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BEE BOLES IN KENT

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1. INTRODUCTION

Pictorial and written evidence about bee-keeping survives from past centuries in various parts of Britain, but there is peculiarly little for Kent. Indeed, Melling¹ points out that little has been written on Kent agriculture in general. The Domesday Book, compiled before 1100, includes bee-keeping entries for some counties, but none for Kent. However, we can be sure that bees were kept in Kent, as in the rest of England, for many centuries, and honey and beeswax were important in everyday life.

One notable use of beeswax was for church candles, and a few Kent records testify to this. In 1137, John, Archdeacon of Canterbury, bequeathed to Rochester Cathedral the rights and benefits of the church of Frindsbury and the chapel of Strood, in order to provide beeswax tapers to burn continuously on the altar.² Three centuries later, Henry Castilayn of Bexley, who made his will in April 1407, bequeathed all his bees to the churchwardens of Bexley, 'the profit of them to be devoted towards maintaining three wax tapers in the church, ever burning, . . .'³ Melling⁴ found few mentions of bees in wills, but she quoted that of William Cullinge, yeoman of Barham, who made an inventory dated 8 June, 1585. This included 61 acres of arable land, some hops and some fruit trees, its total value being £155

¹ (Ed.) E. Melling, *Kentish Sources III. Aspects of Agriculture and Industry: A Collection of Examples from original Sources in the Kent Archive Office, from the sixteenth to the nineteenth Century*, Maidstone, Kent County Council (1961).

² H.M. Fraser, *History of Beekeeping in Britain*, London, Bee Research Association (1958).

³ Canon Scott Robertson, 'Bexley. The Church; Hall Place; and Blendon', *Arch. Cant.*, xviii (1889), 373.

⁴ E. Melling, *op. cit.*, in note 1.

14s. 0d.. Item 8 was listed as '8 fattes of bees 16s.' [A 'fatte' would have been a hive of bees in good condition.]

In 1813, John Boys surveying agriculture in Kent reported⁵ 'few bees in the county'. Yet, we learn from him that several legume crops were grown: coleseed, clover, sainfoin and mustard, all of which would have been useful to bees, if they were allowed to flower. In some areas the many fruit orchards would also have provided early bee forage. Boys noted that in his time the bees were chiefly in the hands of small farmers and cottagers, and that the latter sometimes paid their rent by selling honey and wax.

Although written evidence for bee-keeping in the past may be scarce, some structures survive in Kent that bee-keepers built to protect their bees. These structures, which can be fairly accurately dated, are the subject of this paper.

Until the introduction of the modern movable-frame hive to Britain in 1862, bee-keepers usually kept their bees in skeps made of coiled straw or, in earlier centuries, of wicker. In most places the skeps stood outside on wooden stands or benches, but in certain areas some of the bee-keepers provided the skeps with additional protection from wind and rain, and special structures were built for this purpose. Nearly all those made of wood have disappeared, but a surprising number of brick and stone still survives.

Since 1952 the International Bee Research Association has kept a 'Register of bee boles and other bee-keeping structures'. By 1981, it contained more than 700 sites with bee boles, and a further 135 other structures, recorded in Britain and Ireland. These were listed and discussed by Dr Eva Crane in her book *The Archaeology of Beekeeping*.⁶ She defined several types of protective structure, the most common of which was a set of bee boles: a row of recesses (or, occasionally, a single recess) built into a garden or other wall (see Plate IA, for example). Each recess housed one skep, although a few were made wide enough for two or three. By mid-1988, 826 sets of bee boles have been recorded in the register. Bee boles are almost unique to Britain and Ireland, and those in Kent are of unusual interest because more are in brick walls than any in other county.

Mrs V.F. Desborough was the first to record bee boles in Kent, and she published brief descriptions of 28 sets in *Archaeologia*

⁵ J. Boys, *General View of the Agriculture of the County of Kent*, 2nd Edn., London, Serwood, Neely and Jones (1813).

⁶ E. Crane, *The Archaeology of Beekeeping*, London, Duckworth (1983).

Cantiana:⁷⁻¹⁰ it now seems likely, however, that four of these sets may not have been built to shelter skeps – see Section 10. Over the years, the IBRA Register has received much additional information, including further sites in Kent, from owners and from interested reporters, especially Anne Foster and colleagues, Joan Harding, E.W. Parkin and D.A. Smith. I have also visited some of the sites myself. At August 1988, the IBRA Register contains 33 sets of bee boles (and at least 8 other protective structures) within the pre-1965 county boundary of Kent, four sets now being in Greater London. All are listed with brief details in the Appendix to this paper. These 33 sets, referred to below as ‘Kent bee boles’, are discussed here as a group and compared with those in other counties. The Kent bee boles show many characteristics common to others in Britain and Ireland, but also have some features not found elsewhere.

