

ADRIAN DESMOND





<https://www.openbookpublishers.com>

©2024 Adrian Desmond



This work is licensed under an Attribution-NonCommercial 4.0 International (CC BY-NC 4.0). This license allows you to share, copy, distribute and transmit the text; to adapt the text for non-commercial purposes of the text providing attribution is made to the author (but not in any way that suggests that they endorse you or your use of the work). Attribution should include the following information:

Adrian Desmond, *Reign of the Beast: The Atheist World of W. D. Saull and his Museum of Evolution*. Cambridge, UK: Open Book Publishers, 2024, <https://doi.org/10.11647/OBP.0393>

Further details about CC BY-NC licenses are available at <http://creativecommons.org/licenses/by-nc/4.0/>

All external links were active at the time of publication unless otherwise stated and have been archived via the Internet Archive Wayback Machine at <https://archive.org/web>

Any digital material and resources associated with this volume will be available at <https://doi.org/10.11647/OBP.0393#resources>

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

3. From Eternity to Here

Blasphemy, Eternalism, and the Emerging Question of Origins

I challenge you Deists to say where but in the Bible can you discover any satisfactory account of the creation of the world, and of the “origin of man?”¹

How Saull originally became radicalized is not known. But we can detect the company he kept. And it is this which allows us to trace the route he took through the dissident byways to arrive at his questions about mankind’s origin in 1830.

Judging by police reports, Saull’s first influential contact was with the recidivist, deist, and reviver of the blasphemy movement, the publisher Richard Carlile (1790–1843). This is confirmed by identification of Saull’s first publication on geology (Appendix 1), a letter which appeared anonymously in Carlile’s scurrilous sixpenny weekly, the *Republican*.

Carlile was the bogey-man of polite society. It was widely believed that never had such “*a scoffer at religion lived*” who so thoroughly “*merited the gallows or the pillory.*”² Indeed, an actual gallows orator once captured Carlile’s reputation. Watching felons hang at a public execution in 1823, he exhorted the gawping onlookers never to “keep company with Deists” nor “to read any of Carlile’s books”, lest they share the same fate.³ Not that such crude fairground demagoguery frightened Saull. The deistic *Republican* that printed his letter was an incendiary rag which ran from 1819 to 1826. This was Carlile’s flagship, and it sold up

1 *Republican* 8 (18 July 1823): 52.

2 *Republican* 8 (17 Oct. 1823): 477–78.

3 *Republican* 8 (18 July 1823): 53.

to 15,000 copies some weeks, most notably during his sensational 1819 trial for blasphemy and sedition.⁴ By the time of Saull's letter in 1826, on orbital wobbles explaining the geological strata fluctuating from polar to tropical and back, Carlile had only been out of Dorchester gaol a few months, having served a six-year term. And Saull's title spoke volumes, "Letter from A Friend: On Fossil Exuviae and Planetary Motion": Saull was already an intimate of the notorious Carlile.

Given that spies reported Saull financing Carlile's court costs and blasphemous publishing career, our starting point must be Carlile's shady Fleet Street premises in the 1820s. Even this building's appearance shouted its intent: in a window stood a statue of Tom Paine, and the front was placarded with badly written ads for the latest inflammatory pamphlet, while the first-floor windows were dominated by life-sized effigies of Old Nick and a Bishop.⁵

Carlile recast his own history in martyr's terms (religious language is inevitable when discussing Carlile's deism). He started as an itinerant tinplate worker and pamphlet hawker, who turned printer in 1817. His trenchant radicalism in Regency London was proved by his deliberately provoking the Tory government: he pirated publisher William Hone's "scandalous" (and funny) political parodies that year. These lampooned a repressive government through jests on the Lord's Prayer ("deliver us from the People. Amen.")—squibs that were tailored to alehouse readings, to further gall the Attorney-General.⁶ Being charged with seditious libel and "blooded" by his first prison stay (he was locked up for months in the King's Bench) further radicalized Carlile.⁷ He had Tom Paine's Enlightenment rationalist books smuggled into his cell. Then, on coming out, he republished them, bringing Paine back into popular view.

Paine's *Age of Reason* (1794–1807), execrated in the religious press, accelerated Carlile's conversion to deism. It left him brutally sceptical of scriptural truths. As a result, his *Republican* was marked by a rough handling of the "Holy Jew Book"⁸—an intentional slur designed to

4 *Republican* 1 (1819): xvi.

5 Vizetelly 1893, 68–72: the scene in 1831, when Vizetelly lived opposite.

6 Grimes 2000, 146–48; McCalman 1988, 122–23; Carlile 1832a, 342.

7 Wiener 1983, 17–23; McCalman 1975, v–vii.

8 *Republican* 6 (7 June 1822): 49. This racial imagery, playing on the anti-Semitic prejudices permeating society, was common among Carlile's circle. It can be seen

capitalize on wider social prejudices. Given the age's all-powerful sermon,⁹ Carlile's onslaught on "Priestcraft" and "Kingcraft" were acts of disobedience, denying the church's authority by impugning Old Testament truths. Christianity was the law of the land and prop of polite society. Lack of this bulwark was unthinkable for most, and it was Carlile's brazen denial of the unthinkable that made him the notorious butt of scaffold moralizing. That he had a following made it even worse. But, in these times of social distress, there was real radical revulsion against the "bloated priesthood in the possession of those tithes which are the necessities of life to the cottager".¹⁰ Time and again, radicals echoed the sentiment, angry at the "plundering oppressors", the 18,000 privileged clergymen of the Established Church living comfortably off tithes (as Hetherington would say).¹¹ Because of Carlile, the word "infidelity" increased its currency in evangelical rebuttals from the 1820s, although, as he parried, it was a "mere word of cursing, abuse, and calumny".¹² Unlike a previous generation of radicals, Carlile had little time for labour demands and parliamentary reform, and certainly none for the growing unions and co-operation (quite unlike Saull). What he did was steer the radical cause to all-out blasphemy and put some fire in its veins.¹³

In this he *was* followed wholeheartedly by Saull. Not only did Saull castigate the clergy for emptying pockets but, even more so, for vacuuming brains. The local vicar of St Botolph was incredulous on learning from his parish reprobate that "*religion is a despotism, reigning*

in his *Republican* and *Lion* (among both men and women, see Frow and Frow 1989, 49) and in the *Comet*. It became even more prominent in the 1840s with Charles Southwell. Yet, it is scarcely visible in Saull.

9 Young 1960, 12–13: "A young man brought up in a careful home might have heard ... a thousand sermons". These homilized and normalized every aspect of behaviour: Hilton 1988.

10 Carlile 1832a, 342.

11 Hetherington 1830; Hetherington [1832], vi. Another Saull associate, the Rev. Robert Taylor, would talk no less of the "Christian Priests and Bigots" robbing the hard working "of their reason and their substance which they did in this Country to the tune of Nine Millions Nine Hundred and Ninety Nine Thousands annually": HO 64/11, f. 167 (22 Nov. 1830).

12 *Republican* 7 (28 Mar. 1823): 397.

13 Epstein 1994, 68.

tyrannically over the human mind", and that no "evil genius that has ever existed" could have inflicted a greater "amount of human misery".¹⁴

That could have been Carlile, but it was Saull. Since so little is known of their relationship, all we can do is follow the money, as Saull converted his wine profits into heterodox capital. Ultimately, Carlile was imprisoned four times—in total he spent over nine years in jail, in "hell" as he put it, "preparing [society for] heaven".¹⁵ This included his stretch in Dorchester gaol (1819–25), for publishing Paine's *Age of Reason* and the blind American deist Elihu Palmer's *Principles of Nature* (discussed below). Astonishingly, throughout these years he continued to edit the *Republican* weekly from his cell, which was some feat.¹⁶ The Society for the Suppression of Vice tried in vain to shut his business down. His shop workers were incarcerated in Newgate. Here, they suffered shocking privations, being confined ten to a twenty-two-foot cell, forced to sleep on "door mats" and fed "one pound of brown bread" a day, plus a pint of gruel.¹⁷ Carlile's wife and sister fared no better. They kept his 55 Fleet Street premises open and were themselves jailed. The government confiscated the shop's stock, in fact everything it "could put its harpy claws on". Being "reduced from comparative opulence to beggary" by the authorities,¹⁸ Carlile desperately needed financing to keep the business afloat. How much Saull pumped in we do not know, only that he admitted to "many heavy pecuniary expenses" in aid of "free discussion" during this period. He later recalled an incident, though, during "one of the trials in the days of Carlile, in which he was responsible for the cost of the defence, in which the government withdrew a juryman at the last hour and involved him in the payment of costs".¹⁹

Saull was forking out frequently, given the succession of cases. Confirmation of this comes from a Secret Service source. A government spy had infiltrated Carlile's circle. His weekly reports to Bow Street Police Station give the feel of an old revolutionary who had been turned, but

14 [Saull] 1832a, 4.

15 Carlile 1832a, 342.

16 McCalman 1975, 78. Carlile had been jailed for publishing Paine and Palmer's works in his *Deist* in 1819.

17 *Republican* 9 (2 July 1824): 845; McCalman 1975, 76–78.

18 Carlile 1832a, 343–44; Wiener 1983, 70–72; Keane 2006.

19 *Reasoner* 16 (5 Feb. 1854) Supplement, 97–98.

his identity was cloaked in secrecy—he was referred to only as “Him” by his handler.²⁰ The mole was deeply embedded, clearly one of Carlile’s assistants, always in his shop or at his meetings. He had Carlile’s wife’s confidence, to the extent that he was reading the letters Carlile wrote home while away.²¹ Taken in by the family and by the shop assistants, the agent had intimate knowledge of their doings. He was vituperative in his reports, but these have to be treated carefully; they were, after all, designed to make his police handlers salivate. In selling information to the authorities, it pays to spice it up. Thus, the rheumatic, cane-supported Carlile he called “a very Wild and Extravagant Minded Person”. “He is also Ferocious and I have no doubt but he is a Calculating Bloodthirsty Person”.²² With Carlile’s imprimatur, the spy gained access to London’s leading activists,²³ and from his briefings we get a deeper understanding of Saull’s commitment. They show that Saull and his anti-Christian cadre would meet in Carlile’s shop to plan strategies when blasphemy trials were pending.²⁴ And with Carlile again charged in 1830, Saull put up the bail to keep him out of prison until the trial.²⁵ Saull would frequently be heard talking at the Blackfriars Road Rotunda. Carlile had taken over this building in 1830 to make it the centre of London radicalism, where “a war to the death was to be waged against ‘the aristocratical or clerical

20 HO 64/11, f. 350.

21 HO 64/11, ff. 63, 298. On the spies, see Parsinnen and Prothero 1977; Hollis 1970, 41–44. Sometimes the snitches were sussed, as on the occasion when one was fingered in the crowd at the Mechanics’ Hall of Science in City Road: *Colonial Gazette*, 21 Apr. 1841, 252.

