***OECONOMIA SUPER OMNIA:***

**SCIENCE in the THIRD EDINBURGH REVIEW**

Essay for STS seminar 6305 (Cross-listed)

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**I. THE BEGINNING**

T

he periodical *Edinburgh Review*, or more accurately the name under which a general-audience journal has at various times been published, has four avatars. ER I was a short-lived journal comprising only two issues, the first in 1755 and the second and last in March 1756. Published at or near the summit of the Scottish Enlightenment, when Edinburgh was considered (or at least considered itself) ‘the Athens of the North’, ER I took as its mandate the presentation to the Scottish public of all books published in Scotland in the previous six months, plus “such books published elsewhere, as are most read in this country [*viz*. Scotland], or seem to have any title [*i.e*. justification] to draw the public attention” (1). The aims of ER I were essentially those of the European Enlightenment, among them addressing society’s shortcomings through the educational (or, when more strident, propagandistic) dissemination of ideas (2).

Seventeen years after vigorous (2a) criticism by the Church of Scotland against the liberal opinions of ER I forced it to close, a magazine appeared with similar aims and a variant title, *The Edinburgh Magazine and Review*. Although more ambitious in its publication schedule, lasting through 35 monthly issues before permanently closing in August 1776, ER II ultimately fell victim to the aggressive litigiousness of its principal publisher Gilbert Stuart (3).

The incarnation that concerns this paper, however, is ER III – the famous journal that began in 1802 and lasted an uninterrupted 127 years, being especially influential in the first half of the 19th century. While throughout ER III’s life the light of the Scottish Enlightenment burned

1. ER I masthead. *See* Lomonaco, Jeffrey: ‘Adam Smith's "Letter to the Authors of the *Edinburgh Review*",’in *Journal of the History of Ideas* ***63*** *(4): 660–61* (October 2002)

2. ER III permanently ceased publication in 1929; ER IV’s dates are 1984-present.

2a. (*i.e.* rabid)

3. Gilbert evidently anticipated James Abbott McNeill Whistler’s 1890 autobiography: ‘The Gentle Art of Making Enemies.’

steadily dimmer, and the ancient kings’ seat yielded to upstart Glasgow in wealth, population, and technoscientific innovation, ER III instantly became, and remained for fifty years, one of the most influential periodicals among the élite of England. Its reviewers included the poet Thomas Arnold; the critic William Hazlitt; the indefatigable (if initially impoverished) aristocrat-reformer Henry Brougham; the professionally gloomy Thomas Carlyle; the historian Thomas Babbington Macaulay (nicknamed “Babble-on” for his voluminous output and remorseless Whiggery); the sociologist and X-club member Herbert Spencer; and the favourite historical novelist of the Celtophilic Queen, Sir Walter Scott. The contributors of ER III form a virtual Who’s Who of British public intellectuals both throughout the early Victorian era and also for the 35 years immediately preceding.

ER III’s first issue appeared in October 1802. Its 245 pages summarize and assess orations, articles, pamphlets, and books, several by then-notable *savants français* (4); travellers’ reports from faraway places; causes and effects of emigration from the Scottish Highlands; and what was then called natural philosophy, and what we might now call technoscience. Reviews were uniformly anonymous, though later scholarship has uncovered authorship in most cases, and even at the time many authors were known *sub rosa* to Edinburgh’s literary élite.

From the outset, ER III created a sensation in three distinct intellectual circles: progressivist Whig Scots (response: rapturous enthusiasm), Tory Scots (apoplectic condemnation), and the English (mixed, but generally favourable). There was no denying its impact. A half century later one of the young men involved with the new quarterly would recall -

4. One consequence of the Auld Alliance. Many citizens of both France and Scotland held that “the enemy of my enemy is my friend” long after the British Act of Union (1603). Scotland has always taken care to safeguard its distinctness; in a mid 20th-century translation of the Christian Bible into contemporary Scots demotic, the only interlocutor who speaks received English is Satan. (ER III reviews of foreign authors were nonetheless generally written and published in English.)