2. DISTRIBUTION OF BEE BOLES AND OTHER PROTECTIVE STRUCTURES

The distribution of Kent bee boles and other protective structures is noteworthy, as can be seen from the map in Fig. 1: all of them are in the northern half of the county, on or near the North Downs or in the north-east. The land to the south of the line Westerham–East Peckham–Ashford–Sandwich is devoid of bee boles, right to the Sussex coast. To the west there are a few, but only a few, sets in Surrey and West Sussex.

Crane¹¹ suggested that structures for sheltering hives were built in areas where bee-keeping could be worthwhile, but only if extra protection from bad weather was provided. Several such areas have agglomerations of bee boles, especially parts of Yorkshire,¹² Cumbria and Devon in England, Fife and Tayside in Scotland,¹³ and

⁷ V.F. Desborough, ‘Bee Boles and Beehouses’, *Arch. Cant.*, lxxix (1955), 90–5, with an introduction by R.M. Duruz.

⁸ V.F. Desborough, ‘Further Bee Boles in Kent’, *Arch. Cant.*, lxxx (1956), 237–40.

⁹ V.F. Desborough, ‘Further Note on Kentish Bee Boles’, *Arch. Cant.*, lxxii (1958), 189–91.

¹⁰ V.F. Desborough, ‘More Kentish Bee Boles’, *Arch. Cant.*, lxxiv (1960), 91–4.

¹¹ E. Crane, *op. cit.*, in note 6.

¹² P. Walker, ‘Past Beekeeping in Yorkshire: Evidence from Bee Boles and other local Sources’, *Yorks. Arch. Journ.*, lix (1987), 119–37.

¹³ P. Walker, ‘Bee Boles and past Beekeeping in Scotland’, *Rev. Scottish Culture*, 4 (1988), 105–17.

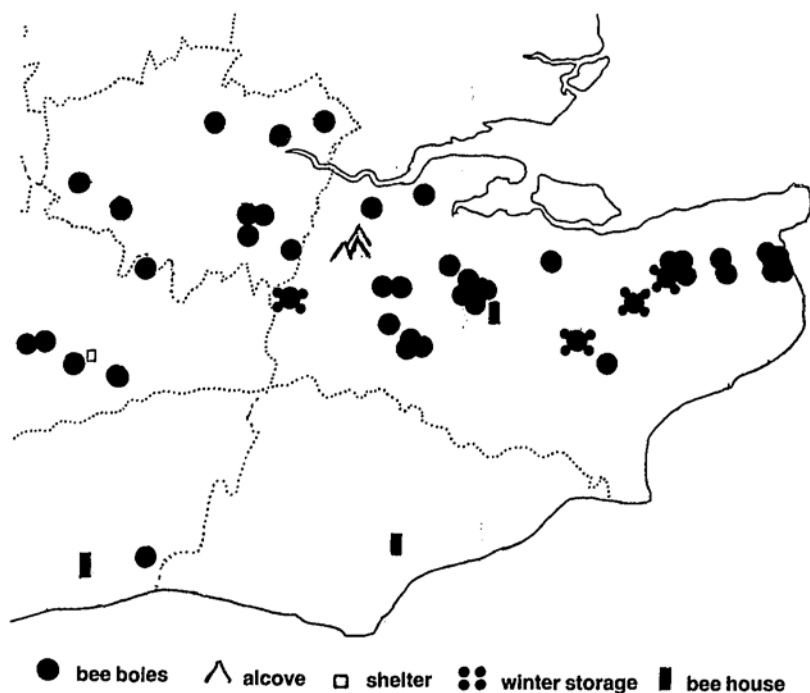


Fig. 1. Sketch map of Kent (present boundary) and adjoining areas showing the distribution of bee boles and other protective structures, recorded from 1952 to 1988.

Wales.¹⁴ Like eastern Scotland, the North Downs and the north-east of Kent are subject to cold north-east winds from which bees in skeps would need some protection, especially in winter.

Most of the rest of the county is rather less exposed, and skeps were probably stood out in the open. Boys wrote,¹⁵ 'The south-west part of the county is more enclosed; and being under shelter of the ridge of hills running from Folkstone-hill to Wrotham, &c, is somewhat warmer as to climate . . .'

¹⁴ P. Walker and W. Linnard, 'Bee Boles in Wales', *Arch. Camb.*, (1989), in preparation.

¹⁵ J. Boys, *op. cit.*, in note 5.

3. BEE BOLES ACCESSIBLE TO THE PUBLIC

Most bee boles are on private property, and visitors are not necessarily welcome. But those who are interested in seeing some typical Kent bee bole walls are fortunate because six sets, listed below, are accessible to the public; some are probably over 400 years old. Here, and throughout the text, italic numbers (e.g. 78) are IBRA Register numbers.

