Jamie Louise Jacobs

Principles and Practice: Craft and Mechanisation in the Fabrication of A.W.N. Pugin's Designs in the Applied Arts

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Supervisors:
Dr. Timothy Brittain-Catlin
Professor Dr. Grace Lees-Maffei

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ABSTRACT

The British Victorian architect and designer Augustus Welby Northmore Pugin (1812-1852) was responsible for a wide variety of buildings and designs in the Gothic Revival style. In his publications, Pugin championed the architecture of the Middle Ages as representing an ideal mixture of style and faith and has subsequently been portrayed as advocating the return to a Medieval way of life. Conflated with that other champion of the Gothic Revival John Ruskin, scholars have applied Ruskin's dislike of machine-made products to Pugin when in fact he was never concerned with the way in which his goods were produced. To accomplish such a vast amount of work in his short lifetime, Pugin relied on a group of skilled and trusted collaborators – John Hardman for metalwork and stained glass, John Gregory Crace for wallpaper and furniture, Herbert Minton for encaustic tiles, and George Myers for building construction – who utilised a range of mechanised processes to realise his designs. By examining Pugin's working process, this thesis has sought to show that rather than rejecting mechanisation, Pugin took advantage of new materials and methods as a means to conveniently and expeditiously create the range of high-quality works for which he is known today.

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INTRODUCTION

The Victorian Gothic Revival architect and designer Augustus Welby Northmore Pugin produced a staggering amount of buildings and goods during his short lifetime. Over the course of forty years he and his four main collaborators – John Hardman for metalwork and stained glass, John Gregory Crace for wallpaper and housewares, Herbert Minton for tiles, and George Myers for furniture and building construction - erected and furnished both sacred and secular buildings including the Houses of Parliament where, alongside Charles Barry, Pugin designed elements for the interior including fixtures and fittings. The scope of work involved here and elsewhere is broad and vast and the totality of Pugin's involvement in his projects cannot be overestimated. This in turn raises the question of how Pugin managed to handle such a wide array of commissions in such a short time frame as the completion of this work must represent hours of labour for both Pugin and those who fabricated his designs.

This leads one to question whether Pugin and his collaborators made use of the rapidly evolving technological developments characteristic of the nineteenth century. It would seem likely that the introduction of new types of machinery and the development of new working methods could have been and most likely were utilised to reduce both the physical toil and expense compared to producing these goods by hand. However, documentation outlining Pugin's production methods is lacking, with an absence of scholarly consideration of the topic.

Pugin is widely regarded as an advocate of both the style and working methods of the Middle Ages, and one wonders just how far Pugin was prepared to go to achieve his gothic ambitions. This leads to the question as to whether this appreciation for all things medieval extended to the use of antiquated production methods characteristic of this era. While an ever-increasing amount of scholarship has been produced on Pugin's life and works, and a similarly large amount of text has been devoted to the history of technology including works from Pugin's lifetime, it appears that a consideration of both areas of research has yet to be forthcoming.

While the intricacies and developments relative to both Pugin and developments in mechanisation are discussed at length in the literature review which follows, Pugin's polemical texts give a distinct sense that he opposed modern developments in favour of antiquated pursuits, and those who adopt this view of Pugin find the evidence to do so in his published works. The depiction of Pugin as anti-industrial is further reinforced through his conflation with John Ruskin, another outspoken advocate of the gothic style who was outspoken in his condemnation of industrialisation. However, a deeper

consideration of the working methods of Pugin's collaborators coupled with the recent publication of his letters lends itself to a reappraisal of the topic in light of this new material.

Evidence reveals that Pugin adopted a progressive approach in which he not only accepted the use of machinery and modern technology in the construction of his buildings and goods, but also advocated for the use of such equipment so long as the quality of the finished product was not compromised. This thesis will therefore re-examine not only Pugin's attitude towards machine production but also the effect that writers on this subject have had on his reputation.

