Dr Robert Hamilton FRSE (1743-11829) is another person who just sneaks into these ‘Scientific Tourist’ pages. His qualification is that he was Professor of Natural Philosophy at Marischal College from 1779 to 1817 but it’s not for his Natural Philosophy that he is included. Indeed after teaching that subject somewhat disastrously for a year ("he broke much of the apparatus of glass") it was agreed he should change jobs with Patrick Copland, who had translated from the Chair of Natural Philosophy to that of Mathematics in 1779. From then on Hamilton taught mathematics and it is largely for his application of mathematics that he is remembered and, somewhat unexpectedly for the local historian, has the largest memorial to any citizen of Aberdeen in the city’s principal churchyard. In 1817 he became officially ‘Professor of Mathematics’, though by then he was in his 70s. It is likely that his portrait shown here, in possession of the University, was painted in that year by John Moir, who also had Patrick Copland sit for him.

Hamilton was born in Edinburgh, son of a bookseller and grandson of a former Principal of the University of Edinburgh1. He is also related to William Hamilton, Edinburgh University Professor and distinguished 19th century philosopher. In spite of family connections close to academia he had no University degree to his name when in 1766 he presented himself as a candidate for the vacant Chair of Mathematics at Marischal College. In a trial of all the candidates he acquitted himself well but was not appointed. In 1769, he obtained the post of Rector of Perth Academy. During the decade he would occupy this position he was granted an LLD from the University of Edinburgh in 1775. The short biography cited above describes him as cultivating an omnivorous mind. This must clearly have been so before he was appointed Professor of Natural Philosophy at Marischal College in 1779. His stooping presence and inability to maintain discipline in his classes rendered him not a patch as College lecturer on Patrick Copland. He did share with Copland the distinction of being a founding member of the Royal Society of Edinburgh in 1783. Hamilton clearly had a sharp intellect but was not noted for creating any new mathematics or natural philosophy. Why then was he commemorated by the citizens of his adopted city?

In 1790 he published a short treatise ‘Peace and War’ highlighting the slender grounds on which expensive and bloody wars are often undertaken, and the inadequacy of national advantages to compensate for the loss of men and money incurred by the retention of foreign conquests. He ably combated that unbounded spirit of retaliation and conquest in which high-minded nations are too ready to indulge. This was, in some respects, his first public sortie into economics. Hamilton and Copland acted as expert advisers to the Town in the early 1790s on how to improve the municipal water supplies, for which they were both made Burgesses of Guild of the City. What gave him a public presence in the country at large was his book explicitly on economics, first published in the twilight of his life in 1813 entitled “An inquiry concerning the rise and progress, the redemption and present state, and the
management of the national debt of Great Britain”. In this he applies the logic of mathematics to point out that the much favoured ‘sinking fund’ for paying off the national debt was flawed to the point that it was doomed to long-term failure. These truths Dr Hamilton is not content with proving argumentatively—he has coupled them with a minute history of the various financial proceedings of the country, and tables of practical calculation, giving, on the one hand, historical information; and, on the others showing the exact sums which the government has at different periods misapplied. A second enlarged edition of his book quickly followed in 1814 and another edition in 1818. The message percolated through to the highest levels and the sinking fund was abandoned. Hamilton was seen as the person who had pointed out that a key part of the country’s economic policy was unsustainable.

Hamilton was instrumental in securing an honorary LLD from Marischal College in 1820 for Thomas Robert Malthus, an early recognition of the importance of his book An Essay on the Principle of Population. Malthus’ work also had important quantitative implications for economics. By this time Hamilton had stopped lecturing and passed on the work of addressing his classes to John Cruickshank, who would become his successor when Hamilton died in his 87th year in 1829.

It is clearly fitting that Hamilton’s memorial is only a few steps away from Copland’s in St Nicholas churchyard. On the side of the tall Doric structure is a Latin inscription that informally translates as “Citizens, friends and pupils have erected this monument in sacred memory of Robert Hamilton LLD, Professor of Mathematics in Marischal College who died on 14th July 1829 in his 87th year”. The monument dating to 1833 was designed by Aberdeen architect James Smith, who was responsible for the colonnades separating the churchyard from Union Street and the building at the nearby corner of Back Wynd and Union Street (and much more besides in Aberdeen). Hamilton is not buried beneath the memorial but in a nearby lair. He is remembered as a mathematician who turned his attention to economics and drew out some important consequences for that subject. Later in the 19th century, the memory of Robert Hamilton was perpetuated by the town in the naming of Hamilton Place, a street I knew well when I lived there.

John S. Reid

1 A. A. Cormack “The Professor Robert Hamilton Monument” Aberdeen University Review, vol. XXVII, pp 46-49 (1940), though much of this is a re-statement of an earlier biography written circa 1830 that can be found on http://www.electricscotland.com/history/other/hamilton_robert.htm.

2 Robert Hamilton “An inquiry concerning the rise and progress, the redemption and present state, and the management of the national debt of Great Britain” Edinburgh (1813)