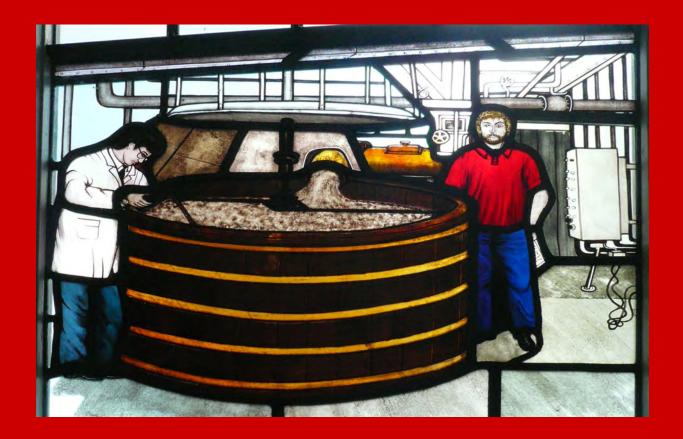
Strategy for the Historic Industrial Environment

The Brewing Industry



A report by the Brewery History Society for English Heritage February 2010

Front cover: Detail of stained glass window in the Millennium Brewhouse, Shepherd Neame Brewery, Faversham, Kent. Design, showing elements of the brewing process, by Keith and Judy Hill of Staplehurst.

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Text by Lynn Pearson

Foreword

The Brewery History Society (BHS) was founded in 1972 to promote research into all aspects of the brewing industry, to encourage the interchange of information about breweries and brewing, and to collect photographic and other archive information about brewery history. The Society publishes a Newsletter and a quarterly journal *Brewery History*, which first appeared in 1972. It has also published a national directory and a series of county-wide surveys of historic breweries; the Society's archive is held by Birmingham Central Library. Further details of BHS activities may be found at http://www.breweryhistory.com.

The ongoing threat to the historic fabric of the English brewing industry was discussed at the conference *From Grain to Glass*, organised jointly by English Heritage (EH), the BHS and the Association for Industrial Archaeology (AIA), which took place at Swindon on 13 June 2003; the joint BHS and Victorian Society study day *From Hop to Hostelry: the brewing and licensed trades* 1837 -1914 (Young's Ram Brewery, Wandsworth, 25 February 2006); and during the AIA Ironbridge Working Weekend (Coalbrookdale, 29 April 2006). Following this EH agreed to support a project on 'The Brewing Industry', which was carried out between July 2007 and September 2009. Its aims were to provide up to date information on all pre-1940 operating breweries, to compile a comprehensive list of historic brewery buildings (the computerised BHS Breweries Database), to consider the future of the industry's archives, and to undertake a national assessment on the industry, in the form of a Strategy for the Historic Industrial Environment report (SHIER).

Acknowledgements

The project steering committee comprised Jeff Sechiari (BHS Chair), Ray Anderson (BHS President), and BHS committee members Ken Smith and Mike Bone. The project researcher was Lynn Pearson, author and BHS member. Much of the groundwork was carried out by BHS members, who contributed to a survey of England's remaining brewery buildings. They included: John Arguile, David Baker, Paul Bayley, Mike Brown, Des Clarke, Neil Clarke, David Cox, Tony Crosby, George Crutcher, Geoff Dye, Philip Eley, Ray Farleigh, Robert Flood, Simon Gispert, Jenny Greenhalgh, John Hodges, Tim Holt, Peter Holtham, Ian Hornsey, Bob Inman, Malcolm James, John Janaway, Ray Kirby, Chris Marchbanks, Mary Miles, Peter Moynihan, Ken Page, Ian Peaty, Steve Peck, Pat Saunders, Mark Steeds, D. J. Taylor, Alan Walker, Jeffrey Waller, Allan Whitaker and John Williamson. The steering committee and Lynn Pearson are very grateful to all those who took part in the survey.

We are also grateful to others who assisted with the project, including Heloise Brown (Victorian Society), Tony Calladine, Bruce Hedge (AIA), Sue Hudson, Malcolm C. James (who kindly allowed us to see a copy of his thesis on the brewery buildings of Burton upon Trent), Joseph Mirwitch, Ann Morris, Richard Oxborrow, Amber Patrick, Kingsley Rickard, Sheila Stones and Ken Thomas (Courage Archive). We are also grateful for the support of the Association for Industrial Archaeology. In addition, we are particularly grateful to Norman Barber, former BHS Archivist, without whose earlier research our task would have been impossible.

Finally we should like to thank English Heritage for offering us the opportunity to carry out this project. Keith Falconer, EH Head of Industrial Archaeology, provided constant support and enthusiasm for the idea of the brewery industry project. Peter Smith, our EH Project Officer, ensured that we kept on course, while Gareth Watkins, Barney Sloane and Tim Cromack helped considerably in the project's early stages.

Please note that all photographs are by members of the Brewery History Society unless otherwise stated. LBS = Listed Buildings System.

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1.1 Outline history of the brewing industry

Brewing originated as an everyday domestic activity needed to produce a liquid that was most people's staple drink. In the medieval era, brewing on the largest scale was carried out in monasteries. Later, colleges and great country houses brewed for their own consumption. On the domestic scale, water could be heated over an open fire in a cottage and the beer brewed in the kitchen, but by the 16th century the dedicated brewhouse was becoming commonplace. By the 18th century the more formal, purpose-built brewhouse had become an integral part of the offices typically found at the large country house. Country house breweries were still being built in the mid 19th century, and this type of brewing carried on regularly until the early years of the 20th century.

Commercial brewing began inns, taverns and alehouses, whose licensing controlled from around the 1550s by magistrates. The number of common brewers, who did not own pubs themselves, grew rapidly in the 18th century. Industrial-scale breweries were first seen in London during the early years of the 18th century, where there was an easily accessible mass new breweries, some



market for beer. These An 'ornamental brewery': Shipstone's Star Brewery, Nottingham (William Bradford, 1900)

of which were massive structures, quickly became major users of steam power: large brewing vessels replaced small, steam-powered pumps and mills were brought in, mechanical rakes and mashers were invented, and the brewery engineer came into being. By 1740 the 'great common brewhouse' had become a relatively well-known sight in London, although most of the largest brewhouses were constructed later in the century. The late 18th to early 19th century was a time of experimentation and innovation in the brewing industry; the provision of labour-saving, modern brewing equipment and ample storage space were key elements in the new industrial breweries. In central London brewers were often constrained by narrow sites, and had to expand by taking in adjacent properties or building upwards. Storage space was required not only to house supplies of malt and hops, but to accommodate the huge porter vats, in which the beer matured for a year or more; their use became commonplace after 1760.

Most of the large London breweries expanded substantially during the late 18th century, although often this was by means of piecemeal additions rather than single large buildings campaigns. Samuel Whitbread was the most innovative of the London brewers, expanding the space available within his buildings both by adding storeys and by sinking vaults beneath them. By the time Barclay, Perkins & Co's Anchor Brewery, Southwark, became the first to break the 300,000 barrel annual production barrier in 1815, breweries - then amongst the largest structures in London - had become a tourist attraction. King George III visited Whitbread's Brewery as early as 1787, and in the early years of the 19th century curious visitors were able to witness activities inside the giant brewhouses, although it was lack of human activity - due to its replacement by steam power - which tended to impress.

In the provinces, large common or commercial breweries began to appear from the 1790s, although the huge brewhouse at the naval victualling yard in Gosport, which catered for mass demand from the fleet, was rather earlier. Patteson's Pockthorpe Brewery in Norwich was already a large concern by 1800, with a substantial site and production five times the average for England and Wales; it had also invested in a steam engine by 1820. However, in comparison with the great London brewers, its output was tiny: just over 26,000 barrels in 1800. Nearly all the London breweries had become fully mechanised by the end of the 18th century, and the provincial breweries followed rapidly. Specialist brewing plant manufacturers sprang up wherever the concentration of brewers was strong enough to warrant it, although initially in London.

The Beer Act of 1830 introduced the concept of the beer house, in effect a new type of public house created by allowing any rate-paying householder to apply for a license to sell (and brew) beer on the premises. Within 8 years almost 46,000 beer houses came into being, but they failed to compete with the major brewers in the long run as their beer was unreliable and often produced with poor equipment. By 1860 beer houses accounted for less than 10% of overall output, and only in Birmingham did they retain a significant proportion of the trade. In contrast, the total output of the commercial brewers - those producing over 1,000 barrels per year - increased from a little under 8 million barrels in 1830 to almost 30 million barrels by 1900. Burton upon Trent's brewing industry trebled in size every ten years between 1850 and 1880, in terms of output and employment, although here growth slackened around 1880.

This overall increase in production hides an increase in the number of larger brewers, which is important as their breweries made a more significant impact on the townscape. In 1834 the number of commercial brewers producing over 10,000 barrels per year was 134; this had doubled by the 1850s and almost trebled by 1871. And the number of very large firms also expanded: in 1834, the output of only 16 breweries topped 40,000 barrels, while by 1871 there were 50 producing over 50,000 barrels. The process of brewery construction and rebuilding reflected this expansion in output, along with advances in production plant, and the result was a spate of new building. It began slowly in the early years of Queen Victoria's

reign, when the average brewery size was I relatively small, but grew in pace during the early 1860s and reached a peak in the 1880s, generally declining into the early years of the 20th century.

Initially these new breweries and additions were designed by engineers, or architects with a brewers' engineering background, because of the need to combine architectural skills with a command of plant and installation, design as well knowledge of the brewing process. Architects who worked in the industry tended to undertake little in the way of nonbrewing commissions. The major practices (see 1.4) were Scamell & Colyer; Adlam's; Guinness Park Royal Brewery, London (Giles Gilbert Scott, 1933-6) Kinder; and Davison, Inskipp & Mackenzie.



During the 1880s they were joined by architects who had not all been trained as engineers, for instance William Bradford, who soon became a popular choice amongst brewers looking to expand their plant and went on to be the leading brewers' architect of the late 19th century, building or altering over 70 breweries and maltings throughout England and Wales. The appearance of the typical brewery also changed, becoming so much more ornate and decorative that by the late 1880s what was described as the 'ornamental brewery' had become the norm, at least for the more substantial structures.

After this late 19th century boom came a long period of decline for the brewing industry. UK beer output almost halved during the interwar years, while per capita consumption sank from around 30 gallons a year in the early 1900s to just over 13 gallons in the 1930s. New building was generally restricted to modernisation at existing sites, although this involved the building of some quite substantial brewhouses. The Guinness Park Royal Brewery (1933-36) in west London (Brent) was the largest totally new interwar brewery, but it was completely demolished during 2005-6. There was something of a resurgence in consumption during the 1960s, as the market became increasingly national, and consumption eventually peaked at the end of the 1970s before declining into a stagnant market towards the end of the century.

Overcapacity in production was particularly acute in London and Burton, but rationalisation was country-wide. The total number of UK breweries sank from 3556 in 1915 to 885 in 1939, and kept on decreasing; there were only 524 left by 1952, as the process of company concentration continued. The Harp Lager plant (1963) at Alton (Hampshire) was the first entirely new brewery to be built after Guinness Park Royal, and is still in operation. The typical late 20th century brewery building was a strictly functional shed, usually located on a greenfield site (sometimes brownfield) site. They could be rather short-lived, as at Bass Charrington's Runcorn Brewery (Cheshire), opened in 1974. It was intended to become western Europe's largest brewery, with a capacity of over 70,000 barrels a week, however it closed in 1991 and had been replaced by warehousing and distribution units by the mid 1990s.

In 1986 only 117 old-established breweries were still in existence, although the advent of independent microbreweries - relatively small-scale niche brewers, generally producing real ales - and the brew pub revival, which began in the mid 1970s, substantially increased the overall number of breweries. The numerous brewery closures resulting from a century's worth of concentration and rationalisation have more often been followed by demolition than a search for new uses. However, it should be noted that site redevelopment may provide an opportunity for archaeological investigation. This story of recent decline should not be allowed to obscure the importance of the brewing industry's remaining buildings. Most small towns had at least a single brewery, while larger centres often had several breweries. They were almost ubiquitous in geographical terms and often located on important central sites, where their development had a significant effect on townscape and urban character.

An estimate of the original number of significant brewery sites, that is those having adequate plant and structures for annual production of over 10,000 barrels - a small Victorian tower brewery - may be arrived at by consideration of brewing licence returns. These provide a numerical record of brewers and annual beer production in the UK as a whole. The returns show that the number of brewers producing over 10,000 barrels per year rose from 360 in 1869 to a maximum of 627 in 1899, before declining to 530 by 1911. The number of significantly larger brewing concerns, those producing over 50,000 barrels a year, grew from 93 in the early 1890s to 135 in the period 1910-14. Assuming an approximate correlation between annual production and brewery size, and taking into account the fact that as some brewers went out of business, others entered the trade at new locations, the overall number of significant brewery sites in the UK will be well over 627, with several more than 135 of these being major sites. This could reasonably be approximated to around 650 and around 150 respectively. Donnachie's *A History of the Brewing Industry in Scotland* (1979) states that production in Scotland was nearly 6% of the UK total in 1902. Assuming a slightly smaller figure for Wales, this suggests the number of significant sites in England is approximately 10% fewer than the UK total. The resulting figures for England are then around 600 sites, with around 140 being major sites.

Another approach is to use the data in Barber's *A Century of British Brewers plus, 1890-2004* (Brewery History Society, 2005) to look at English breweries which had more than 20 tied public houses (see 3.1). This is probably a definition which includes sites smaller than the 10,000 barrels a year measure. Although the data on tied houses is not complete, it can be combined with other information about the breweries to give a very rough estimate of a little under 1,000 as the total number of significant brewery sites. Taking these two approaches together, a sugested working figure for the original number of significant brewery sites in England is between 600 and 1,000, with around 140 of these being major sites.

1.2 The traditional ale brewing process

Malting

It is possible to make beer from various cereals, but traditionally in England it has been based on barley, which is screened to remove impurities, then steeped (soaked) in water for up to 70 hours, allowing germination to begin. The grains are then spread on the malting floor, and turned occasionally to maintain an even temperature and stop the shoots knitting together as germination takes place. After 8 to 15 days, depending on the type of malt required, the part-germinated grains are moved to a kiln and then dried for 3 to 5 days, stopping growth whilst adding flavour and colour. These processes take place in traditional floor maltings or (from the 1870s) pneumatic maltings, where the grains enter a controlled environment, usually a drum or box, after steeping. Some breweries had on-site maltings, while others brought their malt from specialist maltsters.

Mashing

At the brewery the malt is milled and ground down into grist, ready for mixing with water, which is known throughout the brewing process as liquor. Hot liquor and grist mix either in the mash tun - a large, cylindrical vessel - or in a mashing machine (masher) which opens out into the tun. The thick, sludgy mix is then allowed to stand for two or three hours at a controlled temperature.

Boiling the wort

The sweet liquid mix (wort) is run off through the slotted floor of the tun, which collects the spent grains; these grains are then sprayed (sparged) with hot liquor from a revolving device within the tun, in order to flush out any remaining wort. The wort is then boiled with hops - more often now hop pellets or extract for an hour or two in a large metal vessel known as a copper. Coppers, as the name suggests, used to be made of copper (now stainless steel), are now normally closed, and may be flat-topped or domed. A variety of heating methods have been used to boil the wort, from external direct firing with wood or coal, through steam coils to external gas firing. After boiling, the hopped wort is sent through a metal vessel with a perforated base, the hop back, which sieves out the spent hops.

Fermentation

The hot wort is then cooled before fermentation. Originally large, open shallow tanks (coolships) were used for this purpose, sited near the top of the brewery tower where good ventilation was available. Many improved forms of heat exchanger were later devised, particularly towards the end of the 19th century. After cooling, the wort is run into fermenting vessels, which used to be open wooden rounds, copper, stone or slate squares, or wooden casks. Now, closed conical fermenters are the norm. Yeast is added (pitched), and within 24 hours the surface is covered with a thick yeasty foam, which is later skimmed off. Some is reused, while the excess is compressed in a yeast press and sold to food processors. Fermentation time is typically 3 days.

Racking

The beer can then be run from the fermenting vessels directly into casks, but is usually sent to conditioning tanks, where the remaining yeast is cleared from the beer using finings. Finally, the beer is either bottled, transferred to wooden or metal casks (racked), or packaged into metal kegs or even road tankers.

1.3 Brewery architecture

The earliest dedicated brewhouses, common by the 16th century, were normally small but well-ventilated structures either standing alone or attached to a cottage, farm or other offices. Inside was a pot surrounded by brick or stone and heated from beneath, along with various tubs and coolers. By the 18th century the purpose-built brewhouse had become an integral part of the offices typically found at the large country house. It was normally a good two storeys in height, with large, unglazed louvred windows and often a ventilation lantern on the roof ridge. The height of the brewhouse allowed full advantage to be taken of gravity during the brewing process, as pumps were either non-existent or inadequate. These early vernacular brewhouses, often muted classical in style, set the pattern for the industrial-scale Georgian breweries.

The Victorian brewery designer had to take into consideration the need for heating, cooling, moving and storing large volumes of liquids in an environment where, ideally, ventilation and temperature could be controlled. Numerous large wooden or metal vessels, quantities of pipework, elevators and pumping equipment had to be arranged to take as much advantage of gravity as possible. The eventual result was the traditional Victorian tower brewhouse, although there were many variations on this design, which was really only suitable for smaller breweries due to the space required for cooling and fermentation. Power could be supplied by hand, waterwheel, horse, or by steam engine, necessitating a boiler house and chimney stack. A water tower was often a significant feature of the brewery site. After brewing came packaging: racking and bottling plants, a cooperage and storage areas. Distribution required drays - now trucks and tankers - with either stabling or garages. Stables could be immense. There were also the brewery offices, perhaps a house for the head brewer, usually a brewery tap and possibly some housing for brewery workers. These buildings were often arranged around a courtyard, with easy road and often rail or waterway access. The brewhouse, whether or not a tower, was certainly the most distinctive building in terms of structure and function.

The mid 19th century was a formative time for the development of the brewery. Early advances in plant and design had come from the brewers themselves, when the industry operated on a relatively small scale. With the introduction of steam power around the start of the 19th century came the professional brewery engineers, who rapidly grew to dominate the field of brewery design and construction; architects were seen as lacking the requisite specialist knowledge. Up to the end of the 1860s, brewery engineers relied heavily on precedent in their architectural designs, retaining the forms of the Georgian brewhouse: blank arcading, round-headed windows and repetitive fenestration. Ornament only appeared as internal



Hutchinson's Prince of Wales Brewery, Nottingham (William Bradford, 1891)

ironwork or external lettering, perhaps giving the building's date, or brewer's name or trademark. The new breweries of the 1860s, ranging from industrial to near-domestic in scale, made a significant impact on the Victorian townscape, with landmark brewhouse towers, chimneys and water towers.

During the 1870s the typical brewery changed from a rambling collection of low-rise buildings to an eye-catching tower commanding its yard, standing above accommodation for all the varied activities of the modern industrial brewery, from racking, milling and coopering to stabling, offices and the brewery tap. Many of these new breweries were built by architects and engineers who specialised in the construction and fitting out of breweries. Their market was national rather than local or regional, and some also manufactured brewing plant, thus giving a complete design, building and fitting-out service to their clients (see 1.4). One of the largest specialist brewers' architectural practices, Davison, Inskipp & Mackenzie, was established during the late 1840s in London, but the real growth in these firms took place during the 1870s and into the 1880s. Five of the largest practices were based in London and three in Bristol; Manchester and Edinburgh were also home to substantial specialist practices, while several smaller firms worked from Nottingham and Leicester. Typically, new breweries in the 1870s were more decorative and more technically advanced than their predecessors. In terms of their architectural style, Queen Anne Revival became popular, sometimes combined with an Italianate chimney.

Many brewhouses were built as towers, the vessels being placed to take advantage of gravity: liquor heated at the top of the tower dropped down to the mash tun below and then through wort copper, cooler and fermenter to racking. Exact details varied with every brewery, but the tower was popular with relatively small-scale brewers and firms wanting to add a completely new set of plant to an older site. In the 1870s many breweries were undergoing conversion to steam boiling, which entailed changing from directly fired coppers to heating by steam, either through the use of a jacket built around the copper, providing a space between the two through which steam was passed, or by sending steam through the liquor in enclosed pipes. Breweries were as proud of their conversion to steam heating as they had been of their original steam engines, resulting in a spate of brewery names featuring the words 'Steam Brewery'. Other advances in brewing plant included the introduction of a variety of new refrigerators, which took the place of open coolers.

The basic form of the brewery was determined by the processing system used, whether tower or pumping, and during the early 1880s there was much debate about the merits of these opposing methods. The great advantage of the tower brewery was that gravity did most of the work. The vessels and the drop between them were necessarily small, to lessen the overall height of the tower; and, although the

arrangement resulted in a compact building, it was difficult to extend if greater capacity was required. Most architects concluded that the tower or gravitation system was only suitable for smaller breweries and that the pumping system gave more flexibility. It involved pumping water to the cold liquor tank, hot wort from the copper to the coolers, and delivering the grist to the mash tun, but other parts of the process were assisted by gravity. There were numerous variations on the basic pumping system, although the processes producing steam - the boiler, engine, pumps, wort copper and hop back - tended to be placed in a smaller building adjoining the main brewing tower, which held the mash tun and malt mills; a third building, often longer and lower than the brewhouse, contained the fermenting vessels and racking room. In addition, the malt store and its associated elevators often stood out above all but the stack.

The architectural style of breweries built from the 1880s construction boom until around the turn of the century can generally be described as ornamental. Although many breweries continued to expand incrementally, with additions and alterations year upon year, richly decorated structures formed the bulk of the new medium- to large-scale breweries and developments at existing sites. The ornamental brewery had become the norm by the late 1880s. A prolific exponent was the architect William Bradford, who built or altered over 70 breweries and maltings. His distinctive decorative style featured much ornament, often in the form of ironwork, and a picturesque roof line. Breweries of wildly varying appearance were produced by architects and other designers from the early 1880s. Up to the early years of the 20th century Offices (1881-2) at Hole's Castle Brewery, Newark there were numerous experiments in style and



structure within the constraints of the brewing process. Inevitably, many brewery sites ended up with a mixture of architectural styles, as individual elements were added or rebuilt over time. Offices were often given a more ornate, or at least a more formal, architectural treatment than less visible areas of the brewery.

There was a limited amount of regional difference in brewery design, especially between the larger sites. The heartlands of the ornamental brewery were the home counties and the midlands, where the influence of the London brewers' architects was most strongly felt. Kent had a particularly high concentration, as did Nottinghamshire and the West Midlands. However, most of Burton upon Trent's breweries were functional, industrial classical structures, built before the trend towards greater decoration.



Cast iron relief of brewing, Charles Donan, offices of Home Brewery (completed early 1950s), Nottingham

The traditional Burton brewery had long facades of blank arcading, and roundheaded windows with centrally-pivoting sections. London's vast brewery sites were usually tightly packed with buildings of varying ages; in the north of England there was some use of local stone at a few of the grander breweries.

After the late 19th century boom in brewerv construction, the industry declined. By the interwar period, rationalisation meant that construction was generally restricted to modernisation at existing sites, although this involved the

building of some quite substantial brewhouses, their appearance often neo-Georgian. Technical advances by the 1930s included aluminium production plant, soon followed by stainless steel vessels. The Paraflow heat exchanger, which cooled the wort efficiently and hygienically, was introduced in 1923; over 300 had been sold to breweries by 1940. Many breweries continually modernised on a piecemeal basis, although the overall arrangement of plant within the brewery did not change a great deal between the wars.

The continued rationalisation of the brewing industry produced little building of note during the 1950s and 1960s. The one notable 1960s example of brewery architecture was the addition of a bottling hall to Ind Coope's Romford Brewery (Havering, Greater London) in 1960-1. Four huge sheds were roofed with clear-span shell concrete arches, which gave unobstructed floor space; although not an especially early use of shell concrete in England, its design was particularly elegant. Unfortunately, the building was demolished in 1998. More typical of modern brewery building is the strictly functional shed, a beer factory often located on a greenfield site. Interestingly, modern microbreweries are frequently housed in converted historic buildings, including several former breweries and maltings.

1.4 Major brewers' architects, engineers and plant manufacturers

Adlam, George

George Adlam, a Bristol company, was established around 1800 as a brewery production plant manufacturer, and became one of the best known firms of brewers' engineers in the country during the latter part of the 19th century. As brewers' architects, the firm's first recorded brewery design dated from 1885, but Adlam's would certainly have fulfilled this function in earlier years. The firm, which eventually became George Adlam & Sons Ltd, had large engineering works at three sites in Bristol in the early 20th century; it finally went out of business in 1965.

Andrews, R. W.

In 1885 London brewers' engineer R. W. Andrews went into partnership with A. E. Burnett and J. W. Stacey, who had for many years occupied important posts with the brewers' engineers Henry Pontifex & Sons of King's Cross. The firm then became known as Andrews, Burnett & Stacey, and moved to Hoxton in 1886. In mid 1896 the firm, by now R. W. Andrews & Co, brewers' engineer and coppersmiths, was at 24 Gray's Inn Road.

Barns-Kinsey, W.

W. Barns-Kinsey was a London practice active from the mid 1870s, with an office at the Hop Exchange, Southwark Street. Its predecessor was probably Kinsey & Merritt, also active in the 1870s. The office moved to 5 Carteret Street, Queen Anne's Gate, Westminster, in early 1884. Barns-Kinsey practised as a civil engineer, specialising in water supply matters, and the design and arrangement of breweries and their machinery.

Blomfield, A. W.

A. W. Blomfield became assistant architect to Watney, Combe, Reid & Co in 1919, then chief architect from 1929 until his retirement in 1940. In 1934, the firm's architectural division comprised 40 staff, who were working on 20 pubs.

Bradford, William

William Bradford (1845-1919) worked in the brewing industry from the late 1860s and established his architectural practice at 40 King William Street, London EC4, in 1879, moving to Carlton Chambers, 12 Regent Street, London W1, in early 1882. Bradford's works included building or altering over 70 breweries and maltings throughout the country, although the majority were in the south of England. His practice concentrated almost entirely on breweries, maltings and ancilliary buildings, eventually arriving at a distinctive decorative style, featuring ironwork and a picturesque roof line, that is easily identifiable today. The practice was known as William Bradford & Sons by 1905, and was last heard of in 1946.

