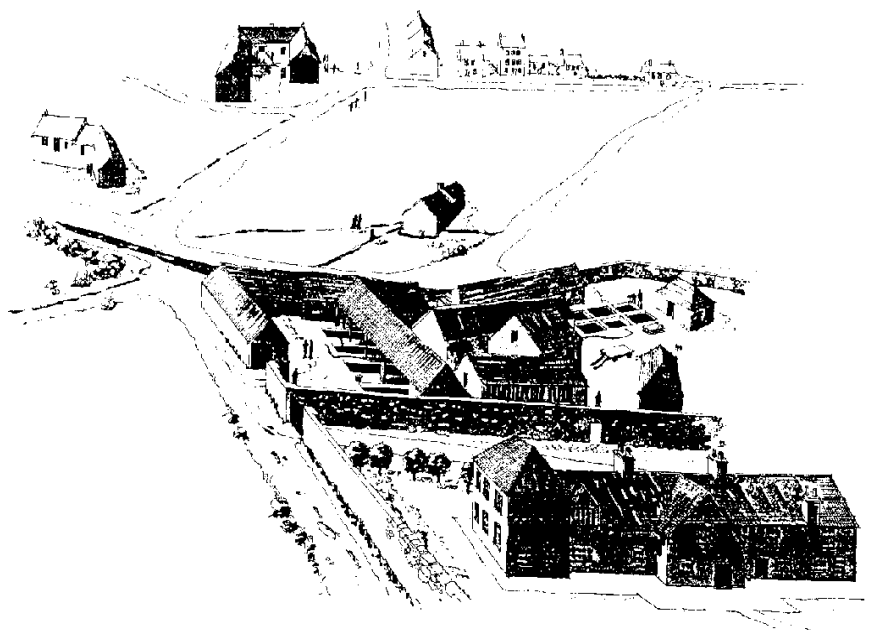


NAILSEA TANNERY

BY TREVOR BOWEN



Impression of Nailsea House and Tannery at Kingshill, Late 1700's by T Bowen '97

Originally published September 1997 by Nailsea & District Local History Society

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NAILSEA TANNERY

PART 1

In 1985 during the construction of two houses in the Kingshill area of Nailsea the builders chanced upon the remains of the 19th century tannery. That such a business once existed had been established by the late B.J. Greenhill, but its precise location and layout within the grounds of Nailsea House, off Watery lane, had been a matter for conjecture. Now the stones and brick lined pits central to the process of converting animal hides into leather had been exposed by a mechanical digger.

Little documentary evidence for the tannery has so far come to light. Census returns reveal that 8 persons were employed there in 1841; 12 in 1851; 6 in 1861, none in 1871 and only 2 in 1881. Tantalisingly brief references appear in the Vestry records:-

1700	Ralph Vigar for lether for the bells, 1s6d
1711	Tablet in Holy Trinity Church to Ralph Vigar
1785	Mr Baddily for Tanyard Rates
1785	It is agreed this 26 th day of December 1785 at a Vestry to put out Mary Hicks to the estate of Mr Baddily, The Tanyard
1789	The Rev Baddily for Tanyard Rates
1805	Received of Mr Davis in lieu of an apprentice for the Tanyard £8.0s 0d.
1839	J. F. Cox occ Tanyard and Bldg. Ignatius Davis owner
1843	At a Vestry held on January 11 th it was agreed that Mr John Brown should make a new survey of Mr Cox tanyard and the Nailsea Coalworks

In "*The Book of Nailsea Court*", Nathaniel Wade the owner of the Court, is said to have owned a Tannery in Nailsea in 1695. A Major of Trained Bands, Wade took part in the 1685 Monmouth Rebellion, escaped the Bloody Assizes and later became Town Clerk of Bristol. John Morgan's notes on the Wesleyan Chapel at Kingshill, has one Charles Tucker - tanner of Nailsea House - recorded as a chapel steward in 1864. Local newspaper reports are more descriptive:-

1847 - Samuel Parsons a man employed at the Tan works of Mr Cox of Nailsea had part of his arm cut off by the saw of a bark mill. On being conveyed to the Bristol Infirmary immediate amputation was found necessary. We understand the poor man is going on favourably.

1852 - On New year's Eve, S. F. Cox gave the Society of Tanners in his employ a good old English supper at the Butchers Arms Inn served up in the worthy host Denton's excellent style.

