments Record number 19609) is assumed to be that now occupied by the early 19th century vicarage at SO 6455 5480 (Duncumb, 1812, p 79).

3 The Domesday hundreds disappeared by the 13th century when Plegaliet and Thornlaw Hundreds formed Broxash Hundred (Thorn and Thorn).

4 *homines* – not to specify numbers is unusual in Domesday. There were also an unspecified number at Ledbury, another of the Bishop's manors (Atkin, 1971).

The core of Bromyard church is Norman, originally cruciform, but fragments of sculpture of St Peter and the cross now above the south doorway may be pre-Norman (RCHM, 1932). The church would have served the whole surrounding area – its *parochia*.

Although the site of an occasional seat of a bishop and of the mother church of a large area, probably the whole of Plegeliet Hundred,[1] Bromyard itself would have been only a village in around 1100. The Domesday population would have been distributed across the large manor.

The palace at Bromyard was used on an irregular basis, some bishops using it more than others, and was one of several houses used by the medieval Bishops of Hereford. During the episcopates of Bishops Swinfield, Orleton and Charlton (spanning from 1283 to 1344), Bromyard was rarely used (Tonkin, 1976, p53). Bishop Trillek (1344 – 1361) used it often at the beginning of his episcopacy, but in 1356 Bromyard, together with Colwall, Goldhill in Dorset, Ledbury and Ross went out of use (*ibid,* p54). At this time, besides the palace in Hereford, houses were retained at Bishop's Castle, Bosbury, Prestbury, Sugwas and Whitbourne. The bishops' London residence, Montalt, also remained in use.[2]

Provision was made for the king's communication with the bishop when the latter was resident in Bromyard. In 1266 the *inquisition post mortem* of Emma Atthere recorded that she held ½ virgate in chief[3] in return for certain services which included the summoning of the Bishop of Hereford at Bromyard by the king's command as required.[4] Henry Pigot held in chief by a similar service – that he should summon the Bishop at the [palace] gate of Bromyard.[5] This service was also owed, at various times, by Henry del Ree (inquisition 1295),[6] Laurence de Abbetot (inquisition 1301)[7] and Thomas de Blechyndon (inquisition 1324).[8]

As a manor house as well as being used as accommodation it would have had barns and storerooms for the bishop's share of the produce of the manor. Occasionally the temptation offered by these stores would lead to theft, as in 1351 when Stephen, son of Hugh le Yong, was granted a pardon for breaking into it and carrying away stores of wool.[9] When the house ceased to be an episcopal residence in 1356 the farm buildings were retained, as they were at all the manors (Tonkin, 1976, p53).

The property would have been cared for by a bailiff. In 1331 William Brown was a local bailiff to the bishop[10] and in 1383 Simon Walcroft, the bishop's bailiff of Bromyard was pardoned for having permitted William, son of William de Hakeleye, to escape from prison where he had been held on suspicion of larceny.[11] In 1473 Richard Morley served as a bailiff, as did John Chamberlain in 1504.[12]

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1 There were two priests at nearby Avenbury at Domesday. The only other priest who may be considered as being recorded in the hundred was at Bishops Frome, although this manor was split between Plegeliet and Radlow hundred (Thorn and Thorn, 1983).

2 These were the official residences – other houses were leased or purchased by various bishops in a private capacity such as a house in Earley, near Reading, which Bishop Thomas Cantilupe (1275 – 1282) used (Alington, 2001).

3 *In chief* - ie directly of the crown.

4 Calendar of Inquisitions Post Mortem of the reign of Henry III, inquisition 27th October 1266 (the eve of SS Simon and Jude, 50 Henry III).

5 Calendar of Inquisitions Post Mortem of the reign of Henry III, inquisition 7th November 1272.

6 Calendar of Inquisitions Post Mortem of the reign of Edward I, inquisition 5th November 1295.

7 Calendar of Inquisitions Post Mortem of the reign of Edward I, inquisition 21st June 1303.

8 Calendar of Inquisitions Post Mortem of the reign of Edward II, inquisition 4th May 1324

9 Calendar of Patent Rolls for the reign of King Edward III, 15th November 1351.

10 From the *Kyre Park Charters* – quoted in Williams, 1987, p50.

11 Calendar of Patent Rolls for the reign of King Richard II, 2nd October 1383.

12 From the *Kyre Park Charters* – quoted in Williams, 1987, p50.

The two priests and a chaplain at Bromyard at Domesday would probably have served the whole hundred - originally the *parochia* of the church. Strangely, the only other priests recorded in the hundred[1] are two at Avenbury, the nearest village to Bromyard. Avenbury however was an anomaly. It was a possession of the Church of Worcester from an early date – at least the time of Bishop Waerfrith of Worcester (973 – 915)[2] – and the special status of the church with its two priests probably reflects a small monastic community (Williams, 2000, p24). Elsewhere in the county the minsters at Leominster and Ledbury also originally appear to have served large parochiae.[3]

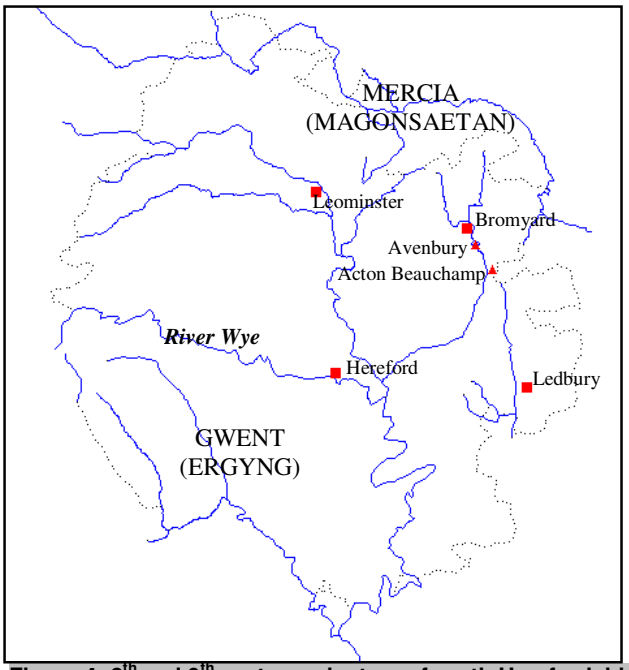

Figure 4: 8th and 9th century minsters of north Herefordshire.

These were Mercian or Magonsaetan minsters. To the south-west of the River Wye, Ergyng (Archenfield) was the responsibility of the British (Welsh) church.

Gradually other churches were built and priests appointed to them, creating the more familiar parish system which survives today. The three clerics at Bromyard seem to have been the forerunners of the *portioners*. The church at Bromyard was a portionary minster[4] served by three priests who received a *portion* of the tithes of the parish. In the later Middle Ages these portioners, who were appointed sometimes by the bishop and sometimes by the king,[5] were church or state officials who held office elsewhere but each had a house and a barn at Bromyard. This was a means of providing incomes for favoured clerics.[6] Their only apparent serious duty was the appointment of the Vicar of Bromyard, who was responsible for the cure of souls in what had become a medium-sized parish in the modern fashion.

1 It seems likely that not all priests were recorded – there are just over 1,000 altogether in England (Darby, 1960, p346) – however the broad gist of the argument remains.

2 Finberg's *Early Charters of the West Midlands* number 417, page 141.

3 Another ancient minster, actually situated within the parochia of Bromyard, was founded at Acton Beachamp in 718 (Hillaby, 2001, p65) - this is not mentioned in Domesday however.

4 It was not a collegiate church which would have had a dean or master (Williams, 1987, p19).

5 The king would appoint portioners during the time that the see was vacant.

6 Almost always clerics. There seems to have been no reason why a member of the laity could not be a portionist, and indeed John Chirford, a lawyer, was recorded as a portionist in 1410, but this was an exception (Williams, 1987, p21).

The *First* portion was Astley or Lower Court. This property was situated directly north of the church and was granted to *John Tyssebury* in 1407 when he held it together with a prebend in Salisbury Cathedral.[1]

The *Second* portion was Over or Upper Court, or Mill Hill Court. In 1379 *John Botuler* was nominated for this portion, then vacant,[2] and in 1387 *Richard Wynchecombe* was ratified as parson of *Slymbrigg* and portioner of *Overhall* in the church of Bromyard.[3] In 1389 *John Godmeister* had this portion.[4] The *Third* portion, lying north of the church between the First and Second portioner's houses, was *Middle Court*. Middle Court was the centre property of the three portioners' houses and was known as the *Third* portion. This portion was granted again in 1369, 1388 and 1389.[5]

During the 14th century, state papers frequently mention appointments to the portions at Bromyard. In 1325 *Thomas de Asteleye* is recorded as holding the prebend which *Thomas Laffeld* lately held at Bromyard,[6] but in 1330 *Thomas de la Felde* still held this same prebend.[7] That the Bromyard portions were held together with other offices is demonstrated when the grant to *William de Edyndon* of the prebendal portion *'which John, bishop elect of Hereford had in the church of Bromyard'* is made, together with the prebend of *Poteston* (Putson) in Hereford Cathedral.[8] The Putson prebend was associated with this portion during this period again in 1355, when *Peter de Wotton* is ratified as the incumbent of the prebend of Putteston in the church of Hereford and the prebendal portion of the church of Bromyard *'which William de Edyndon had 1000.'*[9] This portion was granted to no less a person than *William de Wykeham* in 1361[10] and in 1366 the name *'Middelcourt'* is specifically used of a portion granted to Stephen de Eyncheton.[11]

The situation at Bromyard was paralleled at Ledbury, where there were two portioners – one at Upper Hall, or Over Court, and the other at Lower Hall, or Nether Court (Hillaby, 1970, p26). Here too was an ecclesiastical core, which included, besides the portioners' houses, the bishop's palace and the parish church. Ledbury is perhaps an even clearer example of an early minster church than Bromyard, and in Domesday sat in a large compact holding of the church which may have been the gift Mildfrith[12] in the late 7th century (Hillaby, 1997).

Richard de Capella, who was Bishop of Hereford between 1121 and 1127, probably founded the boroughs at Bromyard and Ledbury. De Capella would have been an experienced administrator and well aware of the possible benefits of borough creation, having been Keeper of the Royal Seal between 1107 and 1121 (Hillaby, 1997, p12).[13] Near this time boroughs were also founded at Ross-on-Wye in Herefordshire, Bishops Castle in Shropshire and Prestbury, near

1 Calendar of Patent Rolls for the reign of King Henry IV, 5th May 1407
2 Calendar of Patent Rolls for the reign of King Richard II, 28th June 1379
3 Calendar of Patent Rolls for the reign of King Richard II, 11th October 1387
4 Calendar of Patent Rolls for the reign of King Edward III, 14th December 1389
5 Calendar of Patent Rolls for the reign of King Edward III, 3rd February 1369, and for the reign of King Richard II 2nd December 1388 and 14th December 1389
6 Calendar of Patent Rolls for the reign of King Edward II, 3rd February 1325.
7 Calendar of Patent Rolls for the reign of King Edward II, 15th February 1330. Thomas Laffeld or de la Felde appears twice.
8 Calendar of Patent Rolls for the reign of King Edward III, 28th March 1344.
9 Calendar of Patent Rolls for the reign of King Edward III, 6th March 1355
10 Calendar of Patent Rolls for the reign of King Edward III, 24th July 1361 - William of Wickham - Bishop of Winchester, 1367 to 1404, founder of New College, Oxford and Winchester School.
11 Calendar of Patent Rolls for the reign of King Edward III, 6th February 1366
12 Mildfrith, regulus of the Magonsaetan in the earlier 8th century (Stenton, 1971, p47).
13 Within three months of his translation to Hereford, de Capella had persuaded the king (Henry I) to grant him a fair in Hereford – this fair was variously entertaining or irritating the citizens of Hereford at the time these lines were written in May 2001.

Cheltenham in Gloucestershire (Hillaby, 1970). These boroughs may have been founded by the bishop in competition with the Prior of Leominster, where the borough may well date from the same period, that is the 1120s (Hillaby, 1987, p 563).

The Bishops of Hereford's proprietorial relationship to Bromyard is emphasised in 1324 when it is referred to as *Bishop's Bromyard.* In that year Adam Orleton, the then bishop, together with others, assaulted the Prior of St Guthlac's, Hereford, who was attempting to take away property which had been confiscated from the bishop during a dispute with Edward II.[1]

At Bromyard the new borough seems to have been laid out to the south of the area occupied by the church and the palace. It consisted of a new street connecting the roads leading from the south-west and the south-east. This street was known as *Nova Vico* - New Street – in the later 13th century and *New Streete* in the 16th century. This street is now High Street and Broad Street and would have had burgage plots to the north and south.

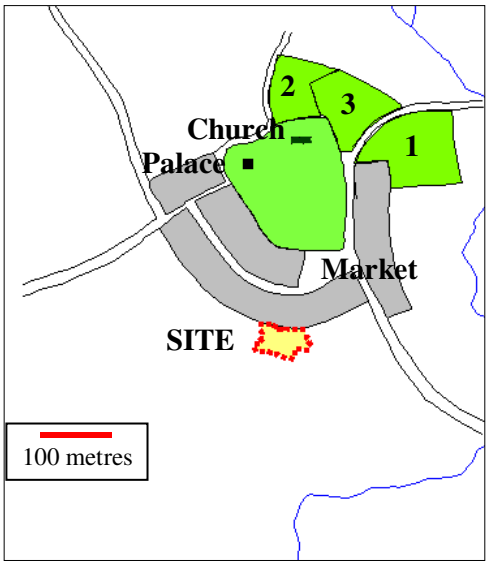

Figure 5: Bromyard in the mid 12th century. The new borough was laid out to the south of the palace and church, probably by Richard de Capella, Bishop of Hereford 1121 – 1127.

The position of the blocks of burgage plots is conjectural. However the original borough would almost certainly have had a simpler plan than it seems to have had in the later 13th century – see Figure 6.

The curved street running west from the market seems to have been new – *Novo Vico*. The north to south street on the east side of the market was *Veteri Vico* – the old street.

A large market place was established on the north side of the eastern end of this street. To the west of this the north-south street which is now composed of Church Street and Sherford Street was probably also burgaged – the later 13th name *Veteri Vico* — Old Street – would seem to suggest so. It would seem likely that burgages were also laid out at the north-eastern end of Cruxwell Street as this was the road to Hereford from the palace and the church, and therefore a prime site for development.

Towards the end of the 13th century a survey of the estates of the Bishop of Hereford was carried out. The data – manors, rents and so forth were entered into a volume, which is known as the *Red Book* from the colour of its leather binding. The Red Book lists the tenants of Bromyard Foreign[2] and the burgesses of the borough of Bromyard. The survey was carried out street by street, with each street name being followed by the names of the burgage holders and their

[1] Calendar of Patent Rolls for the reign of King Edward II, 18th May 1324. Adam was revenged on Edward - it was famously his ambiguous orders which were blamed for Edward's murder in Berkely Castle.

[2] Bromyard Foreign is that part of Bromyard parish outside the borough itself.

holdings – i.e. whether a single burgage, a part burgage, or a holding larger than a single burgage (Williams, 1987, p3).

In Bromyard, the Red Book lists 230[1] named tenants who held whole, parts or multiples of burgages. The streets which were burgaged included *Veteri Vico* (42¼ burgages), *Novo Vico* (30¼), *Vico de Meydeneswelle* (12), *Vico de Crokeswalle* (35), *Vico de Avonebury* (7½), *Vico de la Lone* (13½) and *Vico de Stonehulle* (20¾). In total some 161¼ burgages are listed.

Besides the burgages in named streets - for which the annual rent was one shilling for a whole and sixpence for a half burgage - there were also market stalls or *seldae*. The rent for seldae was threepence or fourpence *per annum* and Bromyard had 47½ of these. This was a higher figure than the bishop's other Herefordshire boroughs - Ledbury had 33 and Ross only 9 (Hillaby, 1970, p12).

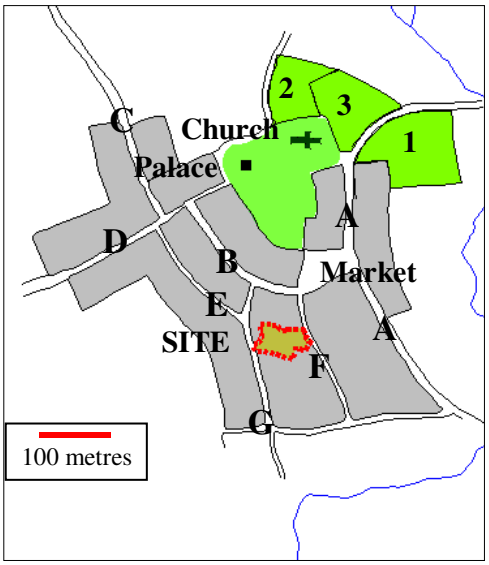

Figure 6: Bromyard in the later 13th century. The original borough had expanded considerably since its foundation.

The Red Book details the holdings of the burgesses at this time with 230 named persons holding 161½ burgages. There were a further 47½ market stalls or *seldae* held by 26 people.

A calculation based on probable household numbers gives a population of between 1100 and 1500. This may be the highest level of population that Bromyard reached for another 600 years.

Street Names -
A: Veteri Vico
B: Novo Vico
C: Vico de la Lone
D: Vico de Crokeswalle
E: Vico de Stonhulle
F: Vico de Meydeneswelle?
G: Vico de Avonebury?

A total of 26 tenants rented the 47½ market stalls. There were varying sizes of holdings – from one half, in the case of Wittms Bilon, up to the six stalls rented by Willus Talp (Williams, 1987). At some stage these seldae would have become more permanent in character, gradually evolving into buildings which, as in most medieval towns, came to encroach upon the original market area. Exactly when this process began is not easy to establish, but as early as 1273 a grant specifies a *'solda edificata de Ledebyre'* implying that this process of creating permanent structures – edifices – in the market place had begun by that date in Ledbury (*ibid*, p12). Whether the Bromyard seldae were permanent in the later 13th century is therefore not known.[2]

Another survey of Bromyard was undertaken by *Swithin Butterfield* in 1575 for the Bishop of Hereford. This survey lists 170 burgages and 7 tenements, compared with the 160¾ burgages in the Red Book. However, multiple holdings had become commonplace and the number of named burgage holders is considerable less than in the Red Book.

[1] Only one burger obviously holds more than one discrete property – Radulphus Pistor held one burgage in Veteri Vico and half a burgage in Vico de Stonhulle

[2] Of the 26 named stall-holders, 13 held burgages or part burgages as well as their market stalls. Of those who held seldae only, one, Willus Talp, held 6 stalls. This may be an indication of the process of consolidation which, if it had not already done so, would lead to substantial permanent structures being built on part of the market place.

In 1664 the hearth tax returns recorded 164 houses in Bromyard. This compared with 227 in Ledbury and 226 in Ross-on-Wye (Faraday, 1972). In 1676 the Compton Census recorded the population of Bromyard as 938 conformists, 4 papists and 31 non-conformists. Leominster (1603, 6 and 105), Ledbury (1016, 0 and 2) and Ross (1071, 24 and 110) were all more populous (Whiteman, 1986). At this time Pump Street may have been a fairly desirable residential area. At the southern end of the street, Tower Hill House was built in around 1630 and is described by Pevsner (1963) as *"the best house in Bromyard'*. Pump Street also possesses two buildings that have evidence of past commercial use – Nunwell Priory, a 17th century building with well-lit attics which may be weavers' lofts and Orwell House, where a dormer window may have been used to winch loads to the attics (Tonkin, 1980).

