with coal, of which there are four pits within the precincts of this parish; the coal is of that sort which burns into white ash, and being quick of kindling, affords excellent fuel. A manufacture of crown plate glass has lately been established here by Mr John Robert Lucas, of Bristol, at which a great number of hands are employed, and a range of houses, forming as it were a small colony, is erected for the habitation of the workmen and their families.

The village of Nailsea, comprising the parish church, lies westward on the skirts of a large moor, to which it gives its name."

8.7 Rutter, 1829, pps. 23-24, describes Nailsea as "a considerable village on the southwestern edge of what was once an extensive moor, to which it gave its name. ... THE HEATH is to the eastward of the village, and was lately an extensive tract of rough land, thickly covered with timber and underwood, with the appearance of having formerly been a forest or chace [sic]: but it has been since enclosed and brought into cultivation. This tract, originally to all appearances poor and worthless, is extremely valuable in consequence of a bed of excellent coal which is found underneath its whole extent, and is worked in several places by shafts or pits, varying from fifty to seventy fathoms, and in some instances has been worked underground to the distance of a quarter of a mile from the main shaft.

The firm of Lucas & Co, Bristol, have increased the importance and population of this district by the establishment of an extensive manufactory for crown glass; and the buildings associated with it are inhabited by a numerous colony of persons in their employ, forming a distinct village of considerable extent."



Figure 1.3: Child's, or Limekiln, Glasshouse on River Bank near Hotwells Road - 1821

- 5.8 The *Victoria County History of Somerset*, (Vol. II, p431) under 'Industries' confirms 1788 as the year in which Lucas founded his glassworks, and gives some further information on the glassworks, but without any other significant reference to Nailsea.
- 5.9 Aston and Iles, in *The Archaeology of Avon*, 1987, p.138, note the medieval pulpit at Nailsea church, Holy Trinity. The centre of the settlement has presumably moved with time as the church, which sits on a high point of the Nailsea "island", is now about 1.2 km from the present centre.
- 5.10 Samuel Jackson's watercolour of c.1825, (reproduced in *The Bristol Landscape*, Greenacre, F and Stoddard S, 1988, p.33) looking almost due west across the Floating Harbour

from just north-west of the "New Jail", shows the glass cone originally owned by J R Lucas at Limekiln Dock. Another view (Figure 1.3) is shown on the small engraving from BCL (Reference: Bristol Pictorial Survey 2650/L66.6).

5.11 In NS SMR 2397 Folder E is a transcript of SRO DD/SB (Box) 11/3, a letter dated July 20 1826, from John R Lucas at Backwell Hill, to Isaac Cooke, Esq., Bristol, (Lucas' solicitor). It reads:

"Dear Sir,

The piece of land which I have sold to Lucas Coathupe & Co. to build a glasshouse upon, contains 3 roods & 4 perch and is part of two different holdings - one part is part of the Tramroad, which I bought of the proprietor of the Taunton Canal Comy; the other part belongs to an allotment of 8 acres given to me for an other [?] called Ballas or Brookmans is part of the Estate Mortgaged to Mr George Daubeny, but all the allotment except this piece was sold previously to the mortgage and was not of course included in that mortgage. The only allotment included in that mortgage was No 154, 155 & 156 contg together 7A 1R 26P and lies to the West of Ballas allotment, a road separating them.

I am,
Dear Sir
Yours truly

John R. Lucas"

- 5.12 In SRO DD/SB 11/6 there is an Abstract of Title dated 26th January 1825, by which Lucas purchases the above-mentioned land from the proprietors of the Bridgwater and Taunton Canal for £79-15 shillings. It states that the remainder had been allocated to him by the Commissioners of the Wraxall Nailsea and Bourton Inclosure Act.
- 5.13 There is an undated plan (SRO DD/SB 16/3) which would appear to relate to this transfer that shows the New House Cone as "New Glass Works" as well as the then western edge of the "Old Glass Works". [From this plan it is evident that (as is inferred on the 1830s plan) the western boundary was not then as far west as it later becomes (e.g. 1840). On the western side of the boundary it states, "Garden Belonging to Sam¹ Knight". The 1814 plan shows all the western area as held by J R Lucas (freehold).] These parcels may also be identified on the 1813 Enclosure map B (SRO Q/Rde/129). It would appear that the right of way for the canal route had been established, and indeed purchased, but it would seem that the canal was never excavated through Nailsea, although in the BRO [37959 (46) g], Wraxall and Nailsea Inclosure Plans and Scheme (c1814), there are two properties in North Street described as "Adj. Canal". It is possible that the canal company may have intended a tram road to make the connection to the main canal, which was apparently intended to connect the Avon to Taunton and beyond, at some point further west. Indeed, in SRO DD/SB 12/3 there is an indenture dated 1st May 1820 leasing some land in Nailsea, [believed to be to the west of the glassworks] which is "... bounded on the south-westward side thereof by the Bristol and Taunton Canal Company and which is intended for a tram road...."
- 5.14 It is at the time of writing purely speculative, but in view of the extensive holdings that Lucas can be shown to have had in Nailsea it is wondered if the proposed canal plus a "greenfield" site were further incentives to build the glassworks where he did. The commonly given sole reason is the presence of the easily-worked coalfield. However, it is apparent from the extant documents that Lucas was getting further involved in property in Nailsea at least as early as December 1789 (SRO DD/SB 11/7). Some dealings were freehold, others leasehold.

