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Wall recesses for bee hives

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Walls with recesses to hold and protect skeps of bees were studied in Britain, Ireland and France. From an analysis of 1214 site records, the distribution, dates and characteristics of these walls are reported; some conclusions are drawn about the beekeeping practised (1100–1900) and certain regional differences.

Key-words: beekeeping, Europe, walls, hives, skeps

Introduction

Until the introduction of movable-frame bee hives in the late 19th century, beekeepers used traditional hives they made from local materials. The type of hive varied from region to region according to local climate and materials, and among any one people the type of beekeeping was passed down from generation to generation with little or no change (Crane 1999: 161–404).

In a hot or warm climate, a hive was usually placed horizontally, and the honey combs were harvested from one end (Crane 1999: 161–211). In the cooler climate of northern Europe the hive was usually placed upright, which conserved heat generated by the bees, and honey combs were harvested from either the top or bottom (Crane 1999: 226–57). One form of upright hive, used widely in the west except Spain (Crane 1999: 238–57), was a basket (skep) of coiled straw (FIGURE 1) or of woven wicker coated with mud and cow dung (FIGURE 2). A skep needed substantial protection against the weather, and a cover was placed over each hive if it stood in the open. Where timber was plentiful a beekeeper might build a wooden shelter for all his skeps, and such shelters are shown in English, French and German manuscripts and books from the 16th century onwards (Crane 1999: 319–20).

In regions where building stone was freely available — often upland areas with a high rainfall — recesses for hives might be built into a stone wall (FIGURE 3). From 1952 onwards many of these were recorded in a Register set up by the International Bee Research Association. By December 1999 the Register contained details of 1214 such walls in Britain, Ireland and France. These walls and their recesses are the subject of this paper. Their geographical distribution, dates and characteristics provide useful information about aspects of beekeeping in the region from the 12th to the 19th century.

In certain Greek islands some hives were also housed in wall recesses, especially those made in the retaining walls of a terraced hillside (Bikos 1994 & pers. comm.); however, a different system of beekeeping was used there.

Study data and methods

For each site (wall) added to the IBRA Register, a standard form was completed at the site; this gave full details and relevant historical information, and was accompanied by photographs or drawings. One or other of the authors has located about a quarter of the sites in Britain and Ireland and some in France. Records for other sites were contributed by local historians and individual property owners and by other long-term recorders.

Further sites were added to the Register by consulting the records of the Royal Commission on Ancient and Historical Monuments in Wales, National Monuments Record of English Heritage, National Monuments Record of Scotland, and by contacting the (English) National Trust and the Dry Stone Walling Association. Additional information about sites in France was obtained during two conferences there (Chevet 1998; Masetti 1996). Details for separate regions up to 1981 were published in *The archaeology of beekeeping* (Crane 1983) and subsequently:

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FIGURE 1. *Wicker skeps in* Cosmographia *by Sebastian Münster (Bern 1545).*

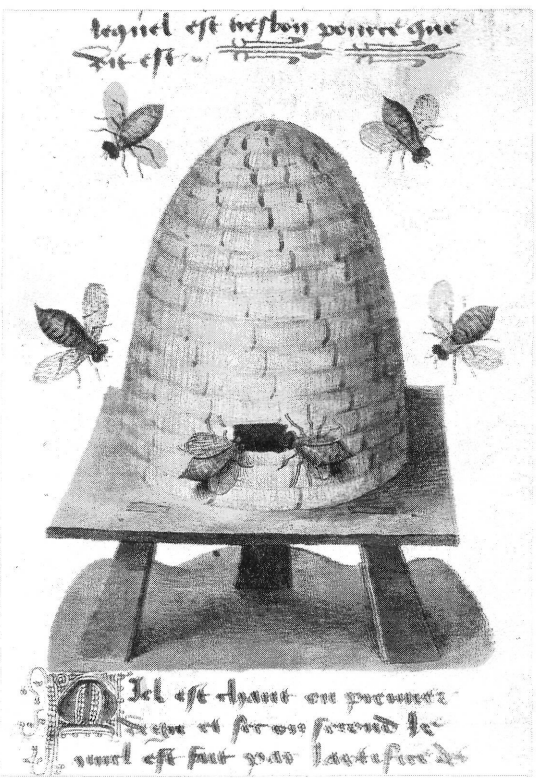

FIGURE 2. *Coiled-straw skep in* Le livre de simples médecines *by Matthaeus Platearius, 15th century, f.149r. (Voronova & Sterligov 1996: figure 161.)*

regions within Britain: Crane & Walker (1984/85), Foster (1986), Green (1997), Walker (1987; 1988a; 1988b), Walker & Crane 1991, Walker & Linnard (1990), Walker & Ogden (1995)
Ireland: Walker & Crane (1998)
regions within France: Chevet (1989; 1995; 1998), Godefrey (1997; 1998), Masetti (1996), Musée de Salon (1993).