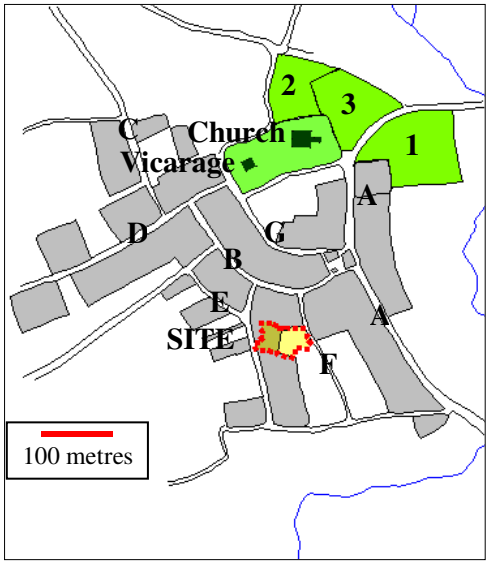

Figure 7: Bromyard in the 16th century. Map based on Williams 1987, pp 48 and 49.

Street Names -
A: Shurforde Streate
B: New Streate
C: Mylborowe Lane
D: Croxewall Streate
E: Nunwalle Streate
F: Maydewell Lane
G: Bowbury Streate

Hillaby (1970, p29) suggests that Bromyard may have had a smaller population in 1801 than it did in the late 13th century. Certainly the figure for the latter is not likely to have been less than about 1200 (see table 14, page 64) while the 1801 figure was only 983.

The evidence for variation in the population of Bromyard in the post-medieval period is ambiguous. A study of the parish registers, which date from 1538, has shown that in almost every 10-year period baptisms exceeded burials (Pearson, 1974). In the 16th century the town, threatened with the closure of their grammar school, pleaded *"The Towne of Bromyard ys a markett towne and greatly Replenyshed with People."*[1] The hearth tax returns for Lady Day 1664 recorded a total of 164 inhabited houses in Bromyard (Faraday, 1972).

Certainly some vigour seems to be apparent in the illegitimacy figures, which start fairly high and then fall in the early to mid 17th century. From that point the figures rise in the late 17th through 6% to 8% in the early 18th. In 1755 illegitimate births accounted for 10% of the total – in 1770 15%; in 1845 16%; in 1852 17% and in 1853 18%. This early Victorian figure may be compared with a 1972 figure of 11%.[2]

[1] E D Pearson (1974) quotes A F Leach (1896), *English Schools at the Reformation*, p98.
[2] All figures from Pearson, 1974.

The local church can scarcely have been pleased with these statistics. Certainly in Lent most other forms of entertainment were discontinued. In 1869 "*it was thought good by our reverend vicar to make just one exception to this general rule when Colonel Beville, just returned from the Abyssinian war was permitted to give a lecture.*"[1]

Taking the into account parish register evidence that infant baptisms consistently exceeded burials, the factor that limits Bromyard's population must be emigration, a common enough occurrence in small non-industrial towns at the time.

year	Males	females	total	occupied houses	unoccupied	building	total
1801			983				
1811	515	586	1101	227	17	7	251
1821	585	642	1227	249	24		273
1831	705	729	1434	273	19		292
1841	586	631	1217	258	39	2	297

Table 1: The population of Bromyard in the early 19th century

The census figures for Bromyard show that there was a moderate growth in population between 1801 and 1831. A drop of 15.2% between 1831 and 1841 is apparently connected with a change in the Poor Law. It had been the custom of surrounding parishes to move their poor into Bromyard because of the low rents of cottages there (Waller, 1992, p16). In 1836 the law was changed to prevent this and, as a consequence, the population figures dropped and the census returns indicate that some 39 houses remained unoccupied in 1841.

Despite the evidence of the parish registers, one of the contributory factors limiting Bromyard's population growth may have been ill health. In 1850, Benjamin Herschel Babbage, Superintendent Inspector, reported to the General Board of Health on a Preliminary Enquiry into the Sewerage, Drainage and Supply of Water and the Sanitary Conditions of the Inhabitants of the Town of Bromyard. At the time, only 11 places in the country had a higher mortality rate than Bromyard (Waller, 1992, p16), and he commented that *"during the short period of my stay I was struck by the frequent tolling of the passing bell"* (*ibid* p15). The mortality rate Babbage records in 1850 was 27.5%. At the time the national average for England and Wales was 22.2% (Armengaud, 1973). The Herefordshire folklorist Ella Mary Leather wrote that in 1909 an old inhabitant of Bromyard could remember that mourners would carry sprigs of rosemary and then throw them into the grave (Leather, 1912). Bromyard must have grown a lot of rosemary.

[1] Hereford Times, 6th March 1869.

The Babbage Report describes the drainage of Bromyard. It was common for drains from privies at the back of houses to pass underneath them to public drains in the street outside. The former drains were not sealed and fumes from them filled the houses. In the streets, many of the public drains were uncovered – "*Another public drain which runs down Pump Street and passes by the side of the large tanyard was uncovered and formed a black foetid ditch having a surface of about 80 square yards".* This drain originated in Sheep Street (now Old Road) and received surface water from the surrounding valley. From here the drain run down High Street and into Pump Street where after a short distance it "*went into the fields near Mr Jenks' tanyard"* (Waller, 1992, p16).

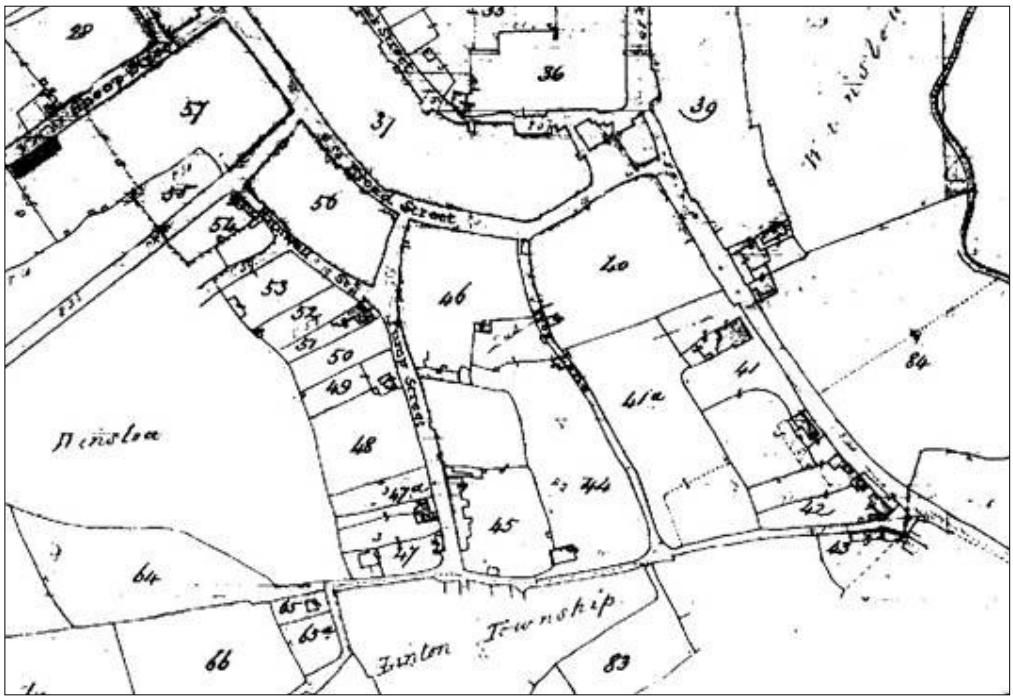

Figure 8: Part of Bromyard tithe map 1843

The south side of Broad Street, the area immediately to the north of the present site, was one of the locations particularly prone to visitations of fever. Sheep Street too was a place where typhus fever often struck – 27 inhabitants had died there in the two years preceding Mr Babbage's report (*ibid*).

The drains in the streets may have been long established – at any rate Babbage makes no mention of their origin. They were clearly offensive – a drain in Back Street, now Rowberry Street, received not only the waste from houses but also that from a slaughterhouse (*ibid*).

The tithe map and apportionment of 1843 lists James Jenks as the owner and occupier of property on the western side of Frog Lane (number 44 on the tithe map). No name or land use is recorded for this property, the northern part of which lies within the present site.

A John Jenks of Grendon Bishop had purchased some land in Linton township in 1771. His son James, and grandson, also called James, were tanners and landowners in the Bromyard area (Williams, 1987, p145).

At time of the 1841 census one of the Pump Street houses was occupied by Elizabeth Jenks, listed as of independent means. Also in the house were her two twenty-year-old sons,[1] James and John Jenks, both described as tanners. Other inhabitants of the house were John Gwilliam, a clerk of 60 and Joseph Grice a 60 year old currier. Also in 1841 the register of the Bishop of Hereford records that the house of James Jenks in Bromyard was one of the places licensed for Methodist worship (Waller, 1980).

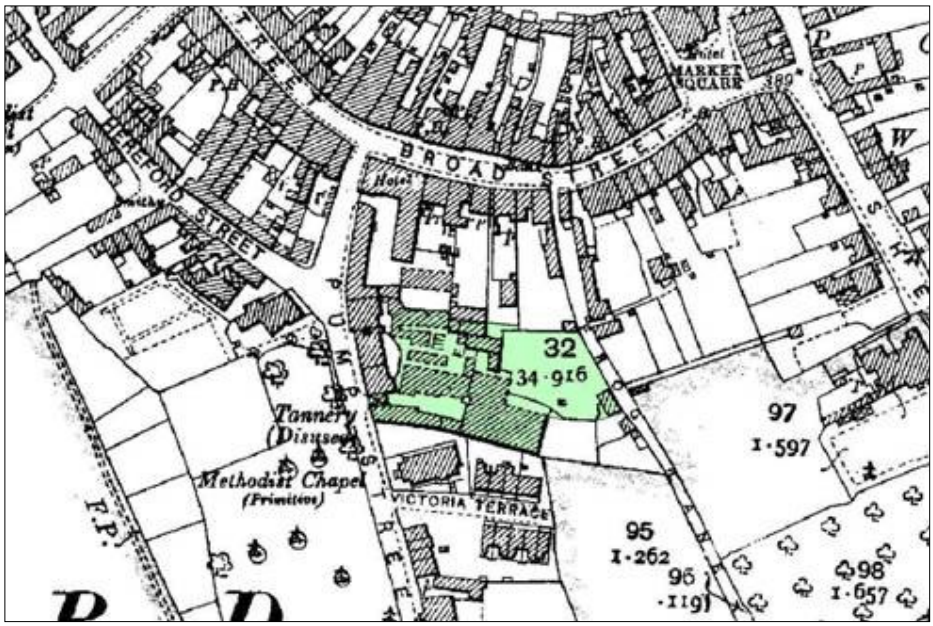

Figure 9: Extract from the 1903 OS 2nd edition 1:2500 plan

By 1851 the household had shrunk to James Jenks, aged 34, his 32 year old wife, Sarah, and John Gwilliam. In this year also, Jenks' house, the tanhouse, was the location of the Wesleyan Methodist chapel, which had no stated minister. The room in the tanhouse which was used as a chapel could seat 100 people and also served as a Sunday school for 45 pupils (Waller, 1980, p93). In 1857 a new Wesleyan Methodist chapel was opened in New Road and was known as Jenks' Chapel (*ibid*). The Primitive Methodist chapel was also in Pump Street in 1851.[2]

The census of 1861 casts more light on James' scale of operation by describing him as a tanner employing ten men, two boys and one woman. His household comprised his wife and her sister, Mary Griffiths, and a 22 year old house servant, Ann Wood.

Jakeman and Carver's Directory of Herefordshire for 1890 lists, under the heading, *Tanners* – Jenks, James, Tan House, Pump Street, Bromyard. Kelly's Directory for 1900 lists Thomas Day as the tanner in Bromyard. By 1903 the site is marked '*Tannery (Disused)*' on the 1:2500 OS plan.

1 Ages in early censuses are usually rounded - James Jenks was 34 in 1851.

2 From Lascelle's Directory, 1851

In 1905 the local Nuisance Inspector reported that he had received a complaint about liquid manure from the yard of the Falcon Hotel next door percolating into the tanyard pits.[1]

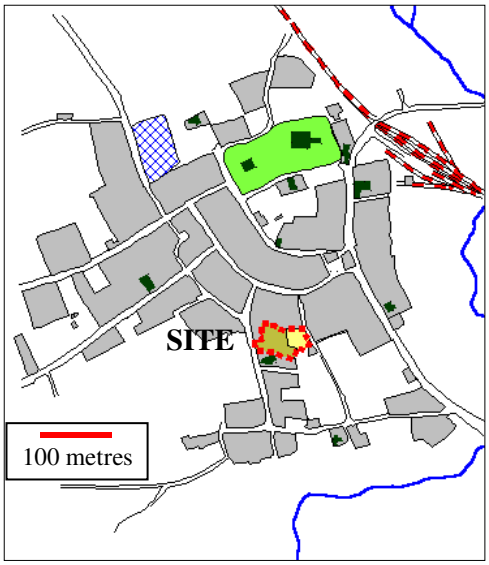

Figure 10: Bromyard in 1903, based on the OS 1:2500 plan of that year.

The railway arrived with the opening of the Worcester, Bromyard and Leominster Railway between Bromyard and Worcester in 1884. This service expanded to run five trains a day between Bromyard and Worcester but failed to show a profit. The connection with Leominster was not completed until after the company had been purchased by the Great Western Railway. In 1897 this part of the line opened from Bromyard via Steen's Bridge to the main line between Hereford and Leominster (Crosskey, 1980).

The tanyard site was sold by a Mr Wells to T E Mitchell in 1917[2] but continued to be known as the Tan House. In 1954 it boasted the only grain drying plant of its type – belonging to Messrs J W Williams – in a radius of 14 miles.[3] Before its most recent use as a car park, the site was as a chemical warehouse owned by Messrs Bayers.

1 Bromyard News and Record 9th February 1905
2 Bromyard News and Record 10th August 1917
3 Bromyard News and Record 16th September 1954

Plate 1: George Fox

2.3 The Quakers

The Religious Society of Friends, or Quakers, was founded by George Fox (1624 – 91) during the unsettled religious and social climate of the Civil War in the mid17th century Many Quakers had fought on the side of the Parliamentary Army because they felt betrayed by a system that appointed members from the wealthy and privileged classes. During the Commonwealth they became pacifists and ever since have been known for their peaceful ways. They were called Quakers because '*wee bid th[e] they trembled at the Word of God'* (Penney, 1911, vol 12, p4). They were encouraged to keep plain and simple all aspects of their life, extolling Christian values for example in their form of worship, their speech, behaviour and clothing.

Quakers gather together for worship in unconsecrated meeting houses which are bereft of religious ornaments or symbols. They believe the people are the church and not the building "…*they are the living stone's*" (in Stock, 1998a)

Regular meetings are held both locally and nationally to formulate rules and regulations; these are contained in their *Book of Discipline*. This was first issued in 1738 in manuscript form; the first printed edition followed in 1783 and it has been updated approximately every 30 years ever since. The book contains advice on matters relating to everyday life and especially to marriage, births and burials.

Many early Quakers were buried in their parish churchyard, however most preferred not to as *'all ground is Gods ground and to consecrate is unnecessary.* (In the Journal of the Friends' Historical Society, Penney 1918, vol 15, p45). It became common practice to be buried in gardens or orchards and as this was not always possible it became necessary to obtain their own land to provide burial places.

In keeping with their desire for simplicity, funerals were conducted with dignity and they were beseeched not to imitate the world in their outward shows of grief and lavish use of flowers. Coffins were to be kept simple so that there was no noticeable difference between richer and poorer families. Sawdust and wood shavings were used as an absorbent material in coffins to delay biological delay and also in the graves themselves to absorb any unwanted mud or water. The Burial in Wool Act (1666, 1678, 1680, repealed 1814) required everyone to be buried in a woollen garment to help keep the wool trade afloat. Quakers had no problem with this as they considered it to be a civil rather than a religious matter.

In 1682 George Fox wrote to Quaker Meetings:

'And all that say: That we bury like dogs - because we do not have superfluous and needless things on our coffin and do not go in black and a scarf upon our hats and white scarf on our shoulders and give gold rings and have sprigs of rosemary in our hands and ring bells. How can you say we bury our people like dogs because we cannot bury them after the vain pomp and glory of the world?' (*ibid*).

Vaulting arches, tombstones or other funeral structures were discouraged. Anyone erecting headstones was asked to remove them. The advice on this was repeated several times, suggesting that not all local meetings complied with the original request and it was eventually repealed in 1850. All monumental stones were to be of uniform size, with only name, age and date of death inscribed so as not to show the difference between rich and poor – but even this rule was often ignored.

"This Meeting being informed, That Friends in some places have gone into the vain, & empty Custom of erecting Monuments over the dead Bodies of Friends, by Stones, Inscriptions, Tombstones &c, and being very desirous Friends should keep a commendable Plainness and Simplicity in this, as well as other Respects; It's therefore the Advice of this Meeting,

That all such Monuments as are already in being over dead Bodies of Friends, should be removed as much as may be, with discretion and convenience: And that none be any where made, or set up by, or over the dead Bodies of Friends, or others in Friends Burying-places for time to come (sic) (1717)". (Stock, 1998a, 131)

In 1691 the use of the titles 'Mr' (master) or 'Mrs' (mistress) before names was prohibited as were place names with ecclesiastical connotations, as in St Ives or Bury St Edmonds. The Quakers objected to using the names of days and months that were derived from pagan gods or goddesses and so they used numbers instead. The days were called First (Sunday) to seventh (Saturday) and the months were similarly treated except for September, October, November and December which were acceptable as the names were derived from Latin numbers. When the Julian Calendar was in use, September was the seventh month, October the eighth etc but in 1752 the Gregorian Calendar came into use and September was no longer the seventh month but the ninth, October the tenth etc so the Quakers abandoned the use of them because they had become untruthful.

The view held that Christian burials are aligned east-west does not necessarily apply to Quakers. As with public cemeteries, Quaker burial grounds appear to be laid out to make best use of space and do not have to conform to an ordered special form although the head to foot sequence is more common than the side by side configuration. Graves, especially those of children, would be placed around the perimeters. Families were not necessarily buried in the same plot and sometimes where there was lack of space two or three burials were in the same grave. Often non-Quakers were buried in these plots. The often-heard statement that Quakers were buried standing up – the impression given by the use of the small flat gravestones - has not been proved archaeologically!

There were five meeting houses in Herefordshire by the end of the seventeenth century; Almely Wooton, Bromyard, Hereford, Leominster and Ross on Wye.

In 1668, William Perkins and Roger Beck were the only two *'ffriends'* who lived in Bromyard. They sometimes went to meetings at the house of Widow Crump who lived in Edvyn, about 2 miles from Bromyard. About this time John ap John & Richard Davies (who both lived in Wales not far from Welshpool) had a meeting at

Bromyard in the house of William Perkins, a tanner, where "…*several ffriends of Leominster were present & also a great many rude people"* [1]

As the number of Friends grew it appears that the houses belonging to William Perkins and Roger Beck could no longer accommodate the meetings. A meeting house with a small burial ground was established in 1677, probably at what is now 37 High Street. The burial ground is referred to in the 1970 title deeds of The King's Arms as "…*an ancient burial place belonging to the Society of Quakers and called the Quakers' Burial ground."*

By 1850 this burial ground was disused, with The Babage Report of 1850 referring to this ancient burial ground as, "*The back of the premises of many of the houses upon the S.W. side of High Street run back to Nunwell Street. I found here an Ancient Burial ground of the Quakers turned into a cattle yard which was in a very filthy state…* "

Plate 2: A Quaker meeting

A Quaker meeting house was in active use at the property that is now 16 Broad Street, Bromyard from 1726 and continued to be used until the early 1900s. There is a reference to the use of the ground around the meeting house as a burial ground from 1744, when land was purchased from John Beck and conveyed to John Harris and others in trust for a meeting house graveyard.