S. Briggs & Co

The firm which eventually became today's Briggs of Burton plc was established in 1740. The coppersmith Thomas Bindley had a works in Burton upon Trent's High Street by 1860, and went into partnership with his son-in-law Samuel Briggs around 1870. They set up a works in nearby Station Street to manufacture brewing equipment, the firm being known as S. Briggs & Co by 1888. A new works in Moor Street opened in 1900, and in 1912 Briggs bought the local engineering firm Buxton & Thornley, who had been making brewing plant since at least 1868. Briggs became the largest engineering firm in Burton, and in 1988 bought Robert Morton & Co, also of Burton, and moved to their Trent Works in Derby Street, where they remain.

Canning, William

William Canning (b1823) was chief engineer and architect to Bass, Ratcliff & Gretton of Burton upon Trent during 1867-91. He supervised the construction of seven large malthouses at Shobnall in 1872-5, and had overall responsibility for the many fine buildings erected by the firm during his period of office.

Couchman, Herbert A.

Herbert Couchman was chief engineer and architect to Bass, Ratcliff & Gretton of Burton upon Trent from 1891. This energetic and meticulous engineer designed an eighth malthouse at Shobnall for the firm in 1891, and then the reconstructed Plough Maltings, Horninglow Street, Burton, in 1899. Couchman was a versatile designer, becoming personally involved with the construction of everything from locomotives to churches in his time with Bass, Ratcliff & Gretton. His best known work was the development of the Sleaford Maltings complex in 1903-6.

Davison, Inskipp & Mackenzie

Robert Davison was the brewery engineer at Truman, Hanbury, Buxton & Co.'s Black Eagle Brewery, Brick Lane, London, in the 1830s. Around 1834 he became the first engineer to apply the archimedean screw principle to large-scale brewing, and eventually took out several patents on his own designs for brewing production plant. He set up his own brewers' architect and engineering practice during the late 1840s in London, making him the first of the new generation of brewery designers who came from within the brewing industry rather than beginning their training as architects. Davison went into partnership with George Scamell (see Scamell & Colyer) during 1864-70. A few years later his son R. Davison and Mackenzie became partners; the practice was then known as R. Davison, Son & Mackenzie. In November 1881 Davison junior took up an appointment abroad and George Inskipp, who had worked in the office of Davison & Scamell, went into partnership with Davison & Mackenzie; the practice was then known as Davison, Inskipp & Mackenzie. From 1888 it was known as Inskipp & Mackenzie; it ceased to function before 1914.

Gregory & Haynes

This practice was based in Salford and was active from the 1860s, particularly in the north of England. Gregory & Haynes took out a patent on a brewers' refrigerator in 1867, and seem to have been brewers' engineers rather than architects, but were certainly capable of designing entire breweries for their clients.

Harrap & Duffield

Harrap & Duffield was a London practice of brewers' consulting engineers and architects based at 34 Queen Street. It was formed in June 1893, with Harrap taking responsibility for the engineering works whilst Duffield advised on architectural detailing. By 1903 Harrap & Duffield were describing themselves in advertisements as electricity and refrigeration experts.

Johnson, Charles & Sons

Charles Johnson worked for several years for the Bristol firm of brewers' engineers and architects Llewellins & James, in their maltsters' and brewers' engineering department. He resigned at the end of 1889 and started business on his own account at the beginning of 1890. As brewers' consulting engineers, the firm of Johnson's carried on until at least 1897, when they had offices in Bristol and Worcester.

Kinder, Arthur

This London brewers' engineering practice was begun by Arthur Kinder (born c1825, died after 1910) well before the 1870s, although its first recorded work dates from 1870. Arthur's son Harold A. Kinder began working in the office in the early 1870s, and from around 1881 was solely responsible for all the plans and construction details. He was taken into partnership in 1891, from which time the practice was known as Arthur Kinder & Son; it was last heard of in 1919.

Leaker, R. Howard

R. Howard Leaker was a Bristol brewers' consulting engineer, architect and surveyor who had his own practice during the 1900s; he had previously spent over 26 years with the brewers' architects and engineers Llewellins & James of Bristol. He published a trade catalogue on his own account in 1904.

Llewellins & James

Llewellins & James was a brewers' engineers and architects practice established in 1735, whose works were located at Bedminster, Bristol. By the mid 1880s, their most prolific period, Llewellins & James had a substantial office at Castle Green in the centre of Bristol. In 1888 they produced a beautifully illustrated catalogue, advertising their buildings and plant, which ran to well over 230 pages and included designs for breweries and maltings. Most of their works were carried out in Wales and the south of England. Llewellins & James eventually went into liquidation in the 1970s.

Martin & Hardy

Martin & Hardy was a Nottingham brewers' architects and engineering practice, established before 1855, with offices in Nottingham and Burton upon Trent; they opened a London office, near the Hop & Malt Exchange in Southwark, in 1874. The practice was known at various times as W. & S. T. Martin, and Martin & Rawlings.

Morton, Robert

Robert Morton was born in 1859 in Stockton-on-Tees, where his family owned a foundry. He moved to Burton upon Trent by 1876 and his brewers' engineering firm Robert Morton & Co was established around 1880; it was based at the Trent Works, Derby Street, Burton. Morton's advertised in 1898: 'Breweries erected complete - plans and estimates given'. Morton's was bought by Briggs of Burton in 1988, with Briggs moving to the Trent Works.

Oxley & Co

This Frome engineering company was founded by James Oxley, and employed 25 men by 1851 when Oxley was described as a vat maker and maltster. By 1868 the firm could be described as brewers' engineers and coppersmiths, and had supplied 12 large porter vats to Guinness & Co in Dublin. It appears to have gone out of business around the 1880s.

Henry Pontifex & Sons

The London brewers' engineering firm Pontifex & Wood was founded in 1788 and based for many years at the Farringdon Works, Shoe Lane, Holborn. One of the founders was possibly John Pontifex of Shoe Lane, who described himself as a brewers' architect in an advertisement probably dating from the early 19th century. In 1893 the firm was taken over by Farringdon Works Ltd, which then amalgamated in 1894 with the coppersmiths and brewers' engineers Henry Pontifex & Sons. This latter firm was established in 1796 in Shoe Lane, their purpose-built copper works being erected in 1866-7 on a site just north-east of King's Cross station. After the amalgamation, the firm was known as Henry Pontifex & Sons. Pontifex & Sons were one of the major 19th century brewing production plant suppliers and builders, but were also capable of building complete, albeit small-scale, breweries. The firm continued to operate in London until at least the early 1940s, but moved to Leeds before 1971 and probably ceased to be involved in the brewing industry around the mid 1970s. An offshoot of the main firm was Charles Pontifex, who took premises at 146 Kings Cross Road in 1893; he was an inventor of many items of brewing equipment including a well-known cask washer. In 1897 his firm, then Charles Pontifex & Son of Phoenix Works, Galleywall Road, Bermondsey, was taken over by T. R. Carty & Son, becoming Carty, Son & Pontifex.

Redford, James

The Manchester architect James Redford (1836/37-1911) designed several breweries in the north of England, mainly during the 1880s; his obituary in the *RIBA Journal* noted this 'unusual amount of brewery work'. He retired in 1900.

Roberts, Henry & Co.

Messrs Henry Roberts & Co of the Crown Works, Bancroft Road, Bethnal Green, London E1, were basically a brewery plant production company, but they undertook a few small brewery construction commissions in the mid 1890s.

Ryder, Thomas

The firm of Thomas Ryder & Co, brewers' engineers and coppersmiths, was based at Commercial Street, Knott Mill, Manchester. It existed from at least 1884, and until the end of 1889 was a partnership between William Webster Lecomber and John Albert Fielding; from the start of 1890, Lecomber continued the business on his own account, although keeping the Ryder name. The firm designed occasional breweries between the 1880s and the early 1900s

Scamell & Colyer

This prolific London practice appears to have originated with George Scamell junior (1840-1927), who spent some years in the engineering department of Truman, Hanbury, Buxton & Co, probably during the 1860s, then became a consulting engineer and architect. He was in partnership with Robert Davison (who had worked for Truman, Hanbury, Buxton & Co in the 1830s) during 1864-70, and is first recorded as working

alone in 1872. From 1880 George Scamell was in partnership with Frederick Colyer (1833-1914), and the practice of Scamell & Colyer continued into the early 20th century.

Sinclair, R. C.

Robert Cooper Sinclair (1825-93) set up on his own account as an engineer in Birmingham in 1857 then moved to London to work as a brewery engineer in 1879. He went into partnership as Sinclair & Grimley during the late 1880s. Also during the late 1880s, R. C. Sinclair designed six slate fermenting vessels for the Regent Road Brewery, Salford, owned by Groves & Whitnall; these vessels were then the largest of their kind in Britain, each holding 214 barrels.

Stopes, Henry

Henry Stopes (1852-1902), son of the Colchester brewer Christopher Stopes, set up on his own account as a brewers' engineer in 1880. His firm, H. Stopes & Co. of 24 Southwark Street, London SE1, prospered during the 1880s, concentrating on building and altering malt kilns and malthouses using Henry Stopes's own malting system. The firm also had an office at the London Hop Exchange and Stopes himself was a frequent speaker on the problems of the malt industry. By 1886 Stopes & Co were working on over 20 breweries and malthouses in Britain, and others abroad.

Wilson & Co

William George Wilson initially worked for the Frome firm of Oxley & Co, brewers' engineers, before founding his own brewers' engineering firm Wilson & Co. It was responsible for the design of several small breweries and brewery alterations during the 1880s, and closed around 1932. Wilson & Scotchman was founded in 1910 by William George Wilson junior; this firm produced brewing plant and continued in business until the 1970s.

Wood, Joseph D.

The Birmingham engineer and architect Joseph D. Wood specialised in maltings, building several during the early 1900s, and also designed at least one brewery.

Worssam & Son

G. J. Worssam & Son, a brewers' engineering firm of Wenlock Road, off City Road, London N1, was in business from the 1870s to the early 1900s. The firm was a plant manufacturer and supplier, specialising in malt mills and mechanical bottling machines, but also designed a few small breweries, mainly in the early 1900s.

1.5 Glossary of brewing terms

archimedean screw: Machine consisting of a spiral surface, contained within a tube, which is turned about its axis in order to move water or solids through the tube; frequently used for the transport of malt.

barrel: Cask with 36 gallon capacity.

brewery tap: Public house attached to a brewery.

Burton union system: Fermentation system in which the wort runs into a 'set' of large wooden casks, (normally 26 casks in two rows of 13), each of which has a swan neck to discharge yeast into a trough mounted above the casks.

butt: Large wooden cask containing 108 gallons.

cistern: Large, usually open-topped, tank; often used for containing water.

common brewer: A brewer who could only sell beer away from the brewery, to publicans and other customers, apart from a single permissible outlet at the brewery tap.

cooperage: Area of the brewery where wooden casks were manufactured and repaired by coopers.

copper: Large metal vessel, usually made of copper, stainless steel or a combination of the two, used for heating liquor, and for boiling wort with hops.

dray: Horse-drawn or motorised flat-bedded wagon used for the distribution of casks and bottles from the brewery.

finings: A natural additive, isinglass, produced from the swim bladders of fish, which precipitates yeast when added to beer following fermentation.

grist: A term applied both to the raw materials (malt and other cereals) that will be milled, and to the ground material.

Jacob's ladder: Elevator in the form of an endless chain of buckets or hinged flaps attached to a continuous belt; these open when rising, to take a load, and close when falling.

kettle: American term for a copper.

liquor: The water supply used for brewing beer.

lucam: Roofed projection, often from the upper floor of brewhouse tower or stores, sheltering lifting equipment. Possibly derived from the French *lucarne*, a skylight. The lucam - also known as a lookum towards the end of the nineteenth century - is a common feature of brewery buildings.

masher: A masher or mashing machine mixes the grist and hot liquor before they enter the mash tun.

mash tun: Vessel in which the mixed milled grist and liquor are held to allow extraction of soluble material to give wort.

original gravity: An estimate of the amount of dissolved material in the wort before fermentation and hence the potential alcoholic strength of the resulting beer, expressed as degrees, with water having a gravity of 1000.

quarter: The quarter was originally a volumetric measurement of malt. Towards the end of the 19th century this was gradually replaced by a weight equivalent, fixed at the rate of one quarter equalling 336lbs malt. The size of a brewery was measured by the size of the mash tun, or the amount of malt which could be mashed in one day, thus giving a '150 quarter brewery' and the like. In the late 19th century it was conventionally assumed that one quarter of malt would produce four 36-gallon barrels of beer at standard original gravity (1055); this leads to the rule of thumb that one quarter equals about 150 gallons. Thus a 150 quarter plant could produce 600 barrels or about 20,000 gallons per day. Annual brewing capacity was usually calculated on the basis of five working days per week in a 50-week year; thus each quarter capacity gives an annual production of 1000 barrels.

racking plant: Area of the brewery where casks are cleaned and filled with beer.

sparging: Spraying spent grains with hot liquor in the mash tun, to wash out remaining wort.

steeped: Barley is soaked, or steeped, in cisterns of water at the maltings until germination begins.

wort: The sweet liquid (unfermented beer) resulting from mashing malted barley with hot liquor.

Yorkshire square: Fementation vessel originally of stone or slate, but now usually of stainless steel, with upper and lower compartments linked by pipes and a central manhole which facilitate yeast removal.

1.6 Bibliography and websites

Bibliography

The following list of references comprises articles and books concerning the English brewing industry as a whole, its history, buildings and plant, and archives. Publications relating to specific breweries or geographical areas, including the Brewery History Society's series of county volumes and the Association for Industrial Archaeology's county guides, are listed at the end of each county entry in the Gazetteer.

Industrial Buildings Selection Guide (Heritage Protection Department, English Heritage, March 2007).

'Breweries, maltings and oast-houses', Architectural Review, 122 (1957) July, pp62-73.

Anthony Avis, The Brewing Industry 1950-1990 (Avis, Ilkley, 1997).

Norman Barber, A Century of British Brewers plus, 1890-2004 (Brewery History Society, New Ash Green, 2005).

Alfred Barnard, *Noted breweries of Great Britain and Ireland* (Joseph Causton and Sons, London, 4 volumes, 1889-91). Now available as a CD from Archive CD Books Ireland.

Paul Belford, 'Monasteries of Manufacture: Questioning the Origins of English Industrial Architecture', *Industrial Archaeology Review*, 26 (2004) 1, pp45-62.

Marcus Binney, Francis Machin and Ken Powell (eds) *Bright Future: The Re-use of Industrial Buildings* (SAVE Britain's Heritage, London, 1990).

H. A. N. Brockman, The British Architect in Industry 1841-1940 (Allen & Unwin, London, 1974).

Ian Donnachie, A History of the Brewing Industry in Scotland (John Donald, Edinburgh, 1979).

N. O. Faulkner, Allied Breweries: A Long Life (Allied Breweries Ltd. History Project, 1988).

Brian Glover, Brewing for Victory (Lutterworth Press, Cambridge, 1995).

Brian Glover, Prince of Ales: The history of brewing in Wales (Alan Sutton, Stroud, 1993).

Terry Gourvish, 'Diffusion of brewing technology since 1900: change and the consumer', *History of Technology*, 18 (1996), pp139-48.

T. R. Gourvish and R. G. Wilson, *The British Brewing Industry* 1830-1980 (Cambridge University Press, Cambridge, 1994).

David W. Gutzke, 'Some guidelines for writing historical articles', *Brewery History*, 120, Autumn 2005, pp35-42.

K. H. Hawkins and C. L. Pass, *The Brewing Industry: A Study in Industrial Organisation and Public Policy* (Heinemann, London, 1979).

Edgar Jones, Industrial Architecture in Britain 1750-1939 (Batsford, London, 1985).

Peter Mathias, The Brewing Industry in England 1700-1830 (Cambridge University Press, Cambridge, 1959).

Peter Mathias, *Brewing archives: their nature and use*, pp23-31 in Lesley Richmond and Alison Turton (eds), *The brewing industry: A guide to historical records*, (Manchester University Press, Manchester, 1990).

Amber Patrick, *Maltings in England*, Strategy for the Historic Industrial Environment Report No 1 (English Heritage, Swindon, 2004).

Lynn Pearson, British Breweries: An Architectural History (Hambledon Press, London, 2000).

Ian P. Peaty, English Breweries in Old Photographs (Alan Sutton, Gloucester, 1988).

Ian P. Peaty, You Brew Good Ale (Alan Sutton, Stroud, 1997).

Alan Powers, 'Afterword: Industrial buildings and conservation', Twentieth Century Architecture, 1 (1994), pp90-93.

Roger Putman, Beers and Breweries of Britain (Shire Publications, Princes Risborough, 2004).

J. M. Richards, The Functional Tradition in Early Industrial Buildings (Architectural Press, London, 1958).

Lesley Richmond and Alison Turton (eds), *The brewing industry: A guide to historical records* (Manchester University Press, Manchester, 1990).

Pamela Sambrook, Country House Brewing in England 1500-1900 (Hambledon Press, London, 1996).

Brian Spiller, 'The Georgian Brewery', Architectural Review, 122 (1957) November, pp310-22.

Tom Stainer, 'Firkin & Fabulous', Beer, 6 (2009) Winter, pp6-13.

Michael Stratton, *Understanding the potential: location, configuration and conversion options*, pp30-56 in Michael Stratton (ed), *Industrial Buildings: Conservation and Regeneration*, (E. & F. N. Spon, London, 2000).

Rex Wailes, 'The vanishing small brewery', Country Life, 154 (1973) 20th September, pp815-6.

H. Douglas Watts, 'Understanding plant closures: the UK brewing industry', *Geography*, 76 (1991), pp315-30.

Richard Wilson, *The British brewing industry since 1750*, pp1-22 in Lesley Richmond and Alison Turton (eds), *The brewing industry: A guide to historical records*, (Manchester University Press, Manchester, 1990).

Websites

Association for Industrial Archaeology: www.industrial-archaeology.org.uk

Brewery History Society: www.breweryhistory.com Institute of Brewing and Distilling: www.ibd.org.uk

National Brewing Library: www.brookes.ac.uk/library/speccoll/brewing.html

Scottish Brewing Archive: www.archives.gla.ac.uk/sba/default.html

Part Two

Gazetteer of extant historic brewery buildings

An operating pre-1940 brewery is defined as a brewery which operated on a given site before 1940 and continues to operate on that site today and/or uses significant equipment manufactured before that date.

BEDFORDSHIRE

The county's brewing industry was dominated by three major firms, Wells & Winch of Biggleswade, J. W. Green of Luton and Wells of Bedford. The Wells and Winch Biggleswade Brewery was acquired by Greene King in 1961, closed in 1997 and demolished shortly afterwards; an Asda now stands on the site. J. W. Green's ornate Phoenix Brewery on Park Street West in Luton was demolished in 1978, although some small-scale office buildings remain. The Charles Wells Eagle Brewery in Horne Lane, Bedford, was closed in 1976 (no buildings remain) and a new brewery, now known as the Bedford Brewery, built at nearby Havelock Street in 1976. The firm Wells and Young's was created in 2006, when Young's of the Ram Brewery, Wandsworth, transferred production to Bedford.

Of the eight Bedfordshire sites with extant remains, most are small in scale with few distinctive features. The former Newland & Nash Steam Brewery maltings, Lurke Street, Bedford (now offices) has a recognisable kiln roof. The most impressive remnant of the brewing industry is the Bedford Museum and Cecil Higgins Art Gallery, Castle Lane, Bedford, housed in the former Higgins & Sons Castle Brewery. Brewing ceased in 1928 and the brewery became the Cecil Higgins Art Gallery in 1949, then was completely converted in 1981; the buildings are substantial and the hoist cover is still clearly visible. The site is in a conservation area.

Operating pre-1940 breweries

None

Major operating post-1940 breweries

Wells & Young's Brewing Co, Bedford Brewery, Havelock Street, Bedford MK40 4LU

Number of sites with extant brewery buildings in BHS database

9

Listed brewery buildings

None

Other notable brewery buildings

Former Higgins & Sons Castle Brewery, Castle Lane, Bedford, now the Bedford Museum and Cecil Higgins Art Gallery.

References

Keith Osborne, Bedfordshire Barrels: A directory of commercial breweries in the county (Hampshire Hogsheads, Wellingborough, 2004).

BERKSHIRE

The county's most significant brewer was Simonds, whose brewery occupied a site in the centre of Reading from around 1785, with a brewhouse designed by Sir John Soane being built in the early 1790s. The brewery site, which included an unusual early 1870s mass concrete store, eventually extended across both sides of Bridge Street; there was much building to the west of Bridge Street beginning in 1900. Simonds was acquired by Courage, Barclay & Co in 1960 and brewing ceased in 1980. The Bridge Street Brewery was demolished in 1983 and the Oracle shopping centre now stands on the eastern part of the former site.

Three buildings remain in central Reading from the Simonds era, two of them being listed former malthouses built in the 1890s on Fobney Street, on the western fringe of the brewery site. The smaller of the two - which was also used as the brewery stables - is located on the bank of the river Kennet and exhibits stylised hop leaf motifs on its wall ties; it is now a restaurant. The red 'Hop Leaf' was a Simonds trademark. Both buildings are listed in the *Maltings in England* SHIER (Amber Patrick for English Heritage, 2004). The third built remnant of the brewery is the house, now offices, at 19 Bridge Street, which was used by the firm from 1921 onward.

Brewing moved from the Bridge Street Brewery to a new site south of the town centre, close to the M4, in 1980. The new brewhouse (opened 1979) and related buildings were all designed by Courage's in-

house architects and engineers. The brewhouse, with its glass curtain walls and arched concrete colonnade, is a striking structure with some architectural merit. The brewery is due to close in 2010.

Five out of the six brewery-related sites in Newbury are listed. Five are largely domestic in appearance but the sixth, outbuildings at the rear of 24 The Broadway (formerly part of the Adnams & Son Eagle Brewery, listed grade II in 1983), apparently still retains its brewhouse with wooden coolers, a significant survivor.

Operating pre-1940 breweries

None

Major operating post-1940 breweries

Scottish & Newcastle UK, Berkshire Brewery, Imperial Way, Reading RG2 0PN.

Number of sites with extant brewery buildings in BHS database

13

Listed brewery buildings

10 (1 grade II* and 9 grade II)

Other notable brewery buildings

Berkshire Brewery, Imperial Way, Reading

References

- T. A. B. Corley and Raymond Simonds, H. & G. Simonds Ltd: The story of the Bridge Street Brewery, Reading, 1785-1980 (Reading Civic Society, 2009).
- T. A. B. Corley, 'The Old Breweries of Berkshire, 1741-1984', Berkshire Archaeological Journal 71, 1981-2, pp79-88
- T. A. B. Corley, 'Simonds' Brewery at Reading 1760-1960', Berkshire Archaeological Journal 68, 1975-6, pp77-88.

John Pudney, *A Draught of Contentment: The Story of the Courage Group* (New English Library, London, 1971). 'Here for the beer', *Building*, 3 October 1980, vol 239, p11.

BRISTOL

In 1877 there were 21 independent brewers in the city (although several of these were quite small operations), but by 1914 this number had been reduced to 6 following mergers and acquisitions, for instance the formation of Bristol United Breweries (BUB) in 1889. Bristol Brewery Georges, on its site to the east of Bristol Bridge, eventually became the most important brewer in the city, acquiring BUB in 1956, but itself being acquired by Courage, Barclay & Co in 1961; brewing ceased in 1999. Two modern microbreweries currently operate from older brewery premises in the city.

The Georges site, established around 1730, grew to cover most of the area enclosed by the Counterslip, Victoria Street and the bend in the Floating Harbour between Bristol Bridge and St Philip's Bridge. The mix of buildings provided a good representation of the piecemeal and organic development of a successful regional brewery. The listed buildings on the site are former offices, in a terrace on Bath Street and in the former Tramway Generating Station. The site, which is easily seen from Castle Park across the Floating Harbour, is being redeveloped for mixed use in two phases.

Phase 1, the western section, will incorporate the parts of the 18th and 19th century brewhouse, with its 20th century tower. The tower, designed by George Adlam & Sons of Bristol, was illustrated in the *Brewers' Journal* of 15 October 1927; it was never used for brewing. The 1930s keg store is also being retained. On this side of the site are the former brewery offices, in the 1789 terrace on Bath Street (listed grade II).

Phase 2, the eastern section, incorporates a fermenting block, the refinery, the compressor house, a 20th century building (bearing lettering) by brewers' architect Arthur Kinder, and the former Tramway Generating Station (1899, listed grade II*) by William Curtis Green, which was used by Courage's for its accounts department and archive. The fermenting block still retains its striking array of copper chimneys or roof ventilators.

Aside from the Georges site, two facades survive of the main brewing block of the W. J. Rogers Jacob Street Brewery (c1865, architect W. B. Gingell); it is sited between the parallel Old Market and Jacob Street. Brewing ceased in 1952 and the building was converted to offices (listed grade II). An unlisted fermenting block by George Adlam, a remnant of the Ashton Gate Brewery, taken over by Georges in 1931, still stands

on North Street BS3; the micro Bristol Beer Factory occupies part of the building. The fermenting block is taller than normal, as it operated on the dropping system, and was illustrated in the *Brewers' Journal* of 15 January 1905. The site, which began life as Baynton's Somerset Brewery, also included a housing development, Baynton's Buildings, of which the original gateway - in Pennant stone - survives with other buildings, including two small malthouses. There is another malthouse nearby to the rear of the former Rising Sun pub, once an Ashton Gate house.

There are a few other remaining brewery-related structures in the city, but McArthur's Warehouse, Gasferry Road, in fact a substantial malthouse designed by William Bradford for BUB, is to be demolished (see *Brewers' Journal* 15 August 1897).

Operating pre-1940 breweries

None

Operating microbreweries occupying pre-1940 brewery premises Arbor Ales Ltd, The Old Tavern, Blackberry Hill, Stapleton, Bristol BS16 1DB Bristol Beer Factory, The Old Brewery, Durnford Street, Ashton Bristol BS3 2AW

Number of sites with extant brewery buildings in BHS database α

Listed brewery buildings

3 (1 grade II* and 2 grade II; however, the only one actually built as part of a brewery is grade II).

Other notable brewery buildings

Remaining but redeveloped buildings on the Georges site, Counterslip. Fermenting block (1905, George Adlam), Ashton Gate Brewery, North Street.

References

Mike Bone, Stephen Morris, Terry Peters and Mark Steeds, 'Copper chimneys at Georges/Courage Brewery, Bristol', *Brewery History*, 127, 2008, pp71-4.