1859 - "*The Successful Merchant*" by W Arthur

"When only 5 years old, his (Samuel Budgett) parents again removed fixing this time on Nailsea... Besides a terrible accident in a tanpit, where he was hardly rescued from drowning ... we then lived in a large and respectable house, belonging to the late James Davis Esq. of Bristol, having large entrance gates on the left hand of a long yard opposite the house door. On the right hand was a very nice cherry orchard; on the left hand going from the cherry orchard to the alcove, was a flight of steps leading to the kitchen garden, at the bottom of which was a bathing pond..."

The above extracts are taken from the notes of B. J. Greenhill. Was Samuel Budgett describing Nailsea House?

For an idea of the layout of a tannery within the period 1695 - 1881, we must look beyond the village to the evidence of contemporary tan yards. These must be of the oak bark variety, where hides of bulls, cows and horses from the surrounding area were converted into heavy leather by lengthy immersion in a mixture of ground oak bark and cold water. Apart from the 1847 newspaper report, it was evident from the pits uncovered in 1985 that tannin liquor the result of mixing bark and water had stained the stone and brick walls.

One such tannery at Rhaedr in old Radnorshire had been dismantled stone by stone in the mid 1960s and re-erected at the Welsh Folk Museum, St Fagans near Cardiff. Its present appearance complete with tools equipment and leather is representative of the 1890s and therefore suits our purpose.

Unfortunately only two working oak bark tan yards survive today, vegetable tanning having been replaced by mineral tanning at the end of the 19th century.

One is at Grampound near Truru (J. Croggon and Son) and the other at Colyton in South Devon (J. & F. J. Baker & Co.) These have been in existence in excess of 200 and 300 years respectively for the supply of high class leather for orthopaedic appliances and bespoke footwear.

With unguarded pits, neither is open to visitors for reasons of safety, and the writer is grateful to both owners for allowing him to ask questions, take photographs, but most of all to experience the distinctive atmosphere of these last remaining tan yards.

A further descriptive source of reference is "Work in Bristol". (A copy is in the Bristol Reference Library.) Published in 1883, the author recounts his visit to the Avonside Tannery of P & S Evans & Co claimed to be the largest in the South West.

The layout of a tannery was usually "L" shaped or three sided around a working yard containing many pits. The building would be of stone if that were the local material, with the process areas probably surmounted at first floor level by timber weatherboarding or vertical slats to ensure an adequate circulation of air. There would be an office, weighing room for the receipt of hides, and a cool room or cellar for the storage of hides.

WATER PIT - In the absence of running water such as a stream, hides were well washed here to remove salt preservatives or traces of blood. Prior to this washing, dogs may have been used to bite off fats and flesh still adhering to the hides. Dogs were also used to guard the premises, kill vermin and provide excreta for use in a later process.

LIME PITS - By immersion in slaked lime of increasing strengths, the epidermis and fats remaining on the true skin were loosened, a process that took from one to six weeks.

BEAM HOUSE - Here was carried out one of the most unpleasant and unhealthy tasks - *the other was grinding bark*. Skins were thrown over a beam and all traces of flesh removed from the inner surface, and hair roots from the outer. The former was often sold for glue; the latter to plasterers, stonemasons, upholsterers and manufacturers of cheap clothing, blankets and felt.

MASTERING PITS - These contained a mixture of warm water, hen, pigeon and dog excreta. This removed all traces of lime from the previous process.

ROUNDING - The large hides, each comprising varying qualities of skin had to be cut up into "butts" prior to tanning.

LEACHING PITS - As previously described, the oak bark was finely ground, mixed with water and allowed to stand for 6 to 8 weeks.

SUSPENDER PITS - Butts hung vertically were moved daily from pit to pit through increasing strengths of liquor.

FLOATER PITS - The butts were laid flat and moved 2 or 3 times daily, again through increasing strengths of liquor over a 6 to 8 week period.

LAYER PITS - Similar to Floater Pits but the butts were laid flat between alternating 1 inch layers of ground bark. This process took up to 18 months.

DRYING - The butts were dried in near darkness in a well ventilated loft; not too fast, not too slow.

CURRYING - By law the trade of currying - the process of cleaning, reducing in thickness and softening the leather by

the impregnation of oils and fats - could not be carried out within the tannery confines until the mid 1850s.

Oak bark leather, as distinct from the modern chrome liquor process completed in 8 to 9 hours for sheepskin, is evenly tanned, hard wearing, firm but flexible, moulds and sews easily and does not cause skin irritations. Direct from the tan yard it could be used for boot soles; but for boot uppers and harness it required the expert attention of the currier. Despite a flourishing boot and shoe trade in Nailsea throughout the 19th century, and no doubt earlier, no trade of currier is mentioned in the 1841-1881 census returns, unless the enumerator has mistakenly recorded a "carrier" in error.