22 HO 64/11, ff. 3–4. The hyperbole was designed to impress the spy’s handler, and it was probably the latter who underlined it. There were at least two spies operating. One was G. M. Ball, identified from later (1834) reports: HO 64/15, ff. 105, 107; HO 64/19, ff. 734–37. He was possibly a former Spencean revolutionary: see HO 64/11, f. 53 for his contacts going back to the Regency. Thomas Spence had been an agrarian reformer, who sought the expropriation of land and its hiring-out to small holders. An agrarian connection is also hinted at by Ball’s membership of the Grand Lodge of Operative Gardeners in 1834. He recruited for the Lodge and was their delegate to meetings at Owen’s Bazaar in April 1834: HO 64/15, f. 107; *Pioneer*, 26 Apr. 1834, 319; *Crisis* 4 (26 Apr. 1834): 23. Little is known about Ball: Oliver 1964, 83 n. 6. The other spy was Abel Hall, whose roots also went back to the Cato Street conspiracy: Parsinnen and Prothero 1977, 66–67. Hall was the vice-president of the local Tailors’ Union lodge: HO 64/15, ff. 186, 198.

23 The Rev. Robert Taylor, Julian Hibbert, John Gale Jones, James Watson, Henry Hetherington, and many more: HO 64/11, f. 298.

24 HO 64/11, f. 75.

25 HO 64/11, f. 197.

despotism, corruption, and ignorance''' . It was a venue that Saull helped keep afloat as a regular subscriber, even when others deserted it. In short, the nark reported, Saull had been one of Carlile's most consistent backers over the years.²⁶

Another funder identified by the spy was Saull's ally, Julian Hibbert, a wealthy West Indies plantation heir expatiating his family's sins by bankrolling blasphemy causes. Saull and Hibbert were both, the spy reported, freethinking "men of property", which is what made them so dangerous in government eyes.²⁷ Hibbert was an avowed atheist, with a coruscating wit, always aimed at religious shibboleths. His was an austere life, involving temperance and vegetarianism, and he ended up in threadbare digs in Hampstead, all of which belied his wealth. The family's Jamaica plantation was run by 1,600 slaves and the profits had left them wealthy, genteel and landed, to the extent that they owned ships and quays, and financed the West India docks. Julian was duly Eton- and Cambridge-educated, picking up £10,000 on his father's death and as much again at the age of 25.²⁸ But, while his relatives became Church trustees, school governors, judges, and sheriffs, sharing the trappings of civic power, he worked with Saull on atheist propagandism. He would chip in with Saull to bail Carlile.²⁹ By 1831, the spy reckoned Hibbert had funded Carlile to the tune of £3000. Even that was probably an underestimate: Joel Wiener calculates that, by the end of Hibbert's life, £7000 might have been nearer the mark, showing the sort of sums needed to keep Carlile's Fleet Street press going in the face of state harassment.³⁰

The epiphany moment for these 1820s' anti-clericals had often come on reading radical Enlightenment books, foremost among them one written by a deputy to the National Assembly during the 1789 revolution,

26 HO 64/11 f. 446 (29 Nov. 1831); "war": Wiener 1983, 164, 186 n. 2.

27 HO 64/11 f. 46 (Feb. 1828).

28 Donington 2014, 204, 224; E. Williams 1994, 88ff; Stange 1984, 48, 50, 170 on the family's Unitarianism. The family was massively compensated upon the abolition of West India slavery.

29 HO 64/11 f. 197.

30 HO 64/11, f. 446 (29 Nov. 1831); Wiener 1979. Hibbert would often lend Carlile money: HO 64/11, f. 67 (20 Sept. 1828). And when Carlile's house and furniture were sold in 1827 (HO 64/11, f. 17 [Sept. 1827]) and his books were being sold off cheap to recoup, Hibbert bought large stocks to give away to his friends: HO 64/11, f. 26.

Constantin François de Volney: *The Ruins: Or a Survey of the Revolutions of Empires*. From Saull's perspective, Volney's derivation of morality and virtue from nature's laws put science in a privileged position as part of the struggle, and he cheekily suggested theological novices read it.³¹ Volney presented a typically radical Enlightenment view of nature's laws as beneficent and egalitarian. They were natural edicts constraining all, high and low, and the ground of ultimate authority, the highest court, beyond the jurisdiction of the clergy but available to everyman. A court sanctioned by Nature's immutable laws could overrule the capricious edicts of earthly tyrants. Carlile said *The Ruins* had started him on the road to deism, and "it has led thousands besides myself to search after truth."³² He would pay back the debt by republishing it. If Enlightenment works had shaped Carlile, then Carlile equally reshaped Enlightenment works. He revamped them as the 'bibles' for a new deistic generation. The Word of Nature was spread with religious zeal by his followers—a group disparaged as "illiterate mechanics, silly fellows of weavers, beggarly lawyers" by detractors, but more sympathetically judged by McCalman to be "the respectable 'middling sort'—ambitious artisans, small shopkeepers and lesser professionals".³³ To this group, excluded from power and knowledge by an established culture, said E. P. Thompson, the "works of the Enlightenment came ... with the force of revelation."³⁴ They were liberating, leading one respectable 'middling sort' (Saull), snubbing his vicar's efforts at conversion, to announce in self-congratulatory style "I ... have a mind as free and unfettered [*sic*] as the air we breathe".³⁵ Such an exhilarating air surrounded all these anti-Christian cadres, as they cast off religious shackles and quoted chapter and verse from their Volneys, Paines, and Holbachs.

Unarguably, it was Paul-Henri Thiry Baron d'Holbach who was the greatest dissident inspiration. Being an extreme materialist, he had concealed his authorship in the eighteenth century, hence his works, including his monumental *System of Nature*, were usually attributed to "Mirabaud". Thus, Carlile was selling "Mirabaud"'s *System* in the

31 [Saull] 1832a, 13.

32 *Republican* 2 (18 Feb. 1820): 148. Palmer 1823.

33 McCalman 1988, 189–90; *Republican* 8 (18 July 1823): 52.

34 E. P. Thompson 1980, 798–99.

35 Saull 1828a, 21.

early 1820s,³⁶ and *Good Sense*, by “Curé Meslier”, in 1826, although that, too, was by Holbach, his digest of the *System*. These libertarian pre-Revolutionary French books were seized on by Carlile and Saull as dissolvent and destabilizing in their own religiously backwards nation, fit to bring down Britain’s *ancien régime*. Holbach demanded a re-grounding of social, political, and moral beliefs on ‘rational’ lines, and the subversive implications appealed to Carlile’s anti-Church radicals. After all, if life for Holbach was an emergent property to be explained by matter acting deterministically, with no god needed to maintain it in motion, then the Church lost its authority, and man must “make one pious, simultaneous, mighty effort, and *overthrow the altars of Moloch and his priests*.”³⁷ That was the nub for the anti-clerical Carlile and Saull: Holbach’s admonition against waiting till the afterlife to redress the grievances in this one.

Saull, armed with Volney’s and Holbach’s “correct principles”, and adopting a “fearless energy of mind”, declared himself freed by “the complete eradication of all visionary fears, and superstitious ideas” to explore the more heretical scientific explanations of life.³⁸ And while social liberation for many marginal groups in the 1820s meant concentrating on the milksop self-help sciences, Saull would go to extreme lengths to develop a geo-astronomical explanation of life’s ancestry. Such an approach was ultimately encouraged by his defiantly blasphemous context. Yet it was very far from the sort of science that he first encountered among the Carlile set, as we will now see.

Mankind Has Existed for All Eternity

Has the human species existed from all eternity, or is it only an instantaneous production of Nature? Have there been always men like ourselves? Will there always be such? Have there been in all times males

36 Thomas Davison’s edition of “Mirabaud”, *System of Nature* (1819), was bought up by Carlile in 1820, on Davison’s imprisonment: McCalman 1975, 66, 219–21. For the century old lineage of Holbach’s Enlightenment materialism and its social imputations, see Jacob 1981; Shapin 1980; Yolton 1983. Treuherz 2016 on Holbach’s penetration of radical salons in eighteenth-century Britain, when his books reached a different audience from that aimed at by pirate presses in the early nineteenth.

37 Holbach [Mirabaud] 1 (1820), 185.

38 Saull 1828a, 23.

and females? ... Is this species without beginning? Will it also be without end? The species itself, is it indestructible, or does it pass away like its individuals? Has man always been what he now is, or has he, before he arrived at the state in which we see him, been obliged to pass under an infinity of successive developments? Can man at last flatter himself, with having arrived at a fixed being, or must the human species again change? If man is the production of nature, it will perhaps be asked, is this nature competent to the production of new beings to make the old species disappear?

Carlile's 1834 pocket edition of 'Mirabaud'
(Holbach) *System of Nature*.³⁹

Though men are seen to die ... the human species flourish in eternal being!

Carlile's 1824 edition of George Hoggart Toulmin's
The Antiquity and Duration of the World.⁴⁰

People in perpetuity was a strange concept to a pulpit age, an age steeped in stories of life being breathed into man, of corrupt birth, direction, hope, and redemption. And it was precisely this that attracted Carlile's materialists. It allowed them to sidestep the fundamental question of a divine genesis. That was a fable for "fanatics", said a *Republican* correspondent in 1823, who "swallow improbabilities ... wholesale" from the "Jew book": "a book composed of farce, fiction, and fanaticism, intermingled with tales of magic, morals and mystery", which "has enslaved all Europe" with the idea "of a God, making, contriving, or creating animal matter." Better to accept that humans and all macroscopic species were eternally existing, since they were composed of eternally-existing matter.

That correspondent was the outspoken and atheistical obstetrician James Watson. He derided talk of nature's 'design' by some incorporeal "manufacturer", and denounced the priesthood's effort to "defraud a credulous, puling, puerile, and idolatrous world". To him the key question was, "WHAT IS MAN and of what composed?" Since "the elements could never have had a beginning" and "man is a part of the elements", the solution to Holbach's riddle, and to the "difficulties thrown in his

39 Holbach [Mirabaud] 1 (1834), 75–76. This was touted as the "best translation": *PMG*, 20 Sept. 1834, 264.

40 Toulmin 1854 [1824], 46.

way by priests ... in assuming the creation of a *first man*", is to conclude "that, 'THERE WAS NO FIRST MAN'." Our species had no beginning.⁴¹

On this question, Carlile himself had initially been influenced by Palmer's *Principles of Nature* (1802, republished by Carlile in the *Deist* in 1819, and in book form in 1823). Palmer's solution was derived from common Enlightenment axioms. Since matter cannot appear *ex nihilo*, the earth must always have existed. But he did not entertain the idea of eternal life. For him the "vivifying influence of the sun" had originally produced the first animals from earthy matter. This raised the question, why is not it still doing so? We should "expect new beauties and wonders", but none are appearing. He thought that the earth's relation to the sun had reached an equilibrium (something Saull, pondering the same problem, was eventually to doubt), and, with this stabilization, the power to produce new life had dissipated. However, in earlier times, with the earth and sun in a different relationship, an "inconceivable exertion" must have occurred periodically to produce new life. For Palmer, "a graduated modification of physical energy has been exhibited through a past eternity" to generate the entire animal series "from man down to the lowest insect", all the life visible today⁴²

Carlile played with the idea. In 1822, he argued that since "the power to produce anew would be equivalent to the annihilation of the existing species", it was no longer present, because species were not dying.⁴³ Initially, he, too, toed the Palmer line and assumed "that the first of all existing species of animals were organizations that resulted from some peculiar arrangement and compositions of matter". This was no advance, and, cajoled by Christian controversialists, Carlile could only plead ignorance "as to the origin of man or any other species". "The true Atheist", he affirmed, "holds no hypothesis about the origin of man;

41 *Republican* 8 (18 July 1823): 59; (28 Nov. 1823): 661, 666. Wickwar 1928, 225 incorrectly identifies him as Carlile's young shopman James Watson (1799–1874), who was at the time serving a one-year sentence (April 1823 to April 1824) in Coldbath-fields Prison for selling Palmer's *Principles of Nature* in Carlile's shop. The correspondent was actually a medical man, specializing in obstetrics, whose practice was in Brewer Street: *Republican* 8 (28 Nov. 1823): 655. Nor was he the Spencean apothecary "Dr" James Watson (who died in 1818), or his son, yet another James Watson, who allegedly once served as surgeon on a trawler (I thank Iain McCalman for the latter information).