Geoff Bridgman, 'The story of the Jacob Street Brewery', Brewery History, 81, Autumn 1995, pp4-16.

Geoffrey Channon, 'Georges and Brewing in Bristol', pp165-86 in Charles E. Harvey and Jon Press (eds), Studies in the Business History of Bristol (Bristol Academic Press, Bristol, 1988).

John Pudney, *A Draught of Contentment: The Story of the Courage Group* (New English Library, London, 1971). Ken Smith, 'The Bristol Brewery (Georges and Company) Ltd', *Brewery History*, 97, Autumn 1999, pp36-43.

BUCKINGHAMSHIRE

The major former brewing site is Wethered's Marlow Brewery, immediately west of the High Street in Marlow. The firm was founded around 1758 and its mid 18th century offices at 74 and 76 High Street are listed grade II*. Much remains of the brewery, although brewing ceased in 1988 and the site has been converted for housing. There are several datestones, including '1903' on the main tower, and a few pieces of brewing equipment used as landscaping features in the new development. On a smaller scale but still with substantial remains is Weller's Amersham Brewery at Amersham (partly listed II), where there are several buildings including former stables and maltings within a conservation area. Also of note are the unlisted former brewery premises - including a large maltings - at Slapton. The country house brewery (listed grade II) at Dorney Court still retains its original copper.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

15

Listed brewery buildings

8 (1 grade II* and 7 grade II)

Other notable brewery buildings

Former Wethered's brewery site, west of High Street, Marlow (converted to housing).

References

Mike Brown, ABC: A Brewers' Compendium - A Directory of Buckinghamshire Brewers (Brewery History Society, New Ash Green, 2007).

Douglas Pluck, 'Thomas Wethered & Sons Ltd', Brewery History, 77, Autumn 1994, pp40-50.

CAMBRIDGESHIRE

The major brewing industry survivor in the county is a working brewery, Elgood & Sons of the North Brink Brewery in Wisbech. The brewery was built around 1795 by Denis Herbert of Royston, in local brown brick with slate and tile roofing; the two-storey, seven-bay main facade overlooks the river Nene. The entire brewery site is listed grade II in six sections. The remaining buildings include a malting floor with large chimney, late 18th century and early 19th century houses, and the brewery offices; there is a fine boardroom on the first floor. The brewery retains some pre-1940 equipment, although several sections of plant were modernised during 2004-5.

Another major survivor is the former James Paine brewery (the John Bull Brewery) in St Neots, which ceased brewing around 1987. The site (listed grade II in two sections) has been converted for shops and offices, but the impressive Market Square frontage has been kept. In Cambridge, where there are no listed brewery buildings, there are remains of several breweries including the Star Brewery, Newmarket Road, originally the largest in the city; an office block of c1870 is still extant. Also surviving are a warehouse (now flats) from the Anchor Brewery, Thompsons Lane, and - best of all - the distinctive brewing tower of 1902, complete with decorative ironwork lettering, and associated buildings at Dales Brewery, Gwydir Street. This delightful small brewery is now used as an antiques centre. Outside the city most remnants of the industry are small in scale, often brewer's houses, although the rather plain tower of the Home Brewery still remains in Peterborough's Monument Street. Two country house breweries, at Burghley House and Kimbolton Castle, are listed grade I.

Operating pre-1940 breweries

Elgood & Sons Ltd, North Brink Brewery, Wisbech PE13 1LN

Number of sites with extant brewery buildings in BHS database

36

Listed brewery buildings

16 (2 grade I and 14 grade II)

Other notable brewery buildings

Former Dales Brewery (now antiques centre), Gwydir Street, Cambridge.

References

Nigel Balchin and Peter Filby, A Guide to the Industrial Archaeology of Cambridgeshire and Peterborough (Association for Industrial Archaeology, 2001).

Mike Brown and Brian Wilmott, *Brewed in Northants: A Directory of Northamptonshire Brewers (including the Soke of Peterborough)*, 1450-1998 (Brewery History Society, New Ash Green, 1999).

R. J. Flood, Cambridge Breweries (Cambridge Society for Industrial Archaeology & CAMRA Cambridge, 1987).

Keith Osborne, The Brewers of Cromwell's County: A directory of commercial breweries in Huntingdonshire (Wellingborough, 1999).

CHESHIRE

Although Cheshire retains one operating pre-1980 brewery at Burtonwood, the most significant historic buildings are those of the former Greenall Whitley's Wilderspool Brewery (listed grade II) in Warrington. Brewing took place on the site between 1787 and 1990, and the impressive brick-built premises were converted to offices around 1998. The listed section is the round-towered corner block on Greenall's Avenue and Wilderspool Causeway, but the five-storey malthouse is almost equally prominent. The town's other major brewery, the Walker Cain Dallam Lane Brewery, was closed in 1996 and the site cleared.

The Burtonwood Brewery was founded in 1867 and is currently known as Thomas Hardy Burtonwood, although brewing had ceased - possibly temporarily - in 2008. The brewery was almost completely rebuilt on its original site in 1990, although some older buildings survive at the south end of the site. These include a small block of unknown function, the brewery house and a chimney. The Preston

Brook Brewery was opened by Bass Charrington on the Whitehouse Industrial Estate at Runcorn in 1973, but it closed in 1991 and the site was reused.

Two fragments of Chester's brewing industry have also survived. The sandstone wellhead (c1760) from the Chester Northgate Brewery on Northgate Street has found its way to the University of Liverpool's Ness Botanic Gardens at Neston, where it serves as a substantial part of a rockery. Brewing ceased on the Northgate Street site in 1969 and the buildings were demolished in 1971. The Chester Lion Brewery, Pepper Street, was demolished in 1969 and a multistorey car park built on the site. A stone figure of a lion, perhaps dating from the 1840s, was saved by the Chester Civic Trust and mounted on top of the 70 feet high concrete lift shaft of the car park in 1971, where it remains.

Operating pre-1940 breweries

Thomas Hardy Burtonwood Ltd, Bold Lane, Burtonwood, Warrington.

Number of sites with extant brewery buildings in BHS database

4

Listed brewery buildings

1 (grade II)

Other notable brewery buildings

None

References

'Special brew', Brick Bulletin, Summer 1999, pp22-3.

David W. Gutzke, 'Runcorn Brewery: The Unofficial History of a Corporate Disaster', *Histoire Sociale/Social History*, vol 41, no 8, May 2008, pp215-51; published by the University of Toronto Press.

Paul Wreglesworth, Neil Richardson and Alan Gall, *The Pubs and Breweries of Macclesfield 1* (Neil Richardson, 1981).

Paul Wreglesworth and Neil Richardson, The Pubs and Breweries of Macclesfield 2 (Neil Richardson, 1990).

CORNWALL

Cornwall has had few large breweries in recent times and many have been lost to development. In 1824, Parliamentary Papers record 35 common brewers - who brewed about half of all strong and table beer - in the Cornwall collection; 70% of the 537 licensed victuallers also brewed. By 1877 there appear to have been about ten independent large brewers, reduced to eight by 1914 and fewer thereafter, following acquisitions by the St Austell Brewery and Devenish of Weymouth, through the Redruth Brewery.

The county currently has two completely contrasting operating pre-1980 breweries, the St Austell Brewery, which began brewing in 1860, and the Blue Anchor brewhouse (listed grade II) in Helston, which has probably been brewing on the same site for around five centuries. It is one of only four surviving pre-1970 pub brewhouses to have been in more or less continuous use since they first brewed. The others are the All Nations, Madeley and the Three Tuns, Bishop's Castle, both Shropshire; and the Old Swan, Netherton, Dudley, West Midlands. The Blue Anchor appears to be the oldest operating pub brewery in England.

The St Austell Brewery originated when Walter Hicks began brewing in the centre of St Austell in 1860, building a steam brewery on Market Square in 1869; this survives as Tregonissey House. The brewery moved to a new site on high ground, above the town, in 1893, and erected a new brewery. The 1893 brewhouse by Inskipp & Mackenzie, with its early 1900s redbrick tower, is still in use. There were additions and alterations during 1912-14. The St Austell Brewery Company was formed by a merger of Walter Hicks & Co Lt and Christopher Ellis & Son Lt of Hayle in 1934. There is much historic brewing equipment at the St Austell Brewery, made by manufacturers including Llewellins & James, Adlam, Wilson of Frome, and Mathews & Co of London and Bristol. In the mill room is a malt mill made by George Adlam, dating from 1887; this is still in use, as are twelve old wooden fermenting vessels, although these have been lined and enclosed. There is an original copper racking machine, and two mash tuns dating from 1893 (still in use) and 1913. A steam heated copper of 1893 is on display but not used.

There are substantial remains (listed grade II) of the Christopher Ellis & Son Steam Brewery at Sea Lane, Hayle. The firm merged with Walter Hicks in 1934, after which brewing ceased and the site was used as a storage depot by the St Austell Brewery until 2006. The main brewery building (1873) is currently being sold by St Austell and is subject to a planning application for conversion to residential units. The

malthouse has already been converted to residential use, while the brewery office has been restored and remains in office use.

Much also remains of the Redruth Brewery site in Chapel Street, Redruth, despite a serious fire in June 2007. Brewing began there around 1792, fifty years after the start of the business on a nearby site. It was acquired by Devenish of Weymouth in 1934 and ceased brewing in 2004; the brewing kit has been sold and exported within Europe. The Trevithick Society surveyed and recorded the site in 2005, producing a detailed report (see references). The brewhouse dates from 1802 and many other buildings are of a similar age, the whole site being a good example of organic development and rebuilding over a long period. Unfortunately the site is currently disused and redevelopment is proposed.

Finally, the brewhouse at Port Eliot House, St Germans (listed grade I), was probably erected in 1829.

Operating pre-1940 breweries

Blue Anchor Inn, 50 Coinagehall Street, Helston TR13 8EL St Austell Brewery Co Ltd, 63 Trevarthian Road, St Austell PL25 4BY

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

5 (Port Eliot House grade I and 4 grade II)

Other notable brewery buildings

Tregonissey House, Market Square, St Austell (Walter Hicks 1869 brewery).

References

Peter Joseph, 'The Redruth Brewery 1742-2004', *Journal of the Trevithick Society*, 33, 2006, pp3-60. Liz Luck, *Brewing for Cornwall - A Family Tradition: The story of the St Austell Brewery* (St Austell, 2001). Graham Thorne, 'Redruth Brewery 1792-2004', *Industrial Archaeology News*, 141, Summer 2007, pp12-13.

CUMBRIA

Cumbria retains a single large-scale operating brewery, Jennings Castle Brewery at Cockermouth, owned since 2005 by Marston's plc. The brewery was founded at Lorton and moved to its current location in 1874. It was doubled in size in 1886, when the maltings were also expanded; the new brewery and other buildings were designed by the well known brewers' engineering firm of Henry Stopes (1852-1902). The extensive buildings, complete with landmark chimney and a substantial malthouse structure (now used for other purposes), constitute an interesting and under-investigated site. However, alterations include removal of the floors within the stone shell of the brewery, which is not listed.

Most of the county's brewery structures are small in scale and sited in country villages, the two major exceptions being what remains of the former Carlisle Old Brewery (listed grade II), bought by Theakston's in 1974 and now student residences, and the Workington Brewery's former High Brewery on Bridge Street, Workington. The spectacular tower and adjoining maltings are listed grade II along with a nearby warehouse. The brewery was designed and built in 1903 by the Manchester brewers' engineering firm Thomas Ryder & Co; brewing ceased in 1988.

The early 18th century house (listed grade II) at 118 Highgate, Kendal formed the frontage to the Whitwell, Mark & Co brewery built in 1858 at the rear, which still exists as the Brewery Arts Centre and is not listed; the house is now a youth hostel. The converted brewery buildings are substantial and retain an industrial air; some pieces of brewing or other equipment may have been kept as decorative elements. Also unlisted is the fine little Old Brewery at Ulverston, owned by Hartleys until acquired by Frederic Robinson of Stockport in 1982. Robinson's closed the Old Brewery in 1991 but still use it as a distribution depot. The brick buildings are probably mid to late Victorian, with some polychromatic decoration and obvious ventilation. A microbrewery, the Geltsdale Brewery, now occupies part of the former Brampton Old Brewery, which dates back to 1785.

Operating pre-1940 breweries

Jennings Bros plc, Castle Brewery, Cockermouth CA13 9NE Operating microbrewery occupying pre-1940 brewery premises Geltsdale Brewery Ltd, Old Brewery Yard, Craw Hill, Brampton CA8 1TR

Number of sites with extant brewery buildings in BHS database

19

Listed brewery buildings

12 (the brewing room at grade II* Brougham Hall and 11 grade II)

Other notable brewery buildings

Jennings Castle Brewery, Cockermouth. Brewery Arts Centre, Highgate, Kendal LA9 4HE.

Hartleys (Ulverston) Ltd, The Old Brewery, Brewery Street, Ulverston LA12 7HX.

References

Steven Davidson, Carlisle Breweries and Public Houses 1894-1916 (P3 Publications, Carlisle, 2004). Nigel Watson, The Taste of the Lake District: The Story of Jennings Brothers plc (St Matthews Press, Leyburn, 2003).

DERBYSHIRE

Derbyshire's once significant brewing history was dominated by the city of Derby, although little remains to show this today. There were a few industrial-scale breweries, but the city was particularly noted for the beer brewed by its inns. Even around 1950 over 20 inns still brewed their own ale; by about 1970 only one such inn survived. The city's three most substantial breweries were Stretton's; Offiler's of Ambrose Street (closed in 1966 and the brewery demolished in 1970 to be replaced by a supermarket); and Alton's Wardwick Brewery (building used as offices remains, now Wardwick Tavern, listed II*).

There are two major remnants of the brewery industry in the city. A large malthouse (now converted for housing/offices) remains from Stretton's Manchester Brewery site, while the short-lived Kedleston Road Brewery has survived with its impressive buildings apparently mostly intact, albeit converted for use as a nursing home. A malthouse was built on the Kedleston Road site in the late 1870s, the brewing tower and associated buildings being added soon after 1906. Brewing continued on the site until 1922, when it was sold, becoming a vinegar works.

Outside the city, the country house brewery survives at Calke Abbey (listed grade I), where the mash tun still remains in the brewhouse. The mid 18th century house used as offices by the Scarsdale Brewery Co, in Chesterfield's St Mary's Gate, is listed grade II*; the firm owned the town's Spa Lane Brewery. The third listed site in Derbyshire is the small brewery (grade II) of John Hair in Melbourne, now a house.

Other remnants include two malthouses which were integral to brewery sites, and more notably the former bottling store at Brunt, Bucknall & Co's Hartshorne Brewery on Woodville's High Street. The single storey brick building has ornate terracotta work and a datestone reading 1896.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

11

Listed brewery buildings

4 (1 grade I, 2 grade II* and 1 grade II)

Other notable brewery buildings

Former Kedleston Road Brewery, Derby

References

Dudley Fowkes, Mark Sissons and Ian Mitchell (eds), A Guide to the Industrial Archaeology of Derbyshire (Association for Industrial Archaeology, 2005).

DEVON

Devon no longer has any operating pre-1940 breweries and much has been lost. In 1877 the county had around 32 large-scale brewers plus 60 brewers and maltsters, many of the latter actually being quite large brewers. By 1914 the figures were 24 large-scale brewers and 20 brewers and maltsters, and by 1939 this had declined to 9 large-scale brewers plus 4 brewers and maltsters. The 1983 closure of Courage's brewery

in Plymouth - the former Regent Brewery at Stonehouse, owned by Plymouth Breweries until taken over in 1970 - marked the end of industrial scale brewing in the county.

Of the Plymouth breweries, the only surviving building is not from a commercial brewery, but is the grade I listed former naval brewhouse (1828-31, Sir John Rennie junior) at the Royal William Victualling Yard. The brewhouse was fully operational by January 1832 but as the naval beer ration had been discontinued in 1831, only small quantities were brewed for the nearby Royal Naval Hospital and Royal Marine Infirmary. The brewhouse was used for storage for many years, remaining in naval hands until 1990, after which it was empty and disused until conversion for luxury housing and commercial use by Urban Splash around 2004. All machinery and fittings were removed many years before, but details of the machinery are included in Sir John Rennie's notebooks held by the National Library of Scotland, Edinburgh (MS 19952).

The county's major remaining brewing industry buildings can be found in Exeter, where the former St Anne's Well and Well Park breweries both largely survive after conversion for residential and other uses. The fine St Anne's Well Brewery complex (listed grade II) in Lower North Street was built in 1878, probably by the London brewers' engineer Ramsden, although earlier drawings by the London firm Pontifex survive in the Devon Record Office. There were additions by James Jerman in 1886. Brewing ceased in 1968. Aylwin & Snowden's Well Park Brewery on Willey's Avenue was built about 1881, acquired by Devenish in 1925 and used as a depot until 1958; the red brick buildings have recently been converted for residential use.

An earlier Exeter brewery was the site known as the Malthouse (listed grade II) by the river Exe at Shooting Marsh Stile. It was established as the St Thomas Brewery of Opie Smith and Edward Hore in 1789. Later the 'St Thomas Beer, Ale and Porter Brewery' was used as stores and a maltings. The maltings closed in 1949 and the building was converted to a pub and restaurant; a detailed archaeological survey was carried out beforehand as part of the development process (see references).

Outside Plymouth and Exeter, remaining traces of the brewing industry tend towards the small in scale. In Dartmouth, the former Warfleet Brewery building (listed grade II) - put up in 1819 as a paper mill - survives as the Dartmouth Pottery; it brewed until 1929. The former Paignton Brewery building (listed grade II) in Princess Street, Paignton, dates from around the 1860s and was restored in 1981-2 by the Devon Historic Buildings Trust as offces and housing. Perhaps the most curious remnant is the strange red brick structure that housed William Furze's Steam Brewery in Uffculme's High Street. Listed grade II, the long, narrow building bears a datestone reading WDAF 1838 (some sources give this as 1858) and has an octagonal corner tower. It is an unusual landmark building, easily seen from William Furze's own - impressively large - house *The Mount* to the north. The company was taken over by rivals Starkey Knight & Ford of Bridgwater in 1918 and the brewery closed; it has been used as a warehouse.

In addition, there are country house breweries at Wellparks (listed grade II), near Crediton, where the brewery wing is at the rear of the house, and at Mamhead House (Anthony Salvin, 1828-3, listed grade II*), north of Dawlish. Here the brewhouse, along with other offices, was housed in a red sandstone fairytale castle sited above the main house, thus allowing beer to travel down to the cellars under gravity.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

13

Listed brewery buildings

10 (1 grade I, 1 grade II* and 8 grade II)

Other notable brewery buildings

None

References

Mike Bone and Peter Stanier, A Guide to the Industrial Archaeology of Devon (Association for Industrial Archaeology, 1998).

Richard Parker, 'Archaeological recording at the Malthouse, Haven Banks, Exeter', *Proceedings of the Devon Archaeological Society*, 61, 2003, pp145-208.

DORSET

The overwhelming majority of the remaining brewery industry buildings in Dorset are listed (all grade II), with two exceptions. The still-operating Badger Brewery of Hall & Woodhouse at Blandford St Mary is based around a substantial red brick block built in 1899-1900 and designed by the brewers' engineers Arthur Kinder & Son. The brewery was modernised soon after the Second World War, but contains several items of old equipment which are still in normal use. Hall & Woodhouse intended to build a new brewery on the same site in 2007-8, and move production from the old brewery. However, economic considerations delayed the development, which was still under discussion in late 2008. Outline planning permission has been granted for the old brewery site to become a mix of offices and housing, with some restoration and conversion.

The other site is the much smaller former East Street Brewery in Poole, now the Pure Drop Inn, which was built around 1831 and ceased brewing in 1860; it retains its louvred brewhouse shutters and hoist beam. The county's other operating brewery is Palmers Old Brewery at Bridport, listed grade II in four sections. It still contains old equipment including a waterwheel, made by Helyear's Bridport foundry in 1879, and a vertical steam engine.

Of the former brewery sites, the ornate Eldridge Pope Dorchester Brewery (listed grade II in four sections) site is probably the largest. The brewery closed in 2003, and is being redeveloped as the mixed commercial and residential Brewery Square. Work was at around the half-way point in early 2008, with the chimney stack and the four listed elements retained and most other structures demolished. Its advertising material points out that 'With its own aquifer supply you won't need bottled water'. On almost as large a scale is Brewers Quay at Hope Square in Weymouth, where there is an on-site microbrewery, the Dorset Brewing Company. The main range, designed by Arthur Kinder & Son, was built in 1903-4 as the Hope Brewery for John Groves; the firm was acquired by rivals Devenish in 1960. Brewing at Weymouth ceased in 1985, and the buildings were adapted for a mix of uses with some of the brewing equipment retained. The various former brewery, maltings and pub buildings around Hope Square constitute an unusually intact brewing townscape.

Of the many more rural sites, there are two excellent and distinctive former Victorian breweries at Gillingham (Wyke Brewery, listed grade II, converted for housing in 1988) and Fontmell Magna. Here the Crown Brewery was built in 1876 (further work 1891) for the Flowers family, and then owned by Sibeth's before ceasing to brew in 1904 and later being used as a pottery. It is a typical example of a small brewery with the defining elements of tower, louvre ventilation, ornamental ironwork, hoist cover and water tank.

Operating pre-1940 breweries

Hall & Woodhouse Ltd, Blandford St Mary, Blandford Forum DT11 9LS J. C. & R. H. Palmer Ltd, The Old Brewery, West Bay Road, Bridport DT6 4JA Operating microbrewery occupying pre-1940 brewery premises Dorset Brewing Company, Hope Square, Weymouth DT4 8TR

Number of sites with extant brewery buildings in BHS database 32

Listed brewery buildings

27 (all grade II)

Other notable brewery buildings

Badger Brewery, Hall & Woodhouse, Blandford St Mary. Pure Drop Inn, 7 East Street, Poole.

References

Tim Heald, Palmers: The story of a Dorset Brewer (J. C. and R. H. Palmer, Bridport, 2008).

DURHAM

The only remaining operating pre-1940 brewery in County Durham is the

Camerons Lion Brewery in Hartlepool, which was built in 1892. It is an interesting brewery with a single lion sculpture in painted stone (listed grade II) mounted on a gate pier to the east of the brewery. It dates from around 1852 and is probably the only surviving remnant of the original brewery, erected by William Walden in 1852. The interior of the 1971 brewhouse is lined with white Italian marble and has a mezzanine floor approached by stairs with delightful wrought ironwork in the form of hop plants. There is little if any

pre-1940 equipment, but the brewery still uses the last example left in Britain of the revolutionary but unsuccessful Strainmaster mash vessel, which was installed in 1971. The brewery plant is a surviving example of largely intact 1960s to early 1970s brewery technology of a type that will never be installed again. In addition there are twelve open square fermenters, all still in use.

Of the county's other significant breweries, Nimmo's Castle Eden Brewery closed in 2002 and most of the buildings were demolished the following year. Only the brewery house and former entrance building of around 1830 (now offices and restaurant) still remain, both listed grade II.

Operating pre-1940 breweries

Camerons Brewery Ltd, Lion Brewery, Hartlepool TS24 7QS

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

5 (all grade II)

Other notable brewery buildings

Camerons Lion Brewery, Hartlepool

References

Brian Bennison, *The Brewers and Breweries of North-Eastern England: A Historical Guide* (Brewery History Society, New Ash Green, 2004).

Brian Bennison, 'Concentration in the brewing industry of Northumberland and Durham, 1890-1914', Northern History, 30, 1994, pp161-78.

Nick Redman, The History of the Castle Eden Brewery, County Durham (Whitbread plc, London, 1993).

EAST SUSSEX

The outstanding brewery in East Sussex is Harvey's Bridge Wharf Brewery in Lewes, still operating and listed grade II*, the only working brewery in England to be listed above grade II. It was rebuilt in 1881-2 for Harvey's by Wiliam Bradford. A four-storey tower rises above lower blocks, and there is a tall octagonal chimney; there have been many extensions and alterations. The Georgian fermenting room, cellars and vat house are still in use but house modern equipment, although an older malt mill and mash tun survive, as well as a steam engine (not in use) by Pontifex and Wood.

The county has a significant number of surviving brewery structures, those listed generally being earlier in date. There are substantial and easily recognisable former brewery buildings at Battle (Baily & Co, rear of High Street), Hailsham (Herbert Lynn's brewery on Battle Road) and Bells Yew Green, where the Pale Ale Brewery buildings just west of the village form an archetypal brewing complex. In Portslade (Hove) the original brewery and malthouse of Dudney's Southdown Brewery are listed grade II, but the massive replacement designed for the firm by Scamell & Colyer and erected in 1881 is not listed. It stands slightly to the south of the old brewery, on South Street, and sports a splendid chimney stack; no brewing equipment remains inside.

Operating pre-1940 breweries

Harvey's Bridge Wharf Brewery, 6 Cliffe High Street, Lewes BN7 2AH

Number of sites with extant brewery buildings in BHS database 24

Listed brewery buildings

9 (1 grade II*, 8 grade II)

Other notable brewery buildings

Former Pale Ale Brewery, Bells Yew Green.

Former Dudney's Southdown Brewery, South Street, Portslade, Hove.

References

Graham Holter, Sussex Breweries (S. B. Publications, Seaford, 2001).

Peter Holtham, 'The Portslade Brewery', Sussex Industrial History, 25, 1995, pp22-4.

Peter Holtham, 'Seven Brighton Brewers', Sussex Industrial History, 22, 1992, pp9-13.

Tony Hyde, 'The Breeds Breweries, Hastings c1800-1931', Brewery History, 103, Spring 2001, pp25-39.

M. A. Jenner, Harvey & Son, Bridge Wharf Brewery, Lewes: Bicentenary Year (Harvey & Son, Lewes, 1990).

EAST YORKSHIRE

East Yorkshire's brewing industry was not nationally significant, and most of its buildings have disappeared. Hull had the greatest number of breweries, and the Hull Brewery's Anchor Brewery (1866-7, architect William Sissons, with 1890s additions, ceased brewing 1985, listed grade II) remains after conversion as The Maltings for mixed use around 1990; the brewery bridge is particularly pleasing. Also in Hull, and on the city's local list, are the former South End Brewery stables, an unusual survivor built around 1822. Much the most impressive remnant of the county's brewing industry is the former Hartley's Crown Brewery at West Cowick, listed grade II in two sections. The little-known buildings, a complete group (now converted), date from around 1888 and are a striking landmark feature.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

3 (all grade II)

Other notable brewery buildings

None

References

Pat Aldabella and Robert Barnard, 'Some Breweries of the Old West Riding of Yorkshire', *Brewery History*, 104, Summer 2001, pp71-95.