Figure 11: Writing carved on the sill of the north window of the meeting house

[1] abridged from - The First Publishers of Truth [1907] Edited by Norman Penny, also Waller [1970]

The name and date 'Josiah Brettell 1726' does not appear in the records as belonging to the Society of Friends. It may be the signature of the builder and the date of the completion of work.

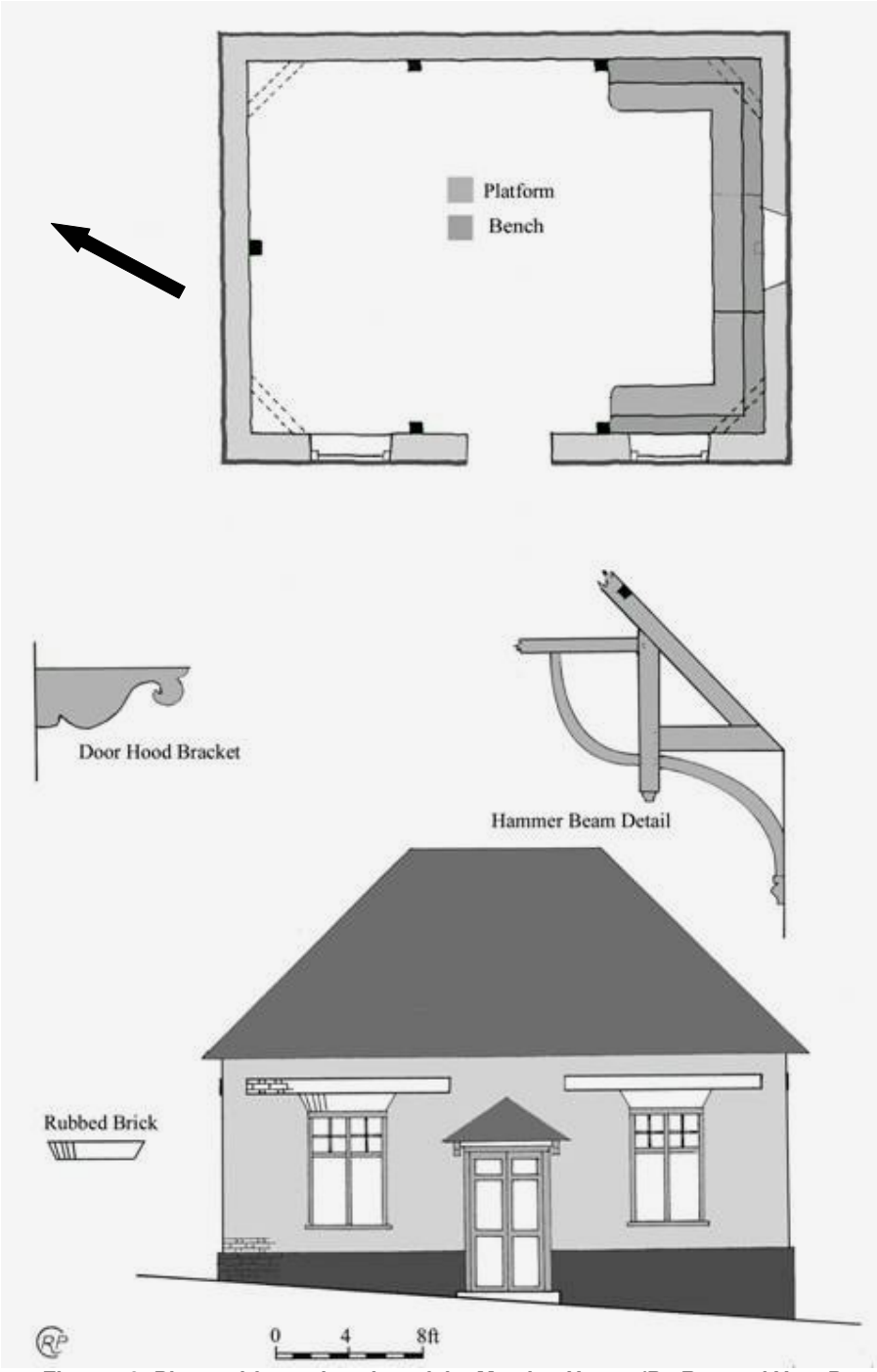

Figure 12: Plan and front elevation of the Meeting House (By Roy and Vera Perry)

The meeting house was built with fine quality bricks laid on a small plinth. It had tall casement windows. The style was popularly known as William and Mary although this is an anachronism. The roof was of hammer-beam construction

supported by posts on the inside of the front and rear walls and by brackets inserted into the end walls upon diagonal timbers across the corners.

Plate 3: Detail of the hammer beam construction of the roof (provided by The Bromyard History Group)

The meeting at Bromyard was never large and continued because of the loyalty and zeal of the Beck family and by 1850 Friends were persuaded by James Jenks, tanner, and one of the leading figures in the nonconformist community in Bromyard, to lease the meeting house to the British & Foreign Bible Society as a boys' school.

Plate 4: The Quaker meeting house. The front faced west and had two plain windows either side of a central doorway. The interior was 28' 3" x 20'3" and was undivided.

According to Lascelles Directory of 1851 the school was partially supported by fellow nonconformists, subscriptions and the 'children's pence'. 60 – 70 scholars were taught here by John Millington, a certified teacher from the British & Foreign School Society Training College at Borough Road, London.

However, the building did not conform to standards set down by the 1870 Education Act for schools in receipt of financial support from the government. A new school was built on the initiative of James Jenks and the meeting house was vacated. It was restored to its original purpose and from 1885 Meetings for Worship were held until the turn of the century. By 1900 meetings had ceased in Bromyard but in later years experienced a revival that continued until 1937, when the meeting house closed. It was sold in 1939 and demolished around 1976.[1]

Plate 5: the stone plinth of the meeting house

At the time of the excavation the only visible remains of the building were its stone platform and the garden, now overgrown and unkempt.

[1] From notes by J C Hillaby,1969 on a site visit to the Meeting House

2.4 Archaeological background

Bromyard was surveyed as part of the Central Marches Historic Towns Survey in the 1990s (Dalwood, 1996). The tanyard is identified in this as a discrete site[1] as are other post-medieval elements in immediate area, including the Quaker meeting house and burial ground immediately to the north.[2]

As is the case in the other Boroughs of the Bishop of Hereford in the county, Ledbury and Ross-on-Wye,[3] few field projects have been conducted in Bromyard.

Work in the area of the church and the presumed site of the bishop's palace[4] has included unpublished salvage recording which identified the probable remains of an Anglo-Saxon church on the site of the present church.[5] A burial of a similar period is also recorded from an area south of the church, now outside the churchyard.

A small excavation was conducted in the grounds of the former local grammar school in 1992, in the area of the third portioner's house, Middle Court.[6] This recovered Roman and medieval pottery, but only from post-medieval contexts. No earlier features or deposits were recorded (Dalwood, 1992).

In 1993 another small evaluation excavation was conducted to the north of the church in the area of St Peter's School and which had formally been within the grounds of the house of the second portioner, or Over Hall.[7] This recovered pottery from the 14th to 15th centuries but no clearly interpretable features (Napthan, 1993). A subsequent watching brief on this site was also not very illuminating (Wichbold, 1995).

In 1997, an evaluation in Rowberry Street attempted to locate evidence specifically of '*Anglo-Saxon burials and/or medieval buildings.'* This project recorded a stone cellar with mortared walls, which may have been an undercroft associated with the palace. A ditch of possibly medieval date was also observed but the paucity of clearly medieval pottery – 1 sherd weighing 2 grams in an assemblage of 133 sherds weighing 1308 grams – made dating of both features uncertain (Dalwood *et al*, 1997). A subsequent watching brief on this site in the autumn of the following year failed to clarify the dating issue (Bretherton, 1999).

Outside the ecclesiastical core of the town, an area believed to be within the medieval burgaged area to the west of the town centre was examined in 1994 but although 7 sherds of medieval pottery were recovered, they were all residual in later features and no medieval archaeology was observed (Cook *et al,* 1994). A salvage recording exercise on the same site in 1998 failed to find any additional evidence.[8]

On the opposite side of Pump Street from the present site, a watching brief on the site of Nunwell Surgery[9] also failed to find significant archaeological deposits. Here, a large cut feature was interpreted as evidence of terracing into the hillside. (Godbehere, 1993).

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1 Herefordshire Sites and Monuments Record 19570
2 Herefordshire Sites and Monuments Record 19578
3 See Victoria Buteux, 1996 – an *Archaeological Assessment of Ross-on-Wye, Hereford and Worcester*.
4 The ecclesiastic core of Bromyard - the church, palace and portioners houses form Herefordshire Sites and Monuments Record 11501
5 Herefordshire Sites and Monuments Record 3987
6 Herefordshire Sites and Monuments Record 31819
7 Also Herefordshire Sites and Monuments Record 31820
8 Herefordshire Sites and Monuments Record 21663
9 Herefordshire Sites and Monuments Record 15648

In 2001 three evaluation trenches were excavated at the present site but no evidence of medieval archaeology was found. Post-medieval animal bones and horn-cores were recovered from tanning and associated trades as is to be expected from an industrial area of the town (Sherlock and Pikes, 2001).

Figure 13: Previous archaeological projects in Bromyard. The by-pass was constructed in the 1960s. Herefordshire Sites and Monuments Record holds no information regarding archaeological observations made along its route.

1 **Nether Court – St Peters School – Napthan 1993 (HSMR 31820); Wichbold 1995 (HSMR 31821)**
2 **The Grammar School – Dalwood 1992 (HSMR 31819)**
3 **Bowling Green – Dalwood *et al* 1997 (HSMR 26337); Bretherton 1999 (HSMR 30635)**
4 **Ballhurst – Cook *et al* 1994 (HSMR 21663)**
5 **Nunwell Surgery – Godbehere, 1993 (HSMR 15648)**
6 **The Tanyard – Sherlock and Pikes, 2001 (HSMR 31059)**

3.0 Project aims and objectives

- The exhumation of any human remains likely to be disturbed by ground development in the disused Quaker burial ground and the recording of all archaeological materials which will be destroyed or damaged by the development within the tanyard.
- Full archaeological excavation of all features within the burial ground and monitoring of ground works within the site.
- To make a contextual, photographic and drawn record of all features excavated.
- To retrieve and record any archaeological material.
- To record negative evidence and to consider its implications.
- This work to be carried out following standard Institute of Field Archaeologists' Guidelines for Archaeological Excavation, and the methodology laid out in the Archenfield Archaeology Site Recording Manual.
- The work will result in the deposition of the primary archaeological archive and a final publication.

4.0 Methodology

4.1 Field methodology

The following methodology was employed:

- In the burial ground, a covering layer of modern dump, including rubbish, trees, tree roots and the underlying topsoil and subsoil were removed by machine. The machining was monitored by archaeological staff at all times and was stopped when archaeological material was encountered to enable recording to take place.
- The burial ground was suitably enclosed by fencing and plastic coverings so as to be out of public viewing.
- All structures and stratigraphic sequences uncovered were recorded. Appropriately scaled plans and section drawings were made.
- The presence of artefacts and ecofacts were recorded with a description of their type, quantity and original location.
- All retained artefacts and ecofacts were subject to further analysis.
- All descriptions of structures and deposits, photographic records, drawing numbers and sample numbers were recorded on the relevant data capture documents in accordance with Archenfield Archaeology's standard site recording procedures. All drawings were numbered, and initialled to show the site reference number, NGR or site grid reference and the scale at which they were drawn.
- Features were photographed next to an appropriate scale. Each photographic exposure was recorded in the photographic log.
- The location, context number and the reference numbers of any samples taken were recorded on a suitably scaled plan and indexed in the site logbook and the sample log as appropriate.
- Staff carrying out the evaluation excavation followed the guidelines laid down in the Archenfield Archaeology Health and Safety Policy

- Archenfield Archaeology conforms to the Institute of Field Archaeologists' Code of Conduct and Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology. All projects are, where applicable, carried out in accordance with IFA Standards and Guidance or Draft Standards and Guidance.

4.2 Processing methodology

- All retained artefacts and ecofacts were subjected to further analysis
- Dr Megan Brickley of Birmingham University, a recognised osteoarchaeologist, examined the human skeletons, and soil samples taken from around the skeletons (see section *6.4*).
- Stephanie Ratkai, a recognised ceramic specialist, analysed the medieval and post- medieval pottery (see section *6.5*).
- Ian Baxter, a recognised authority, examined the animal bones recovered from the site, and produced a short report (see section *6.6*).
- All non-graphic data relating to the contextual, stratigraphic and spatial relationships recorded on primary data capture sheets, together with data generated by specialists*,* was entered into a standard Archenfield Archaeology (Microsoft ©Access) database.

5.0 The results

5.1 The stratigraphy

The topmost layer in the Quaker burial ground was a 19th/20th century rubble dump layer (23) that consisted of building rubble, rubbish, trees and vegetation. This layer, along with the topsoil (25) and subsoil (26), were removed by machine.

The removal of the rubble layer exposed a herringbone brick-set floor (24) to the immediate west of the burial ground. This in turn was to the west of a north-south aligned stone wall (27) which was faced on both sides and bonded with a creamy white sandy lime mortar. This wall was built on top of an earlier dry stone wall on the same alignment. This wall (44) probably represents the western limit of the Quaker burial ground within the site.

To the east, the burial ground was defined by wall 105 which ran initially north-south before turning east. The southern wall was defined by an east-west running wall (104). This is probably of later date than walls 44 and 105.

Plate 6: Skeleton Number 75

Within the confines of the walls, the removal of the subsoil revealed the first archaeological features from the 19th and 20th centuries. The first was square-cut (30) dating from post-1970 and was located in the south-west corner of the burial ground. Other modern features included a shallow rectangular cut (35) which ran from east to west. This in turn was cut by a later field drain (32) that ran into a square-shaped sump (50) in the south-east corner. This was filled by upright stones (51) which bordered the sump, and by light grey brown silty clay (52) which was disturbed by roots. A contemporary rectangular-shaped feature butted the south wall. Pottery from this context was dated to the 19th century.

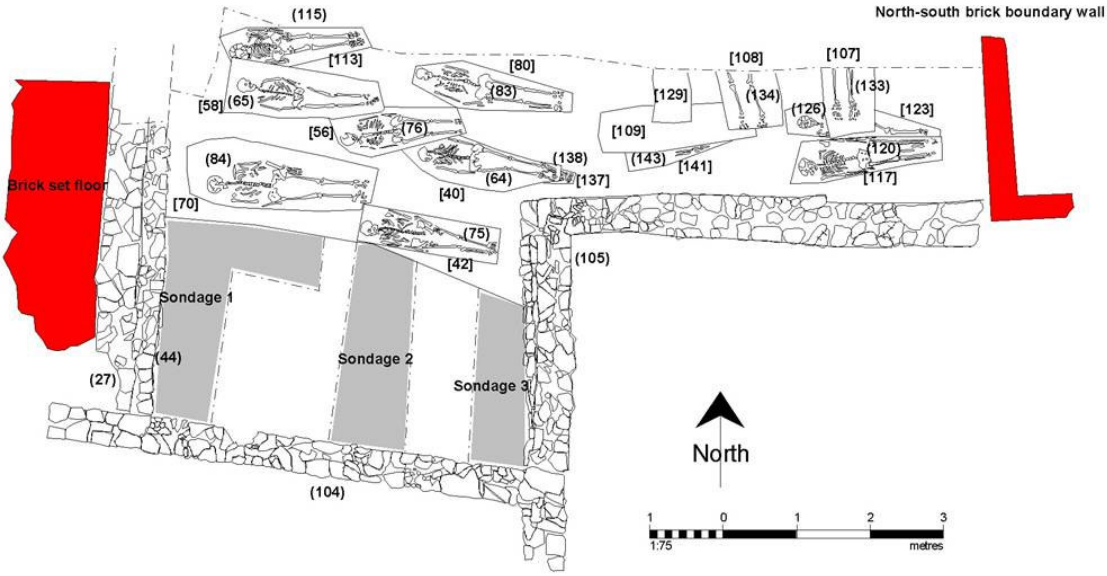
The first grave cuts (40 and 42) were aligned east-west. Skeleton No. 75 (see plate 6 above) was within grave 42. The yellow staining around the skeleton was left by the decayed coffin.

A total of fifteen graves were recorded. Twelve were orientated east-west and three north-south. Of the twelve east-west graves, eleven were excavated (see table 2).

Grave	Skeleton	Orientation	Depth (OD)	Excavated
40	64	E-W	117.19m	Excavated
42	75	E-W	116.70 m	Excavated
56	76	E-W	117.10-117.15m	Excavated
58	65	E-W	117.01m	Excavated
70	84	E-W	117.23m	Excavated
80	83	E-W	117.23m	Excavated
107	133	N-S	116.79m	Unexcavated
108	134	N-S	116.89m	Unexcavated
109	-	E-W	-	Unexcavated
113	115	E-W	117.22m	Excavated
117	120	E-W	117.45-117.5m	Excavated
123	126	E-W	117.21-117.18m	Excavated
129	-	N-S	-	Unexcavated
137	138	E-W	117.15m	Excavated
141	143	E-W	117.33m	Excavated

Table 2: The graves in the burial ground

The skeleton from grave 109 and those from the north-south aligned graves (107, 108 and 129) were left *in situ*. It was agreed with the contractor that the graves which were outside the area to be disturbed by machine would not be damaged. A boundary line was marked on the ground giving the graves a clearance of approximately 0.50 metres.



Possible north (rear) wall of a building associated with the Tanyard and shown on the 1903 OS map

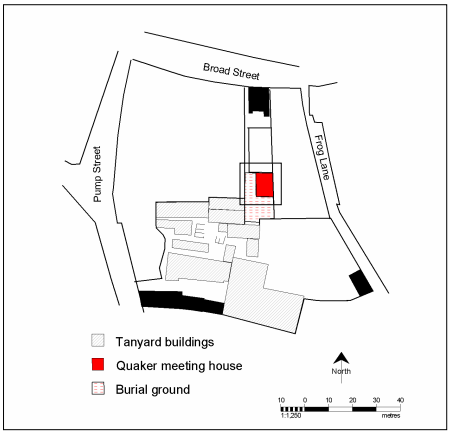


Figure 14: Plan of the excavated portion of the Quaker burial ground

The eleven human skeletons excavated were buried in rectangular graves with straight-cut sides. The deepest graves (42 and 58) were just over 1 metre deep. The base of grave 42 was 116.70 metres OD and that of grave 58, 117.01 metres OD. The base of one of the shallowest graves (40) was 117.19 metres OD.

The burials were all supine. Twelve were orientated east-west and three north-south. The skulls of the skeletons buried east-west were almost all facing south, probably due to the natural south slope of the ground. The bones were in a fair state of preservation, but some of the more fragile (especially the ribs) were fragmentary on lifting.

Most of the burials had evidence of wooden coffins which were identified by yellow-beige stains outlining the coffins. Ferrous nails and handles were also present; with coffin 63 having four ferrous handles and coffin 77 and 82 each having six. Both coffins 62 and 85 had six hinged bronze/brass handles.

Skeleton 84 (see plate 7 below) was the shallowest burial in the north-east of the excavation area at 117.23 metres OD. In the north-west the shallowest burial was 143 at 117.33 metres OD.

Possible medieval layers were disturbed by some of the graves. At the base of grave 58 a stone layer (72) overlay light yellowish green silty clay (73). From the interface between these layers, green-glazed medieval pottery dating from the 14th/15th centuries was recovered. Medieval pottery was recovered from layer 93 which was beneath grave 42 (116.70 metres OD).

Plate 7: Skeleton Number 84

Three north-south aligned graves which extended north of the excavation area were recorded. Stratigraphically these were of a later date than the east-west graves, with number 109 cut by the north-south graves 108 and 129. The later north-south graves disturbed the earlier east-west graves and skeletons (see Figure 14).