42 Palmer, *Principles of Nature*, 53–55, appended to *Deist* 1 (1819); Palmer 1823, 53–55.

43 *Republican* 6 (11 Oct. 1822), 615–16.

nor is he ever in troubled doubt about that".⁴⁴ Constantly pushed, he constantly dodged, even as he argued what mankind was *not*: he was not conjured up by "an intelligent Almighty Power". That was only "an hypothesis to cover our ignorance". This was an answer straight out of Holbach. In *Good Sense*, which Carlile republished, Holbach answered his own question—"Whence comes man?"—in the negative: "I know not. Man appears to me ... a production of nature. I should be equally embarrassed to tell, whence came the first stones, the first trees, the first lions, the first elephants, the first ants, the first acorns, &c."⁴⁵ Not able to get anywhere, Carlile was left spewing out nihilistic *bon mots* to deflate mankind's spiritual majesty. As he declared from jail in 1823: animals (man included) "I look upon as a fungus springing out of the hot bed of change and corruption which exists on the whole surface of the earth".⁴⁶ Not so much an explanation as a materialist slap in the face.

But within months Carlile saw a better way to push beyond Palmer and Holbach. Mankind's eternity was largely predicated on the eternity of the earth (which, at least in an unchanged form, Holbach was not sure about⁴⁷). The planet's everlasting existence was becoming a major arguing point. Palmer had accepted it. And Carlile was starting to dodge religionists' questions by affirming "that what you call the *world* never did come into existence, because it never was out of existence".⁴⁸ More poetic sources were pointing the same way. Grub Street materialists, armed with Carlile's pirated 1822 edition of Percy Bysshe Shelley's *Queen Mab*—itself indebted to Holbach and Volney—were encouraged by Shelley's concurrence on the "eternal duration of the earth".⁴⁹

Further support was given to eternalism at this moment by the Norwich shoemaker Sampson Arnold Mackey's three-part *Mythological Astronomy of the Ancients Demonstrated* (1822–23), a book that came quaintly tied with cobbler's thread. Mackey was an extraordinary autodidact, influential in Saull's emerging understanding of planetary

44 *Republican* 8 (11 July 1823): 17; (18 July 1823): 52–53; (3 Oct. 1823): 397.

45 Holbach [Meslier] 1826, 17.

46 *Republican* 7 (27 June 1823), 822.

47 Holbach 1 (1820), 89–92, would not rule out the ongoing production of new beings. Nor was man exempted: new planetary conditions will require humans either to change or become extinct.

48 *Republican* 7 (28 Mar. 1823): 400.

49 *Republican* 8 (18 July 1823): 58.

history. Mackey had incarcerated himself in an attic to “penetrate the Mist”, that is, decode the ancient Indian, Persian, Babylonian, and Hebrew texts for their astronomical indications, only to pay for such selfless dedication by ending up penniless in an almshouse. He had reasoned back from Hindu Scriptures only some seven or eight million years, but that was near-eternal enough in Grub Street.⁵⁰ Joscelyn Godwin’s introduction to Mackey, in her *Theosophical Enlightenment*, reveals that Freemasons loved the book, but Mackey spurned them and stubbornly remained in Carlile’s camp. And, while she has Mackey first in London in 1830,⁵¹ secret service reports show that he actually made a trip to the capital in 1828, when Carlile was his constant companion. Carlile arranged for him to lecture in the City on astronomy “on a higher scale than as yet has been known”,⁵² and sold the *Mythological Astronomy* in his shop.⁵³ It was an extraordinary book, equally admired by Saull.

The eternity of the elements and earth was hotly debated while Carlile was incarcerated. A thousand turned up in one Leeds hall to thrash out the subject with Christian protagonists in 1823, only to have magistrates break up the “illegal” meeting.⁵⁴ So, when Carlile heard of an obscure book belabouring the point, not only of planetary eternity but of *human* eternity, he jumped at the chance of putting it back onto the street in cardboard covers. It had been penned forty years earlier by a hotheaded young doctor, George Hoggart Toulmin, in flaming Holbachian fashion. Dr Toulmin, in fact, had sent forth a string of re-vamped editions, starting with *The Antiquity and Duration of the World* (1780), hastily published the year following his medical doctorate at Edinburgh, when he was still only 26. In it, the world’s discordant creation myths were shattered by the world itself: less from the untrustworthy records of ancient civilizations, more from time’s immensity deduced from the rocks. Proofs were piled up: of the depths of cliff-face fossils, of petrified human remains in Gibraltar, the evidence of endless fluctuations of land and sea, of risings and fallings, of oceans as much as civilizations, of alternating warm and cold regions through time (shown by tropical

50 *Republican* 8 (12 Sept. 1823): 296; Mackey 1827 [1822–24], 33, also 201, 238, 263; J. Godwin 1994, 68.

51 J. Godwin 1994, 75.

52 HO 64/11, f. 92 (1828).

53 *Lion* 1 (27 June 1828), 804.

54 *Republican* 7 (25 Apr. 1823): 538.

elephants “transmuted into stone” in Flintshire and crocodile fossils in Derbyshire), and so on. Then there were the umpteen volcanic layers of lava around Etna, interspersed with layers of soil, each known to have taken hundreds of years to accumulate, and the depth of limestone beds, themselves the wrecks of endless empires of shellfish, compacted over the aeons by slow degrees. For Toulmin, climate and life on this age-old earth showed no overall directionality, no irreversibility, no extinction. Continuity, succession and fluctuation marked a self-sustaining system, the result of “laws fixed and immutable”. And as an inseparable part of the planet humans must have had an equally “uniform and infinite existence”. He stated it “without the shadow of hesitation”: all life was timeless. During the planet’s “endless periods of existence”, life had persisted and all the while “the human species evidently must have been present”.⁵⁵ Its population must have continually risen and fallen, as it ceaselessly recycled through phases of barbarism and civilization.

Such views might not have been uncommon in student Edinburgh. Toulmin had been studying in an Enlightenment hot-spot. The cosmopolitan university, the best in Britain, welcomed European students who infused their own Voltairian heresies. The democratic “Friends of the People”, which met in Edinburgh in 1792, sometimes in Freemasons’ halls, clearly had social roots in the 1780s, when mechanics could decry the “*purple and fine linen*” of a wealthy elite living off the back-broken “beast of burden”.⁵⁶ The King’s Birthday Riots of 1792 and plethora of inflammatory handbills speak the same. Even though modern work shows few Freemasons espousing radical views,⁵⁷ we do know that, for example, the ‘Burke and Hare’ anatomist Robert Knox’s father, was a “leading Freemason” in 1780s’ Edinburgh, a Holbachian and a supporter of the Revolution.⁵⁸ And European freemasonry, at least, as Margaret Jacob has shown, had a history of “pantheistic materialism” and contingent links to republicanism.⁵⁹ Anyway, from the heady

55 Toulmin 1854 [1824], 15, 37–38, 71.

56 Brydon 1988, 48, also 131–146 on the Friends and Edinburgh at the centre of Scottish radical activity in the 1790s.

57 M. C. Wallace 2007, 153; Jacob 2019, 124, 126, 134.

58 Lonsdale 1870, 3–4.

59 Jacob 1981, 225. Another fact suggesting that such geological views might not have been uncommon was the Edinburgh savant James Hutton’s *Theory of the Earth* (1795), with its ‘no traces of a beginning, no prospect of an end’ theme. But, crucially, Hutton privileged mankind: as the chosen species, he had made a recent

Holbachian brew bubbling in the student underworld, soapmaker's son George Toulmin had distilled out *human* eternalism, a conclusion which made him so hated, as Roy Porter has shown. Defilers thought the "rack and gibbet" was too good for him.⁶⁰ Like Holbach, Toulmin saw the individual as an unprivileged production of nature, who "follows general and known laws". But, unlike Holbach, who thought the origin of humanity so unfathomable that "it cannot interest us",⁶¹ Toulmin went straight for eternity. Less nuanced than Holbach, and more pointed, he seemed made for the 1820s' tub thumpers.

Antiquity and Duration was "an overt gesture of political radicalism" in geological dress.⁶² It was subsequently modified as *The Antiquity of the World* (1783), then rebranded as *The Eternity of the World* (1785). One final, massive reworking left it as *The Eternity of the Universe* in the revolutionary year 1789, whereupon Toulmin dropped the subject, unsurprisingly, given events across the Channel and the British clampdown.⁶³ Nothing new existed under Toulmin's sun, and there was little new in this puffed-up edition, except that the "*unlimited* existence of the human species" was now foregrounded as if to suggest it had become *the* singular selling point.⁶⁴

Four editions indicated an audience in febrile Enlightenment days, but, given the repressive years subsequently, the books had sunk into obscurity.⁶⁵ Damned as atheistical in their day, the books achieved pariah status among the geological gentry. Pious hammerers had rather stuck to empirical goals and shunned the cosmic question of origins. Such a blinkered attitude among chemists and astronomers had led Carlile to publish his blistering *Address to Men of Science* (1821). Here he called the scientific gentlemen cowards and demanded they come out

appearance on an earth prepared for him, as "the apex of God's creation" (R. S. Porter 1978a, 345). Hutton's intent was diametrically opposed to Toulmin's assault on a "gloomy" theology's "Gothic barbarism and superstition" (Toulmin 1854 [1824], iv).

60 R. S. Porter 1978a, 439; R. S. Porter 1978b.

61 Holbach 1 (1820): 88.

62 R. S. Porter 1978a, 436.

63 Apparently, Toulmin recanted his 'atheism' after the Revolutionary Terror, not that Carlile knew it: R. S. Porter 1978a, 449.

64 Toulmin 1789, 53, also unpaginated second page of the Introduction, 9, 225, 229.

65 A fact commented on by G. F. Richardson 1842, 40, who put it down to Toulmin's scepticism.

as materialists,⁶⁶ an impossible request in a pulpit age, when, as Secord says, “The political authority of science was grounded not in doctrines of matter and natural law ... but in expert knowledge vouchsafed by an ideology of genius and divine inspiration.”⁶⁷ Of course Carlile was whistling in the wind, or simply agitating the apothecaries and mechanics in their struggle against hospital consultants and work-place masters.⁶⁸ Mankind with his immortal soul was hived off as a special case by the scientific gentry (and many a pious fossilist). For them, humans were not amenable to physico-chemical explanations or eternally-operating geological ones. In a word, the devout damned Toulmin’s books for the reason Carlile praised them—because belief in a human eternity on an uncreated earth would strip any divine rationale from the existing scientific and political hegemony.