An investigation of this nature is particularly relevant given the looming Restoration and Renewal project at the Houses of Parliament. Pugin's largest undertaking, Parliament features the work of each of his collaborators across all media. From floor to ceiling, there was no part of the building which was untouched by Pugin's hand, and it is worthwhile understanding how he and his collaborators went about producing this wide array of high-quality items in a relatively short period of time.

This thesis examines a variety of both primary and secondary sources for information on not only how these items were made, but also how Pugin felt about the methods used. While this work does not engage in arguments about the periodisation of historical interpretations, it does discuss Pugin's position in relation to society, beliefs, and artistic standards against the context of the wider field of interpretation. This includes a comparison between Pugin's published works and his newly-collated private correspondence to see if his approach was consistent throughout. The work of each of his four main collaborators is also examined, along with a survey of the state of mechanisation during Pugin's working life. When considered together, the information garnered through this study produces a fully articulated picture of Pugin's attitude towards and use of mechanisation – his principles and practice.

1.1 The Gothic Revival as an international affair

The Gothic Revival that Pugin favoured was one of several styles which took hold in Victorian England. Far from being the predominant style of the era, it appeared alongside other forms as designers mined the motifs of the past to find an appropriate visual language for the present. The English held fast to the idea that not only did the Gothic style originate on British soil, it was there that it found its purest expression and authors reiterate this appropriation of the Gothic as a national style.[1] J. L. Petit, in the 1861 article "On the Revival of Styles" states that "if we are to have good architecture in England we must have a good national style" but allows for some leeway, noting that "it will also be granted that it is not necessary for such a style to have originated entirely at home."[2] France and Germany also laid claim to the Gothic and Roger Aubert notes that the style was considered German despite research showing that it had originated in France.[3] This claim was not without question, even in the nineteenth century, prompting The [later Royal] Institute of British Architects to ask its members to help "to decide the long pending question, as to the origin of the style of Architecture now generally termed Gothic, and of its relative adoption or invention in England, France, or Germany."[4] However, as the American architectural historian Henry-Russell Hitchcock notes, it was with Pugin that the Gothic Revival became "essentially an English manifestation despite its presumptive French background";[5] architectural historian Simon Bradley concurs, pointing to Pugin himself as supporting this view when he states that Pugin's *Apology for the Revival of Christian Architecture* revives "the old argument that Gothic was a naturalized English style with the claim that it suited a country which had 'preserved so much of her antient system' – the manor house, the parish church, the chantry chapel – by contrast with a Continent ravaged by war, revolution and secularization."[6]

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[1] Simon Bradley, "The Englishness of Gothic: Theories and Interpretations from William Gilpin to J. H. Parker," *Architectural History* 45 (2002), 326. Bradley states that this claim "that Gothic was both invented and perfected in England seems to have begun with the first edition of William Gilpin's *Observations Relative Chiefly to Picturesque Beauty*."

[2] J. L. Petit, "On the Revival of Styles," *The Civil Engineer and Architect's Journal* 24 (July 1861), 195.

[3] Roger Aubert, *The Church in the Industrial Age* (New York: Crossroad, 1981), 292.

[4] [Royal] Institute of British Architects, *Address and Regulations, Explanatory of Their Views and Objects, with a List of the Members, and Contributors to the Collection, Library, Etc. As Also the Report of the Proceedings at the Opening General Meeting, at 43, King Street, Covent Garden, on 15 June, 1835* (1835), 56.

[5] Henry-Russell Hitchcock, *Architecture: Nineteenth and Twentieth Centuries* (Harmondsworth: Penguin Books, 1958), 97.

[6] Bradley, 339.