East-west grave 141 which contained skeleton 143 was cut by a later east-west grave 109. All that survived of the earlier skeleton was an articulated lower right arm. Evidence of a coffin consisted of a faint beige stain and four ferrous nails. The later east-west grave was not excavated. This was cut by the later north-south graves (129 and 135) which ran north from the excavation area

Plate 8: The right arm of skeleton 143. The rest of the burial had been cut away.

Skeleton 138 was of an infant/young child buried close to the boundary in an east-west position below the east end of grave 40. Infant/child burials were commonly placed along the extremities of burial grounds as they take up little room - the inter-cutting nature of the graves in the burial suggests that space was limited. Only the lower half of this burial survived, the upper half had probably been disturbed either by the excavation of grave 40 or by the re-excavation of the area.

The handles of the later north-south aligned graves were of a different style from the earlier burials, as were the brass plates placed outside the coffins. Coffin 135 had a top plate

which was found just above the feet of the skeleton. This grave, as with all the north-south burials, was only partly excavated where it was within the area to be disturbed.

The burials in the extended area south of the burial ground were concentrated in the north of the area as defined by the stone walls. These graves cut layer 55 which did not carry through to the south of the burial ground, but were possibly cut by an east-west linear feature (86) that ran from the east-west walls lined by vertical-set stones (86) set against the pinkish-red clay.

Plate 9: Cut 86

Above cut 86 were layers that butted against the rear east-west running wall. These included layer 90 which contained cow skulls and horns, as well as pottery which dated from the late 17th-early 18th centuries. Below cut 86, light greenish-brown compact silty clay (94) with mortar flecking was encountered, as well as angular stone fragments, which was consistent across the whole site.

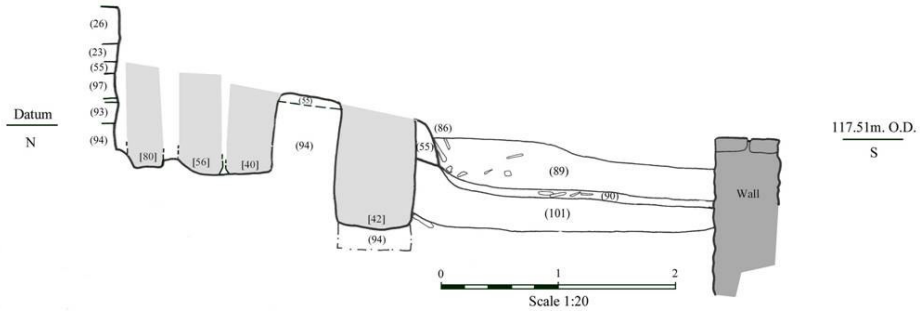


Figure 15: Section of cut 86 and graves 80, 56, 40 and 42

5.2 The Tanyard

Groundworks in the area outside the burial ground revealed features associated with the old tanyard. Timber lining used in tan pits were recorded in an area known to have contained the 19th century tan works. The timber for the pits was bolted, rectangular in shape and in-filled with clay. Similar features were recorded from an earlier archaeological evaluation carried out by Archenfield Archaeology (Sherlock and Pikes, 2001).

Plate 10: Wall in the tanyard.

An octagonal brick-lined pit (153) was recorded to the west of the area of the timber-framed tan pits. This measured roughly 4 metres east-west and 7 metres north-south. The pit consisted of a single course of bricks and was in-filled with rubble (154).

Walls were recorded to the south and slightly to the east of the burial ground. These walls (see plate 10) were probably part of the 19th century tannery which was shown on the 1903 OS 2nd edition map (Figure 17) as disused.

The rear wall of building 104 ran in an east-west direction with the east and west walls of the burial ground butting its northern side (see Figure 16).

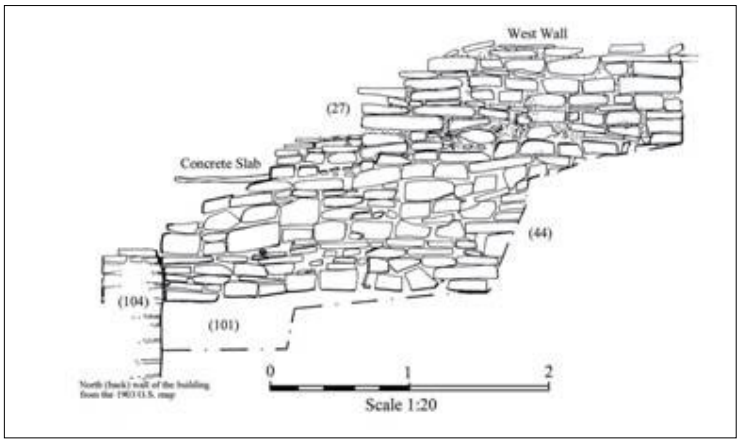


Figure 16: The east wall of the burial ground that butts the rear wall of a building associated with the tannery.

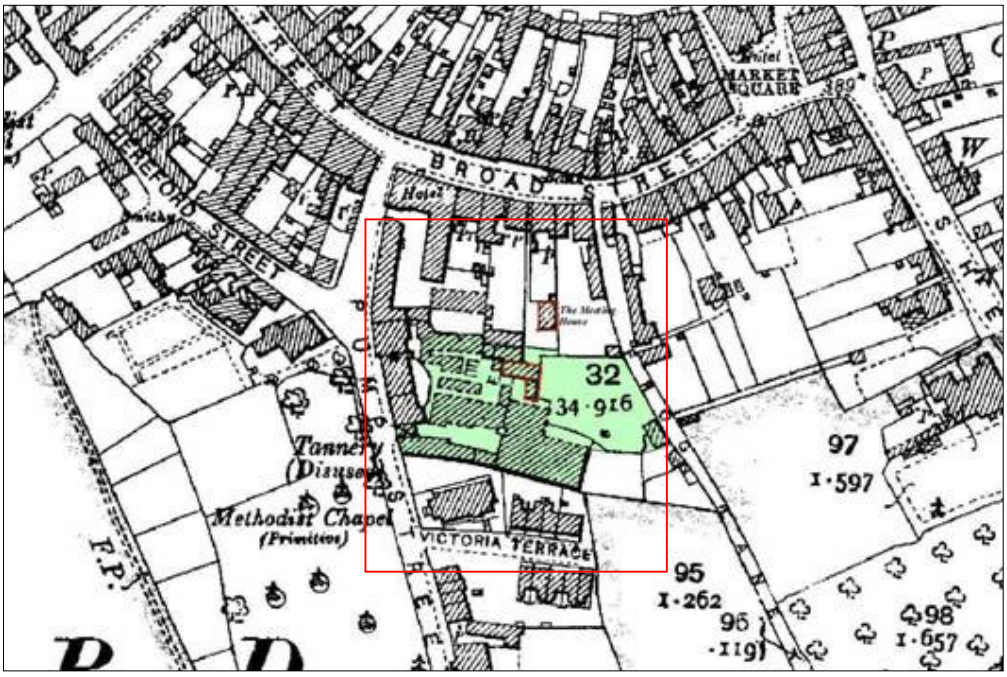


Figure 17: Extract from the 1903 OS 2nd edition map, showing (in red outline) the meeting house and buildings that were uncovered during the monitoring .

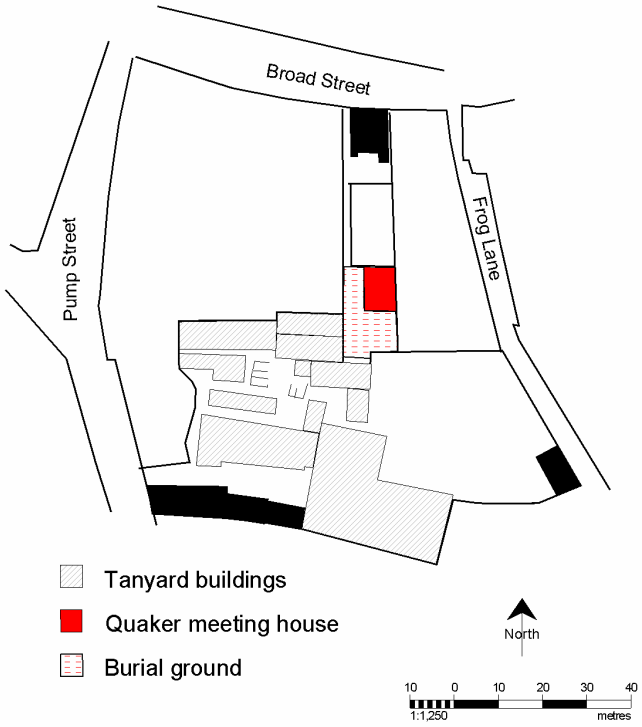


Figure 18: The tanyard buildings in 1903

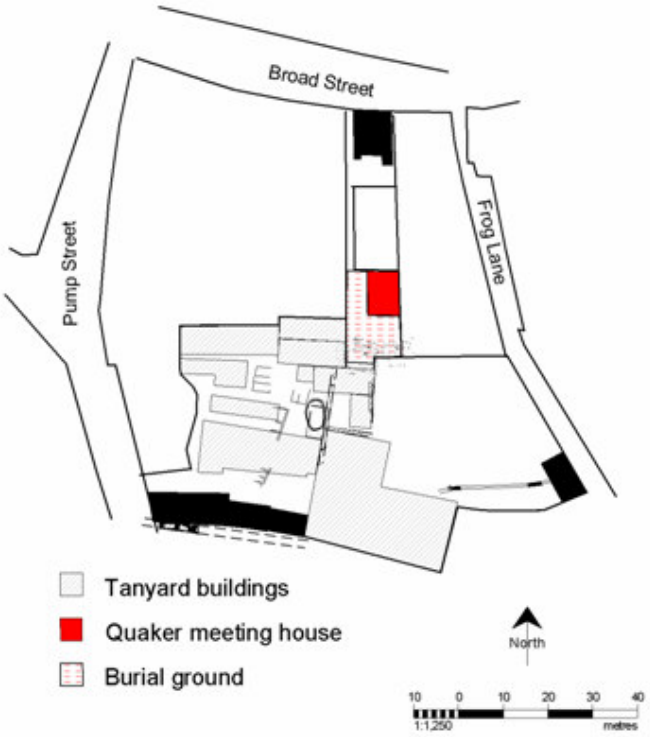


Figure 19: Features from the tanyard recorded during the archaeological monitoring

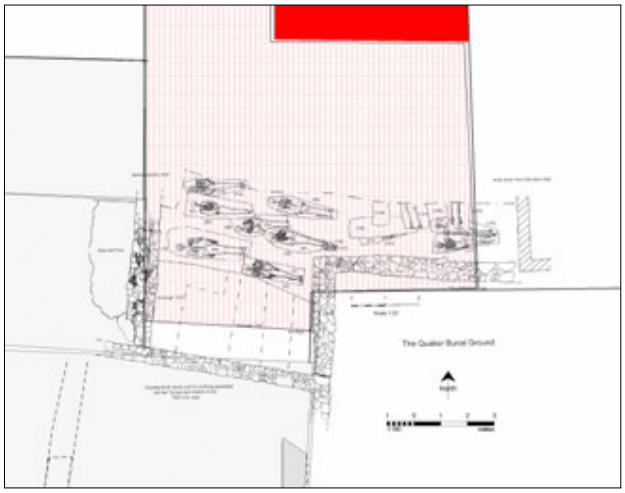


Figure 20: The skeletons in the burial ground

Plate 11: Stone culvert

A stone culvert (158) was located south of standing buildings A and B (as recorded by Sherlock and Pikes, 2001) running west-east. It was rectangular in shape and approximately 1.30 metres wide and of 0.75 metres depth.

The culvert was built of two stone walls with a base and cap of flat stone flags. The walls were of dry stone and were lined on the outside with clay. There was no water running in the culvert and where its cover had collapsed it was filled with an orange red building sand of modern date.

Another culvert (160/161) was located in the south-east corner of the site and was also stone-built with two walls over a base of flat flagstones and capped by flat flagstones.

6.0 The finds

6.1 Gravestones

Two gravestones were recorded from the area of the burial ground. The earlier stone of Ann Robinson, dated 1837, was recovered by gardeners working at the rear of the Falcon Hotel. This proves the fact that although headstones were not permitted by the Quakers' Book of Discipline until 1850 this rule was quite often ignored (see page 21). It is also possible that the gravestone of Ann Robinson was removed from the burial ground before 1850.

Plate 12: Ann Robinson

The headstone of James Robinson dated 1893 was recovered during removal of overburden from the burial ground.

Plate 13: James Robinson

The Death and Burials Register 1880 – 95 records that James Robinson died on the 5th mo [May] 30th 1893, aged 82. The wording on this stone was in line with the rule from the Book of Discipline of 1830 which allowed only the name, age and date of death inscribed.

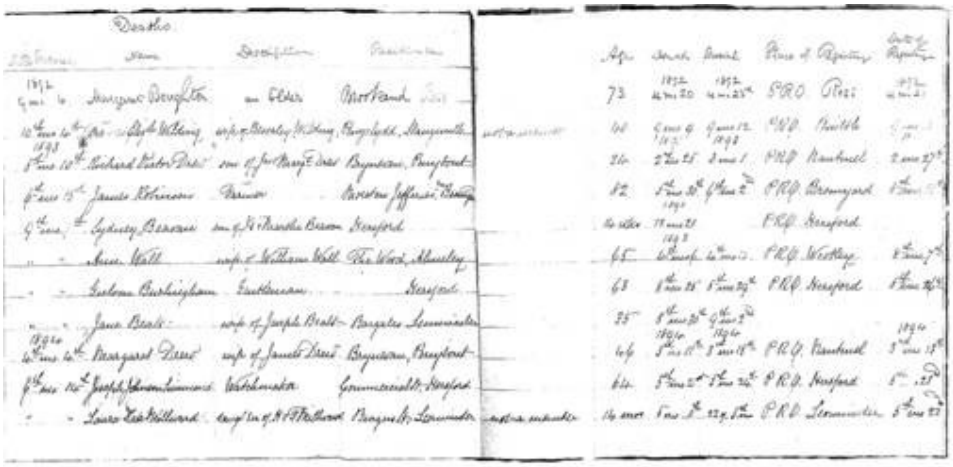


Plate 14: Record of the death of James Robinson

Note produced	Name	Description	Residence	Age	Death	Burial	Place of Registry	Date of Registry
1893 6th mo [June] 15th	***James Robinson***	***Farmer***	***Morton Jefferies, Nr Bromyard***	***82***	***5th mo [May] 30th***	***6th mo 2nd***	***PR4 Bromyard***	***5th mo [May] 31st***

Table 3: James Robinson

The Death and Burials Register (book 637) records that Ann Robinson died on the 4th mo [April] 29th 1837, aged 67.

Note produced	Name	Description	Residence	Age	Death	Burial	Place of Registry	Date of Registry
1837 5th mo. [May] 31st	***Ann Robinson***	***Late wife of James***	***Holse Hill Co. Of Hereford***	***67***	***4th mo. [April] 29th***	***5th mo. [May] 31st***	***PR4 Bromyard***	***5th mo. [May] 31st***

Table 4: Ann Robinson

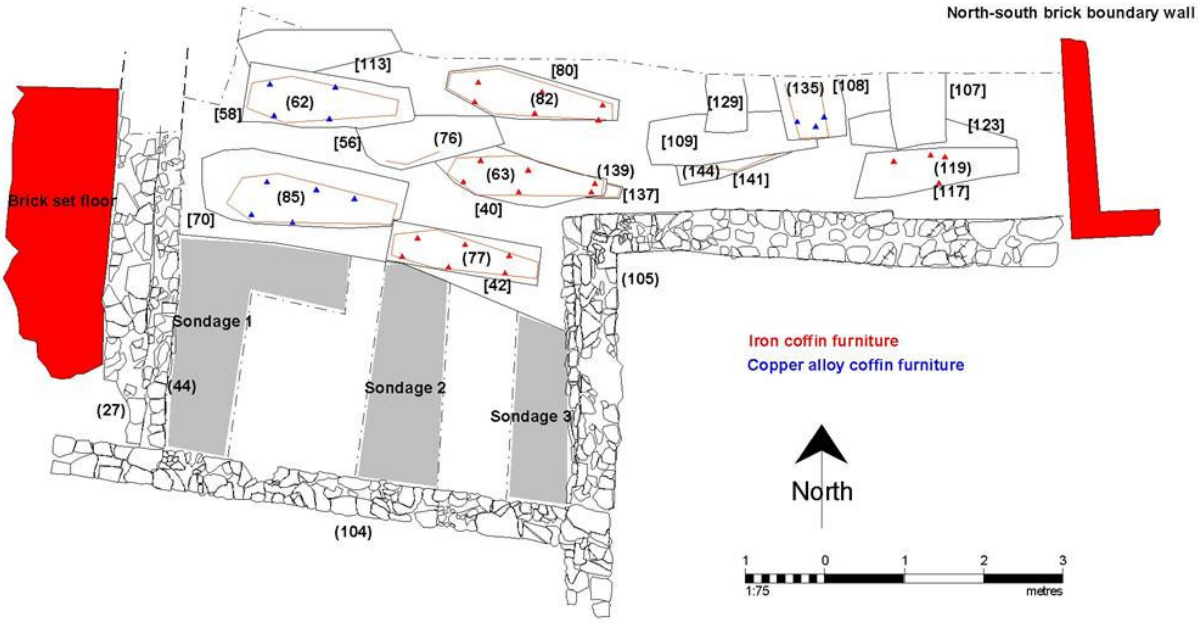
6.2 The coffins

Evidence proving the existence of coffins was found in twelve of the excavated graves from the burial ground.

Grave context	Skeleton context	Coffin Context	Orientation	Handles	Fe Nails	Pins	Other
40	64	63	EW	Fe x 6	2	-	-
42	75	77	EW	Fe x 6	11	2	-
56	76	78	EW	-	-	2	-
58	65	62	EW	Cu alloy x 5	22	2	-
70	84	85	EW	Cu alloy x 5	49	-	-
80	83	82	EW	Fe x 6	15	-	-
107	133	-	NS	-	-	-	-
108	134	135	NS	Cu alloy x 2 with plates	-	-	*Name plate?*
113	115	116	EW	Fe x 1	3+?	-	-
117	120	119	EW	Fe x 4	6	2	
123	126	125	EW	Fe x 3	-	1	-
137	138	139	EW	-	6	-	-
141	143	144	EW	-	4	-	-

Table 5: Coffins from the Quaker burial ground

The coffins were identified by a faint beige residue which, along with iron nails, gave an outline of their shape. This outline was only identified along the edges, and not along the top or base. Sometimes small fragmentary pieces of wood survived, as in grave 70, but only when in contact with the metal of the handles.



Possible north (rear) wall of a building associated with the Tanyard and shown on the 1903 OS map

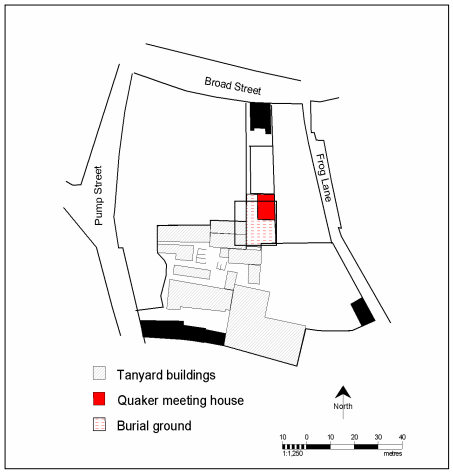


Figure 21: The graves and coffins

The smallest of the coffins (139) was an infant grave, the upper half of which had been cut away by a later grave (42). Six iron nails were recorded with the coffin but no handles were found.