Pat Aldabella and Robert Barnard, *Hull and East Yorkshire Breweries: From the eighteenth century to the present* (East Yorkshire Local History Society, 1997).

Robert Barnard, *Barley, Mash and Yeast: A History of the Hull Brewery Company* 1782-1985 (Hutton Press and Hull College of Further Education, Cherry Burton and Hull, 1990).

ESSEX

The buildings of the Essex brewing industry have been thoroughly researched and comprehensively reviewed by Tony Crosby in his 2002 report to Essex County Council (see references). No operating breweries remain in Essex, and Crosby notes that the majority of the county's sites are already protected, either by listing or their presence within a conservation area. An exception is Ridley's Hartford End Brewery, which ceased to brew in 2005 after being bought by Greene King. A large rural brewery built in 1842, with some later additions, its interior has been stripped, and it has recently been purchased by Hartford End Developments Ltd for probable conversion to housing. Other interesting sites are Wethersfield Brewery, a 19th century village brewery complex in a conservation area, with four extant major components including a still-functioning pub, and the 20th century complex of the Tidings Hill Brewery, Halstead.

There are good examples of large scale brewery buildings at Gray's Brewery, Chelmsford (complex founded in 1828, now retail outlets, may be partly converted for restaurant use as change of use was agreed by planning committee in October 2008); the Eagle Brewery, Colchester (1828, 1882 and 1888, partly designed by Henry Stopes, now offices and residential); Great Baddow Brewery (1868, additions designed by George Scamell 1878, further additions 1902, now used for commercial and retail purposes); and West Bergholt Brewery (additions designed by Scamell & Colyer 1889, now residential). All these buildings are listed grade II. Finally, the former Gardner's Little Coggeshall Brewery, Coggeshall (listed grade II, now in residential use) is a rare example of a small family-run brewery structure retaining many significant features.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

45

Listed brewery buildings

30 (all grade II)

Other notable brewery buildings

Eagle Brewery, 74 East Hill, Colchester.

T. D. Ridley & Sons, Hartford End Brewery, near Great Dunmow.

Tidings Hill Brewery, Halstead.

Wethersfield Brewery, Wethersfield.

References

Tony Crosby, 'Housing the Workforce', Brewery History, 124/5, 2007, pp3-14.

Tony Crosby, 'A Survey of the Brewery Heritage of Essex', *Brewery History*, 111, Spring 2003, pp16-35.

Tony Crosby, Essex Breweries: An archaeological and historical survey and appraisal of the features and sites, Comparative Survey of Modern/Industrial Sites and Monuments No. 16, internal typescript report (Heritage Conservation Branch, Essex County Council, 2002).

Ian P. Peaty, Essex Breweries and the Malting and Hop Industries of the County (Brewery History Society, New Ash Green, 1992).

Tim Smith and Bob Carr, A Guide to the Industrial Archaeology of Hertfordshire and the Lea Valley (Association for Industrial Archaeology, 2004).

GLOUCESTERSHIRE

The county contains four working breweries occupying pre-1940 buildings: Arkell's Donnington Brewery at Upper Swell, established on the present site in 1865, and three recently-founded microbreweries. The 19th century Donnington Mill and adjoining Arkell's Brewery (late 18th to early 19th century) are both built of Cotswold stone and listed grade II. Until 1959 all power was supplied by two water wheels, which are still in use.

Stanway Brewery operates from the brewhouse at the 16th-17th century Stanway House, using a rare wood-fired copper. The Wickwar Brewing Company was founded in 1990 but since 2004 has worked from the locally listed former Arnold, Perrett & Co brewery in Wickwar. It was built in the mid 19th century, then rebuilt in 1891-2 after a fire. During the mid 1920s production changed from beer to cider, with the building being converted to hold huge storage tanks, and cider making continued until well into the second half of the 20th century. The other micro is the Uley Brewery, which opened in 1985 in the former Samuel Price's brewery, which was founded by 1830; the brewhouse is dated 'S. Price 1833'.

The former brewery structures tend towards the small in scale and have often been converted into housing. The most impressive remnants, all listed grade II, are at Brockhampton (Combe's Brockhampton Brewery, 17th to 19th century), Tewkesbury (the Tewkesbury Brewery Company's Original Brewery, c1860s), and especially Tetbury (Cook's Tetbury Brewery, mid 19th century).

Six country house breweries (at Badminton, Dyrham Park, Painswick, Stanway and Woodchester, all listed either I or II*) are also included in the database, the most curious being at the unfinished mansion of Woodchester (see references).

Operating pre-1940 breweries

Donnington Brewery, Upper Swell, Stow-on-the-Wold GL54 1EP Operating microbreweries occupying pre-1940 brewery premises Stanway Brewery, Stanway GL54 5PQ Uley Brewery Ltd, The Old Brewery, 31 The Street, Uley GL11 5TB Wickwar Brewing Co Ltd, Old Brewery, Station Road, Wickwar GL12 8NB

Number of sites with extant brewery buildings in BHS database

32

Listed brewery buildings

15 (3 grade I, 3 grade II*, 9 grade II)

Other notable brewery buildings

Wickwar Brewing Co Ltd, Old Brewery, Station Road, Wickwar

References

Ian P. Peaty, 'A Gothic Revival Mansion', *Brewery History*, 98, 2000, pp5-16. Ian P. Peaty, 'The Cotswold Brewery, Circnester', *Brewery History*, 77, Autumn 1994, pp27-32.

GREATER LONDON

Only two pre-1940 working breweries still exist in Greater London, Fuller's Griffin Brewery at Chiswick (Hounslow) and the Anheuser-Busch Stag Brewery at Mortlake (Richmond upon Thames). The history of the Griffin Brewery at Chiswick dates back to 1699, but the buildings, which are not listed, were largely rebuilt in 1979-81. However, some picturesque parts do remain, including the late 18th century owner's house, now used as offices.

The Mortlake Brewery was founded in the 15th century, had become a substantial commercial brewery by 1765, was rebuilt in 1869 and sold to Watney's in 1889. It was renamed the Stag Brewery after the closure of Watney's Stag Brewery, Pimlico in 1959. The High Street frontage, which included the bottling hall, was built in 1869. The other significant structure is the landmark 8 to 9 storey malt house of 1903 on the river frontage. In fact this is the remains of a rather larger building - the kilns have been demolished - which has been disused since the late 1960s. Other mid 19th century and later parts of the brewery were mostly demolished during the 1970s and replaced by a modern industrial plant; a stone relief of a stag still decorates one of the 1970s entrance buildings. The Stag Brewery is due to close in 2010.

London's great 18th century brewhouses led the country in terms of industrial-scale brewing, and the major surviving remnant relating to this era is the Whitbread complex in Chiswell Street, notably the former porter tun room which was begun in 1774. The brewery, which closed in 1976, is listed in 11 elements, 8 in the City of London - including the Partners' House at grade II* - and 3 in Islington. The Whitbread archives held by London Metropolitan Archives have now been catalogued. London's other grade II* listed brewery is the Young's Ram Brewery complex in Wandsworth, which traces its history back to 1675. Integral to the site are an 18th century brewer's house, late 19th century stables and the early 20th century brewery tap, all individually listed grade II. The Ram Brewery ceased brewing in 2006, but the historic plant, including beam engines and coppers, remains at the site and may become part of a brewing museum within the prospective redevelopment.

Truman's Black Eagle Brewery in Brick Lane, Spitalfields (Tower Hamlets, grade II), was in existence from the early 18th century, as described in volume 27 of the Survey of London, and ceased brewing in 1989. The buildings have been converted for a variety of commercial uses. Combe's Woodyard Brewery occupied a site just north of Long Acre in Covent Garden, centred on what is now Old Brewery Yard. It was founded around 1722, was the fourth largest brewery in London by the 1880s and became part of Watney's in 1898 before closing in 1905. The site is listed in 7 sections, 6 - all former warehouses - in Westminster and one, the former fermenting block, in Camden. The Cannon Brewery in St John Street (Islington, listed grade II in two parts) was founded about 1720; the present, very substantial, structures date from its complete rebuilding to a William Bradford design in 1893. Brewing continued until 1955, after which the site became warehouses and offices before conversion to residential use.

An interesting series of former brewery buildings can be found on the north side of Whitechapel Road and its eastward continuation, Mile End Road (Tower Hamlets), where the Victorian giants Mann, Crossman & Paulin's Albion Brewery and Charrington's Anchor Brewery occupied much of the area either side of Cambridge Heath Road. What remains of the Albion Brewery, Whitechapel Road (closed 1979) is listed grade II, a mostly 1860s block including an ornate fermenting house to the rear of an arched gateway. The brewery's engineer occupied 27a Mile End Road, a splendidly showy house of around 1905, possibly by William Bradford, which was listed in early 2009. A little further east are the opulent Charrington's Anchor Brewery offices (1872 with 1927 extension), the only remnant of the brewery, which closed in 1975 to eventually be replaced by a retail park.

As to other unlisted structures, Reffell's Bexley Brewery is substantially intact externally and in use as industrial units, while the former Courage Anchor brewhouse at Shad Thames (Southwark, now flats) is a striking sight next to Tower Bridge. The Sich & Co Lamb Brewery in Church Street, Chiswick (Hounslow, now offices) was designed by William Bradford in 1901 and is typical of his smaller-scale work; it stands just south of the Fuller's site and is still immediately recognisable as a former brewery. Guarding a gate at

Twickenham rugby stadium (Richmond upon Thames), is one of three Coade stone lions originally to be found at Lambeth's Lion Brewery, which was demolished in 1949. One lion was destroyed while the third and largest, which decorated the river frontage of the brewery, is listed II* and stands at the east end of Westminster Bridge (Lambeth).

Operating pre-1940 breweries

Fuller, Smith and Turner plc, Griffin Brewery, Chiswick Lane South, London W4 2QB Anheuser-Busch UK, Stag Brewery, Lower Richmond Road, Mortlake, London SW14 7ET

Number of sites with extant brewery buildings in BHS database

55 (Bexley 1, Camden 7, City of London 8, Greenwich 1, Haringey 2, Harrow 1, Havering 1, Hillingdon 3, Hounslow 2, Islington 5, Lambeth 2, Richmond upon Thames 3, Southwark 2, Tower Hamlets 6, Wandsworth 4, Westminster 7)

Listed brewery buildings

38 (3 grade II*, 35 grade II)

Other notable brewery buildings

Fuller, Smith and Turner, Griffin Brewery, Chiswick Lane South, Chiswick (Hounslow).

Former Sich & Co, Lamb Brewery, Church Street, Chiswick (Hounslow).

Former Courage Anchor Brewery, Shad Thames, Southwark (Southwark).

Former Charrington's Anchor Brewery offices, Mile End Road (Tower Hamlets).

References

Brewery Conservation Area Character Summary (Department of Planning & Transportation, City of London, 2007).

S. Cantacuzino, 'Brick Lane Brewery', Architectural Review, 163 (974), April 1978, pp222-8.

David Dines, 'Thomas Clutterbuck's Stanmore Brewery', Brewery History, 77, Autumn 1994, pp33-40.

Hurford Janes, The Red Barrel: A History of Watney Mann (John Murray, London, 1963)

Andrew Langley, London Pride: 150 years of Fuller, Smith and Turner (Good Books, Melksham, 1995).

Helen Osborn, Britain's Oldest Brewery: The story behind the success of Young's of Wandsworth (Young & Co's Brewery, London, 1999).

John Pudney, A Draught of Contentment: The Story of the Courage Group (New English Library, London, 1971). Berry Ritchie, An Uncommon Brewer: The Story of Whitbread 1742-1992 (James & James, London, 1992).

Tim Smith and Bob Carr, A Guide to the Industrial Archaeology of Hertfordshire and the Lea Valley (Association for Industrial Archaeology, 2004).

James Sumner, 'Status, scale and secret ingredients: the retrospective invention of London porter', *History and Technology*, 24 (3), September 2008, pp289-306.

James Sumner, 'Powering the porter brewery', Endeavour, 29 (2), June 2005, pp72-7.

GREATER MANCHESTER

The Greater Manchester area contains five large-scale operating breweries, one of which - Hydes Anvil Brewery in Moss Side - is listed (grade II). It was built in 1861, and is unusually complete and relatively unaltered, although there were some Edwardian additions and there was a major fire in 1959. Much of the brewing equipment is modern, aside from one oak fermenting vessel. Nearby is the Royal Brewery, an impressively big lager brewery redeveloped from the early 1960s on a site used for brewing since the 1870s, but which appears to be of modest interest. Holt's Derby Brewery in Cheetham, not far north of Victoria Station, is a brick-built structure dating from 1860; it was remodelled in 1890 with further work in 1901, and a large block added in 1992. The office, originally the owner's house, has good glass and woodwork. Lees Greengate Brewery at Middleton Junction is a fine example of a small, traditional brewery complex and dates from 1876 (the brewing tower, designed by the brewery's owner, J. W. Lees) and 1883 (offices). It is brick-built with a touch of polychromy, unusual carved brickwork around some windows and a great deal of louvred ventilation. The interior of the tower is little altered, but most of the brewing equipment was replaced in the 1980s and 1990s. The final large-scale working brewery is Frederic Robinson's Unicorn Brewery in Stockport, standing on a central site which has been developed and expanded by the firm since the 1860s. The present six to seven storey red brick brewhouse was built in 1925-9; the top of the tower displays a red unicorn in low relief on each of its four sides. New equipment was to be installed in the brewhouse in 2009 alongside kit dating from the 1920s, which will probably remain in situ and in use.

There are four microbreweries occupying older brewing premises in Greater Manchester, the most impressive being the Phoenix Brewery in Heywood, which brews at the old Phoenix Brewery (1897-8), which closed in 1960 and was derelict for many years. The site, currently being restored, includes a spectacular brewhouse tower with ironwork crown, and a series of smaller buildings arranged around a rectangular yard.

Greater Manchester's five other listed brewing-related structures include a country house brewery (at Dunham Massey) and a wind pump (at Haigh) but most interesting is the former Threlfall's Brewery (1896, architect W. A. Deighton) in Salford, a massive red brick building with clearly defined brewing tower, chimney and lower ranges. It was converted to offices, the Deva Centre, in the late 1990s. Also in office use as the Empress Business Centre is the red brick former Empress Brewery (1889, converted 1992), on Chester Road towards the southern edge of Manchester's centre. The lone remnant of Boddington's Strangeways Brewery, just north of the city centre, is the tall octagonal late 19th century chimney, from which the lettering 'Boddingtons' - which ran for most of its length - was removed around 2008. The brewery itself was demolished in 2007 following closure in 2005, and the chimney now stands alone in a huge car park.

In Stockport there are substantial remains of two former breweries. Bell's Hempshaw Brook Brewery (1930), on Hempshaw Lane, is now in industrial use, while just to the west on Cooper Street, off Higher Hillgate, is Clifton's Royal Oak Brewery (1880). The Royal Oak site is being redeveloped for housing, although progress had stalled in summer 2009; only the brewery tower has been retained. Of several breweries in Leigh, by far the largest, Shaw's Leigh Brewery, was built soon after 1900 and was an early example of a steel-framed structure but has recently been demolished. Still remaining in Leigh is the striking five storey tower of the former Fairhurst's Derby Brewery, part of an unlisted complex including stables and cooperage, built around 1871 and now in a conservation area. The curious tower is almost triangular in plan.

Operating pre-1940 breweries

Joseph Holt Ltd, The Brewery, Empire Street, Cheetham, Manchester M3 1JD

Hydes Brewery Ltd, 46 Moss Lane West, Manchester M15 5PH

Scottish & Newcastle UK, Royal Brewery, 201 Denmark Road, Manchester M15 6LD

J. W. Lees & Co (Brewers) Ltd, Greengate Brewery, Oldham Road, Middleton Junction, Manchester M24 2AX

Frederic Robinson Ltd, Unicorn Brewery, Stockport SK1 1JJ

Operating microbreweries occupying pre-1940 brewery premises

Shaws Brewery, The Old Stables, Park Road, Dukinfield SK16 5LX

Phoenix Brewery, Green Lane, Heywood OL10 2EP

Church Inn and Saddleworth Brewery, Church Lane, Uppermill OL3 6DW

All Gates Brewery Ltd, The Old Brewery, Brewery Yard, off Wallgate, Wigan WN1 1JQ

Number of sites with extant brewery buildings in BHS database

24

Listed brewery buildings

6 (all grade II)

Other notable brewery buildings

Phoenix Brewery, Green Lane, Heywood.

Former Fairhurst's Derby Brewery, Lord Street South, Leigh.

Holt's Derby Brewery, Empire Street, Cheetham, Manchester.

Robinson's Unicorn Brewery, Stockport.

References

Alan Gall, *Manchester breweries of times gone by* Volumes 1 and 2 (Neil Richardson, Swinton, no date). Robina McNeil and Michael Nevell, *A Guide to the Industrial Archaeology of Greater Manchester* (Association for Industrial Archaeology, 2000).

Mike Ogden, A history of Stockport breweries (Neil Richardson, Manchester, 1987).

Lynn F. Pearson, The History of Robinson's Brewery (MNC Publishing, Hale, 1997).

Neil Richardson, A History of Joseph Holt (Neil Richardson, Manchester, 1984).

B. Sullivan, Local Brew: A history of the three breweries of Ashton-under-Lyne (no publication details given).

HAMPSHIRE

Around 1900 there were more than 80 breweries operating in Hampshire, but by the 1980s the number had diminished to two, the lager brewery opened in 1963 at the notable brewing town of Alton, and Gale's Brewery at Horndean, an interesting red brick tower brewery built in 1869 and closed in 2006. The Gale's site is to be redeveloped, and it is not clear how many buildings or how much of the original fittings will remain. The Molson Coors lager plant at Alton is still operational, but would appear to be not particularly noteworthy.

The most intriguing brewing site in Hampshire is within the massive Royal Clarence Yard in Gosport, where the brewery storehouse and cooperage (1766) are listed grade II. An archaeological evaluation in early 2007 recorded the remains of two 18th century breweries. The site, a conservation area, is being refurbished as housing and lesiure facilities.

The loss of large-scale brewery buildings in Hampshire has been great, and most of the remaining brewing-related structures are relatively small in scale, for instance the grade II former tower brewery at Kingsclere. An exception is the very substantial former malthouse (grade II, now housing) at the large Strong's Horsefair Brewery site in Romsey; brewing ceased in 1981 and many of the buildings were demolished in the early 1990s.

The best preserved brewery in the county, indeed one of the best in the country, is the Southwick Brewhouse, a Victorian domestic brewhouse sited behind the Golden Lion in the village's High Street. It operated until 1957 then was disused until restoration in 1983-5, which culminated in the use of the repaired and refurbished equipment to produce a single commemorative brew (Southwick Special Bitter). The brewhouse, built of brick with large wooden louvres, is a Scheduled Ancient Monument; it now functions as a small museum, where the array of early brewing kit may be inspected.

Operating pre-1940 breweries

None

Major operating post-1940 brewery

Molson Coors Alton Brewery, Lower Turk Street, Alton GU34 2PS

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

11 (all grade II)

Other notable brewery buildings

Gale's Brewery, The Square, Horndean.

Southwick Brewhouse, High Street, Southwick.

References

Philip Eley, Portsmouth Breweries since 1847 (Portsmouth Paper 63) (Portsmouth City Council, Portsmouth, 1994).

Philip Eley, Portsmouth Breweries 1492-1847 (Portsmouth Paper 51) (Portsmouth City Council, Portsmouth, 1988).

Pamela Moore, 'Industrial Archaeology of Hampshire', *Industrial Archaeology Review*, 8 (1), Autumn 1985, pp28-41.

Keith Osborne, Hampshire Hogshead: The lost breweries of the county, North Hampshire (Hampshire Hogsheads, 1996).

D. Sheldon, *Summary report on an archaeological watching brief at Royal Clarence Yard, Gosport, coverage area, phase K* (Southern Archaeological Services, Southampton, 2004).

Barry Stapleton and James H. Thomas, *Gales: A study in brewing, business and family history* (Ashgate Publishing, Aldershot, 2000).

M. F. Tighe, 'A Gazetteer of Hampshire Breweries', *Proceedings of the Hampshire Field Club and Archaeological Society*, 27, 1972 for 1970, pp87-106.

HEREFORDSHIRE

The county is not well known for brewing, the few somewhat undistinguished remains of the industry being in Hereford and Ross-on-Wye. The offices of the Hereford & Tredegar Brewery (actually the house of an earlier owner) are part of the Tesco site at Bewell Street in central Hereford, and one of the brewery entrances can still be found just to the south in Eign Gate. In Ross, buildings from the Alton Court Brewery in Station Street have been incorporated into a shopping area, and the remains of the Barrel Brewery are nearby.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

4

Listed brewery buildings

None

Other notable brewery buildings

None

References

None

HERTFORDSHIRE

Of the 44 brewing firms listed by a Hertfordshire trade directory in 1855, only one remains operational, McMullen & Sons of the Hertford Brewery in central Hertford. Brewing is currently carried out in the Whole Hop Brewery, opened in 2006 at the south-east corner of the McMullen's site, which also includes a disused brewery erected in 1984, and the 1891 Old Brewery, which is listed grade II and was designed by William Bradford. The area containing the Old Brewery and the 1984 brewery was sold to Sainsbury's in February 2007. Sainsbury's plan to build a supermarket on the site and refurbish the Old Brewery. The Old Brewery is a five-storey red brick tower, topped by a lantern with timber louvres, with an ornate ironwork crown. It has been closed since 1995 but its brewing equipment is intact. A report (Anderson, 2005) was produced recommending which items of kit should be retained, while a second report (Crosby, 2007) concentrated on the building itself.

Elsewhere in Hertford and the county, several maltings, brewer's houses (Simpson's High Street Brewery house in Baldock is listed II*) and other structures survive, but only seven brewhouses. Two were parts of public houses: the Sun Brewery, an unlisted small brewhouse in Hitchin; and the Bluecoat Brewery (grade II) in Ware. The Sun Brewery has now been converted to hotel rooms for the Sun Hotel (previously Sun Inn). The relatively unaltered Bluecoat Brewery was built around 1870 and brewing continued until the 1930s. It was converted to a private house in 2003, retaining many original features. Also in Ware is the former Star Brewery (1862, listed grade II), an isolated brewhouse recently restored for office use.

Four brewhouses survive at integrated brewing sites; the most significant, McMullen's, has been considered above. The former Rayment's Brewery (listed grade II) in Furneux Pelham is a fully integrated brewery complex. Despite conversion to residential use - except for the brewery tap which is still trading - it retains all its component structures in an identifiable condition. Perhaps more significant than Rayment's, but unlisted, is another integrated complex, the Kingsbury Brewery in St Albans, now in commercial use but similarly retaining all its component structures in an identifiable condition. Finally, the brewhouse, offices and brewery house remain at the unlisted former Victoria Brewery, Walkern, built around 1870 and now in residential use.

Operating pre-1940 breweries

McMullen & Sons Ltd, 26 Old Cross, Hertford SG14 1RD

Number of sites with extant brewery buildings in BHS database

35

Listed brewery buildings

14 (1 grade II*, 13 grade II)

Other notable brewery buildings

Sun Hotel, Sun Street, Hitchin SG5 1AF.

Former Kingsbury Brewery, Verulam Road, St Albans.

Former Victoria Brewery, High Street, Walkern.

References

R. G. Anderson, McMullen & Sons Ltd, Old Brewery, Hertford: A Survey and Assessment of Brewing Equipment (Unpublished report, May 2005).

E. J. Connell, 'Hertford Breweries', Industrial Archaeology, vol 4, 1967, pp29-43.

Martyn Cornell, 'Phillips's Royston Brewery', Brewery History, 49, October 1986, pp6-12.

Tony Crosby, *The Brewing Industry, A Brewery History Society project: Hertfordshire* (Unpublished report, June 2008).

Tony Crosby, McMullen & Sons Brewery, Hartham Lane, Hertford: A survey and assessment of the site and structures (Unpublished report, June 2007).

W. Branch Johnson, The Industrial Archaeology of Hertfordshire (David & Charles, Newton Abbot, 1970).

Helen Poole, Here for the Beer: A gazetteer of the brewers of Hertfordshire (Watford Museum, Watford, 1984).

Ken Smith and Tony Crosby, 'Rayment & Company Ltd', Brewery History, 104, Summer 2001, pp29-33.

Tim Smith and Bob Carr, A Guide to the Industrial Archaeology of Hertfordshire and the Lea Valley (Association for Industrial Archaeology, 2004).

Allan Whitaker, *Brewers in Hertfordshire: A historical gazetteer* (University of Hertfordshire Press, Hatfield, 2006).

ISLE OF WIGHT

The major brewing site on the island was the Mew, Langton & Co Royal Brewery in Newport. Brewing ceased here in 1969, after which the brewery was used as a depot, before gradually becoming derelict; a large fire destroyed the 1899 malthouse on Holyrood Street in 1979. Another impressive malthouse (listed grade II), dating from around 1800 with a later extension, survived and was converted for residential use in 1984; a restored kiln is topped by a spectacular cowl and weathervane. The brewer's house is also extant, but the remainder of the site was developed for housing in the late 1980s. The building listed grade II in 1972 as the hop store (LBS 309504), which is still present on Listed Buildings Online, appears to be the malthouse burnt down in 1979.

Burt's Brewery in Ventnor was founded in the 1840s, although bombing during the Second World War caused an almost complete rebuilding of their Old Brewery premises on the High Street. The result, opened in 1953 and designed by Shanklin architect Basil Phelps, is a modern interpretation of a tower brewery, an interesting flat-roofed structure with much glazing. The brewery was sold in 1990 and several changes of hands led to the creation of the Ventnor Brewery, a microbrewery using new equipment; however, much of the original Burt's brewing kit (both prewar and postwar) was retained and is still at the Old Brewery. The Ventnor Brewery ceased to brew in early 2009 and the future of the Old Brewery is uncertain.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

1 (grade II)

Other notable brewery buildings

Former Ventnor Brewery, 119 High Street, Ventnor, Isle of Wight PO38 1LY

References

'A modern Hampshire brewery', Brewers' Guardian, May 1953, pp72-80.