So it can be seen that the traditional method of converting hides into leather is a labour intensive process, requiring the movement of hides and butts on a daily basis, as well as controlling the various strengths of tannin liquor and slaked lime. The entire process took in excess of 18 months. Many pits, each approximately 8 feet x 5 feet and 5 feet deep were needed (2.44m x 1.52m 1.52m). The Rhaeadr Tannery had 58 comprising 12 layer, 22 floater, 8 leaching, 8 suspender, 3 lime, 3 mastering, 1 water and 1 offal.

Today Croggins at Grampound have 81 pits but the Avonside Tannery in the 1880s had 600.

NAILSEA TANNERY

PART 2

EXCAVATION AND PROVISIONAL RECONSTRUCTION

Looking at the process for converting skins into leather it is obvious that large quantities of clean, preferably running water were needed for the cleaning of the skins and mixing of the tannin liquor.

Could the need for this plentiful supply of water have determined the location of the tannery at Kingshill?

For much of the year there was no shortage of water in any low lying area of the village, so surely the name "Watery Lane" indicates an additional source. Even today the stream which some say originates near Nailsea School still runs beneath the road, and glimpses of it can sometimes be seen between the pavement slabs.

When houses were built on the site in 1985, the Nailsea and District Local History Society retrieved the remains of a hand pump from the roadside, and there were two lengths of cast iron pipe similar to those used for pumping water from coal mines. We have no date for the bridging over of the stream and surfacing of Watery Lane as we know it. For the record, when South West Gas dug a trench in May 1992, David Chappell took photographs of a section outside No 2 Watery Lane and measurements indicated that the underside of the pennant slabs used to bridge the culvert were some 21 inches below the surface.

Oak bark needed for the making of the tannin liquor was most likely brought from the Wyeside forests via Chepstow* since by 1799 over 9000 tons annually were being shipped from that port. (* see "Leather and Oak Bark at Chepstow" Chepstow Society 1980)

In 1985 when Society Members kept a watching brief on the site, ten of the process pits were broken into on the line of the house foundations (Fig.1)

TANNERY AT KINGSHILL, NAILSEA. (see article which follows)

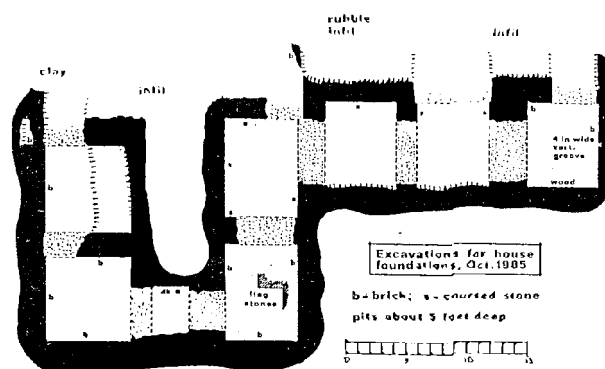


FIG 1

Generally these measured 8x5x5 feet deep, approximating to those of the Rheadr Tannery re-erected at the St. Fagans Welsh Folk Museum. Most were lined in brick or coursed pennant stone; one was rendered over stone and still retained

water; one was partly timber lined. Further masonry was encountered in the fifty foot interval between the groups of pits but this area was not excavated by the builders.

During site levelling, three mill stones were uncovered, two of which (Fig.2) were removed by the Society and now stand beside the drive to Nailsea House. They comprise a pair of stones, ie bedstone (lower) and runner (upper), which may have been used to grind bark using horse power.

Based on speculation by the present owners of the two remaining oak bark tanneries at Colyton and Grampound, an annual usage of about 6 tons of bark has been arrived at for a tannery employing a maximum of twelve men (1851) and having possibly 25-30 pits. Nor is the output of leather easily estimated, for although the process of bark tanning remains basically unchanged, mechanisation has greatly increased productivity and skins are now bought in already de-haired and fleshed. However the owners surmise that a weekly output of some 20/25 hides would be a reasonable assumption.