78. At Quebec House, Westerham – a National Trust property – the south-facing brick wall of the old stable block dated 1550–1650 contains three triangular-topped bee boles ($18 \times 12\frac{1}{2} \times 10$ in.).¹⁶ A small skep and wooden base have been made to fit into one recess (Plate IA), and visitors can read an information folder on bee boles. In the house cellars (not open to the public) are nine recesses that may have been used for winter storage of bees; see Section 9.

287. Two groups of 3 triangular-topped bee boles ($13\frac{1}{2} \times 9-11 \times 9$ in.) in an early seventeenth-century garden wall in the Cathedral Close, Canterbury; see Plate IB.

288. A row of 13 bee boles, similar in shape to 287 and typically $14\frac{1}{2} \times 14 \times 10$ in., in a stone-and-brick wall in the Cathedral Memorial Gardens, Canterbury. All but three are now bricked in, but their outlines can be seen about a foot from the ground and 7 ft. apart.

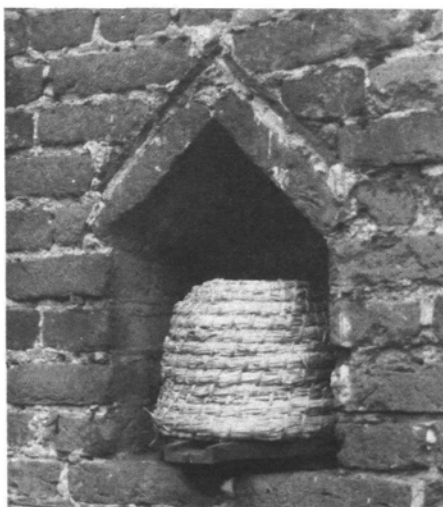
252. In a Tudor wall in the public park known as Well Hall Pleasaunce in Eltham, 15 triangular-topped recesses (typically $17\frac{1}{2} \times 9 \times 9-10$ in.) can still be seen, though many have been bricked in. The wall was once part of the home of William Roper, who married Thomas More's daughter Margaret. These recesses are very similar to many bee boles, and it seems likely that they were used for skeps, although their width and depth are small (see Section 8). This site is only $\frac{3}{4}$ mile from another large set of bee boles, 251, mentioned in Section 4.

268. A section of a brick wall containing a bee bole has been re-erected in Church House Gardens, Bromley. There were several originally, at a Tudor mansion house in Bromley, now demolished.

290. Kent has few stone walls with bee boles, but ragstone is quarried in the Maidstone area, and in the town a ragstone wall adjoining the museum has four bee boles; one is shown in Plate IIA. The rectangular openings are relatively wide (25 in.) and each recess may have held two skeps. Their depth is 13 in., i.e. 3–4 in. more than

¹⁶ Height to apex \times width \times depth; when the IBRA Register was started, metric units were not in common use in Britain, and measurements were recorded in feet and inches.

PLATE IA



One of three triangular-topped bee boles in the stable wall at Quebec House, Westerham (IBRA Register no. 78); it is 18 in. high, 12½ in. wide and 10 in. deep. The (new) coiled-straw skep stands on a wooden base shaped to provide an 'alighting board' at the front. (Photo.: John R.C. Walker, 1988)

PLATE IB



Three of the six bee boles in an east-facing brick wall, Cathedral Close, Canterbury (287). (Photo.: David A. Smith, 1984)

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the brick bee boles described above. It is thought that the Elizabethan manor that now houses the museum was built on the site of a pre-Tudor house, so the wall may date from the Tudor period or earlier. A single bee bole survives in another stone wall at The Palace, Maidstone (405), which was once a residence of the Archbishop of Canterbury.

4. SOME OTHER BEE BOLES OF SPECIAL INTEREST

There is no public access to the bee boles described below.

251. At the Gatehouse, Eltham (not far from set 252 described in Section 3), are two adjoining Tudor brick walls with 11 and 7 bee boles, and 2 more may have disappeared. These walls belonged to Eltham Palace. A 1605 survey of the lands and tenements of the Manor of Eltham, ordered by James I, mentions a brick wall round the orchard here, though it is not clear whether the wall contained bee boles.

248. A set of six brick bee boles, deeper than most, survives at Plaxtol (Plate IIB), although seven others have been demolished. The wall is probably Tudor. Each recess has a rounded arch springing from the base, and measures $17 \times 18 \times 19$ in.; slots for separate wooden bases are visible. These bee boles contained skeps as late as 1913. They constitute one of only two 'tiered' sets in Kent, i.e. the recesses are in rows, at different heights.

90. At a brick house in Boxley, once a farmhouse, two bee boles with rounded arches were built in a south-facing garden wall; see Plate III. They are much larger than most in brick walls ($23 \times 18 \times 15\frac{1}{2}$ in.). The boles, which are now a listed building, may have been constructed around 1700 when additions were built on to the house, or later. The bee boles show some features that are quite common in stone walls in some counties, but – surprisingly – are absent from most other brick bee boles including those in Kent, viz. a projecting surround and base. The Boxley bee boles are also unusual in that each was almost certainly tiled at the top with peg tiles (see drawing in Plate III).