As the son of a French émigré father and an English mother, Pugin frequented the continent, visiting churches, cathedrals, and other authentic medieval structures, and could therefore appreciate the multinational origins of the Gothic style. However, as Simon Bradley states, Pugin "remained essentially Anglocentric in his attitudes, despite his exceptionally deep knowledge of continental Gothic."[7] While he may have felt that England held supreme in Gothic architecture, Pugin was not afraid to look to the continent and borrow stylistic elements where appropriate. However, his attention and devotion always returned to England and its adoption of the Gothic.[8]

Besides exhibiting national pride, Gothic revivalists claimed their style was appropriate for a wide range of buildings, and Gothic appeared as the motif of choice in a selection of structures. While some architectural critics such as George Germann argue that because of its national associations, the Gothic was suited for not only ecclesiastical architecture, "but for all buildings in a Christian land",[9] it should be noted that others such as Stanford Anderson condemned the revivalists' attempts to apply the Gothic style to anything other than ecclesiastical structures.[10] Indeed, it was in ecclesiastical architecture that the Gothic was most prominent, perhaps because the original Gothic style was itself an architecture of Christianity as most surviving Gothic buidings are churches. It is within this context that Pugin made the majority of his contributions to the movement, doing so with an archaeological accuracy unrivalled by his counterparts as the majority of architects and designers used the Gothic merely as a style with which to cloak their modern structures and manufactures. Although Pugin was not alone in his belief of the Gothic as a superior style for religious buildings, others like the Cambridge Camden Society did not agree with his equation of Gothic and devout Catholicism, adopting an Anglocentric view instead.[11]

1.2 Antiquarianism and historicity of "Gothick"

Prior to Pugin, the emphasis on historicity at the outset of the Gothic Revival was a direct result of the antiquarian study of Gothic architecture, leading Hitchcock to note that the Gothic at this point was presented "without much archaeological pretension" and therefore "was not very serious."[12] This style was personified by Horace Walpole's theatrical treatment of his little Gothic castle Strawberry Hill, which later Victorians

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[7] Bradley, 337.
[8] Bradley, 337, 339.
[9] Georg Germann, *Gothic Revival in Europe and Britain: Sources, Influences and Ideas,* trans. by Gerald Onn (Cambridge: MIT Press, 1973), 185.
[10] Stanford Anderson, "Introduction," in *Style-Architecture and Building Art* by Hermann Muthesius (Santa Monica, CA: Getty Center for the History of Art and Humanities, 1994), 8.
[11] Bradley, 339.
[12] Hitchcock, *Architecture: Nineteenth and Twentieth Centuries,* 95.

would refer to as 'gothick' to distinguish this eclectic treatment from their own studied approach [figs. 1.1, 1.2]. American art historian Donald Martin Reynolds clarifies, describing how the revival of the Gothic as a fanciful decorative style "resulted in what has become known, during the second half of the eighteenth century, as the Gothick (with a 'k') style (Georgian Gothic)."[13] Alexandra Wedgwood, writing under her maiden name of Gordon Clark, regards this early incarnation of the style as strictly scenic and declaring it "decorative and not constructional,"[14] while author R. R. Agrawal calls its use "dilettantish."[15] Indeed, the style's use at this early stage was primarily theatrical; a surface treatment to cloak a structure and elicit from the viewer the desired associations with the past.

The Gothic at this early stage was an offshoot of the picturesque movement. Here, art historian Conrad Rudolph states that the picturesque and its tenets "gave an intellectual respectability to Gothic architecture that was extremely important in the slow process of breaking down the walls that shut off medieval architecture from mainstream artistic thought."[16] Thus the picturesque "gothick" was a necessary stage on the progression of a strictly stylistic Gothic to the introduction of archaeological accuracy as found in Pugin's works.

While texts such as Thomas Rickmann's 1817 *An Attempt to Discriminate the Styles of Architecture in England, from the Conquest to the Reformation* represent an attempt at codifying the phases of Gothic architecture to show its development, in the early years of the revival the use of the Gothic style was mostly confined to surface treatment. As Hitchcock states, the picturesque originally sought to imitate "however superficially, however frivolously, the decorative aspects and the picturesque massing of medieval structures."[17] This purely stylistic approach is what John Constable, that great painter of the Romantic era, was referring to when he stated in his memoirs of 1836 that the Gothic Revival was "a vain endeavour to reanimate deceased art, in which the utmost that can be accomplished will be to reproduce a body without a soul" as "the feelings that guided their inventors are unknown to us" in modern times.[18]

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[13] Donald Martin Reynolds, *The Cambridge Introduction to Nineteenth-Century Architecture* (Cambridge: Cambridge University Press, 1992), 25.