¹ Pullan, J M, The Canal That Never Was, in Around and About, NDLHS, 1984, pps 9-11

Furthermore, although it appears that the relevant Act of Incorporation for the Canal was not until 1812 (SRO DD/SB 11/3), there is a letter on the subject in SRO DD/GS/4,107 dated 7th December 1794. The text is not at all easy to read, but for the present purpose it is relevant in that it refers to the Bristol – Taunton Canal. It appears that there was some proposal with respect to the route that incensed the writer. [It is of interest that an autograph of Robert Lucas Chance is mounted on the same page.]

- 5.15 John Robert Lucas died on 15th July 1828, but it is clear that in the middle 1820s he was actively buying up coal lands, and his executors were no less active in the coal and property markets to about 1854. If the documentation in SRO DD/SB 13/4 has been interpreted correctly it appears that there was considerable borrowing by Rodbard and Bean from 1853 to 1855. There is a valuation of Lucas' estate by Y and J P Sturge in 1830, SRO DD/SB 13/4, but it was too fragile to open. It was on paper most of the other documents in this collection are on parchment.
- 5.16 A notebook belonging to C T Coathupe, a manager of the works, dated to 1836/7 gives a lot of detailed information on the dimensions of the vitriol chamber in the alkali works, of a six-pot furnace, and of the pots themselves. He gives chemical compositions, production rates, coal consumption rates of pay, etc, etc [Transcription in Nailsea Library the original is at present held there, but is considered too fragile to study. See Appendix 1 in Part 3 Technology]. He makes no reference to bottle manufacture, so it seems likely that it had already been discontinued.
- 5.17 There is a billhead, dated 20th February 1846, in the Chubb papers (SRO, D/B/bW 2349), headed *Bo^t*. of Coathupes and C^o. MANUFACTURERS OF CROWN WINDOW GLASS AND ALCALIS [sic]. It is for 10 crates of window glass, and carries a vignette of the works, though it appears that a certain amount of artistic licence has been involved. (See Appendix 11, Part 3.) Similarly, from the same source, a bill from Robert Powell's bottle works in St Phillips, Bristol, dated 27th October 1846 carries a vignette of glassblowers at work. The form of the kiln(s) as depicted appears to resemble a series of adjacent straw beehives in shape. (See Fig. 4.3, Part 4.)
- 5.18 The "Post Office Directory of Somersetshire and Bristol", 1861 (SRO), under a Nailsea entry for White, Isaac & Co, Glass manufacturers & colliery proprietors, Glassworks and Temple Back, comments, "There is also a large tract of Moorland which was enclosed under an Act of Parliament in the year 1813."
- 5.19 The entry for Nailsea in the 1875 County Topography for Somersetshire (SRO) makes no mention of the glassworks, strangely. It comments that, "several mines not worked for some years but two companies have been formed to resume the work at the pits." John Rodbard and Henry L Bean are amongst the principal landowners.
- 5.20 Also of interest are two sale notices. The first is a copy at NSM giving notice of the auction of "the extensive and costly erections known as Nailsea Glassworks" in four lots, to be held on 25th July 1889, which included the Manager's house etc and the cottages. [*Nailsea Glassworks' history* folder.] This was when John Chance sold the site to Samuel Davis.
- 5.21 The second was a later notice, seen at Nailsea Library, with a very detailed plan that was virtually identical to that of 1870, for an auction on 11 April 1905, by which time the glassworks (on offer in six lots) was part of the estate "of Mr. Samuel Davis, deceased." It did not include any houses, being purely the works areas. The *Special Conditions of Sale* records, "10. Lots 1 to 6 inclusive are in a ruinous condition and there are many wells, cisterns and excavations improperly roofed in, and other dangerous places exist." All except two buildings, one defined in the text and identified on the plan, and the other added in manuscript in the

Conditions, but not marked on the plan, in lots 2-6 inclusive were to be demolished by the purchasers. The exceptions were respectively the Offices and presumably those buildings left standing to the south-east of the New House Cone.