Reliability of data

Direct data about the sites — such as recess dimensions, aspect and material of the wall, and location — are considered to be reliable, but if the wall had been partly demolished the data were incomplete. Information on date of building varied from evidence of an exact year or decade to an informed estimate.

Evidence at the site or locally showed that the recesses in some walls had been used for hives (see below). For most other walls we have been able to confirm that this was so from their similarity to wall recesses known to have been

FIGURE 3. *Six hive recesses in a stone wall at Nutwithcote — originally a grange of Fountains Abbey — which may date from the 15th century (A7). (Photo E. Hawthornthwaite.)*

used for hives, and from our knowledge of the types of site suitable for bees. Over the years we have accumulated separate records of similar outdoor recesses built for other specific purposes: for housing a garden ornament, a lamp or some sort of tool, or as falcon mews or goose pens.

Geographical distribution of the walls

TABLE 1 lists the number of walls with recesses for hives recorded in different regions. Detailed location maps of sites so far recorded in different parts of Britain and Ireland were published by Crane (1983) and in papers by Walker (1987; 1988a; 1988b), Walker & Crane (1991), Walker & Linnard (1990) and Walker & Ogden (1995).

The 1981 distribution in Britain and Ireland (Crane 1983: 152–5, 248–9) showed clusters of sites in upland areas with a high rainfall (as in parts of Devon, Wales, Cumbria, Yorkshire), and in parts of Kent and eastern Scotland which are subject to cold winds in winter. The records added in the last 20 years conform to a very similar distribution.

In France 117 new records have been obtained since 1981; of the present total (129), 92 are in Provence which has rich bee forage and a long flowering season, but where hives need protection from the *mistral*; of the 37 others, 14 are in Béarn (Pyrénées-Atlantiques), 9 in northern Normandy (Manche) and 4 in Brittany — areas exposed to rain-bearing winds — and 10 in six other departments.

Characteristics of the walls and recesses

Date of building and of use

With a few exceptions, walls with hive recesses were built before about 1900. (Modern hives using movable frames, introduced from 1860 onwards, are robust enough to stand in the rain.) Some walls in the Register could be reliably dated, e.g. from a contemporary document; many others were dated to century using historical information about the site, or from building details such as brick size.

Many walls with hive recesses probably disappeared before recording began, but of the

TABLE 1. *Walls with hive recesses: number of sites, number of recesses per site and period built. Entries include records to the end of 1999.*

	no. sites	no. recesses/site average	no. recesses/site range	no. dated sites	century built
France	129	16·0	1–100	27	17th–19th
Ireland	32	6·8	1–22	17	16th–19th
Britain	1053	4·5	1–46	529	12th–19th
England	759	4·8	1–46	376	12th–19th
Scotland	207	3·3	1–12	120	13th–19th
Wales	87	5·5	1–36	33	14th–19th