188. Another tiered set, consisting of three pairs one above the other, is at Heaverham in a house wall which can be seen from the road; the top two recesses have been filled in. A photograph published in 1930 shows skeps on wooden bases in the other four.¹⁷

¹⁷ W. Herrod-Hempsall, *Bee-keeping new and old described with Pen and Camera*, Vol. 1, London, British Bee Journal (1930).



One of four stone bee boles at Maidstone Museum (290), which could have held two skeps. (Photo.: Eva Crane, 1959)



A two-tier set of Tudor bee boles at Plaxtol (248); slots for separate wooden bases are visible in the lower row. (Source: V.F. Desborough, *Arch. Cant.*, lxi (1955), 90-5)

471. At Cramond House in Sandwich, seven brick bee boles in a south-facing brick and flint wall have recently been unblocked. They are similar in size and shape to many other brick bee boles, but one puzzling feature is that each has a sloping side cavity within the wall, 6 in. long.

5. TYPE OF PROPERTY AND NUMBER OF BEE BOLES

In Britain and Ireland generally, most of the surviving bee boles are at large houses, farmhouses and cottages in rural areas; comparatively few are in towns. Kent, however, is different in that three towns have several sets: Sandwich (6), Canterbury (5) and Maidstone (3), altogether over a third of all Kent sets. Only one other sizeable town in Britain has more sets: St. Andrew's on the east coast of Scotland has 14.

The other 19 sets in Kent were built in rural areas. They are found especially in the gardens of large country houses; very few belong to small country cottages as they do in Yorkshire¹⁸ and Cumbria, for example. But in south-east England, where most walls were made from bricks, which had to be purchased, only well-off landowners could afford the expense of walls round a garden. Cottagers would have been more likely to grow hedges. In contrast, where stone was freely available, stone walls served a great many purposes.

In England as a whole, there were on average just over five bee boles on one property. In Kent, the average was nearer seven, and several properties here have a large number of bee boles:

375*b*. St. Stephen's, Canterbury – 20, probably dated 1490 (and 3 more on the other side of the wall, 375*a*).

251. Eltham Palace – 20, of which 18 remain, dating from the sixteenth century.

252. Well Hall Pleasaunce, Eltham – 17, of which 15 remain, dating from the sixteenth century.

510. Bark Hart Road, Orpington – 12 from 1650 or later, and there may have been more.

201. Scadbury Manor, Southfleet – 10, probably 1550–1650; see Plate IVA.

¹⁸ P. Walker, *op. cit.*, in note 12.



A pair of bee boles at Yew Trees House, Boxley (90). The slots above show where the tiled roof was once fixed, as suggested by the drawing. (Photo. and drawing: R.W. Howard, 1987)

6. LOCATION WITHIN THE PROPERTY AND DIRECTION FACED

Richard Remnant, writing in 1637 about keeping bees in 'straw hives', said,¹⁹ ' . . . be sure to keep them dry, for the wet will decay both the Hive and the Bees worke.' Most skeps stood in the open, and they were kept dry by a rain-shedding cover such as a straw hackle. Standing the skeps in bee boles was a less common way of keeping them dry. Bee boles were usually sited so that skeps in them had shelter from rain, and also from prevailing winds.

As far as we know, all bee boles in Kent (except, perhaps, those at Heaverham, 188) were built to face on to a garden. Most were in a free-standing boundary wall, but a few are on the outside of a building. Houses with inbuilt bee boles are: 188, Heaverham, and – in a chimney wall – 49, Wrotham Water, and 245a, Dane Court, Chilham; there is also a brewery (91, Boroughs Oak Farm), and a stable (78, Quebec House).

The aspect of a bee bole affects the amount of sun and wind reaching the skep of bees. Since Roman times, at least, bee-keepers in Europe have preferred to place their hives with the entrances facing south. In his *Shilling Bee Book* Robert Golding of Hunton in Kent wrote:²⁰

'Although in a well-sheltered situation the aspect is probably but of little consequence, yet where exposed to the cold north and east winds much injury is sustained. The hives should front on some point, from east, round south, to west.'

In Kent, as in the rest of England, almost half the sets of bee boles face south; in Scotland, more do so.

Some English bee-keepers favoured bee boles facing east so that the skeps would be warmed by the morning sun and the bees would start working early. In Kent, winds from the east may be cold, and it is surprising that six sets (18 per cent) face east and four sets (12 per cent) south-east. Tayside and Fife are also subject to cold east winds, but only 0.5 per cent of sets there face east and 14 per cent south-east.²¹

Most bee boles are at a height that would be convenient for the beekeeper (2.5–4 ft. from the ground), but a few sets are quite high up. One set at Maidstone (269) is above 5 ft.; perhaps the bees' flight path was then above people working in the garden.