***The effect was electrical . . . It is impossible, for those that did not live at the time, and in the heart of the scene, to feel or almost to understand, the impression made*** . . . ***It was an entire and instant change of everything that the public had been accustomed to in that sort of composition*** (5).

Contemporary conditions had prepared the perfect stage for this literary revolution. At time of initial publication Britain north of the Tweed was politically and culturally in the grip of a Tammany-style political machine under the iron dominance of Henry Dundas, Viscount Melville, Baron Dunira (1742-1811). Dundas had so effectively channelled the North British reaction to the French Revolution that even a local scholar as eminent as Dugald Stewart felt it politic to publicly abase himself for having praised a Frenchman. By 1802, however, Dundas’s iron grip on Scottish intellectual thought (and by extension professional preferment) was poised to slip. Reformist sentiment was gaining confidence, advocating however not the cataclysm of all-out revolution but rather a distinctly British approach – addressing errors and inequalities via rule of law. The Caledonian genius for *dull* progress was asserting itself.

Certainly there was urgent need of reform. Under traditional Scottish jurisprudence, for example, accused had no guaranteed access to defence counsel; game laws permitted the gentry to set deadly man-traps on the grounds of private estates; the slave trade continued to provide returns of several thousand percent on invested capital (6). It was in part to combat such enormities that a group of underemployed young Whigs founded ER III. From the outset it was a Quixotic entity, with this difference: not only did it attack windmills, it often vanquished them.

5. Henry Cockburn, cited in Shattock (1989) p.4. Shattock adds: “Cockburn (1779-1854) was a prominent Scottish Whig, a life long [*sic*] friend of . . . the *Edinburgh Review* generally. He was also a leading advocate, and was made Solicitor-General for Scotland in the Whig government of 1830” (Shattock [1989] p.20)

6. For a brilliant treatment of the involvement of rich Scots with ‘blackbirding’ see Fraser, G.M., *Flash for Freedom!* (*in* Bibliography *q.v.i.*). It is worth noting that Dundas (Melleville) supported the slave trade.

**II. THE FOUNDERS**

They were mostly young, idle, indigent, and (by the standards of the day) wildly radical. Four men were the core founders of the 1802 *Edinburgh Review*:

*Brougham*. Henry Peter Brougham (pronounced ‘broom’, a homonym that political cartoonists found irresistible, often using it to depict the new reformer sweeping clean). In 1802 a low-profile Edinburgh lawyer and “a child of an impoverished family of the gentry” (7) he became first Baron of Brougham and Vaux when appointed Lord Chancellor of the United Kingdom during the Whig government of 1830-34 (7a). It was through ER III that Brougham successfully championed both the Reform Bill of 1832 and the Slavery Abolition Act a year later (7b). While he was at age 82 given a *second* peerage by the Queen for his lifetime’s work as both staunch abolitionist and man of British letters, on scientific matters his contributions to ER III were even during his lifetime dismissed as intellectually lightweight. For example, Brougham wrote extensively in support of Payleyan natural theology years after that early 19th century philosophy had been generally discredited.

*Jeffrey.* Francis Jeffrey attended university at Edinburgh and Oxford, renounced his family’s traditional Tory principles at 21, and soon found that a Whig lawyer in Edinburgh was in little demand. With two of his fellow-founders (Brougham and Horner) he debated current political and intellectual issues at ‘the Spec”, the famous Edinburgh Speculative Society, just before the turn of the century. It was in Jeffrey’s apartment that ER III was first proposed.

*Horner.* Francis Horner barely outlived the establishment of ER III, dying four years later in 1806. He was a polymath, sufficiently fluent in German to translate advanced algebraic texts;

7. Fontana (1985) p.3

7a. This Whig administration, interregnum rather, was bookended by those of Wellington and Peel.

7b. See Fontana (1985) esp. pp 147-180

a lawyer admitted to the bars of both England and Scotland (7c); and an MP. His main interest was political economy, whose theories he used to criticize the Corn Laws and attack high bullion prices, the slave trade, and tariff-based protectionism. As we shall see, using statistics as an index, political economy dominated or even defined ER III’s involvement with technoscience.

