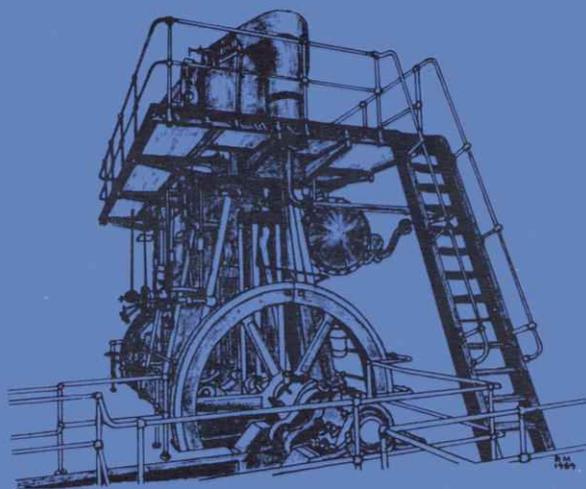


A Short Guide to the

INDUSTRIAL ARCHAEOLOGY of

HAMPSHIRE



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assisted by Tony & Mary Yoward

Association for Industrial Archaeology
Southampton University Industrial Archaeology Group

This booklet is published for the

ASSOCIATION for INDUSTRIAL ARCHAEOLOGY

Annual Conference held at Sparsholt, Hampshire in 1994.

The AIA was established in 1973 to promote the study of Industrial Archaeology and encourage improved standards of recording, research, conservation and publication. It aims to support individuals and groups involved in the study and recording of past industrial activity and the preservation of industrial monuments, to represent the interests of Industrial Archaeology at national level, to hold conferences and seminars, and to publish the results of research. It publishes the **Industrial Archaeology Review** which is sent twice yearly to all members who also receive the **Industrial Archaeology NEWS**.

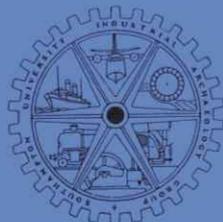
Further details may be obtained from the Membership Secretary, the AIA, The Wharfage, Ironbridge, Telford, Shropshire, TF8.7AW.

SOUTHAMPTON UNIVERSITY

INDUSTRIAL ARCHAEOLOGY GROUP

SUIAG was formed in 1968 to hold meetings and record sites of Industrial Archaeological interest and remains in Hampshire and the Isle of Wight. Meetings are held monthly at the University, residential visits are organised in the summer and a newsletter is sent to members twice a year. Associated groups are the **Tram 57 Project**, the **Twyford Waterworks Trust**, the **Hampshire Mills Group** and the **Solent Steam Packet Ltd** (SS Shiedhall Project) all of which are very active in their own fields. The group is actively engaged in the recording and conservation of IA sites in the county.

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The photograph of the Tram 57 Project by Nigel Smith, Bursledon Windmill by Gavin Bowie and the remainder were taken by Tony Yoward. The maps drawn by Anna Lukowska.

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HAMPSHIRE AN INTRODUCTION TO THE COUNTY

Popularly perceived as a rural county with a liner port at Southampton and some sailors at Portsmouth, Hampshire has in fact an industrial heritage to rival any of those areas outside the coalfields and the nineteenth century industrial agglomerations. It is true that a substantial part of the county is rural, and this has given rise to a rich hunting ground for those who are converted to the opinion that agriculture - once by far the most important industrial activity - constitutes industrial archaeology. From the medieval period there are tithe barns which, while not equalling the splendour of those in the West Country for instance, are impressive structures, in particular those at Beaulieu and Hayling Island, where the lord of the manor ensured that his table was enriched by the products of an enormous dovecote. The more affluent farmers followed suit, and the eighteenth century witnessed the development of many fine red brick farmsteads together with half-timbered granaries on staddle stones. The more ingenious added donkey wheels to ensure a drinking water supply, while others tapped rivers, particularly the Itchen, to feed water meadows. In the same direction, lime burning created a valuable fertiliser, although there are now only scant remains of the once numerous kilns. The feudal system, patronage and doubtless graft accumulated serious money in the hands of a few, many of whom built their piles in the county; such houses normally had icehouses, many of which remain. Model farms owe their origin at least in part to the availability of money; the Nicholson family used profit deriving from the sale of gin for their model farm at Privett. Saw milling often took place on landed estates, while water power was occasionally harnessed for threshing and like activities. At the close of the nineteenth century wind pumps made their appearance, but these metal towers are rapidly becoming rarities.

Of the industries related to agriculture, corn milling has arguably left the greatest imprint on the present day landscape. Water mills were sturdily built and many, now two centuries old, have survived, helped by a judicious switch to the use of water turbines and to the production of animal feed before their inevitable demise. An excellent example is Chesapeake Mill at Wickham. Tidal power was also employed to drive water wheels, and by any standards Eling Mill on Southampton Water is an object lesson in restoration; Quay Mill at Emsworth on the other hand enjoys a life of sorts as host to a sailing club. Although Hampshire is not associated with windmilling, over a hundred sites have been documented, but they were less able to withstand the winds of economic change; two have become residences, although the third, at Bursledon, is operational once more. Steam mills were usually established in urban areas and were thus swept away by development, making the survival of the 1830 mill on Fareham

Quay all the more unusual. Brewing, like corn milling, was at one time an ubiquitous activity, but since the speed of change has been very much greater, few breweries remain; in fact there is now only a single firm in production - Gales at Hordean. The village brewery at Southwick was resuscitated largely by voluntary effort, but the vagaries of excise laws ensured that after a trial brew it lapsed into the role of museum. At one time Alton was especially important for brewing and malting, while sailors achieved similar status for Portsmouth.

Liners may still call at Southampton, albeit on cruises rather than scheduled services, but the hey-day of the luxury liner was terminated three decades ago by jet air travel. Moreover, container ships have made conventional cargo vessels redundant, with the consequence that the old docks opened in 1842 have lost much of their traffic, and with it, ship repairing. The location is now the site of Ocean Village, a tawdry attempt to revitalise the sea front via retailing and marina. Navigation was assisted by the construction of lighthouses at salient points on the coast at Hurst Castle, Calshot and Southsea Castle, while for a time aircraft manufacture, above all flying boats, was attracted to the River Hamble by the sheltered nature of Southampton Water. Never an important commercial port, Portsmouth thus failed to attract shipbuilding and repair; the power of the naval presence being the principal cause. Interesting relics of former commercial port activity may be seen at Fareham, where there is a small ropery in addition to old warehouses. And at Bucklers Hard on the Beaulieu River, the small scale of wooden shipbuilding enterprises in the eighteenth century is patently clear.

If commercial activity has been stressed, this is because the greatest concentration of manufacturing in Hampshire was government-inspired, to wit, Portsmouth Dockyard. The importance of the site is well known to industrial archaeologists and there is no need to rehearse the details here. Suffice it to say that there are artefacts dating from 1698, that structures from the last quarter of the eighteenth century abound, while all the major changes in naval ship construction may be seen in the associated functional architecture of the yard. It was and is a treasure trove for the discerning. Outside the Dockyard lies HMS *Warrior*, our first ironclad, and on the opposite side of Portsmouth Harbour at Gosport is Royal Clarence Yard, the naval victualling base with its enormous granary and adjacent biscuit factory built 1830-2. The important work of Froude on ship design was carried out for the Admiralty at nearby Haslar. To the north Priddy's Hard was constructed in the 1770s to store gunpowder and ammunition. Beyond these installations a series of ramparts and forts were erected to keep out the French who tantalisingly never arrived. Perhaps the wonders of fortifications will one day be claimed by industrial archaeology, after all, such structures are monumental pieces of civil engineering. Sad to say, such military sites as the

Farnborough balloon factory and First and Second World War airfields lack the glamour of Hampshire's naval heritage.

More mundanely, Hampshire had its share of those industries which economists are pleased to describe as residentiary, that is, those whose importance is related to the size of the local population: water supply, gas manufacture, sewage disposal and electricity generation. Twyford water pumping station boasts a charitable trust who turn over a triple expansion engine by compressed air, and until recently Portsmouth Museums regularly steamed an 1887 Watt beam engine at Eastney sewage pumping station. Brick making was more localised, depending on materials, but the presence of some industries contains an element of chance. How else to explain such heavyweights as Armfield's turbine factory at Ringwood, the Portsmouth corset industry, Henry Cort's foundry at Funtley where he solved the problem of making wrought iron at a viable price, the Schultze gunpowder works at Fritham, or the Witchurch silk mill?

The developments described would not have been possible without the gradual emergence of a transport infrastructure. During the eighteenth century and later, turnpikes were fairly intensively expanded, from the first between Petersfield and Sheet (1711) to the last which linked Bishops Waltham and Fishers Pond (1833), providing a much improved basis for the movement of people and goods. Milestones, tollhouses, bridges and coaching inns are reminders of the system, later to be overtaken by the railway. Generally contemporaneous with the opening up of the road network was the construction of inland waterways, not that they had quite the same impact or generated the same profit. The Act for the Itchen Navigation between Southampton and Winchester was 1665, but it was not completely opened until 1710; turf-sided locks were a feature of the system. The Andover Canal began operations in 1789, the Basingstoke to Aldershot canal in 1774, the Southampton to Salisbury canal the following year, and the Portsmouth Canal commenced trading in 1822. But pre-dating all these was the Titchfield Canal of 1611; this canal used the valley of the River Meon but not the actual river, thus giving it a claim to be Britain's first canal. Since it was constructed on private land, no Act was needed, causing it to be side-lined in the near-vitriolic debate about the senior canal.

Mention has already been made of ports; it should be added that the curiously British invention the pier was much in evidence in the county, substantial structures being built at Southsea and Southampton, largely to take steamer traffic. By far the longest, however, was that at Hythe, graced with an electric railway. The generalities of the railway era are as well known as their importance was great. Hampshire has two outstanding classical termini in Southampton Terminus and Gosport, both constructed at the very dawn of the

age, and both by the same architect, Sir William Tite. There are also a number of important viaducts, and even a carriage and wagon works (1888) and a locomotive works (1909), both at Eastleigh, very much an unfashionable railway town. Flying boats used Southampton during their brief period of operation, and an even speedier and much earlier means of communication, the Admiralty telegraph, linking the capital with Plymouth and Portsmouth, has left its impress in the form of a number of undistinguished buildings. In any event, the county's industrial relics are nothing if not diverse.

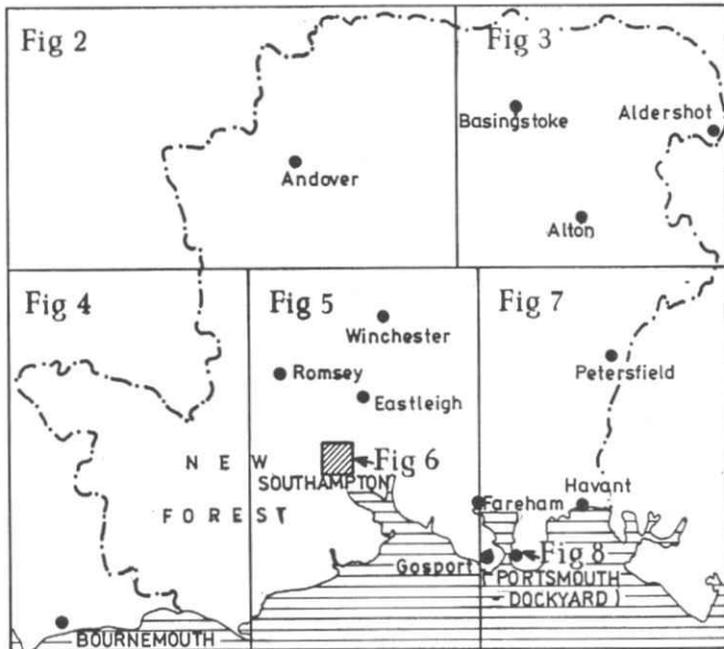


Fig 1 A Visual Index to the Maps

ANDOVER AREA

AN 1 FULLERTON SAW MILL River Test SU.379394

The two storey mill and house with a high pitched roof are in a continuous range. The wheel sluices and waterways are intact, but the gantry and external hoist have been removed. The mill scales by "Day and Milward of Birmingham" are still in use.

AN 2 CLATFORD BRIDGE UPPER CLATFORD SU.357435

Carrying the road over the River Anton, this bridge was cast at Waterloo Ironworks, Andover, in 1843. It consists of two cast iron arches which have perforated discs in the spandrels formed by their shallow curves. Cast iron columns hold the handrails on either side.

AN 3 WHITCHURCH SILK MILL SU.463479

The mill, which is run by a Trust, is still used for silk manufacture, powered by electricity. The breastshot waterwheel, in a projecting wheelhouse, has been restored to working order. The machinery includes a sluice controlled by a governor driven by the wheel - an arrangement unique in Hampshire. The three storey mill has five bays and is constructed of brick with a slate roof. The bell turret and clock

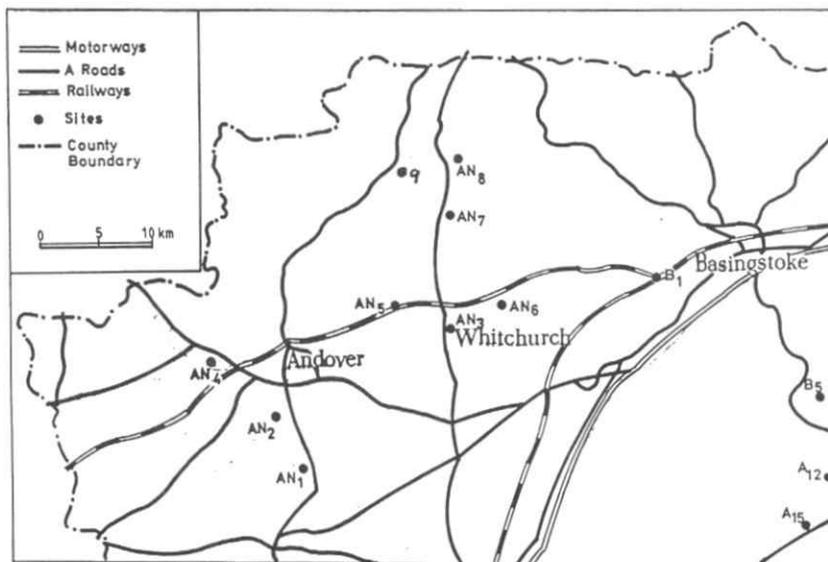


Fig 2 The Andover Area

date from 1815, being installed to commemorate the Battle of Waterloo. Much of the machinery in the mill dates from the early years of the present century.

