Reign of the Beast

The Atheist World of W. D. Saull and his Museum of Evolution

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https://www.openbookpublishers.com

ISBN Paperback: 978-1-80511-239-6
ISBN Hardback: 978-1-80511-240-2
ISBN Digital (PDF): 978-1-80511-241-9
ISBN Digital eBook (EPUB): 978-1-80511-242-6
ISBN HTML: 978-1-80511-244-0
DOI: 10.11647/OBP.0393

Cover illustration: A spoof of the "Devil's Chaplain", the Rev. Robert Taylor (left, on the podium). His patron, the atheist Richard Carlile, is seen on the right, landing a punch. The wine merchant W. D. Saull funded both men and grounded his evolutionary talks in their dissident sciences. Such pastiches reinforced the prejudices of pious readers, by depicting the moral rot caused by irreligion. The wall posters on the left advertize contraception manuals and licentious memoirs, and a lecture by "Miss Sharples", Carlile's common-law "wife". Taylor's character is being impugned by portraying the mayhem caused by his infidel oratory. Beyond the brawling and debauchery, thieves are shown in the audience (bottom right) and a dagger-wielding agitator (centre). In reality, Taylor's congregations were respectable and attentive.
Etching, in the author's possession, entitled "The Triumph of Free Discussion" (the motto of Carlile's Fleet Street shop selling subversive prints). The caption reads, "A Sketch taken in the Westminster Cock Pit on Wednesday the 24th. of September 1834. Subject A Lecture by the Revd R. Taylor, A.B.M.R.C.S. 'On the importance of Character'."
Cover design by Jeevanjot Kaur Nagpal

12. Making Sense of the Museum

> his museum would be a sealed book to the many, were it not for his lectures
>
> The *National Standard*'s reporter, commenting on Saull's talks as he accompanied his museum guests.[1]

Since Bristol's was a stock Saull lecture, listeners at many radical venues in London in the thirties probably heard something similar. It played well in Owen's headquarters, where it was delivered to such "thronged" audiences that it was expanded into whole courses.[2] It, or variants of it, monkey and all, ran at the "Institution of the Industrious Classes" in Gray's Inn Road, and at its successor in Charlotte Street, then, later in the thirties, at the Social Institution in John Street, off Tottenham Court Road. And Saull's other platforms read like a 'where's where' of activist haunts: the Western Co-Operative Institute in Poland Street; Chapel in High Street, Borough; the "Society for the Acquisition of Useful Knowledge" in Store Street; the Great Tower Street Mutual Instruction Society; the Rational Institution, Curtain Road; and his favourite, the Hall of Science in Commercial Place, Finsbury.[3]

Even the clergy attended. 'Know thy enemy' was presumably the explanation for some vicars sitting in on Saull's addresses. Many already thought science suspect, and Saull's Sunday onslaught, mixing socialism, monkeys, and Heaven on Earth, simply ratcheted up their fears. In one case, the result was a strengthened primer for Church of England ordinands on how to combat an infidel geology. The Rev.

1 *National Standard* 3 (18 Jan. 1834): 44–45.
2 *NMW* 3 (26 Nov. 1836): 37; (10 Dec. 1836): 53.
3 *PMG*, 31 Dec. 1831; 24 Nov. 1832; *Crisis* 1 (15 Dec. 1832): 164; (29 Dec. 1832): 172; *NMW* 1 (29 Nov. 1834): 40; 3 (12 Nov. 1836): 20; (19 Nov. 1836): 29; 4 (28 Oct. 1837): 5; (6 Jan. 1838): 85; 7 (6 June 1840): 1290; *Shepherd* 1 (1 Aug. 1835): 392; Roebuck 1835b, 16; *PM* 1 (6 May 1837): 224.

 https://doi.org/10.11647/OBP.0393.12

Johnson Grant, minister of Kentish Town Chapel, broadened his advice for those taking holy orders in such a hostile climate:

> ...let it not be forgotten, that all proceedings with which all the Socialists desecrate the Sabbath, and outrage revelation, invariably open with a lecture on geology, in which the concessions of philosophers are triumphantly re-echoed, as if the foundations of revealed truth were shaken, and the authenticity of Scripture given up. Now, what are ingenious, and, to the geologists themselves, satisfactory explanations, are infidel sneers to the Socialists, and disheartening alarms to the great body of believers. Hence we are tempted to tremble for an edifice where the supporting pillars are thus shaken, and to exclaim with the Psalmist (Ps. xi. 3), "If the FOUNDATIONS (of our holy faith) be destroyed, what can the righteous do?"[4]

Saull's talks were invariably illustrated by fossils from his collection. At Owen's social festivals, Saull would talk geology using his more visually stunning exhibits as a prelude to the dancing.[5] So the museum was regularly signposted. But it was the lecture *in situ*, in Aldersgate Street, in the spacious wine depot, surrounded by crinoids and palms and gigantic saurians, that had the greatest impact. Here the wine merchant's explanation gave the fossil sequence its meaning.

