

The Scottish Enlightenment

The Scots' Invention of the Modern World

A.Herman

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Scotland is and has always been a small country at the margin of Europe. It had a colorful medieval past, revived not to say reconstructed by Walter Scott around the end of the 18th century. A past, which at least retrospectively, is bathed in the most romantic light, with the noble Highlanders playing the heroic roles and the demise of their society being a tragedy, to which we can only return nostalgically in our imagination. The book is ostensibly intended to highlight the Scottish Enlightenment with figures such as Adam Smith and David Hume, who changed the world into the modern one as we know it, but in the end degenerates into a celebration of the impact of the Scottish nation on the world at large, thus more geared towards local patriots than the general reader. Disregarding this aspect, it does however offer some illustrative examples to savor.

During the Medieval times England and Scotland was at loggerheads and many a war ensued. The final blow was the disaster of the battle of Flodden at which the majority of the Scottish aristocracy were obliterated along with the king James IV. The king left a young son, who in his turn died thirty years later, shortly after another devastating military disaster, leaving an infant daughter, who by his demise would become Mary Queen of Scots, one of the romantic figures of the age. Needless to recall the vicissitudes of her life, suffices to remark that she became a rival of, or was so conceived by Elizabeth I, who after much vacillation decided to have her decapitated, but who was vindicated by having her son, the Scottish king James VI ascend the throne as James I of England, thereby uniting the two countries under one crown, after the death of Elizabeth who left no issue. Formally Scotland gobbled up England, but of course in reality it was the other way around. The Scottish King and his descendants resided in London and their connection with Scotland became more and more tenuous. In fact Charles II developed a great distaste for the Scots in connection with his early attempts at a restoration, and it would take a long time before an English King even visited the country. Although ostensibly the English King was the Scottish King, Scotland became a marginal part of the growing empire, inferior to its southern neighbor in population and wealth, and actually mistreated by the main country, thus the forming of a Union with England in 1707 sealed its fate as an independent country, yet to the advantage of both, although the haggling for better conditions and the obstructions of nationalists, complicated the matter.

From an objective point of view the union with England benefited not only England. Apart from the tragic-comic affair with the Stewart pretendent - 'Bonny Prince Charles', that romantic interlude of actually lukewarm Scottish opposition which came to grief at Culloden in 1745, there was really little challenge to the status quo. Although of course the romantic sentiments never completely died, as testified by the recent movement to bring about a dissolution of the union.

The Union brought Scotland into the modern age. In fact, this is the somewhat grand thesis of the author, it was rather the other way around, it was Scotland that brought the modern age to the world at large. To make his point of the remarkable transformation of Scottish life, the author presents the tale of the unfortunate youth Aikenhead, who made an innocent joke, and was reported to the church authorities - the Kirk, the Presbyterian fundamentalists stemming from John Knox. His somewhat flippant opinions about Christianity were revealed, and he was brought to the court and sentenced to death, and in spite of his extreme youth, and protestations of his change of heart, the sentence was executed. This was in 1696. How different would not the mood of the country be fifty years later.

The two men of the 18th century that come to the fore are Adam Smith and David Hume, with the former attracting the bulk of the attention. They did not emerge out of nowhere, and the figure of the bold freethinker and lawyer Kames, unknown to most non-specialists, is presented as the father figure of the Scottish movement towards modernity. Kames along with another half-forgotten figure - Robertson, pronounced extensively on what we now would term sociology and political science, paving the way for Adam Smith. Kames was what is usually called a colorful character leading a very active life dying at full powers at an old age. His championship of the rights of the slave Knight is predictably lauded by the author, arguing that the laws of Jamaica were not valid in Scotland, where, as in England, slavery was outlawed. Kames is seen as the cold and hard-edged aspect of the Scottish modernity, contrasted to the softer one represented by Hutchinson.

As noted Smith gets a lot of coverage. It is emphasized that Smith is not the liberal economist as he is usually seen as by his recent disciples. Admittedly he did emphasize the economic advantages of specializations, but was in no way blind to the human cost. The philosophical skepticism of a Hume is seen as a consequence of his conviction that humans are not ruled by reason but by passion, and in particular induction has no rational foundation but is based on perhaps the most pervasive passion of them all, namely human habit.

Of course the remarkable surge of Scottish intellectual life of the 18th century was not confined to philosophy and social science but involved historians such as Gibbon (very much influenced by the socio-historical writings of Kames and Richardson), busy-bodies such as Boswell (who earned his spurs entering on the London scene), literary confidence men such as McPherson, whose forged songs of Ossian, caught the imagination all over Europe¹. Later on there would be Burns and the aptly named Walter Scott, who formed the romantic Scottish identity very much alive to this day.

