

The MUNDLING STICK



the LION Salt Works TRUST

Newsletter of the Lion Salt Works Trust SPRING 2006

VOLUME 12 No.1

Dates for Your Diary

Morris Dancing Day

Saturday 13th May

2pm - 4pm

Hosted by The Earl of Stamford.

Morris Dancing Teams will be performing at the Lion Salt Works and the Anderton Lift during the afternoon. Watch out for this colourful and noisy event.

Earl of Stamford - Cheshire

Eryri Morris - North Wales

Mossley Rose & Clog - Stockport

Powderkegs - Derbyshire

Mucky Mountains - St Helens

Prehistoric and Roman Coastal Salt Making in Britain

Saturday 10th June

One Day Conference

Boston Conference Centre, Lincolnshire

Speakers:-

Elaine Morris (University of Southampton)

Tom Lane (HTL/APS)

- *Prehistoric and Romano-British Salt Production in The Fenland and Lincolnshire Marsh.*

Stephen Rippon (University of Exeter)

- *Late Prehistoric and Romano-British Salt production in the Somerset Levels.*

Sarah-Jane Hathaway (Bournemouth University)

- *Interpreting Iron Age and Romano-British Salt Production and the case for Poole Harbour, Dorset, England.*

Andrew and Annelise Fielding (Lion Salt Works Trust)

- *Experiments on the Marsh and the view from inland.*

Steve Willis (University of Kent) - *Northumberland.*

James Fawn (Colchester Archaeological Group)

- *The Red Hills of Essex.*

Tickets only £15 (including lunch) from Heritage Trust for Lincolnshire. Tel: 01529-461499.

Saxons are Coming

Saturday 1st July, 2006

Part of events being held at The Salt Museum, London Rd, Northwich will feature a salt making demonstration by the Lion Salt Works Trust with demonstrations by a Saxon re-enactment group.



Come to see the Earl of Stamford Morris Dancing Team with other dancing groups. A colourful, musical and noisy experience.



Together with Anvil Pottery we will be taking replica ceramic salt pans to a conference being held at Boston, Lincolnshire. The conference will include an account of our experiences of making salt in the pans on a salt marsh with Lincolnshire archaeologist, Tom Lane. Compare the replicas with excavated examples from Ingoldmells, Lincs, in the photograph above

The launch of the Shire Book, *The Salt Industry* by Andrew and Annelise Fielding will be announced in the next issue.

OPENING TIMES

The Lion Salt Works is open each afternoon 1.30pm to 4.30pm. May be closed Friday and Saturday. Donations welcomed : £1 per adult, 50p per child. Booked parties by arrangement. For further information call 01606-41823. Web site address - <http://lionsaltworkstrust.co.uk>

Help interpret your local heritage to others. The Trust still requires additional volunteers to assist with maintenance and to open the exhibition centre especially on Saturday afternoons.

HERITAGE LOTTERY BID STAGE 1 APPROVAL

An application by the Lion Salt Works Trust, for a grant from the Heritage Lottery Fund, was given a Stage 1 approval at a meeting of the HLF Trustee Board on Tuesday 28th March, 2006.

The site was established in 1894 by the Thompson family and remained in the family for five generations. Commenting on the news of his family's business, the last surviving owner, Henry Lloyd Thompson said, "I think it is wonderful that the Lion Salt Works is to be restored. It also feels strange however that somewhere where I worked with my father and grandfather should now have a special place in history. Visitors to our works were always amazed at the hot, steamy environment necessary for this kind of salt making. We were the last producers of an unrefined salt for block salt making and I send the Lion Salt Works Trust all my best wishes for the future."

Explaining the importance of the grant, the HLF's regional manager Tony Jones said, "Our industrial heritage is something we can all take pride in, not only in the North West but across the UK. Salt has been produced in Cheshire since before Roman times so it is very fitting that the last remaining vestige to the salt industry will be in Cheshire. We're proud to be able to rescue the site for future generations ensuring that our children and our children's children can learn about the importance of this once thriving industry."

