

Gothic fantastic: Parliament, Pugin, and the architecture of science

By Edward Gillin

A.W.N. Pugin's name has ever been inseparable from the Houses of Parliament at Westminster. In hindsight, architect Charles Barry's (1795-1860) choice of Pugin to assist in the design of Britain's new seat of government seems obvious. Pugin was by the 1830s a leading advocate of Gothic architecture as aesthetically and morally improving, while his own draughtsmanship and knowledge of the style appeared unparalleled. Yet British politics at this time was turbulent and public order often appeared fragile. The form of the new Parliament building aroused concerns over the values and appearance of Britain's government. Maintaining tradition, while promoting seemingly enlightened governance was a challenge which had architectural repercussions. In the newly reformed political world of the mid-1830s, calls for the employment of Gothic at Westminster were deeply controversial. By placing Pugin in this political context, I want to show how in order to secure support for the Gothic, he conformed to a political rhetoric which endeavoured to show that good government shared values considered inherent to good science.

Late Georgian politics was increasingly shaped and characterised by notions of science. Joe Bord has shown how in Whig political philosophy, the scientific values of objectivity, intellectual tolerance, empiricism, and the mastering of complex knowledge, were deemed suitable values for reputable statesmanship and governance.¹ Such values were shared in radical circles too, and were hard for more conservative elements of Parliament to refute.² The choice of style for Britain's new Parliament did not escape such ideas. Following the 1832 Reform Act, Lord Melbourne's Whig government, wanting both to secure political stability and appear administratively effective, prioritised a traditional style, yet combined this with attention to practical matters, such as ventilation. The polemic surrounding Parliament's new form has been extensively examined in several historical works.³ What has not been considered is how much of this discourse was characterized by science. Debates centred over which style best embodied progressive, enlightened government: Gothic or classical. Each style was portrayed as projecting values of science, which were suitable for modern politics. Each style was at times also denounced as unscientific and barbaric. What is clear is that the controversy of Parliament's style was often framed within intentions to be

1 Bord 2009, p 2.

2 Collini, Winch, & Burrow 1983, p 3.

3 Rorabaugh 1973, pp 155-175; Fredericksen 2000, pp 99-111.

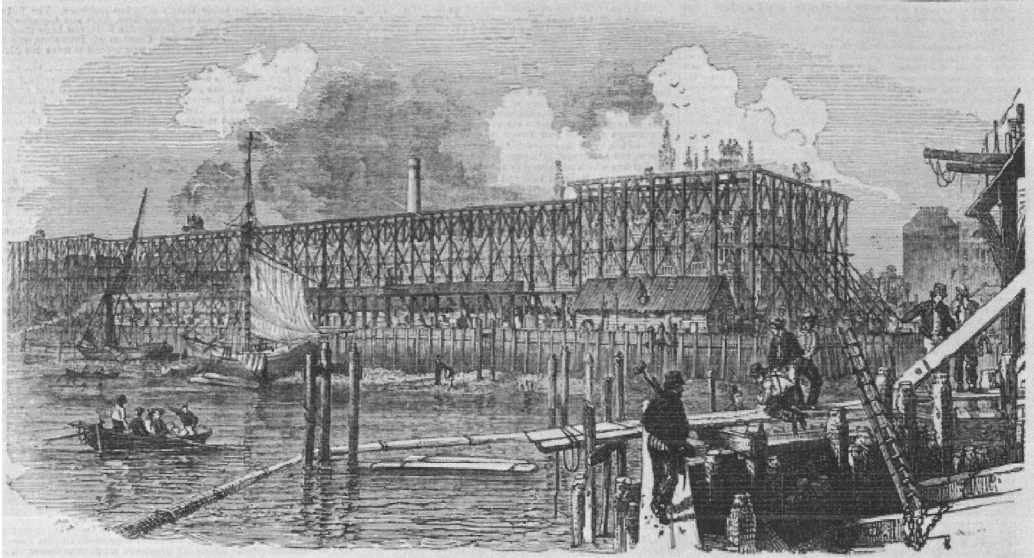


Figure 235: The New Houses of Parliament under construction
London Illustrated News 25.6.1842

scientific and rhetoric asserting the authority of empirical knowledge.

Architecture was inseparable from politics, and politics engendered questions about nature. A building that embodied scientific enlightenment was consistent with political appeals to knowledge of nature to maintain social order. As Jack Morrell and Arnold Thackray put it, “To the politician and theologian science became a means of bolstering those of their claims which could be understood in terms of the natural or ordained place of man”.⁴ That the debate over style was characterised by science is important, and highlights the interconnectedness of politics, science, and architecture. To place Pugin in this context demonstrates how he laboured to have his Gothic principles accepted as appropriate for government. Such an understanding moves us away from descriptions of Pugin’s role at Westminster as an almost inevitable result of his artistic talent.

