Materials for Salt Pans

Pottery

Pottery used in salt making sites from the Bronze Age to the Roman period is often called ‘briquetage’, but may also be known as VCP, Very Coarse Pottery. The kiln furniture and salt pans were made from different clays, with various inclusions, and fired to different temperatures. Some pans had direct contact with the fire, others used a hypocaust system with separate fireboxes and flues. The archaeological evidence includes salt pans, pedestals, shelves and hearths or oven walls. Some areas used pottery containers to carry salt away from the production sites. These can help determine trading patterns in salt.

Lead

Lead salt pans were used from the Roman period to evaporate brine over wood or peat fires. The greatest number of surviving lead pans has been found in Cheshire with over thirty examples. The size of hearths suggests that they were used in groups. Lead pans were used until the post-medieval period.

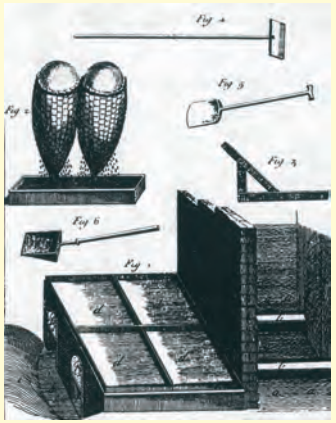
Iron

Iron pans and coal fuel progressively replaced lead and wood or peat from the 15th to 18th centuries, initially in seasalt works on the coastal coalfields such as the Firth of Forth and Tyneside. The pans were madeof rivetted wrought-iron pates, and by the 18th century contained as much as 7 tons of iron. Descriptions of salt making processes are published by Agricola in his book ‘De Re Metallica’ (1555). William Jackson described the process in 1669, Dr Thomas Rastel in 1678, Thomas Lowndes in 1746, William Brownrigg (right) 1748, Christopher Chrysel in 1778 and Henry Holland in 1808. The last inland open pan salt works at the Lion Salt Works, Northwich closed in 1986 and is currently undergoing restoration as a museum.

Modern Processes

Stainless steels, monel metal and plastic all feature in modern processes, as well as filtration and purification. However the huge vacuum production of the industrial producers dwarfs all the artisan sea salt producers in terms of volume.

Photographs by St Barbe Museum and Andrew Fielding



Solar Evaporation

The important partial-solar industry around Lymington (Hampshire) used arrays of small evaporating ponds to concentrate seawater into brine, wind pumps, and salt houses in which brine was boiled using iron pans and coal fuel shipped in from Tyneside.

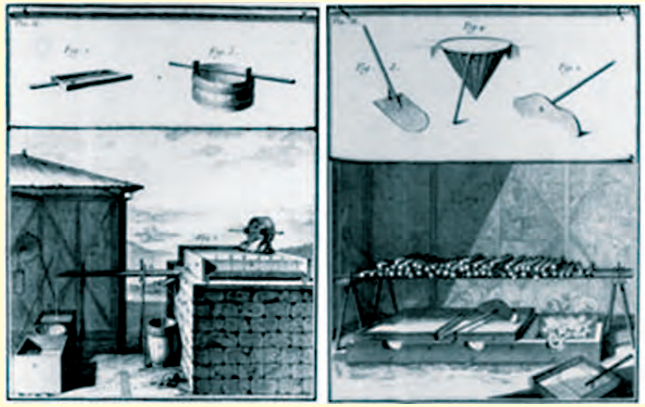
For solar evaporation, ‘salinas’ require dry summer weather and a large area of flat land which is reached by high spring tides, or to which sea water can be artificially lifted for storage, settlement and evaporation.

The ponds in which sea salt is evaporated by the sun and wind are often referred to as ‘pans’.

A partial solar process is described at a short lived sixteenth century salt works at Traeth Maelgwyn, Ceredigion, Wales.

Sleeching

The main process used in medieval salt works was known as “sleeching”. In this method, the salt-rich crust from below spring level was scraped off (sometimes using a horse-drawn device called a 'hap') and taken to processing area above high-tide level. Here the salt was washed out in a filter-pit or 'kinch', lined with straw or peat to filter-out the silt. The waste silt was dumped forming large mounds, while the strong brine was boiled in a hut or 'saltcote', using lead pans over a wood or peat fire.



The sleeching process at Avranches, Normandy, France is illustrated in an engraving which describes how salt rich sand is harvested and placed in boxes to enable the salt to be washed out of it prior to evaporation in an open pan.