Plate 15: Iron nails at the east end of coffin 85

Coffin 85 had five copper alloy handles and 49 iron nails that survived mostly *in-situ*.

The most elaborate coffin (135) was orientated north-south in grave 108. It extended beyond the limits of the excavation area and was left *in-situ*. The lower half of the grave was exposed to reveal two brass handles with plates. Another plate that would have rested on top of the coffin was located between the legs of the skeleton.

Plate 16: Coffin handles and plates from context 135

No sign or engraving was found on the plate.

A second north-south grave (107) was excavated but there was no evidence of a coffin.

6.3 The coffin furniture and small finds – Lynne Bevan

Introduction

Coffin furniture comprised the remains of about 22 iron handles and eleven copper alloy coffin handles and over 50 iron nails derived from several burials. Due to a poor standard of preservation among the iron objects, which were rusty and distorted by corrosion products, only one iron coffin handle has been catalogued and illustrated (catalogue number 1) with the remainder of the iron coffin furniture listed by context in the archive catalogue. In contrast, the copper alloy coffin handles were very well-preserved, with some retaining their original golden surface colour. Two examples of these have been catalogued and illustrated (catalogue numbers 2 and 3). The remainder are listed in the archive catalogue.

Discussion

Despite the generally poor condition of the iron coffin handles, some impression of their general shape was obtained from the three best-preserved handles (SF 91 and SF 92 (context 82) and SF 126 (context 125). From these, it was possible to discern that the handles were originally mounted on diamond-shaped plates, with central heart-shaped cut-work designs. Late 18th century iron coffin furniture was often decorated with cut-work motifs, as for example at Rivenhall, Essex, where rectangular coffin plates with two central, opposed 'v'-shaped cut-out motifs have been dated to the late 18th to early 19th century (Rodwell, 1993, Figures 23: 4 – 7, 48 – 49).

The motifs on the coffin furniture from Bromyard clearly display cut-work heart motifs, which are common religious and secular symbols used in funerary iconography in more recent times to symbolise matrimony (Keister, 2004, p109). Hearts were popular motifs in European folk art, appearing in quantity in a variety of media, especially domestic items, from the mid 17th century onwards and often associated with the iconography of courtship and marriage (Peech, 1983, pp108 – 116). The use of this motif, perhaps symbolising love and loss, on 18th century coffin furniture might have appealed more to the Quakers than the more obviously religious symbolism observed among coffin furniture assemblages elsewhere.

The copper alloy handles were of similar size to the iron coffin handles but had been attached to the coffins by two individual mounts rather than by a single large plate. The copper alloy handles came from two separate burials, and while the handles themselves were identical in size and shape, two different kinds of mounts were used to attach them to the coffins (catalogue numbers 2 and 3). The five handles from context 62 (SF 1 – 3; SF 4 and SF 19) were all attached to circular ball-shaped bosses screwed through circular mounts (catalogue number 2). Both bosses and mounts exhibited decorative banding. In contrast, plain oval mounts were used for the five handles from contexts 83 and 84 (SF 104 – SF 106). These were attached directly to the coffin with iron screws (catalogue number 3).

The coffin furniture investigated pre-dates the 19th century coffin furniture from Hereford (Hancox forthcoming) and St Martin's Churchyard, Birmingham City Centre (Hancox, 2006). The burials also pre-date most surviving coffin furniture catalogues which date to the 19th and early 20th century (see Hancox, 2006 for discussion). However, the copper alloy coffin handles from Bromyard are identical to the bail handles with a bulbous central section, usually mounted on a plain plate, used on furniture dating to the 'Chippindale period (1750 – 75)' (Noël Hume 1969, Figure 72: 5, 228 – 229). Another almost identical coffin handle, although mounted on a curvilinear backplate, from a burial dated to 1842 at Rivenhall, was

described as *'stylistically mid 18th century'* (Rodwell 1993, Figure 23:1, 48 – 49), based upon comparable excavated material from Wharram Percy, Yorkshire (Harding, 1987). The sockets used to attach the handle to the backplate at Rivenhall were identical to those fitted to the separate oval mounts from contexts 83 and 84 at Bromyard (catalogue number 3). Later 18th to early 19th century handles at Rivenhall, all of which were made of iron, had pointed terminals which slotted through, rather than into, tubular (as opposed to closed) fittings mounted on the backplates (Rodwell, 1993, Figure 23: 2 – 9, 48 – 49).

Thus, the stylistically mid 18th century copper alloy handles from Bromyard might appear to have been outmoded by the time they were used in late 18th century Quaker burials. However, this may not be of any significance, since the "*design of coffin fittings tended to be conservative"* and, as such, "*they are not intrinsically closely datable"* (Rodwell, 1993, p50).

While both types of coffin furniture represented on the site were mass-produced and simple in design, thus perhaps appealing to the Quaker distaste for extravagance, the copper alloy fittings were evidently of better quality than the iron, conforming to criteria established for the more expensive *'registered'* (as opposed to cheap, poorly-made *'common'*) coffin furniture in later trade catalogues (Hasluck, 1905). Since both types of coffin furniture appear to have been used contemporaneously, this implies a division of wealth and means among the Quaker families, with richer families being able to afford more elaborate coffins and fittings than the poorer ones. The expression of social difference and relative wealth may not have been considered acceptable in Quaker headstones or funerary iconography yet some degree of difference is apparent in the two very different kinds of coffin fittings used. This difference in price and quality would also have been reflected in the selection of wood, coffin linings, and, perhaps, even in the dressing of the corpse.

Catalogue

1. Iron coffin handle or grip, mounted on a diamond-shaped plate with a central cut-work design showing two opposed heart-shaped motifs. Width of plate: 205mm, height at centre of plate: 53mm, general thickness of plate: 2mm. SF 91, context 82.
2. Copper alloy coffin handle and circular mounts. Both the bosses and mounts are decorated with circular banding. Length of handle: 84mm, diameter of mounts: 32mm, thickness of mounts: 1mm. SF 19, context 62.
3. Copper alloy coffin handle and oval mounts.
4. Length of handle: 84mm, length of mounts: 45mm, thickness of mounts: 1.50mm. SF 104, context 83.

The Small Finds

The small finds assemblage was small, artefactually-limited and generally late in date, with most finds dating to the 19th and 20th centuries. The most recent object was a silver metal shell token, produced in approximately 1970, with a picture of an aeroplane and *'Charles Lindbergh 1927'* on one side and the Shell company logo on the other (SF 149, context 31).

The finds are discussed by material group below, with the majority being catalogued. However, since most items were fragmentary and/or late in date, with iron objects being particularly poorly preserved, precluding close identification and dating, none of the finds has been illustrated and the less diagnostic material has been listed in the archive catalogue.

Bone Objects

Four bone objects were recovered, all of which were in a stable condition and of fairly recent date. Identifiable items included the head from a long, narrow brush, the bristles of which had rotted away, leaving three rows of unevenly-spaced perforations (catalogue number 1). This brush, which might have been for clothes rather than being a hairbrush is similar in style to a toothbrush head from Colchester from a deposit dating from the 18th to late 20th centuries (Crummy, 1988, Figure 27: 1863, p25). Bone brushes are believed to have been first produced in the 17th century (MacGregor, 1985, p183), but this item is more likely to date to the late 19th to early 20th century, in common with a broken polished handle, probably from a 19th century toothbrush (catalogue number 2). Less diagnostic, but also probably later, bone finds comprised a button (catalogue number 3) and a thin, polished fragment of worked bone with a tapering, perforated end (catalogue number 4).

Catalogue

1. Long narrow brush head, with three rows of perforations which originally held the organic bristles. There is some green staining due to the copper wire used to secure the bristles. This is probably of a later 19th century to early 20th-century date. Length: 95mm, width: 11mm, thickness: 6mm. SF 187, context 999.
2. Polished handle, broken at both ends, probably from a 19th century toothbrush, as there are traces of perforations at one end. Length: 67mm, width: 10mm, thickness: 3.50mm, SF 183, context 33.
3. Button, with four holes and a raised outer edge approximately 20th century in date. Diameter: 18mm, thickness: 2mm, SF 180, context 26.
4. Thin, polished fragment of worked bone with a tapering, perforated end. Length: 62mm, width: 9mm, thickness: 0.50mm, SF 151, context 26.

Coins

Two copper alloy coins were recovered. These comprised a bent, abraded halfpenny of George II, from the 1740s (SF 155, context 26) and an unidentifiable coin, probably a 19th – 20th century penny (SF 147, context 71).

Copper Alloy

Copper alloy finds included an oval-shaped, hinged bracelet with floral decoration on the outer surface, an inexpensive type of bracelet which was mass-produced during the mid 20th century (catalogue number 5). Other finds comprised two lace ends (catalogue numbers 6 –7), four pins (catalogue numbers 8 –11), six pin shaft fragments (catalogue number 12), two looped copper alloy buttons of fairly modern appearance (SF 148/74 and SF 156/54), a broken spoon (SF 172, context 23) and a fragment of leaded copper alloy strip (SF 154, context 37).

The lace ends are probably of 17th or 18th – century date and the pins are of a common type used over a long period of time from the 18th and 20th centuries. Many of these items were probably used on clothing worn by the dead or for pinning shrouds. Similar pins were recovered from 19th century graves at St Martin's Church, Birmingham (Bevan, 2006).

Catalogue

5. Rigid, oval-shaped, hinged bracelet. Complete, with floral decoration on the outer surface. This inexpensive type of bracelet was mass-produced during the 1960s. Outer width: 68mm, height, 17mm, thickness 4mm. SF 150, context 23.

6. Lace end, fragmentary, longest fragment: 8mm, diameter: 1mm. SF 143b, context 71.
7. Lace end, fragmentary. Length: 7mm, diameter: 1mm. SF 122b, context 120.
8. Pin, round-headed. Length: 39mm, diameter of head: 2mm. SF 143a, context 71.
9. Pin, round-headed. Length: 25mm, diameter of head: 1mm. SF 186, context 999.
10. Pin, round-headed. Length: 22mm, diameter of head: 0.5mm. SF 122a, context 120.
11. Pin, round-headed. Length: 24mm, diameter of head: 0.5mm. SF 125, context 118.
12. Pin shaft fragments x 6, length of longest fragment: 9mm, diameter: 1mm. SF 144, context 65.

Iron Objects

All of the iron objects were in a poor state of preservation, with a high incidence of corrosion. These comprised a knife with a broken blade (catalogue number 13) possible door furniture (catalogue number 14) a length of curved wire (catalogue number 15) a cast curved fragment (catalogue number 16) and 14 nails (SF 145/72, SF 164/56 x 4, SF 169/144 x 4 and SF 175/67 x 5).

Catalogue

13. Knife, corroded, broken across the blade. Length: 97mm, width: 20mm, thickness: 10mm. SF 171, context 61.
14. Hooked object, very corroded, possibly from door furniture. Length: 150mm, thickness: 7-9mm. SF 162, context 33.
15. Curved wire. Length: 200mm, thickness: 5mm. SF 159, context 61.
16. Cast, curved fragment of iron. Length: 42mm, width: 35mm, thickness: 3mm. SF 174, context 31.

Stone Object

A fragment from a broken slate pencil was recovered (catalogue number 17). Slate pencils are generally accepted as having been used during the 18th century (Thompson *et al,* 1984, numbers 116a and b), although some have been found in earlier contexts, suggesting that they may have been used before 1600 (Margeson 1993, Figure 38: 442 – 444, 70 –71).

Catalogue

17. Slate pencil fragment, broken at both ends. Length: 26mm, diameter: 4mm. SF 152, context 26.

Ceramic Balls

Four small ceramic balls were recovered (catalogue numbers 18 – 21). These were probably marbles used in children's games or as solitaire pieces, which were popular during the 18th to early 20th centuries (Crummy 1988, Figure 51: 2019, 45). Such objects were often painted with eye motifs (*ibid*, Figure 51: 2019, 45), but none of the clay balls from Bromyard tanyard exhibited any surface decoration.

Catalogue

18. Ceramic ball, diameter: 14mm. SF 170, Context 52.
19. Ceramic ball, diameter: 16mm. SF 176, Context 26.

20. Ceramic ball, diameter: 12mm. SF 179, Context 26.
21. Ceramic ball, diameter: 17mm. SF 182, Context 36.

Glass Objects

Glass finds comprised two marbles used in children's games (catalogue numbers 22 and 23) a complete clear glass perfume bottle of late 19th to early 20th century date, with floral motifs on the front and sides, and six glass bottles and jars of similar, and later, date to the perfume bottle. Full contextual details of the glass vessels are provided in the archive catalogue.

Catalogue

22. Marble, light blue green glass. Diameter: 18mm. SF 165, context 31. Not illustrated.
23. Marble, now completely opaque, light brown with dark brown and white swirling motifs. Diameter: 20mm. SF 173, context 67.

Lead Objects

Lead objects comprised several lengths of strip and window leading from contexts 23, 31 and 67, full details of which are provided in the archive catalogue.

Archive Catalogue

Coffin Furniture

Iron fragment: SF 10/65 (very small fragment, possibly from a handle, with fragments of wood preserved by iron corrosion products. Length: 55mm).

Copper alloy coffin handles: SF 1/62, SF 2/62, SF 3/62, SF 4/62, SF 19 – 20/62 x 2, SF 105 –106/83-84 x 5 handles and 9 oval fittings.

Iron coffin handles and fragments: SF 44/77 (length: 110mm), SF 45/29, SF 87/82, SF 88/82, SF 90/82, SF 93/82, SF 116/115, SF 118/123, SF 119/124 x 4 from 1 handle, SF 120/125 x 3 from 1 handle, SF 123/127 x 1, SF 127/126 x 1, SF 135-SF 140/63 x 6 handles, SF 141/74 x 3.

Iron coffin handle plate fragments: SF 89/82, SF 128/126.

Corroded iron objects, possibly coffin furniture: SF 142/41 x 6.

Coffin Nails: Context 62 x 22 (SF 11 – 15, SF 23 – 25, SF 29 – 43, SF 57 – 59/78 x 3. Context 82 x 13 (SF 85 – 86, SF 92, SF 94 –103). Context 85 x 7 (SF 107 – 113). Context 116 x 3 (SF 114 –115, SF 117, SF 131 –134, SF 169/144 x 5).

Silver Metal

A token with an aeroplane and *'Charles Lindbergh 1927'* on one side, and the Shell company logo on the other (SF 149, context 31). This is one of a series of 20 Shell tokens connected with flight or space travel produced around 1970.

Copper Alloy

Fragment of leaded copper alloy strip. Length: 75mm, average width: 9mm thickness: 0.5mm. SF 154, Context 37.

Spoon broken across stem. Probably 20th century date. Length: 90mm, width of bowl: 25mm. SF 172, Context 23.

Glass

Complete clear glass perfume bottle, with floral motifs on the front and sides. Late 19th or early 20th century date. Height: 62mm, width at base: 29mm by 14mm. SF 160, context 23.

Complete clear glass bottle, some damage to base, with *'Made in France'* on the front, *'A.J. White'* on one side and *'Limited'* on the other. Height: 110mm. SF 163, context 142.

Complete clear glass bottle, probably an ink bottle, originally with a screw top. Late 19th or early 20th century date. Height: 56mm, basal diameter: 40mm. SF 157, context 157.

Complete clear ink glass bottle. Height: 64mm. SF 168, context 142.

Complete clear glass Shippam's paste bottle, mid 20th century date. SF 161, context 23.

Complete clear glass jar, marked *'Heinz Co., B75, England'* on the base. Height: 93mm. SF 167, context 23.

Complete clear glass bottle, with screw neck. Probable early 20th century date. Height: 85mm. SF 181, context 23.

Lead

Lead strip. Length: 200mm, width: 6mm, thickness: 2mm. SF 178, context 23.

Window leading with average width: 8mm, thickness: 1mm. SF 166, context 31.

Window leading with width: 10mm, thickness: 1mm. SF 177, context 67.

6.4.1 The skeletons – Megan Brickley

Introduction

Eleven burials and a quantity of disarticulated human bone were excavated from the site of the Quaker burial ground, in Bromyard, Herefordshire. The burials date from around the mid eighteenth century to the mid nineteenth century and so are contemporary in date with the Quaker burial ground excavated at London Road, Kingston Upon Thames (Bashford and Pollard 1998).

Quantity and nature of human bone

The completeness and state of preservation of each individual excavated was recorded following the guidance laid down in Brickley and McKinley (2004). Much of the bone was well preserved and the majority of bone surfaces were graded as 0 or 1, reflecting the fact that little damage had occurred whilst the bones were buried.

<25%	25-50%	50-75%	75%+
3	0	3	5

Table 6: Completeness of the individuals excavated

Although the bone was generally well preserved, and the majority of individuals excavated were fairly complete, some of the bones were very fragile and quite a bit of breakage had occurred during the excavation process. As a result of bones being broken, very few measurements were obtained, particularly from the skull, during recording of the excavated individuals.

Demography

The age and sex of the excavated individuals were recorded following the procedures recommended in Brickley and McKinley (2004) and the results are presented in Table 7. Broad age categories have been used to describe the ages of the individuals analysed, as it is recognised that the techniques currently available have considerable limitations. The techniques used during skeletal analysis record the physiological age of the individual, and although biological ages (ages in years) are associated with the age categories used, it should be remembered that the two might be different.

Sex	Infant (b-3)	Child (3-12)	Adolescent (12-20)	Young Adult (20-35)	Middle Adult (35-50)	Old Adult (50+)	Adult
Males	-	-	-	-	1	1	-
Females	-	-	-	1	3	1	-
Unknown	-	1	-	-	1	-	2
Total	0	1	0	1	5	2	2

Table 7: Number of individuals in each age/sex category obtained from skeletal analyses. All ages are in years.

The majority of the individuals excavated from the site were placed in one of the adult age categories, with only one individual being recorded from one of the juvenile age categories. In addition to the infant excavated as an articulated burial (HB 14, 137), infant bones were also recovered with one of the other individuals (HB 11, 120). HB 11 was located close to the stone boundary wall and it has been suggested that infant/child burials were commonly placed along the extremities of burial grounds (Sherlock, 2004). As such a small area of the burial ground was excavated it is not possible to be sure if the demography of the individuals examined is reflective of the whole site. At the Quaker burial ground at Kingston-upon-Thames, the proportion of juveniles recorded during analysis was far larger at 18% of the individual's analysed (Start and Kirk 1998). This difference would suggest that the overall demographic pattern could well be different if more of the site were excavated.

Normal variation

Stature was calculated using the equations developed by Trotter (1970) for white males and females. Where possible, the data for both the tibia and femur were used in equations, but due to fragmentation of some bones this was not always possible. The stature calculated for each individual, along with the plus-or-minus error and bones used are given in the Individual Catalogue, Appendix 2.

Males			**Females**			**Unknown**		
N	Mean	sd	N	Mean	sd	N	Mean	Sd
2	172.2	3.26	5	160.01	6.01	1	170.6	NA

Table 8: Summary statistics for stature, N = number of individuals, sd = standard deviation. NA = not applicable.

It was only possible to estimate a stature for eight of the individuals recorded, so the results obtained can only be taken as a broad indication of the statures individuals buried at this site. The other factor to consider is that the result obtained by applying the equation to the long bone lengths reflects a possible maximum stature for the individual. With age most individuals lose some of their height due to the shrinkage of soft tissues, but no account is taken of such processes in the calculations made. As a result the statures estimated may not in fact accurately reflect the height of the individual at the time of their death. The results obtained do however, reflect long bone length and as similar techniques are used for all archaeological collections of human bone stature calculations allow comparisons to be made between attained growth of individuals from different archaeological sites.