Pam Moore, 'Industrial Archaeology of the Isle of Wight', *Industrial Archaeology Review*, 13 (2), Spring 1991, pp172-81.

Nick Redman, 'The history of Mew, Langton and Company', Brewery History, 74, December 1993, pp40-42.

ISLES OF SCILLY

There appears to be no recorded history of brewing in the Isles of Scilly; certainly there were no large-scale breweries. A microbrewery (Ales of Scilly Brewery) was set up on St Mary's in 2001 and operates from modern premises.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

None

Listed brewery buildings

None

Other notable brewery buildings

None

References

None

KENT

Faversham is undoubtedly the most significant site in Kent in terms of the number of surviving brewery structures, with the extensive former Rigden's site to the east of Court Street and the still-operational Shepherd Neame Brewery almost opposite on the west side. The unlisted Shepherd Neame Brewery was founded in 1698, although brewing has been carried out on the site since at least 1570 and possibly 1520. Although many of the buildings are modern, much of the 19th century structure remains. As datestones attest, the brewhouse was built in 1864, when the firm was known as Shepherd & Mares. It also carries datestones, presumably from other buildings, reading 'SS 17(4?)8' for Samuel Shepherd and 'HS 1842' for Henry Shepherd. The central clock tower was built in 1890 (or possibly during the 1890s). The Millennium Brewhouse, an extension of the 1864 brewhouse which opened in 2000, includes two stained glass windows with beer and brewing motifs by Keith and Judy Hill of Staplehurst in Kent. The ornate office building on Court Street displays hop motif decoration on its facade. Its northern section, including the doorway, was built in 1869; it was extended in 1900 by altering the building immediately to the south in matching style. The entire combined building is listed grade II (LBS 175891). The brewery still retains some old equipment, including two traditional oak and gunmetal mash tuns dating from 1914 and 1916, which are still in regular use; two steam engines also survive in working order, but are no longer used in the brewing process.

Rigden's Brewery in Faversham was acquired by Fremlin's in 1948, later passed to Whitbread's, and eventually closed in 1990. The whole site is listed in nine sections, all grade II apart from the grade II* offices, a 16th century house. Remaining buildings include the former maltings (converted to a supermarket in 1996) and brewhouse. The 1887 stable block, listed grade II in 1990 (LBS 439086) was unfortunately demolished in 1996. The 2008 Swale Borough Council Local Plan envisages a mixed-use development of the entire Rigden's site with conversion of the buildings for new uses including housing and retail. Work was taking place on the site in summer 2009.

Elsewhere in Kent, converted malthouses and owner's houses survive at several sites where the brewhouse itself has been demolished. Examples are Russell's Gravesend Brewery, where the impressive maltings on West Street are now in residential use, and two grade II listed sites in Hadlow: the Close Brewery and Style Place Brewery; a pump house and stables also survive at Style Place. The brewhouse at grade I listed Knole, a mid to late 16th century building used for brewing from the 17th century, now serves as a tea room.

A few later brewhouses still remain. Those at the polychromatic brick Abbey Brewery in West Malling, and the East Kent Brewery in Sandwich, have been converted to housing, the latter tower now

being known as Guestling Mill. Also surviving are smaller brewhouses at the Cannon Brewery in Ramsgate (listed grade II in two sections), and behind the Fort Brewery Tap public house in Fort Road, Margate.

Remains on a larger scale, probably including the brewhouse, can still be seen in Victoria Street, Rochester, where the buildings of the Troy Town Brewery were recently in use as warehouses. The most interesting fully integrated complex to survive is Flint's St Dunstan's Brewery in Canterbury, where brewing ceased in 1929 but most buildings still stand, including the brewhouse and a 19th century maltings.

Operating pre-1940 breweries

Shepherd Neame Ltd, 17 Court Street, Faversham ME13 7AX

Number of sites with extant brewery buildings in BHS database 45

Listed brewery buildings

24 (1 grade I, 1 grade II*, 22 grade II)

Other notable brewery buildings

Former St Dunstan's Brewery, St Dunstan's Street, Canterbury.
Shepherd Neame Brewery, 17 Court Street, Faversham ME13 7AX.
Former Troy Town Brewery, Victoria Street, Rochester.
Former East Kent Brewery, Guestling Mill, Strand Street, Sandwich CT13 9HN.

References

Theo Barker, *Shepherd Neame: A story that has been brewing for 300 years* (Granta Editions, Cambridge, 1998). David Eve, *A Guide to the Industrial Archaeology of Kent* (Association for Industrial Archaeology, 1999). David Eve, 'Workshops and Stables, Rigden's Brewery, Faversham, Kent', *Brewery History*, 97, Autumn 1999, pp28-33.

David Eve, 'Rigden's Brewery, Faversham, Kent: Notes on the business history', *Brewery History*, 90, Winter 1997, pp8-12.

Anne Hughes, The Close Brewery, Hadlow (Hadlow Historical Society, 1991).

Peter Moynihan, 'Whitbread's Faversham Brewery', Brewery History, 60, June 1990, pp4-8.

LANCASHIRE

Neither of the two pre-1940 operating breweries in Lancashire is of any particular architectural interest. Th new brewhouse at Thwaites Star Brewery, Blackburn, was built in 196 and has the first external calandria to be installed in a British brewery, together with 1960s to early 1970s brewing technology of a type that will never be installed again. The small Moorhouse's Brewery in Burnle, established in 1865 as a mineral water manufacturer, also has interesting equipment, including a 1930s open copper brewing kettle originally used in a jam factory.

The most significant remaining location in Lancashire is the Old Brewery, Brewery Lane, Lancaster, an unusual survival of a brewhouse and associated buildings on a town centre site. The Old Brewery belonged to Yates & Jackson until 1984, when it was acquired by Mitchell's, whose Central Brewery was nearby in Moor Lane. Mitchell's transferred production to the Old Brewery, where they continued to brew until 1999. The Old Brewery complex appears to include a brewhouse, a malthouse and a warehouse, all dating from the mid to late 19th century. It is mostly stone, although the tall, four storey central block is of red brick with stone facing on the Brewery Lane side. This block - very probably the brewhouse - has a great deal of louvred ventilation, both within the main structure and in twin roof ventilators; there is also a hoist cover. Although in poor condition, the buildings represent the typical growth of a brewery over time, and are attractively varied in heights and rooflines. The Old Brewery site is neither listed nor within a conservation area. A Public Inquiry into the proposed redevelopment of the area, which would involve demolition of the brewery complex, opened on 16 June 2009 but was adjourned in July 2009 and an application to redevelop the area was rejected in December 2009. It is certainly a rare survivor in Lancashire and could be retained and adapted for new uses.

Operating pre-1940 breweries

Daniel Thwaites plc, Star Brewery, PO Box 50, Syke Street, Blackburn BB1 5BU Moorhouse's Brewery (Burnley) Ltd, The Brewery, Moorhouse Street, Burnley BB11 5EN

Major operating post-1940 brewery InBev UK, Samlesbury Brewery, Cuerdale Lane, Samlesbury, Preston PR5 0XD

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

None

Other notable brewery buildings

None

References

Michael Nevell and David George, A Guide to the Industrial Archaeology of Lancashire (Association for Industrial Archaeology, 2007).

Nick Redman, Samlesbury Brewery: 25 years of success 1972-1997 (Whitbread, London, 1997).

Jehanne Wake, *Thwaites: The Life and Times of Daniel Thwaites Brewery, 1807-2007* (Scotforth Books, Lancaster, 2007).

LEICESTERSHIRE

There are no pre-1940 operating breweries in Leicestershire, however, the Shardlow Brewing Company, a modern microbrewery, operates from the Old Brewery Stables at Cavendish Bridge. This site, where a maltings and brewhouse also remain, was used by Offiler's Brewery before closure in 1923.

In Leicester there are several former brewing sites with substantial remains including the Eagle Brewery, Upper Charnwood Street (Leicester Brewing & Malting Co), now in industrial use, and the Syston Street Brewery, also converted for other uses. Of greater architectural interest is the All Saints Brewery site on Highcross Street, which is in All Saints Conservation Area. The brewery complex has been threatened with demolition, but it may be retained as part of a mixed use development. Brewing on the site dates back to at least 1795, and the small-scale brick buildings, most of them probably mid 19th century, are arranged around three yards. They are now in very poor condition.

Also in Leicester is the former Beaumanor Brewery, a tower brewery built in 1895 on what is now Beaumanor Road, and known as the Tom Hoskins Brewery from 1909. The Hoskins family sold the business in 1983 but brewing was continued by a series of owners until around 2008. The fairly plain, red brick building is currently being offered for rent with some original brewing equipment, which may include the mash tun, copper and a fermenting vat all dating from 1913; these were in use during the 1990s.

Outside Leicester the impressive Sileby Steam Brewery, with its five storey tower, was listed grade II in 2007. A complete integrated brewing complex, it has been known as the Maltings since around 1971 and is being converted for residential and other uses. Finally, Langton's Thorpe End Brewery still survives in Melton Mowbray, albeit converted. It is an integrated site with brewhouse tower, adjoining malthouse and other buildings around a yard.

Operating pre-1940 breweries

None

Major operating post-1940 brewery

Everards Brewery Ltd, Castle Acres, Narborough LE19 1BY

Operating microbrewery occupying pre-1940 brewery premises

Shardlow Brewing Co Ltd, The Old Brewery Stables, British Waterways Yard, Cavendish Bridge, DE72 2HL

Number of sites with extant brewery buildings in BHS database

11

Listed brewery buildings

2 (all grade II)

Other notable brewery buildings

Old Brewery Stables, British Waterways Yard, Cavendish Bridge.

Former All Saints Brewery, 99-103 Highcross Street, Leicester.

Former Hoskins Beaumanor Brewery, 133 Beaumanor Road, Leicester.

References

Christine Brooke and Fergus Sutherland, Excellence through Independence: The First 150 Years of Everards Brewery 1849-1999 (Everards Brewery Ltd, Narborough, 1999).

Mike Brown, Tiger Tales and Ales: A directory of Leicestershire brewers (including Rutland), 1400-1999 (Brewery History Society, New Ash Green, 1999).

LINCOLNSHIRE

The two brewery sites of major importance in Lincolnshire are both still operating: Bateman's at Wainfleet All Saints and Melbourn Brothers in Stamford. Aside from these, there are only a few small-scale remnants, and the former brewhouse (1843) at grade I listed Harlaxton Manor. Curiously, the impressive little early 19th century brewhouse at the rear of the Lion and Snake pub in Lincoln (grade II, LBS 485901) was thought to be a stable and pigeoncote. Its appearance, with an upper loading door and louvred roof ventilator, would suggest that it was built for brewing, as Wright's *Lincolnshire's Industrial Heritage: A Guide* (2004) confirms.

George Bateman began brewing in Wainfleet in 1872 or 1873, buying the present site - the Salem Bridge Brewery (listed grade II) - in 1876; he was brewing there by 1880. The mainly 19th century premises include a six-storey brick-built tower mill with a castellated tower topped by a large weathervane in the shape of a beer bottle. A new brewhouse was opened in 2002 but the vessels from the former brewhouse are still in use, although for seasonal brews only. Historic brewing equipment includes a mash tun of 1898 and a 1923 copper.

Melbourn Brothers was established in 1825 and moved to the All Saints Brewery (listed grade II), which was already a successful common brewery, in 1869. Following a fire in 1876 the brewery was fitted with steam operated equipment and continued brewing until 1974. It was restored in the 1990s, reopened in 1994 and now produces fruit beers. The complex of brewery buildings, with its tower and prominent chimney, is grouped around a central courtyard. Historic equipment includes a 1910 steam engine and 1876 mash tun.

Operating pre-1940 breweries

Melbourn Brothers, All Saints Brewery, All Saints Street, Stamford PE9 2PA George Bateman & Son Ltd, Salem Bridge Brewery, Wainfleet PE24 4JE

Number of sites with extant brewery buildings in BHS database

11

Listed brewery buildings

5 (1 grade I, 4 grade II)

Other notable brewery buildings

None

References

Pat Aldabella and Robert Barnard, 'North Lincolnshire Breweries', *Brewery History*, 86, Winter 1996, pp4-15. Steve Andrews, 'George Bateman and Son: Lincolnshire's last brewery', *Brewery History*, Part 1, 115, Summer 2004, pp7-25; Part 2, 116, Autumn 2004, pp2-17; Part 3, 117, Winter 2004, pp2-26.

Martin Smith, Stamford Pubs and Breweries (Spiegl Press, Stamford, 2006).

Neil Wright (ed), *Lincolnshire's Industrial Heritage: A Guide* (Society for Lincolnshire History and Archaeology, Lincoln, 2004).

MERSEYSIDE

The Robert Cain Brewery in Toxteth is Merseyside's sole pre-1980 operating brewery. The striking red terracotta building (listed grade II) was developed in several stages. The rear section was begun for Robert Cain around 1875, with an addition designed by the architect James Redford in 1887. The elaborate five-storey front section, with its red brick and Ruabon terracotta facade, was built in 1896-1902; the architect

may have been Walter W. Thomas, who designed several pubs for Cain's. The brewery was sold to Higson's in 1923, and the new owners changed the terracotta work to include their name; this can easily be seen from the side elevation where plain bricks have been substituted for the previous lettering. The brewery closed in 1990 but reopened under new ownership soon afterwards; more changes of ownership have since taken place, but in 2009 the brewery continues to be known publicly as the Robert Cain Brewery.

Liverpool's former Knotty Ash Brewery, Gateacre Brewery and Rose Brewery are all still extant (albeit converted), the latter pair being listed grade II. Indeed the Gateacre Brewery (c1867) retains its ornate ironwork crest. However, there are no remains of the once-substantial Birkenhead Brewery, which ceased brewing in 1968.

Operating pre-1940 breweries

Robert Cain Brewery, Stanhope Street, Liverpool L8 5XJ

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings 4 (all grade II)

Other notable brewery buildings

None

References

Norman Cook, *Higson's Brewery 1780-1980* (Higson's Brewery Ltd, Liverpool, 1980). Christopher Routledge, *Cain's: The story of Liverpool in a pint* (Liverpool University Press, Liverpool, 2008).

NORFOLK

No pre-1940 operating breweries remain in Norfolk, and most of the former sites have disappeared under new developments, for instance the extensive Lacon's Brewery in Great Yarmouth, where brewing ceased in 1968 and demolition followed in the 1970s. The decorative Lacon's Stores building near the quayside lasted until 1997, when it too was pulled down to make way for a supermarket in what might be described as brewery-lite style. In Norwich there are some relatively minor remnants at two large sites, Steward & Patteson's Pockthorpe Brewery and the Youngs, Crawshay & Youngs Crown Brewery. Also in the city is one of the most impressive remaining sites in the county - despite the fact that much was cleared in the 1970s - the former Bullard's Anchor Brewery (listed grade II in two sections). A sad loss in 1982 was the unlisted Bullard's chimney, a local landmark for many years, and what remains is now the Anchor Quay residential development, a 1983-4 conversion.

It should be noted that of the 13 listed sites in Norfolk, five are country house breweries, all of which are listed, four grade II and one grade I. Other important listed sites are the two flint and brick structures, both grade II, at Bidwell's Brewery in Thetford, and the set of buildings dating from the 1780s onward at the Letheringsett Brewery (grade II in two sections). Notable unlisted sites with brewhouse towers now in residential use are the South Creake Brewery, with its impressive four-storey tower (converted 1987), and the Watton Brewery.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings 13 (1 grade I, 12 grade II)

Other notable brewery buildings

None

References

Andrew P. Davison, *Justly Celebrated Ales: A directory of Norfolk brewers* 1850-1990 (Brewery History Society, New Ash Green, 1991).

Michael Day, Brewing in Norwich (Norfolk Museums Service, Norwich, 1983).

Rob Donovan, 'Drink in Victorian Norwich: Part 1', Brewery History, 130, 2009, pp18-64.

Rob Donovan, 'Drink in Victorian Norwich: Part 2', Brewery History, 132, 2009, pp67-133.

Terry Gourvish, Norfolk Beers from English Barley: A history of Steward & Patteson, 1793-1963 (Centre of East Anglian Studies, Norwich, 1987).

NORTH YORKSHIRE

Tadcaster was and still is a brewing centre of national importance. Very unusually, it retains three major pre-1940 operating breweries: John Smith's Brewery, Samuel Smith's Old Brewery and Molson Coors Tower Brewery. Almost all the Tower Brewery buildings date from the mid 1960s, although the base of its original 1883 tower - last used for brewing in 1966 - is still thought to be in place; it formed part of the boiler house in the 1990s. John Smith's Brewery (listed grade II in six sections) was designed by the architects Scamell & Colyer of London and built in 1882-3. It comprises a series of interconnected ranges of buildings up to seven storeys in height in golden sandstone, with a striking octagonal chimney; there is much elaborate ironwork ornament. Samuel Smith's Old Brewery (unlisted) is a substantial collection of mostly brick buildings of varying ages. It houses several items of historic brewing equipment and fermenting takes place in open slate squares. The John Smith's and Samuel Smith's breweries are both within Tadcaster Conservation Area.

Masham has two pre-1940 operating breweries: T. & R. Theakston's Brewery is an unlisted, mostly stone-built tower complex which was built in 1870-5, while the Black Sheep Brewery was established in 1992 in older premises, in this case the maltings (unlisted) of the former Lightfoot's Wellgarth Brewery. Black Sheep's equipment, some of which is pre-1940 in date, has been sourced from a variety of defunct breweries. Both breweries are within Masham Conservation Area.

Now for former sites. There are brewhouse tower conversions at Sherburn (East Riding Brewery), Brompton-on-Swale (Crown Brewery, listed grade II) and Pateley Bridge (the little Nidd Valley Brewery). In Boroughbridge the excellent mid 19th century Warwick's Anchor Brewery (listed grade II in three sections), with tower and maltings, is now flats. The reasonably complete former March's Brewery on Ogleforth in York, where brewing ceased in 1940, was undergoing conversion to flats in mid 2009. North Yorkshire also has four country house breweries, all listed grade II.

Operating pre-1940 breweries

Black Sheep Brewery plc, Wellgarth, Masham, Ripon HG4 4EN
T. & R. Theakston Ltd, The Brewery, Masham, Ripon HG4 4YD
S&N UK, John Smith's Brewery, High Street, Tadcaster LS24 9SA
Samuel Smith Old Brewery, High Street, Tadcaster LS24 9SB
Molson Coors Brewing Company (UK) Ltd, Tower Brewery, Station Road, Tadcaster LS24 9JR

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

15 (all grade II)

Other notable brewery buildings

T. & R. Theakston's Brewery, Masham

References

Pat Aldabella and Robert Barnard, 'Some Breweries of the Old West Riding of Yorkshire', *Brewery History*, 104, Summer 2001, pp71-95.

Andrew Davison, 'A Genuine and Superior Article: The last two centuries of brewing in York', *York Historian*, vol 10, 1992, pp31-51.

John Pudney, A Draught of Contentment: The Story of the Courage Group (New English Library, London, 1971). Will Swales, The History of the Tower Brewery Tadcaster (Bass Brewers Ltd, 1991).

NORTHAMPTONSHIRE

The county's sole major operating brewery is the Carlsberg Brewery on Bridge Street in Northampton, which was built in 1971-3 at the former Phipps Northampton Brewery site; the architect was Knud Munk, with Ove Arup & Partners as engineers. The brewery's most unusual feature is the stepped glass wall making up the riverside facade of the tall concrete and steel brewhouse, through which its plant may be seen. The brewhouse and adjoining energy centre (for boilers and refrigeration plant) front a long, low shed to the rear, containing the fermenting hall, bottling plant and stores. Huge geometric forms - pale concrete malt silos, a tank farm and a tall, dark chimney - rear up alongside. The brewhouse and adjoining energy centre in particular are interesting as a late 20th century interpretation of the traditional brewhouse tower.

Until its demolition in 2007, the Albion Steam Brewery stood a little way north of the Carlsberg site, on Commercial Street. It had remained remarkably intact but was replaced in 2008 by a casino which looks (according to the casino's press release) 'uncannily like' the old brewery. Also in Northampton is a modern micro, the Frog Island Brewery, which operates from an impressive malthouse built by the now-demolished Thomas Manning's Castle Brewery, which was close by on Black Lion Hill.

Elsewhere in the county, the 18th century brewhouse at Canons Ashby House is now used as a tearoom, while the brewhouse at Castle Ashby House is occupied by offices. East's Hope Brewery at Milton Malsor, where a new brewhouse was built in 1888, is also now in office use. Finally to Oundle, where there is good louvre work on the Union Brewery in West Street, and McKee's Anchor Brewery, South Road, is still unaltered and complete, although without its equipment.

Operating pre-1940 breweries

None

Major operating post-1940 brewery

Carlsberg UK Ltd, 140 Bridge Street, Northampton NN1 1PZ

Operating microbrewery occupying pre-1940 brewery premises

Frog Island Brewery, The Maltings, Westbridge, St James Road, Northampton NN5 5HS

Number of sites with extant brewery buildings in BHS database

12

Listed brewery buildings

None

Other notable brewery buildings

McKee's Anchor Brewery, South Road, Oundle

References

'Carlsberg Brewery, Northampton', Architects' Journal, 160, 13 November 1974, pp1151-72.

Mike Brown and Brian Wilmott, *Brewed in Northants: A Directory of Northamptonshire Brewers (including the Soke of Peterborough)*, 1450-1998 (Brewery History Society, New Ash Green, 1999).

Geoffrey H. Starmer, 'Breweries in Northamptonshire: A survey', Bulletin of Industrial Archaeology in CBA Group 9, 14, October 1970, pp11-21.

NORTHUMBERLAND

There are only six known sites in Northumberland where brewery-related structures survive, and at five of those the buildings are listed (all grade II). The unlisted site comprises a few small buildings from the former Haltwhistle Brewery, once owned by the Haltwhistle Joint Stock Brewery Company. Also small in scale is the early 19th century brewery at Melkridge, which is now in residential use, as is the 18th century Lumley's Ovington Brewery. The latter is a sensitive conversion by Stocksfield architect Michael Drage, which retained the existing ventilation openings and kept the general appearance of the building almost unaltered. Rather more substantial are the buildings of the former Tweedmouth Brewery (listed in two sections) at Berwick upon Tweed. The 18th and early 19th century stone-built complex appears to be complete; it includes a malthouse and kiln, but it is unclear which part was the brewhouse.

The Alnwick Brewery, when listed in 1977, occupied a large area just west of the town's Market Place. It was a complete complex of mostly early 19th century buildings including a large brewhouse, fermenting block and malthouse; all the structures - although not their functions - were briefly noted in the list description (LBS 235697). The company stopped brewing in 1963 but continued to run public houses and to blend whisky and rum; it was taken over by Dryborough's in 1978 and ceased trading in 1986.

During the 1980s demolition - despite its listed status - robbed the site of almost all but the malthouse, later used as offices. Planning permission was granted in 2004 for further demolition and the construction of flats, offices and shops. A fire followed in 2006, badly damaging the malthouse, which did eventually undergo solely residential conversion. 'The Maltings' was completed by 2008, while a car park covers the remainder of the site. The brewhouse was a particularly sad loss in a county where no other large-scale examples remain.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

7

Listed brewery buildings

6 (all grade II)

Other notable brewery buildings

None

References

Brian Bennison, *The Brewers and Breweries of North-Eastern England: A Historical Guide* (Brewery History Society, New Ash Green, 2004).

Brian Bennison, 'Concentration in the brewing industry of Northumberland and Durham, 1890-1914', *Northern History*, 30, 1994, pp161-78.

David Bond, 'Brewing in the North East Part I', Tyne and Tweed, 45, 1990, pp42-53.

David Bond, 'Brewing in the North East Part II', Tyne and Tweed, 46, 1991/2, pp28-42.

NOTTINGHAMSHIRE

Although there are no pre-1940 operating breweries in Nottinghamshire, the county is fortunate in retaining a good range of brewing sites, in several cases complete with brewhouse towers. Hole's Castle Brewery (listed grade II in three sections) in Newark is a fine example, with a tower (1889-90) designed by William Bradford; more unusual are their ornate offices of 1881-2 by an unknown architect (the List description gives Bradford as architect, but this seems unlikely on stylistic and other grounds). Brewing ceased in 1983, and after a delay of well over a decade, the buildings were converted for residential use. Also in Newark, the extensive Warwicks & Richardson's Northgate Brewery (listed grade II in two sections), where brewing ceased in 1966, is also undergoing residential conversion, and has lost the smaller buildings north of the brewhouse in the process; this area is now a retail park.

In the Nottingham suburb of New Basford, Hutchinson's Prince of Wales Brewery (listed grade II, architect William Bradford, 1891), with another excellent tower, has been used since 1919 by Murphy & Son, suppliers to the brewing trade. Nearby is another Bradford-designed structure, the huge, ornate and intact Shipstone's Star Brewery (1900), which closed in 1990 and continues in use as a business centre and the auction rooms of John Pye & Sons; it is now known as James Shipstone House. The office building at the south end of the site has a lavish wood-panelled interior. All the brewery buildings stand within the Star Buildings Conservation Area.

Further north in Daybrook is what remains of the Home Brewery (closed 1996), its substantial grade II listed office building. Plans were drawn up in 1938 for the almost complete reconstruction of the brewery, including a new office building facing the Mansfield Road; the design was by Nottingham architect Cecil Howitt. Building began in 1938 but - due to the war - the central tower of the office block was not completed until the early 1950s. The two 12-bay wings of the offices carry a total of 24 delightful cast iron relief panels by the Nottingham architectural sculptor Charles Doman (1884-1944). They run in series between the ground and first floor windows, and were made by the Lion Foundry at Kirkintilloch. Three designs, depicting various aspects of the brewing process, are repeated, and are currently painted white on pale blue ground. The remainder of the Home Brewery site has been redeveloped, but the Mansfield Road block continues to function as council offices.