Mirroring the improvement of science

In October 1834 the medieval Houses of Parliament were destroyed in a dramatic fire. Just two years earlier, Britain’s political establishment was rocked by the passing of the 1832 Reform Act which increased the electorate from about 500,000 to 813,000 voters.⁵ Retrospectively the impact of this act has been contested, but in the uncertainty of the mid-1830s, the new Parliament raised serious questions over the direction of British politics.⁶ The post-1832 political world was one of social unrest, with the threat of revolution apparently ever present. The question of how government at Westminster

4 Morrell & Thackray 1981, p 33.

5 On the legislation, see Phillips & Wetherell 1995, pp 411–436.

6 Stewart 1989, p 32; Phillips & Wetherell 1995, p 414.

could legislate in a manner appropriate for a nation in the midst of social and industrial change was an urgent one. Often the answer was perceived to be one of a scientific approach to government.⁷

Radical Utilitarian MP Joseph Hume (1777-1855) argued that the new structure should

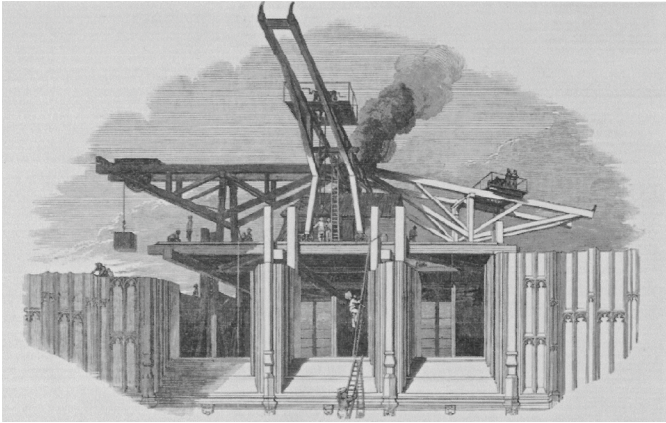


Figure 236: Crane for hoisting stones for the Victoria Tower
London Illustrated News 2.2.1850

be designed with questions of health, efficiency, and utility taken into account. Aside from the increased membership of the House of Commons resulting from the Reform Act, Hume's concerns were grounded in his readings of medical texts focusing on human blood flow and respiration.⁸ With support from fellow MP and doctor, Henry Warburton (1784-1858), Hume argued that any new

Parliament required architecture which assisted the flow of clean air, distributed light efficiently, and provided ample room for all members.⁹ Though Utilitarians demanded Parliament be built with utility in mind, they did not monopolise claims of being scientific. While definitions of what it was to build with scientific values varied, there was a united cross-party appeal for Parliament to embody, in the broadest sense, science.

Joe Bord's study of Whig politics in this period has examined the strong links between Whig political philosophy and science. He has identified a clear relationship between Whig manners and customs, and the cultivation of objective knowledge.¹⁰ Bord shows how some Whigs believed credible government could be achieved by intellectually equipped statesmen, who commanded and mastered knowledge in the exertion of their legislative duties.¹¹ Politicians were also to exude rational sociability, that is the ability to value and consider all opinions, even if conflicting, in order to work together in coalition for the national good.¹² This paralleled tolerating alternate intellectual positions in areas of natural philosophy such as geology, so as to conduct effective improving investigations, often through learned societies.¹³ Finally, the Whig manner of cultivation

7 Collini, Winch, & Burrow 1983, pp 27 & 36-42.

8 Weitzman 1961, pp 99-107.

9 *Hansard* 1833, pp 63-4.

10 Bord 2009, p 2.

11 *Ibid*, pp 31-55.

12 *Ibid*, pp 56-78.

13 *Ibid*, pp 79-101.

stemmed from a connection between Whig government and land. An appreciation of agriculture entailed agrarian chemistry and experiments on enhancing produce.¹⁴ This pursuit of improving knowledge extended beyond agriculture to industrial duties. Science shaped more than broad Whig manners, but provided an approach to government which emphasised an unbiased and objective manner of legislating. There was a consensus at Westminster that politics should be made a subject comprising of a systematic body of knowledge.¹⁵