The results obtained from individuals buried at the Quaker burial ground, Bromyard, are broadly similar to those obtained during analysis of individuals from Kingston-upon-Thames. At the London site, mean stature for males was found to be 168.7 cm and 160.3 cm for females. The higher stature obtained for the males from Bromyard is almost certainly linked to the very small sample size (just two individuals). In a recent review of health and disease in Britain, Roberts and Cox (2003) also found very similar mean statures, 171 cm for males and 160 cm for females, from a total of 3205 individuals from a range of post-medieval British sites. From looking at the socio-economic background of the various sites included in the survey, it is suggested by Roberts and Cox (2003, 308) that stature does not closely reflect socio-economic status during this period.

Due to bone fragmentation it was not possible to calculate a cranial index for any of the individuals examined and so no data on skull shapes within this group are available. A range of non-metric traits was recorded, and traits that were present are listed in the Individual Catalogue, Appendix I.

Abnormal variation

In order to try to gain a picture of the health of the individuals buried at the Quaker burial ground, Bromyard all the skeletal material was examined for pathological conditions. However, it should be remembered that the information produced from this type of analysis is incomplete.

Of the conditions that affect the health and well-being of humans, relatively few will leave any trace that can be detected in skeletal material. In order for a disease to produce recognisable changes in the skeleton, the condition must be chronic in nature and of long standing. This means that many conditions that may have a serious impact on the health of an individual, such as influenza, will be undetectable.

In addition, the ways in which bone can react to a pathogen are limited (formation of extra bone, excessive resorption, or a combination of these processes). It is therefore very difficult to produce a sound diagnosis from the examination of skeletal material. In making a differential diagnosis often the pattern of changes across the skeleton is essential. This makes the study of disease in archaeological material, which is often damaged and/or incomplete, problematic.

The generally good level of preservation of bone surfaces means that if changes related to pathological conditions were present in the individuals examined then they would have been visible. However, very few changes related to trauma or pathology were recorded during skeletal analysis.

One surprising absence was an absence of skeletal changes related to non-specific infections such as periosteal new bone formation. This type of change is frequently recorded in archaeological bone, and a crude prevalence rate of 26.26% was found for such changes in the survey of post-medieval British sites by Roberts and Cox (2003, 344). The presence of this type of bone change has been linked to poor levels of general health and stress and has been labelled a 'stress indicator'. Cribra orbitalia, another pathological change in the skeleton that has been labelled a 'stress indicator' due to its probable link with conditions resulting in poor levels of health, such as anaemia (Roberts and Manchester 1995) was also absent in the human bone examined from Bromyard. Although the sample examined is small it is possible that the lack of skeletal stress indicators is an indication that general levels of health were higher in this group, than those found in some of the individuals examined from large urban centres of this period, for example Redcross Way, London (Brickley et al. 1999) and St. Martin's, Birmingham (Brickley & Buteux, 2006).

Osteoarthritis (OA)

Osteoarthritis is one of the commonest pathological conditions recorded in archaeological human bone. It is also very common in the present population (Rogers and Waldron 1995, 32). Osteoarthritis is primarily a degenerative disease of the cartilage. Clearly, such changes are not observable in skeletal material. However, if the condition is of long standing, loss of cartilage will result in eburnation or polishing of the bone beneath, through movement of the joint. During analysis of human bone from the Quaker burial ground, Bromyard, OA was diagnosed using the criteria set out in Rogers and Waldron (1995, 43-44).

Of the nine adults, 30% (3/10) had OA at a non-spinal site and the same figure was found for OA in the spine. The CPR for OA at any location was 40% (4/10). The figures obtained from individuals from Bromyard are higher than average figures obtained from the period in the survey by Roberts and Cox (2003). However, in the survey of British health they found that the prevalence reported varied widely between sites. The figures are certainly higher than those obtained

from individuals living in Birmingham, buried at St. Martin's where the CPR for spinal OA was 19.6% and non-spinal OA had a CPR of 22.7% (Brickley and Buteux, in press). The small sample size, and in particular the low number of younger adults excavated and analysed from Bromyard may be partially responsible for the higher prevalence from this site.

Other arthropathies

Marginal erosions were present around the heads of both first metatarsals of HB 5, an older adult male. These non-proliferative lesions were clearly defined and up to 2-3mm deep. A number of bones from the hands and feet were missing in this individual, making a full assessment of the changes across the skeleton difficult. However, one possible cause of the changes observed in rheumatoid arthritis (RA). Today rheumatoid arthritis is a relatively common condition, affecting around 1% of the population, but few possible cases have been reported from archaeological skeletal material. There was one possible case of RA was recorded during analysis of individuals from St. Martin's, Birmingham (Brickley and Buteux, in press).

Trauma

The term trauma refers to all lesions of both soft and mineralised tissues. However, in skeletal material it is only possible to record trauma that has affected the skeleton, most commonly fractures. The CPR for fractures at Bromyard was 36.4% (4/11), higher than St. Martin's where the CPR was 21.4% (Brickley and Buteux, in press) and much higher than Kingston-upon-Thames (Start and Kirk, 1998), where the CPR for fractures was just 3.6%. In the following section, all the fractures recorded from the site at Bromyard will be listed along with their prevalence.

Rib fractures were present in 3 of the individuals examined. In HB 10, a middle adult of indeterminate sex there was one possible well-healed fracture of the mid-shaft of a rib. In HB 5, an older adult male, there were two well-healed rib fractures and there was also a fractured rib in HB 3, a middle adult female. It is very difficult to calculate the exact prevalence of rib fractures, as the ribs were generally very fragmented in this collection. The number of ribs present was assessed using the presence of the head of a rib. Whilst this method avoids over calculation of numbers of ribs present, the number produced will be much lower than the actual number. Eight of the adults present had one or more ribs present and the total number of ribs was estimated at 107.

The other fracture recorded was in HB1, an older adult female, where an unhealed fracture of the left tibia and fibula were recorded. Evidence of healing and bone remodelling around the fractured margins indicates that this individual probably lived for several weeks following the accident in which the fracture occurred.

Dental pathology

Dental caries is the 'destruction of enamel, dentine and cement resulting from acid production by bacteria in dental plaque' (Hillson 1997, 269) and is strongly linked to diet. The teeth affected by caries can be seen for each individual in the dental tables in the individual catalogue. Dental caries was recorded in seven of eight individuals for whom there were teeth present giving a CPR of 87.5%. Of the teeth available for study 15.5% had been affected by caries (15/97). The CPR recorded for dental caries was slightly higher than the figure of 53.9% found in the survey by Roberts and Cox (2003, 326) from 2019 post-medieval individuals reported on from British sites. However, the prevalence of dental caries is strongly age-related and so the higher proportion of older individuals from Bromyard may have increased the prevalence recorded.

Other dental pathology

'Dental calculus is mineralised plaque' (Hillson 1997, 255) and a build up of calculus is indicative of poor dental hygiene. Deposits of calculus may also trap bacteria and food particles leading to inflammation of the gums and possibly periodontal disease. Recording of dental calculus was carried out using the criteria set out in Brothwell (1994, 155). Calculus and periodontal disease were also common in the individuals from Bromyard, with all nine individuals with teeth having calculus present on one or more teeth and 8/9 individuals were recorded as having periodontal disease.

The CPR of ante-mortem tooth loss was high and 77.8% (7/9) individuals had lost one or more teeth ante-mortem and 23% of teeth that would have been available for study had been lost ante mortem. The prevalence of ante mortem tooth loss at an individual tooth level was very similar to that found in the survey by Roberts and Cox (2003, 327) where the figure found was 23.41%. Ante mortem tooth loss is linked to age and the proportion of individuals from Bromyard in the younger age categories was lower than at some other sites of this period. Therefore, individuals from this site may not have been loosing a particularly high proportion of their teeth during life, compared to people at sites of a similar date.

Conclusions

Although small, the sample from the Quaker burial ground at Bromyard provides an opportunity to investigate the health of British individuals from a small post-medieval settlement. Bromyard is a much smaller town than those from which previous investigations of human skeletal remains of this date have been carried out. Most previous assemblages of human bone of this date have come from large cities such as London and Birmingham.

The lack of what have been termed 'stress indicators' is particularly interesting and may reflect different environmental and living conditions experienced by the individuals of this small town. There was also no evidence of dietary deficiency diseases, such as scurvy and those linked to vitamin D deficiency. Although infant mortality was still probably quite high, as indicated by the partial skeletons of two infants from the small excavation area, chronic and long-standing conditions may not have been as common as in larger urban settings.

6.5 The pottery – Stephanie Ratkai

The medieval sherds were examined under x 20 magnification and assigned to fabric type using Vince's (1985) pottery type series for Hereford City. The post medieval pottery was examined macroscopically and divided into ware groups. It was clear that most of the pottery groups were very mixed with residual and possibly intrusive material. This is not surprising in view of the fact that the excavated area had contained both a burial ground and tanyard. It was felt that there was little significant data which could be extracted from the assemblage although the shortage of pottery assemblages from Bromyard suggested some work was necessary on the pottery. The priorities were to identify and quantify any medieval pottery and identify vessel forms where possible and to provide some idea of the possible date range of medieval occupation.

A series of contexts (24) (43) (44) (56) (51) (74) (88) (89) (90) and (101) contained pottery datable to the later 17th-early or mid 18th centuries. It is probable that this represents occupation in the area before the construction of the Quaker Meeting House in 1726. The pottery from within these contexts contains sufficient residual material to suggest continuous occupation from the medieval period through to the 18th century.

The mixed nature of the post-medieval groups was not conducive to detailed analysis. However the ware types were quantified (table 6) and a general overview of pottery of the 17th and 18th centuries is given.

No	context	med	Post med	Mod	Date
6	23			myw, bluetrans, bonec	19th-20th c
18	24		blw, yw, cw, slpwtr, mang, cw, stwbr, tge		c 1750
20	26		blw, slpwtr,slpwj, mang, cw, stwbr	myw, plw, bonec, bluetrans, stw bottle, indslpw	19th c
7	29	B1 (14th c cpj)	cw, stwbr	stw bottle	19th c
22	31		yw, slpwm, cw, blw, stwbr	myw, plw, bonec, bluetrans	19th c
3	33		slipco	myw, blue shell edge	early 19th c
10	36		blw, mang, slpwf, cw	bluetrans	
42	37		blw, yw, slpwtr, mang, cw, slipco,	crw, plw, utw, myw, stw bottles	19th c
5	41	B4 base sherd	cw	Crw	late 18th-e19th c
8	43	B1, B4 (2 sherds in total)	cw, yw, blw, slpw?		late 17th-early 18th c
1	44		mang		later 17th-mid 18th c
3	52		blw	flow blue	19th c
2	56	B1 in folded cpj rim 14th c	blw, mang		later 17th-mid 18th c
1	59		cw		17th-18th c
1	61		slpwj		late 17th-early 18th c
3	64			crw, painted ware?, flower pot	post 1830
63	67		blw, yw, slpwtr,slpwm, mang, cw, slipco, stwbr	crw, plw, bluetrans, wsg, bonec	19th c
7	69		blw, slpwtr	crw, myw, indslpw	?early 19th c

27	71	B4, cistercian ware (2 sherds in total	blw, cw, slipco, mang, yw, slpwtr, tge, stwbr, wsg	crw, blue trans	19th c unless blue trans is intrusive in which case 1770s
2	72	B4			14th-15th c
3	73	B1, B4 (2 sherds)			14th-16th c
63	74	B1 (4 sherds), B4 (9 sherds)	blw, yw, cw, slpwtr, slpwf, slpwm, slipco, mang, cw, stwbr, tge, wsg?	Plw	late 18th c
6	79	B1, B4			14th c
6	81		blw, cw, mang, slpwtr	Modern glazed ware	18th c if modern glazed are is imtrusive otherwise 19th c
4	88	B4 tapering handle	cw, slpw		late 17th-e 18th c
12	89	B4 cistern	cw, slpwtr, blw, yw		early 18th c
7	90		blw, cw, mang, tge		late 17th-mid 18th c
1	91	B4			14th-16th c
1	93	B4 (rim)			13th c
23	101	C2 (1 sherd), B4 (8 sherds), cistercian (1 sherd)	blw, yw, cw, westerwald, stwbr		late 17th-early 18th c
6	110	B1, B4, cistercian (3 sherds in total)	cw	Modern glazed ware	19th c
6	111	B1 infolded cpj rim 13th c	slipco	plw, utw, bonec, blue shell edge	19thc
15	114	B1 rim sherd, B4 (3 sherds), A4 (1 sherd)	blw, cw, slpw?, mang/	Crw	late 18th c
8	118	B4	blw, slpwtr, cw, agate ware		mid-late 18th c
5	127	B4 (2 sherds)	blw	plw?	19th c
4	128		cw	blue shell edge, misc modern glazed ware	19th c
6	142		cw, slpwtr	bluetrans	19th c post 1830s
3	999	B1	slpwtr, stwbr		

Table 9: Quantified ware types and dates of pottery recovered from the excavation

The Medieval Pottery

There was a small amount of medieval pottery, numbering 71 sherds. This was composed of fabrics A4, B1, B4, C2 and Cistercian ware. The B1 sherds comprised cooking pot sherds with rim forms datable to the 13th and 14th centuries (cf Vince 1985 fig 38; 4-6). Most of the B4 sherds were not assignable to form although a cistern (bung-hole jar) sherd was found in 89, a tapering handle from a skillet (cf Vince 1985 fig 40; 10) in 88 and rod handles from jugs in 72 and 79.

The dominant fabric was B4 which dates to the 14th-16th centuries. The presence of Cistercian ware confirms occupation or activity in the area in the late 15th-16th centuries. The earliest pottery fabrics B1 and C2 date in this instance to the 13th century. The imbalance between the quantity of earlier and later medieval pottery may reflect more intense occupation in the later medieval period or may simply reflect a greater use of pottery in the later period.

Most of the medieval pottery was found residually but contexts 72, 73, 79, 91 and 93 only contained medieval sherds.

The Post-medieval Pottery

Unlike the rather limited range of fabrics found in the medieval period, in the post-medieval period a much broader range of pottery was present. Coarsewares were most frequent but slipwares and slip-coated wares were also well represented. Coarsewares were found in both iron-rich and iron-poor fabrics and had black or dark brown glazes.

Fine bodied micaceous utilitarian vessels which were a feature of the post-medieval assemblage at Gaol Street, Hereford, were completely absent from Bromyard.

Overall table wares were better represented than utilitarian kitchen wares such as large bowls and jars. However, many of the sherds were much abraded and there were few diagnostic sherds.

All but one yellow ware had an iron rich, often streaky fabric, with a white slip beneath the clear lead glaze. Vessels were made up of sloping-sided bowls with plain or everted or flange rims. There was one example of a yellow ware with a white fabric from 101. This was a bowl with a small horizontal handle..

Most of the slipwares had the same iron-rich fabric as the yellow ware. The most frequent slipware was made up of flange-rim bowls with pale yellow slip trails on a tan ground. The style of slip decoration is rather crude particularly the wavy slip trails on the flange rims. Decoration within the bowls consisted of ill-formed white slip dots or white slip concentric circles. Two sherds with the latter design were found in 69 and 37 and look to be from the same vessel. This type of slip ware is most common in the later 17th-early 18th centuries although examples are known from Civil War deposits.

A second type of slipware consisted of broad light slip trails on a dark ground. Two forms were present a platter with a pie-crust edge from 74 and a platter with a plain squared rim (drg 06) from 142. The fabric was iron-poor. This type of slipware is unlikely to pre-date the 18th century.

Several sherds from a three colour slipware dish with pie-crust edge were found in 67 . A sherd probably from the same vessel was found in 31. The fabric of this vessel was the same as the iron-rich trailed slipware described above. A hollow ware sherd from 74 was probably a mug or small jug decorated with curvilinear trails of dark brown and white slip on a tan ground and dates from the late 17th or early 18th centuries.

Feathered slipware was not well represented, although a pie-crust edge platter came from (74). This vessel had an iron-poor buff fabric. There was one example of a poorly executed jewelled slipware from 61, the only sherd from this context. Like the trailed slipware and three-colour slipware it had an iron-rich fabric.

The tin glazed earthenware sherds were generally undiagnostic. However, there was one flange-rim bowl sherd with a band of blue-painted foliate decoration on the interior from 90.

Slip-coated ware sherds were often undiagnostic but at least one pie-crust edge platter from 67 was present. Likewise the blackware forms were hard to distinguish although two corrugated mugs from 52 and 89 were noted which are likely to date to the 17th century. Other blackware sherds are from larger utilitarian vessels and seem to fall somewhere between true blackware and coarseware. This type of fabric elsewhere in the West Midlands is associated with late 17th, 18th and even 19th century deposits. There was a small bead rim jar from 26 which could date to the 18th or 19th centuries (parallels for this form can be found at the

Bullring, Birmingham in the 18th century (Rátkai forthcoming) and at Lanwills, Brierly Hill in the 19th century, Rátkai forthcoming).

Discussion

With such a small assemblage that has been clearly disturbed it is difficult to draw many conclusions about the life and status of the occupants of this area of Bromyard. The limited range of medieval pottery is unremarkable for this area of Herefordshire where Malvernian products tend to predominate. The lack of any early medieval or pre-Conquest pottery which might reasonably be expected in a settlement like Bromyard suggests that any early occupation must have been sited elsewhere.

The post-medieval pottery is again broadly what would be expected on an urban site in the 17th and 18th centuries. Most of the slipwares can be paralleled in Hereford itself, e.g. Gaol St, Hereford, although not all the slipwares found on that excavation can be paralleled at Bromyard. The Bromyard slipwares although resembling to a certain extent products of the north Staffordshire Potteries are marked out by the generally inferior nature of their manufacture and decoration. This was also seen to be true of slipwares from Hereford and it seems clear that there was at least one source in the general vicinity of Hereford or Bromyard producing these wares. It is clear that in the medieval and post-medieval periods the source of most of the pottery was mainly local.

6.6 The animal bone – Ian Baxter

Introduction

A total of 100 'countable' (see table 10 below) fragments of animal bones were recovered by hand-collection from deposits at the tanyard, Bromyard dating from the 17th to 18th centuries AD. The site lies outside the main part of the town and is situated in an area where tanning is known to have taken place. The animal bones are generally fairly well preserved and in good condition. This report incorporates data from an earlier evaluation undertaken at the site (Sherlock and Pikes 2001) which produced a small but important collection of bones of similar date (Baxter, 2001). Remains from deposits dating from after the 18th century are omitted from this analysis.

Methods

All of the animal bones from the tanyard were hand-collected. They may, therefore, be expected to exhibit selection bias against the smaller bones of mammals and birds.

The mammal bones were recorded on an Access database following a modified version of the method described in Davis (1992) and used by Albarella and Davis (1994). In brief, all teeth (lower and upper) and a restricted suite of parts of the postcranial skeleton was recorded and used in counts. These are: horncores with a complete transverse section, skull (zygomaticus), atlas, axis, scapula (glenoid articulation), distal humerus, distal radius, proximal ulna, radial carpal, carpal 2+3, distal metacarpal, pelvis (ischial part of acetabulum), distal femur, distal tibia, calcaneum (sustenaculum), astragalus (lateral side), centrotarsale, distal metatarsal, proximal parts of the 1st, 2nd and 3rd phalanges. At least 50% of a given part had to be present for it to be counted.

The presence of large (cattle/horse size) and medium (sheep/pig size) vertebrae and ribs was recorded for each context, although these were not counted. 'Non-countable' elements of particular interest were recorded but not included in the counts.

For birds the following were always recorded where present: scapula (articular end), proximal coracoid, distal humerus, proximal ulna, proximal carpometacarpus, distal femur, distal tibiotarsus, and distal tarsometatarsus.

The separation of sheep and goat was attempted on the following elements if present: horncores, dP3, dP4, distal humerus, distal metapodials (both fused and unfused), distal tibia, astragalus, and calcaneum using the criteria described in Boessneck (1969), Kratochvil (1969), Payne (1969 and 1985) and Schmid (1972). The shape of the enamel folds (Davis 1980; Eisenmann 1981) was used for identifying equid teeth to species. Equid postcrania were checked against criteria summarized in Baxter (1998).

