THE RH7 HISTORY GROUP

BRICKMAKING

Brickmaking was first introduced in Britain by the Romans around AD 43. The bricks bore little resemblance to modern bricks – being 500mm long x 300mm wide (19⅝ x 11⅞ inches), but no more than 40mm thick. (1½" thick) and looked more like tiles. It is assumed that they were moulded flat; the clay having been mixed with water and spread evenly on a level sanded piece of ground. The bricks were then cut into rectangles and left to dry, before being put in a kiln to fire.

Few Roman buildings were built entirely of brick – they were mainly laid in bonding courses mixed with stone or flint. Some years ago a Roman kiln was found at Great Cansiron Farm north of Hartfield, west of the Lewes to London Roman road and in 2004 a Roman tile kiln was discovered at Reigate.

Brickmaking seems to have ceased in Britain around AD 412, just before the Romans departed. There was no brickmaking for a period of 700 years (the Saxons generally built in timber). In the 7th century second-hand Roman bricks were often employed for building ecclesiastical and public buildings.

The re-introduction of brick and tile making was generally made by the monasteries. Herstmonceux Castle was the first building in Sussex to be built entirely of brick in the 1440s.

The old name for any kind of kiln was ***hoste*** or ***oste*** (in common use up to 16th century), now surviving in the word – **oasthouse.**

Bricks would be left to dry in piles arranged in a herringbone fashion, known as a **hack**. They were then left for a month, covered in straw to protect them from the weather, until they were dry enough to fire. Bricks were originally fired in stacks called **Clamps.** Clamp burning consisted of an open stack of unfired or 'green' bricks built up in layers with air spaces on top of a bed of fuel. When set alight they became self-burning. The bricks were encased with turf and clay and left to burn until all the fuel was consumed.

Bricks for large houses were often made on site by itinerant brickmakers who were often also the bricklayers. The presence of ponds next to old houses can often indicate the site of an old claypit.

By the mid-1500s, yeoman farmers were generally getting more prosperous and bricks were often used in the building of fireplaces and chimneys.

By the end of the 16th century the increased use of bricks led to the setting up of permanent brickyards, where regular kilns would be used instead of the clamp system

By the late 17th century the usual kiln was a type known as the **Scotch kiln**. This consisted of a large chamber at the top, with a series of fire holes along each side opposite one another. The dried bricks were stacked inside in such a way that the hot gases could surge up between them. A layer of old burnt bricks was then spread over the top, the ends of the kiln were bricked up and roughly plastered over with clay. Fires were lit in the fire holes. When the burning process was completed, the kiln was allowed to cool and the bricks taken out.

Brickmaking was a seasonal activity. Clay/brick earth was dug in the autumn and left in a heap to overwinter – the wind, rain and frost making it easier to handle when brickmaking began in the Spring. When the danger of frost had passed, moulding began and the bricks were then left to dry in the open air. Kiln burning took place from mid-Summer onwards until the first frosts. (The kilns were fired by brushwood collected during the winter). Brickmaking was often combined with another occupation and many farmers therefore also became brickmakers. They had the land and the process complemented the farming year perfectly. Brickmaking did not begin until late spring when sowing and lambing had taken place and the bricks were left to dry until haymaking and harvest were completed.

By the mid 19th century, the impact of the railways had led to a massive increase in brickmaking, and by the end of the century, machine made, wire-cut bricks were used extensively. With the advent of the railway it became possible to bring in larger quantities of coal to fire the kilns instead of wood.

Railway contractors brought in brickmakers from other parts of the country and many brickworkers lived rough in huts on site (as did railway navvies).

Around this time a new type of kiln was introduced which had a much greater capacity; this was the **Staffordshire continuous kiln**.

The end of the 19th century also saw the development of the Fletton brick industry at Peterborough and Bedford which resulted in large scale brickworks in those areas. The bricks were therefore offered at a much cheaper rate than local brickmakers who often found they couldn't compete.

One of the earliest mentioned brickyards in the area is the Wilderwick Brickyard near Dormansland. It is shown on the 1620 map of the Manor of Blockfields (part of the present Ford Manor) and is quite an extensive area. Right up until the late 1800s it is referred to as a brickyard rather than a brickworks and was therefore then probably making clamp bricks. (The term brickworks tended to mean that a kiln was being used rather than a clamp).We know very little about this brickyard other than it seems a large concern. We do know that Samuel Relf was the master brickmaker there in 1851 employing 4 men.

Maps show that the brickfield was still there in 1914 and so the brickfield was still operational up until this date, by which time kilns had been introduced.

There were many small brickmaking works in the locality, such as Moor Lane (at the back of the present house 'Windermere'), where the Master Brickmaker was George Wade. Clinton Terrace in Dormansland was built using bricks from this works.