AN 4 WORLD WAR I AIRFIELD, ANDOVER SU.330455

Opened by the RFC in 1918 as No 2 School of Navigation and Bomb Dropping, this grass airfield was closed in 1980. Although mostly cultivated, it is still the best preserved World War I airfield in Hampshire. Five of the original seven hangars with wooden 'Belfast Truss' roofs and brick buttresses survive.

AN 5 HURSTBOURNE RAILWAY VIADUCT SU.430490

This is one of the major railway engineering works in Hampshire. It carries the line between Basingstoke and Andover, opened in 1854, high over the valley of the Bourne on nine brick arches.

AN 6 LAVERSTOKE PAPER MILL SU.492487

Henri Portal, a Huguenot refugee, established this mill in 1719. In 1724 he was given the contract for the manufacture of Bank of England note paper, a franchise still held by the Portals today, although papermaking at Laverstoke ceased in 1963. The three storey brick mill dates from 1881, and has six bays and a slate roof.

AN 7 LITCHFIELD STATION SU.460529

The Didcot, Newbury and Southampton Railway, opened in 1885, became part of the GWR system. Its stations with their dormer windows were very distinctive, and after the closure of the line to passengers in 1960, a number have survived in private use. Litchfield, after a period of decay, has been restored.

AN 8 OLD BURGHCLERE LIMEKILN SU.472575

The remains of two 'patent' kilns survive, together with a ramp and a charging floor. The entire site is heavily overgrown and very dangerous. The line of the tramway joining the kilns to the pit is still clear and is now a footpath. The enormous pit survives, and is a nature reserve, and permission for entry is needed.

AN.9 CRUX EASTON WIND ENGINE SU.425564

Remains of a 20ft "John Wallis Titt" wind engine erected circa 1891. A Trust has been formed to restore the 48 canvas annular sails and return it to working order.

ALDERSHOT AREA

ALD 1 GASHOLDER, ASH LANE, ALDERSHOT SU.882501

This column-guided holder has an above ground steel tank. When fully inflated the holder contains 3m cubic ft; it is unusually tall for its capacity, 212ft to the top of the guide framing. About 1 million rivets went into building this holder in 1926/7. There are five lifts.

ALD 2 EELMOOR FLASHLOCK, ALDERSHOT SU.842528

This lock on the Basingstoke Canal (1794-1906) was used to increase the storage capacity of the long pound from Aldershot to Basingstoke. At 823537 is Pondtail bridge with a cast iron span and brick piers, and at 881518 is Ashlock, a restored single lock marking the beginning of the long pound that continues to the terminus at Aldershot. The canal depot and manager's office for the Hampshire section of the canal stand beside the lock.

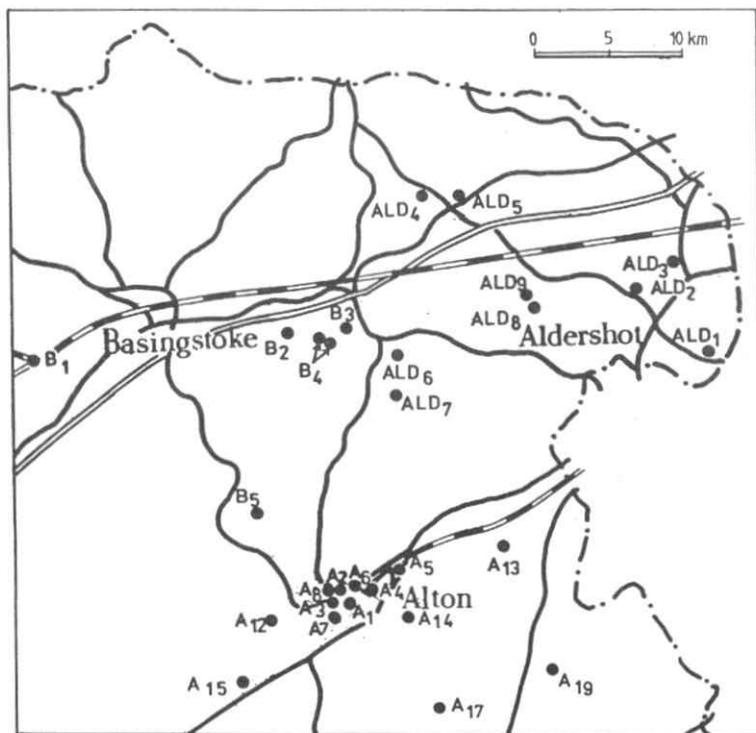


Fig 3 The Aldershot, Alton and Basingstoke Areas

ALD 3 ARMY BALLOON FACTORY FARNBOROUGH SU.869545

The Factory and School were opened in 1906 and some interesting buildings survive: the original iron-framed 'Balloon House' brought from Aldershot and extended in 1912, the original workshop block of 1906-12, the Headquarters and Mobilisation Store of the Balloon School (1909), the main office block of the Factory (1912), and three of the original ten aircraft hangers (1912). Visible from the road is a large grey building with clockface which houses the unique 24ft low-speed wind tunnel.

ALD 4 HAZELEY BOTTOM BOTTLE KILN, HARTLEY WITNEY

SU.754578

Almost hidden by vegetation, the kiln has a rectangular brick chamber with a bottle chimney. There are three fire holes and an arched doorway for access to the kiln. Also extant is a short length of narrow gauge railway.

ALD 5 HARTLEY WITNEY GASWORKS SU.769575

The front portion of the 1860 retort house remains, including a plaque. The works closed in 1909 when gas supplied from Aldershot.

ALD 6 MALTINGS ODIHAM SU.743509

Although disused for many years, the distinctive rendered and tiled buildings remain. Across the road is a double-towered kiln house. Both are well preserved, and in alternative uses.

ALD 7 ODIHAM AERODROME SU.740490

This was built in 1936-7 as one of the new permanent stations of the RAF, and virtually all the main buildings and hangars are of this period. It is probably the best preserved example in the country.

ALD 8 BASINGSTOKE CANAL SWING BRIDGE, CROOKHAM

SU.798518

A steel replica of the type once used on the canal.

ALD 9 HOP KILN, CROOKHAM VILLAGE SU.793527

A fine example of a twin kiln and adjacent storehouse.

ALTON AREA

A 1 MALTINGS, ALTON

A surprising number of maltings are still to be seen in Alton, once an important brewing centre. Remains of the Hall and Crowley brewery maltings are at SU.718392; the brick and tile malting of the Courage brewery is in Turk Street (SU.720392) opposite the Bass brewery; and Watneys malting, retaining its shingle-clad air vents, is partially sunk in the hillside off Turk Street (SU.718390).

A 2 HOP KILN, ALTON SU.716391

The remains of a hop kiln operated by a local builder may be seen in Draymans Way opposite Sainsburys.

A 3 FIELDER'S BREWERY, ALTON SU.716394

Substantial parts of the original 18th century brewery, later used by the Wey Iron Works, are visible in the Community Centre at the foot of Amery Hill.

A 4 ANSTY MILL SU.729400

A large Poncelet wheel with a heavily iron bound wooden axle lingers on in the ruined mill building.

A 5 NEATHAM MILL, near ALTON SU.739407

The mill wheel is preserved in what is now a private house. Many of the original water channels and sluices remain amid the small industrial units nearby.

A 6 VICTORIA FOUNDRY, ALTON SU.720396

The large wrought iron gates to a courtyard near the cinema on Normandy Street were the entrance to this 19th century foundry which supplied drain grids (marked W.B. Blake) to the town. The old building can be seen from the alleyway behind.

A 7 WEBB'S SEWER GAS ELIMINATOR, KING'S ROAD, ALTON SU.708389

This is a restored and working example of the Webb patent.

A 8 TOLLHOUSE, LENTEN STREET, ALTON SU.712394

A small house on the Alton-Basingstoke Turnpike which lost its function when the bar was moved to the turn-off for Odiham.

A 9 ALRESFORD FULLING MILL SU.585332

This thatched, timber-framed building was converted to a dwelling many years ago. It has a brick infill, but the whole has now been colour washed. The mill is two storeys high, with four bays. No machinery remains.

A 10 NEW ALRESFORD TOLLHOUSE SU.578324

A component of the Winchester and Alton Turnpike of 1753, this octagonal, two storey red brick building has protruding and infilled porches on two sides, both with classical pediments, and an extension on a third side.

A 11 ALRESFORD STATION SU.589324

The Mid-Hants line was opened in 1865 and closed in 1973. The station has been reopened as the terminus and offices of the "Watercress Line", who have preserved it and made some additions. A goods shed survives, but in poor condition. A warehouse is located at 589325.

A 12 DONKEY WHEEL WELL LANE, BEECH SU.687386

This communal wheel is encased in a timber building on a brick base, with a slate roof. The wheel is 12ft in diameter and 3ft 8 in wide. The rims are supported at 12 equally spaced points by two sets of spokes, each main spoke carrying two subsidiaries. The main shaft runs across the well, which is about 200ft deep.

A 13 ADMIRALTY TELEGRAPH, BINSTEAD SU.785414

A three storey building, whose mast has now gone; one of the stations on the 1831 Woodfalls to London line.

A 14 HOP KILNS, EAST WORLDHAM SU.749381

These three pyramidal kilns, one in stone with a tiled roof, the others in brick with slate roofs. have been converted to a house.

A 15 MEDSTEAD and FOUR MARKS STATION SU.668354

Restoration work has resulted in this becoming a typical Southern Railway wayside station. A small goods shed survives.

A 16 ROPLEY STATION SU.631324

Locomotive restoration for the Mid-Hants Railway is undertaken here. The station has been refurbished in LSWR colours with appropriate platform furniture. The unusual topiary has been retained.

A 17 SELBORNE BRICKWORKS SU.767342

This was an estate brickworks for over fifty years, and began outside sales in response to a building boom in 1933. The clay is brought from an adjoining pit by a cable-worked incline. A single cylinder horizontal oil engine drives the pug mill, and the green bricks are made by a wire cut machine. The Hoffman kiln has been abandoned, and brick burning is now carried out in a modified Scotch kiln. Two million bricks from here were used to build the new Glyndebourne Opera House.

A 18 FOLLY HALL FARM WINDPUMP, ITCHEN STOKE SU.560334

Thought to date from the 1930s, this pump was reconditioned in 1972. It supplies water to the farm and seventeen cottages, pumping from a well 118ft dep. With a 25ft tower, it has an 18-blade fan and a metal pump rod with about a 6in stroke.

A 19 HEADLEY MILL, River Wey SU.813357

The stone buildings date from the 16th to early 18th century. The mill produces wholemeal flour and provender, power being provided by a 12ft 5in diameter breastshot water wheel. There are three pairs of French burr stones and one of Derbyshire peak. The wheel drives two pairs at a time. The millpond has been increased in size to 4 acres by raising the milldam.

BASINGSTOKE AREA**B 1 BATTLEDOWN RAILWAY FLYOVER, BASINGSTOKE SU.589507**

The only Hampshire example of the flyovers of the type now associated with motorways. Opened in 1897, this impressive bridge carries the up Southampton line over the West of England line at a point near Worting Junction.

B 2 LITTLE TUNNEL, BASINGSTOKE CANAL SU.692519

The canal worked between 1794 and 1906, linking with the River Wey and then to London. The structure of the tunnel is fairly complete, although the roof is unsafe. It is 50 yards long, and is reached by a track which leaves the Basing-Up Nately road (at 692522). At the west end of the tunnel stop plank grooves can be seen, and in the brickwork of the east portal rope marks are visible. A towpath runs through the tunnel.

B.3 WHITEWATER AQUADUCT, BASINGSTOKE CANAL. SU.724518

Although river and canal appear to be on the same level at this point

there is no mixing of waters. The river is carried under the canal in a series of syphon pipes originally of elm wood, but now concrete.

B 4 GREYWELL TUNNEL, BASINGSTOKE CANAL SU708518-719515

The west portal of the tunnel, largely collapsed and overgrown, may be approached by a restored towpath from Eastrop Bridge (705520). The east portal has been restored by the Surrey and Hants Canal Society. A path from the Greywell-Odiham road crosses above the tunnel entrance. Ways of opening the blocked 1200 yard tunnel are being considered. The tunnel has no towpath and horses were led over the hill.

B 5 LASHAM AIRFIELD SU.675435

Built in 1941-2, this is a typical example of a RAF standard operational airfield, with three hard runways and buildings dispersed in small groups round the perimeter. Three original T2 hangars remain, but only fragments of the domestic sites. The main runway is still used by heavy aircraft, and the site has the most intensive gliding activity in the country.

NEW FOREST AREA

N 1 ST LEONARD'S FARM BARN, BEAULIEU SZ.406982

Of the 13th century tithe barn, an enormous structure measuring 215ft by 60ft, only the two gable ends survive. The later barn, which occupies a quarter of the original area, makes use of part of the western gable end and north aisle wall of the medieval building. Material was used in its construction from the partly demolished south wall. It is mainly of stone with a tiled roof, hipped at one end.