William Richard Hamilton (1777-1859) was perhaps the most prominent projector of such sentiment with regards to architecture. Although most famous for capturing the Rosetta Stone from the French in 1801, following Napoleon Bonaparte's disastrous Egyptian campaign, the ex-diplomat and president of the Royal Geographical Society wrote three tracts calling for the new Parliament building to embody science between 1836 and 1837.¹⁶ His work secured a considerable readership within government, including Hume, and the prominent Whig statesman, Lord Henry Brougham (1778-1868). With his eminent geologist friend Roderick Murchison (1792-1871), Hamilton shared a keen interest in natural philosophy, as well as industrial machinery. Regarding Parliament, Hamilton denounced Gothic as 'barbarous', while describing Grecian architecture as the embodiment of 'improved knowledge'. He argued that 'Architecture had thus become a mirror of the improvement of science in various periods'.¹⁷ While Gothic reflected medieval superstition, the neo-classical style of Inigo Jones and Christopher Wren mirrored the natural philosophy of men like Robert Boyle and Isaac Newton. Greek architecture imitated 'the grandeur of nature'.¹⁸ He warned that though the Gothic might capture the fleeting literary fashion of Walter Scott, architecture should always embody 'the advancement of national science'.¹⁹ Furthermore, to build with Grecian pillars (tree trunks) and in the Corinthian Order (leaves of the acanthus) was to 'copy from Nature'.²⁰

Hamilton felt this mirroring of nature and scientific learning to be most important at Parliament. The home of the nation's government should, he asserted, embrace enlightened learning and an objective search for true knowledge. In a building designated for discussing 'politics, trade, justice, religion, property, laws, agriculture ... [and] all our daily wants and interests', Hamilton explained that an atmosphere of scientific inquiry would be conducive to good administration.²¹ In support of his arguments, it is interesting that Hamilton chose to cite the works of Cambridge natural philosopher William Whewell (1794-1866) and mechanical philosopher Robert Willis (1800-1875), in which

14 *Ibid*, pp 102-34.

15 Collini, Winch, & Burrow 1983, p 13.

16 Anderson 2004.

17 Hamilton 1836, p 5. A copy held at UCL includes Joseph Hume's annotations.

18 *Ibid*, p 7.

19 *Ibid*, p 9.

20 W. E. H. 1836, p 420.

21 Hamilton 1836b, p 23.

they proposed how architecture could be subjected to scientific analysis.²² Both of these men of science explained that buildings should be treated as mechanical works. In the *Westminster review*, Hamilton attacked Barry's Gothic designs for Parliament: these he felt were clearly at odds with such enlightened scientific architecture.²³

Hamilton's writings aroused much attention. One review in the *Architectural magazine* echoed his views of architecture as the 'mirror of the improvement of science'.²⁴

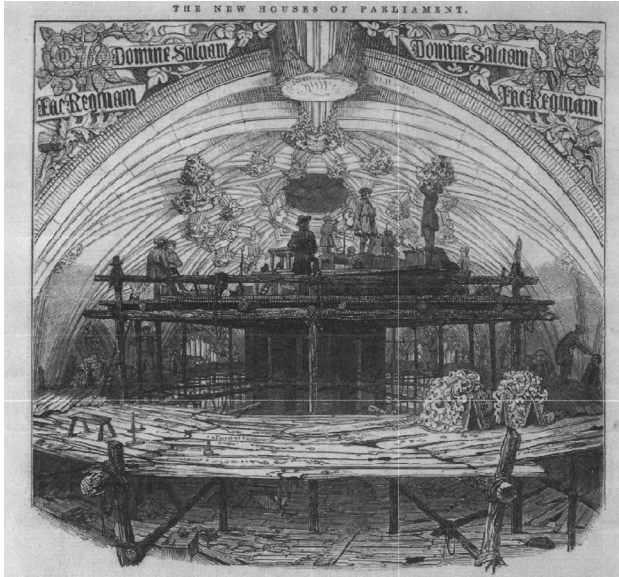


Figure 237: Carving the bosses in the Central Hall of the new Houses of Parliament.

London Illustrated News 18.3.1848

Although rejecting Hamilton's calls for the Grecian style, Colonel Julian Jackson (1790-1853) agreed that architects applied 'skill and science', and at Parliament should be told to 'show your science by a master-piece of Gothic'.²⁵ Barry's Gothic vaulting, spires, and buttresses revealed 'such a degree of science in the composition and division of forces ... as can have resulted only from much mathematical knowledge'.²⁶ In the *Edinburgh review*, Henry Brougham praised Hamilton's focus on the science of architecture as well as architecture's ability to embody

scientific learning. Brougham was convinced of the enlightenment of employing a classical style at Westminster. In Brougham, Hamilton's arguments found a prominent voice inside the House of Lords.²⁷ It is evident that Hamilton found a sympathetic audience at Westminster, especially among certain readers who shared his high estimation of science in governance.

