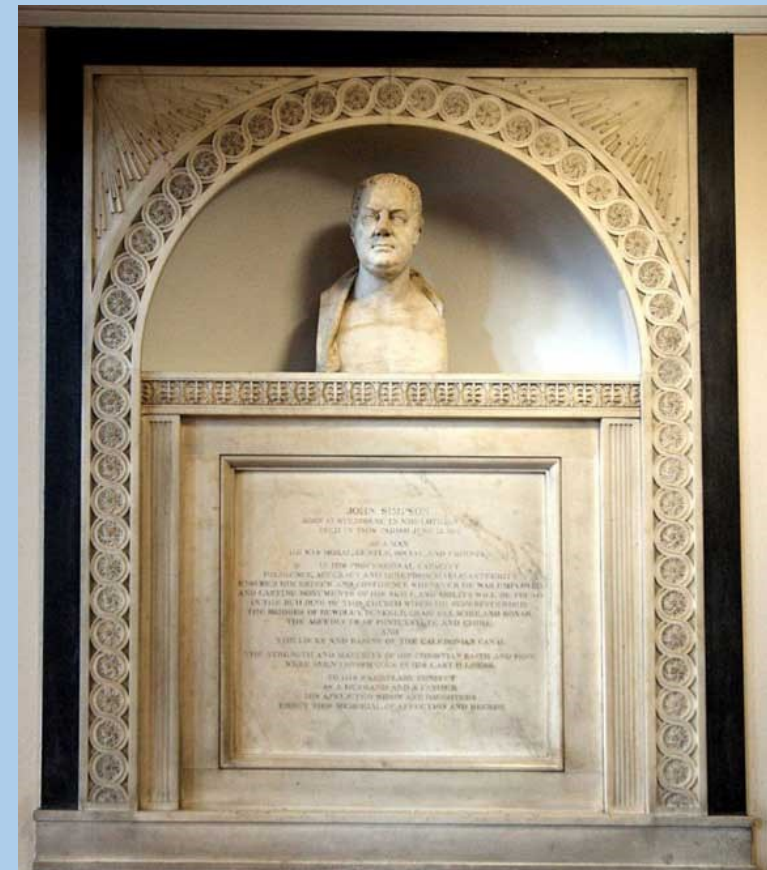


## 1. Simpson and Hazeldine.

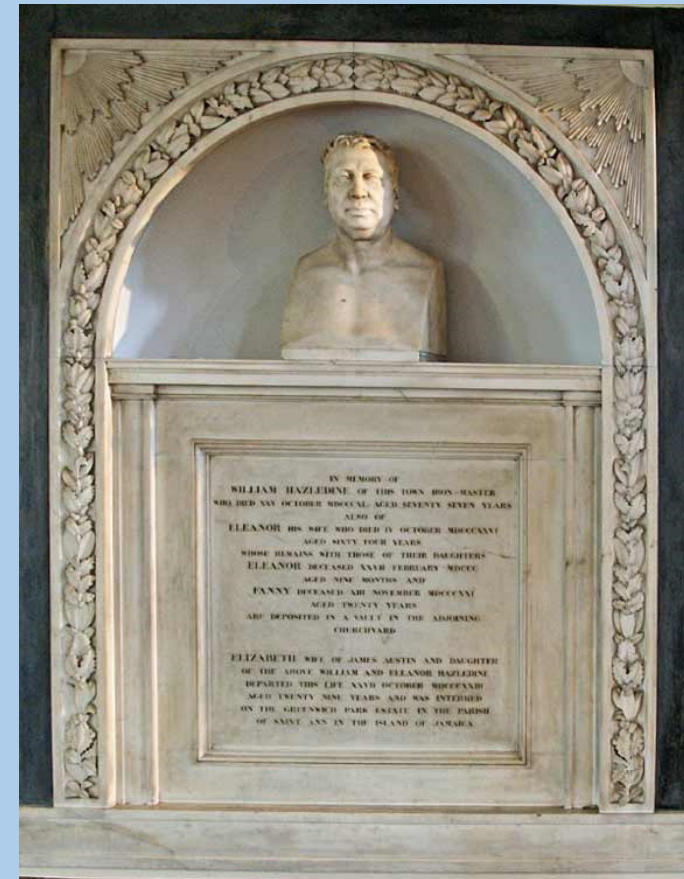
If you face the altar in church and look just to either side of the chancel there are two busts set in niches in the wall, one on each side, by Sir Francis Chantrey. They are memorials to two men who were instrumental in building the church: John Simpson and William Hazeldine. In the 1780s, the decade in which the church was designed, the Industrial Revolution was in its early stages, and the properties of a new material, cast iron, were being investigated. Its use in St Chad's is one of the very earliest recorded in any building in Britain and possibly in the world: a tribute to the forward thinking of George Steuart, the architect. Its use was further championed in construction by Thomas Telford, among others. Simpson and Hazeldine worked closely with both Steuart and Telford.