N 2 ROPE and TWINE FACTORY, BEAULIEU RAILS SU.371013

Established in 1816, this is a small industrial complex with factory buildings, now residences and a brick terrace of four workers' houses. Rope, twine and sacking were made from flax produced on the Beaulieu Estate.

N 3 BEUFRES FARM THRESHING SHED SU.386011

This fine example is easily visible from the road.

N 4 BEECH HOUSE ICEHOUSE, BRANSGORE SU.201977

The structure is in good condition except for some deterioration of the brickwork at the entrance. The 10ft passage leads to the pit which

contains much rubbish. Tall beech trees grow on the mound covering the icehouse.

N 5 BUCKLERS HARD SHIPYARD SU.408001

Of the centres where wooden shipbuilding was carried on in the 18th century, this is the sole survivor of any significance. It has been preserved as an example of an industrial village, with picturesque cottages, a chapel and the home of the Adams family who built ships here for over a century. At nearby Bailey's Hard (395014), there is a fine example of a downdraught brick kiln.

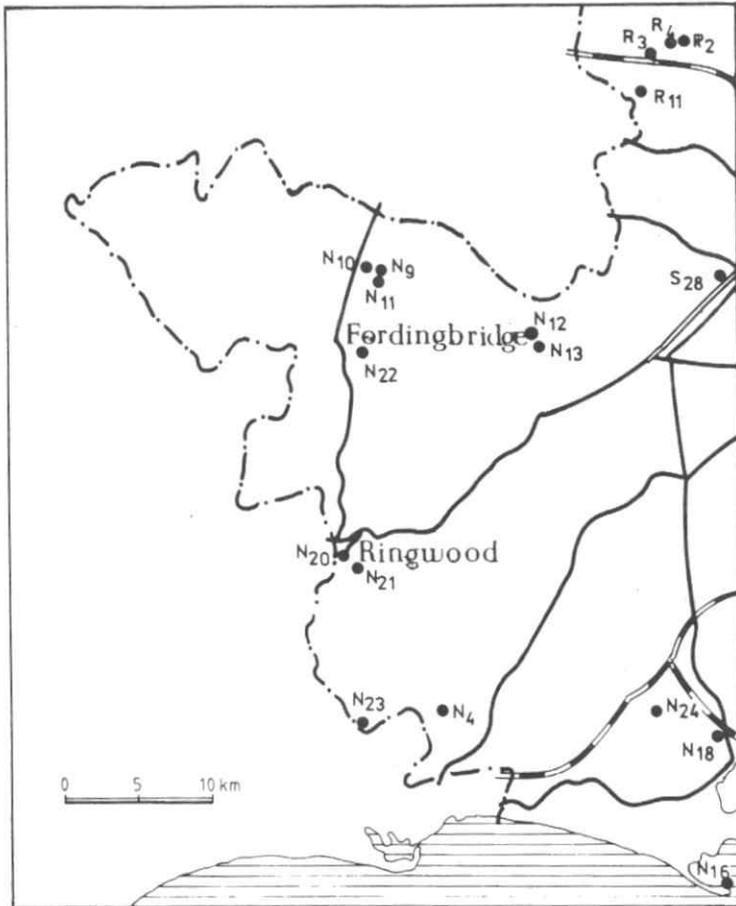


Fig 4 The New Forest Area

N 6 CALSHOT FLYING BOAT BASE SU.489025

In March 1913 the Admiralty established a base for flying boats; the main steel-framed hangars, now used as a sports facility, were erected about 1917. The camp buildings have mostly disappeared, but the former Officers' Mess survives as the 'Flying Boat' hostelry.

N 7 ELING TIDE MILL SU.365125

Restored in the early 1980s, the mill is operational and open to the public. Built of brick, it had a pair of Poncelet wheels by Armfield of Ringwood set side by side each with its own machinery, thus providing two independent mills in one building. One set of machinery has been restored to working order. The milldam carries the road and toll gate, and is known as Eling Causeway. Tolls are still charged. Tidal flow from Eling Creek provides most of the water supply, with fresh water assistance from Bartley Water.

N 8 NARROW GAUGE RAILWAY ESSO REFINERY, FAWLEY SU.463042

The southern end of this huge complex includes the small A.G.W.I refinery built in the early 1920s. Many lengths of 2ft gauge track remain from the former internal rail system.

N 9 BREAMORE RAILWAY STATION SU.161177

Built for the Salisbury and Dorset Junction Railway in 1866, this brick station and the up platform canopy survive, but in dilapidated condition.

N 10 BREAMORE SMITHY SU.161176

Made of brick, partly pebble-dashed, with a hipped slate roof and brick chimney, this smithy is still in use.

N 11 WOODGREEN BARN SU.163175

This traditional brick and tile barn is unusual in that it has two reinforced concrete embrasures built into it as a reminder of its wartime function as a pillbox.

N 12 SCHULTZE GUNPOWDER FACTORY, FRITHAM SU.228147

The Schultze Gunpowder Factory, which operated from 1865 to 1923, was established on a site in the New Forest well away from habitation. It specialised in the production of smokeless sporting powder, and at one time supplied much of the world's demand. The rural situation made it possible for various buildings to be dispersed, thus reducing the consequences of accidental explosions. At one time the works

employed more than 100 people. The manager's house, the lodge and some stables are visible, as is the large reservoir which once provided water to the boilers supplying power for the machinery and heat for the drying sheds. None of the factory buildings or machinery survives.

N 13 INDUSTRIAL HOUSING, FRITHAM SU.232140

Eight cottages were built in 1904 for workers at the gunpowder mill, together with a chapel. Nearby (232143) stands a pillar box installed by the firm.

N 14 HYTHE PIER SU.425085

This 1880 structure is the longest pier on the south coast at 2100ft, and is little changed. It is constructed of cast iron, originally protected by a patent pitch concoction, 'Dr Angus Smith's Solution'. A ferry service operates to Ocean Village in Southampton Docks. A 2ft gauge electric railway ran along the pier.

N 15 FLYING BOAT MAINTENANCE BASE, HYTHE SU.429077

A base for flying boats on runs to South Africa, India and Australia, it was operational between 1937 and 1950. First World War hangars were used, and these still stand with a pier for passenger embarkation.

N 16 HURST POINT LIGHTHOUSES SZ.318899 - 317898

Of the five lighthouses which have been erected, three may still be seen. The present high light (85ft) dates from 1868 and contains what is believed to be the last complete acetylene generating unit in Britain, shut in 1968. The low light also of 1868 is disused, but its tower may be seen. The light which replaced the latter in 1911, a tapering steel structure, stands nearby, but is likely to be decommissioned in the near future.

N 17 SALT INDUSTRY, PENNINGTON, LYMINGTON SZ.326934

Beside Lower Woodside Creek three red brick buildings are remnants of the salt industry, which derived its material from sea water. Nearby is the channel used by barges bringing coal and leaving with salt.

N 18 BUCKLAND TOLLHOUSE, LYMINGTON SZ.316965

Built in 1789 for the Lyminster-Southampton Turnpike, this brick, partly tile hung structure is now a heritage centre.

N 19 MILESTONES A337

A few of the MS from the Salisbury, Landford, Ower and Eling (1753), and the Lymington, Lyndhurst and Rumbridge (1765) Turnpike survive. They are inscribed and are either triangular or with a curved top.

N 20 RINGWOOD POWER STATION SU.144055

The Hampshire Avon formerly powered several low-head hydro-electric generating stations. The Ringwood station opened in 1924 beside the A31, but only the hatches remain on site. One of the turbine sets, built locally by Armfield, is on show in the S.E.B. museum at Christchurch.

N 21 ARMFIELD FOUNDRY, RINGWOOD SU.152047

The buildings of Munden's smithy in Duck Island Lane are Joseph Armfield's original works, the later factory having been demolished. Armfield water turbines were once one of the leading world makes.

N 22 ARMFIELD'S STUCKTON, FORDINGBRIDGE SU.160134

Ironworks buildings surround three sides of a square, with the house of the ironmaster on the fourth. The Cornish engine was removed in 1920 and the chimney demolished. The buildings were acquired by Armfield in 1882. The foundry was closed in 1908, but the 18th century building is still used for storage.

N 23 SOPLEY MILL, River Avon SZ.156967

From the brickwork, it appears that the mill was extended from four to five bays and increased in height; the date 1878 is incorporated. Milling ceased in 1946. It is now in use as a restaurant, and a "New American" turbine manufactured by Dayton Globe Iron Works stands in front.

N 24 SWAY TOWER SZ.280968

This tall concrete tower, 218ft high, known as Peterson's Folly, was built 1879-85. It was made of Portland cement concrete, one of the earliest uses of this material. No scaffolding was used in its construction, and it was a pioneer in the use of mass concrete in large buildings. It is now a hotel and restaurant.

EASTLEIGH AREA

E 1 EASTLEIGH LOCOMOTIVE WORKS SU.458188

These works opened in 1909 and for forty years steam locomotives were built here. Some of the buildings are still in use for the repair and maintenance of diesel and electric rolling stock. An S15 class locomotive no. 30828, built at the works in 1927 and withdrawn in 1964, has been restored on the premises. Nearby (458192) is the carriage and wagon works opened by the LSWR in 1888, having been relocated from Nine Elms, London.

E 2 EASTLEIGH STATION SU.458191

The station has recently been redesigned: the old platform 1 is now a car park, the other platforms have been renumbered and the swing bridge for parcels removed. However the original station house built in 1840 to the design of Sir William Tite remains, and the canopy on platform 1 is supported by original iron pillars marked "Lankester Southampton 1841".

E 3 RAILWAY HOUSING, EASTLEIGH SU.457184

With the move of the Locomotive Works from London in 1909, the LSWR built 175 terraced houses on both sides of Campbell Road. All are similar, with gardens at the rear.

E 4 BISHOPSTOKE (OR STOKE) BRIDGE, ITCHEN NAVIGATION SU.465193

When the Navigation ceased to maintain its bridges by the 1880s, the local Highway Board replaced a number of them with fixed iron spans; this is the most southerly example.

E 5 BISHOPSTOKE WATERMEADOWS SU.465187

Near the Conegar lock on the Navigation may be seen a good example of former water meadows. Although long disused, remains of sluices and drainage channels survive.

E 6 ITCHEN NAVIGATION LOCKS

Conegar lock (SU.4466188) is typical of those on the Navigation, being turf sided, although erosion has been prevented by the provision of a brick toe. Sluices for inundating the water meadows may be seen at the head of the lock. Allbrook lock (SU.462212) unusually has a brick-lined chamber - the result of damage by the London-Southampton railway,

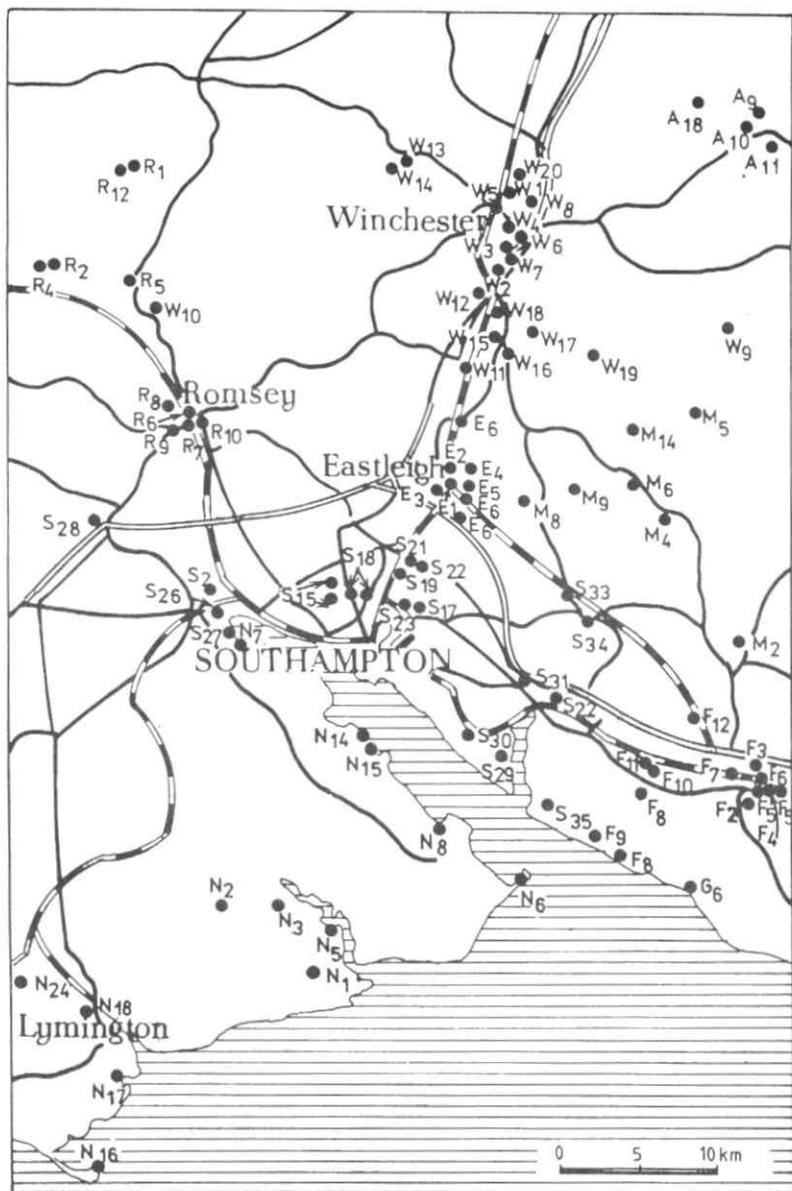


Fig 5 The Eastleigh, Romsey, Southampton and Winchester Areas

necessitating a rebuild in 1838. Lock House lock (SU.467175) is largely obscured by vegetation, but the wall at the tail of the lock is visible, and the niche which indicates the position of the heel post of the gate may be seen.