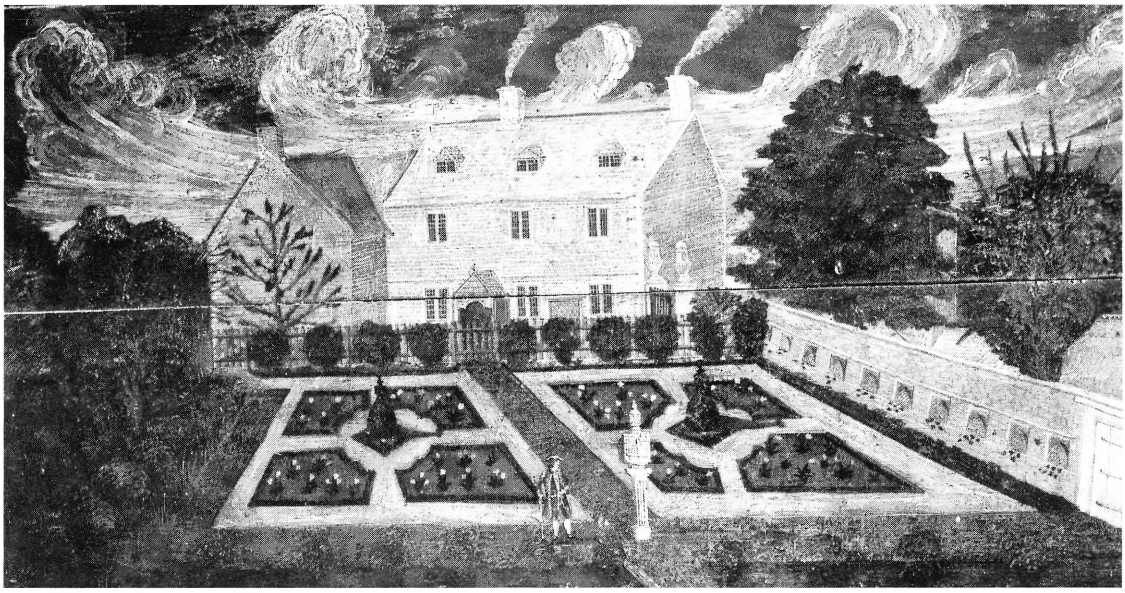

FIGURE 4. *Painting on wood (c. 1700) at Charity Farm, Lovington, Somerset (A131), showing the wall with skeps in the recesses, bees flying and the owner in his garden. (Infra-red photograph by H.C. Tilzey, c. 1953; painting no longer visible.)*

surviving walls the greatest number seem to have been built in England during the 17th and 18th centuries, in Scotland and Ireland during the 18th century, and in Wales and France during the 18th and 19th centuries. However, less than half the walls in Ireland and France could be dated. TABLE 1 shows the periods when the recorded walls were built in the different regions. Walls in France may have suffered more damage in time of war than those in England, where 23 are dated before 1500. The earliest recorded wall (with at least three hive recesses) was at Buckfast Abbey, Buckfastleigh, Devon (A208)[1], where the Reverend Leo Smith confirmed in 1954 that it was probably built in the 12th century as part of a Cistercian monastery there. Unfortunately in 1994 the wall was rebuilt with the recesses in a somewhat different style.

The earliest written record found of the use of wall recesses for hives is in a book published in London. In *A new orchard and garden* (1623) William Lawson said at the end of the section on keeping bees: 'Some . . . use[d] to make seats for them in the stone wall of their orchard, or garden, which is good, but wood is better.' A painting made around 1700, above the living room fireplace of a farmhouse (FIGURE 4) showed the owner in his garden, and skeps in recesses in a garden wall; these recesses still exist.

Direct evidence of beekeeping with hives in wall recesses was obtained for at least 15% of the sites in Cumbria and Devon in England (Walker & Crane 1991; Walker & Ogden 1995), and for smaller proportions elsewhere. A recess might contain a specially shaped skep base, or the remains of a skep, or traces of beeswax. Sometimes the recesses had been known by a bee-related name, and occasionally a local resident remembered skeps of bees in them.

Location in a property, and direction faced

Early English beekeeping books recommended placing bees in a garden or orchard, especially in a sheltered place and where they could be watched over (for instance Butler, 1609: Chapter II).

The type of location is known for 860 walls with hive recesses in Britain and Ireland: 67% were in a garden (79% in Scotland); 9% were in a house wall which probably faced on to a garden, and 3% were in an orchard. A wall in a field or other enclosure or a farm building each accounted for a further 4% or 5%.

1 The Register number of a site is given in brackets, preceded by A (Britain and Ireland) or F (France).

FIGURE 5. *Wall with 30 hive recesses facing across a vineyard at La Chartreuse de Bonpas, Vaucluse, France (F2). (Photo R. Verhagen, 1974.)*

In France the type of location — established for less than half the sites — was more varied: only 43% of the walls bounded a garden, and 17% bounded another cultivated plot such as a vineyard (FIGURE 5), olive grove or orchard. A further 13% were walls of buildings (only one a house wall), and 27% had other functions.

In each of the regions about 50% of the walls faced south. In Britain and Ireland 30% faced southeast, east or northeast, and in France 39%. Fewer faced southwest, west or northwest (Britain and Ireland 17%, France 7%), and almost none faced north. Thus hives faced towards the sun, as recommended by Columella (*De re rustica* 9.5.1, 9.7.4–5), and away from the prevailing wind.

Material of the wall, and size and shape of the recesses

Walls with hive recesses were usually built of the most common building material in the area. Nearly all those recorded in France and Scotland were of stone, either dry or mortared, although in Normandy a few were of clay. The greatest variety of wall material was in England, where 66% were of stone, 18% of brick and 16% — almost all of them in Devon — of cob, a mixture mainly of clay and straw.