In Kimberley, just west of Nottingham, the two major breweries were Hansons Ltd and Hardy's Kimberley Brewery, sited opposite each other along Brewery Street and Hardy Street. They merged in 1930 and all brewing was concentrated at the Hardy's site in 1932. The company name was changed to Hardys & Hansons in 1972, and most buildings on the Hansons site were demolished in 1973, although a group

including workshops and offices still stands on Hardy Street. Greene King acquired the brewery in 2006 and brewing ceased in the same year. The majority of this significant site lies within Kimberley Conservation Area, and the 1861 maltings was listed grade II in November 2008. Little more than the chimney stack and distinctive brewhouse tower (William Bradford & Sons, 1907) remain of the Mansfield Brewery after its closure in 2002 and the demolition of the modern structures on this large site in July 2008. Redevelopment plans suggest that the few historic buildings will be retained and reused. The former Beeston Brewery was acquired by Shipstone's in 1922. The malthouse, built in 1878 as a pneumatic malting, was converted to a floor maltings by Shipstone's in 1926, then closed in 2000. It is unclear how much of the original brewery structures remain on this large and impressive site, which is threatened with redevelopment for housing. Finally, there are grade II listed brewhouses at Rufford Abbey and Osberton Hall, both converted to private houses.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

16

Listed brewery buildings

12 (all grade II)

Other notable brewery buildings

Former Beeston Brewery, Dovecote Lane, Beeston. Former Mansfield Brewery, Littleworth, Mansfield.

References

Kimberley Brewery Planning Brief (Broxtowe Borough Council, Beeston, March 2007).

Star Buildings Conservation Area: Character Appraisal and Management Plan (Nottingham City Council, March 2007).

Interim Planning Guidance Note 8: Mansfield Brewery (Mansfield District Council, Mansfield, March 2008).

Ian Brown, Nottinghamshire's Industrial Heritage (Nottinghamshire County Council Leisure Services, Nottingham, 1989).

George Bruce, *Kimberley Ale: The Story of Hardys & Hansons, 1832-1982* (Henry Melland, London, 1982). D. S. Marshall, *History of Brewing in Newark-on-Trent* (Acorn, 2000).

Brenda M. Pask, *Newark: The Bounty of Beer* (Nottinghamshire Council and Newark & Sherwood District Council, Nottingham, 1997).

Ernie Scoffham, *A Vision of the City: The architecture of T. C. Howitt* (Nottinghamshire County Council Leisure Services Department, Nottingham, 1992).

OXFORDSHIRE

By far the most significant site in the county is the Hook Norton Brewery, established around 1850 and still operational. Its classic six-storey brewhouse tower was built in 1898-9 and designed by William Bradford; it is a typical example of his ornate decorative style with the emphasis on mock timbering - as in the hoist housing - and triangular dormers. There is also a copper house, a four-storey fermenting house, stable block (1894), offices (1896) and malthouse. The brewery retains much early equipment, including an 1899 steam engine which is still in daily use, and there is a brewery museum. Currently the brewery is listed grade II in four sections: brewhouse, stables, offices and malthouse.

Elsewhere in Oxfordshire, brewing continues at the former Clinch's Brewery site in Witney. Although the brewhouse was demolished in 1968, the Eagle Maltings have been used since 1983 for brewing by what is now known as the Wychwood Brewery. In 2002, following the closure of Brakspear's Henley Brewery, Wychwood took on the brewing of Brakspear beers; this section of the business is known as the Brakspear Brewing Company. The original Brakspear fermenting vessels and copper dome were installed at the Witney site in 2004. The former Henley Brewery, within the Henley on Thames conservation area and with several of its buildings listed, has been converted for residential and office use; the Hotel du Vin occupies the major part of the extensive site, including the brewhouse. There has been little demolition here, in contrast to the Morrell's Lion Brewery site in Oxford, where brewing ceased in 1998. Most buildings were demolished as the site was developed for housing, although the chimney and some lesser

structures remain. Other former brewing sites in the county generally comprise small-scale buildings now serving as housing or offices.

Operating pre-1940 breweries

Hook Norton Brewery Co Ltd, The Brewery, Hook Norton, Banbury OX15 5NY Wychwood Brewery Ltd and Brakspear Brewing Co, Eagle Maltings, The Crofts, Witney OX28 4DP

Number of sites with extant brewery buildings in BHS database

26

Listed brewery buildings

17 (2 grade II*, 15 grade II)

Other notable brewery buildings

None

References

James Bond and John Rhodes, *The Oxfordshire Brewer* (Oxfordshire Museum Services, Woodstock, 1985). Mike Brown, *Oxon Brews: The Story of Commercial Brewing in Oxfordshire* (Brewery History Society, New Ash Green, 2004).

Nicholas Doggett, Conservation Impact Assessment: The Old Henley Brewery (unpublished report, September 2003).

David Eddershaw, A Country Brewery: Hook Norton 1849-1999 (Hook Norton Brewery Company, Hook Norton, 1999).

Francis Sheppard, Brakspear's Brewery, Henley-on-Thames (Brakspear, Henley-on-Thames, 1979).

RUTLAND

There is little of interest in Rutland. The last pre-1940 operational brewery, Ruddle's Brewery in Langham, closed in 1998 and the site has been cleared for housing.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

2

Listed brewery buildings

None

Other notable brewery buildings

None

References

Mike Brown, Tiger Tales and Ales: A directory of Leicestershire brewers (including Rutland), 1400-1999 (Brewery History Society, New Ash Green, 1999).

SHROPSHIRE

Shropshire retains two pre-1940 operating breweries, the Three Tuns Brewery in Bishop's Castle and the All Nations Brewhouse in Madeley. Unusually, both are pub brewhouses, and indeed are two of only four pre-1970 pub brewhouses in England to have been in more or less continuous use since they first brewed. (The others are the Blue Anchor in Helston, Cornwall, and the Old Swan in Netherton, West Midlands.) The Three Tuns Brewery (listed grade II) is a three-storey tower brewery built around 1888. Most of the original fittings are still thought to remain, including the mash tank on the second floor, the rare open copper cooler on the first floor, and fermenting vats on the ground floor. However, the plant was upgraded in 2008-9. Brewing at the grade II listed All Nations Inn began in 1789, ceased in 2001, but restarted in 2003 when new microbrewery kit was added to the original basic equipment.

Of the county's former breweries, the most impressive structure is Wright's Crown Brewery (listed grade II) in Market Drayton. Its steel-framed six-storey tower was built in 1899 and designed by T. Tindal

of Longton. It is now in other commercial use, as is the relatively complete Trouncer's Old Brewery complex (listed grade II) by the Severn in Shrewsbury. Most of the buildings remain, albeit with some alterations, including the four-storey brewhouse, the engine house, chimney and malt store. Finally comes the grade II listed brewhouse built around 1806 at Pradoe, where brewing continued until 1902. The two coppers were then removed, but new coppers were reinstated during restoration in 2002.

Operating pre-1940 breweries

John Roberts Brewing Co Ltd, Three Tuns Brewery, 16 Market Square, Bishop's Castle SY9 5BN Worfield Brewing Co, All Nations Brewhouse, 20 Coalport Road, Madeley TF7 5DP

Number of sites with extant brewery buildings in BHS database 8

Listed brewery buildings

7 (all grade II)

Other notable brewery buildings

None

References

Allan Frost, *Breweries and Bottlers of Wellington* (History Press, Stroud, 2008). Barrie Trinder, *The Industrial Archaeology of Shropshire* (Phillimore, Chichester, 1996).

SOMERSET

Although Somerset has no pre-1940 operating breweries, it does have the microbrewery Exmoor Ales, which was founded in 1980 and works from the Golden Hill Brewery in Wiveliscombe. As the Wiveliscombe Brewery, this was the home of Hancock's (founded 1807) until it closed in 1959 and the plant was removed. The substantial red brick complex is a local landmark, and includes a tower (1897) with lower adjacent ranges, and a square cross-section chimney. Some buildings have been converted to houses and workshops. Although unlisted, it stands within Wiveliscombe Conservation Area; the unused parts of the site are in very poor condition.

The county has retained numerous small-scale, largely rural brewery buildings, almost all of which have undergone conversion. A few unconverted pub brewhouses remain, however, as at the George & Dragon in the village of Batheaston (in fact a suburb of Bath). The city was notable for its early porter breweries - the last closed in the 1860s - and for its small pub breweries. The grade II listed George & Dragon was the last pub in the Bath area to brew when it ceased in 1960; the copper has been removed but much else remains. It was recorded by the Batheaston Society in 2001-2 during the Batheaston Historic Buildings Survey (http://users.bathspa.ac.uk/batheaston/be024.asp).

More typically brewhouses have been converted, as at the Viaduct Inn on Brassknocker Hill in Monkton Combe. It dates from around 1875 and was fitted with a steam plant. A four-storey tower quite separate from the pub, its height, stack and appearance are distinctive. Other notable conversions are at Rode, where Fussell's tall red brick Cross Keys Brewery was converted in the 1990s for residential accommodation, and at Shepton Mallet, where the Charlton Brewery became a combination of housing and business park. What is now known as the Bath Brewery at Batheaston was rebuilt to a high standard as an early lager brewery in 1890 for the English Lager Beer Brewery, but the business folded by 1893. It was eventually converted to an architect's office (now FCB Studios), retaining much character externally; the building won a Civic Trust Award in 1992. Even more striking is the grade II listed Old Brewery at Freshford (Power's Freshford Brewery), a fine building with a memorable octagonal stack. In an early example of adaptive reuse, it was converted into an architect's office in 1964, but has since been converted for residential use and may have lost the characteristic internal spaces kept in the initial conversion.

The county's most interesting survivor is the former Anglo-Bavarian Brewery (1864 and later) in Shepton Mallet, which is in the 2009 Heritage at Risk Register and currently serving as the Anglo Trading Estate. The ornate, chateau-like brewery thrived and in 1889 became the first in Somerset to be lit by electricity, but ceased trading in 1921. Brewing took place occasionally thereafter, but the site became a trading estate after the Second World War, and was listed grade II* in 1984. It is one of only two non-operating brewhouses in England with II* status; the other is the former Young's Ram Brewery in Wandsworth. Although the ground floor is partly occupied, most of the brewery has been vacant for many years and is in poor condition.

Operating pre-1940 breweries

Operating microbrewery occupying pre-1940 brewery premises Exmoor Ales Ltd, Golden Hill Brewery, Wiveliscombe TA4 2NY

Number of sites with extant brewery buildings in BHS database

51

Listed brewery buildings

14 (1 grade II*, 13 grade II)

Other notable brewery buildings

Golden Hill Brewery, Wiveliscombe

References

Mike Bone, 'The Rise and Fall of Bath's Breweries: 1736-1960', Bath History, 8, 2000, pp106-33.

Mary Miles, 'The Acland Hood Arms Brewhouse', Somerset Industrial Archaeological Society Bulletin, 106, December 2007, pp11-18.

Mary Miles, *Perfectly Pure: A Directory of Somerset Brewers excluding old North Somerset* (Brewery History Society and Somerset Industrial Archaeology Society, New Ash Green, 2006).

Mary Miles, 'Pale Ale or Lager?', Somerset Industrial Archaeological Society Bulletin, 97, 2004, pp3-10.

Mary Miles, *Hancock's Brewery, Wiveliscombe*, SIAS Survey 2, (Somerset Industrial Archaeological Society, 1985, reprinted 2001).

Anthony Williams and Partners, 'The Architects' Offices Bath, formerly the Bath Brewery', *Brewery History*, 97, Autumn 1999, pp43-6.

SOUTH YORKSHIRE

South Yorkshire has no pre-1940 operating breweries or microbreweries working from older brewing premises. All three listed brewing structures in the county are country house brewhouses, at Huthwaite Hall and Brodsworth Hall (both grade II), and Hickleton Hall (grade II*). Most of the extant sites have been converted for other uses, retaining varying amounts of the original structures. In Sheffield, the Ward's Sheaf Brewery site (closed 1999) on Ecclesall Road was transformed into apartment blocks during 2001-2, with only the 1874 brewing tower still clearly visible although other sections also remain. In the same city, Tennant's Exchange Brewery on Bridge Street, which closed in 1993, was largely converted to offices. The major unconverted site in Sheffield is the Stones Cannon Brewery in Rutland Road, a large-scale mostly 1960s-70s industrial plant where brewing ceased in 1998. Perhaps the county's best remaining brewery building is out at Thorne, where the 1902 red brick tower of Darley's Brewery (closed 1986) is now doing duty as a carpet warehouse. The five-storey tower has an impressive amount of louvred ventilation at its topmost level, and is flanked by two-storey buildings. It is unlisted but appears to lie within the Thorne Central Conservation Area.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

15

Listed brewery buildings

3 (1 grade II*, 2 grade II)

Other notable brewery buildings

Former Darley's Brewery, King Street, Thorne (now Thorne Carpets)

References

David Lloyd Parry, South Yorkshire Stingo: A Directory of South Yorkshire Brewers 1758-1995 (Brewery History Society, New Ash Green, 1997).

Dave Parry, Don Parry and Alan Walker, *Bygone Breweries of Sheffield: A summary of the brewing trade in the city 100 years ago* (Neil Richardson, Swinton, 1981).

STAFFORDSHIRE

Any consideration of Staffordshire's built brewing heritage must begin with the town of Burton upon Trent, renowned worldwide for its brewing industry, which peaked in the 1880s but continues today. Many breweries have been demolished, often to be replaced by nothing more than car parks, and there is little trace of the intricate network of brewery railways. The loss of the former Bass Museum of Brewing in 2008 was another blow to the town, although the site is due to reopen in April 2010 as the National Brewery Centre. However, Burton does retain two pre-1940 operating breweries, Molson Coors and Marston's, as well as two microbreweries working from older brewing premises.

The huge Molson Coors estate (listed grade II in eight sections) is based on the firm Bass, Ratcliff & Gretton Ltd, whic was founded in 1777 by William Bass. The original brewery, eventually known as the Bass Old Brewery, grew up to the east of the High Street but was demolished in 1971, although the water tower (1866) and offices remain. The second (Middle) Brewery was built on the north side of Station Street in 1853-8 and the third (New) Brewery on the south side of Station Street in 1863-4. The firm merged with Worthington & Co Ltd in 1927, then with Mitchells & Butlers Ltd in 1961, forming Bass, Mitchells & Butlers Ltd. Bass Charrington Ltd was created in 1967 in a merger with Charrington United Breweries. The company was bought by Interbrew in 2000 and sold to Coors, now Molson Coors Brewing Company (UK) Ltd, in 2002.

The Coors estate includes part of the site of Allsopp's New Brewery, with a modern brewhouse and associated plant, along with a large pilot brewery known as the Samuel Allsopp Brewery. The fine Ind Coope brewhouse and water tower complex, one of the best remaining structures in Burton, and associated offices are also part of the Coors estate. Erected in 1854-6 with additions of 1896-8, these buildings are now used for storage and as offices; the elegant entrance block dates from around 1865. Brewing currently takes place on part of the Allsopps New Brewery site, and on the neighbouring Bass New and Middle Brewery sites. The Middle Brewery was developed for industrial-scale brewing from the 1960s onward and there have been many demolitions and alterations. Much of the New Brewery was demolished in 1984-5, despite its grade II listing. However, it still retains some original buildings, although a new brewery was added in the 1960s. The stone gate piers (LBS 273037) have been moved to another part of the site.

Coors is also responsible for the White Shield Brewery, a microbrewery housed in the former Coors Visitor Centre (closed June 2008, previously Bass Museum of Brewing). The Visitor Centre occupied what was originally the Bass Middle Brewery joiner's shop (1866) and other nearby buildings; its collection included many historic items. The Visitor Centre is to be reopened as the National Brewery Centre in April 2010. Production of White Shield is to be moved to the Burton North site, with the White Shield Brewery vessels being retained as an exhibit at the National Brewery Centre, which will also have its own working 30-barrel brewing plant.

Out at Shobnall, Marston's Brewery (listed grade II in three sections) was built in 1875 for Mann, Crossman & Paulin as the Albion Brewery, a large pale ale brewery; Martin & Rawlings of Nottingham were responsible for the buildings, plant and machinery. The central brewing tower is of red brick and varies between two and four storeys in height. The four-storey area houses brewhouse plant dating from between 1875 and the 1980s, which is now unused. The original two-storey hop store, wort collection, fermenting and cask racking areas, with floors removed, now houses a modern brewhouse upgraded in 2004. The site retains the last working examples of union sets, which are required for the Burton Union fermentation system. In addition, a 140-barrel double union fermentation set is now thought to be in storage.

Back in the centre of Burton, one of the most impressive buildings is the massive Allsopps New Brewery (1859-60, listed grade II), which stands beside the railway line. It was designed by architects Hunt & Stephenson of Westminster in combination with consultant engineer Robert Davison and the firm's own engineers, and was said to be the largest brewery in the world at the time. The main block is in use as offices and is completely separate from the adjacent Coors site. Another significant converted site is what is now known as Burton Village, which includes the former Everard's Brewery (1881, architect John Breedon Everard of Leicester), later the Heritage Brewery. Work on this residential scheme began in 2006, retaining the main brewing tower and chimney; a copper occupies centre stage as a feature. The nearby Goat Maltings (Scamell & Colyer, 1883) were also undergoing conversion in 2008. The iconic octagonal kiln is topped by a vane taking the shape of a goat. The maltings were part of the Peter Walker's Clarence Street Brewery complex, most of which was demolished in the 1970s.

Also significant is the Plough Maltings (Herbert Couchman, 1899-1902), opposite the former Coors Visitor Centre. This substantial red brick structure, currently thought to be threatened by redevelopment, was not a traditional floor maltings but a drum maltings. As to the town's microbreweries, the Black Hole Brewery occupies part of the former Ind Coope bottling stores (formerly Moor Street Maltings) at what is

now known as the Imex Business Park. The Tower Brewery works from the well restored former engine house (1880) at what remains of Thomas Salt's Walsitch Maltings, north-east of the town centre in Wetmore. The engine house appears to be a miniature version of the tower at Salt's High Street Brewery, demolished in the 1960s. Much has been written on the subject of Burton, but particularly useful in this context is the thesis by Malcolm James (see references), which describes a multitude of the town's buildings and their history.

Aside from Burton, Stone was also a successful brewing town, with Joule & Sons able to draw from the same water table as the Burton brewers. Although the brewery itself ceased production in the early 1970s and was mostly demolished, Joule's offices still remain in the High Street while their fine bottling stores back on to the Trent and Mersey Canal; offices and stores are both listed grade II. Joule's only local rival was Montgomery's New Brewery, a seven-storey tower brewery (1889) near the railway station. It was taken over around 1902 by Bent's and eventually closed in 1968. The brewery - which is still largely intact, albeit somewhat unprepossessing - and its outbuildings became part of an industrial park. From late 2008, the former fermenting room has been the base of the Lymestone Brewery.

Staffordshire has several country house breweries (listed grade I, II* and II), the most significant being on the Shugborough Estate near Milford in the Trent valley, where the original brewhouse was restored in 1990. Brewing has taken place regularly since 1996 with the assistance of the Titanic Brewery of Stoke-on-Trent, and the wood-fired brewhouse is now known as the Shugborough Brewery.

Operating pre-1940 breweries

Marston, Thompson & Evershed, Marston's Brewery, Shobnall Road, Burton upon Trent DE14 2BW Molson Coors Brewing Company (UK) Ltd, Burton Brewery, 137 High Street, Burton upon Trent DE14 1JZ (including the White Shield Brewery, Horninglow Street, Burton upon Trent DE14 1YQ)

Operating microbreweries occupying pre-1940 brewery premises

Black Hole Brewery Ltd, Unit 63, Imex Business Park, Shobnall Road, Burton upon Trent DE14 2AU Tower Brewery, Old Water Tower, Walsitch Maltings, Glensyl Way, Burton upon Trent DE14 1LX Shugborough Brewery, Shugborough Estate, Milford ST17 0XB Lymestone Brewery, The Old Brewery, Mount Road, Stone ST15 8LL

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

26 (1 grade I, 1 grade II*, 24 grade II)

Other notable brewery buildings

Tower Brewery, Old Water Tower, Walsitch Maltings, Glensyl Way, Burton upon Trent. Former Bent's Brewery, Mount Road, Stone.

References

Paul Bayley, 'An evaluation of the number and distribution of Burton unions', *Brewery History*, 129, 2008, pp39-73.

Khadija Buckland and Eric Fower, A Brewer of Pedigree: A celebration of Marston's, its people and beers (M. W. F. Hurdle, Derby, 1999).

Julian Cooksey, Brewery Buildings in Burton on Trent (Victorian Society, London, 1984).

Malcolm C. James, *Brewery Buildings of Burton-upon-trent: Reflection and Opportunities*, dissertation for RICS Postgraduate Diploma in Conservation of the Historic Environment, College of Estate Management, Reading, February 2006.

Keith Osborne, *The Capital of Ale: Burton-on-Trent and its Breweries* (Hampshire Hogsheads, Wellingborough, 2008).

Colin C. Owen, 'The Greatest Brewery in the World': A History of Bass, Ratcliff & Gretton (Derbyshire Record Society, Chesterfield, 1992).

C. C. Owen, The development of industry in Burton-upon-Trent (Phillimore, Chichester, 1978).

Cliff Shepherd, Brewery Railways of Burton on Trent (Industrial Railway Society, Guisborough, 1996).

Robert Sherlock, The Industrial Archaeology of Staffordshire (David & Charles, Newton Abbot, 1976).

Philip A. Talbot, 'Montgomery's Brewery Company and Bent's Brewery Co Ltd of Stone, Staffordshire', *Brewery History*, 103, Spring 2001, pp55-64.

Philip A. Talbot, 'John Joule and Sons of Stone, Staffordshire', Brewery History, 100, Summer 2000, pp44-50.

SUFFOLK

Suffolk retains three major breweries, two in use by long-established firms and one, the former Tolly Cobbold brewery in Ipswich, now home to a microbrewery. The Adnams Sole Bay Brewery in Southwold was rebuilt in 1897 for Adnams by the London firm of brewers' architects and engineers Inskipp & Mackenzie. They incorporated most of the older building in the new work, and enlarged the brewhouse. There have been several alterations since, most recently to allow for the introduction of the Huppmann brewhouse, although two older (but post-1940) coppers still remained in 2008. The brewery is unlisted but stands in the Southwold Conservation Area. Two houses in Church Street, which were used by the brewery, are listed grade II. The firm's environmentally friendly distribution centre, which opened in 2006 at Reydon, uses hemp, lime and chalk blocks in the construction of the walls, the roof being a carpet of fleshy plants and grass.

Greene King's Westgate Brewery in central Bury St Edmunds is listed grade II in five sections. The oldest parts of the brewery complex are the 16th and 17th century outbuildings on the corner of Westgate and St Mary's Square. The brewhouse is a six-storey neo-georgian red brick pile built in 1936-9. The design was by the London brewery engineer Mark Jennings in combination with Greene King's head brewer, Colonel B. E. Oliver, and the firm's usual suppliers, Adlam's of Bristol and Briggs of Burton upon Trent. In 1980 Greene King added a racking plant designed by Michael Hopkins Associates, and a new bottling hall was built in 2007. An old copper is set into the pavement outside the brewhouse, which has modern stainless steel vessels as well as copper vessels dating from early 1939.

Thomas Cobbold began brewing in Ipswich in 1746. Over the years the brewery, on Cliff Quay, grew in size and complexity until it needed rebuilding.

This was carried out by Cobbold's own workmen during 1894-6 to a design by William Bradford, although parts of the original brewery were retained, and a Bradford-designed extension was added in 1904. In 1957 the firm merged with Tollemache's Breweries of Ipswich to form Tollemache & Cobbold Ltd (known as Tolly Cobbold); the Cliff Quay Brewery (listed grade II) was expanded during 1959-61. The firm was acquired by Ellerman Shipping Lines in 1977, then sold to the Barclay brothers in 1983. Brewing ceased in 1989 but restarted in 1991 after a management buy-out. The adjacent grade II listed Cliff House, an 18th century house once home to members of the Cobbold family, was converted to the brewery tap in 1992. Brewing ceased again in 2003. After investment in restoration and new plant by the nearby Earl Soham Brewery, brewing started again in February 2009 as the separate Cliff Quay Brewery. The list description refers to a copper brewing vessel of 1746 (actually brought to Ipswich in 1746 having previously been at Cobbold's Harwich brewery) and a small horizontal steam engine by E. R. and F. Turner of Ipswich, although most other equipment was replaced during the 20th century. (See www.derelicte.co.uk/reports/brewery for photographs of the remaining kit.)

Suffolk is not rich in former breweries. The most notable, also in Ipswich, is Cathchpole's Unicorn Brewery, which was designed by William Bradford in 1886. Brewing ceased in 1923 and the building became a mineral water works, then a heating engineers works, before conversion to flats. Perhaps surprisingly, it still retains the visual attributes of a typical brewery, with towers of varying heights, chimney and ornamental ironwork. It is unlisted, and it is not clear whether it stands within Ipswich Central Conservation Area, which includes only a part of Foundation Street. Also worth noting is the former Morse's Crown Brewery in Lowestoft, where brewing ceased in 1936. This handsome building has been occupied for some years by Winsor & Newton, who make brushes for artists. The brewery, which appears little changed externally, lies just outside Lowestoft's Conservation Area.

Operating pre-1940 breweries

Greene King plc, Westgate Brewery, Bury St Edmunds IP33 1QT Adnams plc, Sole Bay Brewery, East Green, Southwold IP18 6JW Operating microbrewery occupying pre-1940 brewery premises Cliff Quay Brewery, Cliff Quay, Cliff Road Ipswich IP3 0BS

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings 8 (all grade II)

Other notable brewery buildings

Former Catchpole's Unicorn Brewery, Foundation Street, Ipswich.

Adnams Sole Bay Brewery, East Green, Southwold.

References

A Modern Brewery (Greene King & Sons Ltd, Bury St Edmunds, 1954).

Michael Jacobson, The Cliff Brewery 1723-1973 (Tollemache & Cobbold, Ipswich, 1973).

Robert Malster, 250 years of brewing in Ipswich: The story of Tollemache and Cobbold's Cliff Brewery, 1746-1996 (Malthouse Press, Ipswich, 1996).

Richard G. Wilson, *Greene King: A Business and Family History* (Bodley Head and Jonathan Cape, London, 1983).

John Winter, 'Racking in Suffolk', Architectural Review, 169, March 1981, pp146-50.

SURREY

Surrey retains no operating pre-1940 breweries, and half of its listed brewery buildings are country house brewhouses. The most substantial listed remnant of the brewing industry is what is now known as Farnham Maltings (grade II). The building is a combination of the former Barrett's Red Lion Brewery (south wing) and Sampson's maltings (east wing). Barrett's bought out Sampson's in 1881, then was itself acquired by Trimmer's Lion Brewery in 1889, when the whole firm became Farnham United Breweries. Further alterations and additions followed, but Courage took over in 1927 and brewing ceased the following year, although malting continued until 1956. The buildings were then abandoned and fell into disrepair. Courage eventually offered the building to the town at below its market value, after conversion to an arts and community centre had been suggested. The first stage of the work was completed in 1975.

