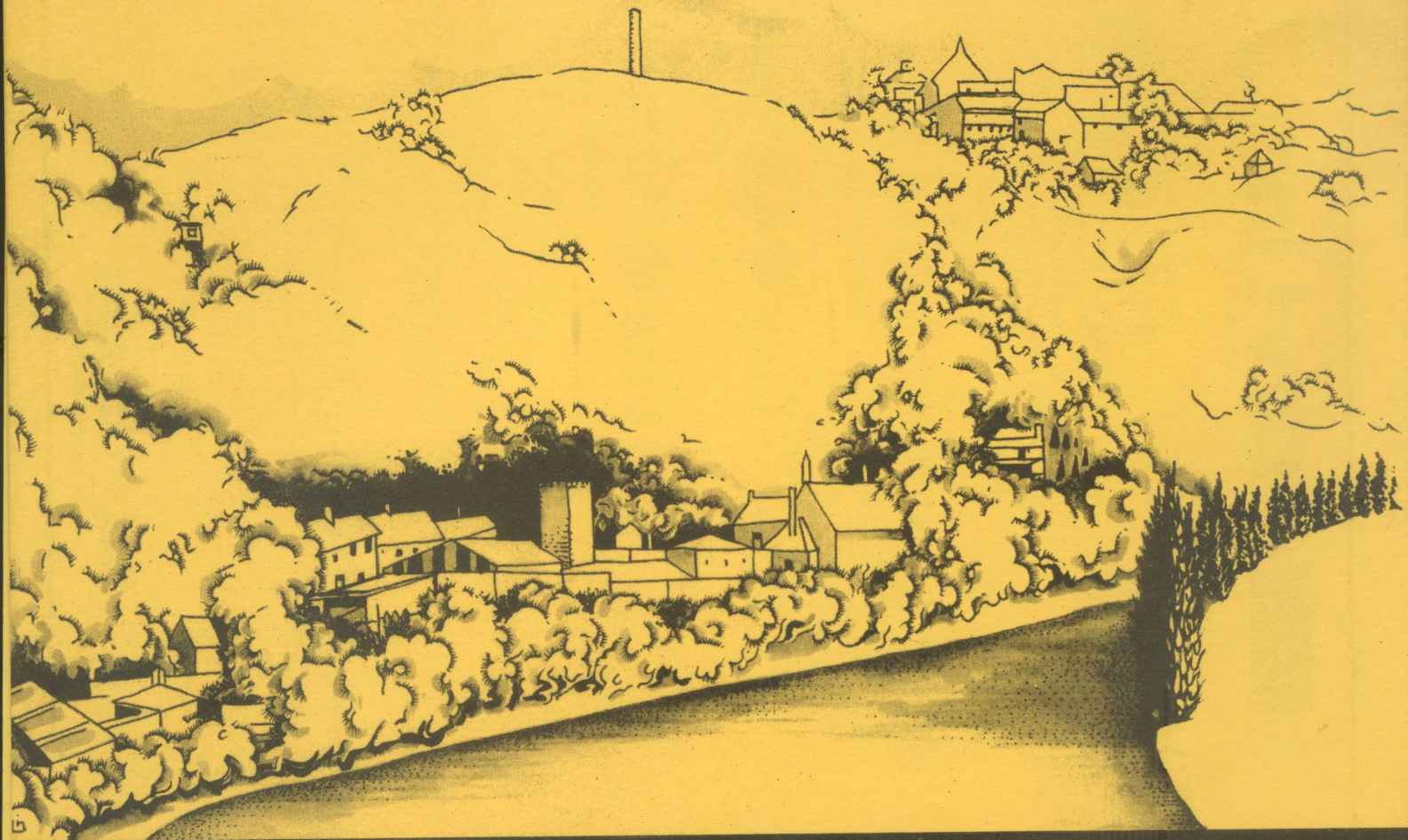




ST. ANNE'S AND CREW'S HOLE INDUSTRIAL TRAIL

INTRODUCTION

Crews Hole and St Annes have quite different pasts. St Annes was part of the medieval manor of Brislington, home of an ancient shrine, and apart from the later Brislington Pottery and modern board mills it was predominantly rural until the 1930's. Crews Hole was part of the Kingswood Forest; one of the many hunting grounds reserved for the monarch until the late 17th century. Later it became an important industrial site contributing considerable wealth and prestige to Bristol until very recently.

The first industries in Crews Hole were metal based such as copper smelting.

