



The Consuta Trust

The advancement of education in the history of steam launches, by preservation, maintenance and exhibition of the steam launch **Consuta**

Registered Charity No. 1076505

Website: www.consuta.org.uk

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Dear Supporter,

What should a Museum Base for Consuta provide?

A Thames Heritage Boat Museum is a fascinating project to promote, but what should it contain and is it right for Consuta?

The passage of time does not usually leave a rational collection of potential exhibits, I suppose we are lucky to have **Consuta** and **Cygnnet**. Surprisingly there are few publications covering the history of 19th century Thames boating and boat building history, despite this being an exciting period of major developments.

True quite a few launches have survived from the late 19th century however most have needed major restoration work or a complete rebuild to be carried out following their rescue; this type of extensive restoration work usually totally changes their historical provenance – ie details of original machinery and installation are lost.



Donola –1966

The retired Conservancy launch **Donola**

(1894) is probably one of the most accurate representatives of the age. This steam launch is remarkably original, the only exception is a replacement boiler fitted in 1923; this however was probably just a copy of the original.

The key feature of our proposed museum will be to try and tell the history of how and why powered pleasure boating on the Thames developed in the 19th century and provide some information about the numerous boat builders who set up along the river to satisfy the increasing public demand. Up to this period all craft could only be propelled by wind or muscle power, but the steam engine was soon used to provide an alternative means of propulsion, initially first by paddle wheels. Did you know that even by 1870 many reaches of the river above Teddington Lock were considered too weedy for propeller propulsion? An early task of the Thames Conservancy, established in 1859, was to clear weed to allow screw driven steamboats passage upriver from Teddington.

Looking further back in time at the very early history of mechanical power, the first practical steam engine was made by Thomas Newcomen just 300 years ago in 1712. Most people think that James Watt invented the steam engine but this is not quite correct; Watt invented the separate

condenser which dramatically improved the efficiency of the Newcomen atmospheric engine, but the steam pressure used by Watt was still very low, engines still relied on having a vacuum. Richard Trevithic was one of the first to use high pressure steam (50psi) this was to avoid paying Watt's condenser patent royalties. Following on from these developments there were various experiments to try propelling boats with the new "fire" engines. History records that the first successful commercial vessel in Europe was Henry Bell's **Comet** of 1812 used for passenger services on the Clyde just 200 years ago. Why are we not commemorating the anniversary of this epic achievement? It was the building and development of the steamboat that helped make Victoria's Britain GREAT!

The first recorded use of a steamboat on the Thames was the **Margery** in 1815. After this date increasing numbers of steam paddle passenger boats were being built and used on the lower Thames. This was many years before the railways were introduced, and there were few bridge crossings on the lower reaches of the Thames. The only competition faced by these early steamers for passengers were the stage coaches and the wherry services provided by Thames watermen.

So when were the first screw river launches used on the Thames? The screw propeller was patented by Francis Pettit Smith in 1836, although it is claimed that others invented the idea before him. The first recorded screw steamer in the world **SS Archimedes** was built on the Thames by Henry Wimshurst in 1839. She was 125 feet long, 22½ feet wide, and 237 tons; so quite large; her performance convinced Brunel to build the 1845 **SS Great Britain** as screw driven rather than a paddler. There were those famous trials in 1845 of two equal powered tugs; one paddle driven and one screw driven. The results were quite dramatic, the screw tug **Rattler** pulled the paddle tug **Alecto** backwards at a speed of 2.5 knots; **Rattler** was also faster in a straight race.

We know that Thornycroft built his first steam launch the **Nautilus** (screw driven) completed in 1863. Unfortunately very little detail is known about this early period of steamboat history, probably the number of steam launches at the time would have been very small; where most steamboats were used on lower reaches of the Thames as passenger boats.

There is very little written about the early Thames boat builders, who by 1900 had proliferated; with the Thames firms of Thornycroft, Yarrow and Saunders prospering to become world renowned boat builders.

Since the 1950's there has been a dramatic closure of boat building yards along the Thames, leaving only a handful of traditional boat builders.

The SBA Archivist has offered to search through his archive collection for information on Thames boatyards; also if you are able to help with this in any way as well, please do let us know.

So what is the latest about a base for Consuta at Beale Park

The work on this progresses, perhaps slower than we would like. A topography report of the area has been commissioned and we have just about finalised the architects brief for the project. I have been preparing our application for HLF funding, and this is a most interesting task. It's important to realise that the HLF don't provide funds to house historical items; what they want is that the



Nautilus at Church Wharf – 1st steamer built by J.I. Thornycroft

This old steam launch boiler has been donated to the Trust.

Side fired fitted with a copper firebox and brass tubes probably 1890 or earlier – note the two check valve flange connections use three bolts same as on Cygnet.



public will benefit and learn about their heritage from any project they help fund.

So the decision has been taken rather than provide a base and services only for

Consuta, to instead tell the story of the

development of Thames boating during the 19th century which first involved the introduction of the steam launch.

Most people will know that lovely tale about pleasure boating on the Thames, by J.K. Jerome in his book “Three men in a Boat” published in 1889.