Toulmin shocked genteel folk in the 1780s as much as geological gentlefolk in the 1820s. The Harley Street geologist Charles Lyell was the epitome of decorum. For him, like almost all his fellows, man was a moral being above geological explanation. Lyell, in the 1820s, knew about Toulmin but could never mention his name in print. Toulmin was a revolutionary wrecker, vandalizing cherished traditions, the geological equivalent of the British troops recently caught desecrating Burmese pagodas for trophies.⁶⁹ For looting Buddhist relics read smashing Christian idols, and it was Toulmin’s brazenness that shocked Lyell. But such vandalism made sense to Carlile. Toulmin’s pre-Revolution saleability and threatening posture meant that his books could have a flourishing afterlife in Carlile’s urban underworld, which targeted such idols. Carlile needed this panegyric on Revolutionary geology for his list.⁷⁰

From his prison cell, Carlile put out feelers for Toulmin’s pantheistic books. They were rare, having been “in a suppressed state for nearly

66 Carlile 1821.

67 J. A. Secord 2000, 312–13.

68 Carlile’s *Address* was penned in the wake of the William Lawrence case (see below), when one radical surgeon did ‘come out’, and suffer for it egregiously. The Lawrence episode could have been Carlile’s catalyst.

69 J. A. Secord 2014, 159; 1997, xxvii; Wennerbom 1999, 43; Shortland and Yeo 1996, 23; K. M. Lyell 1 (1881), 174.

70 His list included Palmer’s *Principles*, and by this point Carlile was also selling the jailed Thomas Davison’s stock of Holbach’s *System of Nature*.

forty years".⁷¹ By February 1824, he had *The Eternity of the Universe*, all but the opening, and correspondents supplied the missing pages after he put out a request for hand-written copies.⁷² In May, he sent his Fleet Street compositors the *Antiquity and Duration of the World*, which they compacted into fifty-four pages, and it still made a fast, titillating read. Carlile proudly put his preface, ostentatiously marked "Dorchester Gaol", to the finished *Antiquity* that September. What appealed was clearly Toulmin's leap, making planet and mankind coeval, which obviated any need for the "phantasmal aid of supernatural power". But it equally reinforced Carlile's steady-state, anti-origin mantra: all superficial changes on the earth's surface are balanced, with subsidence matching mountain building, with strata accumulating at one time and eroding at another, the sea invading here and retreating there, and this for all time. For Carlile, following Palmer and Toulmin, there was no progressive generation of species, no advancing sequence of productions. A balancing equilibrium became the apostle's creed. The earth's "self-regulating power" operated in perpetuity, and no designing God was needed "to superintend its changes".⁷³

The shilling *Antiquity* was already on sale in early October 1824.⁷⁴ The *Eternity of the Universe* was a larger book. It took longer to typeset and only appeared in August 1825. Although costing one and sixpence, it was still "as cheap a book, in point of worth, as was ever published," and recommended for young, uncorrupted minds.⁷⁵ Copies were eventually marked down to sixpence, and the title remained on Carlile's list for years among incendiary works by Paine, Volney, Palmer, and Holbach.⁷⁶ These pressings gave the obscure Toulmin a new exposure, and, for decades, all new printings were based on Carlile's editions, often carrying his preface. In the mid-twenties, they augmented the ideological armoury. Within months of publication, Carlile's imprisoned shopmen were quoting it in their deistic diatribes against anti-infidel

71 Carlile's preface to Toulmin 1854 [1824], vii.

72 *Republican* 9 (27 Feb. 1824): 259–60; 9 (7 May 1824): 605. Either Carlile or his compositor was still unsure of the obscure author, because the call initially went out for "Tailmin", only to be corrected later, *ibid.*, 288.

73 Carlile's preface to Toulmin 1854 [1824], v–vii.

74 *Republican* 10 (8 Oct. 1824): 447.

75 *Republican* 12 (19 Aug. 1825), 224.

76 Carlile's list in *PMG*, 8 Dec. 1832, 640.

preachers.⁷⁷ A copy went into the London Mechanics' Institution library in 1826, not surprisingly, given the radical intake—Saull, Hetherington, and Carlile's shopman James Watson being active members at this time.⁷⁸ The darkling Toulmin suddenly found himself up with the heretical greats in the deists' pantheon. Even "Rule Britannia" was re-vers'd in radical chants to accommodate him:

Nor British heroes lag behind—
 Here Thomas Paine received his birth!
 Himself, an army of his kind,
 And long may Britons boast his worth!
 ...
 Toulmin and Shelley lend their hand,
 And many more deserve applause;
 Sages are rising in this land—
 They rise to teach men Nature's laws!⁷⁹

In 1828, a spy reported that some two or three hundred men and women (Saull included) were still listening to Sunday sermons in one blasphemy chapel on "Toulmin's Duration and Antiquity of the world".⁸⁰ Indeed, into the thirties and beyond, Toulmin could be bought off-the-shelf at the usual radical and co-operative outlets.⁸¹ Not only did the books have a long shelf-life, but eternalism—of the earth, of species, of humans, with no birth and no cessation, no direction, no progression, and "no comprehender, much less Creator"—remained a

⁷⁷ *Newgate Monthly Magazine* 1 (1 May 1825): 418.

⁷⁸ *LMR* 4 (9 Sept. 1826): 313; Anon. 1833, 49. The latter also showed that the LMI held Volney's *Ruins*, (p.32) and works by Voltaire (pp. 16, 32). The scientifically well-stocked library of the LMI gives the lie to the notion that all mechanics' institutions libraries were "frivolous" and full of "fiction", an analysis also challenged by Walker 2013. On the radical strength inside the LMI, see Flexner 2014.

⁷⁹ *Gauntlet* (23 June 1833): 319.

⁸⁰ HO 64/11, f. 85.

⁸¹ At James Eamons's shop in Chichester Place, John Cleave's in Shoe Lane, B. D. Cousins in Duke Street, and many more. It could also be had at the usual shops for seditious prints in other cities, at James Guest's in Birmingham, Joshua Hobson's in Leeds, Abel Heywood's in Manchester, and Thomas Paterson's in Edinburgh. Incredibly, Toulmin was still selling at the time of Saull's death, with Goddard's shop in London's John Street offering a combined edition of Toulmin's and the Rev. Robert Taylor's work for 2s: *Reasoner* 17 (1 Oct. 1854): 223.

potent trend. It was pushed as late as 1837 by Benjamin Powell in his *Bible of Reason*.⁸²

But, as an anti-Creative *geological* stratagem, “eternalism” had become untenable no sooner than it had been published. Even though Carlile, in 1832, was still pushing Toulmin’s books as “the best elementary treatises on this subject”, for showing an “antiquity beyond calculation”,⁸³ his equation of antiquity and eternity was no longer viable. This very year—1832—saw the death of the great Parisian palaeontologist Baron Georges Cuvier, and it was largely his fossil evidence for the rise of life that was already undercutting Toulmin’s eternal balance, even at street level.

Blasphemy, Piracy and the New Science of Origins

...whence, in the first instance came man, and all the other superior animals? Now, most assuredly, they did not drop from the sky, and I need not say, they were not formed by the *Elohim*, or any other mythological gods; it follows, then, that they must have been ushered into existence, by the exalted generative powers of the earth...

A letter writer to Carlile’s new journal, the *Lion* (1828), offering a heretical exegesis of Cuvier’s fossil geology.⁸⁴

Geologists made breathtaking strides in the 1820s. In his definitive *Bursting the Limits of Time*, Martin Rudwick details how, between 1816 and 1825, the “Tertiary” era was established from the upper rocky layers of the earth’s crust.⁸⁵ By then “Primary” and “Secondary” terminology was already common currency among the cognoscenti. The three eras were sequential and housed increasingly “higher” life forms, strange ones at times. The Secondary cliffs of Dorset and Somerset were revealing marine reptiles, ichthyosaurs and plesiosaurs, in the 1820s.⁸⁶ The first huge land living saurians were being disinterred. Nothing alive appeared remotely similar to some of these animals. The

82 B. F. Powell 1837, 2: 1. This started as twopenny numbers published by Hetherington and ended as a triple decker book in 1837–39. It was extracted in *NMW* 2 (16 July 1836): 298; 2 (3 Sept. 1836): 358.

83 Carlile 1832b, 371.

84 *Lion* 1 (6 June 1828): 734.

85 Rudwick 2005, 543.

86 M. A. Taylor 1994.

weirdest was what Baron Georges Cuvier in Paris would call a “ptéro-dactyle”. Its structure was so unfamiliar that it had been a real bone of contention: was the animal bat-like, but with a wing on a single finger, a hairy cross between birds and mammals, or a flying reptile as Cuvier thought?⁸⁷ When another fossil skeleton turned up in Germany in 1824, Cuvier, finishing up the second edition of his magisterial seven-volume *Recherches sur les Ossements Fossiles de Quadrupèdes* (1821–24), called it definitively a reptile.⁸⁸

In these volumes, Cuvier famously described a hundred archaic fossil mammals from the Tertiary beds in Paris. Such a cavalcade astonished the popular press. No fewer than seventy represented “species most assuredly hitherto unknown to naturalists”, and forty of those belonged to new “genera, or a different order of beings from any that now exist, which is quite a different thing!”, said the *Cheap Magazine*’s editor George Miller in his *Popular Philosophy* (1826).⁸⁹ What “is more surprising still”, added Miller, those lost had been replaced on the “busy stage of life”. The directional progress of life, with “lower” forms departing forever and being replaced by “higher” ones, were major breaches in Toulmin’s eternalist dam. The end result was a sequence of fossils that seemed to show a trend “upwards”. Given romantic assumptions, unquestioned and uncontroversial, of man as the apotheosis, the “highest” type of life,⁹⁰ this series of forerunner animals could be seen progressing, aspiring, pushing or being pushed higher, until humans were created. Life had appeared as invertebrates and fish in the lower (and older) rocks, reptiles in the middle (Secondary) strata, and then archaic mammals as the Tertiary opened.

Of course, this new geology was arcane knowledge, buried away in learned journals or the chatter of expensive societies. Inaccessibility meant it made little impact in blasphemy circles to start with. Indeed, the fossil specifics were never of interest to most ideologues, except

87 As *Ornithocephalus*, it was already being described in the Edinburgh professor Robert Jameson’s 1822 translation of Cuvier’s introduction to *Ossements Fossiles*, which Carlyle’s shopmen were known to be reading.

88 Taquet and Padian 2004.

89 G. Miller 1 (1826): 295. On the Victorians questioning whether extinction was still occurring, see Cowles 2013; Urry 2021.

90 For the tangled relationship between biological and social progress, and their morally-loaded effects in ‘natural’ ranking, manifesting in ‘higher’ and ‘lower’ beings, see Ruse 1996, Bowler 2021.

Saull. But the tenor of Cuvier's argument *did* permeate the underworld in the later 1820s, albeit arriving through indigenous, pirated, and more trusted channels.