¹⁹ R. Remnant, *A Discourse or Historie of Bees . . .*, London, Thomas Slater (1637).

²⁰ R. Golding, *The Shilling Bee Book . . .*, London, Longman and Co. (1847).

²¹ P. Walker, *op. cit.*, in note 13.

7. MATERIAL OF WALL AND DATE OF CONSTRUCTION

Over large areas of Britain and Ireland, walls and buildings are made from locally available stone. Brick was rarely used before 1500 even where there was little or no stone, but then it quite suddenly became a prestigious material for building. About 80 per cent of the bee boles recorded in Britain and Ireland are in stone walls and 15 per cent are in brick walls. Brick buildings and walls are predominant in areas of Kent and the south-east in general where not much stone is quarried. Of the 33 Kent bee bole walls, 29 are of brick (2 include some flint), one stone and brick, and three stone. Two of the stone walls are in Maidstone, ragstone being found in this area.

In England as a whole, the majority of bee boles that can be dated were built in the seventeenth and eighteenth centuries; in Scotland the peak of building was in the eighteenth. Evidence as to date is available for some 60 per cent of stone walls with bee boles, but for about 85 per cent of the brick ones. Most Kent walls on the IBRA Register are dated from the type of brick and wall construction used. The county has a high proportion of early bee boles: of the 28 sets that have been dated, 3 may be from the fifteenth century, 16 are probably from the sixteenth, 7 from the seventeenth and 2 from the eighteenth century.

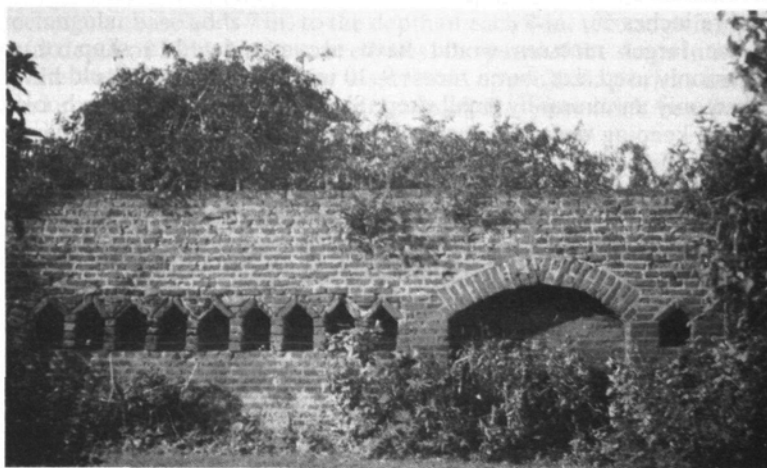
8. SIZE AND SHAPE OF BRICK BEE BOLES

Brick walls are usually not as thick as stone walls, and because the thickness of a wall limits the depth of a recess made in it, brick bee boles are rather shallow. In most bee boles in brick walls that I have inspected in south-east England, the depth of the recesses is less than the total thickness of the wall by one brick width. A common thickness for these brick walls is about 15 in. (three brick widths, or one width plus one length), the exact thickness depending on the brick size. Many bee boles are thus about nine inches deep, and throughout England most are 9–14 in. deep and only a few are deeper. In 19 of the 29 brick sets in Kent the depth is 9–10 in.; several sets are 11 in. deep, and the deepest is 19 in.

Most bee boles in brick walls are also narrower than those in stone walls. For example, several of the Kent brick bee boles are only 10 in. wide, or an inch or two more; many others are 14–15 in. wide. Calculation shows that the mean base area of bee boles in stone walls in England, Wales and Scotland was 369 square inches, whereas the

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PLATE IVA



Ten bee boles at Scadbury Manor, Southfleet (201), which held skeps until 1911 or later. The large alcove may also have been used for bees. (Source: V.F. Desborough, *Arch. Cant.*, lxx (1956), 237-40)

PLATE IVB



Three of nine recesses in a cellar, St. Stephen's, Canterbury (375c), probably built in 1490 and used for the winter storage of bees. There are 20 bee boles in the garden of this house. (Photo.: Paul Campbell, 1986)

mean of those in brick walls in Kent and Greater London was 165 square inches.²²

The larger recesses would have accommodated a skep of a commonly used size, but a recess 9–10 in. deep and wide could have taken only an unusually small skep. Skep diameters quoted in books on bee-keeping written between 1593 and 1851 vary between 10 and 15 in.²² In 1657, Samuel Purchas wrote,²³ 'Let your hives bee rather too little than too great, for such are hurtful to the increase and prosperity of Bees.' Thomas Wildman used skeps of 10 in. diameter, which he described in *A Treatise on the Management of Bees* (1778):²⁴ ' . . . the size and form of my hives are different from those now in common use. . . . My hives are seven inches in heighth, and ten in width. The sides are upright, so that the top and bottom are of the same diameter. A hive holds nearly a peck.'