- 5.22 There are also accounts from two former employees, John Eyres (boy clerk in the 1860s) and Francis Mountain, (then aged 75), writing in 1911 and 1915 respectively, and these cast some light on the processes involved. In the 1840s an alkali works was incorporated in the glassworks. It appears that the Old House Cone was partially rebuilt around 1855, and its furnace collapsed in September 1862. About this time the Lily Cone produced only plate glass, the Old House Cone produced both sheet and crown glass and the New House Cone sheet glass only. The latter two each had furnaces holding eight pots -[Mountain]. Following the collapse of the furnace Eyres records that "it was several years before the 'Old' house was again at work." Subsequently "a little side furnace was built for one or two men to make fancy goods, such as propagators, cucumber glasses, rolling pins and glass shades."
- 5.23 In more recent years there has been considerable development planning activity over the site, leading to several archaeological evaluations and excavations, which will be covered in more detail later. The correspondence is extensive, and copies occur under the NS SMR 2397, and in the North Somerset Museum at Weston-super-Mare.

Cartographic evidence

5.24 The earliest map found showing evidence for Nailsea is that of John Speede, a copy being in Nailsea Library. It is similar to that of Robert Morden, dated 1695, with "Naylsey"



Figure 1.4: Part of Robert Morden's Map of Somersetshire, 1695

written alongside the church. The relevant part of the latter map is reproduced as Figure 1.4 above. Nailsea sits a little above and to the left of centre, near what appears to be a reasonably substantial watercourse. Interestingly, on Morden's map this watercourse seems to mark the southern boundary of Portbury Hundred for some four or five miles from the Bristol Channel coast, and contrary to 5.1 above, Nailsea now seems to be in Bedminster Hundred.

5.25 The earliest map found showing anything relevant to the Study Area is *The Map of the Country 11 miles round the City of Bristol* by B Donn, 1769, (BCL and BCM). (Figure 1.5, below.) This, at a scale of approximately 1½ inches to the mile, shows the road system round

Nailsea, some few houses on the Heath with a number of trees, and a "Coal Work" at the west end of the Heath, although this has not been related to any known pit on recent maps. It would appear to be on the southern edge of the present town centre. The road across the heath appears to be unenclosed. The scale is adequate to show any development, even though the reproduction here is not good.

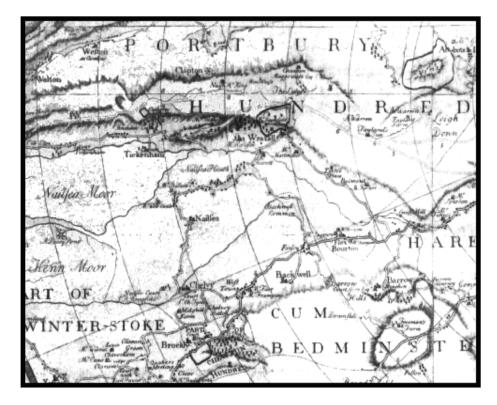


Figure 1.5: Part of B Donn's Map, 1769 (courtesy Bristol Reference Library)

- 5.26 Next, in date order is the *Map of the Rivers Severn and Wye*, by T Kitchin, Senior, London 1782, which does not feature Nailsea. Part appears as the rear end-paper of Greenacre and Stoddard. The only road in the area approximates to the present B3128, Bristol Clevedon.
- 5.27 Also dated 1782, but of a much higher standard is Day and Masters *Map of Somerset*, (BCL). It shows three buildings around the Heath, which is not identified as such. The principal roads are shown.
- 5.28 Reference should be made here to BRO AC/PL 61 *A map of the Coal lands in Nailsea and Wraxall* belonging to Sir Charles Bampfylde 1792. This is believed from references elsewhere possibly to be relevant; unfortunately it is not now fit for production to the public. It appears that there was at least one pit on the main glassworks site, one approximately 21m north-north-east and possibly another about 45m east of the centre of the Old House Cone. The first is included in the SMR as:

40850	Coal	mine	at	Nailsea	Post-medieval	Coalmine	Bowman 1980
	Glassworks						

The second derives from Figure 1 in Erskine, 1999² reproduced therein by permission of Intégrale Consulting, who carried out geotechnical tests at that time. Mr J Cornwell of Bristol

² Erskine, J G P, The Avon Motor Centre – Archaeological Recording Project, NSSMR 40597, AAU, Sept. 1999