*Smith.* Sydney Smith was what Canadians today would call a Red Tory: Establishment in origin, reformist by moral inclination, and progressive in politics. His brilliance, eloquence, and commitment to social improvement were noted in his day and still attract admirers. Born into wealth but possessed of a prodigious work ethic, he obtained his Oxford MA at 25 after attaining such academic distinction that his classmates refused in a petition to enter any prize competition for which he competed. Smith spent five years in Edinburgh 1798-1803, during which time he edited the first few issues ER III, and to which he remained a frequent contributor even after decamping to London as a highly successful progressivist preacher. Writing nearly forty years after ER III 1.1, Smith recollected his fellow-founders as “maintaining opinions upon political subjects a little too liberal for the dynasty of Dundas [Melleville], then exercising supreme power over the northern division of the island” (8). Smith initially proposed a Latin motto for ER III that translates “We make literature from a little oatmeal.” The suggestion was voted down.

**III. THE LAUNCH**

Against all odds, ER III succeeded from the outset: This was a quarterly whose time had come. Its immediate impact astonished no one more than its creators – editors, printers, and contributing reviewers. The very structure of the new quarterly was audacious. All reviewers

7c. No mean achievement, as these regions to this day have varying legal codes: *cf*. massive differences in civil law between Québec and Anglophone Canada.

8. Clive (1957) p.86f and *passim.* Melleville attracted such sharp sobriquets as ‘King Harry the Ninth.’

would be paid, and at a rate far above the average: at least a guinea per page. No one, whether or not independently wealthy, would be permitted to use the pages of ER III solely to excoriate an enemy. Each issue sold for five shillings, the equivalent of $50 or more today. Further, the editorial approach of the new journal was what would a century and a half later be called The New Journalism – colourful, opinionated, and vigorous. Blandness was never a failing of ER III.

Three reviews in ER III 1.1 parse sermons (although that form often approximated a political pamphlet in length, bias, and worldly emphasis in 1802). One such homily reviewed in ER III 1.1 tables arguments *against* universal philanthropy from a Rev. Samuel Parr . LL.D. The next review synopsizes William Godwin’s pamphlet responding to that sermon’s attacks on his concept of social benevolence. The unnamed reviewer, while ostensibly striving for fairness (“We were quite surprised in discovering so much good sense”) then reveals that Godwin’s concept of ‘benevolence’ is strictly Malthusian, advocating population control by “abortion and child-murder.” At this point, not surprisingly, the reviewer finds in favour of Parr (9).

Poetry is also reviewed, in the case of *Thalaba the Destroyer* by Robert Southey (1774-1843). Neither poem nor poet escapes unsavaged. “Poetry has this much, at least, in common with religion, that . . . it has had its corruptions, and reformation also, and has given birth to an infinite variety of heresies and errors, the followers of which have hated and persecuted each other as cordially as other bigots,” sniffs the reviewer (10). Southey has “little acquaintance with those chaster and severer graces, by whom the epic muse would be most suitably attended. His faults are always aggravated, and often created, by his partiality for the peculiar manner of that

9. The *Dictionary of National Biography* (UK) attributes authorship to Sydney Smith (1771-1845) for both Parr and Godwin reviews. (“There are three sexes: Men, women, and clergymen” – SS. *Attrib*.)

10. ER III 1.1 p.63

new school of poetry,” *viz*. the Romantic (11). The reviewer is nostalgic for the measured cadences of Pope or Dryden, before “Nature underneath a heap / Of jarring atoms lay” (12). The Scottish Enlightenment aesthetic is evidently still dominant here.

I treat ER III 1.1 at such length because key aspects of its conception and execution evidenced throughout its Victorian years were strikingly present *ab initio*: the publication exhibits a surprisingly sturdy editorial continuity (13). The stress on evenhandedness, or more precisely its similitude; the scope accorded reviewers to assess text subjectively, at times approximating the descent of ER I and ER II into satire or even farther, into slander; the denigration of any poetry that departs from an Augustinian emphasis on classical understatement, balance, restraint, and elegance: – all the characteristics that would continue to define ER III over its initial half-century were very much present at its launch.