Accepting the fact that skeps of only 10 in. diameter were used, on a round base of the same diameter, a recess 10 in. wide could accommodate a skep, providing the depth of the recess was sufficiently above 5 in. to ensure the skep's stability. The front part of the skep would project in front of the wall unless the recess was at least 10 in. deep, but a 10-in. skep would stick out only 1 in. from a 9-in. recess. The bee bole shown in Plate IA is 12½ in. wide and 10 in. deep and it holds a skep of 10½ in. external diameter.

Whether a skep was kept on an outdoor stand or shelf, or in a bee bole, it was usual to place it on a separate wooden base, except in stone areas where this might be of stone. Remnant's advice was:²⁵

'The best seat or stoole for them is a round board, or stone fit to the Hive, onely left an hand breadth wider than the Hive before, for a place for the Bees to alight upon; and set it a little leaning forward, for that the raine may runne off, if any be driven or fall upon it: . . .'

The 'hand breadth wider before' provided an alighting board at the skep entrance for returning bees (see Plate IA). A photograph showed such bases in use at Heaverham (188), and slots for bases, presumably rectangular, can be seen in Plate IIB.

The only surviving bee boles in Kent with *built-in* projecting bases

²² E. Crane, *op. cit.*, in note 6.

²³ S. Purchas, *A Theatre of politicall Flying-insects*, London, Thomas Parkhurst (1657).

²⁴ T. Wildman, *A Treatise on the Management of Bees*; . . . , 3rd Edn., London, Strahan (1778; 1st Edn. was 1768).

²⁵ R. Remnant, *op. cit.*, in note 19.

are those at Boxley (90; see Plate III) where a thick wooden rectangular base adds 7 in. to the depth of each 8-in. recess, giving it a total depth of 15 in. In these bee boles, the parts of the skeps in front of the wall were protected by a surround of projecting bricks and a tiled roof. Surprisingly, as Duruz remarked,²⁶ few brick bee boles were made deeper by constructing such projections.

By the seventeenth century or earlier, skeps came into use in England with a flat top on which a smaller 'cap' (also of coiled straw) was added in summer, as storage space for honey. All Kent brick bee boles have a triangular top or rounded arch, and most measure 14–19 in. from base to apex, which would allow for a cap to be put on the skep. In building the recess into the wall it was convenient for the side to run straight up for a number of courses (usually three, four or five) before making the top arch. The use of two slanting bricks to make a triangular top is widespread (e.g. Plates IA, IB and IVA); curved arches require more skill in building, but can give a pleasing shape (e.g. Plates IIB and III).

9. OTHER BEE-KEEPING STRUCTURES

In Britain and Ireland, other types of structure survive that are known to have been used for housing skeps of bees. Recesses larger than bee boles – called *alcoves* by Crane²⁷ – have been recorded in Kent. Each has or had one or more shelves and held several skeps. Evidence of use of an alcove at Farningham (823) is provided by a photograph published in 1930 showing four apparently occupied skeps in the flint-and-stone structure.²⁸ Another alcove, of flint and brick, has been reported at Farningham (249), and a brick alcove at Eynsford (196) accommodated 10 or 11 skeps.

Large recesses in the same walls as some sets of bee boles (201, 246 and 375b) may also have been alcoves for skeps, but no positive evidence is known.

Some bee-keepers used to overwinter skeps of bees in recesses in a dark cool building or cellar. In Scotland there is a *winter storage* building with 40 recesses, and in Ireland one with 46. But a separate building is not necessary, and several sets of recesses are known in cellars. Winter storage recesses have been reported recently at four

²⁶ R.M. Duruz, *op. cit.*, in note 7.

²⁷ E. Crane, *op. cit.*, in note 6.

²⁸ W. Herrod-Hempsall, *op. cit.*, in note 17.

sites in Kent which have bee boles in their gardens. Of these, three recesses in a cellar at Pett Place, Charing (244*b*), and nine in a cellar at St. Stephen's, Canterbury (375*c*), are similar in shape to the outdoor bee boles, though slightly larger. Some of these recesses are shown in Plate IVB. At Dane Court, Chilham (245*b*), are two recesses inside an outbuilding, almost identical to those in the garden; there were probably more originally. Nine rectangular recesses in two cellars at Quebec House, Westerham (78), and recesses reported in the cellar at Forge House, Charing (1014), may also have been for winter storage of bees.

Bee houses were used for housing skeps of bees all the year round. Golding of Hunton included in his 1847 book²⁹ some advice on keeping bees in such a bee house: 'An enclosed apiary – a small room – for the accommodation of the more scientific apiarian, will be found a great convenience. . . . Range the hives round the room upon a shelf near two feet from the floor.' A brick bee house, possibly built in the seventeenth century, survives near Herstmonceux, East Sussex, but the only one recorded in Kent was built about 1870. It was a thatched wooden building at Arnold Hill, near Leeds (126), which housed 20 hives; the bees flew out through small holes in the east and west walls. The house was still standing in 1954 though it was very dilapidated.