That old doyen of radical studies, Simon Maccoby, once speculated that Cuvier's mention of a deluge as the destroyer of the old world was a reason "why the 'infidelity' of the streets was not yet using geological arguments in 1830".⁹¹ Maccoby's reasoning was this. For Cuvier, the successive rock layers indicated the arrival of new environments—he called the turnover 'revolutions'—each complete with new species. And because Cuvier's last revolution, which he himself thought of as some local marine invasion, was associated so strongly in Britain with the biblical Flood,⁹² it was unusable by radicals. But access to a wider range of subversive prints shows that some activists *were* using Cuvier as a cannonade. In fact, Carlile's imprisoned assistants in 1825 were quite able to extricate Cuvier's last revolution from Mosaic explanations. In contrast to the Flood of the "christian geologists", the Newgate-jailed infidels noted that Cuvier spoke "of the small number of individuals of men and other animals that escaped from the effects of that great revolution", so it was no universal inundation. Moreover, the strata were not jumbled higgledy-piggledy, as the detritus of a ravaging Flood, but lain in regular succession. This was evident, they said, quoting Toulmin, from the fossil creatures seeming "to be in the places where they have been generated, lived, and died". Fossil oysters and cockles were "deposited with as much regularity as beds of living shell-fish are in any part of the sea".⁹³

But activists really only took up Cuvier when he was introduced by an accredited source, that is, a blasphemous hero. Trust played as big a role at the bottom of the heap as the top, where it has been brilliantly depicted in Steven Shapin's *Social History of Truth*. For the thinking dispossessed, credibility was a key issue, and Carlile's practical maxim, 'my enemy's enemy is my friend', served to assess it. Just as Shapin's gentlemen relocated "conventions, codes, and values of gentlemanly

91 Maccoby 1955, 459–60.

92 Because of Jameson's commentary on Cuvier's introduction to *Ossements Fossiles*, which he titled "Theory of the Earth": Rudwick 2008, ch. 6; 2005, 556; 1972, 111–112, 133–35. On Jameson's intent on rendering his translation palatable to Edinburgh's Presbyterians: Dawson 2016, 48–54.

93 *Newgate Monthly Magazine* 1 (1 May 1825): 420–21.

conversation" into their philosophy,⁹⁴ so 1820s' infidels no less enhanced the dissident values in their swiped science. This took on the mantle of 'truth' in their tight-knit community because it was shared, soothing, and justified their rebellious action. Originally, Carlileans paid scant attention to the notices of bizarre reptiles and cave faunas that were beginning to figure in the proliferating trade journals. Many of these were, admittedly, second-hand press cuttings, no more. They might have been yearly round-ups of scientific snippets in the *Arcana of Science and Art* or an occasional report of the giant reptile *Iguanodon* from Tilgate Forest or of cave hyaenas found in Kirkdale.⁹⁵ These clippings focussed mostly on the odd and dramatic antediluvian finds guaranteed to awe. Typical were "Footsteps Before the Flood" (supposed tortoise tracks in ancient sandstone), vertebrae equal to the circumference of a human body, fossil lizards projected at 150 feet long, or fossil possums turning up in the Paris beds⁹⁶. Tantalizing titbits, but their innocuous usage left them unnoticed by anti-Christian activists. What really swayed radicals was the imprimatur of the condemned. These were safe and sure sources, and the first to be exploited was Lord Byron.

Byron's poetic work *Cain* (1821) had been savaged by reviewers, who cried 'blasphemy'. As a result, the respectable publisher John Murray could not legally protect it from piracy, because blasphemous works were not copyrightable. The result was a plethora of pirate editions flooding the market. London's radical presses rushed to outdo one another. They were egged on by the knowledge that the King hated *Cain*, which Carlile thought a higher honour for Byron than a peerage.⁹⁷ Carlile, with his "dismally utilitarian" tastes,⁹⁸ cared little for poetry and less for Lord Byron, except as an irritant gnat on the Vice Society's rump. And the

94 Shapin 1994, xvii.

95 E.g. *Arcana of Science and Art* 1 (1828): 136–39; *Register of the Arts and Sciences* 2 (25 Dec. 1824): 142–43; *Gill's Technological Repository* 4 (1829): 189–90; *London Journal of Arts and Sciences* 5 (1823): 118; 9 (1825): 212–13; *LMR* 1 (18 Dec. 1824): 104–05; also 1 (12 Mar. 1825): 313; 4 (15 July 1826): 182, for cave fossils mentioned in George Ogg's lectures on geology at the LMI (which Saull attended in 1826, see Appendix 1).

96 *Arcana of Science and Art* 1 (1828): 105, 138; 2 (1829): 191–92; *MM* 9 (2 Feb. 1828): 15; *London Journal of Arts and Sciences* 2nd ser. 1 (1828): 53–54.

97 *Republican* 5 (8 Feb. 1822): 192. Wiener 1983, 62; Wickwar 1928, 269–70. Johns 2010 on piracy's long and unrespectable history.

98 Rose 2002, 35.

calls for Byron's prosecution were enough to have Carlile and the equally notorious blasphemy publisher William Benbow (who financed his own activism by selling pornographic prints⁹⁹) competing to get copies out. The militant Benbow, a former shoemaker, was first away, as he always was with anything offensive to refined noses. His pirate edition in 1822 sold for 1s 6d. Pipped by his rival, Carlile undercut the price, pushing out a double-columned, small-type, sixpenny pamphlet later in April 1822.¹⁰⁰ By 1826, a fusillade of pirate editions had hit the stands. No fewer than five were jostling for place in the bookshops. "Poetry as cannon-shot", one press historian called it.¹⁰¹ The piracy was designed to push their offended lordships into prosecuting one of their own, to widen the front. But what it actually did was push Cuvier to the fore.¹⁰²

Cain had not merely mooted the immensity of time in Cuvier's lost worlds, it actually fingered Cuvier as the inspiration in the short preface. And, outrageously, it put the gory talk of the successively wrecked and remade planet, "before the creation of man", into the mouth of Lucifer. Satan flew back through misty time to expose a wide-eyed Cain to "The phantasm" of ancient worlds, "of which thy world Is but the wreck." Death had laid waste the empires of ancient life and rendered the "Mighty Pre-Adamites" so much mouldering clay, from which man might arise.¹⁰³ The "Mighty" included lost races of men no less than beasts—pushing poetic licence to its limit. It was as if Cuvier had spoken through Lucifer, and his beguiling portrayal appalled Byron's friends and foes alike. Cuvier's "desolating" conclusions caused a "deadly chill", infecting those who would otherwise "trouble their heads but little about Cuvier".¹⁰⁴ That alone raised Cuvier's stock among Carlile's circle, which happily endorsed *Cain's* "ponderous blow at superstition".¹⁰⁵

Byron had let the fossil cat out of the bag. *Cain* cast a rather glum eye on past immensities, as life fought through successive worlds on its way

99 McCalman 1984; 1988, 155–70, 205–12.

100 *Republican* 5 (15 Mar. 1822): 342–43; on sale: 5 (5 Apr. 1822): 448; reprinted, 6 (14 June 1822): 96.

101 Wickwar 1928, 259, 272; McCalman 1988, 211. The rival editions were Benbow 1822, Carlile 1822, H. Gray 1822, B. Johnson 1823, W. Dugdale 1826, while Benbow published a new edition in 1824.

102 O'Connor 2008, 104.

103 Byron 1822, vi–vii, 35, 49.

104 T. Moore 1854, 5: 321–22.

105 *Republican* 5 (8 Feb. 1822): 192.

to the present. No one could now avoid Cuvier, gloated a correspondent in Carlile's *Republican*: "Cuvier who hath re-engraved and illumed the illegible tablets of time, whose characters had been erased and darkened by the destructive hand and Cimmerian gloom of oblivion".¹⁰⁶

Yet Byron was only a part of the piratical endorsement of Cuvier. The surgeon William Lawrence sat equally (and uncomfortably) in the radical spotlight. His was a carbon-copy case: a loss of copyright with a torrent of pirate editions, all appearing within weeks of *Cain*. Lawrence was the new professor of anatomy and surgery at the Royal College of Surgeons. But, in his first course, published as *Lectures on Physiology, Zoology, and the Natural History of Man* (1819), he had rashly excoriated his teachers for clinging to a belief that life depended on a divine vivifying power—that matter was animated by a vital principle, just as a soul animated man, and that such things must be publicly known to keep society "virtuous".¹⁰⁷ For Lawrence, life was a function of organization. It was an emergent property, appearing naturally, and needed no other explanation than the laws of physics and chemistry. But this was an inopportune moment to express materialist views, embedded in lectures which chafed at religious creeds and underscored republicanism. Within months, the Peterloo 'massacre' showed the authorities' intolerance, as 60,000 protesters were cut down by Huzzars in St Peter's Fields in Manchester, leaving eleven dead. Amid the heightened tension, Lawrence was slammed as socially irresponsible. With no soul, and no future rewards or punishments to keep the masses in check, what was to stop them from revolting? The Tory *Quarterly Review* revealed its cynical view of these "masses": unchecked, the effects of Lawrence's teachings would be "to break down the best and holiest sanctions of moral obligation, and to give a free rein to the worst passions of the human heart".¹⁰⁸ Lawrence found his motives questioned, by the imputation that he was removing social restraints. Even worse were his flippant protests, that the soul cannot be found "amid the blood and filth of the dissecting-room" and that no vital

¹⁰⁶ *Republican* 11 (11 Feb. 1825): 163.

¹⁰⁷ Lawrence 1822, 4–10.

¹⁰⁸ [D'Oyly] 1819, 33.

spark can “impose a restraint upon vice stronger than Bow Street or the Old Bailey can apply.”¹⁰⁹

Lawrence was suspended from his post at the Bridewell and Bethlem hospitals and had to recant before the governor.¹¹⁰ The *Quarterly* demanded his sacking from the College of Surgeons. It was all too much for Lawrence. He expediently withdrew his *Lectures* from sale and, in 1822, sought an injunction to stop the book being pirated. But the *Lectures*, being blasphemous, was refused copyright in the Court of Chancery.¹¹¹ With that, the pirate presses saw his compendious natural history of man as up for grabs.

Benbow again competed with Carlile. Lawrence is “coming out in all sizes and at all prices”, said Carlile in April 1822, within days of his *Cain* appearing. His own octavo 3*d* sheets of the *Lectures* went on sale on 12 April 1822. They joined three other editions in 1822 alone: the J. Smith edition being run off down the road at 163 Strand; Benbow’s smaller type octavo at 4*d* a sheet; and Griffin’s in tiny duodecimo for 4*d*, word-for-word the best value. Faced with that, Carlile promised that “If the demand be so great as is expected”, he would “print a very small edition in the cheapest and most compact form” to undercut the lot.¹¹² But Carlile’s main selling point was that his edition also included Lawrence’s 1816 lectures, besides those of 1817–1818 found in Smith’s and Benbow’s editions. Carlile’s book was fatter.

With that, Lawrence’s *Lectures* became another radical bible, henceforth to be found on every unrespectable bookshelf (and some respectable ones: even Charles Darwin owned a Benbow edition in boards¹¹³). Spies relayed how the book was occasionally read from an anti-Christian podium, “as the lesson for the evening”, before

109 Lawrence 1822, 4–10; Jacyna 1983a explains Lawrence’s College teachers’ vested interest in upholding John Hunter’s vitalist views.

110 W. Lawrence to Sir R. G. Glynn, 16 April “1832” [i.e. 1822], Royal College of Surgeons MS Add. 194. The letter was published alongside Galileo’s recantation in *Republican* 6 (2 Aug. 1822): 317; Epstein 1994, 127–8; C. W. Brook 1943, 26–34. Lawrence’s retraction, however, did not stop him from subsequently penning anonymous leaders in the *Lancet* denouncing the nepotistic elite at the College of Surgeons (Desmond 1989, 117–21).