A reporter from William Makepeace Thackeray's *National Standard* visited it a few months after the Bristol talk and was astonished:

> This gentleman has fitted-up the upper part of his house, in Aldersgate street, as a geological museum. As a private collection it is immense, and does great credit to the taste, learning, and liberality, of its possessor. It contains great varieties of all the known rocks, and specimens of nearly all the known fossils. In those of the secondary formation—in which is included the coal measures—the museum is peculiarly rich; and, fortunately for science, Mr. Saull does not place his "candle under a bushel," nor, like a miser, lock up his stores. With a liberality which does him honour he opens his museum to the public every Thursday, at eleven, when all are admitted gratis; no personal introduction is required:

4 Johnson Grant 1840, xiii-iv; reproduced in the *Church of England Magazine*, 9 (15 Aug. 1840): 120; and in *NMW* 8 (5 Sept. 1840): 159, where the editor noted that this "seems to have emanated from the attendance of the Editor of the *Church Magazine* at Mr. Saull's lecture in the Institution, John-street".

5 *NMW* 3 (20 May 1837): 235.

> it suffices to say, that the love of science, and the desire of improvement, is the motive, to ensure a hearty welcome.[6]

For Saull, a City liquor trader, an indicted blasphemer, lacking education, 'character', or noble bona fides, a museum of rich merchandise, like an FGS badge, provided his credentials of "taste, learning, and liberality". But the guests, left to themselves, could only stare at indecipherable bones and unfathomable fossils. A wild scatter of perspectives brought from innumerable social angles could end without any value being drawn from the bare bones. As the *National Standard* said, his assemblage would be a closed book, or so much fossil gibberish, "were it not for his lectures". The rocky imprints of palm fronds or the giant saurian limbs were mute witnesses whose story had to be coaxed out. Like a good barrister, Saull interrogated them to get the narrative he wanted. The lecture brought the exhibits alive, made them relate a radical story with a moral. He scrupulously laced the fossil sequence into an imagined 'evolutionary' parade, whose "progress to perfection" justified the Owenite call to social arms.

"When the company are assembled", continued the *National Standard*, "Mr. Saull commences his lecture". He runs through the rocks in time sequence, using modern seascapes to help the mind's-eye, starting with ancient microscopic "zoophytes", like the corals of a modern atoll, building their rocky structures. He then walked, physically and metaphorically, along the shelf, through time, following the fossil stream, "showing, step by step, the geological changes, and the consequent changes in organic nature", working his inexorable way to mankind. 'Lower' animals merged into 'higher' ones, just as the human foetus at first resembles "a kind of worm" but then naturally acquires gills, its skin is soft and naked, "like the mollusca", "after which we successively become fishes, reptiles, birds, and mammalia."[7] Having "passed through all these gradations"—just as the fossil species did—the foetus emerges at birth in its highest form, the human being. Some

6 *National Standard* 3 (18 Jan. 1834): 44–45.

7 *National Standard* 3 (18 Jan. 1834): 44–45. Gould's 1977 history of the concept of human foetal stages recapitulating 'ancestral' developments concentrates on the social implications being drawn from them later in the century. Much earlier, however, the levelling implications served London's republicans, who were probably only too happy to portray the embryonic Gulielmus Rex emerging from a reptile.

radical comparative anatomists believed this was literally, or, at least, analogically so: that we were fishes, then reptiles, then lowly mammals in the womb. We were then born as the 'highest' form, humans—the embryo literally encapsulated our ancestry, and recapitulated our fossil ascent. And although the great Tory comparative anatomist Richard Owen at the College of Surgeons was to quash the very idea as an absurdity,[8] Saull seems to have subscribed to it.

The proprietor, said the reporter, has arranged his "temple" so that all these natural "facts are demonstrated". But being a socialist he did not end there. The report cryptically moots mankind not necessarily being the end point, however the paper conspicuously failed to follow Saull on the final Owenian process, perfecting the social man.