During the mid to late 1800s there was a brickyard in Bakers Lane. This was owned by the Head family, who also made bricks at Coldharbour, Lingfield Common Road, next to Providence Cottage, where the Master Brickmaker was George Payne. Bricks made at Bakers Lane were used to build the Tannery (where the Lingfield Squash and Leisure Club now stands - 2006).[1]

A builder, called Dives, who was also the undertaker, owned a small brickyard behind the old fire station in Church Road (then known as Llewelyn Palmer Hall). The bricks made here were probably for his own building projects.

A small brickyard existed in Lingfield Common Road in the late 1800s and early 1900s. In 1902 Mrs Emma Wallis, described as a builder and brick and tile maker, made clamp bricks here. By 1914 the site was disused, probably forced out of business by the bigger, more efficient brickworks that were making an impact locally.

The three main brickworks in the area were at Crowhurst Lane End, Crowhurst and South Godstone. The first mention of the brickworks we know as Crowhurst Lane End was in 1874, when the proprietors were Messrs Wicking and Boorer, Brick and Tile Manufacturers and Coal Merchants. The previous proprietor, Abraham Steer, was listed as far back as 1855. The business was described as a Brick and Tile Makers and Coal Merchants, but was sited in Tandridge Lane. (It is possible that Abraham Steer was making bricks here as early as the 1830s, as the sale details of 1887 state that the business had been established for half a century.) It is not known precisely when the works was moved to Crowhurst Lane End.

Brickmaking in this area presumably came to prominence during the building of the South Eastern & Chatham Railway in 1841 – this railway being the main line from London to Dover. At this time many itinerant navvies and brickmakers were employed and they mostly lived on site in railway huts.

William Wicking (who also owned Hobbs Farm) and Alfred Boorer remained in partnership until 1887, when the brickworks was put up for sale, together with the newer brickworks at Crowhurst. It appears that Messrs Wicking and Boorer were at the time running both enterprises. It is also interesting to note that the Brickmakers Arms public house was also included in the sale.

The works also had the use of a railway siding on the South Eastern Railway. A tramway was built from the clay pit across the fields to the works. It can clearly be seen on the 1894 map.

The employers and workers were obviously keen on new techniques and innovations as four employees from the works and Alfred Boorer attended the Brickmaking Show at the Agricultural Hall in London on 25th May 1895.

[1] In 2010 The Squash and Leisure Club had been sold to make way for housing development

It would appear that Alfred Boorer retained his interest in the works after the sale as he is still listed as the brickmaker here and at Crowhurst until 1899 and then only at Tandridge until 1903. On 1st April 1903 Alfred Boorer handed over the business to his half-brother John Wood, who was at the time foreman at the works. A new office building was built, together with a new engine house and a boiler was installed. John Wood ran the business with his brother Arthur and son Charlie until 1913, when they ceased making bricks because it was thought they had exhausted the clay deposits. Clay appears to have been scraped off the top of the surrounding fields rather than dug from a deep pit as at Crowhurst. The brickyard buildings remained standing until 1921 when the land was sold for building houses.

The brickworks at Crowhurst probably started around the mid-1880s (to coincide with the building of the London Brighton and South Coast railway line). Messrs Wicking and Boorer, were the proprietors here as well as at Crowhurst Lane End and remained in partnership until 1887,when the two brickworks were put up for sale. After this date Alfred Boorer alone appears to have carried on running both sites.

In 1902 the company became known as the London & Brighton Brick, Tile and Terra Cotta Co and its general manager was Thomas Williams, newly arrived from the South Eastern Brickworks at South Godstone. Alfred Boorer had by this time returned to manage the Tandridge Brickworks.

There then followed a period of many changes of company name and management:

1907	Fletton Crown & Crowhurst Brick Co Ltd
1922	Sussex Brick & Estate Co Ltd
1930	Sussex Brick Co Ltd

By 1935 the company had become the Dorking United Brick Co Ltd, which later was re-named the Sussex & Dorking Brick Co. In 1958 it was bought by Redland Bricks and remained under the Redland umbrella until the works closed in 1979.

Clay would be dug by hand from the clay pit and on May 2nd 1900 John Wood from the Tandridge Works wrote in his diary about an accident at the Crowhurst yard when Thomas Dean was knocked down and killed by a fall of clay in the pit. John Wood attended the Coroner's Court held at Mansion House, Crowhurst and although he stated the death was quite accidental, he privately thought it was a very unsafe place to work and would personally not work in the pit at any price.

In the early 1950s the clay at Crowhurst was still dug out by hand from the clay pit and put in wagons on rails which would be hauled back to the works to the Pan House on a continuous chain. Later on a mechanical digger would be used. The clay pit was three-quarters of a mile long; it is still there but is now filled with water.

Clay would be put into the Pan House and tipped into a large circle with two 7 ton double rollers which pushed the clay through a grid floor, where a metal worm would push the clay out in a continuous column. Piano wire would then chop two bricks at a time at exact spacing so that all the bricks would be the same size. These bricks would be known as **wirecuts.** The bricks would then be put on a trolley and sent to

the drying sheds before firing. The heat in the drying shed would be produced via a boiler, pumping steam through a large radiator, which in turn blew heat through the bricks.