Cllr John Grimshaw, Lead Councillor for Recreation, Rural and Culture explained the vital role the Council had played in saving the only surviving open pan salt works in the UK. He said: "The Lion Salt Works is one of only three surviving open pan salt works salt works in Europe and we felt it was a an important piece of our national industrial heritage. Realising the importance of the site we bought it in 1986 when the works closed down and set up a Trust to maintain it. With the site falling into a perilous state of disrepair we have fought for 20 years to help get funding to restore the site for future generations. All the officers and councillors who have supported the Trust in gaining this grant are delighted to have helped save one of the country's most unusual tourist attractions. The money will fund Phase One of the plans, which will restore the principal buildings and make the area safe so that the public can once again explore the whole site. Visitors will learn about salt production through practical demonstrations and hands on activities and the money will fund the creation of modern day visitor amenities and education facilities".



How Can You Help

A 'Friends of the Lion Salt Works' organisation will be formed in 2006 to help our volunteers support the work of the Trust. Our current team of dedicated volunteers will be recruiting more helpers from our local area for practical help on site in interpreting the site to visitors and at events. In addition a fund-raising programme will be organised to gather together the required match funding to enable us to access the HLF grant award.

If you can help man our exhibition, or help with demonstration days please get in touch with the Project Director, Andrew Fielding on 01606-41823.

The Lion Salt Works Trust is delighted with the grant approval from the HLF. Our team has worked so hard to create a viable plan to restore these vulnerable buildings and present not only the buildings but also the craft skills of evaporating brine to visitors, and we thank everyone who has helped so far. Salt receives some bad press today, but it is still a vital commodity in food and the chemical industry. The Trust is delighted that it can now bring its story to a wide audience and take a leading role in new local initiatives such as the Vision for Northwich, the Weaver Valley Regional Park and national and international projects such as the European Route of Industrial Heritage.

We now encourage anyone who would like to support our aims and objectives to get in touch and help us bring the project to a successful conclusion.

THE MUNDLING STICK by post

If you would like to have a regular copy of The Mundling Stick sent to you by post please send your name and address to The Lion Salt Works Trust, Ollershaw Lane, Marston, Northwich CW9 6ES or telephone/fax 01606 -41823. Newsletters are currently sent free of charge.

Cheques for donations should be made out to THE LION SALT WORKS TRUST. If you would like to provide long term support for the Trust please ask for a Gift Aid form.

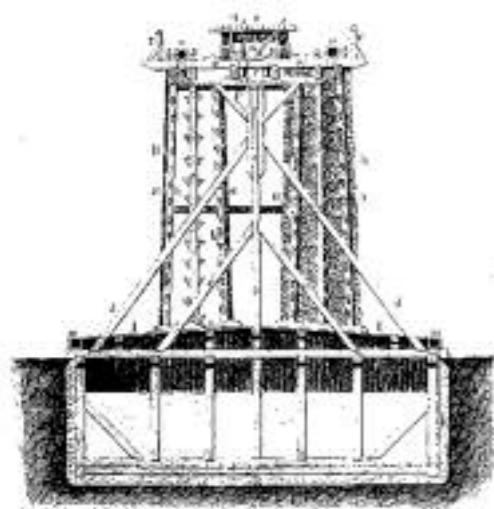
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SCIENCE WEEK at LION SALT WORKS

Building and Operating a
'Thornbush' Tower . . .
Or how to strengthen brine by
dripping it through sloe twigs



The restored section of a thornbush tower at Bentlage, Germany.



Cross section through a thornbush tower showing the brine reservoir. The later structures did not have roofs as they were found to prevent the wind from passing through the structure by creating a positive pressure around the tower.

Three kilometres north of the City of Rheine, Germany, on the banks of river Ems the little village of Bentlage was described in 890 as 'Binut Loga', set in an enchanting landscape these Latin words are commonly understood as 'nice plot'. Here, amidst impressive woods and beautiful meadows the Gottesgabe Salt Works was found. From 1600 the salt works flourished and with high profits they named it 'Gottesgabe' meaning 'God Given Salt Works'.

In the 16th Century salt makers had already tried to develop new methods to reduce the huge quantities of wood needed to heat and evaporate the brine. A 300 metres long and 7.5 metres high wall of stacked thorn bushes was built. The blackthorn used showed to be highly brine resilient and could be packed tightly. The brine, with a salt content around 9% was pumped to the top of the thorn bush wall and then let it drip repeatedly along the outer side of the wall where the passing breeze caused evaporation of the water particles resulting in an increased brine concentration to approximately 22%. In those days the concentration of the brine was measured in grades rather than in percentages. Therefore the stacked thorn bush wall was called a graduation installation.