Scotland is seen as a romantic country at the edge of the civilized world. Originally Gaelic, but that tongue seems to have been quickly wiped out, except possibly at fragmentary north western edges, unlike, surprisingly, the case of Wales, where Welsh is still spoken. From an early age English became the dominant language. However, the English of the Scots, had its distinctive character, as all dialects do, and was seen as an inferior

¹ Jean-Baptiste Bernadotte named his oldest son - Oscar, back in 1799, long before he had any suspicion that he would be offered the Kingdom of Sweden, as a result two of its 19th century King carried the unroyal name of Oscar. I write unroyal, because when I first became aware of their existence, I did not think, child as I was, that this was a proper name for kings, somehow it struck me as too frivolous. Coming to think about it of the 23 royal heads since 1521, 14 have been named either Karl or Gustav.

version (as non-dominant dialects are usually viewed). Hume wrote, as did Smith and Gibbon, an impeccable and in fact beautiful English, but he was very much chagrined by the fact that his Scottish accent was very much in fore, and he had a particular sensitivity towards Scotticism in English². Scotland as a country was divided between the Lowlanders and the Highlanders. The former represented the economic and cultural center, sustaining the bulk of the population, and where the two biggest cities - Glasgow and Edinburgh, formed the axis. The Lowlands had the most fertile plains, something which in a traditional agricultural economy is of paramount importance, and it was here that the subsequent industrialization took its beginning at the end of the 19th century. The Highlands were sparsely populated, poor and struggling, and ruled in a primitive feudal way, power concentrated to a very limited number of clans calling the shots ruling their subjects in often cruel ways. In such a society, martial ambitions took on a predominant role, the only way in which people could show their valor, and it is hardly surprising that Scottish soldiers served as mercenaries during continental conflicts. Their way of life, obviously doomed, suffered a serious setback, as noted above, in connection with Culloden³. It is symptomatic that their romantic revival, to a large extent engineered by Scot, only took place when they had become irrelevant.

But maybe the largest impact the Scots would make on the outside world was in physical science and technology. The invention of the steam engine, is usually held, and with justification to boot, as the crucial breakthrough that replaced man-power and hence made the subsequent industrial revolution possible. But Watt was not only an inventor, he was foremost a scientist (according to legend he spent his honeymoon measuring the temperature of water above and below waterfalls) who made fundamental contributions to academic physics as such. This academic tradition in physics found its peak in the subsequent century through Maxwell, but he, for some reason is only mentioned in passing. As to technology, the name of Thomas Telford, earns much more attention. Like in so many cases of heroic endeavors, the beginnings were not auspicious. Brought up fatherless in dire poverty by his single mother in the middle of the 18th century, he nevertheless managed to get an education, showing at a tender age a prowess as both a poet and a mathematician, thus attracting the attention of potential patrons. He is mostly known for his building of bridges and canals, many of which are still standing, the manifestation of technical artistry still not surpassed. One may mention Pontcysyllte in Wales, and even the 'Göta Kanal' in Sweden, for which he was consulted by the then Swedish King. As so many enterprising Scots, he was mostly active in Britain or beyond. But Scotland itself was not immune to technological improvement. Roads were being built to open up the up to then roadless Highlands, and everyone knows of macadam, named after the Scottish engineer McAdam, involving crushed stones as roadbeds. This was an innovation resulting after a long preliminary study of roads in Britain. He observed that as long as the road remained dry it could support any amount of traffic, the combined weight of which, only had the

² Once a friend of Hume sent him his book to read. Eventually Hume returned the book, confining his remarks to pointing out a few Scotticisms, while making no comments at all on the actual contents

³ One can argue that the participation of the Highlanders in this adventure was very lukewarm, and that their hearts were not in it, they only did it out of boredom and a sense of obligation living up to their martial reputations

beneficial effect of making it firmer and stronger⁴. Good roads increased the amount of traffic as well as making it faster. Then of course the major invention of the 19th century was the railway, steamed engines traveling on specially designed tracks, thereby greatly improving on the speed achieved by horses. Here Scotland played an important role as well, although of course the pioneer Stephenson was from northern England not Scotland proper, yet of Scottish descent as we learn. The railway would dominate fast land transport well into the beginning of the 20th century when automobiles took over, and thus realized Telford's vision of steam driven vehicles using roads, except that the combustible engine replaced steam⁵.