Pugin and Barry at Westminster

It is revealing that Pugin chose to share in this emphasis of science when advocating that Parliament be Gothic. Responding to architect A. W. Hakewill's observation that

22 Willis 1835; Whewell 1837, pp 344-5. Cited in Hamilton 1836b, p 56; and Hamilton 1837, p 42.

23 W.E.H. 1836, p 409; on the initials 'W. E. H.', see the Wellesley Index, at <http://wellesley.chadwyck.co.uk/fullrec/fullrec.do?id=LWR->

24 (Anon) 1837, p 121.

25 Jackson 1837, p 12.

26 *Ibid*, p 29.

27 Brougham 1837, p 174; *Hansard* 1844, p 1247.

Parliament should be classical, as this was the style of ‘the arts and sciences’, Pugin’s arguments anticipated much of his later work on the subject.²⁸ To those who promoted the Greek style as enlightened, Pugin declared the style to be 2,000 years out of vogue. Gothic cathedrals, churches, and chapels were in contrast, evidence of the skill and knowledge which medieval masons possessed.²⁹ These structures, he asserted, provided instruction for architects. Indeed Gothic architecture was shaped by a constantly growing body of knowledge, which had advanced the style to an intellectually advanced state.³⁰ To those who doubted that Gothic art rested on knowledge of nature, Pugin cited the paintings of the German engraver and mathematician Albrecht Dürer (1471-1528). Dürer, he observed, combined art with natural knowledge.³¹

For Pugin, Gothic architecture was a systematically-produced body of knowledge with morally improving qualities.³² It carried notions of romantic nationalism and patriotism.³³ It was also inseparable from Pugin’s own faith. Having converted to Roman Catholicism between 1834 and 1835, Pugin promoted his religion alongside his passion for the Gothic. Yet despite what he perceived to be the morally improving qualities of the style, in supporting its adoption at Westminster, Pugin employed a rhetoric which emphasised the empirical and practical nature of Gothic architecture.

Pugin’s response to Hakewill provides a microcosm of arguments he developed over the following decade. He proposed that if Christian art forms were to be morally improving, then even Gothic architecture could not be exempt ‘from rule ... of philosophical and scientific principles’.³⁴ Pugin envisaged the style to be a formal set of artistic techniques, which embodied specific values. Architecture reflected the faith, customs, and climate of a nation, and Pugin believed in Britain’s eventual return to a united Catholic Church.³⁵ Neoclassical architecture was, for Pugin, ‘pagan’ and reflected the ‘philosophy and mythology’ of ancient Greece, Rome, and Egypt.³⁶ In contrast Christian Gothic architecture embodied divine truth and learning. Pugin stipulated that it embodied Resurrection through great spires and vertical lines, while its recent decay accompanied a decline in faith since the English Reformation.³⁷

To build in accordance with Gothic principles was to advance the ‘self-denying, charitable, devout, and faithful habits of the ages of faith’.³⁸ Pugin’s art looked to

28 (Anon) 1835, p 506.

29 Pugin 1835, p 8.

30 *Ibid*, p 9.

31 *Ibid*, p 12.

32 On the Victorian conviction that Gothic architecture could be subject to objective laws just as any inductive science, such as geology and botany, see Miele 1998, p 103.

33 Clark 1962, p 99.

34 Pugin 1844 (*Glossary*), p iii; also see Pugin 1836 (*Ornaments*).

35 Pugin 1843 (*An Apology*) p 4; also argued in Pugin 1875 (*Church and State*).

36 Pugin 1841 (*Contrasts*) p 2.

37 *Ibid*, pp 3 and 7.

38 *Ibid*, p 19; also see Pugin 1837 (*An Apology*).

the medieval past to find direction for a religiously enlightened future. Along with this prophetic vision, Pugin offered medieval ‘mechanical skill’ and principles both aesthetic, devout, and interestingly of ‘utility’.³⁹ He argued that true Gothic architecture was ‘useful’. Pinnacles, though emblematic of Resurrection, were to defy weathering and throw off rain; a service also performed by pointed roofs.⁴⁰ Pugin saw his service as ‘*beautifying* articles of utility’, rather than ‘*disguising*’ practical objects.⁴¹ As Rosemary Hill put it, Pugin declared that ‘Gothic was best and Gothic was best learned, as Pugin had learned it, empirically’.⁴² The question of the science and utility of a style was ambiguous and contested but it was one Pugin addressed. Portraying the style as an empirical body of knowledge, and above all as enlightened, was an important part of his argument.

