

either a canal or a railway. The railway suggestion was dismissed due to the topography of the land and the frequent changes of horses that would be required. A lock-based canal was also considered impractical for the same reasons as the Nuttall's in 1793 – lack of sufficient water supplies to sustain the number of locks required for the rising land, and the time to negotiate all of the planned locks.

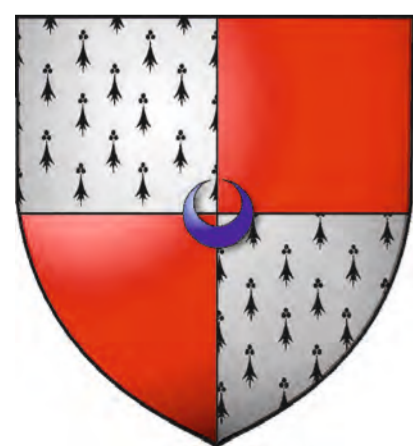
He saw a small canal using boats of 5 tons in trains of four drawn by 1 horse and the use of simple water powered inclines over which the boats would travel. The inclined planes were cheaper to construct, use less water and be quicker to operate than locks.

With regard to the harbour in Bude which was dealing with considerable trade, he felt it was too small and difficult to enter. He considered protection from the sea by way of a breakwater would be essential and recommended that such a device should be built 10 feet above spring tide level between the south mainland and Chapel Rocks, and for the river to be deepened. Green also surveyed and estimated for a smaller length of canal on the eastern side of the valley, not connected to the harbour but this was not constructed.

What came about was the canal as built, including an extension to Druxton from Tamerton, as far as Blagdon Moor to the east of Holsworthy with a feeder arm up to the reservoir built to feed the canal; an aqueduct to cross the River Tamar at Burmsdon; the use of 6 incline planes on the narrow tub boat canal; a sea-lock to allow trading vessels into the canal to load or discharge their goods plus 2 locks between Bude and Hele Bridge. In total, some 35½ miles of waterway.

Green, in his survey, did see that the eastward progression of the canal could reach Brightley Bridge near Okehampton, as previously suggested by the Nuttalls, and possibly onto Crediton via South Zeal, North Tawton and Bow. This could allow further expansion to Exeter, Bideford, Barnstaple, South Molton and Tiverton but overall the cost was unwarrantable. He also felt that an extension to Rushgrove Mill, near Launceston, could be beneficial by bringing about the completion of the Tamar Manure Navigation, thus opening a link between the seas to the north and south via the River Tamar.

1819 saw a proposal to extend the canal from Launceston further south was put to the Duke of Bedford with a view to repealing the Tamar Manure Navigation Act (the Bude subscribers having purchased the Tamar Company's shares) and carrying the extension along the Cornish bank instead of the Devon bank. This appealed to the Duke as it would have avoided his estate at Endsleigh, however it did not materialise when on 14th June 1819 the Act of Parliament was obtained by the Bude Harbour and Canal Company.



The Stanhope coat of arms

There were 330 shareholders with the leading investors being the Earl & Countess Stanhope, Sir William & Lady Call, George Call, Sir Arscott Molesworthy, Sir Thomas Dyke Acland, William Arundel Harris and James Green himself who had invested a substantial sum. Many of the subscribers were Exeter businessmen including John Blackmore, a merchant of 143 Fore Street, whose interest was that it seemed to be a sound financial investment considering that James Green had contacts in Exeter, being the Surveyor of Bridges and Buildings for Devon, and living in the city. The Company was based in Exeter and in the 'early

days' most of the meeting were held at the New London Inn in the city.

The Act of 1819 simply said, "...for improving the harbour of Bude, in the County of Cornwall, and for making and maintaining a navigable canal from the sandy harbour of Bude to, or near, the village of Thornbury in the County of Devon and divers branches therefrom, all in the said counties of Cornwall and Devon."

Power was given to raise £95,000 in 1,900 shares of £50 each and an additional sum of £20,000 if



A drawing by Sir Thomas Acland of the original breakwater as built. This breakwater did not follow the recommendations of James Green in that it was slightly lower than planned and breached the great Chapel Rock. Richard Carew, in his 'Survey of Cornwall' of 1602, described the great Chapel Rock as an island on which there had been a medieval chapel inhabited by monks who maintained a warning light for shipping.

needed, either amongst themselves or on a mortgage of the undertaking.

Green's estimate of £128,341 had been pruned as the development of the canal was rationalised by dropping the eastward extension and cutting back from Ridgegrove Mill, Launceston, to Druxton. The final figure was £91,617 which included £4,618 for the harbour works. The canal from Bude to Hele, Marhamchurch, was to be suitable for the barges whilst the remainder of the system was for tub boats.