Also of interest is the unlisted Old Established Sun Brewery at 2 Bridge Street in Godalming. Brewing had probably been taking place on this site adjacent to the Sun Inn since the 17th century. The Sun Brewery was built in 1865, and a datestone carries the initials of brewers Stephen and Emma Bateman. A rival Sun Brewery was built nearby in 1883, and the original brewery became known as Old Established Sun Brewery. Brewing ceased in 1891 and the four-storey building is now a shop.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

14

Listed brewery buildings

8 (all grade II)

Other notable brewery buildings

Old Established Sun Brewery, 2 Bridge Street, Godalming

References

Glenys Crocker, 'Surrey's industrial past: a review', pp213-32 in Jonathan Cotton, Glenys Crocker and Audrey Graham (eds), Aspects of archaeology and history in Surrey: towards a research framework for the county (Surrey Archaeological Society, Guildford, 2004).

John Janaway, Godalming and Farncombe Pubs and Breweries (Ammonite Books, Godalming, 2003).

Mark Sturley, The breweries and public houses of Guildford (Charles Traylen, Guildford, 1990).

Richard Symonds, A Brewing Heritage: The story of brewing in Reigate and Redhill (Richard P. F. Symonds, Horsham, 2001).

TYNE AND WEAR

Tyne and Wear's only major operating brewery is the Federation Brewery in Dunston, Gateshead, which is due to close in 2010. Its dull modern shed was built by the Northern Clubs Federation Brewery in 1980 and bought by Scottish & Newcastle in 2004. It is the sole brewhouse left in the county following the demolition of the Vaux Castle Street Brewery, Sunderland in 2002-3 and Scottish & Newcastle's Tyne Brewery, Newcastle upon Tyne in 2007-8. These two massive sites were still vacant in 2009, although a 1960s-70s slab block still remains from the Tyne Brewery. At the request of the Tyne and Wear Specialist Conservation

Team, the historic buildings of the Tyne Brewery were recorded by Archaeological Services Durham University prior to and during demolition.

There are no brewhouses amongst the few other remnants of the industry in Tyne and Wear, the most interesting building being the former Newcastle Breweries offices (1896-1901, listed grade II) in the centre of Newcastle. The design was by local architects Joseph Oswald & Son, who worked regularly for Newcastle Breweries. The entrance hall, the arcaded clerks' and accountants' room, and an upper corridor were all faced in faience supplied by the Leeds Fireclay Company (Burmantofts) mainly in turquoise, buff and pale yellow; the Newcastle Breweries logo panels are particularly fine. This type of interior tile scheme, often included in late nineteenth century bank, insurance company and utilities offices, is a unique survival in a brewery context. There is also good stained glass in the mahogany-panelled board room. The offices are now used by Newcastle University.

Also of interest are two buildings converted for use as residential accommodation, one being what is now known as Brewery Bond on the quayside in North Shields. This unlisted former store or warehouse is commonly referred to as the High Brewery, although the adjacent brewhouse and chimney were demolished long ago. It was derelict for some years before conversion in 2001, and stands in the New Quay Conservation Area, to which it makes a significant contribution. The substantial grade II listed maltings at Robinson's City Brewery, Houghton le Spring was converted to flats, probably during the 1990s, and is now known as the Old Brewery.

Operating pre-1940 breweries

None

Major operating post-1940 brewery

Federation Brewery, Lancaster Road, Dunston, Gateshead NE11 9JR

Number of sites with extant brewery buildings in BHS database

8

Listed brewery buildings

5 (all grade II)

Other notable brewery buildings

Brewery Bond (former Allison's High Brewery), New Quay, North Shields

References

Christopher Baglee and John Nolan, 'John Smeaton's Snuff Mill at Chimney Mills, Newcastle upon Tyne: Building recording and excavations on the site of the former Leazes Brewery', *Industrial Archaeology Review*, 31 (2), 2009, pp96-115.

Brian Bennison, *The Brewers and Breweries of North-Eastern England: A Historical Guide* (Brewery History Society, New Ash Green, 2004).

Brian Bennison, Brewers and Bottlers of Newcastle upon Tyne from 1850 to the present day (Newcastle upon Tyne City Libraries and Arts, 1995).

Brian Bennison, 'Concentration in the brewing industry of Northumberland and Durham, 1890-1914', *Northern History*, 30, 1994, pp161-78.

Brian R. Bennison, *The brewing trade in North East England*, 1869-1939, PhD thesis, University of Newcastle upon Tyne, 1992.

Brian R. Bennison, *The Economic and Social Origins of the Northern Clubs Federation Brewery: Early Twentieth Century Co-op Brewing* (School of Economics, Newcastle upon Tyne Polytechnic, 1985).

Brian Bennison and James P. Merrington, *The Centenary History of the Newcastle Breweries Ltd.*, 1890-1990 (Newcastle Breweries, Newcastle upon Tyne, 1991).

David Bond, 'Brewing in the North East Part I', Tyne and Tweed, 45, 1990, pp42-53.

David Bond, 'Brewing in the North East Part II', Tyne and Tweed, 46, 1991/2, pp28-42.

Ted Elkins, So They Brewed Their Own Beer: The history of the Northern Clubs and Federation Brewery Ltd (Northern Clubs Federation Brewery Ltd, Newcastle upon Tyne, 1970).

Jim Merrington and Andrew Brown, 'Two Hundred Years of Newcastle Ales', *The Essandenn*, 22, Autumn 1970, pp4-8 and 23, Winter 1970/71, pp8-12.

WARWICKSHIRE

There is little of interest in Warwickshire aside from the brewhouses at grade I listed Charlecote Park and Combe Abbey. Otherwise, the only buildings of real note are seven brewery workers' cottages in Stratford-upon-Avon: Mayflower Green (1938, listed grade II) on the Birmingham Road. This monopitch-roofed modernist terrace was designed for the local Flowers Brewery by Stratford architect F. W. B. Yorke, who brought in his beer-drinking son F. R. S. Yorke to assist him. Together they produced what now seems like a prototype for much small-scale postwar housing. F. R. S. Yorke published the influential book *The Modern House* in 1934 and was part of the successful postwar partnership Yorke, Rosenberg and Mardall; he remained particularly proud of Mayflower Green.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

8

Listed brewery buildings

3 (2 grade I, 1 grade II)

Other notable brewery buildings

None

References

Fred Luckett, Ken Flint and Peter Lee (eds), *A History of Brewing in Warwickshire* (Coventry and Mid Warwickshire CAMRA, Coventry, 1983).

Joseph McKenna, Warwickshire Breweries (NPI Media Group, Stroud, 2006).

Jonathan Reinarz, *The social history of a midland business: Flower and Sons Brewery, Stratford-upon-Avon, 1870-1914*, PhD thesis, University of Warwick, 1998.

WEST MIDLANDS

There are still six working pre-1940 breweries in the West Midlands as well as one microbrewery operating from older premises. Four of the six breweries are medium to large-scale operations - Batham's, Highgate, Holden's and Banks's - while two are pub brewhouses (or home-brew houses), a characteristic feature of the Black Country's brewing industry. At least eleven pub brewhouses survive in the county and most are listed grade II, including the Old Swan (often known as Ma Pardoe's) at Netherton, one of only four pre-1970 pub brewhouses in England to have been in more or less continuous use since they first brewed. The Old Swan was listed in 2001 but its current brewing status is unknown.

Also still brewing is the Sarah Hughes Brewery (unlisted) at the Beacon Hotel in Sedgley. This small tower brewery was established in 1921 but ceased brewing in 1958. Brewing was resumed in 1987, when the original plant, including a grist case and open-topped copper, was restored and an extra floor added to the brewhouse. The microbrewery Black Country Ales works from part of the original tower brewery at the Old Bulls Head in Gornalwood, which was built around 1900. Brewing took place on the site from 1834 until just after the Second World War. Oak vessels installed in 1900 have been refurbished and are now used for production.

Of the eight other former pub brewhouses, one was at the Bellefield pub in Birmingham, listed grade II* largely because of its lavish interior, but now severely dilapidated and on the 2009 Heritage at Risk Register. The majority of the brewhouse has been demolished but associated buildings are still extant. A much older brewhouse and some equipment remain at the Old Windmill in Coventry. Brewhouses also survive at the Chainmaker in Halesowen, the Boat in Wednesbury, and the Turf Tavern and Royal Exchange in Bloxwich. In Walsall, the unlisted Victoria brewhouse in Lower Rushall Street has been converted to living accommodation, while the Littleton Arms brewhouse (unlisted), Littleton Street East, was partly roofless in 2008.

Now to the larger operating breweries. The Batham family began home brewing about 1867, moving to the Vine in Brierley Hill in 1905 and building the Delph Brewery (unlisted) there soon afterward; it is a classic small Black Country brewery. Holden's of Woodsetton was established in 1920 at the Park Inn, a home-brew house. Behind the pub was a malthouse which they bought in 1939 and converted to the Hopden Brewery (unlisted), installing new brewing plant. In 1961-2 the brewery was rebuilt and enlarged. A much larger site is Banks's Park Brewery in Wolverhampton, part of Marston's plc. Banks's began

brewing at the Park Brewery in 1875, and the present brewery (unlisted) mostly dates from the mid to late twentieth century. The most architecturally interesting of the county's breweries is the Highgate Brewery (listed grade II) in Walsall, a red brick structure built in 1895-9 with additions of 1919 and later alterations. The brewery retains its original planning and many traditional vessels.

Former brewing sites of interest include Lord's Town Brewery (1897-8) in Walsall, a four-storey tower brewery now marooned in Ashmore Industrial Estate where it serves as an antiques centre. Rather larger is the now very dilapidated City Brewery on Cato Street North in the Nechells district of Birmingham. It is unclear whether the five to six-storey red brick structure (probably late Victorian) was originally built as a brewery or a flour mill. A mile or so west, the former offices of the Holt Brewery Company, a red brick pile built at least partly in 1906, survive as the Gosta Green pub on Holt Street.

Finally to the Springfield Brewery, Wolverhampton; its 1880s gateway, sporting much ornamental ironwork, was listed grade II in 1977, but it was 1991 before the brewery itself was listed, also grade II. It was built in 1873-4, with a brewhouse tower designed by London brewers' architect R. C. Sinclair added in 1882-3; there were further additions in 1885. The brewery closed in 1991 but continued to act as a distribution centre; a large modern shed occupies much of the centre of this large site, which is adjacent to the canal (the Birmingham Canal Navigations main line). In 1998 the local council prepared a draft development brief for the brewery, which at that point retained almost all its plant, but a fire in 2004 destroyed much of the site. A mixed use redevelopment including restoration of some of the remaining buildings began in 2008, but there have been delays due to the economic downturn. See www.springfieldbrewery.co.u for a series of photographs of the brewery and plant taken in 1997, when little had apparently changed since its closure.

Operating pre-1940 breweries

Daniel Batham & Son Ltd, Delph Brewery, Delph Road, Brierley Hill DY5 2TN Holden's Brewery Ltd, George Street, Woodsetton, Dudley DY1 4LW Old Swan Public House, 89 Halesowen Road, Netherton, Dudley DY2 9PY Sarah Hughes Brewery, Beacon Hotel, 129 Bilston Street, Sedgley, Dudley DY3 1JE Highgate Brewery Ltd, Sandymount Road, Walsall WS1 3AP Marston's plc, Banks's Brewery, Park Brewery, Bath Road, Wolverhampton WV1 4JT Operating microbrewery occupying pre-1940 brewery premises Black Country Ales, Old Bulls Head, 1 Redhall Road, Lower Gornal, Dudley DY3 2NU

Number of sites with extant brewery buildings in BHS database 24

Listed brewery buildings

13 (1 grade II*, 12 grade II)

Other notable brewery buildings

Batham's Delph Brewery, Delph Road, Brierley Hill. Sarah Hughes Brewery, Beacon Hotel, 129 Bilston Street, Sedgley. Littleton Arms Brewhouse, Littleton Street East, Walsall. Former Lord's Town Brewery, Short Acre Street, Walsall. Banks's Park Brewery, Bath Road, Wolverhampton.

References

John Crompton, A Guide to the Industrial Archaeology of the West Midland Iron District (Association for Industrial Archaeology, 1991).

Keith J. Lloyd, The Highgate Brewery (Black Country Society, Kingswinford, 1982).

Joseph McKenna, Birmingham Breweries (Brewin Books, Studley, 2005).

Joseph McKenna, Black Country Breweries (Tempus Publishing, Stroud, 2005).

WEST SUSSEX

West Sussex has no operating pre-1940 breweries, and almost all its remaining brewing-related buildings have been converted to residential or other use. Even so, several sites are still impressive and recognisable as former breweries: the Eagle Brewery (listed grade II) in Arundel, with a notable office building nearby; Couchman's brewery in Hurstpierpoint, later the Maxim Lamp Works; and the Tower Brewery in Worthing, converted to flats around 2006 and now known as The Old Brewery. The best of the surviving

pub brewhouses is at the rear of the Stand Up Inn on Lindfield's High Street. It was occupied by Edward Durrant's Lindfield Brewery, which was founded around 1828. Brewing ceased about 1906 and the building, which retains its brewing copper and original rooms, is now used as a store. It almost certainly lies within Lindfield Conservation Area.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

15

Listed brewery buildings

3 (all grade II)

Other notable brewery buildings

Brewhouse at rear of Stand Up Inn, 47 High Street, Lindfield RH16 2HN. The Old Brewery, Warwick Road, Worthing BN11 3ET.

References

Graham Holter, Sussex Breweries (S. B. Publications, Seaford, 2001).

Pat Saunders, 'Malting and Brewing in St Pancras, Chichester', *Brewery History*, 105, Autumn 2001, pp29-50. Pat Saunders, 'The Eagle Brewery, Arundel', *Brewery History*, 104, Summer 2001, pp44-53.

Pat Saunders, 'The Constables of Arundel and Littlehampton', *Brewery History*, 103, Spring 2001, pp4-24. Pat Saunders, 'Henty & Constable Ltd, Westgate Brewery, Chichester', *Brewery History*, 102, Winter 2000, pp65-80.

WEST YORKSHIRE

Three pre-1940 operating breweries remain in West Yorkshire and none of their buildings are listed. Clark's Westgate Brewery in Wakefield was founded in 1906, ceased to brew during the 1960s and 1970s, but began brewing again in 1982. It is based in functional red brick buildings to the rear of listed 18th century houses on Westgate. Timothy Taylor's Knowle Spring Brewery in Keighley was built around 1863 and enlarged in 1911, the extension being built alongside the original brewery tower; the architects were John Haggas & Sons of Keighley. A new brewhouse was opened in 1991 and an extension added in 2003. By far the largest of the three operating breweries, and the most significant site in the county, is Tetley's Brewery in Leeds, which is now run by Carlsberg UK Ltd. This is discussed below. In addition, the micro Fernandes Brewery in Wakefield, which started brewing in 1997, is housed in a 19th century malthouse once belonging to Fernandes' Old Bridge Brewery, which was founded in 1850.

West Yorkshire is fairly rich in former brewing industry structures, including pub brewhouses, country house brewhouses and numerous small-scale urban remnants. These latter are often unlisted and generally have been converted for other uses, for instance the tower of the Shipley (or Highfield) Brewery on Otley Road and Dale Street in Shipley; and the tower of the Crown Brewery, Nesfield Street, Bradford. Particularly interesting is the 1905 stone-built brewhouse tower, complete with rooftop ventilator, at the Puzzle Hall Inn, Hollins Mill Lane, Sowerby Bridge, although the state of its interior is unknown.

The more substantial sites have already been listed. Bentley & Shaw's Lockwood Brewery in Huddersfield closed in 1963; although the brewhouse has been demolished, the stables, office and maltings were each listed grade II in 1978. The brewery estate was sold in 1996 to Huddersfield Rugby Union FC, and is now home to a major sports complex. The massive 1906 maltings building (now offices) is all that remains of the Fountain Head Brewery in Halifax, and the pretty entrance block of the Eshaldwell Brewery (now housing) in Woodlesford was left on its own following clearance of the site in the late 1980s. Fortunately the impressive tower brewery of the Kirkstall Brewery in Leeds survives, and has been converted for residential use. A curious remnant, out in the countryside at Shelf, is the pleasing lion-topped stone gateway which was once the entrance to the Lion Brewery, founded around 1850 at a nearby farm.

Lastly to Leeds and Tetley's Brewery, which is to be closed in 2011. Tetley's merged to form Tetley Walker in 1960, joined with Ind Coope and Ansells a year later to form a company which took the name Allied Breweries in 1962, and amalgamated with Carlsberg in 1993. The firm originated in 1792 as the brewery of William Sykes, which was taken on in 1822 by Joshua Tetley, who bought Sykes's business and leased the brewery buildings. The company Joshua Tetley & Son was created in 1839 when Joshua's son Francis William Tetley was brought into the firm as a partner. F. W. Tetley expanded the business, building

the New Brewery in 1852-5. It was designed by the Scottish architect George Corson (1829-1910), who practised in Leeds with his brother from 1849. Tetley's bought the lease on the Sykes section of the growing site in 1864, allowing even further expansion; Corson, along with local builder William Nicholson, carried out major works at the brewery during 1864-74. By 1866 a new hop store, fermenting room and cellars were almost complete and the huge Crown Point Maltings (demolished 1972) had been built. The firm continued to buy up nearby property as it became available. In 1894 some of the last remaining buildings of the Sykes brewery - a gate and some buildings in the yard - were demolished to make way for a new four-storey bottling store. There were extensions to the central brewery block in 1905 and to the bottling plant in 1913.

The red brick office block fronting the brewery, with its handsome wood-panelled interior and splendid art deco lift, was built in 1931. From the 1950s there were many improvements to the brewery, including two new fermenting rooms (1961 and 1964), a completely new brewhouse (1967), a new office block (Huntsman House, 1968) and a keg and packaging plant (1975). The current brewhouse was built in 1989. Aside from its modern plant, on display is a disused brewing copper (1966), the last to be made in copper by Briggs of Burton upon Trent. Behind it is a large unsigned mural depicting hop picking. All fermenting now takes place in stainless steel Yorkshire squares and conical vessels; the slate Yorkshire squares, dating from about the 1880s, were broken up and removed in autumn 2008.

It has generally been thought that all traces of the 1864-74 brewery have disappeared. The Pevsner Leeds (Susan Wrathmell, 2005) refers to 'major new buildings on this site of 1864-72 by George Corson, now replaced' echoing Derek Linstrum's view in his West Yorkshire: Architects and Architecture (1978). However, this is not the case, and much of Corson's central block of 1864-74 survives, although altered. Several drawings of it appeared in the report of Alfred Barnard's visit to the brewery in 1889. Today, the blank arches of the central section can clearly be seen to the rear of the 1931 office block; two or more storeys have been added above them. The cellars, supported by cast iron columns, are about 200 metres in length and extend eastward behind the 1931 offices. The barrel-vaulted cellars were in operation until 1976, after which they were partly in service as a visitor centre, and are now used for storage. With closure of the brewery imminent, a full survey of the Tetley's Brewery site is required to determine exactly what else remains from the various building programmes.

Operating pre-1940 breweries

Timothy Taylor & Co Ltd, Knowle Spring Brewery, Keighley BD21 1AW Carlsberg UK Ltd, The Brewery, 21 Hunslet Road, Leeds LS10 1JQ H. B. Clark & Co (Successors) Ltd, Westgate Brewery, 136 Westgate, Wakefield WF2 9SW Operating microbreweries occupying pre-1940 brewery premises Linfit Brewery, Sair Inn, 139 Lane Top, Linthwaite, Huddersfield HD7 5SG Fernandes Brewery, 5 Avison Yard, Kirkgate, Wakefield WF1 1UA

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

17 (1 grade II*, 16 grade II)

Other notable brewery buildings

Timothy Taylor's Knowle Spring Brewery, Queens Road, Keighley. Puzzle Hall Inn, Hollins Mill Lane, Sowerby Bridge HX6 2RF. Tetley's Brewery, Hunslet Road, Leeds

References

Alfred Barnard, The Noted Breweries of Great Britain and Ireland, volume 3 (Sir Joseph Causton and Sons, London, 1890).

Peter Brears, 'New Wine, Old Bottles', Brewery History, 79, Spring 1995, pp25-9.

John Chartres, 'Joshua Tetley & Son, 1890s to 1990s: a century in the tied trade', pp112-44 in John Chartres and Katrina Honeyman (eds), *Leeds city business* 1893-1993: essays marking the centenary of the incorporation (Leeds University Press, Leeds, 1993).

Clifford Lackey, Quality pays: The story of Joshua Tetley & Son (Springwood Books, Ascot, 1985).

David Lloyd Parry, 'Fernandes' Old Bridge Brewery, Wakefield 1850 to 1920', *Brewery History*, 105, Autumn 2001, pp57-60.

David Lloyd Parry, 'Beverley's Eagle Brewery, Wakefield 1861-1967', Brewery History, 99, Spring 2000, pp13-18.

P. W. Robinson, *The Stone Trough Brewery* (Halifax Antiquarian Society, Halifax, 1990; reprinted Brewery History Society, New Ash Green, 1997).

Malcolm Toft, Robert Clayton, Tony Halstead and Simon Miles, *Timothy Taylor: 150 years of brewing excellence 1858-2008* (Granta Editions, Cambridge, 2008).

Malcolm Toft, 'The Smaller Bradford Brewers', Brewery History, 87, Spring 1997, pp5-15.

Malcolm Toft, 'William Whitaker & Company Ltd, The Old Brewery, Brewery Street and Thornton Road', *Brewery History*, 82, Winter 1995, pp5-17.

Malcolm Toft, 'Waller & Son Ltd, Trafalgar Brewery, Trafalgar Street, Bradford', *Brewery History*, 80, Summer 1995, pp23-35.

Malcolm Toft, 'The Fountain Brewery, Manchester Road, Bradford', *Brewery History*, 76, Summer 1994, pp4-13.

Malcolm Toft, 'Nulli Secundus: Joseph Hey & Co Ltd, Northbrook Brewery, Wilson Square, Lumb Lane, Bradford', *Brewery History*, 74, December 1993, pp5-14.

WILTSHIRE

The county's former brewing industry assets are generally well protected by listing, as are its two pre-1940 operating breweries, Wadworth's of Devizes and Arkell's of Swindon, which both occupy splendid examples of brewery buildings. Henry Alfred Wadworth (1852-1929) bought the Northgate Brewery, Devizes, in 1875; it still stands to the rear of 3-8 Northgate Street. He designed and built a new brewery - Wadworth's Northgate Brewery (listed grade II) - on a site close to the original in 1885. It is a large red brick structure, up to six storeys in height, occupying a corner site in the town centre; lower buildings extend for nine bays along Northgate Street. There is an ornate ironwork crown and a tall, square brick chimney. Arkell's was founded in 1843, the present Kingsdown Brewery (listed grade II) being built in 1861. The brewhouse is a square-plan, three storey, three bay block with a linked fermenting room. In the centre of the first floor facade is a panel reading 'Kingsdown Steam Brewery 1861'. The tall chimney at the rear was built in 1937.

Other notable listed former brewing structures are the huge Seven Stars Brewery in Bradford-on-Avon, the Belmont Steam Brewery in Swindon, the Wiltshire Brewery at Tisbury and of course the excellent brewhouse at grade I listed Lacock Abbey. However, a recent loss was the large site occupied by Usher's Wiltshire Brewery in central Trowbridge. It closed in 2000 and was cleared in 2005; all that remains is a facade on Back Street which has been incorporated into the new housing development of 2008-9.

Perhaps the most interesting of the unlisted structures is the former G. & T. Spencer's Brewery Stores (1884) at 25 Silver Street, Bradford-on-Avon. This pretty little stone-built castellated building was designed by the architectural partnership Weaver & Adye. Henry Weaver (d1886), from Devizes, was County Surveyor of Wiltshire from 1864; Charles Adye (1841-1906) of Bradford-on-Avon was articled to Manners & Gill of Bath, and at one time was Architect and County Surveyor of Wiltshire. Most of their work concerned church restoration. Unusually for a brewery building, the stores was described and illustrated in *The Architect* of 12 April 1884. Rather later, it was mentioned in H. A. N. Brockman's pioneering study *The British Architect in Industry 1841-1940* (Allen & Unwin, London, 1974). Spencer's Brewery was acquired by Usher's Wiltshire Brewery in 1913 and closed. The stores then seems to have been used as a drill hall, and was known as *The Armoury* by 1996. There is some confusion over its identity; in her otherwise excellent *A Guide to the Industrial Archaeology of Wiltshire*, Pamela Slocombe suggest the stores building is decorated with classical heads and is listed grade II. In fact this is 24 Silver Street (LBS 312729), which appears to have no connection with Spencer's. In 2004 the stores was refurbished and converted to an arts centre. Its name, Ale & Porter Arts, echoes the carved stone lettering above the doorway. However, by 2009 the building was vacant.

Operating pre-1940 breweries

Wadworth & Co Ltd, Northgate Brewery, Devizes SN10 1JW Arkell's Brewery Ltd, Kingsdown Brewery, Upper Stratton, Swindon SN2 7RU

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

21 (1 grade I, 1 grade II*, 19 grade II)

Other notable brewery buildings

Former G. & T. Spencer's Brewery Stores (later Ale & Porter Arts, vacant in 2009), 25 Silver Street, Bradford -on-Avon BA15 1JZ.

References

David W. Backhouse, Home Brewed: A history of Breweries and Public Houses in the Swindon area (David W. Backhouse, Swindon, 1992).

Pamela M. Slocombe, A Guide to the Industrial Archaeology of Wiltshire (Association for Industrial Archaeology, 2008).

WORCESTERSHIRE

There is not a great deal to report from Worcestershire. There are no pre-1940 operating breweries, and all but one of the nine sites listed in the BHS database are protected either by listing or by being within a conservation area. Of the three country house or farm brewhouses, the early 17th century example at Woollas Hall is listed grade II*.

Large scale brewing in the county ceased in 1960 with the closure of Spreckley's Worcester Brewery, Barbourne Road, Worcester. The brewery and stables were demolished, but the unlisted maltings (1887-8 by Worcester architect J. H. Williams) was retained and converted for residential use in 1987. It is located in a small area enclosed by several neighbouring conservation areas, but is not actually within one. Not far from the maltings is a curious structure, probably a horse engine house which was part of Spreckley's Brewery (listed grade II). A small part of the Lewis Clarkes brewery, including a chimney, also remains in the centre of Worcester.