They had a plentiful supply of coal from local pits, some in Crews Hole itself, and the river provided cheap and easy transport to bring in metal ores. The river also gave good access to Bristol which was a major port for the developing colonies in North America and the West Indies: a huge and lucrative market for metal goods.

By the early 19th century the industrial revolution was entering top gear. The huge coal fields of Wales and Northern England had been developed and were producing in such quantity that the relatively small pits on the River Avon could not compete. However, Bristol had become an important manufacturing city and good industrial sites were at a premium. As the smelters declined new industries moved in: from button-makers to brickworks. The most successful were the Netham Alkali Works, 'Butlers' tar distillery and later St Annes Board Mills; the recent closure of these marks the end of an era.

Like all old industrial sites Crews Hole was badly affected by these activities, particularly in the 19th century. Today only unobtrusive light industry remains and it is planning policy to encourage this use while creating an attractive area in which to live, work and play.

The trail starts from and finishes at Conham River

Park where car parking is available. It will take about two hours to walk. Most of the route is on pavements or roads and so stout footwear should not be necessary.



St Anne's Well

1. THE TAR WORKS

In 1807 gas lighting was introduced into Britain. The gas was extracted from coal leaving behind tar, for which there was no known use until it was discovered in 1838 that it could be distilled to yield the wood preservative creosote. At the time Brunel was building the Great Western Railway between Bristol and London, part of which can be seen from Conham Park. He used creosote to preserve the wooden railway sleepers. The tar works was built in 1843 and was owned by Robert and Daines and managed by a one-time colleague of Brunel's, William Butler, who took over the works after a serious fire in 1863. After creosote, many new uses were found for tar extracts including moth balls, artificial dyes, road tar and motor benzole (petrol); Butler's being a leading developer in this last product. During the war, the works concentrated on producing Toluene for TNT and in later years supplied chemicals for plastics and drugs. For locals there were more direct benefits:

"When I was a kid this is where our parents brought us if we had Whooping Cough. You came out with a piece of rope, dipped it in tar, wrapped it up in brown paper and hung it round your neck. Everybody in the area swore by it, the fumes you breathed from the tar." - Eddie Duffett.

Eventually the tar works were sold to British Steel and closed in 1980 after a major fire. Local opposition ensured it never re-opened. The industry had been weakened by competition from oil distillation and a reduction in the supply of coal tar with the advent of natural gas. The vast complex of tanks and pipes has now been cleared but you can see one of the pumps outside the Bull Inn.

2. TROOPERS HILL

The name has nothing to do with troopers but is a corruption of 'Truebody's', a local landowner.

Crews Hole was not just an area of industry but also home to the workers and their families. Here on Crews Hole Road are two artisans cottages that were once to be found in groups all along the valley. The earliest residents were probably like the glassworkers of Bristol who, according to the philanthropist Hannah More (1745-1833) were ill-dressed, overpaid, irreligious and debauched.

True it was a lawless area, since it was the edge of Gloucestershire and the magistrates rarely made the arduous 40 mile trip from Gloucester to enforce the law. Nevertheless non-conformist, puritanical religion was strong in the area as illustrated by the chapel next door (built in 1810), one of three a few hundred yards apart. This is the only one surviving as a place of worship.

Just across Troopers Hill Road is the site of the



Troopers Hill



Crusole Pit. It was one of 7 or 8 in the immediate area with many more within a few miles to the north and east, all working the Kingswood coalfield. They supplied Crews Hole industries for over 200 years, but all the pits along this stretch of the river had closed by 1911.

The large chimney on the top of Troopers Hill belonged to the copperworks and later the tar works (No. 3), and is now the site of the Baptists' Cavalry service each Easter. The Baptists have a long association with the area; when persecution forced them out of Bristol they came to Crews Hole to worship. As many as 1500 would gather in a purpose-built cutting in the hillside.

3. THE COPPERWORKS

The copperworks were situated between Crews Hole Road and the river. It was established by the famous Bristol Brass Company in 1710 and used local coal and copper ore imported from Cornwall by boat. At its peak, 49 furnaces produced an estimated 200 tons of copper annually. Most of this was made into brass at the company's Baptist Mills Brassworks. An interesting by-product was bell metal which was sold to local bell-founders.