Extract from an 1911 magazine – so it seems that Consuta was an experimental boat

We occasionally discover new historical information about Consuta and Sam Saunders. I’ve included this interesting piece from an article in the Motorboat March 1911:-

“With the advent of steam craft, Mr. Saunders still kept in view the importance of combining lightness, strength, and elasticity. In a moment of inspiration the earliest traditions of his art came to his aid, with the idea of stitching on the planking instead of nailing it. And thus it is that the strange shaped hull of the latest hydroplane is but a development of the birch-bark canoe of Hiawatha, the legendary hero of the North American Indians.

In reviving, modernizing, and perfecting the ancient system, Mr. Saunders has arrived at an admirable form of structure capable of carrying the highest powered engines with safety. And it is in connection that this system his name is best known. He has, on various occasions, built boats abroad so as to permit of them racing in their respective countries, having taken his own staff of workmen to Germany, to France, and to Italy for this purpose.

When he laid his system before the committee of the Leander Club, opinions were somewhat contradictory as to its practicability. One of the members, however, Mr. Clutton, offered to build an experimental boat, and the well known "Consuta" was the result, a boat used for umpires during the Thames boat races.

Though the company had built seagoing craft on the Thames for a good many years, yet they were always hampered by the difficulty of getting them down the river. Moreover, the era of self-propulsion had produced fast craft, for which the Thames offered insufficient scope. This decided Mr. Saunders upon installing the present works at Cowes, of which the ones at Goring still remain a branch.

He set up on the Solent with the ambition of building the fastest craft afloat, an ambition that was realized in “Ursula,” and later in the “Pioneer,” the hydroplane. ”

I should mention that **Ursula** was a very fast displacement launch; however the hydroplane design was introduced about 1907 representing a major advance in hull design for those who wanted to go fast.



The two nuts at the bottom of the valve

Two more here at the top

Work was carried out while moored at Marlow for lunch.

*Good to see the steam passenger launch **Streatley** in operation again.*



Back to the present – Consuta - Engine valve timing adjustments

In July Consuta had a long period of non operation because of several weeks of strong river currents (red warning boards), this gave the engineering team (Paul and self) a chance to adjust the engine slide valve events; we are always aiming for perfection. Those who work on Consuta will probably know that at low revs the engine slide valves used to clatter at times – sounded horrible when it did this, also the valve timing has been slightly out, giving uneven exhaust beats.

Now a common arrangement for holding the slide valve which is used on Consuta is to have two sets of locking nuts on the valve spindle at each end of the 'D' slide valve to locate the valve position. These nuts are used to set the precise valve position over the cylinder ports, but they also have to be close enough not to allow any play, say no more than 1 thou of an inch; any more than this then the valve will rattle making a mechanical noise – too tight and the valve might not sit down properly on the valve face. Although the method used was very common, it is rather poor engineering practice and also quite tricky to adjust. There are better ways to fix slide valves unfortunately not used on our engine.

The valves are accessed fairly easily by removing the valve chest cover; although the forward end also needs the reversing lever to be removed as well. After three adjustments the engine is now considered to be running very well indeed; only a slight knock due to a bit of big end float (winter job). At low revs the exhaust beats are not quite even but this is probably due to having to run with the cylinder drains partially open to get rid of the water carry over – you know that old boiler problem of wet steam.

Consuta outings – late summer

After the July floods the first cruise was for our own supporters was a most pleasant run from Charvil to Marlow and return. We passed the ex Salter's steamer ***Streatley***; great to see her in service again, and the small historic steam launch ***Duet*** also in steam. While we were moored for lunch at Marlow our passengers were surprised and interested to see a part of the engine dismantled to allow a bit of valve adjustment work. See photo

The River and Rowing Museum visitors "steam day" unfortunately turned out very wet. Despite this the crew honoured the commitment and surprisingly Consuta made several trips with a full complement of passengers, I must say that the assistance from Museum staff was most appreciated on the day.

At the end of August, Consuta was then moved upriver to Beale Park, and in quick succession was steamed for a wedding anniversary; a garden party at Nuns acre above Goring Lock; and then another wedding anniversary; all these outings had some lovely sunny weather. A week later we had a trip from Beale Park to Sonning and return arranged for the Goring and Streatley Local Historical Society; I'm told that they very much enjoyed their cruise. Although rain had been predicted, the day turned out fine and sunny. What variable weather we have had this summer.

Finally

Thank you all for your continuing support; your donations and practical help with maintenance and crewing of Consuta are essential.

Should you be making a will please do consider arranging a bequest to the Trust, the advantage of this form of donation is that a bequest is not included in your estate inheritance tax calculations when made to a charity, and the Consuta Trust is a registered charity.

If you have anything at all you would like to raise about Consuta and its future, please do contact us.

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*Party at Nuns Acre
Located between Goring
and Cleeve Locks*

*Consuta ran three trips
for guests in glorious
sunshine*

*Repositional cruise from
Charvil to Beale Park.*

*Passing under the impressive
temporary bridge upriver of
Caversham, erected for the
Reading Festival*



*The attractive
Caversham reach
during a trip from
Beale to Sonning and
return*