Geological Education

> ... the revelations of GENESIS and GOSPELS are, to stationary blind faith, precisely what the revelation of GEOLOGY and PHYSIOLOGY, are to progressive understanding, and ... these two sciences become, therefore, indispensably necessary to all rational schools from which the Genesis and Gospels are to be excluded in order that pupils may be taught rationally, instead of mystically, WHERE THEY REALLY ARE, AND WHAT THEY REALLY ARE.[9]

Robert Owen's plans for rationalist primary education in the city were now coming to fruition.[10] Education of any description was a desideratum in England at the time. It was estimated in 1835 that of the four million children in the country under 15, half received no education whatever.[11] Saull chaired the meetings in Owen's Institution in Charlotte Street to design this schooling for the co-operators' infants. He "denounced the degrading effects of the miscalled education given at our charitable institutions and public seminaries, and avowed his intention of devoting his attention and aid to the proposed school for

8 Sloan's introduction to Richard Owen 1992, 62–63; Desmond 1989, 52–53, 58, 337ff.; Evelleen Richards 1994, 392–404; 2020, ch. 4, has exposed the ramifications of Owen's assault on the concept.

9 *NMW* 6 (5 Oct. 1839): 789–91.

10 J. F. C. Harrison 1967. On Owen's New Lanark school curriculum: Hutchison 1835, 511.

11 *MM* 23 (4 July 1835): 271.

the children of the Socialists." And, as always now, he "announced his intention of bequeathing his valuable museum for the benefit of the rising generation" as the visual learning element in this 'rational' process.[12] Such learning could be really useful, not least for breaking the gentry's grip and stopping them from training stooges for livery or service, or "to wait on them behind their carriages".[13] But more, by giving "the poor man's child that rational education" he or she "could be rendered, moral, intelligent, virtuous, and happy". Individuals had to play their part. In his Bristol monkey lecture, Saull encouraged mothers in the audience to teach their children only the "known facts" in order "to form the good, benevolent, and best character". In the Owenite/Enlightenment ideal, virtue was to be gained by obeying Nature's laws—science, in a word. The young mind, following nature, would be healthier, happier, and more sympathetic, rather than oppressed and fearful—it was Holbach's prescription, still being promoted in the latest Carlile edition, to search nature "for motives suitable to infuse into the human heart propensities truly useful to society".[14]

The infidel sects, carried away by the revelations of geology and physiology, could become as wildly messianic as the placarding Baptists outside their halls. For one believer,

> This education and training will effectually supersede the necessity for any human laws, opposed to Nature's laws; for Nature's laws will alone direct man, and insure his happiness. Judges, and all law-officers, prisons, and all punishments, will be useless, and will cease to exist.[15]

Millenarian Owenites were promiscuously mangling judicial and natural law, and, even then, envisaging the latter as an edict 'governing' matter.

This overriding concern to infuse morality alongside political dissidence, to keep the heart pure as the barricades rose, was universal in deist and anti-Christian halls. Each of Saull's mentors had emphasized as much. Some had tried, in their way, to put policy into practice. Carlile had set up a School of Free Discussion in 1829, based

12 *TS*, 27 Dec. 1833, 4; *Crisis* 3 (28 Dec. 1833): 144; (4 Jan. 1834): 150–51.
13 *Crisis* 3 (4 Jan. 1834): 150. Saull also helped later to set up a day school in Whitechapel (*NMW* 12 [9 Dec. 1844]: 192).
14 Holbach [Mirabaud] 1834, 1: 280.
15 *NMW* 2 (26 Dec. 1835): 65.

on "free, fair, and fearless" study of the works of Tom Paine, the atheist and philosophical anarchist William Godwin, and the utilitarian Jeremy Bentham, something he thought "may ultimately produce a lever to move the intellect of the earth". But at 6*d* a Sabbath, or 10*s* a quarter, attendance was expensive, even if it helped Carlile keep his own rational head above water.[16] Charlotte Street was continuing the tradition with a co-operative slant and a bit more cash. Even this school was 4*d* weekly for the under-8's, but lessons were on two nights a week and parents could pay half the fees in labour notes.[17] Over one hundred pupils attended this blame- and merit-free co-operative school. But mixing ages and sexes caused chaos, as did the cold winter without heating. Therefore, it was re-rationalized and, because it interrupted the Bazaar,[18] transferred to new premises in Millbank as the Westminster Rational School and General Scientific Institution.[19]