Slag from the furnaces was cast into rough building blocks, including triangular and half-round shapes for capping walls. These dark waxy-looking blocks can be seen all along the trail and indeed throughout Bristol: in the walls of the Black Castle in Arnos Vale and capping the walls of Ashton Court and the Sea Walls on Durdham Down. They can also be found in villages along the rivers Avon, Wye and Severn so it is probable they were used as ballast in boats. The site was vacated in 1796 and became a small chemical works before being absorbed by the expansion of the tar works. All that remains of the copperworks are the slag blocks and the chimney on Troopers Hill. The chimney was connected to the works by a flue and

Crusole Pit

sulphur may have been reclaimed from the walls. The walls of a second copperworks can be seen in Conham River Park.

4. THE CREWS HOLE

Near the bottom of Lamb Hill is the site of a short-lived pottery (1812-1819) owned by Anthony Ammatt, a well known and inventive Bristol potter. It produced cheap mugs and jugs of the type used in pubs, made from Isle of Wight sand and Poole clay brought in by boat.

Much more successful were the pipe and brickworks. One here by the river produced bricks, chimney pots and other red-ware. Further along the road, past Strawberry Lane, are the remains of a works which used local clay to produce lengths of piping. These remains are private property but may be seen from the road. The galleries created in the hillside by



Potteries (former pottery building)

digging out the clay were cleverly used as stores in which the newly made pipes were dried before firing. The earliest industry of note was a bottle works (1720-1840) producing bottles for wine, cider, beer, various liquors and water from the spring at Hotwells two miles down river. At the time Hotwells water was credited with healing powers and was exported to many parts of the world.

The area would have been an important focus for the local community. The building on the left is one of the three chapels mentioned previously (No. 2) and further along on the right was once the Lamb Inn, now used as offices.

The hillside behind the Inn is the site of the infamous Crews Hole. It is said to be a large cave, now bricked up and lost, in which sailors would store cargoes or smuggled goods. However, the name Crews Hole is more likely to be connected with an old local family called Cruse.

5. BLACKSWARTH ROAD

At the top of the hill was the site of a reservoir belonging to the oldest waterworks in the West Country and possibly Britain (1695). The water came from the river between Conham and Hanham via a conduit of hollow tree trunks and was pumped by an atmospheric steam engine said to have been designed by John Padmore. From the reservoir the water was fed by gravity to Bristol, $1\frac{1}{2}$ miles away across open country. At the time Bristol was expanding and its water supplies were becoming inadequate and other possible sources were polluted. Nevertheless the waterworks was not successful and closed in 1783.

At the bottom of the hill was the site of the lead smelting works of Sheldon Bush and Patent Shot Company. It was the most enduring of the smelters lasting well into this century. Ore was brought by boat from Montgomeryshire, Isle of Man and later Australia. In the process of smelting, lead-rich

smoke would be given off and this was directed through a huge underground flue 1200ft long where the dust would settle out and be recycled. Silver is a by-product of lead smelting and this works produced ten thousand ounces a year, worth well over £½ million at today's prices.

6. THE NETHAM ALKALI WORKS

The modern chemical industry started in the late 18th century and was still novel when the alkali works opened in 1828. By 1880 it employed 4-500 men and eventually covered 65 acres. The company was one of several that merged to form ICI, under whose ownership the works closed in 1949. The river was the main form of transport for materials and where you are standing was once busy wharves. The entrances to the works can still be clearly seen in the walls.

The effect of the alkali works on the immediate



Wall in Crews Hole Road

environment was devastating. Until the practice was banned in 1863, the works produced 440 tons of sulphuric acid each week in the process of which 264 tons of hydrochloric acid was allowed to escape into the air. It was 1933 before legislation was passed to control the manufacture of chemical manure, a particularly evil-smelling process. In addition, soda manufacture produced waste that was dumped nearby and gave off 'bad eggs' gas whenever it rained. Much of the waste from the alkali works was tipped on the site of the existing recreation ground. When the works closed the tip could not be built on due to the chemicals still in it: once a store of rubber burst into flame after reacting with the polluted ground. However, Bristol City Council covered the tip with soil from the Chew Valley reservoir excavations creating the Netham Recreation Ground.

7. NETHAM AND NEWBRIDGE ROAD

Here the river enters a wide low marshy plain originally unsuitable for building. It remained wet farmland until the industrial and city expansion of the 19th century. By then the site was on the city's edge and improved building techniques allowed industry to move in. One of the first was a tannery and manure works founded in the 1860's. The combination of this and the alkali works led a journalist of the time to describe the area as "enveloped in a permanent stench cloud".