Wear stages were recorded for all P4s and dP4s as well as for the lower molars of cattle, sheep/goat and pig, both isolated and in mandibles. Tooth wear stages follow Grant (1982).

Measurements are retained on the Access database. These in general follow von den Driesch (1976). All pig measurements follow Payne and Bull (1988). Humerus HTC and BT and tibia Bd measurements were taken for all species as suggested by Payne and Bull (1988) for pigs. SD on dog long bones is measured as suggested by Harcourt (1974) and represents the midshaft diameter (msd).

Frequency of species

This is a very small assemblage of animal bones and any conclusions to be drawn regarding the economy of the area during the later post-medieval period are necessarily speculative and tentative. The remains of cattle constitute the most frequent species accounting for 55% of all fragments or 39% if horncores are excluded. Sheep/goat is the next frequent taxon accounting for 31%. Of fragments that can be identified to species 92% are sheep. Other domestic mammals represent 5% of total fragments and domestic birds 2% (table 6). A single fallow deer bone was also recovered.

Taxon	**Period**
	C17th-18th AD
Cattle (*Bos* f. domestic)	55 *[16]*
Sheep/Goat (*Ovis/Capra* f. domestic)	31
Sheep (*Ovis* f. domestic)	(12)
Goat (*Capra* f. domestic)	(1)
Fallow Deer (*Dama dama*)	1
Pig (*Sus scrofa*)	5
Horse (*Equus caballus*)	3
Dog (*Canis familiaris*)	2
cf. Goose (*Anser anser*)	1
Duck (*Anas platyrhynchos*)	1
Total	**100**

Table 10: Number of Identified Specimens (NISP) 17th-18th centuries AD.

'Sheep/ goat' also includes the specimens identified to species. Numbers in parentheses are not included in the total of the period. '+' means that the taxon is present but no specimens could be 'counted' (see text). Numbers of horncores for cattle indicated in italicised square brackets.

Cattle

Horncores account for 29% of the total cattle assemblage recovered from the site. Like those recovered from the earlier evaluation excavation at the tanyard (Sherlock and Pikes, 2001) these derive from medium-horned beasts in the classification of Armitage (1982). Their dimensions are plotted in figure 22 where they are compared with a large assemblage of short-horned cores from several recently excavated sites in Hereford (Baxter forthcoming). Cranial types present include convex and flat frontal profiles together with intercornual ridges having low double and high single arches respectively (Grigson 1976). The two best preserved horncores, from context (90) are illustrated in Plate 1. The age profile of the available horncores suggests that over half were slaughtered before reaching maturity with 25% juvenile, 31% subadult, 37% adult and 6% old adult. Chop marks were noted on several cores and attached cranial fragments. No postcranial bones from the present site were sufficiently complete to estimate the size of the cattle but a complete metacarpus from AA01/29/11 came from a large beast 140 cm high at the shoulder based on the multiplication factors of Matolcsi (1970) (Baxter 2001).

Mediumhorned cattle began to replace shorthorns at many sites in England in the later medieval period. Their presence was observed in 15th-16th century deposits at Millbridge in Hertfordshire, for example (Baxter 2001b), and they have also

been reported from sites in Hereford (Noddle 2002). These cattle appear to have been larger than the preceding shorthorns and primarily bred for beef production and more efficient traction.

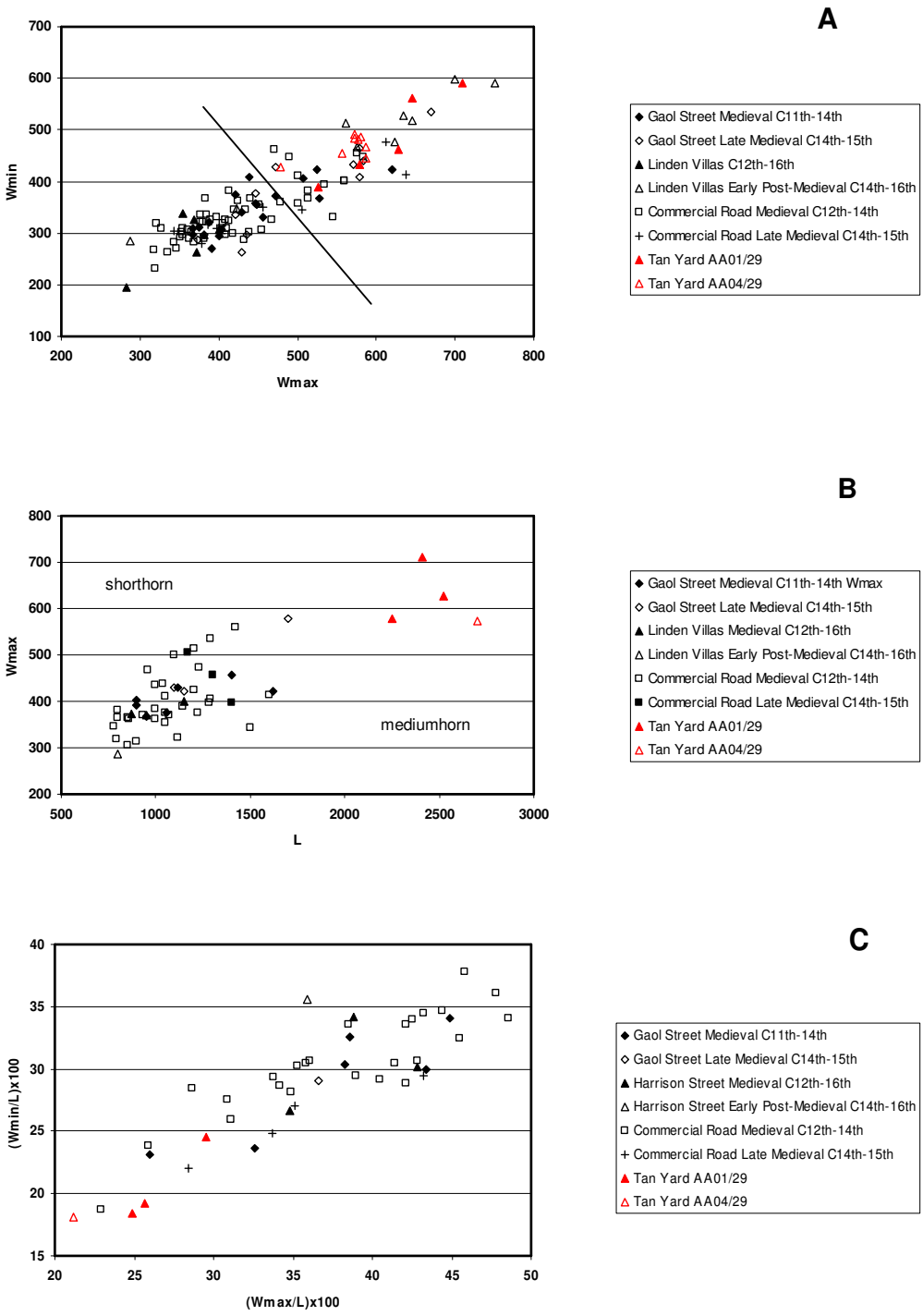


Figure 22: Size (A and B) and shape (C) of cattle horncores from the tanyard compared with Hereford sites

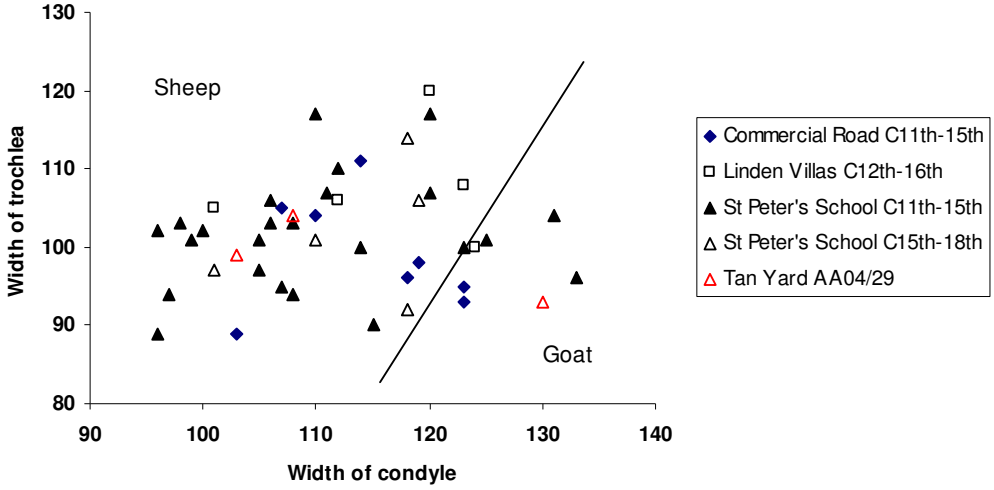


Figure 23: Sheep/goat metacarpals at Bromyard Tanyard compared with Herefordshire sites

Sheep/goat

Ovicaprid bones are almost as common as those of cattle at the site. No horncores were recovered and the sheep may have been hornless. Of remains that could be identified to species the majority are sheep but goat was also present. The metacarpals are plotted in figure 23 where they are compared with those from sites in Hereford. Herefordshire is one of the few areas in the country where goats are relatively common (see also Noddle, 1982; 2002). A metatarsal from (24) came from a sheep 600mm high at the withers based on the multiplication factors of Teichert (1975). The sheep from the tanyard are skeletally mature and would have been primarily raised for wool and mutton.

Pig

Pig remains are relatively infrequent and derive from young animals as is to be expected of a species exclusively raised for meat.

Other domestic mammals

The other domestic mammals present at the tanyard are horse and dog. Both occur at low frequency. A horse M3 found in (89) came from an animal approximately four years old based on the comparative wear curves published by Levine (1982). A dog 2nd metacarpal found in (24) came from a medium sized animal approximately 430mm high at the shoulder based on the multiplication factors of Clark (1995).

Wild mammals

A second phalanx belonging to fallow deer (Dama dama) was found in context (61).

Birds

Only two bird fragments were recovered, both probably domestic and comprising a duck tibiotarsus from (89) and a juvenile goose tarsometatarsus in (101).

Summary and conclusion

The cattle represented at the tanyard in the seventeenth and eighteenth centuries are medium-horned beasts that appear to be appreciably larger than the short-horned animals of the medieval period. These cattle were bred to provide higher meat yield and more efficient traction. The remains have the characteristics of primary and secondary butchery waste typical of the majority of sites in Hereford (Baxter forthcoming; Noddle 1982, 2002). The sheep from the tanyard are skeletally mature and would have been primarily raised for wool and mutton.

7.0 Conclusions

The first phase of borough development in Bromyard was probably the burgaging of a simple T-shaped street plan consisting of what are now Church Street/Sherford Street and High Street/Broad Street (see Figure 5, page 11). This development has conventionally been ascribed to Bishop Richard de Capella in the early 12th century. The 14th century name of Church Street/Sherford Street - *Veteri Vico* – Old Street, suggests that it was an original street which was the road from the pre-borough settlement to Worcester to the south and Stanford Bridge to the north. The curved stem of the T, High Street/Broad Street was *Novo Vico* – New Street.

It would seem reasonable to suppose that the other areas known to have been burgaged in the late 13th century were additional to an original and simpler plan. These areas are marked on the plan in Figure 6 (page 12).

The 231 tenants of burgages[59] in the Red Book give only a rough guide to the likely population of Bromyard at the time. The original pattern was presumably one burgage per tenant but by this time there had been both extensive consolidation and fragmentation. The average holding was 0.7 of a burgage and individual holdings ranged in size from the three burgages of *Stephus le Bargemon* in Veteri Vico down to six holdings of quarter burgages and two of just parcels of land. The median size of holding is half a burgage. Although some tenants are not likely to have been heads of families,[59] even these may have had servants or resident kinfolk. Larger holdings were almost certainly sub-let and this may be true of single burgages or even smaller units.

Certainly by the late 16th century sub-letting was the norm – see below. The question of when this began – if it had in the late 13th century, and if so, to what extent – must remain largely unanswered. The fact that *Radulphus Pistor* held one burgage in Veteri Vico and half a burgage in Vico de Stonhulle suggests that one of these properties was sub-let. The geographic separation of Radulphus' holdings draws attention to the fact that he held two discrete properties. *Stephus le Bargemon* held three burgages in Veteri Vico where *Willms Mody*, *Wittius de Shordefforde* and *Johnes le Yonge* held two each. In Novo Vico, *Phus Enn* held two burgages. We have no way of knowing if the holdings of any of these individuals were contiguous, and this applies to the 15 other people who held more than a single burgage. Discrete holdings are likely to imply sub-tenanting, but equally sub-tenanting of single holdings, whether multiple, single or part-burgages, is possible. It is therefore probable that any analysis of the medieval population begins with an underestimation of the number of households.

Calculation of the number of individual households using the average figure (0.70 of a burgage each) results in a figure of 227 households.[60] This figure is obviously too low as it is less than the number of named burgage tenants. The median size of holding is half a burgage – using this, the total number of households would be 322.5.

Various multipliers have been used to calculate medieval populations from these types of figures, ranging from 3.5 to 5 persons per household.[61] The average

[59] Several priests and some widows are listed.

[60] Number of burgages divided by average size of holding.

[61] See discussion in Hillaby, J, 1970, The Boroughs of the Bishops of Hereford in the late 13th Century with particular reference to Ledbury. *Trans. Woolhope Nat. Field Club.*, **XL** part I, p 29

household size in Bromyard in the first half of the 19th century ranged from 4.7 per house to 5.3[62]: medieval households are not likely to be very different in size.

Using, therefore, a figure of 4.9 as a multiplier, and the number of named tenants, the likely population of late 13th century Bromyard would be in the range 1112 to 1580.

Multiplier	Number of burgages	Resulting population figure	Number of named tenants	Resulting population figure	Mean holding	Resulting population figure
3.5	161.5	565	231	809	322	1127
4.5	161.5	727	231	1040	322	1449
4.8	161.5	775	231	1109	322	1546
4.9	161.5	791	231	1132	322	1578
5	161.5	808	231	1155	322	1610

Table 11: Possible population of 13th century Bromyard based on the Red Book data.

In 1377 the poll tax assessment recorded that there were 234 males and females of 14 years of age or more within the borough (Fenwick, 1998). In comparison the bishop's other Herefordshire boroughs, Ledbury and Ross, returned figures of 303 and 260 respectively (*ibid*).

The late 13th-early 14th century may have seen the town at its most populous until recent times. Presumably the Black Death in the mid 14th century reduced the population considerably. Certainly, even allowing for some evasion, the figure of 234 cannot represent a total population approaching the likely size of the late 13th century one.

In the later 16th century Bromyard was again surveyed for the Bishop of Hereford. Swithin Butterfield's survey of 1575 lists a total of 170 burgages and 7 tenements in comparison with the 160¾ burgages of the late 13th century. However, multiple holdings had become commonplace and the number of named burgage holders is considerable less than in the Red Book. It is therefore difficult to argue a greater, or even sustained, population level. At least one of the holders (of 11 burgages), Queen Elizabeth I, cannot reasonably be used for any statistical purposes.

Multiplier	Number of burgages	Resulting population figure	Number of named tenants	Resulting population figure	Possible holdings[63]	Resulting population figure
3.5	174	609	99	347	347	1214
4.5	174	783	99	446	347	1561
4.8	174	835	99	475	347	1665
4.9	174	853	99	485	347	1700
5	174	870	99	495	347	1735

Table 12: Possible populations of 16th century Bromyard - based on Swithin Butterfield's survey

The evidence then suggests that Bromyard in the 13th century was a thriving community, and that subsequently it suffered a population shrinkage from which it did not recover until the 19th century. The absence of any medieval material or structures from the tanyard site must be set against this.

[62] Census returns for 1801 (4.8 per household), 1821 (4.9), 1831 (5.3) and 1841 (4.7) but see page 13

[63] Based on the same ratio to burgages as in the 13th century figures in Table 2 – i.e. approximately half a burgage per household.

What then can be inferred from the documentary evidence? Broad Street and High Street formed the 13th century *Vico Novo* with a total of 30¼ burgages. The 1903 OS 1:2500 plan (Figure 9, page 15) shows 35 properties[64] on the north side of High Street/Broad Street alone and a further 39 on the south side. Even allowing for the likelihood that the market-place was larger in the 13th century than it now is, and that some properties have clearly been sub-divided, 30 seems a low number for this street. On the other hand the 42¼ burgages in *Vico Veteri* can be compared with approximately 45 in Church Street/Sherford Street in 1903[65].

Multiplier	Number of houses[66]	Resulting population figure
3.5	164	574
4.5	164	738
4.8	164	787
4.9	164	804
5	164	820

Table 13: Possible populations of 17th century Bromyard - based on the 1664 Hearth Tax. It is worth noting that the total population on 1676 was actually 973 (see page 13).

However, comparison of the lengths of the streets with the number of burgages in the Red Book shows a greater consistency. The length of the frontage of Church Street/Sherford Street that is likely to have been burgaged is approximately 350 metres. The number of burgages in Veteri Vico was 42.25 giving an average width for the burgages of just over 13 metres.

Excluding the probable area of the 14th century market, High Street/Broad Street has a frontage of about 500 metres. Dividing this by the number of burgages gives an average width of 16.5 metres. This seems wide for medieval burgages, but the other streets show similar figures. A similar calculation gives widths of 14, 15.4 and 16.3 metres for *Vico de Crokeswalle* (Old Street/Cruxwell Street), *Vico de Stonhulle* (Hereford Street/Pump Street) and *Vico de la Lone* (Tenbury Road) respectively. These seem a little too consistent to be very far wrong. It is likely that the actual widths were more consistent than these calculations suggest, and that the variation is due to our error in comparing medieval numbers with recent plans.

Medieval burgage plots, while fairly consistent within individual boroughs, varied considerable from town to town. Even Edward I's late 13th century planted boroughs in Wales show a large range of plot sizes – ranging from 36.5 by 24 metres at Flint, through 24 by 18 metres at Caernarfon and Cricieth to 22 by 12 metres at Beaumaris (Soulsby, 1983, p40). The burgage plots at Cilgerron were 61 by 7.6 metres while those at Llantrisant measured a mere 7 by 6 metres (*ibid.*). At Thame in Oxfordshire, and Stratford-upon-Avon, the plots were 18 metres wide and at Thame these were 61 metres long (Jones, 1987, p27).

Most of Bromyard's 13th century streets can be identified. The precise location *Vico de Avenbury* is unknown, but it was presumably the road or lane leading to Avenbury and therefore a position to the south of Pump Street might be expected.

64 This, and all subsequent figures for 1903 are approximate, based on boundaries shown on the 1:2500 map.

65 This number excludes those properties to the west of the Market Square which would not have been burgaged in the 13th century.

66 This is the total number of houses recorded - of these, 90 were exempt from the Hearth Tax (Faraday, 1972)

The pressing problem however is the one of the identification of *Vico de Meydeneswell*. Although Phyllis Williams (1987, p42) tentatively shows it on a reconstruction, as the lane which is now Frog Lane (see Figure 6, page 12, she also says that *'this street cannot be positively identified'*.

If Frog Lane *is Vico de Meydeneswell*, then the number of burgages in it (12) divided into the length of the available street frontage (320 metres) would give an average burgage width of 27 metres. This is much too wide, and if this is the right street it cannot have been completely burgaged.