Saull stated that he was bequeathing his "valuable museum for the purpose of education", implying that children could examine "the works of nature" first-hand.[20] Like many Owenites, he saw geology as an integral part of a wider rational curriculum. The educational goal was a geological foundation on which Owen's environmental-conditioning superstructure could be erected. Some actually rendered this axiomatic, making geological revelation "indispensably necessary to all rational schools" in order to teach infants how they got here.[21] Thus spoke the pseudonymous "Student in Realities", a common correspondent in socialist weeklies. Under the running head "BEGIN BY THE HISTORY OF THE EARTH", the critique wanted schools to

> Begin by mineralogy, geology; by the *history of the earth before man's appearance thereon;*– make them acquainted with all substances in the same order in which they were successively generated in nature, and

16 *Lion* 3 (23 Jan. 1829): 122–24; costs: 3 (2 Jan. 1829): 30 (9 Jan. 1829): 64. Carlile had tried to establish a Sunday school at his Fleet Street premises, where adults and youths could unlearn the religious mischief they had been taught. That, too, had been 10*s* a quarter: *Lion* 1 (21 Mar. 1828): 361; (28 Mar. 1828): 385. It had closed in June 1828. McCalman 1988, 189–90.

17 *Crisis* 3 (4 Jan. 1834): 150.

18 *Crisis* 3 (11 Jan. 1834): 155; (22 Feb. 1834): 216.

19 It survived into 1835–36 (*NMW* 1 [20 June 1835]: 270) after which it became a Hall of Science, then Westminster Mechanics' Institution.

20 *Crisis* 3 (4 Jan. 1834): 150.

21 *NMW* 6 (5 Oct. 1839): 789–91.

> conclude with the tottering selfish politics, and *contending* psychological *systems* of occult knowledge, still called indiscriminately "*true religions*".[22]

This was the trajectory of Saull's lectures. Such a geo-political hammer was deemed essential to chip away at the rival Rock of Ages, which resulted in it being adopted in Owenite curriculums far and wide. And the pick was put into the hands of both boys and girls. The London Working Men's Association proposed School Committees be set up nationally ("elected by universal suffrage of all the adult population, male and female") and that the teaching should integrate geology, but *they* saw the science restricted to "High Schools", that is, nine- to twelve-year-olds.[23] The Owenite communities, by contrast, taught it at all age levels. Stockport's and Rochdale's "Rational day schools" were soon setting exams for boys and girls in the "sciences of astronomy, geography, botany, geology, and physiology".[24] Practicals, too, were an important part. They might involve day trips: the youngsters would be driven in carts, the older boys and girls hiking, tricolour flags waving, cornets playing, and having reached some rocky outcrop they would listen to "addresses on geology and the features of the country".[25]

The London Owenite caucus, unimpressed by the increasingly watered-down Westminster Rational School experiment of infant-instruction, started another school in-house. Here, the curriculum took in the traditional subjects, "Writing and Arithmetic; English Grammar and Composition", and the sciences: chemistry, geology, physiology, and astronomy. Only now there was an addition to the list, showing that the hottest of contemporary topics was galvanizing the Owenite classroom: "Electricity".[26]

Long before science was professionalized and constrained around standardized academic and accreditation procedures, and before state-regulated curriculums set subject norms, the cultic niches provided havens not only for dissident sciences but contemporary rages. So, it is no surprise to find the latest, the Owenite star T. Symmonds Mackintosh's "Electrical Theory of the Universe", firing up the school children.

22 Student in Realities 1836–37, 254–6. This was extracted in the *NMW*.
23 *NMW* 4 (6 Jan. 1838): 82.
24 *NMW* 11 (17 Sept. 1842): 99; (17 Dec. 1842): 203.
25 *NMW* 12 (22 Jul. 1843): 32.
26 NMW 7 (30 May 1840): 1262–3.