[14] Alexandra Gordon Clark, "A.W.N. Pugin," in *Victorian Architecture,* by Peter Ferriday (Philadelphia: Lippincott, 1964), 140.

[15] R. R. Agrawal, *The Medieval Revival and Its Influence on the Romantic Movement* (New Delhi: Abhinav Publications, 1990), 235.

[16] Conrad Rudolph, *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe* (Malden, MA: Blackwell, 2006), 12.

[17] H. R. Hitchcock, "Introduction," in *Contrasts* and *True Principles of Christian or Pointed Architecture*, by Augustus Welby Northmore Pugin (Reading: Spire Books Ltd., in association with the Pugin Society, 2003), 9.

[18] C. R. Leslie, *Memoirs of the Life of John Constable, Esq. R.A* (London: Longman, Brown, Green, and Longmans, 1845), 358.

Constable goes on to note that "it is well, in all things, as we go on, to look behind us – but what advance can we hope to make with our faces constantly turned backwards?"[19]

Despite Pugin's buildings showing a constructional understanding and a maturity in design beyond the picturesque style of his father's works, some scholars feel that Pugin should be considered a product of the Romantic era rather than a child of Victorian progress. Stefan Muthesius, Emeritus Professor of the History of Architecture and Design, may assert that "both Pugin and the Ecclesiologists were initially impelled by an antiquarian interest in medieval architecture", but drawing inspiration from something and having it define one's entire corpus of works are two very different things.[20] Biographer Rosemary Hill believes that Pugin "continued to rediscover and reinterpret the principles of the Picturesque" in his works.[21] Indeed, Pugin may have rediscovered earlier styles and even utilized elements thereof in his own work, but this act of reinterpretation is a marker of progress beyond the original style he is claimed to represent and not a definition of his works.

In *The Fall and Rise of the Stately Home* (1997), British historian Peter Mandler claims that the picturesque led to "a more historically accurate Gothicism in the mid-Victorian period,"[22] and it is this historical accuracy in Pugin's studied works which transcend his picturesque upbringing. As Professor of English Michael Bright so succinctly states, the Gothic's association with the picturesque through their shared love of irregularity allowed it "to emerge from centuries of disrepute and to gain an aesthetic foothold" indicative of "popular acceptance" and securing "the ultimate artistic accolade."[23]

1.3 Literature Review

It was within this environment that the young Pugin began to explore the Gothic style, studying its origins and utilizing its forms in his own manufactures, and any discussion of Pugin's impact must first turn back in time to survey the efforts and conclusions of prior scholars. An examination of scholarly literature shows that Victorian architecture and decorative arts have been alternately maligned and exalted by academia and as a result Pugin's reception has varied over the years. Pugin featured in

[19] Leslie, 358-59.
[20] Stefan Muthesius, *The High Victorian Movement in Architecture* (London: Routledge and Kegan Paul, 1972), 1.
[21] Rosemary Hill, "Pugin's Small Houses," *Architectural History* 46 (2003), 152.
[22] Peter Mandler, *The Fall and Rise of the Stately Home* (New Haven, CT: Yale University Press, 1997), 29.
[23] Michael Bright, *Cities Built to Music: Aesthetic Theories of the Victorian Gothic Revival* (Columbus: Ohio State University Press, 1984), 176.

both scholarly and the popular press during his lifetime, but his *cachét* began to fade after his death. As noted by author and architectural historian Timothy Brittain-Catlin, "[p]ublications following Pugin's early death in 1852 (according to the architectural historian, Peter Howell) actively sought to exclude his name. An influential High-Church Anglican journal, such as *The Ecclesiologist*, could not afford association with a polemical and idiosyncratic Catholic."[24]