14th Century Street Name	Number of burgages	Apparent length of street frontage (metres)	Average width of front of burgage (metres)
Veteri Vico	42.25	550	13.01
Novo Vico	30.25	500	16.53
Vico de Crokeswalle	35.00	490	14.00
Vico de Meydeneswell	12.00	320	26.67
Vico de Stonhulle	20.75	320	15.42
Vico de Avonebury[67]	7.50	?	?
Vico de la Lone	13.50	220	16.30

Table 14: Length of street frontage and number of 13th century burgages

The length of the burgages also seems fairly consistent. Again based on the 1903 1:2500 plan, Bromyard burgages are 50 metres long. This is true of the ones on both sides of High Street/Broad Street and Cruxwell Street.[68] The property boundary to the south-west of Hereford Street/Pump Street suggests that the burgages here were also 50 metres long as does the boundary to the rear of the east side of Church Street/Sherford Street. The west side of Sherford Street also fits the pattern, although the west side of Church Street has shorter properties. In the 13th century the west side of the market-place was opposite the northern entrance to Frog Lane. The Tanyard site is immediately behind burgages to the west of this entrance, and therefore very near the commercial centre of Bromyard.

The pressure on available space in Bromyard, demonstrated by its likely population and reflected in burgage sub-division, would make it improbable that an area so close to the market-place would not be developed.

The fall in the population of Bromyard from the mid 14th century, probably precipitated by the Black Death, would have resulted in a sharp decline on these pressures and led to the abandonment of areas previously used for housing. As buildings decayed or were demolished, such areas would have been utilised in other ways, perhaps as gardens. These areas would have remained open spaces for many years.

There have been very few medieval artefacts recovered from Bromyard, and virtually none from stratified contexts. However, the documentary evidence for a substantial population prior to the Black Death is not disputable.

The absence of evidence does not therefore indicate a lack of intensive urban land use in this area and stratified medieval deposits recorded in the area of the Quaker burial ground suggest that in the 14-15th centuries, the area of the Tanyard and burial ground was occupied. The lack of any early medieval or pre-

[67] Vico de Avonebury was presumably the road or lane leading to Avenbury and therefore a position to the south of Pump Street might be expected. Its precise location is not certain.

[68] Tonkin (1980) observed that the cellars in the centre of Bromyard have walls to the rear of the present street frontages and that therefore the original plots were somewhat shorter.

Conquest pottery which might reasonably be expected in a settlement like Bromyard suggests that any early occupation must have been sited elsewhere.

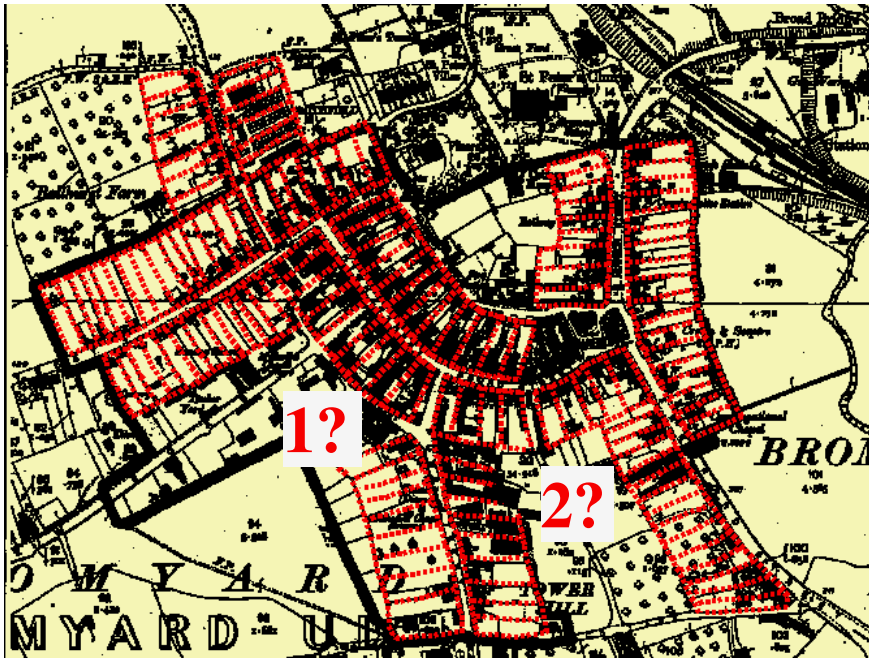


Figure 24: Suggested 13th century burgage plots based on the Red Book.

The burgage plots have been placed where they would fit. The area marked *1?* in Hereford Street may have been burgaged as part of *Vico de Stonhulle*, in which case the 20 plots in Pump Street would have been distributed differently. The key area is that marked *2?*. If this (Frog Lane) is *Vico de Meydeneswellle*, then 12 burgages fitted somewhere in here. There is a possibility that the eastern side of the street was burgaged while the western side, where there does not seem to be enough space at the northern end, was used for some other purpose.

The post-medieval population, if any extrapolations can be made from the small number of human bodies excavated from the Quaker burial ground, show a lack of what have been termed 'stress indicators'. This particularly interesting and may reflect different environmental and living conditions experienced by the individuals of this small town. There was also no evidence of dietary deficiency diseases, such as scurvy and those linked to vitamin D deficiency. Although infant mortality was still probably quite high, as indicated by the partial skeletons of two infants from the small excavation area, chronic and long-standing conditions may not have been as common as in larger urban settings.

Although the population of the town may have shrunk from the mid 14th century, the health of individuals may have benefited from small rural nature of the town.

8.0 Archive deposition

The primary project archive, consisting of the excavated material and any original paper records, will be prepared and stored in accordance with the guidelines laid down in the Institute of Field Archaeologists' *Guidelines for the Preparation and Storage of Archives*. The primary archive will be stored with Hereford City Museum.

A copy of the digital archive, stored on CD and consisting of context, artefact and ecofact data, together with the site plan and selected photographs, will accompany the primary archive.

The client, in consultation with the project manager, will make provision for the deposition of all finds from the excavation with the Hereford City Museum. On completion of the fieldwork and the processing, collation, recording and analysis of the finds from the excavation, all finds will be handed over to the museum staff, along with the project archive. Arrangements will be made with the museum for the Transfer of Title.

9.0 Publication and dissemination proposals

Paper copies of this report will be lodged with the Archaeological Adviser to Herefordshire Council, Herefordshire Sites and Monuments Record, Hereford City Library and the Bromyard and District Local History Society. A short note on the project will be prepared for publication in the *Transactions of the Woolhope Naturalists' Field Club*.

CDs of this report, together with the supporting archival material, will be available from Archenfield Archaeology.

The complete photographic record, including the negatives, will be retained by Archenfield Archaeology.

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Appendices

Appendix 1: Bromyard Street Names – 13th to 21st Centuries

c. 1285	1575	c. 1840	2001
Veteri Vico	Shurforde Streate	Church Street	Church Street
		Sherford Street	Sherford Street
Novo Vico	New Streate	High Street	High Street
		Broad Street	Broad Street
Vico de Crokeswalle	Croxewall Streate	Cruxwell Street	Cruxwell Street
		Sheep Street	Old Road
Vico de Stonhulle	Nunwalle Streate	Nunwell Street	Hereford Street
Vico de Avenbury	?	Pump Street	Pump Street
Vico de Meydeneswelle	Maydewell Lane	Frog Lane?	Frog Lane?
Vico de la Lone	Mylborowe Lane	Milvern Lane	Tenbury Road
	Bowbury Streate	Back Street	Rowberry Street

Appendix 2: Human Bone – Individual Catalogue

Key to symbols used in dental charts.

/ tooth lost post-mortem
x tooth lost antemortem
z congenitally absent
np tooth not present
--- jaw and teeth not present
c caries (cavity) in tooth
a abscess
eh enamel hypoplasia (linear or pit identified)
b tooth broken
e tooth erupting
u tooth unerupted

HB1, AA04/29/75

Age: Older adult

Sex: Female

Stature: 168.1 +/- 3.66 cm (calculated from the tibia)

Cranial index: undetermined

Preservation: Good, Grade 0-1.

Completeness: 75%+

Bones present: parietals, temporals, maxilla, nasal bones, zygomatics, lacrimals, palatines, mandible, frontal, occipital (part), c1-L5, 12 right ribs, 11 left, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, r. pubis, scapulae, clavicles, sternum, sacrum, all metacarpals and metatarsals, left scaphoid, lunate, trapezium, trapezoid, capitate, calcanea, r. tauls 1st cuneiform, and navicular. 10 proximal hand phalanges, 7 middle, 1 distal, 6 proximal foot phalanges.

Additional bones: none.

Dentition:

/	/	/	/	/	c6	/	/	x	x	c11	x	c13	c14	x	X
x	x	X	x	28	27	/	/	/	/	22	21c	20c	x	x	X

Table 15: Dentition of HB 1

Dental pathology: calculus 1/9, periodontal disease 9/9, EH 2/9, abscess 2/9

Non-metric traits: none

Skeletal pathology: OA spine and right foot, unhealed fracture of the left tibia and fibula.

HB: HB 2, AA04/29/64

Age: Middle adult

Sex: Female

Stature: 163.25 cm +/- 3.66 (calculated from the tibia)

Cranial index: undetermined

Preservation: Good, the majority of bone surfaces are Graded 0 or 1. The areas of damage present are located at the end of long bones.

Completeness: 75%+

Bones present: parietals, temporals, r. maxilla, frontal, occipital, sphenoid, humeri, radii, ulnae, femora, tibiae, fibulae, c1-c7, ilia, ischia, pubes, r. scapula, clavicles, patellae, sternum, sacrum, all left metacarpals and all left apart from second, all right and left metatarsals, scaphoids, lunates, capitates, left triquetral, right pisiform left hamate, all left and right tarsals (no sesmoids), 10 proximal hand phalanges, 7 middle, 7 distal, 9 proximal foot phalanges and 1 distal.

Additional bones: none.

Dentition:

---	---		---	---	---	6	x	8	/	10	x	x	x	x	X	c16
x	X		30	29	28	27	26	/	24	23	22	21	x	x	X	x

Table 16: Dentition of HB 2

Dental pathology: calculus 1/12, periodontal disease 9/12, EH 0/12, abscess 3/12

Non-metric traits: left femoral plaque

Skeletal pathology: none

HB 3, AA04/29/76

Age: Middle adult

Sex: Female?

Stature: 152.72 cm +/- 3.55 (tibia and femur)

Cranial index: undetermined

Preservation: Good, most surfaces Grade 0-1, some areas such as ribs slightly less well preserved (Grade 1-2)

Completeness: 75%+

Bones present: parietals, temporals, maxillae, left nasal, zygomatics, palatines, mandible, frontal, occipital, sphenoid, c1-c7, L4 and L5, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, ischia, scapulae, clavicles, patellae, sacrum, all right and left metacarpals, right 5th metatarsal and all left, r scaphoid, lunates, l. triquetral, trapezium, r. trapezoid, capitates, hamates, all left tarsals, 10 proximal hand phalanges, 5 middle, 2 distal, 6 proximal foot phalanges

Additional bones: animal bone.

Dentition:

													c		
/	2	/	4	x	6	7	8	9	10	11	x	13	14	15	X
X	x	X	29	28	/	/	25	24	/	22	21	20	x	x	17

Table 17: Dentition of HB 3

Dental pathology: calculus 4/19, periodontal disease 19/19, EH 0/19, abscess 0/19

Non-metric traits: left infa-orbital foramen

Skeletal pathology: 1 well healed mid-shaft rib fracture, un-sided.

HB: 4, AA04/29/65

Age: Middle adult

Sex: Female

Stature: 156.06 cm +/- 3.55 (tibia and femur)

Cranial index: undetermined

Preservation: OK, some areas of bone are very poorly preserved. Much is graded 1, but in places (e.g. bones of the arms) it is Grade 4.

Completeness: 50-75%

Bones present: parietals, temporals, maxillae, zygomatics, palatines, mandible, frontal, occipital, sphenoid, hyoid, thyroid all vertebrae except 1 thoracic vertebra, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, ischia, scapulae, clavicles, patellae, sacrum, sacrum, 5 right ribs, 7 left ribs, all right and left metacarpals and metatarsals, l. capitate, l. scaphoid, triquetral and capitate, tali, calcanea, cuboids, l. 2nd cuneiform, r. 3rd cuneiform and navicular, 8 proximal hand phalanges, 4 middle, 0 distal, 10 proximal foot phalanges

Additional bones: none

Dentition:

										c	c	c				
---	---	---	X	5	/	7	/	/	/	1	1	1	x	x	X	
										1	2	3				
32	31	X	2	2	2	2	/	/	/	2	2	2	x	x	X	
			9	8	7	6				2	1	0				
	c		C													

Table 18: Dentition of HB4

Dental pathology: calculus 1/13, periodontal disease 9/13, EH 2/13, abscess 1/13

Non-metric traits: none

Skeletal pathology: the left sacro-iliac joint is partially fused.

HB 5, AA04/29/84

Age: Older adult

Sex: Male

Stature: 174.5 cm +/- 3.37

Cranial index: undetermined

Preservation: good, most bones well preserved Grade 0-1, although some bones (e.g. skull, thorax) are damaged and areas such as the spine have poorer surface preservation Grade 2/3

Completeness: 75%+

Bones present: parietals, temporals, maxillae, r. zygomatic, mandible, frontal, occipital, sphenoid, c1 and 2, 2 right ribs, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, ischia, scapulae, clavicles, patellae, sternum, sacrum, all right and left metacarpals and metatarsals apart from left 2nd metatarsal, scaphoids, lunates, trapeziums, capitates r. trapezoid, l. hamate, tali, cuboids, r. 1st and 3rd cuneiforms and navicular 9 proximal hand phalanges, 7 middle, 2 distal, 5 proximal foot phalanges, 1 distal foot phalanx

Additional bones: none

Dentition:

X	2	3	4	5	6	7	8	9	10	11	12	/	x	15	X
32	31	X	29	28	27	26	25	24	/	22	21	20	19	18	17
C															

Table 19: Dentition of HB 5

Dental pathology: calculus 24/26, periodontal disease 19/26, EH 2/26, abscess 0/26

Non-metric traits: none

Skeletal pathology: OA spine, 2 fractured ribs, RA

HB 6, AA04/29/83

Age: Middle adult

Sex: Male

Stature: 169.89 cm +/- 2.99 (femur and tibia)

Cranial index: undetermined

Preservation: Good, all surfaces Grade 0 or 1.

Completeness: 75%+

Bones present: parietals, temporals, maxillae, r. zygomatic, palatines, mandible, frontal, occipital, sphenoid, hyoid, thyroid, c1-L5, 12 right ribs and 11 left ribs, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, l. ischium, pubes, scapulae, clavicles, patellae, sternum, sacrum, all right and left metacarpals and metatarsals, scaphoids, lunates, trapeziums, capitates l. triquetral, r. trapezoid, r. hamate, all tarsals, 10 proximal hand phalanges, 8 middle, 5 distal, 8 proximal foot phalanges, 3 middle, 6 distal foot phalanx

Additional bones: none

Dentition:

1	2	3	4	5	6	7	8	9	10	11	12	x	14	15	16
32	31	X	29	28	27	26	25	24	23	22	21	20	19	18	17
	c														

Table 20: Dentition of HB 6

Dental pathology: calculus 14/30, periodontal disease 0/30, EH 8/30, abscess 0/30

Non-metric traits: right lambdoid wormians, left and right parietal foramen, right double superior atlas facets

Skeletal pathology: none

HB 8, AA04/29/108

Age: Adult

Sex: Unknown

Stature: undetermined

Cranial index: undetermined

Preservation: Ok, Grade 2

Completeness: <25%, only small part of skull present

Bones present: r. parietal, r. temporal, l. maxilla, zygomatics, frontal, occipital, Additional bones: none

Dentition:

---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 21: Dentition of HB 8

Dental pathology: calculus /, periodontal disease /, EH /, abscess /

Non-metric traits: none

Skeletal pathology: none

HB 10, AA04/29/115

Age: Middle adult

Sex: Indeterminate

Stature: 170.6 cm +/- 2.99 (femur and tibia)

Cranial index: undetermined

Preservation: most of skeleton is good, Grade 0-1. However, in places there are areas where the surface is flaking, Grade 2-3

Completeness: 50-75%

Bones present: parietals, temporals, mandible, frontal, occipital, c1 and c2, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, ischia, pubes, scapulae, clavicles, patellae, sternum, sacrum, 6 right ribs, 8 left ribs, all right and left metacarpals apart from left 4th and all right and left metatarsals, scaphoids, lunates, triquetrals, trapezoids, capitates, hamates, tali, calcanea, 1st cuneiforms, naviculars and cuboids, 9 proximal hand phalanges, 7 middle, 1 distal, 9 proximal foot phalanges

Additional bones: none

Dentition:

1	/	/	/	/	/	/	/	/	/	/	/	/	/	/	/
/	/	3 0	2 9	/	2 7	2 6	2 5	2 4	/	/	/	/	/	/	/
			cc												

Table 22: Dentition of HB 10

Dental pathology: calculus 6/7, periodontal disease 1/7, EH 3/7, abscess 0/7

Non-metric traits: none

Skeletal pathology: possible bilateral sacro-iliac fusion, 1 possible rib fracture, OA ribs, enthesophyte olecranon process

HB 11, AA04/29/120

Age: Young adult

Sex: Female

Stature: 159.94 cm +/- 4.24 (radius)

Cranial index: undetermined

Preservation: Good, most bones Grade 0-1, but in places, particularly towards the end of long bones Grade 2-4. Bones are very fragmented

Completeness: 50-75%

Bones present: parietals, temporals, maxillae, mandible, frontal, occipital, sphenoid, c1 and 2, L1-5, 2 right ribs, humeri, radii, ulnae, femora, tibiae, fibulae, ilia, ischia, scapulae, clavicles, patellae, sternum, sacrum, all right metacarpals, 3rd-5th right metacarpals, right 5th metatarsal and all left metatarsals, r. triquetral, capitate and hamate, calcanea, 2nd cuneiforms, cuboids, left talus, 1st cuneiform and navicular 6 proximal hand phalanges, 4 middle, 0 distal, 4 proximal foot phalanges, 1 middle foot phalanx

Additional bones: right infant humerus

Dentition:

1	/	3	4	/	6	7	8	/	/	/	/	/	14	/	16
32	/	/	29	28	27	26	25	24	23	22	21	20	19	/	/

Table 23: Dentition of HB 11

Dental pathology: calculus 12/22, periodontal disease 9/22, EH 0/22, abscess 0/22

Non-metric traits: none

Skeletal pathology: none

HB 12, AA04/29/126

Age: Adult

Sex: Unknown

Stature: undetermined

Cranial index: undetermined

Preservation: Good, most areas are Grade 0-1, but some areas are less well preserved Grade 2-3 and parts of the ulna are Grade 5

Completeness: <25%

Bones present: parietals, temporals, zygomatics, frontal, occipital, l. ulna, femur, tibia, fibula, l. scapula, clavicle, patella, l. metatarsals, left tarsals, 4 proximal hand phalanges, 4 middle, 2 distal, 2 proximal foot phalanges, 0 middle and 1 distal foot phalanx

Additional bones: animal bone

Dentition:

---	---	---	-- -	---	---	---	---	---	---	---	---	---	---	---	---
X	x	X	x	x	x	x	x	x	x	x	x	x	x	x	X

Table 24: Dentition of HB 12

Dental pathology: no teeth present

Non-metric traits: none

Skeletal pathology: OA left hand, and sterno-clavicular joint

HB 14, AA04/29/137

Age: Infant

Sex: Undetermined

Stature: undetermined

Cranial index: undetermined

Preservation: Poorly preserved, ends of bones are very abraded, but shafts better preserved (Grade 0-2)

Completeness: <25%

Bones present: left humerus and tibia, 7 metatarsals, 9 foot phalanges

Additional bones: none

Dentition:

---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 25: Dentition of HB 14

Dental pathology: calculus /, periodontal disease /, EH /, abscess /

Non-metric traits: none

Skeletal pathology: none