**QUEEN OF SCIENCES**

In reading ER III’s reviews one sees an implicit acceptance of a commercial-cultural triumphalist focus that was initially colonial and (with Victoria’s accession to the title Empress of India after ‘John Company’ was relieved of administrative duty following the Mutiny, and permanently dissolved in 1874) soon afterward Imperial. Consider -

**From the banks of the Ganges, the exploring genius of [Western] Philosophy has darted a rapid [***i.e.* cursory**] glance over the vast *terrae incognitae*, which extended in every direction; the manners and customs of populous nations . . . the position of their cities, and courses of their rivers, [**have been**] ascertained and delineated . . . Captain Turner has pourtrayed [***sic***], with much ability, the hardy, though unwarlike, tribes, who cultivate the romantic [**!**] mountains of Bhuttan** (14).

11. ER III 1.1 p.83. Its twenty pages of close reading make this article the second-longest in ER III 1.1

12. Dryden, J., ‘A Song for St Cecelia’s Day . . . ’ V.1 ll.3f. In Davenport et al. (1949) p.238, col. II

13. “[O]ne finds that the reform of existing evils was from the very beginning a part of the reviewers’ canon.” Clive (1957) p.87

14. Article IV: ER III 1.1 p.26

The reviewers in ER III 1.1 are peripatetic as well as magisterial, surveying reports from British subjects sent back from the Mahrattas, Sumatra, Egypt, the Caucasus, the Ottoman Empire, Burma, Lapland, and – hands down the least exciting region – Canada (15).

As issues accumulated, ER III would go on to examine various aspects of knowledge which to that point (1802) had been lumped under the heading of ‘natural philosophy’, a term as yet incompletely differentiated into the subsections we know today: *e.g.* physics, chemistry, *&c*. Those terms, together with the ancillary epithets ‘science’ and ‘scientist’, were either still uncoined or else decades away from widespread use. ER III 1.1 nonetheless exhibits signs of this imminent differentiation. Subjects covered in the reviews range from geography and ethnography to toxicology (‘On the Poison of Serpents’ by W. Boag, *Esq*.), resource extraction (‘An Account of the Petroleum Wells in the Burman Dominions’ by Captain Cox), and comparative anthropology (‘On the Religion and Literature of the Burmans’ by F. Buchanan M.D.) (16). The reviewers often find it hard to restrain evidence of their erudition, freighting their reports with learned footnotes whose chief use seems to be enhancing authorial prestige (“*Ollaki* has no signification whatever in Arabic; therefore, we presume, none in the Abyssinian” (17)). Thus ever (alas) the Academy, whose very queries at a colloquium often seem designed less to elicit clarification than to highlight the brilliance of the questioner.

15. The reviewer (still anonymous after more than two centuries even to the generally omniscient Wellesley Index) concludes: “The countries which Mr Mackenzie has brought to our knowledge by these expeditions, are certainly the least interesting of any with which modern enterprise has made us acquainted. – The barrenness of the soil, the severity of the climate, the remoteness of the position, and the small number and intractable character of their inhabitants, place them very low indeed on the scale of political importance . . . these regions will probably be the last to put off their original barbarity” (ER III 1.1 p.158 par.1). *Quelques arpents de neige*! The author here disparaged is the same Alexander Mackenzie extolled in every Canadian history book as one of North America’s foremost 18th century explorers.

16. Article IV: ER III 1.1 *passim*

17. Article IV: ER III 1.1 p.39 (following p.38 but immediately before p.42. Pagination is inconsistent in ER III throughout the first few issues; given the discontinuities I have taken its printed page numbers as canon. Italics in this quotation are mine).