The shape of hive recesses proved to be closely linked with the material of the wall and the construction technique. In a drystone wall or a mortared wall of random rubble, almost all recesses were square or rectangular. Their width was limited by the length of a stone available for the lintel, and this accounts for some of the irregularities among recesses in the same wall. The base was usually, but not always, made of a single slab. In a wall of coursed rubble, dressed stone, freestone or brick, the top of the recess might be an arch — semicircular, triangular or of a more elaborate shape. The height of the recess was usually less in cob walls than in others, with the arch springing from the base (see Walker & Ogden 1995).

A recess was large enough to hold a single skep placed on a stone or wooden base; the beekeeping books published in England between 1593 and 1890 advocated skeps 30–38 cm in diameter (Crane 1983: 142). In Britain and Ireland most recesses were between 35 and 60 cm wide; in Scotland some were wider — up to 73 cm. K.D. Whyte (pers. comm. 1934) reported that in four recesses at West Newton, Angus (A80), insulating material was packed round each skep for the winter, and this may have been done elsewhere in Scotland and parts of northern England (Walker 1988b: 130; Walker & Crane 1991: 250).

A few recesses in both Britain and France were built double-width, and would hold two skeps.

The depth of recesses was often less than the width, and Crane (1983: 250–309) gave detailed measurements. As a rule, brick walls are less thick than stone walls (Walker 1988a), and unless the skep in a recess was small, its base protruded from such a wall.

In parts of the south of France taller hives were used, either wicker skeps or upright logs (Crane 1999: 247–8). In Provence, where up-

right log hives were usual (Legros 1969: 126), recesses in some walls were tall enough to house them. An 1894 photograph in Vaucluse (F41) published by Musée de Salon (1993) shows upright log or board hives in four recesses. In Rougon (F130) in Alpes-de-Haute-Provence, 15 tall recesses contained upright wooden hives in 1999.

Number of recesses in a wall

TABLE 1 shows the number of the hive recesses in a wall in the different regions. In Britain the majority of recorded walls had 3–6 recesses. In Cumbria and Devon especially, many of the walls recorded were associated with small dwelling houses and had only a few recesses. In contrast, a stone or brick wall in the estate of a large and important house usually had at least 15, and it often provided an architectural feature in the garden or other part of the estate. The largest number in England is 46 at Burrington, Somerset (A1240), dated around 1800. A wall built in 1600–1650 at Skyers Hall in Yorkshire (A499) had 36 recesses, but it collapsed in 1978. In Ireland half the walls contained only 1 to 5 recesses, but those in demesnes built by richer owners had up to 22.

In France the number of recesses ranged up to 100 (at Tessy-sur-Vire in Normandy, F30). In Provence, three walls in Bouches-du-Rhône had 55 recesses and one had 68; one wall in Vaucluse had 59 and another had 55. Such walls with many recesses were built at country houses in the 19th century, and indicate large-scale beekeeping which may have resulted from the trade blockade between 1806 and 1810, leading to a shortage of sugar and an increased demand for honey (Musée de Salon 1993). Also, beekeeping can be very productive in France: recent figures (Crane 1990: 31) show that the average honey harvest from a modern hive in France was twice that from a modern hive in Britain. Nevertheless, half the walls recorded in France had 11 recesses or fewer.

Conclusions

Recesses have been built in stone walls since 2000 BC or earlier, to hold various objects (Crane 1983: 160). Between around 1100 and 1900 some beekeepers in Britain, Ireland and France housed their hives in wall recesses (Crane 1983: 117–62). The present study is based on 1214 records compiled between 1952 and 1999; it provides substantial evidence about the practice in this region of northwest Europe. No wall recesses for hives were found in the adjacent countries, although skeps were also used in Belgium, Luxembourg, Germany and Switzerland. However, in these four countries wood was often plentiful, and skeps were commonly kept in a roofed bee shelter or bee house (Crane 1999: 319–21). In Italy and Spain, the climate was generally more benign, and less protection for hives was needed.

For the records of walls now in the IBRA Register, the distribution and characteristics show some clear patterns in France, Britain and Ireland:

- Walls were in areas which were not the best for beekeeping, but which could give good honey yields if the hives were provided with extra protection from adverse weather.
- Walls were in areas where building stone was freely available but timber less so, or where cob or brick was commonly used for building.
- The shape of the recesses was largely determined by the building material.
- There were differences between the number of recesses in a wall in various regions, and also according to the size of the property.

In Britain, where 529 sites could be dated, walls with hive recesses built from the 12th century onwards were recorded. In Ireland, where only 17 sites could be dated, the earliest were from the 16th century. Few walls in France could be dated, and the earliest recorded were from the 17th century.

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