ROMSEY AREA

R 1 HORSEBRIDGE MILL, KINGS SOMBORNE SU.346305

The mill is of three storeys, five bays and is built in brick with a pantile roof. It adjoins the millhouse which is now a residence. The fourth bay has doors at each storey and a gantry projecting above. An Armfield water turbine remains.

R 2 LOCKERLEY HALL GASWORKS SU.293281

The gashouse of about 1867 is unaltered except for the retort bench chimney which has been truncated, and is the most notable survival in Hampshire. In Edwardian times carbonisation gave way to acetylene gas, made by adding water to calcium carbide..

R 3 LOCK NO.4, SOUTHAMPTON and SALISBURY CANAL, Near LOCKERLEY SU.289268

This lock, the best preserved on the canal (authorised in 1795), may be seen from the road between Lockerley Green and Holbury Wood. Only the south side of the chamber remains.

R 4 LOCKERLEY HALL FARM SU.293280

Lockerley Hall, built in the 1860s, had a model farm on the estate. The polygonal dairy, visible from the road, is marble lined and has a central fountain to cool the air. Surviving buildings include a cart house, milking parlour, ham-curing house and a carpenter's shop around a central courtyard which once contained a narrow gauge tramway. On the north side there stands the former gashouse and blacksmith's shop.

R 5 MOTTISFONT ABBEY ICEHOUSE SU.327270

The icehouse here was restored by the National Trust in the early 1980s. It has electric light and is easily accessible. The 8ft 4in passage once had two doors.

R 6 WHITBREAD'S BREWERY, ROMSEY SU.352214

Brewing ceased in the late 1970s, the brewery subsequently being used for bottling and distribution. The site has now been sold to a developer.

The buildings are intact, but all plant has been removed. The malthouse is listed, but may be converted to flats. The tower is used for offices.

R 7 THE WHITE HORSE COACHING INN, ROMSEY SU.354212

Despite its Georgian facade, part of this building dates from the 16th century. In the 18th century it was a well known inn on the route between Southampton, Salisbury and Bath.

R 8 TEST MILL, ROMSEY SU.348215

A three storey brick building, the mill was once a fulling mill, but for most of its life it has been used for the manufacture of paper, the last product being toilet rolls. It is now let as units for light engineering. The watercourse is unchanged, and a trout farm has been developed round the mill.

R 9 MIDDLE BRIDGE, ROMSEY SU.349206

A ferro-concrete structure of 1931, the stone of the 1780s bridge being incorporated. It is wider and of lower gradient than its predecessor.

R 10 TOLLHOUSE, WHITEPARISH, ROMSEY / SOUTHAMPTON TURNPIKE (1756), ROMSEY SU.359211

This single storey tollhouse dates from 1864, when the turnpike was rerouted to avoid passing through the grounds of Broadlands. The brick building, now whitewashed, is rectangular with a half-hexagonal projection to the roadside. It has lattice windows and a tiled roof, and is called 'Gunville Gate House'.

R 11 ADMIRALTY TELEGRAPH TOWER, SHERFIELD ENGLISH SU.282248

One of the telegraph stations built between 1829 and 1831 for communication with London. It is a three-storey flat-roofed tower, flanked by single storey rooms, and has barely changed since construction.

R 12 ANDOVER CANAL, HORSEBRIDGE SU.344304

At this point the canal and railway, which was built largely on the line of the canal, diverge. Behind the Railway Hotel some canal buildings and the site of a lock can be seen.

R.13..CAST IRON GRAVE MARKERS...SU.367211

These were made by the Test Valley Foundry in Romsey and many may be found in the Romsey cemetery. They sold for 5/- each (25p)pre WW1.

WINCHESTER AREA

W 1 WINCHESTER BREWERY, HYDE STREET, WINCHESTER SU.480300

A large complex of mainly Victorian buildings now used for storage and distribution.

W 2 ST CROSS MILL, WINCHESTER SU.476272

The mill has five bays, and is two storeys high with a bin loft. Built of brick with a slate roof, it has a cast-iron undershot water wheel which is still used to generate electricity. The mill was rebuilt in 1845. It is now a private house.

W 3 GARNIER ROAD PUMPING STATION, WINCHESTER SU.480282

Opened in 1878, the station was extended in 1904, 1910 and 1930, but was replaced by new plant in 1991; it is now unoccupied. The 1930 building houses three sets of three-throw ram pumps by Pearn, and it is hoped to preserve one of these.

W 4 WEBB'S SEWER GAS ELIMINATOR, WINCHESTER SU.481293

This, the only gas-lit street lamp in Winchester, survives because it still serves its original purpose of ventilating a sewer.

W 5 WINCHESTER STATION SU.468291

The original station building, designed by Sir William Tite and opened in 1839, is still in use on the down side. The canopies and structures on either side are later additions.

W 6 WHARF BRIDGE, ITCHEN NAVIGATION, WINCHESTER SU.486287

Dating from the mid-18th century, this plain single-arched structure, built of brick, shares with Mansbridge the distinction of having been constructed while the Navigation was in use.

W 7 CATHERINE HILL LOCK, ITCHEN NAVIGATION SU.480274

The summit lock on the Navigation, completed in 1710, and whose locks were, with one exception, turf sided. The chamber is well defined, with a weir and sluice roughly in the position of the upper gates. The site of the water wheel which powered a sawmill beside the lock can also be seen. Two other locks are at Compton (476256) where erosion has made the chamber almost circular, and at Shawford (474248) which was a half lock, now replaced by a weir.

W 8 PILLAR BOX, MORN HILL POST OFFICE, WINCHESTER

SU.494295

A rare Edward VIII example.

W 9 MAN WHEEL, THE MILBERRIES BEAUWORTH SU.570246

A 12ft diameter tread wheel and well are illuminated features in the restaurant of this pub.

W 10 MICHELMERSH BRICKWORKS SU.343258

Most bricks are fired in rectangular 'hood' kilns which are moved along the clamp of bricks. One circular down-draught kiln has been retained for hand made and special bricks. A distinctive colour is achieved by raising the temperature to 1050 C.

W 11 OTTERBOURNE PUMPING STATION SU.468233

These waterworks have been the main supply source for Southampton since 1889. Until 1972 the station contained a variety of steam plant but none remains.

W 12 SHAWFORD RAILWAY VIADUCT SU.477266

This impressive structure in brick carried the Didcot, Newbury and Southampton line across the Itchen valley at Shawford. It is 40ft high and 2014ft long. Opened to traffic in 1891, it closed in 1966, and is now disused.

W 13 LAINSTON FARM DAIRY, SPARSHOLT SU.445317

An octagonal brick building of c1930, constructed as a replica of the dovecote at Lainston House, although never used for this purpose. The dairy equipment has gone, but the fine decorative glazed tiles remain.

W 14 HORSE WHEEL, LAINSTON HOUSE, SPARSHOLT SU.441316

A 360ft deep well is situated in an outbuilding. Mounted between the floor and the roof is a wooden post 14ft high, at the top of which is a chain pulley. A wooden arm taking the horse's harness descends under the pulley. A bucket was raised and another lowered simultaneously.

W 15 NORRIS' BRIDGE, TWYFORD SU.476247

This bridge was cast in 1891 to replace one of 1750. It has iron balustrades, standing on brick piers, and carries a road over the Itchen.

W 16 TOLLHOUSE, TWYFORD SU.480239

Part of the Lower St Cross Mill Lane to Park Gate Turnpike of 1810, this rectangular brick built two storey house has additions on three sides, blocking the view to the south.

W 17 TWYFORD PUMPING STATION SU.493248

Opened in 1898 and extended in 1910, this is a remarkable survival, containing a Hathorn Davey triple expansion engine linked to the pumps by Pitman beams, together with three water tube boilers, albeit unserviceable. At the rear are five bottle-shaped lime kilns which once supplied the softening plant. The structure is preserved through a charitable trust & may be visited. The engine is run on compressed air.

W 18 HOCKLEY MILL, TWYFORD SU.480256

A two storey brick mill incorporating a barn, with a tiled roof. The iron undershot water wheel survives, as does most of the machinery and two pairs of stones. The installation was used to drive an early threshing machine and later to power a saw bench.

W 19 CHESTNUT HOUSE DONKEY WHEEL, OWLESBURY 514233

This 17th century wheel stands in an outhouse over a 400ft deep well. The wheel was restored c1960.

W 20 ABBOTS BARTON FARM DOVECOTE, WINCHESTER 484307

An 18th century structure in brick with stone and flint foundations.

SOUTHAMPTON AREA**S 1 BONDED WAREHOUSE, SOUTHAMPTON SU.425115**

This building dates from c.1840 and stands on the site of the old town walls, backing on to the line of the former Southampton-Salisbury Canal.

S 2 ANDOVER CANAL WAREHOUSES, REDBRIDGE SU.371138

The structure in Test Lane adjacent to the Anchor Inn survives, although the sea lock giving access to the canal was obliterated by the new railway.

S 3 THE STAR COACHING INN, SOUTHAMPTON SU.420115

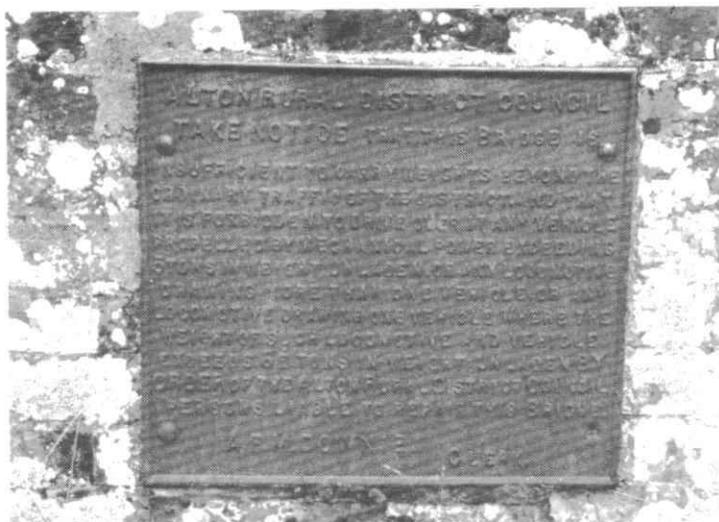
This fine and once important coaching inn still bears a notice advising of daily coaches to London - journey time 10 hours.



A 1. MALTINGS AT ALTON (large wood-shingle roof)



A 16. ROPLEY STATION WATERCRESS LINE



A. 1890s BRIDGE SIGN (Nr Alton)



N 16. FRITHAM GUNPOWDER WORKS. c1895



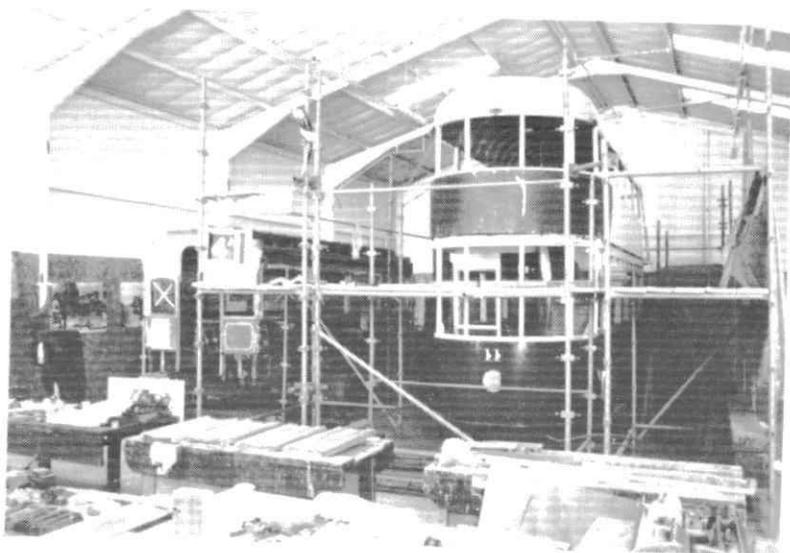
W.17. TWYFORD PUMPING STATION.



W 10 MICHELMERSH BRICKWORKS. c.1910.



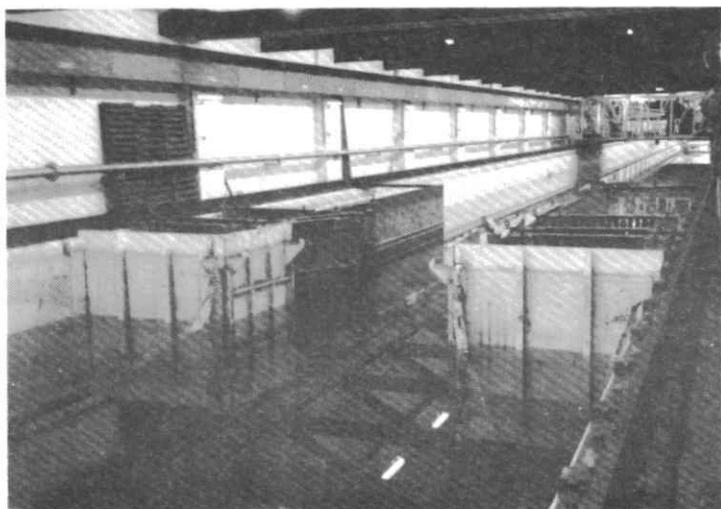
S. 5. S.S.SHIELDHALL AT OCEAN VILLAGE.