An important factor which drew industry to both here and Crews Hole was the improved transport facilities provided by the Feeder Canal. This and the Netham dam were built in 1809 as part of the Bristol Floating Harbour scheme. The dam, actually a weir, holds back the river which flows down the Feeder to keep the harbour at a constant level. Any excess water overflows the dam and by-passes the harbour, flowing down the New Cut to rejoin the original course of the river at the Cumberland Basin.

Spanning the river is the New Brislington Bridge built in 1938, and often called the Coathanger Bridge because of its unusual shape. It replaced a light steel bridge built in the late 19th century to provide access to New Brislington, later called St Annes after the chapel (No. 9). The name Newbridge Road derives from the bridge.

When the first bridge was built St Annes was mainly orchard and pasture land, but some terraced cottages had been built to the right of Newbridge Road for workers at the railway shunting yards. The rest of the area was not developed until the 1930's when houses were built to accommodate the workers of the rapidly expanding board mills (No. 11).

8. ST ANNES WELL AND BRISLINGTON BROOK

St Annes Well is at least 600 years old and was part of St Annes Chapel (No. 9), an important shrine. Coins from the late 15th century were found in the well, probably religious offerings by pilgrims, and until recently local people have believed the water in it had healing powers. A local church held services here on St Annes Day (July 16) until the mid 1970's. The nearby Brislington Brook rises on Dundry slopes. It once powered Brislington Manor's flour mill on the banks of the Avon. The mill became notorious in 1774 when it was bought by John Jenkins who sold in Bristol large quantities of unusually cheap bread, the staple food of the time. The Bristol bakers claimed unfair competition and tried to have his bread banned by urging millers to withhold supplies of flour. Undaunted, Jenkins bought the mill on the brook to grind his own flour and went on to make a large fortune. When work on the Great Western Railway began in 1836, part of the mill became a tavern for the



Brislington Bridge

railway builders and the many people who came to watch the railway's construction.

9. ST ANNES CHAPEL AND BRISLINGTON POTTERY

By 1392 the chapel of St Annes had been founded by one of the Lords de la Warr who were Lords of the manor of Brislington which included the St Annes area. It is said that the knights came here to be blessed before going on the Crusades. It was certainly a stopping place for pilgrims travelling to Keynsham Abbey which administered the chapel. Eventually it became a place of pilgrimage in its own right, visited by Henry VII and his Queen, Elizabeth of York.

Inside the chapel was supposed to have been two square candles 80ft high, given by the Guild of Weavers. There were also 32 model ships, some made of silver, presumably votive offerings to St Anne as patron saint of ports, harbours and sailors.

In 1538 Keynsham Abbey was closed as part of Henry VIII's dissolution of the monasteries, and the chapel was abandoned and quickly fell into disrepair. By the end of the 16th century the Brislington Pottery had been built upon the chapel's foundations. A plaque

noting the chapel can be seen on the wall of St Annes House.

Brislington Pottery can justifiably claim to be one of the original homes of the modern British Pottery Industry. New advances in Europe had produced the first fine china in the Western world (Delft Ware) and Brislington copied these with exceptional skill. It closed in 1770 because it was too small to compete with larger, newer potteries opening in Bristol. A later owner of the site, apart from his legitimate business, forged money in the form of shillings. When one of his apprentices innocently tried to spend one, it was refused. The guileless lad said that it was not a problem because he would simply change it for another: "my master has lots, he makes them". His master was soon arrested.

10. THE FOOTBRIDGE

The footbridge marks an ancient crossing-point on the river. Originally it could be forded at low tide and must have been well used, for by 1247 a ferry had been established. Among its customers were pilgrims going to St Annes Chapel (No. 9) and many local people who bought flour from Jenkins' Mill (No. 8). Later it carried school children from the St Annes side going to the Roman Catholic School in St George and, in the opposite direction, workers to the board mills (see below and No. 11).

However, the ferry was expensive to run and in times of flood dangerous. Many children would not cross it in these conditions but rather take a long detour via the New Brislington Bridge (No. 7). Eventually the board mills, Roman Catholic community and City Council pooled resources and in 1957 erected the present bridge.

This bank of the river was very marshy and once lined with withy beds: a plantation of pollarded willows producing 'cane' for basketwork. Brislington Pottery (No. 9) packed their wares in baskets made from local

withies so they could be safely transported by packhorse.