After drying, the bricks would be fired in the kiln. The great kiln, which was a Staffordshire type, had 18 chambers. The bricks would be fed in a continuous chain taking three weeks to complete - 2 days to fill each chamber, 3-4 days to fire the bricks in each chamber and then 2-3 days to empty the chamber. Each chamber would be filled up with unfired 'green' bricks and then sealed at the front. Dampers would draw the fire through small arches in the walls. The coal (fine dust 'nutty slack') would be fed through the top. Approximately 20,000 bricks would be held in each chamber.

The kiln was alight 24 hours a day and was never allowed to go out. Men were employed to maintain the kiln throughout the night to ensure it was kept alight. The kiln was kept alight from 1923 when it was re-fired until the works closed in 1979. Men would be feeding new bricks in at one end while other men would be unstacking the hot fired bricks at the other. It was hard physical work. The temperature in the kiln was never below 90˚F. When the bricks had been fired for about 3 to 4 days, they would be hand drawn out of the kiln. The whole process from clay to finished brick would take about 4 weeks. By 1969 seven million bricks were produced annually at Crowhurst.

Although only one chimney remains at the Crowhurst site, there were originally two chimneys - the kiln chimney having been demolished some years ago. The kiln chimney was 160 feet high. In the mid-1950s a steeplejack was hired to check the brickwork. He went up to the top using just two ladders, pulling up the one he'd just climbed and hooking it onto pegs driven into the brickwork.

The brickworks had railway sidings and bricks were initially shipped out by rail, while coal for the kiln was brought in by rail. Eventually the rail wagons for taking out the bricks were phased out and lorries used, although the coal still came in by rail. The signalman from Lingfield would come up on his bicycle to oversee things every time the sidings were used.

High quality wire cut engineering bricks were made at Crowhurst. They were very solid and each brick weighed 7lb. The highest 'A' grade bricks were used on the London sewers. Other sites where Lingfield bricks were used were Guildford and Coventry Cathedrals, the Barbican Centre, The Inner Temple and Heathrow Airport.

The other large brickworks in the area was at South Godstone. In 1896 a 10 acre plot of land at Water Farm, Godstone was leased to the South Eastern Brick & Terra Cotta Company Limited for the extraction of clay, loam and sand for making bricks, tiles and other pottery ware and to erect a brick and tile works on the land. The lease included right of access from the main road leading from Tilburstow Hill to Blindley Heath.

The South Eastern Brick & Terra Cotta Company had been started that year with a capital of £20,000 by Thomas Alfred Williams, a builder from Chelsea.

By the end of the year, the company had been bought by the Trollope family of Cobham. Thomas Williams was kept on as manager and he remained there for at least five years.

By 1903 the company had become a limited company with an office in Victoria Street, London and the general manager was now George Anderson. (Thomas Williams had by this time been appointed manager of the up and coming brickworks at Crowhurst.)

Just before the end of the First World War the site was bought by the Lambs Brick Company. Before the war the site had produced wirecuts and a hard pressed brick, used mainly for engineering and foundation work.

Clay was quarried from an adjacent pit. (A test bore in 1926 showed the clay seam to be 365 feet thick). Most bricks were fired in a kiln but during the summer months hand made bricks were fired in a clamp in the yard. Most workers lived locally in South Godstone. At its peak about 50 workers were employed so it was probably the largest employer in the Godstone area. The site had a private siding to Redhill / Ashford railway line. This siding was known as Williams siding – presumably after the first owner.

During WWI the works had been requisitioned by the military for the storage of explosives and munitions. When Lambs purchased the site, the clay pit had become flooded and buildings and kilns had fallen into disrepair. Two German submarine motors were installed for power. It took three years before things were ready for production.

It was recalled that many years later in the 1930s a visiting Scout troop noted that power was supplied by an engine taken from a German submarine, so the old motor was still going strong.

During the 1920s Lamb's Brickworks received a visit from Winston Churchill, who was looking for a company that could match the bricks at Chartwell, which he had just bought. After a visit to Chartwell to remove four bricks from an existing wall, Lambs were able to match perfectly and subsequently supplied 4,004 bricks to Chartwell for extensive rebuilding works. Only 4,000 bricks were paid for – the remaining 4 were supplied free of charge to replace the ones removed from the wall.

It was during this period that the production of hand-made roofing tiles was started, but this was not continued after WWII because of the competition from concrete tiles. During World War Two, the plant was again requisitioned by the military for use as an armaments depot.

Although no bricks are now made on this site, which has been taken over by a business park, Lambs Brick Company still exists and is based in Billingshurst, West Sussex with members of the Lamb family still on the board.

The last two remaining brickworks in the area, at South Godstone and Crowhurst, both ceased production in the 1970's and so ended a long tradition of brickmaking in the area.

Sources:
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