111 *Republican* 5 (26 Apr. 1822): 538–39. Lawrence praised the “greater courage” of William Hone, himself prosecuted for his Lord’s Prayer satires (Temkin 1977, 357).

112 *Republican* 5 (12 Apr. 1822): 465; (26 Apr. 1822): 538. Goodfield-Toulmin 1969, 307–08.

113 Desmond and Moore 1991, 260.

a blasphemy lecture.¹¹⁴ Lawrence's stature accordingly rose in the underworld as it sank above. He was treated as an unimpeachable authority. Saull, for example, when challenging his own vicar, quoted Lawrence on the absurdity of "Jewish Scriptures" in the light of modern geology or astronomy.¹¹⁵

Lawrence was one of those rare surgeons *au fait* with Continental science. French, German, and Italian sources littered his work, but it left him in the wake of Waterloo being portrayed as a turncoat. By not supporting Britannia's backwards view of immaterial vitalism and 'design' justifications of Creation, he was being unpatriotic. But then he *had* seen it as his mission to drag Britain into the modern world, and, as such, he had given the French savants their due. His *Lectures* acknowledged the turnover of fossil species, with new replacing old, of ancient rocks housing extinct types, of alternating strata laid down in fresh and salt water "indicating successive revolutions in the earth's surface". The image was one of advancing "approximation to our present species". The labours "of CUVIER, BRONGNIART, and LAMARCK, in France" had taken us beyond "the reach of history and tradition". Even more, they gave ground for "curious speculation respecting the extinct races of animals and the mode in which their place has been supplied by the actual species of living beings". In short, Cuvier was being "highly extolled" in a trustworthy source.¹¹⁶

French fossil zoology thus threw new grist into the freethought mill. After the mid-1820s, it was becoming difficult to admit that species were eternal. Long letters in Carlile's *Republican* took to arguing the point. In 1826, one saw Carlile's periodical as probably the last refuge of the "eternity of man ... advocates". The logic of eternal elements meaning eternal animals was finding fewer supporters, with geologists now showing that waves of rearrangement, extinction, and reconstruction had led to the progression of ancient life. Today's humans, one disputant said, would actually have found the earth uninhabitable when the early rocks were forming. And the new anti-Christian logic suggested that,

114 HO 64/12, f. 180 (27 Nov. 1832). This records a reading of Lawrence on humans existing "without the assistance of a first cause as the Superstitious Nonsense of the Clergy dictate", preceding J. E. Smith's "Antichrist" lecture at the Rotunda.

115 Saull 1828a, 10.

116 *Lion* 2 (4 July 1828): 30; Lawrence 1822, 5, 46, 48–49.

when man finally appeared, "he must have descended from some stock that had lately been formed from the energies of nature".¹¹⁷

The *Republican* folded in 1826, and by the time Carlile started up the *Lion* (January 1828) the tide had turned. Life's rise was the chatter in infidel chapels and coffee rooms before a Sabbath lecture. Orators would parade the growth from early "imperfect" life to today's creatures to show "that nature is progressive in the bodily as well as in the mental formation".¹¹⁸ Cuvier's authority was accepted as recording life's gradual ascent. The first fishes were succeeded by "improved" amphibians and reptiles which had exclusive occupancy "for a considerable period", whence the dry land saw the birds and mammals emerge, "till, at last, the earth, by an effort or change, surpassing all his former ones, produced man". That said, these nihilistic republicans still believed that today's humans probably only constituted "a first and imperfect attempt towards the production of a class of rational beings."¹¹⁹

Quite technical matter entered the *Lion's* pages. In 1829, Carlile cribbed a piece from one of the City's newer literary papers, the *London Weekly Review*, analyzing the findings of the rising 28-year-old French fossil botanist Adolphe Brongniart (who was to become the professor of botany at Paris Muséum d'Histoire Naturelle in 1833 and a Saull correspondent). It depicted in detail the earth's successive botanical "epochs" between the ancient ferns and modern flowing plants,¹²⁰ and correlated each with temperature changes and the peculiar animal life at the time. The latter was, of course, the discovery of Cuvier, Brongniart's colleague. What is telling is that most of the talk in Carlile's journal remained about Cuvier's mammal fossils. By and large, any discussion of English plesiosaurs and ichthyosaurs filtered back from these French sources. With Byron's and Lawrence's indicted imprimatur, only Cuvier was really trusted.

117 *Republican* 14 (11 Aug. 1826): 152.

118 *Lion* 2 (14 Nov. 1828): 614–15. This was a talk in the City Chapel in "wretched Grub-street", Cripplegate, delivered on 12 October 1828, possibly by Saull himself (see below).

119 *Lion* 1 (6 June 1828): 731–32. Carlile ran Roland Detrosier's address to the Banksian Society in Manchester (*Lion* 3 [23 Jan. 1829]: 103–12, esp. 109; Detrosier 1840 [1829]), which lauded Cuvier and his ninety fossil mammals unknown to modern naturalists, most of which seemed to have died out as "the result of constant but slowly operating causes," rather than by the biblical deluge.

120 *Lion* 3 (6 Feb. 1829): 171–73.

The Cuvierian muses not only affected Byron. By 1829, they influenced the other end of social scale, far from his Lordship's lofty heights. Street poets embraced extinction and emergence, particularly the first emergence of people to shape Heaven in earth's image. Carlile notoriously included verses of any quality in his journals. It did not matter how salt-of-the-earth they were, the operative was anti-Christian impact. Street poets now stretched out Cuvier's successive changes and saw drama in the ecological immensities. One portrayed the "myriads of years" as the earth was racked, ruined, and reformed, and at each turn "Its creatures, too, with ev'ry race / More comely-fashion'd grew".¹²¹ Until, at last,

My vision chang'd, I seem'd to stand
 Amid a swarthy throng:
 Wond'ring they gaz'd on ev'ry hand,
 Upon themselves, the waves, the land,
 But silence chain'd each tongue.
 Full long and ardently they view'd
 Whatever met their ken,
 But on themselves with sighs subdued,
 They gaz'd in wonder's deepest mood,
 They were the earth's first men!

Mute, instinct-driven, swarthy humans, the first of their kind, were entering the sacrilegious imagination, just as Saull was starting to ponder life's origins.

For many ideologues, geology's excitement lay in its confrontational value. Carlile was never particularly interested in the geological niceties, so much as their exposure of time's immensity. In the face of clerical hauteur, this could have a real nihilistic impact. As he typically put it, "the astounding revolutions, that, from time to time, occur on the earth's surface, [throw] the whole of human history into the shade of insignificancy, and [reduce] the conceit of man to animalcular importance".¹²² If the clergy found this irksome, scriptural literalists could be goaded further by pointing out that death entered the world before Adam's sin. Cuvier's strange animals were obviously only known from their long dead and petrified remains. The deep strata

¹²¹ *Lion* 4 (20 Nov. 1829): 650–51.

¹²² Carlile 1832b.

interring them were ancient graveyards, the subterranean world itself a mausoleum. Such life, entombed before mankind's appearance, could be used to refute the biblical assumption that "*by one man sin entered into THE WORLD*" and that the wages of Adam's sin was death. With so many pulpits denying "that death was known till sin introduced it", Cuvier's fossils became attractive for the anti-clerical armoury. To biblical exegetes, the notion of suffering and death preceding man's fall was "inconsistent with all our views of the Divine perfections" and "would involve a dangerous concession ... as it implies that God was the author of natural evil in a world free from moral corruption." As such, an immensity of time when no "immortal" inhabitants existed to adore their Creator was incomprehensible to many.¹²³

Carlile himself began half-heartedly exploiting Cuvier's evidence, twisting and turning it to his own anti-religious ends in a way that would have horrified *le baron* (Cuvier himself abhorred Lamarck's atheistic 'evolution'). For example, Carlile took a cutting on deep time from the fledgling but failing Tory paper, the *Representative*. The image it portrayed of the past was now pretty stock. First, a few plants of doubtful character, then tell-tale sea-shells and trilobites in beds just above; further up (and nearer us in time) came fishes, then lizard-like reptiles, and ultimately mammals. The fossils lay

buried in beds that overlie each other, nearly in the order above detailed, and between beds or strata are generally found others which do not contain any fossil remains, and which mark the flux of considerable intervals of time in the process of their extinction.

Carlile realized that this defied any scriptural gloss on Cuvier: geology had revealed that each rock stratum

was once its surface, and that one deluge [that is, the Biblical Flood] will not account for the great number of strata that are found. The succession of vegetables and animals explain the same conclusion, and all unite ... to overthrow that nonsense called religion.¹²⁴

123 Biddulph 1 (1825): 126–29. Liberal exegetics might get round these geological conundrums. As a writer to the *Christian Observer* (24 Feb. 1829, 91–96) guessed, perhaps "the secondary strata may really have been deposited subsequently to the creation of man," or that death did not refer to any 'lower' creature, and only *mankind* was marked for death by Adam's transgression.

124 *Republican* 13 (24 Feb. 1826): 256.

Dragooned by the atheists, Cuvier's views, distorted and distended, proved so useful that he eventually acquired almost heroic status in blasphemy circles. How else are we to explain why, on his death in 1832, his French *éloge* was appropriated and run amid the anti-clerical and republican rants in the illegal rags of the day, the *Isis*, *Cosmopolite*, *Poor Man's Guardian*, and so on?¹²⁵

It was becoming apparent that, even if the universe was uncaused and self-existent, fossil life was not. With Toulmin out of the way on this point, the question of origins became paramount. Clerical protagonists, of course, had a ready-made solution. One, moreover, that anti-infidel preachers were ready to throw in deist faces, by challenging them to say where but in the Bible could you find an explanation for the origin of man? It was all very well the blasphemy bards waxing lyrical about the "earth's yet open womb" producing "More comely-fashion'd creatures".¹²⁶ The question was, how?

* * *

For Carlile's deists and materialists, power lay inside nature, not outside in the hands of God. And gone was the notion of matter-in-motion causing all change; now matter itself was invested with immanent qualities. We see this already in Palmer's *Principles of Nature*. For Palmer, "dead matter" was an absurdity, "all is alive, all is active and energetic"—one could not "conceive of matter without power, or of power without matter." Saull would himself articulate this atheistic vision: there is "no power *superior* to that of matter", he would say.¹²⁷ Belief in such a nature provided Saull's Carlileans with their moral high ground. They claimed for it the status of true morality because it rested on non-idolatrous foundations.

Like their Enlightenment heroes, the 1820s' materialists were intent on liberating the mind from superstition, the body from clerical

¹²⁵ *Isis* 1 (1 Sept. 1832): 455–56; *Cosmopolite*, 8 Sept. 1832; *PMG*, 7 Mar. 1835, 454.

Cuvier was still being extolled in the *New Moral World* in 1838: *NMW* 4 (17 Feb.

1838): 129–30. There was a vastly different image of Cuvier from that portrayed in respectable English journals, where he was co-opted as a conservative supporter of natural theology.

¹²⁶ *Lion* 4 (20 Nov. 1829): 650–51; *Republican* 8 (18 July 1823): 52.