The start of construction officially began on 23rd July 1819 when Lord Stanhope attended the site for the breakwater and laid the first stone. He made an eloquent speech which was well received by the assembled notaries. The party then proceeded to the site for the canal basin amongst the sand dunes. Lord Stanhope cut the first sod, receiving much applause, followed by the bands present playing 'God Save The King' and 'Rule Britannia'. The crowds then made their way to Summerleaze Downs, overlooking the beach, where a great celebration took place with dancing, entertainment, displays of wrestling, running and gymnastic exercises. The crowd estimated to be of 12,000 were fed well with proper refreshments including 10 hogsheads of cider and thousands of cakes. (A hogshead is 65 gallons.)



After the frivolities of the inauguration celebrations the reality of construction began. The route from Bude to Holsworthy having been marked out became the scene of much activity in many locations at the same time. The influx of hundreds of navvies to do the work would have pleased local trades people. They came from many places, with their different dialects; a mixture of veterans from the recent wars and those from completed canals elsewhere.

The Harbour and Canal Company appointed John Panchen as Inspector of the Line, responsible for all aspects of the canal along its 35½ mile route.

Panchen kept a journal of his daily visits between 19th October 1820 and 11th January 1822. (You can read more about John Panchen and view extracts of some of his daily entries on panels **B2 & B3**.)

It would seem that his mode of transport was on foot and considering the length of the canal he would have covered over 20 miles on most days. During the construction, apart from problems with the work, there were numerous complaints about straying cattle, damage to crops and the removal of fencing, etc. Panchen also did work at Bude testing the loading of barges with sand and returning the barges through the sea lock to the Basin. It was clear that this was a time-consuming activity, loading took over 3 hours plus waiting for the tide to be able to return the barges to the Basin. This was the method proposed by engineer James Green. It seems strange that no-one had considered the times and type of tide that would have such a direct effect on how efficient this process was. Apart from waiting for the tide to flood the difference in the amount of water the different tides provided was a crucial factor. A 'neap' tide provides very little depth and does not cover much of the beach whereas 'spring' tides will cover most, if not all of the beach with a considerable depth of water. Because the tides progressed through the 24-hour clock it would be unlikely that when the tides were suitable more than one load could be obtained.

It was not surprising that in 1822 Lord Stanhope made a comment in a letter to the Chairman of BHCC about the trading of sands and the progress of the construction. He noted that the movement of sand from the beach to the canal would be better undertaken by a railroad instead of the barges. Although this was estimated to cost an extra £600 it would be more convenient and reduce the cost of delivering the sand by 1p per ton in addition to a reduction in the capital required for providing barges.

Lord Stanhope was also highly critical about the way sand was 'sold' to prospective customers. The sand was free but the tolls were for transportation and labour. He favoured low tolls to bring high sales and large profits. He wrote, "It is the object of the consumers to purchase a large quantity; it is the object of the company to sell a large quantity; neither object can be accomplished unless the price is low."

There were other issues about the day-to-day management of the Company. A sub committee was formed during 1822 and £300 per annum was granted for expenses by the 3 members, George Call, Revd. Davis and a Mr Vowler. Their task was to settle matters 'on the ground' where the canal was being built. There were many complaints about the low price paid for land, about trespass and damage. This took a considerable amount of time to settle and the sub-committee felt justified in sharing the £300. It was not easy to convene a Management Committee meeting as most of the members lived away from Bude and five were needed for a quorum. There was a suggestion that these 'monies' were salaries as expressed in a letter from George Thorn BHCC Clerk, to Lord Stanhope in January 1823.

After seeking legal advice Lord Stanhope replied pointing out that the resolution re the sub-committee had been very loosely worded and their duties insufficiently defined and that the 3 members had been exercising functions which properly should belong to the whole committee and as such the Act of Parliament was being violated. He condemned the 'salaries' which were being paid out of capital and not income. The effect of this was the resignation of George Call as Chairman. He obviously deeply felt the implications which he expressed to the Company in a letter dated 23rd September 1823 as 'a mass of malicious misrepresentation'.

By October 1822 work on the canal was dropping off and the main line was nearing completion, the navvies moving on to other canal projects. In June 1823 the canal was declared ready for trade and the official opening of the completed sections, namely Bude to Holsworthy, the reservoir and out to Tamerton Bridge, took place. Tub boats were loaded with sand and merchandise destined for Holsworthy and upon arrival were met by the Committee of Management supported by local gentry. They marched into Holsworthy in a procession with the band playing, "See the conquering hero comes".