**William Tierney Clark Memorial Plaque**

speech delivered at the unveiling on 24th June 2014 in Hammersmith
by Sandor Vaci RIBA

Your Excellency, my Lords, Ladies and Gentlemen

Today we celebrate the memory of William Tierney Clark, the civil engineer-architect, who did more than most for the civic wellbeing of Hammersmith by providing water and building a crossing over the Thames. In Clark we also celebrate the spirit of the industrial Revolution for he was an excellent example of its practitioners who had great ability, expertise gained through practical experience, inventiveness and perseverance leading to achievements. These men were strong minded and fearless. When Thomas Telford said ***Impossibility only exists in the prejudices of mankind to which they are slaves*** he expressed the can-do-anything attitude of the times. Clark lived through a period when the world changed forever, the modern economy arrived with mass production, rail travel, banking, insurance, patent protection. When he was born, in 1783, railways, wagon-ways, were wooden strips for guiding carts pulled by horses. When he died, in 1852, there were 7,300 miles of track for steam locomotives. The urban population increased to 40%, and pointing to the future, England and France were connected by a cable for transmitting signals. This was the context of Clark's working life.

Clark was born in the West Country to a Gentleman father who died when he was still young. He was apprenticed to a Bristol millwright. After doing his seven years he progressed to Colebrookdale where he would have learnt all aspects of iron fabrication. There the Iron Bridge was a frequent sight, perhaps planting the seed of later ambition to build bridges. 1811 the West Middlesex Water Company appointed him Engineer following the failures of three previous in that post. His salary was £ 200 per year plus free housing, coals and candles. In a few short years he turned the engineering of the waterworks around and remained Engineer until his death. The directors of the Company agreed that he could pursue private commissions while remaining an employee. His first project was the Thames-Medway Canal that involved the construction of a long tunnel under Higham Hill, which is still in use for trains.

The next though was why we remember him today. In 1824, just as the canal was completed, the Hammersmith Bridge Company engaged Clark to build a chain suspension bridge, the first of its kind over the Thames. Completed in 1827 it was recognised immediately as something that elevated suspension bridge design to a more sophisticated level. In the Hammersmith Bridge Clark combined robust engineering with the fine architectural design of the neo-classical suspension towers. He demonstrated the rare abilities of engineer and architect in one and this is what

made him special. Even in the twentieth century one could count on one hand the engineer-architects. The combination of Roman arches and suspension was widely copied in France, Germany and Switzerland.

A German professor, von Raumer, visiting in 1835 wrote this:

***The Hammersmith Suspension Bridge is a fine and useful work. In whatever depends on a mechanical fitness and precision, the English are masters; where taste is required, they seem frequently to confound the merely extraordinary with the poetical, and to prefer the fantastic and artistic.***

The design of the bridge symbolised the social history of the 19th century. The neoclassical towers represented the permanence of the ruling classes, the monarchies, the aristocracy. But what made the bridge were the high tensile wrought iron chains, the product of the Industrial Revolution and it was industry that moved the age forward.

Quite besides its artistry it was also a useful viewing platform from which to watch the Boat Race. In the next few years Clark built two other suspension bridges at Marlow and Shoreham Harbour in Sussex. The former is still there, spanning the Thames in a quintessentially English composition - artifice and nature enhancing each other.

In 1832 two Hungarian counts, Széchenyi and Andrássy, came to Hammersmith in their quest to find the best bridge design and best engineer to build a permanent link over the Danube between Buda and Pesth. They were astonished by the sight of the suspension bridge that effortlessly and gracefully leapt over the Thames. This is what they wrote in their report on returning to Hungary:

***The astounding appearance of the structure - the ideal and airy form in which it presents itself, tend to overwhelm the senses, and to deprive man of his judgement.*** The quote from Thomas Telford came in fact from their report when they asked: is it ever possible to build a bridge over the hazardous Danube. They enthused about its low cost, just £ 44,000. Clark answered all 39 of their questions. One can just imagine him saying:

***'So Sir, you want me to deliver a bridge much larger than I have ever built before, over the icebound wild Danube that I have no experience of, in a country I know next to nothing about. Of course I can do it!'***

But then Clark had the fearlessness I mentioned. The mutual appreciation between Count Széchenyi and Clark led to the building of the bridge over the Danube with work starting in 1839. When the building was in its final phases, in 1848, the Hungarian War of Independence began making the bridge a strategic target. The Austrians bombarded it, the Hungarian wanted burn it down but the bridge survived. It even withstood the tramping of 60,000 troops with their canons. When the bridge

was eventually opened in 1849 it was the largest span suspension bridge of its type in the world.

With funding from ICE a database has been produced that includes virtually all of the drawings, letters, reports and much else connected with the building kept both in Budapest and in London. Once on the internet anyone will be able to read the scans of Clark's letters with the Hammersmith postmarks. This is a major piece of work of some five hundred items that I think will greatly aid future scholastic research.

The third of Clark's surviving works is the fine cast iron pier at Gravesend of 1834. He also prepared designs for a bridge in St Petersburg and for waterworks in Amsterdam.

The reason for some of my vagueness about his past was that his papers, books and drawings have all disappeared, presumed destroyed.

Clark was much respected in his lifetime. He was elected Fellow of the Royal Society, became Member of the Institution of Civil Engineers. At the Foundations Stone Laying ceremony in Pesth he was presented with a gold snuffbox that still exists, probably in London...this is yet another story in itself. He was buried in the graveyard of the original St Paul's Church nearby. His estate amounted to £ 35,000 that would be several millions now. There were twenty beneficiaries in his Will, two of them were superintendents of the Danube bridge. He never married. Clark was a socially and politically conservative, generous, hugely able man. He tackled totally different engineering challenges with the waterworks, suspension bridges, canal and pier with equal expertise. He was self-effacing – the only likenesses of him are portraits painted during visits to Pesth.

It is a pleasing symmetry that Clark prepared the designs in Hammersmith for the Budapest Bridge whilst the memorial here was made in Hungary. Twelve days ago an identical plaque was unveiled on Clark's Buda Pesth chain bridge.

Finally the question, why do we erect memorials? It is to pay homage and to remind us that we stand on the shoulders of great men of the past; it is a kind of reflected glory for those who live nearby; it helps to connect the new residents of this impressive development to the history of the place. **But I think it also has a contemporary relevance: for it throws down a challenge to this and future generations to match the great deeds of the past, in this case that of the excellent William Tierney Clark.**

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