¹²⁷ *Inventors' Advocate* 2 (11 Apr. 1840): 237; Palmer 1823, iv, 182, 184.

authority, and the people from kingly subservience. Not that their prime source, Holbach, was himself a real republican. He wanted wise, benevolent government and a monarch in harness, and argued that a materialist nature would teach princes that “they are men and not gods; that their power is only derived from the consent of other men.”¹²⁸ But an innately-powered nature, driven from below, sat comfortably with the 1820s’ radical ideal of people as sovereign atoms and the sole source of power, and it was equally useful to Carlile, himself no democrat, as a stick to beat the priests.

One corollary of this energetic nature was the resurgent notion of animate or living atoms. Not merely living but intelligent: thinking and awareness are widely manifested in nature, said a letter writer, so why not give matter “all those fantastical qualities” usually associated with souls and spirits?¹²⁹ Energetic matter, by assuming the old spiritual powers, was consequently believed to be capable of self-development. So, after Cuvier’s revelations, the materialists were ready to look into nature itself to explain the production of new species through geological time.

Another letter writer in the *Lion* leapt even further: from animate atoms to an animate earth. This was specifically to accommodate Cuvier, for such an earth could intelligently arrange the generation of his successively ‘higher’ life forms. And Palmer’s language, of the planet’s *exertions*, an attribute of living things, only encouraged this sort of deduction. The earth possessed its own “exalted generative powers”. The analogy between the rising perfection of life and advancing human mind showed that over-arching nature was no “blind power”. The language was one of energetic consciousness. Nature would always “endeavour to improve, in consequence of former experience”, and work “up its productions to current perfection”. Such Schelling-like Romantic pantheism suggested that the earth itself “possesses the power of cogitation”. “Every improvement or advancement” reflects the workings of “mind or experience”. Intelligence was baked in at global level, life aiming, not at any godhead or attempting to become aware of itself, but at perfection. The object of mindful agency, ‘design’, was creeping in through the materialist back door. Nor would progress

128 Holbach 1 (1820): 109.

129 *Republican* 7 (25 Apr. 1823): 535.

end here. Perhaps the planet would see the obliquity of its axis become perpendicular (millenarian astronomy was never far away), when life would “co-order” itself to the changing winds and currents and reach a “more perfect harmony”. Carlile had little time for the romantic twaddle of millenarian geology with its striving for perfection, and many readers had even less. But such efforts illustrate the accommodations being made by the later twenties to a life rising “through gradations of improvement”.¹³⁰ *The Republican* and *Lion* were surely obligatory reading in Saull’s house. He was, after all, Carlile’s benefactor and published in the former (Appendix 1). Saull would have seen in these sixpenny street prints the subject of origins openly broached as an attractive part of an anti-Christian polemic. And, as Saull moved into Robert Owen’s co-operative camp, with its emphasis on the perfectibility of man, he must have sensed how the new perfectible nature fitted his new political creed (Chapter 5).

Saull’s comrades knew that Cuvier petrified some anti-infidel writers. And Carlile’s scurrility and piracy was goading the less tolerant literalists into action. It is no coincidence that the scriptural extremists rose to prominence in the late twenties and early thirties, ignoring the more moderate evangelicals who “took a lively and on the whole constructive attitude to geology”.¹³¹ The “*great Armageddon* of infidelity seems rapidly to approach,” heralded by this Satanic street geology, said one fulminating literalist. Cuvier and his “sorry warriors” were eroding our religious “mountain that standeth strong”, and with it the faith that “is the pillar of our security”. Such seditious science wants to carry us back beyond that “described in the Sacred History; and, with unauthorized effrontery, [it] presents us with a series of revolutions which have no foundation, whatever, in truth”. The anti-Christian “warriors” in Cuvier’s wake were pushing further, looking to the fossil strata for evidence of the “the progressive developement of organic life” and the rise of ever-more-perfect races.¹³² But, the more anti-infidels

130 *Lion* 1 (6 June 1828): 731–34, 823; 2 (4 July 1828): 29–31.

131 Hilton 1988, 149. Fyfe 2004 on how cheap science and the suspect printing presses could threaten the faith of ordinary evangelicals, and how religious tracts responded to re-emphasize Revelation.

132 [Murray] 1831, xiii–xv, 22–23.

decried Cuvier's "nonsense", the more Saull with his Carlilean preconceptions and interest in geology saw the destructive potential.

Cuvier had vouched that there were no human fossils.¹³³ This suggested that "our species, comparatively speaking, is of a very recent origin", a fact now acknowledged by the infidels.¹³⁴ Man was the last, and most improved, animal to debut. Still, that mankind had a beginning, for Carlile, offered no support to the idea of "a revelation having been made to him"¹³⁵, or that he was a divine creation. But that finite origin, thrown up by the new temporal, sequenced science, was pushing Saull's deists to seek a rational explanation.

How Did Nature's Energetic Power Manifest?

Off-the-shelf solutions to the problem did exist but were not without their pitfalls. The Tory reviews of seditious trash revealed them with their pillory. Readers of the *Quarterly Review* loved to be incensed by the insane ravings of Enlightenment 'Frenchies'. English geologists were a gated community of sensible gentlemen who could be trusted not to rock the boat. They abjured all talk of origins as the abode of scoundrels. Not so the Gallic enemy who outrageously dabbled in such

133 In this, he was supported by reconcilers like F. J. Francis (1839, 156) at the Marylebone, Western, and Richmond Literary and Scientific Institutions, who denied nature's "self-origination" and scrubbed fossil geology clean using Thomas Chalmers's *On Natural Theology* (1835). However, new human skeletons were coming to light. The "Red Lady" of Paviland Cave, discovered by William Buckland in 1823, was assumed to be of recent origin, despite being associated with extinct mammals and chipped flints (Rudwick 2008, 77–79; Grayson 1983, 65–66; Riper 1993, 60). Another contender, the celebrated Guadeloupe skull-less skeleton embedded in a limestone block, had been placed in the British Museum as a Napoleonic war trophy. This, too, was thought of modern origin, though not by its original describer (Konig 1814), ironically. The literalist John Murray in *Truth of Revelation* (1831), who had examined it in the museum, thought the skeleton's fossilized nature should not be dismissed. By contrast, the *Christian Observer* insisted on its modernity (*Christian Observer* 34 [Aug. 1834]: 490; Rudwick 2005, 592; Grayson 1983, 95–97). Sir Richard Phillips calculated the chances against finding human fossils as astronomic. Given that the strata might be half a mile deep and the earth's surface 200 million square miles, he estimated statistically (he loved this sort of thing) that it would take 500 million bore holes to turn up another Guadeloupe "relique". Still, he thought that geologists should keep on looking for fossil humans (R. Phillips 1832a, 52–53).

134 *Lion* 2 (4 July 1828): 30; 1 (6 June 1828): 732; (27 June 1828): 806.

135 *Republican* 8 (11 July 1823): 17.

speculations. The *Review* pointed its finger at the “fooleries” of the French Consul General in Egypt a century earlier, Benoit de Maillet, who postulated our fish origins in a drying ocean. This had taken place over two billion years, a timespan so exorbitant that it was even toned down by de Maillet’s editor to “millions”, to make it more palatable.¹³⁶ The resulting posthumous and editorially-mangled *Telliamed*—De Maillet backwards—published in 1748, mixed sensible observations (the laying down of sedimentary rocks by the retreating sea) with what proved to be palpable absurdities (our fish ancestry being evidenced by mermen). The latter became the pretext for his scientific mauling. In an English gentleman’s hands, science “lends no countenance to such insane and visionary ‘theories’”. The subversive notion of life’s “‘self-creating energies’ [is] not less ridiculous than that of Demaillet and his mermaids”.¹³⁷

Portraying geology in the squire’s hands as safe and De Maillet as deranged would have flagged him up to the deists, for whom a “self-creating” nature was now a given. Carlile admitted in 1824 that *Telliamed* was “the most interesting book I have read upon the subject”.¹³⁸ De Maillet had actually been an astute observer and privy to esoteric Arab sources and legends, but merely mooting his fables of tailed mermen brought hoots of derision from readers of the *Republican*. Not “so much a fool as a Madman”, wrote one. The critical reader continued: Carlile follows De Maillet and now makes us “the offspring of a Fish or some Amphibious Animal. I really pity the Man [Carlile], if his long Imprisonment has been the Cause of his Derangement.”¹³⁹ Much of *Telliamed* would have appealed ordinarily—but for the mermaids. On the mermaids, at least, anti-infidels and anti-Christians could concur. That the human “began his career as a fish”, or “for aught [De Maillet] defines to the contrary, an oyster or a cockle” was a “monstrous idea” to Christians, and obviously some *Republican* readers. To cap this, Carlile’s warriors were now using Cuvier’s and De Maillet’s “arithmetic of infinities” to stretch the

136 Rudwick 2005, 129; Grayson 1983, 31.

137 *Quarterly Review* 27 (June 1822): 459–61.

138 *Republican* 10 (12 Nov. 1824): 592–93; Carlile’s preface to Toulmin 1854 [1824], v.

139 *Republican* 11 (3 June 1825): 687; on De Maillet’s life: [De Maillet] 1755, “Vie” 1–23. Mermaids fabricated in Japan were still being exhibited in London’s tawdrier showrooms in the 1820s (Ritvo 1997, 178–80).

“six demiurgic days ... by the touch of this necromantic talisman” into millions of years.¹⁴⁰

Not least is this interesting because it shows what was accessible on the street. While Pietro Corsi has singled out the “surprising” survival of De Maillet in continental geological literature into the nineteenth century,¹⁴¹ it is no more of a surprise that his book surfaced on Britain’s streets. While the French transformist Lamarck was relatively unknown in the 1820s, *Telliamed*, it seems, was accessible. It is not known whether Carlile was using an English edition or the American (1797) based on it. But that these were available is shown by old copies surfacing: for example, a second-hand *Telliamed* advertised for a shilling in a later *Reasoner*.¹⁴²

Still the question had not been answered: *how* had prehistoric life appeared sequentially? *Telliamed* and the other Enlightenment authorities fixed on spontaneous generation.¹⁴³ This had an obvious attraction. Fundamental active, or living, particles provided a perfect democratic metaphor. They were self-organizing, self-willed, and in control of their own destiny—a natural legitimation of the right of ‘social atoms’ to better themselves through collective action. A shared social/biological lexicon reinforced the belief that nature was on the deists’ side. The obstetrician James Watson mooted life rising through “the elements of matter in combination and by co-operative properties and powers”.¹⁴⁴ Not for them the traditionalist argument that man and nature were subject to Divine edict, a sort of legislative command from ‘above’. Kings might claim their authority from it, and priests their power, but an upstart nature was revolting. Power for the deists lay

140 Murray 1831, 22.

141 Corsi 2005, 75.

142 *Reasoner* 9 (1 May 1850): 47.

143 *Republican* 9 (28 May 1824): 688–89 for Carlile’s musings on the subject. Spontaneous or “equivocal generation” implied chance, and that tarred it in traditional eyes as materialistic and atheistic: Roe 1983, 171–72; Farley 1972, 1977; Desmond 1989, 70. This Enlightenment faith in species, indeed faunas, arising ‘spontaneously’ would ultimately settle into some sort of scientific respectability (in Germany anyway) as the theory of ‘autochthons’—“sprung from the earth”—to explain the new ecosystems emerging after each geological revolution (Rupke 2005).

144 *Republican* 8 (15 Aug. 1823): 174. “I call myself a Social Atom—a small speck on the surface of society”, an old foot soldier for democracy began his autobiography: W. E. Adams 1903, 1: xiii.

