

## BUILDINGS AT RISK

# The rise of brine in the island

*Buildings at Risk covers buildings and structures on our island, domestic and industrial - those currently at risk, those lost, and those which have survived.*

*This week, Dave Martin of the Isle of Man Natural History and Antiquarian Society continues the story of the Saltworks - once a major employer and landmark in Ramsey which has now, in Ramsey at least, disappeared and is fast being forgotten.*

In the previous two articles, we saw how salt had been made elsewhere and imported to the Isle of Man, and how when searching for coal, brine was discovered under the Point of Ayre.

In the late 19th century, coal and salt were two significant imports to the island: coal to fuel not only domestic premises but to fire boilers and to make town gas, and salt not only for domestic use and making butter, but for the fishing industry.

In the 1890s Messrs Craine Bros of Liverpool had instigated a search for Manx coal. They were expatriate Manx brothers - Thomas William Craine and John James Craine - born at the Squeen in Ballaugh, who had prospered as drapers in Liverpool.

They believed that coal might be found beneath the northern coast of the island. They hired an experienced Scots mining engineer/colliery manager, John Todd, to head the prospecting campaign which led to the five coastal test bores in 1891-93.

As described previously, the West Cumbrian coal seams ran undersea towards the Isle of Man, but there was



Manx Salt and Alkali Company Limited letterhead

considerable scepticism as to finding Manx coal.

Writing in 1896, after the failure to discover coal - but whilst it appears he was still working for Craine Bros - John Todd described how Craine Bros had chosen to pursue their project in the face of expert geological opinion, and Todd said diplomatically: 'I think it better to remain silent in the matter.'

Given the paltry few inches of coal discovered, that idea was abandoned and plans were made to confirm the extent and commercial viability of the brine that had been found.

A second test bore at the Point of Ayre was sunk to 920 feet and found multiple layers of salt, separated by bands of saliferous marl.

Many mines - be they for coal or metalliferous minerals - follow seams or veins. Underground salt reserves are usually created by evaporation

of seawater which is trapped above an impervious layer, stopping the gradually-concentrating brine from leaching into the ground.

This means that salt is often deposited in 'salt lakes' which tend to be wide but shallow, giving 'beds' rather than 'seams' of salt; these beds are then covered by later geology which, if relatively impervious, preserves the beds of salt.

In the north Irish Sea, apart from the Manx hills, the seabed is almost all like the northern plain of the Isle of Man: covered in a mixture of glacier-borne and sea-borne debris - sand and gravel/stone on layers of glacial marl (clay).

Those layers of clay, in interglacial periods, provided the basins in which seawater gradually evaporated to leave salt beds.

If evaporation occurs in very still conditions, the salt can be relatively pure; but if

the water is in any way disturbed or polluted by blown earth or sand, or the salt is dissolved and mixed with the next layer of marl being laid down, the result varies from discoloured salt (which is one of the causes of cheap salt for roads etc sometimes being brown) to just traces of salt in the marl - all of these being described as 'saliferous marl'.

This quarried/mined salt often needs to be dissolved and then run through settling tanks to allow the silt to settle out before being re-evaporated for table, commercial or industrial use.

Finding the brine at the Point of Ayre was a great plus - there was no need to mine and re-dissolve the salt to purify it - that was all being done naturally (see the analysis results in the previous Buildings at Risk in the Isle of Man Examiner of April 13).

The test bores, especially No.6, showed a significant

depth of salt and, based upon what was known of the shallower geology, it was expected that the salt reserves might extend horizontally at least the parishes of Bride and Andreas, and out under sea.

John Todd estimated that there might be of the order of eight millions tons of salt in this reserve.

Whilst it was estimated that the Scottish fisheries used 100,000 tons per annum, some 396,000 tons of salt had been shipped from Liverpool to the West Indies in 1894 - so there was definitely a market, especially for high-quality salt.

John James Craine died in the 1890s, but his brother Thomas William Craine continued with various partners, all the while retaining John Todd as their engineer.

A 31-year Crown lease was negotiated for the right to extract salt from under the

north of the island (parishes of Bride and Andreas) in 1895, with royalties due to the Crown Commissioners of 3d per ton for salt produced and 1½d per ton of brine used otherwise.