All three remnants of Evesham's brewing industry lie within the Evesham Conservation Area. Parts of the Cooke & Sons brewery, the Rowlands brewery, and Sladden & Collier's survive, the latter being by far the most impressive. The former brewery is a substantial late 19th century polychromatic brick structure of four storeys with a five storey tower. It closed soon after 1927 and has been converted into flats.

Operating pre-1940 breweries

None

Number of sites with extant brewery buildings in BHS database

Listed brewery buildings

5 (1 grade II*, 4 grade II)

Other notable brewery buildings

Former Sladden & Collier's brewery (now flats), Brick Kiln Street, Evesham.

References

None

3.1 Designations - the present position

This report attempts to summarise the existing designation position for the buildings of the brewing industry as at autumn 2009. See section 3.6 below for details of survey methodology and definitions. There are 897 sites in the BHS Breweries Database, but of these, 66 are country house or similar breweries, for instance the Royal William naval brewhouse in Plymouth. In terms of the national portfolio of preserved sites, major country house breweries are particularly important as these are often locations where visitors may see brewing equipment in the course of their visit, for instance in the former brewhouse, now tea room, at the National Trust property Knole, near Sevenoaks (Kent). Country house breweries also form a significant part of the historical context of industrial-scale brewing. However, as this report is focused on the industry's buildings, the inclusion of country house breweries in the numerical analysis would be misleading, due to their overwhelmingly listed status. Thus they are included in the county gazetteer entries, but omitted from the overall numerical analysis, along with the seven operating post-1940 major breweries which occupy completely modern sites (see section 3.6). The following numerical analysis relates to the remaining 824 brewing industry sites in the database.

Listed operating breweries

The survey found 43 major operating pre-1940 breweries, excluding those now in use only to house modern microbreweries. There were also 4 pre-1940 operating pub brewhouses and one pre-1940 operating brewery now producing fruit beers, thus there is a grand total of 48 pre-1940 operating sites. Sixteen of the 43 major sites are listed: 15 grade II and one grade II*, Harvey's Bridge Wharf Brewery, Lewes, East Sussex (listed in 1985). The 15 grade II listed operating breweries are as follows, with the date of listing in brackets:

Elgood's North Brink Brewery, Wisbech, Cambridgeshire (1983)

Palmers Old Brewery, Bridport, Dorset (1975)

Donnington Brewery, Upper Swell, Gloucestershire (1987)

Hydes Brewery, Moss Side, Greater Manchester (1994)

McMullen's Old Brewery, Hertford, Hertfordshire (1996)

Bateman's Salem Bridge Brewery, Wainfleet, Lincolnshire (1987)

Robert Cain Brewery, Liverpool, Merseyside (1985)

John Smith's Brewery, Tadcaster, North Yorkshire (1985)

Hook Norton Brewery, Hook Norton, Oxfordshire (1984)

Molson Coors Burton Brewery, Burton upon Trent, Staffordshire (1986)

Marston's Brewery, Burton upon Trent, Staffordshire (1979 and 1986)

Greene King Westgate Brewery, Bury St Edmunds, Suffolk (1997)

Highgate Brewery, Walsall, West Midlands (1986)

Wadworth's Northgate Brewery, Devizes, Wiltshire (1972)

Arkell's Kingsdown Brewery, Swindon, Wiltshire (1979)

The list is not entirely clear-cut. McMullen's of Hertford still brew on the site although not in the Old Brewery, and the same goes for Molson Coors at Burton, where the former Ind Coope brewhouse is listed and brewing continues at another part of the site. It is interesting to note that the former Young's Ram Brewery, Wandsworth, Greater London, was listed grade II* in 1955, when in operation; it ceased brewing in 2006. Also to be considered in this context is the Cliff Quay Brewery, Ipswich, Suffolk, listed grade II in 1989. Built in the 1890s, it operated until 2003, then from 2009 has been partly occupied by a microbrewery.

The pre-1940 operating brewery now producing fruit beers is Melbourn Brothers All Saints Brewery, Stamford, Lincolnshire (listed grade II in 1974). The 4 pre-1940 operating pub brewhouses are all listed grade II:

Blue Anchor Inn, Helston, Cornwall (1950)

Three Tuns Brewery, Bishop's Castle, Shropshire (1985)

All Nations Brewhouse, Madeley, Shropshire (1983)

Old Swan, Netherton, Dudley, West Midlands (2001)

The earliest brewhouse to be listed was the small example at the Blue Anchor, Helston, in 1950, while the earliest industrial-scale brewhouse listing was the then-operating Young's Ram Brewery in 1955; the earliest listing date for a currently operating brewery was 1972, for Wadworth's Northgate Brewery, Devizes. The most recent listing is the pub brewhouse at the Old Swan, Netherton (2001), and on the

industrial scale in 1997, for the 1939 brewhouse at the Greene King Westgate Brewery, Bury St Edmunds. This is the sole listing for a post-Victorian era brewhouse, if the Robert Cain Brewery, Liverpool (brewhouse built 1896-1902) is regarded as Victorian.

A comparison of listing by region and territory for the 21 listed operating sites (16 breweries, the fruit brewery and the 4 pub brewhouses), compared with the total of 48 operating pre-1940 breweries shows that a little under half (44%) of the operating pre-1940 breweries are listed. The North has the largest number of operating pre-1940 brewery sites, but the lowest percentage to be listed in any territory. The East and South have the equal lowest number of operating pre-1940 brewery sites, while the East has the highest percentage listed.

Grade II* listed brewery industry buildings

In all, there are 15 grade II* brewery industry buildings in the database, as follows:

Courage offices, Windsor, Berkshire

Wethered's Brewery offices, Marlow, Buckinghamshire

Scarsdale Brewery offices, Chesterfield, Derbyshire

Wardwick Brewery offices, Derby, Derbyshire

Harvey's Bridge Wharf Brewery, Lewes, East Sussex

Partners' House, Whitbreads, City of London, Greater London

Coade stone lion sculpture from Lion Brewery, Lambeth, Greater London

Young's Ram Brewery, Wandsworth, Greater London

Simpson's Brewery house, Baldock, Hertfordshire

Fremlin's offices, Faversham, Kent

Maltster's house, Brakspear's Brewery, Henley on Thames, Oxfordshire

Brakspear's Brewery offices, Henley on Thames, Oxfordshire

Anglo-Bavarian Brewery, Shepton Mallet, Somerset

Bellefield Inn, Birmingham, West Midlands

Lansdowne Arms, Calne, Wiltshire

This includes one operating brewery (Harvey's) and one brewery listed when operational but now ceased (Young's) - these are both in the South - and one former brewery (Anglo-Bavarian, listed in 1984), which is in the West. There are 2 former pub brewhouses, one sculpture and 9 former brewery houses/offices. Overall, there are 9 grade II* listed sites in the South, 3 each in the East and West, and none in the North.

Breweries in the townscape

The 824 brewery industry sites in the database range from small single buildings to substantial sites comprising several large buildings. In order to understand the impact of the industry's buildings on the townscape, it is helpful to consider the number of breweries which were significant sites in terms of the number and size of their buildings. A rough estimate of their number can be obtained by using data in Barber's A Century of British Brewers plus, 1890-2004 (Brewery History Society, 2005) and other information on brewery histories. Defining a larger establishment as a brewery which had more than 20 tied public houses, this gives a rough estimate of almost 1,000 of these larger establishments. To give an idea of comparative physical size, Warwick's Anchor Brewery, Boroughbridge (North Yorkshire) was supplying 42 tied houses in 1925, and has substantial buildings listed grade II in 3 sections. Hartley's Crown Brewery, West Cowick (East Hardys & Hansons Yorkshire) had 27 tied houses in 1957 and again has substantial buildings listed Kimberley Brewery Grade II in 2 sections. This estimate of just under 1,000 large-scale pre-1940 English



breweries appears to be reasonable when compared with the figure of 1,111 UK wholesale brewers producing 1,000 barrels or more per annum in 1914 (see Gourvish and Wilson, p350).

The figures for the number of large-scale brewery sites where buildings still survive are necessarily rough estimates, as the efficiency and size of breweries varies over time. Bearing that in mind, it turns out that some buildings survive at over one third of these large-scale sites. The surviving percentage is lowest in the North and highest in the East, where nearly half of large-scale brewery sites appear to have some buildings remaining. Of course this is more likely to be a brewer's house, offices, stables or maltings rather than a brewhouse. Information from the database suggests that over 60 of the remaining large-scale brewery sites still retain their brewhouses. Adding this figure to the 44 pre-1940 operating breweries (including the fruit beer brewery), it appears that the total number of surviving large-scale brewhouses, former and operating, is a little over 100. The former brewhouses are split fairly evenly between the four



G. & T. Spencer's Ale & Porter Stores (1884), Bradford-on-Avon, Wiltshire

territories, although the North and West have rather more operating brewhouses than the East and South. The North East has the fewest brewhouses - only the still-operational Camerons Lion Brewery at Hartlepool - while the North West and South West both have 20 or more surviving brewhouses. Of the 63 large-scale surviving former brewhouses, almost all are now converted to other uses, while 30 have listed status.

Surviving historic brewing equipment

Several 19th century coppers survive at operating breweries, although mostly not in normal use. At Wadworth's Northgate Brewery, Devizes (Wiltshire), the 1885 open copper was taken out of regular service in 2009, although it will still be used for seasonal brews. The 1893 copper at the St Austell Brewery (Cornwall) is still in situ but not in use. The original 1899 copper at Hall & Woodhouse's Badger Brewery, Blandford St Mary (Dorset), still appears to be in regular use, although the firm plans to build a new brewery. At Bateman's Salem Bridge Brewery, Wainfleet (Lincolnshire) the 1923 riveted concave-bottom copper is in use for seasonal brews only. The Sarah Hughes Brewery, Dudley (West Midlands) uses an open-topped copper dating from around 1930. A copper brewing vessel dating from before 1746 survives at the Cliff Quay Brewery in Ipswich (Suffolk), part of which is currently being used by a microbrewery. The copper is amongst several items of older but now unused remaining kit.

The oldest mash tun in regular use is at Melbourn Brothers All Saints Brewery in Stamford (Lincolnshire); the 1876 mash tun is used in the production of fruit beers. At the St Austell Brewery, a mash vessel dating from 1893 is still in use for infusion of cone hops in hot water to produce 'hop tea' (not its original purpose), while their 1913 mash tun is still in normal brewing use. Bateman's 1898 mash tun is used only for seasonal brews. The 1914 mash tun at Hall & Woodhouse is in regular use, as are the two mash tuns made of gunmetal and English oak at the Shepherd Neame Brewery, Faversham (Kent); they date from 1914 and 1916.

As to other equipment, Elgood's North Brink Brewery, Wisbech (Cambridgeshire) has what is believed to be the hop back from the 1795 brewery, as well as (disused) open copper wort cooling trays, a grist case (1910) and a Steel's masher (1910). The St Austell Brewery still uses its 1887 malt mill, and Hall & Woodhouse have a Steel's masher dating from around 1900 in normal use. The White Shield Brewery, Burton upon Trent (Staffordshire) has two rarely used copper fermenting vessels of 1853 vintage. The Highgate Brewery, Walsall (West Midlands) retains many traditional vessels including hot liquor tanks

(1930s), malt hopper (1920), malt screen (1899), and fermenting vessels (1905-62). The Hook Norton Brewery (Oxfordshire) is rich in older equipment, much of which is on display in the brewery's own museum. Their 1899 steam engine is still in daily use, as are the original water pumps. There is also a Steel's masher of around 1900.

The Coors Visitor Centre (previously Bass Museum of Brewing) at Burton upon Trent was closed in June 2008. The Visitor Centre occupied what was originally the Bass Middle Brewery joiner's shop and other nearby buildings, all of which are now part of the Molson Coors Burton Brewery. The Coors Visitor Centre collection included many historic items; the site is to reopen as the National Brewery Centre in April 2010. The historic Ram Brewery plant, including beam engines and coppers, remains at the former Young's brewery site in Wandsworth, Greater London, which closed in 2006; it is hoped that it will become part of a brewing museum.

Brewing equipment held by museums

Surprisingly little historic brewing equipment appears to be held in the collections of English museums. The Museum of Science and Industry, Liverpool Road, Castlefield, Manchester M3 4FP (www.mosi.org.uk) is thought to hold some equipment. There is a permanent exhibition on the local brewing industry at Oundle Museum, Mill Road, Oundle, Northamptonshire PE8 4BW (no website). Two museums, in Bedford and Watford, are housed in former brewing industry buildings; both have brewing items in their collections. Bedford Museum, Castle Lane, Bedford MK40 3XD (www.bedfordmuseum.org) occupies the former Higgins & Sons Castle Brewery. Watford Museum, 194 High Street, Watford, Hertfordshire WD17 2DT (www.watfordmuseum.org.uk) is housed in the former Benskin's Cannon Brewery house and office. In addition, many items from the Whitbread Archive, which closed in 2001, were donated to museums.

Country house brewing equipment is often to be found on public display, for instance at Knole (Kent) and Charlecote Park (Warwickshire), both National Trust. The old brewhouse equipment from the White Bear Inn, Norwood Green, Halifax can be seen in the 18th century brewhouse which is part of the museum at Shibden Hall, Halifax, West Yorkshire; it was transferred to the museum in 1953. The reserve collection of Birmingham Museum and Art Gallery is said to hold some small-scale brewhouse equipment, which is probably now at the Birmingham City Museum Collections Centre in Nechells. Finally, one of the best preserved small country breweries is the Southwick Brewhouse in Hampshire, which operated until 1957 then was disused until restoration in 1983-5. The brewhouse museum, now combined with a beer and cider shop, still retains much early brewing kit (www.southwickbrewhouse.co.uk/museum.htm).

3.2 Identifying the gaps

Nearly half the known historic brewing industry sites are already listed, and many more lie within conservation areas. Within the timespan of this project, it has not been possible to find out if every non-listed site is in a conservation area, but the more significant sites have been checked; details appear in the Gazetteer where relevant. Overall, 96% of the listed sites have grade II status and 4% have grade II* status. There are no grade I listed brewery sites. For comparison, in the national building stock 92% of all listed buildings are grade II, 5.5% grade II* and 2.5% grade I. The majority of grade II* brewing industry buildings are not directly related to the brewing process but are older offices or houses. Three of the II* listings refer to buildings which are or were operational integrated brewing sites.

3.3 Management and conservation

There is already a good deal of legal protection for the national resource of extant brewing industry buildings. Protected operational sites can be modified, as the successful refurbishment in 2004 of the brewhouse at Marston's Brewery, Burton upon Trent, shows; this was carried out after consultation with English Heritage. Another example of sympathetic change at a listed operational brewery was the installation of a new copper house at Wadworth's Northgate Brewery, Devizes in 2009. The new plant - which can be seen by visitors - occupies a modified interwar building, while the old copper house and its vessels are to be refurbished and used for occasional seasonal brews.

Where unprotected former brewing industry buildings are being considered for conversion and adaptive re-use, those concerned should be encouraged to retain significant structures, detailing and, where possible, plant. Inappropriate alterations should be discouraged. See the framework for site assessment (section 3.5 below) for a list of significant structures and plant. Where plant is retained as an

external feature in redevelopment schemes (for example the copper at Burton Village on the site of Everard's Brewery, Burton upon Trent), it would be helpful if some explanation could be given nearby as to the nature, function and context of the plant, otherwise it becomes part of the landscaping rather than a small-scale heritage asset. Adaptive re-use should generally be encouraged, as empty buildings are wasted heritage assets and often have a detrimental effects on their surroundings. In addition, where site redevelopment does takes place, this may provide a potential opportunity for archaeological investigation.

Publicly accessible sites fall into three categories: operational large-scale breweries, often with a visitor centre and guided tours of the brewery; microbreweries, normally with a tour or view of the brewing process; and country house brewhouses, which often have equipment on display and may be used for brewing although much more often for other activities such as tearooms. There is no national brewing museum (see section 3.1).

3.4 BHS recommendations for understanding and sustaining the brewing heritage

- 1) Review what is on the statutory List as appropriate when resources and priorities allow.
- 2) Carry out a full record survey of sites threatened with redevelopment, notably the Old Brewery, Lancaster, and Carlsberg Tetley's Brewery, Leeds.
- 3) Ensure that buildings and plant (and archives if any) are properly recorded following any future closures of currently operating breweries. See the framework for site assessment (section 3.5 below) for a list of significant structures and plant. R. G. Anderson's 2005 report (unpublished) on the surviving brewing equipment at McMullen's Old Brewery, Hertford, provides a useful model in this respect. After outlining the history of the firm and its buildings, the plant was then



Old Brewery, Lancaster

- described in order of use in the brewing process. Thus the equipment was put in context with the operation of the brewery, and assessed as to age and significance.
- 4) Establish a national database of significant brewing equipment held at locations including operating and former breweries, and museums.
- 5) Explore avenues leading to the creation of a national brewing museum, or to the establishment of a significant brewing collection at an already existing national museum. Until its closure in June 2008, the Coors Visitor Centre (previously Bass Museum of Brewing) at Burton upon Trent was in effect England's only national brewing museum; it is to reopen as the National Brewery Centre in April 2010. Little brewing equipment appears to currently be preserved by the national museums.
- 6) Encourage further research into the history of the brewing industry, particularly into the equipment manufacturing firms.
- 7) Produce further publications directed at enhancing the profile of the brewing industry's buildings as significant heritage assets, for instance in the EH 'Informed Conservation' series.

3.5 Framework for site assessment

The following notes provide a framework for the ongoing consideration of further brewing industry sites, which it is hoped will be of assistance to building and process recorders, and in assessment for potential site listing.

Significant features of brewery industry sites

The significance of a site may be assessed in many ways, but in terms of historic and architectural interest the following can be offered as broad guidance.

1) The most significant sites are generally those which are integrated brewery complexes, comprising a brewhouse and at least one other associated structure, for instance a maltings, stables, fermenting room, copper house, chimney, brewery tap, cooperage, bottling stores, brewer's house or offices. These sites can be small in scale, with just two or three components, or large-scale industrial sites with an almost complete array of buildings, which are often arranged around a courtyard. Integrated sites that have lost their brewhouses are less significant.

- 2) Stand-alone brewhouses that were never part of integrated complexes may also be significant, and similarly pub brewhouses and country house brewhouses.
- 3) Lastly there are stand-alone stables, bottling stores and other elements which often relate to nearby integrated sites but were never part of them.
- 4) Where historic plant and machinery survives this will generally add to a site's interest, and can in some cases contribute to the case for listing at a higher grade.

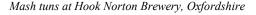
Significant features of brewery buildings

- 1) Small-scale sites such as pub brewhouses or small urban and rural breweries typically have a single tower, probably of at least three storeys, with much louvre ventilation. There may be an ornamental ironwork crown, a decorative lucam (hoist cover) and a visible water tank.
- 2) Large-scale sites will usually have many buildings but the brewhouse normally stands out as the highest structure apart from a chimney. The brewhouse will have a great deal of ventilation louvre windows, one or more roof ventilators ornament in the form of a trademarked ironwork crown or other detailing, and often one or more decorative lucams. The brewhouse is often flanked by a longer, lower fermenting house, and a small copper house, perhaps with attached chimney. Bear in mind that no two large-scale breweries will be completely alike.

Significant features of brewing plant

Summary of the brewing process: malt arrives and is hoisted up (within the lucam) to a malt hopper. The malt is fed through a malt screen to a malt mill, where it is ground, producing grist. Gravity or an elevator, depending on which floor the mill is located, carries the grist to a grist case sited above the mash tuns. Hot and cold liquor (water) tanks are nearby. The grist may pass through a masher, where it is mixed with hot liquor, before entering the mash tun; if there is no masher, mixing is carried out in the tun. The mixture (wort) is run off to an underback and then enters the copper, where it is boiled with hops and eventually passes to the hop back, which sieves out spent hops. The hot wort is then cooled and passes to fermenting tuns, where yeast is added; after fermentation is complete, the beer may be sent to conditioning tanks before bottling or transfer to casks. Power for these processes was often provided by a steam engine.







Mash tuns at Hall & Woodhouse Badger Brewery, Blandford St Mary, Dorset

The coppers, mash tuns, fermenting tuns and coolers are the major items to locate. Sometimes they carry a date and the name of a manufacturer. Vessels are often modified some years after initial installation, for instance being lined or fitted with lids. Entire disused vessels, or constituent parts - for instance the internal heating coil from a copper - may be retained at breweries, possibly for display purposes. Significant points to look out for are:

- 1) lucam a decorative, often wooden, hoist cover, in which the hoist and its mechanism may remain.
- 2) malt hopper
- 3) malt screen
- 4) malt mill
- 5) elevator usually an endless chain of buckets or hinged flaps attached to a continuous belt, which may be of leather.
- 6) grist case







Coppers at (left to right): Marston's Brewery, Burton upon Trent, Staffordshire; St Austell Brewery, Cornwall; Hall & Woodhouse Badger Brewery, Blandford St Mary, Dorset

- 7) hot and cold liquor (water) tanks
- 8) masher a generally horizontal mashing machine, often a Steel's masher, which opens out into the mash
- 9) MASH TUN large, circular cross-section vessel, originally wooden (often oak), later metal. Although a cast iron mash tun was in use by 1808, wooden mash tuns were still popular at the end of the 19th century. Copper linings could be added to wooden or cast iron mash tuns. Mash tun covers could be made of wood or copper, be flat or domed, and have a lifting or sliding section for opening.
- 10) underback generally a smaller copper vessel.
- 11) COPPER large and attractive metal vessel, originally made of copper, now of stainless steel; may be open or (more usually) closed, and flat-topped or domed. There is a porthole which can be opened for



Fermenting vessels at Hardys & Hansons Kimberley Brewery, Nottinghamshire (left) and Arkell's Kingsdown Brewery, Swindon, Wiltshire (right)

adding hops. Heating was external direct firing by wood or coal, later internal steam coils or external gas firing.

- 12) hop back generally a smaller copper vessel.
- 13) COOLER originally a large shallow, open copper vessel (coolship) located high up in the brewhouse tower; later vessels were deeper but still made from copper.
- 14) FERMENTING TUNS generally circular cross-section vessels, often made from English oak; copper linings

were sometimes installed later, and plastic fitments later still. In the Yorkshire square system, the fermenting tuns are square in cross-section and made from slate (now usually steel).

15) steam engine

Please note that there were many differing arrangements of brewing equipment within breweries, equipment was often obtained secondhand, and often adapted for other uses within the brewery.

3.6 Methodology and definitions

The survey of England's surviving brewery-related structures was carried out by BHS members between July 2007 and September 2009. Individual members took on responsibility for most of the 48 ceremonial counties as defined by English Heritage (EH), and returned reports and photographs which were collated by the project researcher, who also used a wide variety of written and electronic sources to ensure coverage was as comprehensive as possible. The researcher also made occasional site visits where particular questions remained.

One point requiring an early decision in connection with the BHS Breweries Database was the treatment of breweries which already had several of their buildings listed separately by EH. One brewery could therefore be viewed as a single entity, for instance Hook Norton Brewery, or as four separate entries, reflecting the fact that this brewery is listed in four parts: brewhouse, stables, offices and malthouse. The approach eventually taken was to include individual listed buildings in the database, thus Hook Norton has four entries. This method allows listed buildings data to be more visible within the database. The territory most affected by the presence of this type of location was the West, with 29% of sites in the database. This figure decreases by only 1% if the breweries involved (Palmers, Bridport; Molson Coors Burton Brewery and Marston's, Burton upon Trent) are treated as 3 sites rather than the 15 their listed building status would suggest.

This report is concerned specifically with breweries, but at integrated brewery sites - those with a brewhouse, maltings and other related buildings at a single location - the maltings is also recorded if extant. Maltings at non-brewing sites were not included in the BHS survey. Maltings surviving alone, but which were once part of now-demolished integrated complexes, do form part of the database. There is thus a small overlap with the EH SHIER No 1, *Maltings in England* (Amber Patrick, 2004), which mentioned several of the more significant maltings at integrated complexes.

Finally, some definitions: a brewery is defined as an operating pre-1940 brewery if it has either operated on a given site before 1940 and continues to operate on that site today, or uses significant equipment manufactured before 1940.

The seven operating post-1940 major breweries which occupy completely modern sites are: Wells & Young's Bedford Brewery, Bedford (Bedfordshire); Scottish & Newcastle Berkshire Brewery, Reading, (Berkshire); Molson Coors Alton Brewery, Alton (Hampshire); InBev Samlesbury Brewery, Preston (Lancashire); Everards Brewery, Narborough (Leicestershire); Carlsberg Brewery, Northampton (Northamptonshire); and Federation Brewery, Gateshead (Tyne & Wear).

This report uses nine regions as defined by EH; however, the BHS Breweries Database retains the EH ceremonial county boundaries. The southern part of the former Cleveland (now in North Yorkshire) is in the EH North East region; but in any case it has no entries in the database. The southern part of the former Humberside (now in Lincolnshire) forms part of the EH Yorkshire region; this area has two database entries, neither listed. For the purposes of data analysis, these two Lincolnshire entries have been included in Yorkshire. The EH regions are made up of the following ceremonial counties:

East of England: Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk, Suffolk

East Midlands: Derbyshire, Leicestershire, Lincolnshire, Northamptonshire, Nottinghamshire, Rutland

London: Greater London

North East: Durham, Northumberland, Tyne and Wear

North West: Cheshire, Cumbria, Greater Manchester, Lancashire, Merseyside

South East: Berkshire, Buckinghamshire, East Sussex, Hampshire, Isle of Wight, Kent, Oxfordshire, Surrey, West Sussex

South West: Bristol, Cornwall, Devon, Dorset, Gloucestershire, Isles of Scilly, Somerset, Wiltshire
 West Midlands: Herefordshire, Shropshire, Staffordshire, Warwickshire, West Midlands, Worcestershire

Yorkshire: East Yorkshire, North Yorkshire, South Yorkshire, West Yorkshire

These regions are grouped into the four larger EH territories as follows:

North: North East, North West, Yorkshire East: East of England, East Midlands West: South West, West Midlands

South: London, South East

Lastly, it should be noted that this report provides what might be called a snapshot of the industry's currently operating breweries in early 2010. Change in the industry is inevitable.

(Report amended March 2011.)

Back cover: View of the brewery and brewing equipment at Harvey's Bridge Wharf Brewery, Lewes, East Sussex.















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