Despite such self-aggrandizements, ER III 1.1 takes pains to address natural philosophy beyond the armchair-adventurer context of ethnographic travel dispatches from the Mother Country’s real and prospective colonies. A sample of reviews in 1.1 reveals -

**The Elements of Optics** (*Physics*)

**A Letter to Dr. Percival on the Prevention of Infectious Fevers** (*Public health*)

**Bread; or, The Poor** (*Political economy*)

**The Utility of Country Banks Considered** (*Political economy*)

**An Enquiry in the Causes and Effects of Emigration from the Highlands and**

**Western Islands of Scotland, with Observations on the means to be employed in**

**preventing it** (*Political economy*)

The first item on the above randomly selected short list from ER III 1.1 was (so Wellesley informs us) reviewed by none other than the pre-ennobled Brougham. To great degree it is typical of the ER III style in scientific matters: the reviewer assesses a university textbook as if its author, the distinguished professor James Wood of St John’s College, Cambridge, were an undergraduate submitting a second-rate paper to a vastly more distinguished referee. Brougham does distinguish nicely between theoretical optics (which is essentially mathematical) and its experimental cousin, and upbraids Wood for favouring the former over the latter; yet he is often dismissive to the point of contempt. “The author has fallen into considerable inaccuracies . . . the neglect of which . . . has given birth to the most deformed and noxious productions of speculative imagination” (18). Take that, Professor!

Throughout its first half-century ER III would continue to review many scientific texts in such a way, *i.e.* to enlighten its readers while parading its reviewers’ acumen. And yet the Review seems to have been driven by a deeper scientific ethic. Of all the disciplines it addressed,

18. ER III 1.1 p.163 par.1

the uncontested leader – in number and length of articles, depth of thought, and earnestness of expression – was the ‘dismal science’ of political economy (19). As Biancamaria Fontana notes, from the very outset ER III’s overarching mission was nothing less than “rethinking the politics of commercial society” (20). This then was the heaven-storming aim of ER III: To maximize the wealth of nations, especially that of the United Kingdom. To ER III, the highest science was neither geology nor physics but political economy: the Review marched forth caparisoned in righteousness, beneath the banner of Adam Smith (21).

A cursory statistical analysis will confirm this. Of the 30 articles of ER III 1.1, fully 20% (six) are grounded in political economy. This ratio grows steadily over the next thirty years. In issue 20.40 (November 1812), for example, the proportion is six reviews out of 18, or 33%; a decade later in issue 36.75 it is even more impressive at 40% , or six reviews out of 15. Another decade yet (October 1832) and the ratio is 45% (5 of 11, nearly half). Speakers, preachers, poets, politicians, foreign authors are dealt with and dismissed; the central importance of political economy continues undiminished. Enterprise-suppressing taxes are decried; new crops are proposed for the British Empire’s warm-weather colonies; more cost-effective ways of financing Established parishes are suggested; the economic woes of Ireland are discussed (22).

The authors of all these articles, and dozens more like them in ER III through the mid-19th  century, are best seen as direct heirs of the 18th  century Scottish Enlightenment. And (so

19. Carlyle’s notorious term, apparently first used in his *Occasional Discourse on the Negro Question* (1849). A mid-20th century historian adds: “No one can have studied political economy in the works of its earlier cultivators without being struck with the dreariness of the outlook which, in the main, it discloses for the human race . . . a substantial improvement in the condition of the mass of mankind was [deemed] impossible.” (Cairnes, J.E., as quoted by House, H. (1942 & 1960)

20. Book title by B. Fontana (1989). *See* Bibliography

21. It is interesting that “[i]n all likelihood . . . Francis Jeffrey, had watched the installation of Adam Smith as Lord Rector of Glasgow University” (Clive [1957] p.19).

22. And without complete despair, an achievement in itself.

Fontana once more) “the most characteristic and prominent feature of the [Enlightenment] heritage itself [was] politicaleconomy, at a time when the social science or theory of society designated by that name first acquired a substantial influence upon public opinion and first became a central component of British political discussion” (23).

My conclusion is plain. The vision of science first manifested in ER III Volume 1 Issue 1 would continue the same throughout half a century: *Wealth is desirable; science is the royal road to wealth; and political economy, not mathematics, is the queen of the sciences* (24).

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23. Fontana (1985) p.2

24. It was a creed that even so upstanding a Scottish divine as Thomas Chalmers, D.D., could wholly embrace. *See* review of *On Political Economy, in connexion* [sic] *with the Moral State, and Moral Prospects of Society; by THOMAS CHALMERS D.D., Professor of Divinity in the University of Edinburgh; in 8 volumes* (!) ER III 56.111 pp. 52-72

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