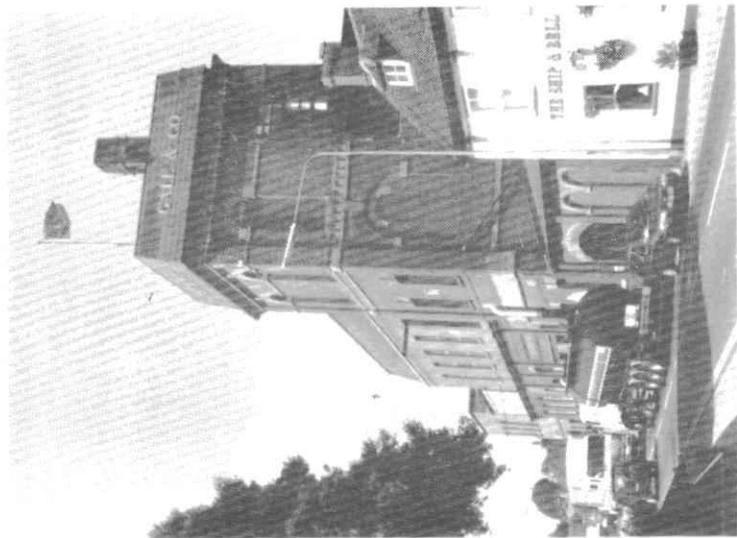
S. TRAM 57 PROJECT, SOUTHAMPTON. car.11 & saloon of car.38



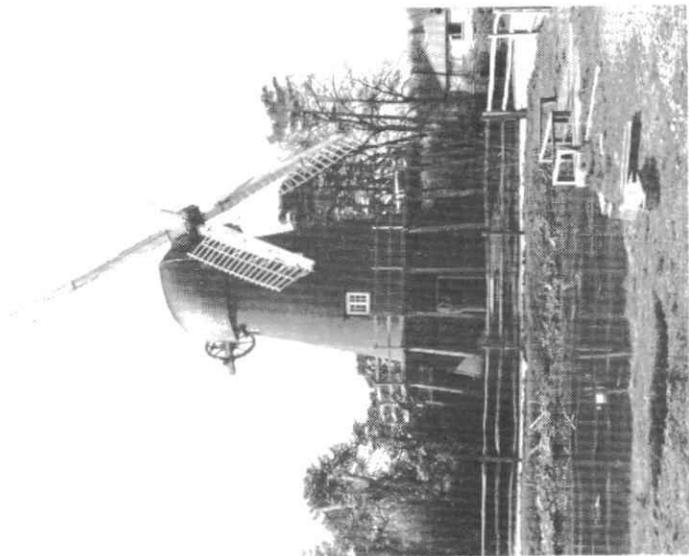
F 1. BOARHUNT MILL



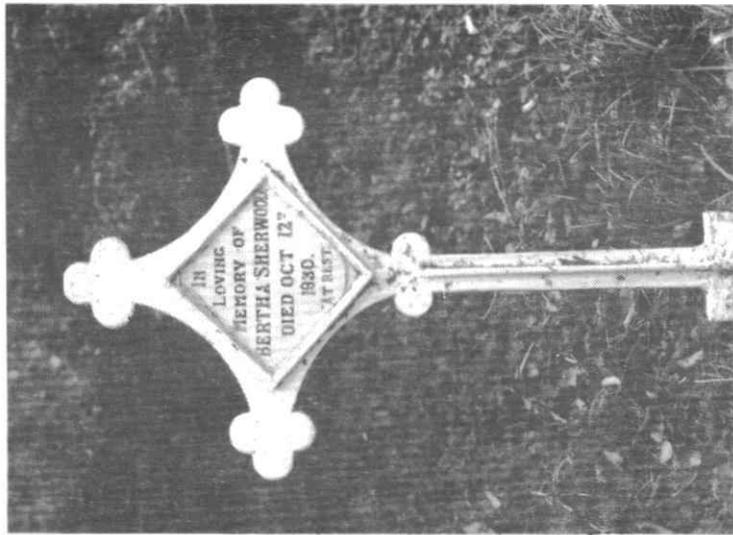
G 2. FROUDE SHIPMODEL TESTING-TANK.



H.12. GALES BREWERY, HORNDEAN



S 31 BURSLEDON WINDMILL



R.13. CAST IRON GRAVEMARKER, ROMSEY.



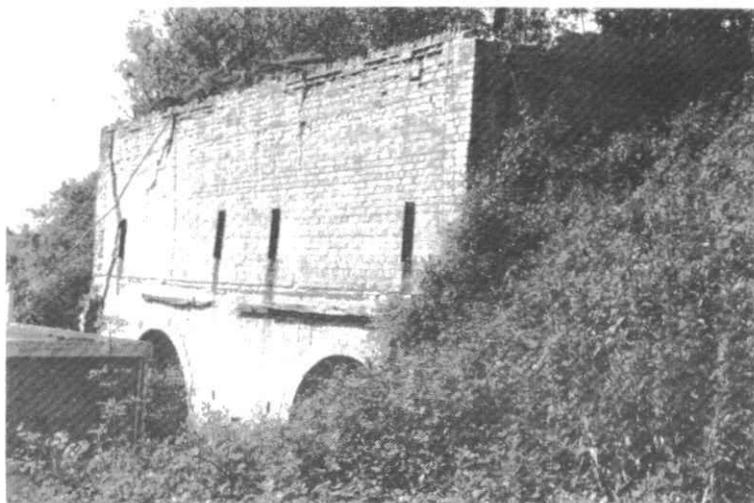
S 33 BOTLEY TOLLHOUSE



H 2. HAVANT PUMPING STATION



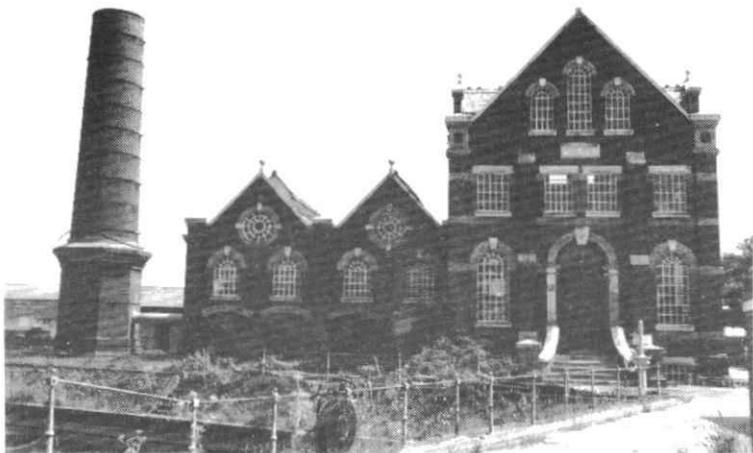
H 4. QUAY MILL, EMSWORTH. c1900 (mill, quay and brewery)



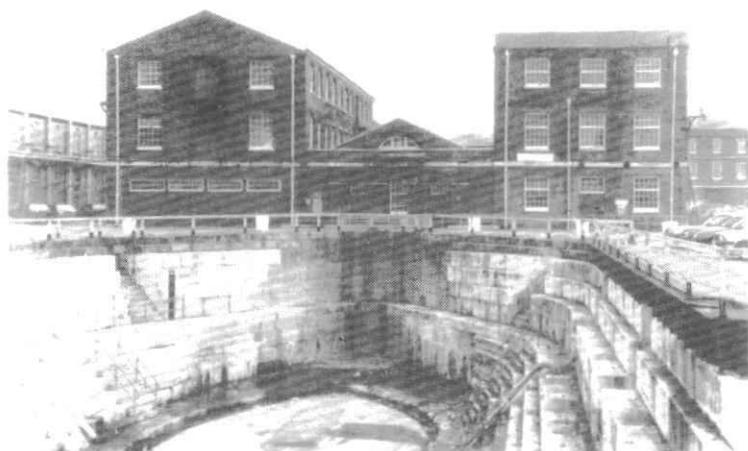
PE 5. LIMEKILNS, BUTSER



P 37. SOUTH PARADE PIER, SOUTHSEA



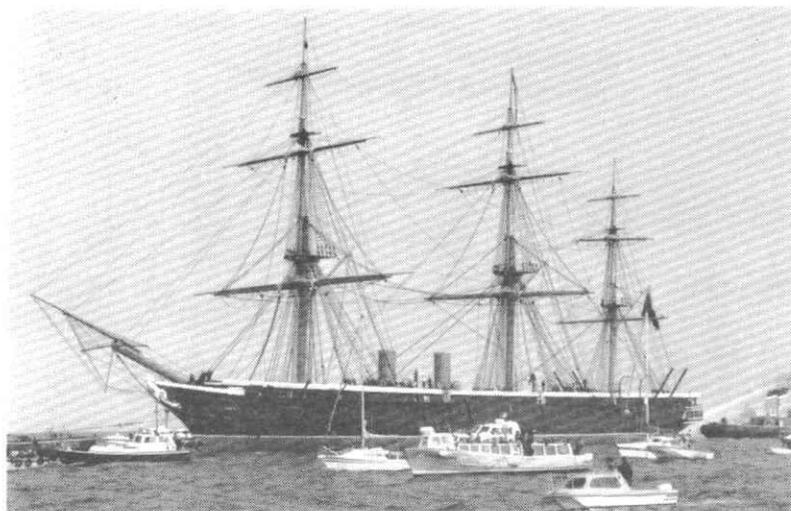
P.25. EASTNEY PUMPING STATION.



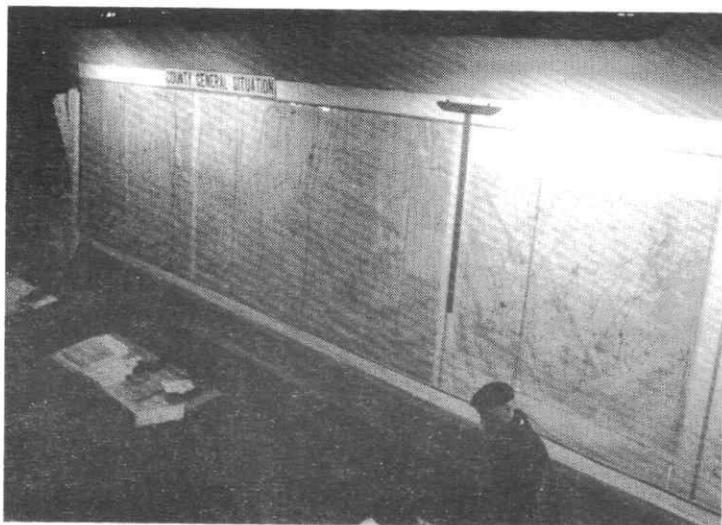
P.8. BLOCK MILLS, H.M.DOCKYARD. (and dock of 1700)



P. TRAM TRACK, OLD PORTSMOUTH



P. H.M.S.WARRIOR SZ-620995 (arriving at Portsmouth 1987.)



P. CIVIL DEFENCE MAP ROOM 1950s, FORT WIDLEY.



P. PORTSMOUTH HARBOUR FERRIES and DOCKYARD

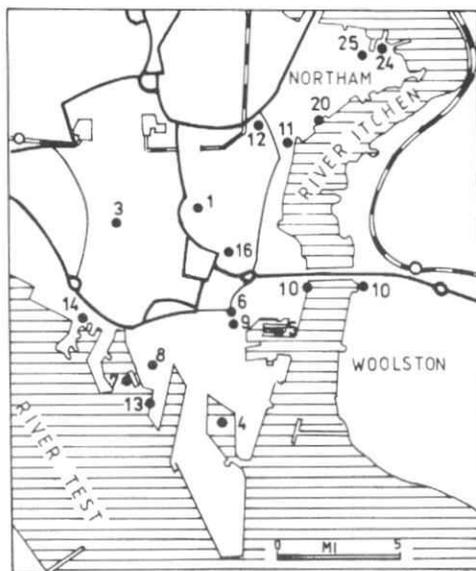


Fig 6 Central Southampton

S 4 EMPRESS DOCK, SOUTHAMPTON SU.4251102

Opened by Queen Victoria on 26 July 1890 the dock has experienced little change since.

S 5 PRINCESS ALEXANDRA (OUTER) DOCK SU.430108

This was the first dock to open at Southampton, on 30 August 1842. In 1851 Inner Dock was opened, reached by a lock entrance on the west side. Three dry docks were built on the south side, but all have been filled in. The only significant and visible length of the original quay wall is to be found on the north side. The dock now fronts the Ocean Village development.

S 6 OLD DOCK HOUSE, SOUTHAMPTON SU.427109

This was constructed in 1899 by the LSWR after their take-over of the docks. The letters 'LSWR' and the Company's coat of arms may be seen carved in the pediment.

S 7 FLOATING DOCK BERTH, SOUTHAMPTON SU.421105

The dock has been removed to Rotterdam, but the piers that held it remain. The dock measured 960ft by 134ft. The piers which were

connected by lattice steel girders to the side of the floating dock, and by a steel gangway to the Old Dock, are of brick and concrete.

S 8 NO. 6 DRY DOCK, SOUTHAMPTON SU.422105

Opened in 1905 as Trafalgar Dock, this is closed by a sliding double faced caisson worked electrically. Shortly after 1918 a notch was made at the head of the dock to take SS *Berengaria* (formerly the German *Imperator*).

S 9 INNER DOCK WAREHOUSE, SOUTHAMPTON SU.426108

The last surviving warehouse built for Inner Dock, now filled in. It is an impressive five storey brick structure.

S 10 FLOATING BRIDGE, SOUTHAMPTON-WOOLSTON

SU.432112 - 435112

Before the opening of the high level Itchen Bridge in 1977, Southampton and Woolston had been linked since 1836 by a floating bridge or chain ferry. Self-powered pontoons hauled themselves along pairs of steel cables between sloping ramps or hards on either shore. There were two tracks and all four hards can still be seen, together with the remains of the wire anchorages and tension weight pits.

S 11 BRITANNIA ROAD FLATS, SOUTHAMPTON SU.431121

The flats were built in 1900 in three blocks of six, the whole forming a single structure. They were occupied by workers, particularly those on shifts, employed by the Southampton Gas Light and Coke Co.