'below', with atoms as with people, uniting and co-operating. Rotting flesh served to show the regenerative properties and self-organizing ability of 'inanimate' matter as it brought forth tiny life. Carlile's jailed shop assistants rebutted Volney's religious critics, who made the atomic self-assembly of a human a laughingstock:

how is it, that from a piece of putrified [*sic*] meat, thousands of animated, organized beings proceed? If the corruption of a piece of meat can do this before your eyes and you cannot account for it but by heat, acting on certain particles, why deny the power of unintelligent matter?¹⁴⁵

But Carlile himself, discussing the 'spontaneous' appearance of intestinal worms, thought this example of little consequence: whether from egg or atoms, this only explained the appearance of individuals, not new races. Nevertheless, when it came to species, materialists could agree that, somehow, combinations of matter *had* originally made new ones, even humans, and would again under the same conditions.¹⁴⁶ But the question of *how* remained unanswered.

In the mechanics' literature, the 'vitality of matter' issue was heating up in the late 1820s. The question was whether the principle of life was a divine gift, or "whether each particle possesses inherent powers of life in its separate state, and thus spontaneously arises from decaying forms to engage in new scenes of activity."¹⁴⁷ Evidence for self-organizing vital particles was filtering in from France, where it was favoured by republican savants. They too saw life as an innate property of matter or organization. And they too abhorred a top-down spiritual "command structure", from which the king derived his warrant and matter its divine spark.¹⁴⁸

145 *Newgate Monthly Magazine* 1 (1 Nov. 1825): 107.

146 *Republican* 7 (28 Mar. 1823): 401; 9 (28 Mar. 1824): 688–89.

147 *MM* 12 (12 Sept. 1839): 46, 88–91, debating Milne Edwards's work in France and the active molecules of the British Museum's Robert Brown (of 'Brownian motion' fame). The debate over "atomic atheism" had a long history among gentlemen philosophers, unknown to street propagandists (Goodrum 2002).

148 Jacyna 1983b, 325–26. French materialist sciences were coming in to Britain partly through press snippets discussing the republican and transformist Bory de St Vincent (Corsi 2021, 365). For example, "On the Tendency of Matter to become Organized" (*Edinburgh New Philosophical Journal* 4 [1827–8]: 194–96), and "Spontaneous Organization of Matter" (*Arcana of Science* 2 [1829]: 144). Jacyna 1987, on Bory's role in the 'immanentist' scientific tradition in Paris and its republican context.

Republican faith in self-generation was excoriated by religious critics. The church militant was stepping up; preachers denied any innate “tendency to a higher state of being”. Life’s adaptation was the supreme proof of “a creating Intelligence”, meaning purpose was built in from the start. The Rev. Benjamin Godwin, rising to the challenge thrown down by local Bradford infidels in 1833, tore into Holbach’s *System of Nature* and Carlyle’s *Deist*. No mind that “primitive man did, perhaps, at first, differ more from the actual man than the quadruped differs from the insect”, he said, quoting Holbach. However much mankind had improved since his primordial production, he still had to start somewhere. But without the constraints of intelligence, a chance concurrence of atoms would have thrown up “thousands of monstrous shapes” of every useless combination, not organs designed for a purpose or animals adapted to niches.¹⁴⁹

Favourable conditions or atomic intelligence guided this building process for infidels. While detractors laughed at their hocus-pocus of “mysterious chemistry”,¹⁵⁰ the *Republican* materialists never lost faith in thinking matter steered by planetary conditions engendering life. Even Erasmus Darwin (who died 1802) was resurrected by deists in the 1820s, for his poetic attempts at a non-biblical production of man. He too had dramatically portrayed the primordial animation of a some simple “threadlet of matter”, whence it hoisted itself on its upward path by striving for warmth, food, and moisture. A “pernicious” doctrine that would “infuse poison” into innocents, grumbled the humble *Magazine of Natural History*.¹⁵¹ This was *Tellamed* updated and medically sober, with everything tracings its origins back to the “briny deep”. Only this time the more sensible evidence came from the fact that “all quadrupeds and mankind in their *embryon* state are aquatic animals”. They recapitulate their ancestral life and emerge from their embryonic fluids at birth. Darwin, as a doctor, had credence. He was seen putting reason above rhyme and was hailed as “the most philosophical, although not the

149 B. Godwin 1834, 168, 175, 180–81; Holbach [Mirabaud] 1834, 80; Morrell 1985, 11–13; Topham 2022, 359–62.

150 Rennie 1834, 51.

151 *MNH* 4 (Jan. 1831): 53–54, reviewing the new and orthodox King’s College, London, professor James Rennie’s *Insect Transformations*, published by the Society for the Diffusion of Useful Knowledge; [Rennie] 1830, 9. On Rennie’s hack writing and short-lived King’s career: Page 2008.

most perfect of poets". The technical magazines talked of his "beautiful" lines.¹⁵² His poetry turned up everywhere in the mechanics' journals of the 1820s, as did his medical, technological, and scientific asides on nature.¹⁵³ The allusions only tail off in the 1830s, when they start to overlap with his grandson Charles's *Beagle* discoveries. In fact, you could still find him—"one of our finest poets"—railing against "the tyrant's power" in Julian Harney's *Democratic Review* as late as 1850:

Hear nations hear, this truth sublime,
He who allows oppression shares the crime.¹⁵⁴

So, in the 1820s Erasmus Darwin still generated passion in circles high and low, with as much derision in one as veneration in the other. We find the radical co-ordinator Francis Place reading Darwin's *Zoonomia* in 1826.¹⁵⁵ And Carlileans believed "the beautiful speculations of a Darwin, throw much credit on modern philosophy," because he had stripped superstition out of life's equation.¹⁵⁶ Well almost. Watson (the obstetrician) thought him a genius but saw him pandering to patrons, with expensive poetry tomes "designed for the libraries of the higher and respectable classes as the wealthy people stile [*sic*] themselves."¹⁵⁷ It rankled that Darwin, despite praising the inherent properties of matter, could still in self-contradictory fashion assign it all to a "controuling [*sic*] power above nature":

—And high in golden characters record
The immense munificence of NATURE'S LORD.

This took the gloss off for some anti-clericals. Darwin was truckling to the "prevailing prejudices and cant of the day".¹⁵⁸ But his poetry sweetened

152 *LMR* 1 (22 Jan. 1825): 183; (29 Jan. 1825): 196; 2 (13 Aug. 1825): 265—all the praise coming from George Birkbeck at the LMI.

153 They can be found scattered through the *MM*, *LMR*, *London Journal of Arts and Sciences*, *Register of the Arts and Sciences*, and *Gill's Technological Repository*.

154 *Democratic Review* 1 (Apr. 1850): 418.

155 Jaffe 2007, 145.

156 *Republican* 10 (26 Nov. 1824): 666.

157 *Republican* 8 (15 Aug. 1823): 172; (12 Sept. 1823): 302. Browne 1989 on Erasmus Darwin's readership. Into the 1820s Darwin was still bandied around in high society. Recall Sheridan's put down of some "beautiful but far-fetched" idea of Darwin's being received "with great *éclat*" at Brookes's by the royal party around the Prince of Wales (*MC*, 2 Mar. 1827).

158 *Republican* 8 (12 Sept. 1823): 298, 303.

the bitter materialist pill,¹⁵⁹ and his radical influence and obnoxiousness to the authorities in the 1790s cannot be denied. It was best illustrated by one incident in that incendiary decade: the police raided a London Corresponding Society stalwart, John Thelwall—because the authorities were petrified that the LCS was about to call for a French Revolutionary-style Convention—and seized, among other things, a copy of Darwin's *Botanic Garden*!¹⁶⁰

Darwin's republican poetry was trashed after the French Revolution. Now it was trashed again in the 1820s, derided in 'higher' circles for its "fantastical dandisettism". "Sound was preferred to sense; high words to high thoughts," said a review in 1824. It debated whether his sort of dirty science was not killing the imagination. As the spiritual world is denied, mechanism is all that is left. "Frankenstein" is the most that imagination can inspire to—a magic spark animating dead flesh. But the Frankenstein monster is "a vile lump of earth, with nothing spiritual about him," just as Holbach's atomic man was an empty shell. Frankenstein stands in condemnation of what disreputable "philosophers have supposed possible". Dr Darwin and the deists, "who enquired how men were made" had so long talked up the issue that "they almost persuaded themselves that they had been in the manufactory" at the moment of production and had seen the atomic bodies rise from the dirt.¹⁶¹

* * * *

This gives a sense of how tantalizing the ideological question of origins had become in deist circles in the later 1820s. All the while, the incoming progressive geology, by ruling out the eternalist riposte to Christians, was forcing Saull's cadre to look for a new 'natural' solution to the recent emergence of humans. A new rhetorical strategy was needed, which

¹⁵⁹ Goldstein 2017, 708–72.

¹⁶⁰ Thelwall 1837, 164; Mee 2016, 181. Thelwall's interest in Darwin stemmed as much from his anatomical fascination. Thelwall had attended lectures at Guy's and St Thomas's hospitals, where he notoriously decried vitalism, as Lawrence would a generation later. But Thelwall's Jacobinism and medical materialism (related, as Solomonescu 2014 shows) were more long lasting than Lawrence's.

¹⁶¹ *Philomathic Journal* 1 (1824): 434; 4 (1826): 127. Fara 2012 on the political message behind Darwin's seemingly innocuous poems, which the pauper press and the authorities were equally attuned to.

would allow them to pick up the anti-infidel gauntlet, to say where, outside the Bible, you *could* find a satisfactory account of mankind's appearance. So far, the deist response had been inadequate. Watching the 'eternalist' argument evaporate, they could only feebly retort that, even

though Materialists have not yet been able to prove the primary cause of the existence or origin of the *larger* animals, it does not follow that they are to despair of ever arriving at the great and mysterious secret; or that they are to jump at once, into the admission, of the existence of a supernatural almighty *designing* creative power or being; the existence of which, is as difficult or more difficult to be proved...¹⁶²

By the late 1820s, the deists' Nature ran close to being personified as either the energetic Earth or the aggregate of its live atoms. And with the revelation of the *rise* of life, coupled with the assumption that "*lower*" forms were being pushed into "*higher*" ones—ranking remained unquestioned in biology, even as the new class warriors were starting to challenge it in society—deists saw successively greater power outputs needed to push life up the ladder. Increasingly greater pushes were needed to drive this emergent complexity. Thus it became commonplace in street propaganda to hear of Nature's power increasing through time to heave life ever "upwards".¹⁶³

Simultaneously, with geology throwing up these new imperatives, a new breed of flamboyant deist was re-igniting astro-theological explanations to delegitimize the Jewish fables of Creation. Saull had come from Carlile's camp with a lot of baggage. Now he would take it to the chapels of these new provocateurs. So strong and financially extravagant was his support for the new blasphemy preachers that he would be indicted in court for it, in an episode marking his shocking public debut.

162 *Republican* 8 (15 Aug. 1823): 173. Interestingly, Lamarck was all but unknown among Carlile's cadre before Charles Lyell's exposé in his *Principles of Geology* in 1832. Therefore street deists in the 1820s had no recourse to Lamarck's escalating ladder of living species and his idea of needs causing bodily transformations.

163 Such beliefs ran right through to the 1840s (E. Martin [1844], 6).