Indeed the Scottish contribution to the modernization of the world during the 18th and early 19th century was indeed remarkable. But when the author starts to systematically list the presence and hence influence of Scots all over the world, the subject matter diverges significantly from that of the Enlightenment. To present Livingstone as an Enlightenment figure is to stretch matter. Livingstone was a do-gooder of an adventurous bent, who embodied not so much enlightened ideas, as being a naive proponent of Victorian optimism, envisioning inevitable progress.

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⁴ It was not until the 18th century that road building started to approach the level attained by the Romans. One pioneer was the Frenchman Tresaguet, who evolved a fairly elaborate scheme with many layers of stones. Telford improved on the design, and above all realized the pivotal importance of drainage. The contribution of McAdam was to greatly simplify the process, and dispense with specially designed stones, but just using a mixture of crushed stones and naturally occurring gravel. However, there was nothing hodgepodge about his construction, making sure that the crushed debris was of rather uniform size, and making sure that the uppermost level only consisted of the smallest kind some 20 mm across

⁵ Steam driven vehicles would have been too heavy on the roads, and road vehicles only became feasible with the new technology. Fast cars created low pressure underneath sucking up a lot of dust, which led to the invention of asphalt, incidentally a by-product of the refining oil-industry.

"The Scottish Enlightenment is the intellectual movement that laid the foundation for how all of us think about ourselves in relation to the modern world. Almost everything that shapes the way we think about society, politics, science, culture and history flows from the pens of a small group of men who lived in Edinburgh, Glasgow and Aberdeen, in the mid 18th-century." — Arthur Herman. Arthur Herman — author of *How the Scots Invented the Modern World* — adds historical and cultural context. On Burns' Night, it seems appropriate for everybody to feel just a little bit Scottish. (Paul Kennedy is a graduate of the University of Edinburgh, where he wrote a Master's thesis about 'the Scots in Canada'.) Who is the greatest Scottish inventor of all time? Probably the most famous Scottish inventor is likely Sir Alexander Fleming. He was the man the world can thank for Penicillin. This antibiotic has, arguably, saved millions of lives since it was first used in 1942. In the mid to late 19th Century, two Scots gave the world the first mechanically propelled bicycle. The contributions of Kirkpatrick MacMillan are somewhat controversial, but it was Thomas McCall that first produced a rod-driven two-wheeled, bicycle called the Treadle Bicycle in 1869. 3. The pneumatic tire. The invention of the telephone is widely attributed to Scottish inventor Alexander Graham Bell. This was one of the most important developments in human communication technology in history. 11. Universal Standard Time. Everything, discovers Irvine Welsh after reading *Scottish Enlightenment: The Scots' Invention of the Modern World* by Arthur Herman. Irvine Welsh. Sat 19 Jan 2002 18.19 GMT First published on Sat 19 Jan 2002 18.19 GMT. Scots ended up with peace and order from a strong British state, but as England took little interest in affairs north of the border, retained the freedom to develop and innovate. The upper echelons of Scottish society refused to be intimidated by English cultural and linguistic dominance. David Hume speculated: "Why is it when we have lost parliament and monarchy and independent government, speak uneasily in a foreign tongue but yet are the People most distinguished for literature in Europe?"

How the Scots Invented the Modern World: The True Story of How Western Europe's Poorest Nation Created Our World & Everything in It (or The Scottish Enlightenment: The Scots' Invention of the Modern World) is a non-fiction book written by American historian Arthur Herman. The book examines the origins of the Scottish Enlightenment and what impact it had on the modern world. Herman focuses principally on individuals, presenting their biographies in the context of their individual fields and also in Who is the greatest Scottish inventor of all time? Probably the most famous Scottish inventor is likely Sir Alexander Fleming. He was the man the world can thank for Penicillin. This antibiotic has, arguably, saved millions of lives since it was first used in 1942. In the mid to late 19th Century, two Scots gave the world the first mechanically propelled bicycle. The contributions of Kirkpatrick MacMillan are somewhat controversial, but it was Thomas McCall that first produced a rod-driven two-wheeled, bicycle called the Treadle Bicycle in 1869. 3. The pneumatic tire. Universal Standard Time is the modern continuation of British Greenwich Mean Time. It has become the international standard for every part of the world today. 'Every Scot should read it. Scotland now has the lively, provocative and positive history it deserves.' Irvine Welsh, Guardian A dramatic and intriguing history of how Scotland produced the institutions, beliefs and human character that have made the West into the most powerful culture in the world. Arthur Herman argues that Scotland's turbulent history, from William Wallace to the Presbyterian Lords of the Covenant, laid the foundations for 'the Scottish miracle'. Written with wit, erudition and clarity, The Scottish Enlightenment claims the Scots' rightful place in the history of the western world. Who Makes This Product. Who Makes This Product.