The relationship between politics, science, and architecture was not limited to rhetoric and discourse. During Parliament’s construction questions of structure and mechanics were addressed scientifically. Charles Barry employed more than aesthetic knowledge in his work. In 1839 he participated in a survey to select a type of stone for the building alongside geologists William Smith (1769-1839) and Henry De la Beche (1796-1855). Although commissioned specifically for Parliament, this commission laboured to produce a work of scientific authority, for future architects to reference.⁴³ It combined observations of existing structures and quarries, and experiments on the comparative strength of stone types at the new laboratory of King’s College London. Later Barry worked alongside experimentalists Goldsworthy Gurney (1793-1875) and Michael Faraday (1791-1867) to construct a system of gas lighting for Parliament’s interior.⁴⁴ Barry also engaged with the Astronomer Royal George Biddell Airy (1801-1892) and horologist Benjamin Lewis Vulliamy (1780-1854) to ensure the Westminster Clock was a work of scientific credibility.⁴⁵ Regarding the ventilation of the new Parliament, Barry worked with Faraday to construct a rival ventilation system to that of the Edinburgh chemist David Boswell Reid (1805-1863).⁴⁶ In all these endeavours, Barry partnered men of science and referenced scientific bodies of knowledge to ensure Parliament reflected the latest philosophical researches.

Barry himself identified with elements of Britain’s scientific society, being a regular attendant at British Association for the Advancement of Science (BAAS) meetings, and lectures at the Royal Institution.⁴⁷ He felt it the duty of ‘every architect to make himself acquainted with chemistry, as well as other sciences’, and lamented that neither

39 Pugin 1841 (*True Principles*) pp 5 and 10.

40 *Ibid*, pp 9-11.

41 *Ibid*, p 23.

42 Hill 2008, p 148.

43 Barry 1839.

44 Porter 1998, p 169.

45 Barry 1867, p 171; Port 1976, p 169.

46 Schoenefeldt 2014, pp 173-213.

47 Barry 1867, p 76.

Christopher Wren nor Inigo Jones had, in his opinion, acquired a thorough knowledge of ‘the science of mechanics’.⁴⁸ For Barry, architecture touched ‘on one side the domain of science, and on the other the domain of art’.⁴⁹ Considering how Barry used geologists, chemists, mathematicians, and experimenters at Parliament enhances our understanding of Pugin’s place in the building’s construction. To build an appropriate national assembly, Barry referenced a broad range of authorities in alternate bodies of knowledge. Pugin’s knowledge of the Gothic was a resource which Barry drew on, as much as he did with Faraday’s chemistry, or De la Beche’s geology.⁵⁰ What each shared, was a claim to be scientific. They both saw themselves as creating a Parliament building appropriate to a modern industrial society; with a newly reformed political system.

Conclusion

In their history of the BAAS, Jack Morrell and Arnold Thackray observed that in times of social unrest and the breakup of political order, appeals to nature are consistent with appeals for political stability. They thus examined the BAAS, established in 1831, in the context of the political turbulence of the 1830s and 1840s, and demonstrated how inseparable claims for natural order and social progress were from those of social and moral order.⁵¹ The controversy of Britain’s new Parliament, unfolding within this same context, provides insights into this relationship between scientific values and political authority. Above all, the new Parliament building illustrates the architectural ramifications of this relationship.⁵²

The Parliament that Barry and Pugin built emphasised history and tradition. Indeed, as Roland Quinault has shown, Barry’s Parliament was above all a Royal Palace, displaying the prominent role of monarchy in the British political system.⁵³ Nothing captured the ancient authority of Parliament quite like Pugin’s details added to Barry’s Gothic designs. Overtly the building was a statement of continuity following the 1832 Reform Act. Yet in the political and social context of the 1830s, a national assembly which exuded only a sense of history would have been inconsistent with much Whig and Utilitarian political philosophy. How could the seat of government for an increasingly enfranchised and industrialised society only embody the past? To establish political authority the new building also embodied modern scientific learning. It appeared both nostalgic and enlightened, consistent with a political system drawing stability from its history; and credibility from its increasing appreciation of science. The extent of this growing relationship between politics and science was such that even Pugin, in advocating the Gothic, chose to appeal to science.

48 House of Commons Papers 1852, p 218.

49 Barry 1867, p 165.

50 For an example of Pugin’s collection of knowledge and Barry’s referencing of it, see AWN Pugin to C Barry, 1.8.1845: Belcher 2003, pp 424-425.

51 Morrell & Thackray 1981, pp 30-31.

52 On architectural embodiments of science, see Yanni 1999, pp 1-13; Forgan 1998.

53 Quinault 1992, pp 79-104.