Bee shelters were roofed open-fronted structures made of stone, brick or wood, free-standing or built against a wall. Skeps were placed on one or more shelves in the shelter. None are known in Kent, although many still survive in Cumbria and Yorkshire.

10. RECESSES BUILT FOR OTHER PURPOSES

In searching for bee boles, recesses have been found in other counties that were built or used for various purposes. In Kent, also, some recesses in brick walls have been reported to the IBRA Register that seem impossibly small for bee boles, and others that are inappropriate in other respects. Eleven sets are listed at the end of the Appendix, with a brief note of the reason for discounting them. So far, little concrete evidence has been found for other uses for any of these recesses, but there are various possibilities.

Four recesses that I have seen in Sandwich, and others reported in the town, were probably built for some other use, although they have

* ²⁹ R. Golding, *op. cit.*, in note 20.

similar dimensions to small bee boles. They are generally single recesses near a doorway into the wall from outside, and facing north, north-west, or east. A resident suggests that, in times when the plague was rife in the town, food was left in such a recess for infected households. William Boys in his history of Sandwich (1792)³⁰ recorded regular recurrences of the plague, e.g. in 1531, 1594, 1597, 1635–36. On 12 March, 1637, 78 houses and 188 persons were infected, and on 10 June, 24 houses and tents were shut up with 103 persons. In 1643, 109 houses with 164 persons needed relief.

Another possible use for recesses, often mentioned but little documented, was for heating a wall to prevent frost damage to fruit trees grown against it. In some walls recesses were built low down for burning fires, and flues ran inside the wall;³¹ one example is at Packwood House in Warwickshire (where another wall contains bee boles, 15). It has been suggested that fires were also burnt in recesses without flues, but John Harvey³² of the Garden History Society argues against this because even a slight wind could blow smoke around, damaging the trees and probably putting out the fire.

A row of recesses might have been built along a wall to house ornamental plant pots or vases, but in Dr Harvey's experience³² such architectural recesses for this purpose are very uncommon; those that are known have some sort of architrave or frame, and usually an ornamental console supporting a partially projecting base.

11. CONCLUSIONS

There seem to be few written accounts of bee-keeping in Kent in past centuries, so the bee boles still surviving are a particularly valuable heritage. This paper includes a study of the evidence they provide on various aspects of bee-keeping in Kent over a period of five centuries. These bee boles form the largest group in brick walls in Britain and Ireland, and they were built earlier on the whole than bee boles in other counties. Most, if not all, of the Kent bee boles were probably built to house skeps, although the small depth of many of them makes one wonder how practical they were. Indoor recesses were also built in Kent for winter storage of skeps.

³⁰ W. Boys, *Collections for an History of Sandwich in Kent . . .*, Canterbury, published by the author (1792, published as 1892).

³¹ J. Bolam, 'Hot or flued Walls', *Garden Hist. Soc. Newsletter*, no. 21 (Autumn 1987), 21–26; no. 22 (Spring 1988), 12–17.

³² J.H. Harvey, Personal communication (1988).

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I should welcome, for the IBRA Register, any further reports of probable bee boles, alcoves, bee houses, or winter storage recesses. I should also be interested to hear from anyone with information that might throw light on the puzzles brought out by the study presented here. (33 Kingsway, Gerrards Cross, Bucks., SL9 8NX).

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APPENDIX

Bee boles and other protective structures recorded in Kent

This list includes all bee boles, alcoves, winter storage structures and a bee house on the International Bee Research Association Register at August 1988. The following brief details are given below:

Column 1: IBRA Register Number (Reg.)

Column 2: Address

Column 3: Number of bee boles (No.)

Column 4: Direction faced (Dir.)

Column 5: Other Information

All the bee boles and alcoves are in a brick wall in a garden, unless otherwise stated. All except those marked 'public' (further details in Section 3) are on private property, and visitors are not necessarily welcome. It might, however, be possible to visit some privately-owned bee boles by prior appointment.