S 12 BRITANNIA ROAD GASHOLDER STATION, SOUTHAMPTON

SU.429122

Hampshire's largest gasholder is on this site, a four-lift spiral guided structure built in 1935 to hold 3.5million cubic ft. Adjacent in Northam Road a second holder contains 2 million cubic ft and is column guided, being built in 1902.

S 13 MARITIME AIR TERMINAL, SOUTHAMPTON SU.422106

A two storey building opened by BOAC for its post-war operations at 50 berth in the old docks in 1948. It was taken over by Aquila Airways and used by them until 1958. It later served the RNR as HMS Wessex, but is now empty.

S 14 SOUTHAMPTON PIER SU.418109

Southampton's Royal Pier was opened in 1833. It covered 3.5 acres

and was one of the largest piers on the south coast. No remains of the original survive, and virtually only the entrance buildings remain.

S 15 SOUTHAMPTON COMMON RESERVOIRS SU.418141-417144

The former, built into the present paddling pool, was built about 1811, and was last used for town water supply in 1852. The latter was opened in c1832 and forms the boating lake. The reservoirs now in use on the Common are of recent date, although they are on the site of older examples built in 1851.

S 16 SOUTHAMPTON TERMINUS STATION SU.426111

One of the few provincial stations of its type surviving in Britain, this is the most important historical railway building in the county. Because of the transfer of traffic to the present Southampton station, the station of 1839 has remained virtually unaltered.

S 17 LANCES HILL TOLLHOUSE, SOUTHAMPTON SU.445134

This tollhouse is unusual in that the tolls once collected were not on behalf of a Turnpike Trust, but the Northam Bridge Co. It continued in use until the 1930s.

S 18 TRACTION POLES, SOUTHAMPTON SU.420135-426136

A number of poles erected from 1900 onwards still serve for street lighting. They are made from heavy steel tube and some retain their ornamental cast iron bases. A fine set may be seen in Lodge Road.

S 19 WOODMILL, SOUTHAMPTON SU.439154

The mill is now used as a sailing centre, having been forced to close in the 1930s when the large volume of water abstracted from the river resulted in insufficient power to drive machinery. The sea lock of the Itchen Navigation was at this point, but nothing of this survives.

S 20 ITCHEN WHARVES SU.432122

Many of the wharves on the west bank of the Itchen were rail-connected from an early date. A branch to Dibles Wharf had a unique balanced lifting gate at the level crossing.

S 21 MANSBRIDGE, SWATHLING SU.448155

This has a single stone arch and was erected by the County in 1816. Mansbridge was for many years the only bridge carrying a public road over the Itchen Navigation when the latter was in use. Road traffic now uses a parallel modern bridge.

S 22 MANSBRIDGE WATERWORKS, SOUTHAMPTON SU.448158

Opened in 1851, the first large scale waterworks supplying Southampton extracted water from the River Itchen, but in 1888 the works were abandoned because of public opinion hostile to the idea of drinking river water polluted by upstream communities. 1973 saw the inauguration of a new pumping plant nearby to supply Portsmouth.

S 23 NORTHAM BRIDGE, SOUTHAMPTON SU.439133

A brick viaduct carrying Northam Road over the railway was improved in 1908, when long steel spans replaced the middle section. It carries cast iron plates fixed by the builders Braithwaite and Kirk, West Bromwich, 1908. Some members have the rollmarks 'Earl of Dudley' visible.

S 24 SHAMROCK QUAY, NORTHAM SU.437127

A new name for an old site. A complex of shops, cafes and small businesses was established in the early 1980s in the buildings of a former shipyard, operated by Camper Nicholson until c1980. A large iron building shed inclines steeply towards the river.

S 25 DAY SUMMERS, NORTHAM SU.435126-435127

Much of the site occupied by Day Summers in the heyday of the yard is now in the control of Pollock Brown. Several buildings dating from the second half of the 19th century remain.

S 26 REDBRIDGE BRIDGES, REDBRIDGE SU.369137

Four road bridges cross the Test here. A five-arch 17th century bridge and a single span of 1793 carried the main road until 1931. They were replaced by new concrete spans downstream, and later the 1931 bridge was paralleled by a second concrete bridge.

S 27 INDUSTRIAL AREA, TOTTON SU.365126

The complex comprises wharves, railway sidings, timber yards, tar macadam plant, concrete-mixing works and chemical works. The site dates from the mid-19th century and was served by a tramway built in 1851, the track of which survives.

S 28 OWER SAWMILL SU.320168

Part of the Paulton Estate has been converted to a Country Park and opened to the public. The derelict breast-shot 56-bucket cast-iron water wheel and the saw bench have been restored to working order. The saw mill is of brick with a tiled roof.

S 29 HAMBLE AIRCRAFT FACTORY SU.477069

The Avro factory of 1916 is now occupied by Petters Ltd. The aircraft factory at 469072 was built in 1934 for the construction of large flying boats, but was in the event used only for conventional flying production.

S 30 NETLEY STATION 464086

The branch from Southampton to Netley was linked to the opening of the Royal Victoria Hospital in 1866. The building is typical of the mid-Victorian period; similar examples may be seen at Woolston (438113) and St Denys (432138).

S 31 BURSLEDON WINDMILL SU.482108

This fine tower mill dates from 1813-4, but was already old-fashioned when built with its timber wind shaft, common sails and underdrive gearing. It has been restored by the Hampshire Buildings Preservation Trust and is the only working windmill in the county.

S 32 BURSLEDON BRICKWORKS SU.499098

This works, which once produced 18 million bricks a year, closed in the 1970s. Part was demolished, but the older section opened in 1897 is now "The Centre for the Conservation of the Built Environment".

Still on site are the Ashby and Batley drying sheds, the oldest remaining Staffordshire continuous kiln in the country, and an 1885 horizontal engine by Wood of Wigan.

S 33 BOTLEY TOLLHOUSE SU.509137

Constructed for the Lower St Cross Mill Lane to Park Gate Turnpike of 1810, the house is sited on the A3051. It is rectangular with two storeys in red brick and yellow quoins. The recess for the tollboard can be seen above the doorway.

S 34 BOTLEY MILL SU.516131

The oldest part of the mill dates from 1757, having three storeys in red brick and a tiled roof. Milling ceased in 1993. The stones were driven by a low head Armfield turbine assisted by an electric motor. The fine separate millhouse is now used as offices.

S 35 INDUSTRIAL HAMLET, HOOK SU.501054

Three elements are involved here: four cottages, the smithy and house, and the wheelwright's shop and house. This tiny industrial hamlet has outwardly retained its Victorian character even if more modern functions are now undertaken in the premises.

FAREHAM AREA

F 1 BOARHUNT MILL SU.606091

With the exception of one stone nut, this contains a full set of drive machinery, two pair of Derbyshire stones and a crown wheel. There are remains of an overshot wheel pentrough. Restoration work is being undertaken. A fine 18th century mill house stands adjacent.

F 2 FAREHAM QUAY SU.580058

Fareham is still a working port, largely handling sand and ballast dredged from the Solent. Evidence of former activities on the Lower Quay (579058-579056) are an 18th century warehouse with unglazed wooden windows, a former ropery, a metal-framed steam-mill operational between 1830 and 1960 converted to flats, and the town's electric power station 1897-1932.

F 3 MAINDELL PUMPING STATION SU.588070

A small structure opened in 1937 by the local water company. Pumping was undertaken by a four cylinder Ruston diesel.

F 4 FAREHAM GASHOLDERS SU.585060

Two spiral-guided holders with three lifts by Dempster, Elland, dating from 1934 and 1948.

F 5 RAILWAY VIADUCTS SU.580059 and SU.587063

Two major engineering works on the Southampton-Portsmouth line, 1848, carrying the track above Fareham Quay on 11 arches, and over Fareham Creek on 17 arches.

F 6 MILESTONE, FAREHAM SU.581062

This unusual stone, a relic of the Gosport, Bishops Waltham, Wickham and Chawton Turnpike (1758), is set into the wall of the Bugle public house, an old coaching inn.

F 7 FAREHAM RAILWAY STATION SU.569062

The original building of 1841 is of stone and has tied chimneys of the kind used by Sir William Tite at Gosport. The original platform canopy is carried on five slender iron columns markedly different from those of the 1889 extension.

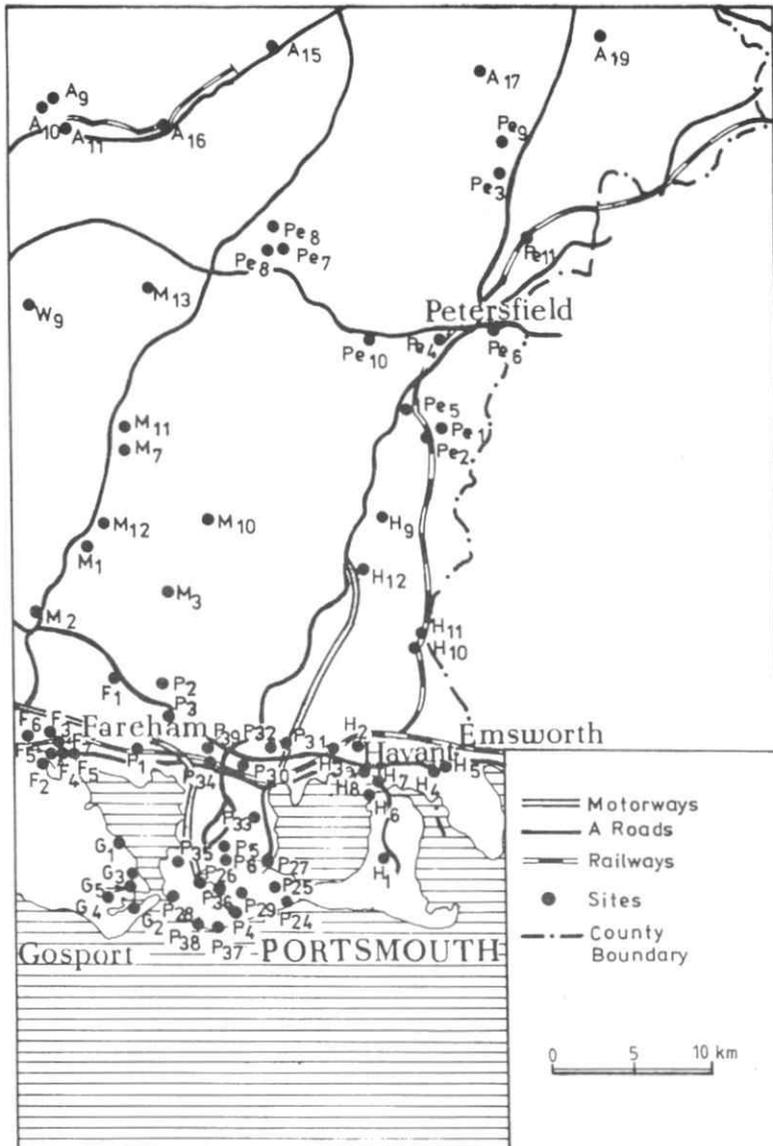


Fig 7 The Fareham, Gosport, Havant, Meon Valley, Petersfield and Portsmouth Areas

F 8 TITCHFIELD CANAL SU.543059-529026

Since the canal was constructed on private land, in 1611, no Act of Parliament was required, and as a result it has gone unrecognised as a bona fide canal which predates the canal age by a century and a half. Little now remains, although the sea lock (SU.531027), now cut off from the Solent by defence works, may be seen adjacent to a road bridge. The twin-arched bridge at Great Posbrook (SU.539048) is an addition after the canal fell into disuse.

F 9 BROWNWICH FARM, TITCHFIELD SU.519037

Excavation work in 1981-2 revealed the remains of a water power installation adjacent to the barn driving farm machinery until c1939. The wheel pit survives, as does a bearing for a breastshot water wheel, together with elements of the sluices.

F 10 TITCHFIELD MILL SU.542061

A five storey 18th century building in red brick with a slate gambrel roof. Two iron Poncelet wheels set on separate shafts, by Armfield, stand outside the mill, but little equipment survives within. Milling ceased in the 1950s.

F 11 TITCHFIELD TITHE BARN SU.539065

Associated with the nearby Titchfield Abbey, this 15th century barn has a timber framework carrying a tiled roof. The western wall is of flint, but the eastern side is wooden clad, with two deep canopies above the wagon doors. On the east side the wagon doors have been sealed off.

F 12 FUNTLEY IRON WORKS SU.550082

It was here that Henry Cort undertook his experiments in the rolling and puddling of wrought iron which led to his patents of 1783 and 1784 respectively, thus rendering the site one of the most important industrial archaeological locations in the country. There are remains of a finery forge, a puddling furnace and two water wheel pits. The mill pond and extensive water channels supplying the pond may still be seen.

GOSPORT AREA**G 1 PRIDDY'S HARD GUNPOWDER MAGAZINE** SU.614015

Gunpowder storage was moved to the Gosport side of Portsmouth Harbour for safety reasons in the 1760s, and a basin was built 1769-73 for the loading of ammunition hoys serving the warships in the Harbour.

The magazine itself is in brick, its walls double-skinned to help keep the temperature inside constant, and with twin brick barrel vaults. Due to the risk of explosion from sparks, no iron was used in its construction, and all doors, windows and shutters were sheathed in copper. The shifting house, where workers changed their clothes, and the cooperage, are two storey buildings in brick. The site is surplus to Admiralty requirements and may be developed for housing.

G 2 THE ADMIRALTY MARINE TECHNOLOGY ESTABLISHMENT, GOSPORT SZ.613986

The world's third ship model tank built by R E Froude in 1886 was housed here; it was taken out of service on 5 November 1993. Froude's father, William, was the originator of the first test tank constructed in Torquay in 1872. Two later test tanks remain in use, and a section of the original carriage, a model of the steam engine employed to draw it, and a ruling machine for the production of graph paper patented by William Froude in 1875, are located in an adjacent museum.