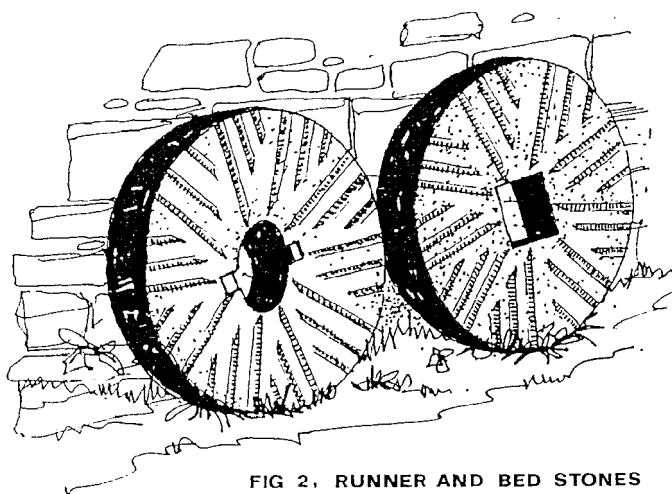


FIG 2. RUNNER AND BED STONES

From the evidence available, a provisional reconstruction of the tannery can be attempted.

A small oak bark tannery of some 25 pits operated from the late 17th century or earlier until the 1880s. Skins of cattle and horses were brought from the surrounding area, and after a process of tanning lasting up to 18 months or even more, the resulting heavy leather was sold locally for the making of boot soles and uppers, harness, colliery buckets, engine drive and transfer belts and other industrial, agricultural and domestic uses requiring strong and durable heavy leather. About 25 hides per week was the likely output. The tannery and village supported a significant boot, shoe and clog industry of some 11- 33 persons over the 1841 - 1881 census period, although these were likely to have been outworkers not centred upon a workshop.

A visitor would be aware of a stillness that was tranquil if not oppressive. Men would work in pairs drawing hides from one pit, loading them onto a hand trolley and depositing them into another. When a pit was topped up with stronger liquor, the brown liquid ran along an inclined wooden trough which could be moved about as required. Water for the initial and final washing of the hides, and for the mixing of the tannin liquor and slaked lime, was pumped from a stream which flowed alongside. The silence would occasionally be broken by the barking of a dog or the scratching of a rat. Infrequently the mill was started up and the plates of bark fed into the revolving cutters. Fine dust would fly everywhere. Some newly delivered skins could be seen pegged to the ground for the mastiff dogs to bite off the fats.

Even more noticeable than the silence was the smell which could not easily be described; not of leather but of bark and tannin. It permeated the clothing and would linger with the visitor until he reached home and bathed his body and discarded his clothes.

Mr Ivor Grimsted of Whitchurch (Bristol) has made a study of the Bedminster tan yards and I am grateful to him for the

following information on the Cox family and its involvement with the Nailsea yard:-

James Fitchew Cox was born in 1807, the second son of Stephen and Martha Cox of Court de Wyck, Claverham. In 1833 he married Ann White, both of them by then residents of Nailsea, and by 1836 James was referred to as "tanner of Long Ashton". A year later he took out a patent with a William Harepath for "a roller and belt process".

By 1839 he was living at Nailsea House - previously occupied by John Tanner, leather merchant and tanner of Bristol. James entered into partnership with his brother Stephen and by 1842 the business was registered as J & S COX (Patent Roller and Belt Process). In the same year Stephen built a tannery at Court de Wyck. James died in 1852 aged 45, but his brother who lived in Goss Lane Cottage (Nailsea) continued the family business. It is likely that he moved into Nailsea House following James' death, and he was certainly living there from 1857 onwards.

The business was styled COX BROS with the main yard at Bedminster and smaller concerns at Ashton, Yatton and Nailsea. Stephen retired in 1877. In 1878 the Bedminster yard was taken over by Thomas Ware who today trades as Thomas Ware and Sons, Clift House Tannery, the only survivor of the eight tanneries in the Bedminster area of Bristol.

With only two workers recorded in the 1881 census, we can assume that the Nailsea yard was all but closed.

An early advert for the Tannery appeared in a Bristol paper of 1778. My thanks to Martin Bodman for bringing it to my attention.

Sarah Farley's Bristol Journal - 7th November 1778

Tanyard

TO be LETT, and entered upon at Lady-day next, or immediately if wanted, a large and commodious TAN-YARD, with constant Water, Lofts, Drying Houses, and every Conveniency for a good and large Trade; as also a good DWELLING-HOUSE near the same, (or a large and handsome House belonging to the same, now in the Possession of William Bullocke) with a good and handsome Garden, and an undoubted Right of Common to Wraxall-Hill, and Nailsea Moor, with or without 30 or 40 Acres of good Pasture Land, Orchard, &c. situated at Nailsea, in the County of Somerset, about ten Miles from Bristol.

For Particulars, enquire at the said Tan-Yard.

* *

* This will be but once more advertised.