Whilst reasonably confident of the lateral expanse of the salt bed geology, there were concerns over how far brine would be able to run.

Initially accessed from the Point of Ayre borings, the promoters were prepared to sink further extraction bores/wells, and there was the possibility that the coastal Ayres flatland to the north of the brooughs/Bride Hills could one day come to resemble the fields of 'pumpjacks' or 'nodding donkeys' seen in the American midwest.

Berthing facilities would be needed to import coal to fire the saltworks and export salt. Because of the possible need for multiple well-heads on the Ayres, John Todd had



Saltworks with the salt pan house gables facing, seen from across the old harbour, with the 'New Leader' and 'Lively' alongside

Ballahane collection



Saltworks chimneys over the town and Mooragh Park

iMuseum





Salt workers in 1945. (Back row, left to right) Tommy Kaneen, Charlie Cannell, Alfie Kneale and Tommy Quine. (Front row) George Sayle and his father Danny Sayle

Ballahane collection

originally suggested erecting the saltworks to the west of the Point of Ayre and a berthing pier on the coast between Ballaghennie and Rue Point.

But consideration of the size of jetty needed on the shelving beach and its exposed situation, and the prospect of brine spas in Ramsey, eventually led to a decision to site the works in Ramsey.

The then out-of-use shipyard site was chosen as it had sufficient land and harbour wall berths; the site, including harbour access, was secured by a mixture of purchase and lease.

A lease was agreed with the Crown Commissioners for £25 per annum to permit a pipe to be run along the foreshore from the Point of Ayre, past Cranstal, Shellag and the Dog Mills.

The plan was to pump the brine in at sea level towards Ramsey and then up to a break/holding/header tank above the brooghs at Balladoole, from whence it would flow by gravity back down the brooghs to the saltworks, under a wayleave from Ramsey Town Commissioners.

The pipes from Balladoole to the shipyard were to be buried. They ran seaward of the recent Mooragh Park and lake, along Park Road and thence to the shipyard site via North Shore Road, and are only seen nowadays during ground-works such as the recent MUA works around the Vullan.

However, the brine pipes in from the Point of Ayre to Balladoole would be laid along the head of the beach - a decision that was to repeatedly come back to haunt the saltworks.

A dedicated company - the Manx Salt and Alkali Company Limited - was incorporated on February 15, 1902. Funds were

raised from sale of shares and mortgages were taken.

Thomas Craine and his brother's executors transferred their interests to the new company in 1903 which appears to mark the end of Craine Bros' involvement with the project; TW Craine in fact died shortly after the Saltworks started production.

John Todd, the colliery manager and engineer who had been brought to the island by Craine Bros to lead the search for coal, remained with the project and would become the first manager of the Saltworks.

**A** pumping station was built at the Point of Ayre brine wellhead - we will return to discuss that in the next article.

The pipes from Balladoole to the shipyard were to be discreetly buried, but the chimneys were far from discreet - they towered over the town and often appeared as backdrop to photographs of groups or events at the Mooragh Park.

The chimneys were over 100 feet tall to ensure the furnaces drew well and also to try and disperse the smoke and flue gases, but that didn't always work.

