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This newsletter dispatches with the usual format in order to produce three sequential maps of Sunderland port as well as notes pertaining to them.

The River Wear

The River Wear, has since Roman times and probably earlier, been an arterial route into what is now County Durham. The river is tidal as far as Fatfield bridge but navigation beyond this point is possible, particularly during flood conditions. The river is the principal reason for the development of Sunderland both as a port and a city. It has developed on both sides of the river principally around the locations of Bishop Wearmouth to the south and Monk Wearmouth to the north.

The river's navigation possibilities have what has given the impetus to the development of industry and commerce over the years, something which at this point in the 21st century had diminished. One of the earliest records describing the need to maintain the river was in 1699 when a petition was sent to King Charles II asking for the river to be cleaned up and controlled. During the next decade work started on the "clean up" and a lighthouse and piers were constructed at the river mouth, obviously to aid safe navigation.

It took, however until 1717, with the formation of the River Wear Commissioners to effect some control over the use of the river. The river at this time was barely navigable at the estuary, with sand bars and shallows forming the main and seemingly insurmountable barriers both in and out of the river.

The map by James Fawcett of 1719 shows the harbour entrance with the river split into a number of channels running between shifting sandbanks and rocks extending to the low tide mark. One of the sandbanks,



known as the potato garth near to the present North Dock, was even used for ship-breaking and a hundred years later shipbuilding, so substantial had it become. The lower reaches of the river had become a dumping ground for marine materials and equipment as well as wrecks and there were many ramshackle breakwaters. The few sizeable ships which did enter the river were known often to get rid of ballast, mainly stones, and sand in this location.

Early attempts to form a breakwater on the north bank had utilised old keelboats sunk against pilings while on the south bank a stone pier 333 yards in length was in use by 1746 and was 1900 ft in length by 1765 before it was badly damaged by tidal swells and heavy seas. Around 1770 John Smeaton the famous engineer planned a new south pier and building was started some years later adjacent to the old one but unfortunately it caused serious tidal swings in the estuary and sand in some quantity was carried into the river through the temporary north breakwater made of pilings and sunken keel boats. This was a serious setback. Thus in 1785 Robert Shout Junior (Harbour Engineer) proposed that a more substantial pier of timber framework, filled and surfaced with stone, was needed to hold the proper river channel on the north side. The following is an account written in 1820 by Robert Surtees in "The History and Antiquities of the County Palatine of Durham: Volume 2: Chester Ward." He states:-

> " In the winter of 1785 the entrance of Sunderland Harbour was warped up by a large sand bed, which extending guite across the Haven moth, leaving scarcely depth of water for the entrance of a light vessel. It was suggested, in consequence, by the Mr Shout, the resident Engineer, father of the late Mr Matthew Shout, that a temporary Wooden pier should be erected, in order to contract the channel, and enable the ebb tide to scour itself a deeper bed. The plan was immediately adopted, and in a few months there was a deep and spacious channel. This beneficial result induced the Commissioners to commence the building of a permanent Pier of stone; but, owing to the nature of the ground, loose shifting sand and gravel, the work proved extremely tedious and expensive. A length, however, of near seven hundred feet of solid pier, built upon piles, was com

pleted by Mr Shout the elder, and ninety feet more were added by his successor, Mr Pickernel. Later Mr Matthew Shout was still proceeding with the extension of the work, when the Commissioners consulted Mr. William Jessop, Civil Engineer, who gave his full approbation of what had been done under Mr. Shout's direction, and advised the principle to be acted upon much further, both as to both the North and South Piers, recommending the former to be still extended 400 feet, and the latter 800. The Commissioner, aware, from the effect already produced, of the advantage likely to result from the extensions, are proceeding, as fast as circumstances will permit, to carry out Mr. Jessop's plan to its fullest extent."

By 1795 the North Pier had reached a length of 700 feet and the sand banks and river flow were under control for the first time. Robert Shout's knowledge and expertise had resolved the problem. Seven years later it had been extended to 1000 feet and ended with an elegant lighthouse which replaced a reflector light which had been built on top of a building on the end of the pier. The lighthouse was octagonal in shape was 78 feet high with nine gas lights and reflectors which gave off a light visible for 12 miles. (Examination of map 2 for 1817, clearly shows the two breakwaters at the river entrance).

The river was now effectively under control, preventing sand piling up at the harbour entrance. The provision of the breakwaters was the single most important factor at that time allowing for the future development of Sunderland as a port as well as a major shipbuilding location. The initial breakwater built prior to 1795 eventually had to be rebuilt to strengthen it against earlier damage sustained from storms and during the period 1821-1846 it was strengthened and widened to support a much more substantial lighthouse near its end replacing one built around 1806. This lighthouse, was demolished in 1983 and relocated to its present location at Seaburn.



Construction of the early North Pier lighthouse

By 1849 the North Dock had been built and was being used. This was not a location for the loading of coal for the flourishing coal trade, this occurred about a mile up river at the Lambton coal staithes (see map 1 for the location of Mr Hon. Lambton's Ground). The work of the shallow draught keel boats which carried coal to the waiting colliers were now being replaced by the rail network from the collieries. Shipments started in 1822 with the opening of Hetton Colliery and within 5 years had reached 120,000 chaldrons a year.



The development of Hetton staithes by 1900

<u>Map 1. (1737)</u>

Marked N on the map are the Pann fields, so named because of the salt pans which existed there until the 17th century. The area marked X became the North Dock. g is Monkwearmouth church (monastery). E is the river Barr and F the Barr sands. f are the banks thrown up by the positioning of a temporary south pier located along the south bank of the river at this point. G is a sandbank thrown up behind the S. Pier and H is the Coney warren. <u>Map 2(1817)</u>

Shows the piers constructed by William Smeaton (south) and Robert and Matthew Shout (north).Note how the river has straightened out and the sandbanks are no longer at the entrance. The first bridge across the river has been built (opened 1796) and the town has grown significantly, particularly in the eastern end of High Street. The area to the east of Bishop Wearmouth village has also grown in size, later to be called Debtford. More building has taken place along the north side of the river east of Monkwearmouth. There are at present no South Docks they would be built after 1855.

<u>Map 3 (1826)</u>

Considerably more building along the banks of the river, largely based on the growing industries of shipbuilding and glass production. High density housing spreading into the area around Hendon and either side of High Street both East and West. Note the river still maintains it shape suitable for navigation.. No development directly south of the bridge, this was to follow within 10 years of this map as was the area to the north of the bridge around present Monkwearmouth station. The next developments were heavily influenced by the coming of the railway to Sunderland.