Although his grandiose unifying scheme had first been published in the *Mechanics' Magazine* in 1835, "Mack", as he was called, was already 'one-of-us'. He was a former weaver, blooded as another Carlile shop stalwart,[27] an inventor, promoter, engineer, who had come to embrace Owenism passionately. Not surprisingly, having sustained trial by fire in Carlile's shop, he was deeply anti-clerical although clearly deistic. To him, the solar system was a vast electrical machine: the Sun, a giant conductor crackling with electricity, bathed and held the planets in an electrical field. The earth was suspended in an electric medium, like a brass ball held on silk next to a generating machine. Such a spectacular debunking of Newton's gravitation caused huge controversy, making it clap-trap to some, and breathtaking to others. But it satisfied the socialist need for an all-encompassing, home-spun, anti-Newtonian, anti-occult theory of everything. With spectacular shows the talk of the town, as Iwan Morus has so entertainingly demonstrated in *Frankenstein's Children*, Mack's electrical gadgetry satisfied the Owenite mood. Mackintosh frequented the usual haunts, an "animated speaker, with a faculty for vivid and humorous scientific illustration".[28] He told them at Watson's Mechanics' Hall of Science, in a six-lecture series in 1836, running concurrently with Saull's lectures, that electricity was the most potent agent in the physical world, and "the ultimate source of motion".[29] He could be found, too, at other Saull venues, at the Mutual Instruction Society, Great Tower-street, and the Rational Institution in Curtain Road. And being 'one of us' there was decided chauvinism in the *New Moral World*'s re-printing the lectures.[30] Birmingham's main seller of the "Great Unstamped", James Guest, publisher of the *New Moral World*, got out threepenny numbers of the *Electrical Theory* in 1838, making it the first book publication. At this juncture, "Mack" became a social missionary, taking his theories to local branches in Manchester, Salford, Oldham, and Liverpool, where he drew enthusiastic audiences.[31]

27 Anon 1858, 62–63. The theory was first serialized in *MM* 24 (3 Oct. 1835): 11–13. Mackintosh's patents included cooling and condenser improvements for the steam engine.

28 Holyoake 1906, 1: 235.

29 *MM* 26 (22 Oct. 1836): 48. He was talking here again in 1838: *NMW* 4 (6 Jan. 1838): 85.

30 *NMW* 3 (20 May 1837): 239; 4 (28 Oct. 1837): 5; *PM* 1 (13 May 1837): 232.

31 Morus 1998, 135–9; *NMW* 5 (24 Nov. 1838): 80.

"Electricity" entered the socialist-school curriculum because it ticked all the boxes. This was the hottest science, providing demystified explanations of origins and actions, and was moreover invented by a social missionary. This home-grown Electrical Theory explained everything, from the motion of planets to the growth of plants. Electricity could possibly even generate life, if it was true, as Sir Richard Phillips reported in 1837, that a voltaic battery continuously charging a piece of Vesuvius rock had produced a horde of tiny bristly 'insects'.[32]

Humans, anatomically wired with current-sensitive nerves, were themselves seen as electric machines. At least, it was more empowering to look to this sort of knowable and controllable physics than to trace causes "to sources beyond our knowledge and above our control".[33] And, since the sun and people were running down on charge, Mackintosh argued that it was better to seek "bread now rather than cake tomorrow", in Morus's words. "Time therefore, for revolution on earth since there was no hope of heaven."[34] 'Mack' would push the moral in talks. He toed the Owen line that humans shaped by circumstance should not be judged, and he attacked Christianity for downplaying man's social duty to man in the here-and-now in favour of the Kingdom to come.[35]

The children were in safe, rational, and self-empowering hands. And they were being crammed with a double dose of geology, as 'Mack' used it extensively to support his all-encompassing theory. Perhaps, though, they were perturbed to find that the Earth had once had five moons, but that four with depleted charges had crashed into it, their wrecks causing the major mass extinctions through history. And the remaining moon, with its decaying orbit, would share the same fate. The apocalypse was not Millennial, but Lunar.[36] Even Saull might have been staggered at that.

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32 *Annals of Electricity* 1 (Apr. 1837): 242–44. Richard Phillips had visited Andrew Crosse in 1836 to inspect his electrical apparatus which would generate these 'insects' (*MM* 26 [8 Oct. 1836]: 13–14. Mackintosh was already citing Crosse: *MM* 26 (22 Oct. 1836): 48. Colonel Macerone had his own galvano-electric theory and discussed its use in generating "animalized rudiments" (Macerone [Maceroni] 1837, 19; Macerone [Maceroni] 1848, 1: 143, 362, 412–13). For the context of Crosse's supposed electrical biogenesis see J. A. Secord 1989; Morus 1998, 110; 2011, pt. 2.

33 Mackintosh 1846, 361.

34 Morus 2011, 78–79.

35 Mackintosh [1840], 96.

36 *NMW* 4 (28 Oct. 1837): 6; Mackintosh 1846, 155–56, 224, 228.