At the start of the 20th century the land was bought by Imperial Tobacco from a local landowner named Chinnock, and the first part of what was to become the giant St Annes Board Mills was built. However, the marsh caused some problems. In 1961, as part of mill improvements, a 350ft chimney was built. Piles were laid for its foundation and some were 70ft deep without finding firm ground. The chimney was demolished in 1984.

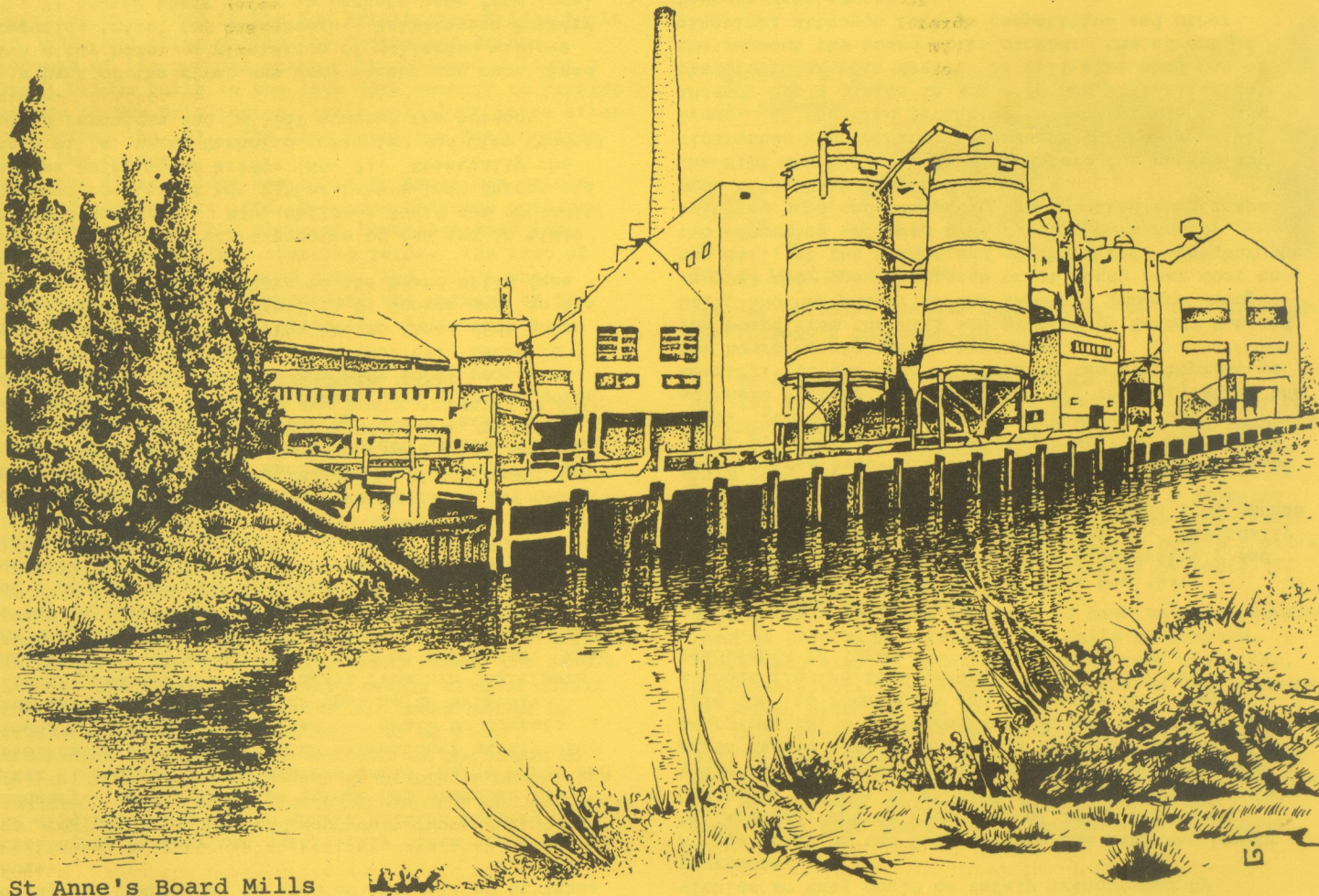
11. ST ANNES BOARD MILLS

The Board Mills opened on Christmas Eve 1914. Originally a 9 acre site, it grew progressively and then expanded rapidly after World War II. Eventually it occupied 100 acres along the river bank from Netham to Conham.