G 3 ROYAL CLARENCE YARD SU.617006

In 1827 all the Admiralty victualling departments in the Portsmouth area were concentrated here, and most of the present buildings were put up in the next two decades. The granary and its mill, together with the adjacent bakery form the core of the Yard, dating from 1830-2. The three storey granary, raised on massive cast iron columns, stands on the edge of the wharf. Nearby is the slaughterhouse built in the 1850s, and also a group of wooden clad single storey premises constituting the cooperage, closed in 1970.

G 4 BURY CROSS PUMPING STATION SZ.598996

These works were opened in 1859 by the Gosport Waterworks Co and operated until 1907. The original engine house has a distinctive crenelated roof line, while the beam engine house of 1884 unusually contained a single engine; the beam floor and beam supports remain.

G 5 GOSPORT RAILWAY STATION SU.615002

This station was opened in 1841 to serve both Gosport and Portsmouth. Sir William Tite adopted a long low building to avoid interference with the defences. The magnificent colonnade is one of the outstanding examples of railway architecture in the county. Some renovation has been undertaken by the District Council. Outside the station, now closed, stands a beautifully restored hexagonal Penfold pillar box.

G 6 LEE-ON-SOLENT NAVAL AIR BASE SU.557011

The Royal Naval Air Service opened a training station for seaplane pilots here in 1917. Two of the three slipways are still used from time to time, and original hangars remain.

HAVANT AREA**H 1 MANOR FARM, HAYLING ISLAND SU.721008**

The size of the barn, some 45 yards in length, indicates a survival from the feudal period. It is aisled, wooden clad, with eleven bays. There were originally two wagon doors at each side. Even more spectacular is the farm's dovecote, part of which dates from 1325; two contiguous rectangular stone buildings contain no less than 600 nests lining the walls.

H 2 HAVANT PUMPING STATION SU.710063

Water is pumped from springs to Farlington reservoir to supply Portsmouth. Of the original works opened in 1860 only the ornate gatehouses remain, and the massive brick and terra cotta engine house of 1927, which once held Worthington Simpson triple expansion engines, now contains modern plant. Nearby (706063) is Bedhampton Pumping Station, opened in 1889 and enlarged in 1902, now with modern machinery.

H 3 BEDHAMPTON SPRINGS BRIDGE SU.702062

A delightfully sinuous 21 arch brick hump backed bridge over the LBSC railway line, built in 1848 at the insistence of the landowner in compensation for loss of amenity.

H 4 QUAY MILL, EMSWORTH SU.748055

A former tide mill of 1760, converted into a sailing club. It is a two storey timber frame and brick building with a tiled roof. Milling continued until the 1930s using a gas engine.

H 5 SACKING FACTORY, EMSWORTH SU.752055

Operated by the Tatchell family from the early 1800s until 1890 when it was reduced in size, this building is now used by Lewis's tents.

H 6 OYSTER BEDS, HAYLING ISLAND SU.716038

The original beds were begun in the 1860s using an area behind a

railway embankment, but went out of use in the 1920s. They were rebuilt in the 1970s: there are three beds and twelve sluices.

H 7 LANGSTONE SWING RAILWAY BRIDGE SU.718045

Built to allow the passage of craft between Langstone and Chichester Harbours, opened in 1867. The spans on either side have gone, but the massive circular iron columns remain, complete with rollers and gear ring.

H 8 LANGSTONE WINDMILL SU.720049

Dating from c1730, this windmill is unusual in being sited adjacent to a water mill. The windmill is now a residence.

H 9 CHALTON WINDMILL SU.716162

A tower mill dating from 1785, converted to a dwelling in 1978.

H 10 ROWLANDS CASTLE BRICKWORKS 734106

This well known brickworks made bricks for many hotels and houses on the south coast, but closed in 1968. The site was cleared save for the office which is adorned by every category of brick and tile made by the firm.

H 11 ROWLANDS CASTLE STATION SU.734108

A delightful cottage building of 1859 on the up-side of the Portsmouth-London direct line.

H 12 GALE'S BREWERY, HORNDEAN SU.707133

This is the last traditional brewery still operating in Hampshire. It straddles the main road and on the east side are the fine 1869 brewhouse tower and some other buildings of this date. A considerable amount of early machinery is still in use.

MEON VALLEY AREA

M 1 SOBERTON PUMPING STATION SU.596143

These simple but attractive brick buildings are complete save for the chimney. They were opened in 1907 by the Gosport Waterworks Co; the low profile of the engine house indicates the former use of horizontal rather than vertical steam engines.

M 2 CHESAPEAKE MILL, WICKHAM SU.574116

The mill dating from 1820 is a four storey brick building with a tiled roof.

A wooden lucam projects over the middle bay. Much of the internal woodwork came from the American frigate Chesapeake, captured in 1813. Breast shot wheels have been removed and an Armfield turbine is still operational, assisted by electric motors.

M 3 FIRST NATIONAL STANDARD PILLAR BOX, WORLDS END, DENMEAD SU.633123

A rare survival in a country lane outside an inter-war bungalow.

M 4 ABBEY MILL, BISHOPS WALTHAM SU.551174

This brick mill was opened in 1862 and has an Armfield turbine in situ, although the wheel pit remains. The lucam is of quite remarkably large proportions.

M 5 GUIDEPOST, near BISHOPS WALTHAM SU.558215

This three fingered guidepost is unusual in that one arm bears the inscription 'Upham 1¼' on one side, and 'Upham 1½' on the other.

M 6 TOLLHOUSE, BISHOPS WALTHAM SU.539182

Built for the Bishops Waltham and Fishers Pond Turnpike of 1833, this two storey brick building has been much altered and the half-hexagonal projection to the roadside has been infilled.

M 7 DROXFORD STATION SU.613187

The Meon Valley line, for reasons which to some extent remain a mystery, was built to very high standards. Droxford, one of the original five stations, reflects this. Although disused since 1962, the premises are still in good condition.

M 8 FOXHOLES FARM, DURLEY SU.491172

The farmhouse is partly timber-framed with brick extensions. The oldest part probably dates from the 17th century, and the extensions from c1914. The steep pitch of the roof suggests it may have been thatched.

M 9 DURLEY HALL FARM SU.522181

Most of the farm structures are late 19th century. However, the late 17th century barn is timber-framed and weatherboarded with brick sleeper walls.

M 10 ICEHOUSE, FAIRFIELD HOUSE, HAMBLEDON SU.648154

This is in excellent condition, the pit has been cleaned and the construction of the drain at the bottom can clearly be seen.

M 11 MANOR HOUSE BARN, MEONSTOKE SU.613199

A small, four bay brick thatched barn with queen post trusses. There is a substantial thatched canopy above the single wagon door.

M 12 ST CLAIRS FARM, SOBERTON SU.605154

There are two features. A dovecote, square, in brick and flint with a single glover and a granary, wooden clad with a tiled roof, carried on staddle stones.

M 13 MAN-OPERATED WHEEL, BERE FARM, WARNFORD

SU.626253

This treadmill is in working order. It is mainly of wooden construction with its axle mounted in the wall of the wellhouse. The well is 90ft deep.

M 14 MAN-OPERATED WHEEL, MANOR HOUSE FARM, UPHAM

SU.537206

A 17th century outbuilding contains a 220ft deep well over which a single bucket windlass is mounted on a main shaft of a 10ft diameter wheel. The wheel could have been worked by a dog.

PETERSFIELD AREA**PE 1 MANOR HOUSE DOVECOTE, BURITON SU.740200**

Dates from the early 18th century and has 300 nesting boxes. It is brick on a flint base and of hexagonal construction with matching turret.

PE 2 LIMEKILNS, BURITON SU.736198

The chimney and kilns have been demolished, but the extensive pits and kiln foundations survive, albeit overgrown.

PE 3 GREATHAM MILL SU.765304

The mill is three storey and has two bays. Although no longer working, all the machinery remains.

PE 4 PETERSFIELD STATION SU.747236

This is a good example of the design used for the principal stations on the direct Portsmouth-London line, opened in 1859. It has two asymmetrical high gables and characteristic windows.

PE 5 LIMEKILNS, BUTSER SU.726205

Two traditional top-fired kilns in brick, in deteriorating condition.

PE 6 SHEET FULLING MILL SU.761241

The mill is dated 1742 and bears a Sun insurance plaque. It is part brick, part tile hung with a tile roof.

PE 7 CHURCH FARM, PRIVETT SU.675268

A good example of a Victorian model farm, built on the Privett Estate for Nicholson, the gin distiller. It is of flint and brick, incorporating a fine range of buildings, together with a farmhouse and a pair of cottages.

PE 8 PRIVETT RAILWAY TUNNEL SU.671269-675278

Hampshire has few long railway tunnels, this example on the Meon Valley line being the longest at 1058 yards. It is curved, brick lined and built for double track, carrying traffic from 1903 to 1955. The north portal is obscured by landfill and the south is difficult of access.

PE 9 LE COURT ICEHOUSE, EMPSHOT SU.763316

This icehouse has a long 19ft passage between the door and the pit. Somewhat unusually there are alcoves on either side of the passage close to the pit. The depth of the pit is 11ft 6in to the sill.

PE 10 MANOR FARM DOVECOTE LANGRISH SU.712240

This is thought to be a medieval dovecote, and was restored by the Hampshire Buildings Preservation Trust in 1980. It is square, mainly of stone, with brick quoins. Nesting places are formed by the omission of alternate stones. Nearby (712224) is a hopkiln dating from the 18th century; the first floor has three slatted drying chambers.

PE 11 LISS RAILWAY STATION SU.776277

There is a plaque incorporating a plan of Longmoor Military Railway, which closed in 1969, and which joined the main line at this point.

PORTSMOUTH AREA**P 1 PORTCHESTER RAILWAY STATION SU.589324**

Dating from 1848, this is an 'upside-down' station, with the station master's quarters below the station facilities because of its location on an embankment. The buildings are of flint with brick quoins, and the down-side platform canopy has unusually large circles worked into the bracket spandrels.

P 2 GOLDEN LION BREWERY, SOUTHWICK SU.627085

This is an excellent example of a late 19th century brewhouse built to supply the proprietor's inn. All the machinery is in situ, just as it was when brewing ceased in the mid-1950s. The brewery has been restored by members of SUIAG, and after a successful trial brew it has become a museum.

P 3 DROVE ROAD, SOUTHWICK SU.632079-631075

A short 400 yard section of road, at one point 34 yards wide, once trodden by cattle on their way for slaughter at Portsmouth.

P 4 MARINA CORSET FACTORY, SOUTHSEA SZ.662989

In 1910 seventeen corset factories were operation in Portsmouth, employing more women than any other industrial activity. This is a two storey building opened in 1897 with large windows to maximise the light entering, and there is a clerestory at the apex of the roof.

P 5 KINGSTON CORSET FACTORY, PORTSMOUTH SU.650017

A large square red brick building erected in 1904, with sizeable windows and two storeys. Production ceased in the 1960s.

P 6 HAMPSHIRE CORSET COMPANY KINGSTON SU.651015

Not one of the 19th century factories but a tiny workshop behind a shop in Fratton Road, opened in 1899. A dozen women are employed, for the most part using modern machinery, but four hand/foot operated eyeletting machines are in regular use.

P 7 EARLY DOCKS, HM NAVAL BASE SU.628007

The earliest docks, clustered round No 1 or Great Ship Basin, are similar in architecture and scale. They are all of Portland stone, have bow recesses, stepped sides and some have caisson gates. Anticlockwise round the basin from the south-west are: No 1 built in 1801, No 2 (HMS Victory) in 1802, No 3 (Mary Rose) in 1803, No 4 in 1772, No 5 in 1698, and No 6 also 1698. The basin itself dates from 1691-8, although it was greatly enlarged by Bentham in 1795-1801.

P 8 BLOCK MILLS, HM NAVAL BASE SU.628008

The block mills were the scene of one of Portsmouth's greatest industrial innovations. They were erected in 1802 to house Marc Brunel's rigging block production machinery, generally accepted as being the first application of metal machine tools for mass production. The interior is made of wood, thus placing restrictions on the weight of the machinery on

the first floor. Only the overhead layshafts remain on the ground floor, but above are a swing arm circular saw for cutting lignum vitae, and a wooden pin turning machine.

P 9 CHAIN TESTING SHOP, HM NAVAL BASE SU.627003

This single storey building, which incorporates a chain cable store, dates from c1845. Its roof is supported by elegant cast iron columns and cross pieces beneath interlocking iron tie bars. To withstand the weight of the chains, the floor is of granite blocks and iron castings of the type used for ships' ballast.

P 10 NOS 5 and 7 BOATHOUSES, HM NAVAL BASE SU.630004

These two green painted single storey wooden buildings, 18th century in style, were actually built in 1882 and 1875 respectively. To save space they were constructed over the redundant Mast Pond on iron piling. The interior of No 5 may be seen by visiting the Mary Rose Museum, which is within.

P 11 No 6 BOATHOUSE, HM NAVAL BASE SU.630004

This is a massive stone structure built in 1843 to take heavy loads. Iron columns support girders at least a foot thick, and the girders are given added strength through underslung trusses of the kind pioneered by Robert Stephenson. The girders are lettered to facilitate construction. In front of the boathouse is the Mast Pond, connected to the Harbour by a pound lock.

P 12 FIRE STATION, HM NAVAL BASE SU.630006

The corrugated iron fire station on a cast iron framework was built in 1843, replacing the earlier wooden tank designed by Bentham in 1801. It contained 840 tons of water, which could be delivered to each storehouse by a ring main system.