BEE BOLES IN KENT

1 Reg.	2 Address	3 No.	4 Dir.	5 Other information
44	Roydon Hall, East Peckham	8	WSW	1535; called 'bee garth'
49	Wrotham Water, Wrotham	2	S	In chimney wall, at 7½ and 40 in. from ground
78	Quebec House, Westerham	3	S	In stable wall, 1550-1650; public; also 9 recesses in cellars, possibly for winter storage
90	Yew Trees House, Boxley	2	S	Probably early eighteenth century; each bole projects; bee boles are listed building; also 4 unexplained recesses in W wall
91	Boroughs Oak Farm, East Peckham	7	SE	In former brewery wall, probably eighteenth century
126	Arnold Hill, near Leeds			Wooden <i>bee house</i> (1870) for 20 hives
188	Nearly Corner, Heaverham, Kemsing	6	S	3 pairs in house wall; mid seventeenth century; top pair filled in
196	Underberg, High St., Eynsford		S	Eighteenth century; <i>alcove</i> for 10 or 11 skeps
201	Scadbury Manor, Southfleet, Gravesend	10	E	Probably 1550-1650; skeps still here in 1911 (also possible <i>alcove</i> in same wall)
244a	Pett Place, Charing	8	SE	Probably sixteenth-century; was residence of Archbishop of Canterbury
244b	Pett Place, Charing			3 <i>winter storage</i> recesses in cellar
245a	Dane Court, Chilham	4	E	Possible bee boles in chimney wall, 1588
245b	Dane Court, Chilham			2 <i>winter storage</i> recesses in outbuilding; may have been more
246	Higham Hall, Higham, Rochester	2	E	Sixteenth-century; each wide enough for 2 skeps (also 4 possible <i>alcoves</i>)
247	Peckham Place, East Peckham	6	SE	Sixteenth-century

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1	2	3	4	5
Reg.	Address	No.	Dir.	Other information
248	The Tree House, Plaxtol	6	SE	Sixteenth-century; 2 rows; 7 more boles demolished; sklep(s) here in 1913 or later
249	Farningham			Flint <i>alcove</i> with brick surround, for 4? skeps
250	Burton Farm House, Kennington, Ashford	2	1S 1E	Probably seventeenth-century
251	Gatehouse, Eltham Palace, Eltham	18	W	Sixteenth-century; 2 more recesses demolished
252	Well Hall, Pleasance, Eltham	15	E	Possible bee boles; sixteenth- century; most filled in; 2 more recesses demolished; public
268	Church House, Gardens, Bromley	1		Reconstructed bee bole from sixteenth-century; was one of several at Grete House; public
269	National Westminster Bank, 91 High Street, Maidstone	5	E	Sixteenth-century; was in garden
287	Cathedral Close, Canterbury	6	E	Early seventeenth-century; was garden; public
288	Memorial Gardens, Canterbury	13	S	Stone and brick garden wall; 10 filled in; only 12 in. from ground; public
289	Great Wenderton Manor, Wickambreax, Wingham	2	W	? Stone wall, sixteenth-century; may have been more; house demolished
290	Maidstone Museum, St. Faith's Street, Maidstone	4	S	Stone wall, ?pre-1500; may have been 1 more; public
337	Cossington, Aylesford	3	S	Sixteenth or seventeenth-century; wall in enclosure known as 'monastery garden'
375a	St. Stephen's, Canterbury	3	S	Probably 1490; house is listed building
375b	St. Stephen's, Canterbury	20	N	On the back of wall 375a (also several possible alcoves)

BEE BOLES IN KENT

1 Reg.	2 Address	3 No.	4 Dir.	5 Other information
375c	St. Stephen's, Canterbury			9 similar recesses in house cellar, probably for <i>winter storage</i>
405	The Palace, Maidstone	1	S	Stone wall, was probably in garden; may have been more
471	Cramond House, 11 Harnet Street, Sandwich	7	S	Possibly seventeenth-century; wall contains some flint; 6-in. side cavity in each bole.
502	22 Church Street, St. Mary's, Sandwich	1	S	Possible bee bole; early sixteenth-century
510	30 Bark Hart Road, Orpington	12		1650 or later; filled in; some in adjoining gardens, and may have been more
526	Lynsted	1	W	c. 1578; base is tiled
529	The School House, School Road, Sandwich	7	3SW 4SE	Brick-and-flint wall; all filled in
534	1 Guildcount Lane, Sandwich	1	S	Probably seventeenth-century; may have been more
823	Farningham			Stone-and-flint <i>alcove</i> for 4 skeps
898	6 Moat Sole, Sandwich	2	W	Wall now inside building
973	Behind Royal Bank of Scotland, Canterbury	1	SW	Possibly sixteenth-century

List of recesses on IBRA Register that are probably not bee boles

237	Eynsford Castle (4 facing north-west, much larger than bee boles)
253	Austens, Sevenoaks (single recess facing north)
376	Simon Langton School, Canterbury (2 recesses facing north-north-east and only 6 in. deep); wall now demolished
506	Richmond House, Charing (8 facing south but only 5 to 5.5 in. deep)
522	8 Cattle Market, Sandwich (2 facing east and north; narrow)
524	5 Strand Street, Sandwich (single recess facing north-west)
525	7 Harnet Street, Sandwich (single recess facing north; narrow and shallow)
739	Park Farm, Rushmore, Knockholt (2 facing north in outbuilding; at ground level and may have been outlets for dogs)