The Mill was self-sufficient in power and had its own water processing plant yielding $\frac{1}{2}$ million gallons an hour. Its coating mills, which gave the card a suitable surface for printing, were the largest in the country. It was also a leader in the development of new board manufacturing processes.

The board from the Mill was printed by Mardon Son and Hall, another member of The Imperial Tobacco Group. In 1922 they opened a large print works next door to the Mill, at the Netham end of the site. Together the two companies employed over 2,500 people and by bringing jobs and prosperity to the area they shaped much of present St Annes.

The Mill was built to make cardboard for packaging cigarettes and foodstuffs produced by The Imperial Group. At the time packaging in general was in its infancy but a glance in any shop now will illustrate the growth of this market. It will also show one of the reasons the board mills closed: the advent of plastics; although foreign competition and other factors were important.



St Anne's Board Mills

In time transport difficulties became a particular problem. When the Board Mills were built the river provided a cheap transport for raw materials: coal, wood for pulping and later wood pulp from Sweden, and china clay from Cornwall for surfacing the card. However, the size of boats was restricted by the river but they eventually became uneconomic as the rail and road networks developed.

12. THE TOWPATH

The trail back to Conham Park follows the towpath of the river. The path was probably established in medieval times when this stretch of the river became an important navigable waterway.

Until the end of the 18th century, rivers were the only practical way of transporting bulky or heavy goods. There were no railways as we know them and the canals were only just being built. Roads were mostly mud tracks, suitable for packhorses, which could only manage 10 miles on a good day. On the river it was possible to move large boat-loads rowed or towed by groups of men on the towpath.

For this reason the river was vital to the establishment of industry in Crews Hole, the development of which was partly dependent upon improvements to the waterway. The river upstream from Hanham was repeatedly dammed to power watermills. In the early 18th century passage was opened to Bath despite the violent reaction of the Bath colliers and others who feared cheap 'imports' from Bristol. Later this provided a direct link with London when the Kennet and Avon Canal was built a century later. The greatest impact came with the Bristol Floating Harbour Scheme, completed in 1809 (No. 7), which improved links to Bristol and the main sources of raw materials for the industries of Crews Hole.

By the mid-nineteenth century the river faced stiff competition from the railways, particularly the nearby

Great Western Railway. However, commercial haulage did not really decline until the growth of road transport in the 1940's.



Towpath
(looking towards Conham River Park)

Eddie Duffett 1926-1983

The inspiration for this trail came from Eddie Duffett who at his untimely death was preparing a history of the St. Annes and Crews Hole area. Eddie led many guided walks in the area including some on behalf of the County Council. The following is an appreciation of Eddie and his love for this part of Bristol from two fellow local historians:

Eddie Duffett took great pride in being able to trace his ancestry back in Bristol for almost three centuries. Since at least the mid-18th century his family had been potters and brickmakers who had moved their pottery to Barton Hill early in the 19th century. That was the beginning of their long association with the district and it was a member of the Duffett family who donated the land on which St. Luke's Church, Barton Hill, was built in the 1840s. Eddie had lived in St. Anne's for many years and freely shared with others his considerable knowledge concerning the history of the area. It was a pleasure to accompany him when he led guided walks along the Avon valley and hear his many fascinating stories and anecdotes about the people and places en route. This publication is intended as a tribute to him by his many friends who remember him with great affection.
Reg and Philomena Jackson.