In 1890 Bentlage became a spa and health resort and from 1910 on included a children sanatorium.

The treatment was twofold, to take salt-water baths and to inhale salty air in the vicinity of the thorn bush wall. However, the spa resort never rose to great heights and closed its door in 1975.

The former salt works and the spa became a sleeping beauty. Only the bare minimum was done to keep the buildings in shape, until through a major restoration effort in 2003 they rose from their ashes into new glory.

Jules Vleugels

THORNBUSH TOWERS

A Thornbush tower is made from branches cut from the common sloe bush, *Prunus Spinosa*.

In a large basin a wooden structure is erected that supports a lathwork on which the thorn bushes rest with a slope to the outside. After the thorn bushes are laid, the outside is cut to create a smooth surface with a slight declination, so that the base is somewhat broader than the top.

Simple wooden taps allowed the rate of flow to be controlled depending on the weather conditions. High temperature with a nice breeze allowed for high flow rates. Low ambient temperature and a high humidity made graduation useless, because more pumping energy was spent than graduation effects were gained.

Above the thorn bushes the brine drips from a small gutter. A notch cut in the sides of the gutter allows the brine to drip at a constant and dense flow over the surface of the thorn bush wall. Because of the slight declination of the wall the drops fall from twig to twig, breaking the speed of each drop and allowing the wind to take its greatest effect.

The thorn bush wall is oriented in such direction that the prevailing wind will hit its surface under a rather sharp angle, say 45 degrees. A more perpendicular angle would cause the loss of raw brine material at the off-wind side.

At the beginning of the graduation process the brine contained approx. 9 percent salt but on occurrence lower concentrations were possible. The thorn bush wall was divided in separated parts in which the brine was pumped successively. The wall in Bentlage allowed for five such steps and in each step the brine reached a higher concentration, ending up at some 20 to 22 percent before being pumped in the salt pans.

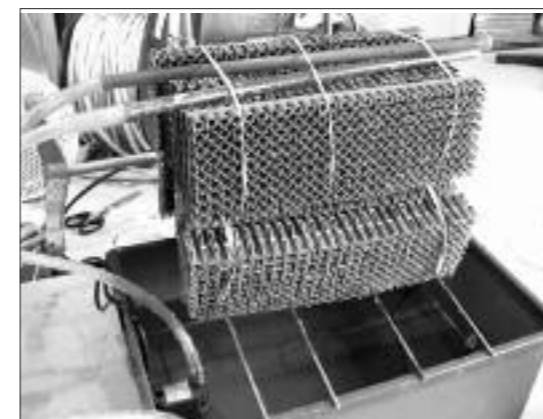
Jules Vleugels



Cheshire Ranger David James delivers cut sloe branches after the winter hedge cutting at Marbury Country Park.



Jules Vleugels inspects the construction and laying of the thorn twigs in our framework 'tower'.



A desk sized model of a thornbush tower constructed by Patrick, Matthew and James, students from St. Nicholas Catholic High School, Hartford.

Our demonstration day was severely hindered by overnight snow, which accumulated to 4 inches on the Sunday morning! However we persevered and completed the construction of the tower.

Desk sized models were on display which had been made by students from St Nicholas Catholic High School, Hartford. On hand to operate the model were Patrick, Matthew and James with Tony Leonard and teachers Dr Maria Buchan and Mrs Catriona Hare. Patrick and James also made a short presentation at an event held at Northwich Memorial Hall in the presence of The Mayor of Northwich, Cllr Mrs Cotterill and Consort Mr Roy Cotterill.



Our completed tower was 2 meters tall and supported a brine reservoir and delivery tray which allowed the brine to be dripped evenly over the twigs (above). Jules also assisted in describing the operation of the tower to visitors (right).



Thanks also to Anvil Pottery, George Twigg, Andrews Sykes Pumps, Stoke-on-Trent and volunteers Annelise, Malcolm, Dorothy, Tony, Joanne and Peter.