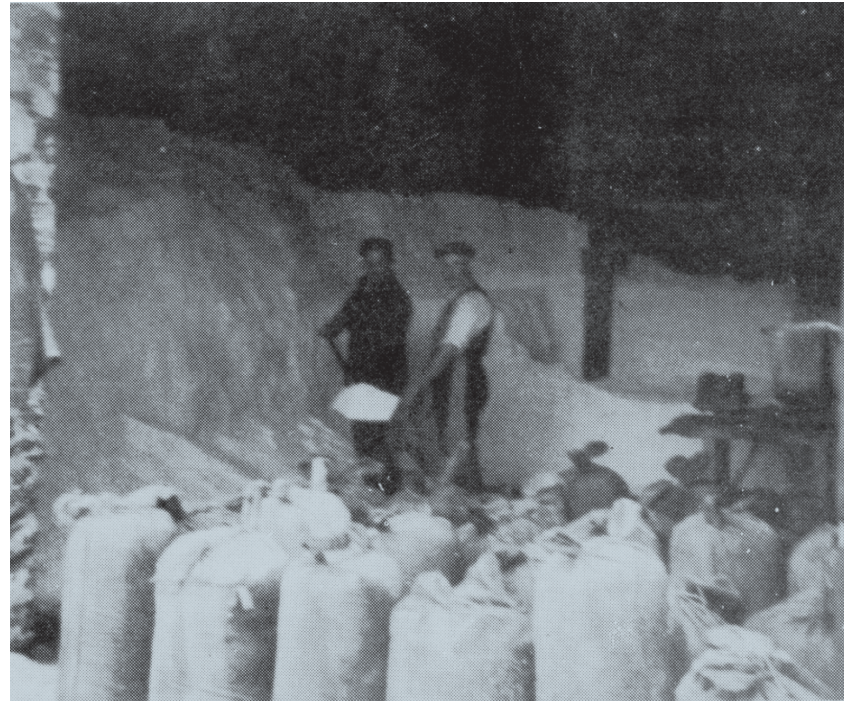
Infamously, on one occasion smuts from the Saltworks chimney besmirched a Lieut. Governor attending a function at the Mooragh Park!

Despite its presence as a major industry and landmark in the town, there is a scarcity of plans beyond its footprint, but much can be gleaned from press reports, company returns, and the reports made to the Crown Commissioners and insular government.

The saltworks opened in 1903, initially with just two pans, but that eventually rose to seven salt pans in operation which were expected to produce 350 tons/week - 18,200 tons each year.

The Saltworks was a significant employer, at times employing more than 30 men; some accommodated locally in what had been shipyard workers' houses.

Coal (usually slack from



Workers bagging salt

Ballahane collection

ment was made in an ex-Douglas Corporation steam wagon which could carry four or five

tons of coal to the Point at a time.

To be continued...

the Ayrshire coalfields) was imported to Ramsey to fire the pans and, while some salt was sold locally, much was exported to Scotland and eventually to Ireland as well.

Initially the Saltworks used voyage or time-chartered vessels, but soon purchased the Guernsey-built sailing vessel 'New Leader'. She was fitted with a small auxiliary engine by the Saltworks, but remained basically a sailing vessel throughout her time with the Saltworks.

In 1921 though they took delivery of their own new steam-powered vessel, the 'Manxsona' (sometimes mis-spelled as 'Manxonia' or 'Manxsonia').

As well as bringing coal into Ramsey for the saltworks, the coal was sold to third parties; they also shipped unrelated building and other materials into Ramsey.

Transport of salt within the works was either by hand-cart or horse and cart; but the constant demands for coal at the Point of Ayre pumping station meant an early invest-



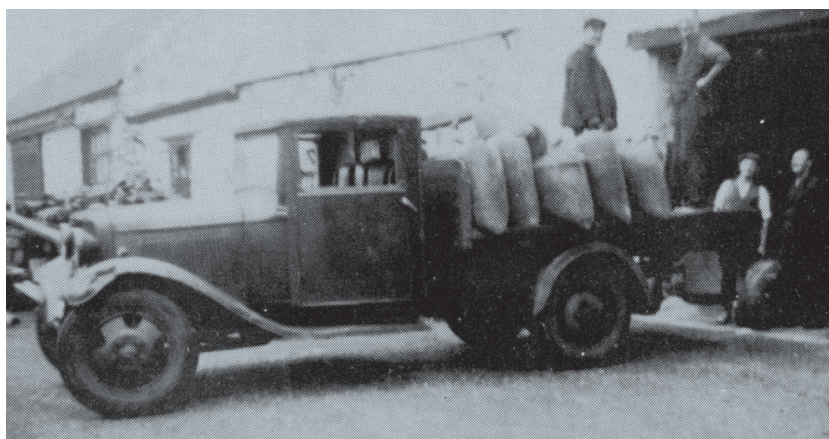
The S.S. 'Manxsona'

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Report to the Crown Commissioners in January 1914 - thirty men and two boys employed, seven pans in operation and an eighth under construction

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Loading bagged salt onto the back of a vehicle

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