Acknowledgements

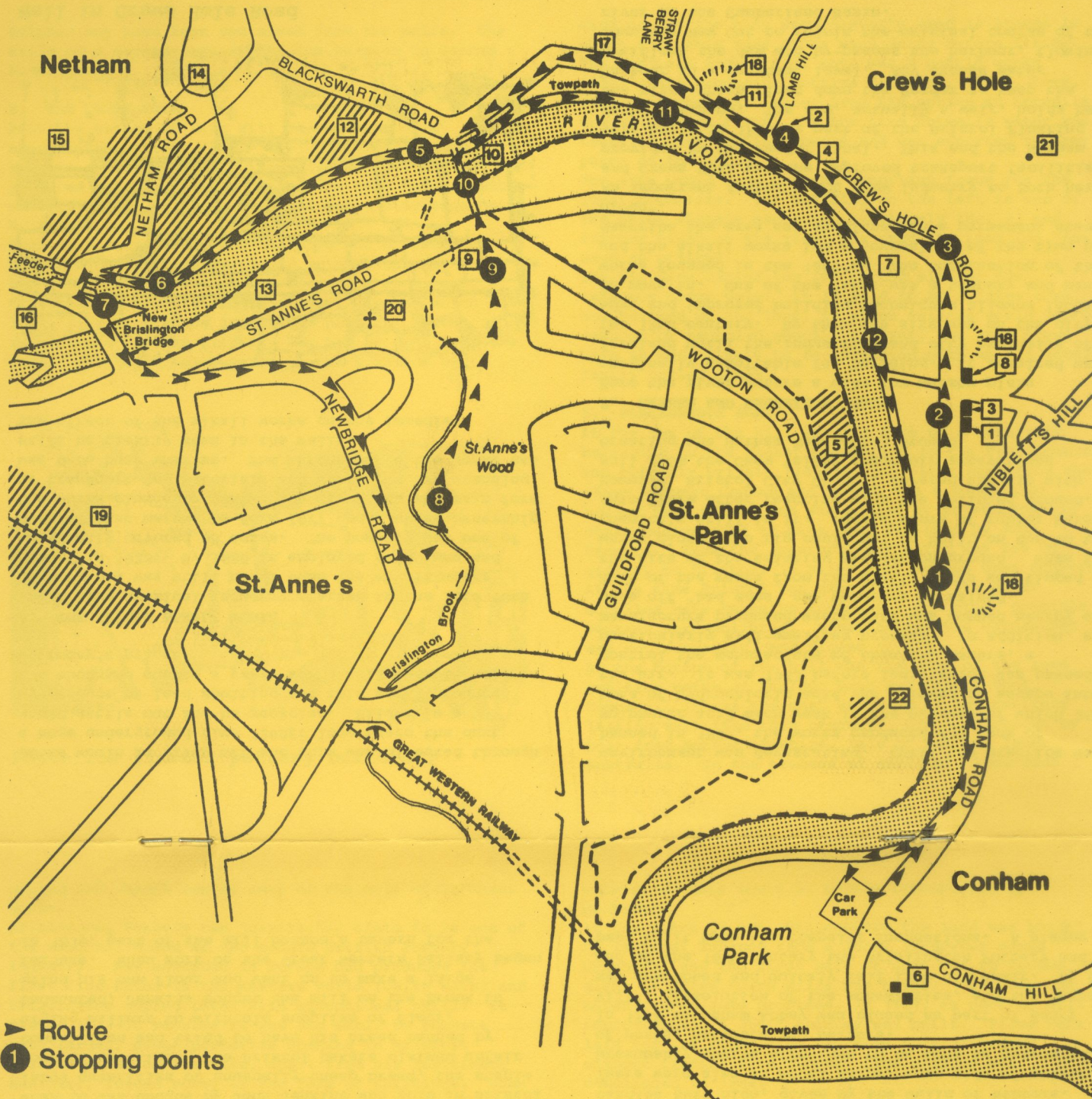
The text for this trail was written by Robert Guyver from Eddie Duffett's original work. The illustrations are by Lin Powell. Lin and Rob were both members of Avon County Community Environment Scheme a Manpower Services Commission Scheme sponsored by Avon County Council Planning Department.

Temple Local History Society for the use of the transcripts from two guided walks led by Eddie Duffett. The Society intend to publish a more detailed description of the area based on the transcripts shortly.

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Andy King, Assistant Curator, Bristol Industrial Museum.

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- Route
 ① Stopping points

Sites mentioned in text:

- | | |
|---------------------------|----------------------------|
| ① Artisan's cottages | ⑫ Lead Works |
| ② Ammatt's pottery | ⑬ Mardon, Son and Hall |
| ③ Chapel | ⑭ Netham Alkali Works |
| ④ Former chapel | ⑮ Netham Recreation Ground |
| ⑤ Clinker tip | ⑯ Netham Weir and Lock |
| ⑥ Conham copperworks | ⑰ Pipeworks, remains |
| ⑦ Crew's Hole copperworks | ⑱ Quarry, disused |
| ⑧ Crusole Pit chimney | ⑲ Railway shunting yard |
| ⑨ Flour mill | ⑳ St. Anne's Chapel |
| ⑩ Footbridge | ㉑ Trooper's Hill Chimney |
| ⑪ Lamb Inn | ㉒ Water processing plant |



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ST. ANNE'S & CREW'S HOLE INDUSTRIAL TRAIL