P 13 GREAT ROPERY, HM NAVAL BASE SU.628005-631005

This enormously long 1095ft building dates from 1775, although rope production ceased in the 1860s. The two upper floors were used for hemp spinning. Four fine smaller contemporary buildings stand nearby: No 15 storehouse of 1771, No 16 of 1771, No 17 of 1781, and linked to the eastern end of the Ropery is the 1771 hatchelling house where the fibres were carded.

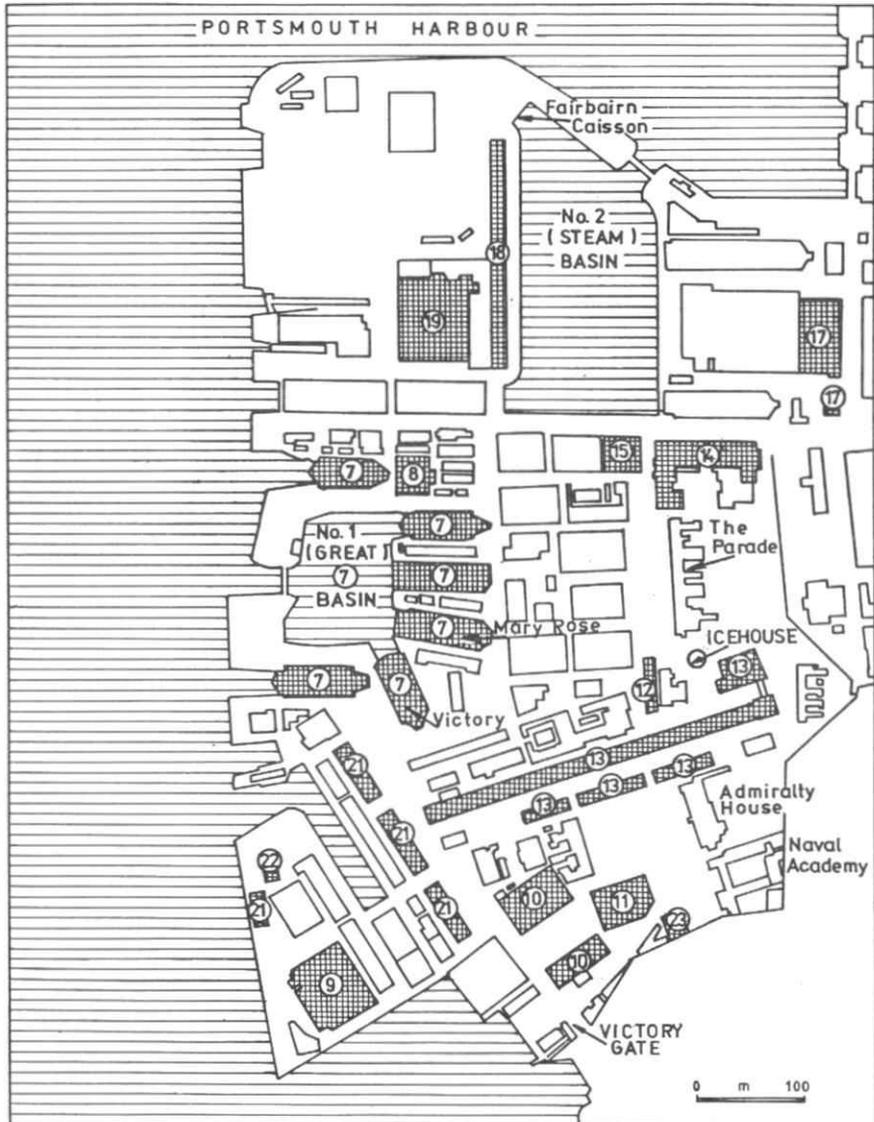


Fig 8 The Older Part of Portsmouth Naval Base

P 14 IRON FOUNDRY, HM NAVAL BASE SU.631009

This stands opposite No 2 Shipshop and is similar in style, indeed William Denison was the designer of both. It was constructed in 1854. The upper floor incorporates a water sprinkler system fed from a tank in the roof, and the main staircase is enclosed in metal as a means of containing outbreaks of fire. Operations ceased in the early 1980s.

P 15 SMALL BRASS FOUNDRY, HM NAVAL BASE SU.630008

This probably dates from the early 1850s and the main entrance has been strengthened by the addition of cast iron pillars marked 1864. It is now a store.

P 16 No 1 PUMPING STATION, HM NAVAL BASE SU.633010

Constructed in 1879 as part of the second era of Victorian dock extension in red brick and porthole windows, the interior has some fluted iron columns, although none of the original equipment survives.

P 17 NO 1 SHIPSHOP, HM NAVAL BASE SU.631009

The original shipshop, at the eastern end of the present building, was erected in 1867, and is easily recognised by its imposing north and south arched entrances through which ran a rail track. Similar in style is the adjacent hydraulic accumulator tower of the same date.

P 18 NO 2 SHIPSHOP, HM NAVAL BASE SU.629010

This is arguably the most striking building in the Dockyard and certainly Denison's best work at Portsmouth. It is of deep red brick and Portland stone with huge round-headed tall windows. 600ft long, it was constructed in 1849 for the assembly and maintenance of engines for the new steam navy.

P 19 NO 1 SMITHERY, HM NAVAL BASE SU.628010

The steam navy gave rise to a great increase in metal working, and when completed in 1852 this structure was one of the largest foundries in the south. It is a large square brick building, open plan in design. The truncated bases of the four corner chimneys remain, and the original twin hexagonal cast-iron columns are visible in the brickwork of the east wall.

P 20 THE FACTORY, HM NAVAL BASE SU.639009

Constructed in 1907, largely to handle the Dreadnought building programme, the Factory has 5 bays, the two largest measuring 600ft by 150ft, once reputed to be the largest in the world. Huge round-headed

windows characterise this vast red brick workshop, now downgraded to a storehouse.

P 21 NOS 9, 10 and 11 STOREHOUSES, HM NAVAL BASE

SU.627005-628003

Constructed in 1782, 1776 and 1763 respectively, these stores have two storeys supported by wooden columns, and the ground floor entrances have tall archways lined with Portland stone. Each has a central pediment. No 11 store accommodates the RN Museum.

P 22 TRAIN SHED, HM NAVAL BASE SU.627004

In 1876 a single line was laid from the Harbour Station to South Railway Jetty, incorporating a swing bridge over the Common Hard. In 1893 for the convenience of royalty and others, an abbreviated but highly decorative train shed was put up; it remains in excellent condition although the line has long since been removed. Immediately to the north is a small railway waiting room, probably of 1876, easily recognisable by its traditional valancing.

P 23 PAY OFFICE, HM NAVAL BASE SU.630004

Constructed by Bentham in 1798 with brick roofing carried on cast-iron pillars, this was one of the first fireproof buildings. The first floor was lost in World War II.

P 24 HOLDING TANKS, FORT CUMBERLAND SZ.682991

These underground tanks, built in 1887 and 1904, which now hold only storm water, formerly contained Portsmouth's sewage which was released into the outgoing tide through penstocks. A tall ventilating chimney survives.

P 25 EASTNEY PUMPING STATION SZ.672992

The original pump house of 1868 is now used as a workshop, but the cast iron fluted columns of the beam engines are visible. The larger engine house of 1887 still contains two compound beam engines, one of which was regularly steamed by Portsmouth City Museums and the other turned by electric motor; financial stringency has caused this to cease. Also on site are two of the original three Crossley 180hp horizontally opposed gas engines in the 1904 pump house, which is also home to a collection of oil engines.

P 26 PORTSMOUTH and SOUTHSEA STATION SU.642003

The present station, in polychromatic brick with high Victorian flourishes, was built in 1866 to replace the original. Despite modifications, the cast iron columns and tie beams on the platform side give a mid-19th century ambience. A high level station was added in 1876, when the line was run down to the Harbour Station (629001) and a modern overall trainshed installed in 1988.

P 27 THE PORTSMOUTH CANAL SZ.678999-665995

Engineered by John Rennie, the canal was opened in 1822 but drained in 1828. The sea lock (678999) is the principal relic, partly restored by the City Council. Some brickwork of the second lock is visible (676998), and in Waterlock Gardens (675998) the tall slim outline of a beam engine pump house used to maintain water level is to be seen.

P 28 CAMBER DOCK, OLD PORTSMOUTH SZ.631995

Almost all the older remaining artefacts at this location, the original port, date from the extensions of 1840-60. A number of bollards and roller fairleads dated 1861 survive, and some of the smaller bollards are cannon barrels. The dry dock of 1840 has been filled in to provide a car park.

P 29 THE POMPEY, FRATTON SZ.660999

An example of A.E. Cogswell's many exuberant half-timbered pubs, opened for Brickwoods in 1900 adjacent to Fratton Park football ground.

P 30 COSHAM STATION SU.658051

This LSWR cottage station was opened in 1847. The original entrance was through a narrow wooden arched passage complete with wood panelling, which survives. Three construction styles are evident in the platform canopy.

P 31 FARLINGTON FILTRATION WORKS SU.683062

The original works were opened in 1910 and a further bed and reservoir were added in 1924. Complete modernisation was effected in 1982, but the 1924 filter bed has been preserved.

P 32 FARLINGTON PUMPING STATION SU.678059

The 1905 engine house is now redundant, as is the adjacent reservoir built in 1812 to supply Portsmouth.

P 33 HILSEA GASWORKS SU.664028

Apart from the two holders still in use, the office block is the only reminder of this once large works built 1902-5.

P 34 PORTSBRIDGE PUMPING STATION SU.655047

A small station built by the Portsmouth Water Co in 1929, housing centrifugal pumps driven by electric motors.

P 35 TREADGOLD'S FOUNDRY and SHOP, PORTSEA SU.633003

The foundry which dates from the 1830s has not worked since the 1960s, but two hand-operated bellows and hearths remain, together with a host of tools and equipment. The office has stand-up desks and a speaking tube, while the shop is Dickensian - cluttered and dimly lit. The premises are now being restored by the Hampshire County Museum Service.

P 36 TRAM TRACK, RUGBY ROAD, SOUTHSEA SZ.652980

A length of sett paved tram track is preserved here, together with a former traction pole.

P 37 SOUTH PARADE PIER, SOUTHSEA SZ.652980

The original pier opened in 1879 as an attempt to attract traffic to the Isle of Wight. It was destroyed by fire in 1904, and its replacement was modified following another fire in 1973. To the west (635988) lies Clarence Pier, not really a pier, rather a quay on which is mounted a fun-fair, dating from 1961.

P 38 SOUTHSEA LIGHTHOUSE SZ.643981

The tower is 34ft high, but being sited on the walls of Southsea Castle the circular iron lantern has an elevation of 51ft. The structure was erected by the Admiralty in 1823.

P 39 ELECTRICITY TRANSMISSION LINES SU.647065-475121

Hampshire's oldest tower line is probably the 132 kv double circuit line of 1933 from Netley Common to Fort Widley. The line was part of the National Grid which connected Southampton, Portsmouth and other power stations. The 'Golden Bolt Tower', built near Breamore in 1933 to complete the grid, has vanished, but early towers can still be seen, especially round Basingstoke.

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Front cover :

W.17 The Hawthorn Davey engine at Twyford Pumping Station
drawn by Ron Mapp

Back cover :

AN.3 Whitchurch Silk Mill drawn by John Reynolds

ALRESFORD Watercress Line for details of train services ☎ 0962-734200

ALTON Curtis Museum Tu/Sat...10/5 ☎ 78870420-82802

ANDOVER Museum & Art Gallery Tu/Sat...10/5 ☎ 0264-366283

BASINGSTOKE Willis Museum Tues/Fri 10/5 Sat.10/4 ☎ 0256-465902

BEAULIEU National motor Museum daily 10/6 ☎ 0590-612123

BOTLEY Hampshire Farm Museum Apl/Oct 10/5.30 ☎ 0489-787055

BREAMORE Countyside Museum Jun/Jul 2/5.30 except Mon/Fri ☎ 0725-512468

BUCKLERS HARD Maritime Museum daily 10/8 ☎ 0590-616203

BURSLLEDON Windmill Apl/Sep Sat/Sun 10/4 Oct/Mar Sun 10/4 ☎ 0703-404999

EASTLEIGH Museum Tu/Fri 10.00/5.00 Sat 10/4 ☎ 0703-643026

ELING Tide Mill Wed/Sun 10/6 ☎ 0703-869575

FARNBOROUGH Royal Aircraft Factory Museum open by appointment

GOSPORT Museum Tu/Sat 10/5 ☎ 0705-588035
 Froude Museum, Haslar open by appointment
 R.N. Submarine Museum ☎ 0705-529217

MIDDLE WALLOP Museum of Army Flying daily 10/4.30 ☎ 0264-384421

OWER Paulton Park March/Oct 10/8 ☎ 0703-814442

PORTSMOUTH Museum Mon/Fri 12/5 Sat/Sun 11/5 ☎ 0705-827261
 HMS Warrior Mar/Oct 10/5.30 Nov/Feb 10/5 ☎ 0705-291375
 R.N.Dockyard Museum Daily 10.30/5.30 ☎ 0705-733060
 The Mary Rose Daily 10.30/5.30 ☎ 0705-812931
 D Day Museum Daily 9.30/7.30 Oct/Mar 11/5 ☎ 0705-827261

SOUTHAMPTON Maritime Museum ☎ 0703-223931
 Hall of Aviation Mon/Sat 10.00/5.00 Sun 12.00/5.00 ☎ 0703-635830

SOUTHSEA Castle Museum Apl/Oct 10/5.30 Winter w/e only ☎ 0705-827261

WHITCHURCH Silk Mill Tues/Fri 10.30/5 ☎ 0256-893882

WINCHESTER Museum Mon/Sat 10/5 Sun 2/5 ☎ 0962-863064
 City Mill Apl/Sept 11.00-16.30 ☎ 0962-870057