**John Simpson**, a Scot from Midlothian, was Clerk of Works in the construction of St Chad's, effectively in charge of the construction of the church from the architect's drawings—a vital role. He also superintended for Telford the construction of the famous Pontcysyllte aqueduct, the Chirk aqueduct, the Caledonian canal and various bridges including at Bewdley. He was, according to his epitaph, a man of 'Diligence, Accuracy and irreproachable Integrity...' He must have approved of William Hazeldine, for the iron from Hazeldine's foundries was used in much of his work.



**William Hazeldine** was a local iron-master who discovered how to give his cast iron enhanced tensile strength. Cast iron, especially from this era, was usually very brittle, which explains the severe weight restrictions in place for vehicles crossing the iron bridge at—well—Ironbridge. Among other work in the church, he designed and cast the railings outside, which sadly were removed in 1941 to aid the war effort. It was Hazledine's iron and Bage's design of the iron core which resulted in the Ionic and Corinthian columns in the circular nave surrounding you; sheathed in deal wood their thin but strong construction gives a great sense of airiness and space. The higher tensile strength of his cast iron together with Bage's designwork was of fundamental importance to its use as cast girders in the nearby flax-mill in Ditherington, completed five years after St Chad's was consecrated in 1792. The flax mill has recently been restored and re-opened as a tourist attraction. Hazeldine was also responsible for the ironwork on the Menai bridge, the Waterloo bridge in Betws-y-Coed, the beautiful Craigellachie bridge in Scotland, and more.

It is a particular tribute to Simpson and Hazledine that Sir Francis sculpted their busts. **Sir Francis Chantrey** (d. 1841 aged 50) was the leading portrait sculptor in Regency Britain. Among his other works are busts of George IV, William Pitt, The Duke of Wellington, George Washington. There were many others. He worked in stone and bronze.



## 2. Steuart, the architect and Bage, the iron-engineer

There is no bust of **George Steuart**, the architect of St Chad's. He originally trained as a plasterer but also worked as a painter with the Adam brothers and gained his experience in the interior design of grand houses. Known for his design of Attingham Park, nearby, and already working on plans for All Saints Church near Wellington, he had also built the Duke of Atholl's house in Grosvenor Place, London and would go on to build an extraordinary Gothic Castle in the Isle of Man, also for the Duke. Steuart had a leaning towards the eccentric, and all his buildings, including St Chad's have their peculiarities. It was, apparently, a mis-understanding between him and the then Trustees which led to his circular design being built; the Trustees thought they had opted for a more traditional rectilinear one!



Portrait of George Steuart,  
attributed to William Beechey.  
National Galleries of Scotland

**Charles Woolley Bage** (1752 -1822) is best remembered as a very talented iron engineer in the early years of the Industrial Revolution. He lies in a grave in St Chads Churchyard next to his brother Richard. He was a notable polymath; a surveyor, a wine merchant and a public servant who served as a Mayor of Shrewsbury.

His claim to fame lies in his innovative cast ironwork designs for the Ditherington Flaxmill manufactory built in 1796. This work was commissioned by Thomas and Benjamin Benyon in association with John Marshall from Leeds and involved the celebrated iron founder William Hazeldine and the building constructor John Simpson. The latter two both have memorial busts in St Chads, and both worked with Thomas Telford.

The Ditherington Flaxmill, now known as the Shrewsbury Flaxmill Maltings, is the world's first iron framed building and as such is truly the forerunner of the modern 'skyscraper'. Subsequently Bage went on to design the ironwork for the 3<sup>rd</sup> and 8<sup>th</sup> iron framed buildings in the world; his successes in part were due to his experimentation with cast iron, and through his collaboration with William Strutt of Belper, Derbyshire he took cast iron structures to their very limits.

Cast iron is strong in compression and is therefore entirely suited as a material to create columns or pillars. Bage developed and refined designs that featured in the construction of St Chads and factories of the time to allow them to offer the same load bearing capability but with less raw material. The deal-clad iron pillars in the church are thin and strong and give a lovely sense of airiness and space.

However cast iron has low tensile strength, even that produced by Hazeldine; it is relatively weak and brittle when it comes to lateral supportive strength in the form of a beam and his real innovation was the invention of the first 'girder' type beam structure in the form of an inverted T profile that was also 'hogged' ie fatter and thicker in the middle at the most obvious breaking point. In earlier factories beams had been wooden and therefore flammable, or else the structure had been in the form of a stone or brick cross vault which had a restricted span and was both slow and expensive to construct. Bage's new style beams massively reduced the amount of iron work and brickwork required to provide the floors of a multi storied fire proof building.

There were many subsequent refinements with time; suffice that he designed cast iron roof trusses which were used in the Crossmill, an additional building next to the original mill and in 1805 he designed a second Flaxmill down the road in Castlefields specifically for the Benyon Brothers who had by then parted company from the Leeds based John Marshall.

In later life as an entrepreneur he established a flax weaving factory which was not particularly successful and died without the full recognition that he deserved.

See also 'The Churchyard' for a bit more on Bage– follow the link below.

Information about other parts of the church is [here](#).