The first work to posthumously consider Pugin was Benjamin Ferrey's *Recollections of A. N. Welby Pugin and His Father Augustus Pugin, with Notices of their Works* (1861). A student of A.C. Pugin's architectural school and a contemporary of the younger Pugin, Ferrey was able to acquire intimate knowledge of both men and their working styles. Although the biographical nature of the work generated interest immediately following its publication, the subsequent discovery of factual errors (as evidenced foremost in the transposition of Pugin's initials in the title of the work), along with its hagiographical approach, has limited its application for scholars.

Ferrey himself acknowledges the shortcomings present in his work when he declares that through his first-hand experience of working with Pugin, "some idea may be gathered of the character and ability of the man. But in order to appreciate the peculiarities of his mind, there needs a faithful record of his sayings and doings in connexion with the many distinguished employers, and other persons of eminence amongst whom he moved."[25] As Ferrey notes, Pugin was in the habit of destroying all correspondence and it is only the letters sent from Pugin to others that remain. Margaret Belcher, Senior Lecturer in English at The University of Canterbury, New Zealand, undertook the monumental task of collating all of these letters which she then published in a set of five volumes from 2001 to 2015 with a sixth volume of newly discovered letters published posthumously by The Pugin Society. Belcher's *Collected Letters of A.W.N. Pugin* are an invaluable tool in any survey of Pugin's life and works, including this one, as they allow the reader access to Pugin's thoughts and views in his own words.

Belcher's *A.W.N. Pugin: An Annotated Critical Bibliography* of 1987 is a similarly useful source for reference material. Almost encyclopaedic in nature, it covers publications both by and about Pugin along with illustrations and is useful in locating primary sources as well as secondary reinterpretations published outside of Pugin's

[24] Timothy Brittain-Catlin, "G. J. Hyland, The Architectural Works of A.W.N. Pugin," T*he Innes Review* 69 no. 2 (November 2018), 214.

[25] Benjamin Ferrey, *Recollections of A. N. Welby Pugin and His Father Augustus Pugin, with Notices of their Works* (London: Edward Stanford, 1861), 234. It is almost as though Ferrey anticipates the publication of Pugin's letters, finally accomplished by Margaret Belcher more than a hundred years later.

lifetime. Appearing two years earlier in 1985, Alexandra Wedgwood's *A.W.N. Pugin and the Pugin Family* is another relevant source, albeit for unpublished works that would be otherwise difficult to track down. This includes Pugin's unfinished autobiography and diaries, both of which assist with establishing chronological details of his works. Other Pugin family members are also considered here, although the main emphasis is on the work of A.W.N. himself. Both Belcher and Wedgwood collate these sources into one resource, creating invaluable reference tools for further researchers who would otherwise struggle to locate the range of minutiae covering Pugin's life and works represented here.

Biographical studies exist by Michael Trappes-Lomax (1932), Phoebe Stanton (1971) and most recently, Rosemary Hill (2007). Unlike Belcher and Wedgwood's works which present these details without comment, these biographical studies are interpretations of Pugin's life and therefore represent the biographer's analysis of events. While useful for presenting a thorough biographical survey of Pugin – one that is valuable in assessing his beliefs and motivations – by their very nature they avoid a critical discussion of Pugin's working methods, thus limiting their relevance to this study.[26]

It was not until 1872, twenty years after Pugin's death, that the Gothic Revival was exposed to scholarly examination. British painter, gallery director, and author Charles Eastlake's *A History of the Gothic Revival: An Attempt to Show how the Taste for Medieval Architecture, which Lingered in England during the Last Two Centuries, has Since been Encouraged and Developed,* devotes a chapter to Pugin's influence on the movement where he places Pugin's work in its historic context.[27] However, Eastlake's work was an exception to the norm wherein scholars avoided what they saw as a low point in creative endeavours, deeming the Gothic a gaudy overindulgence that lacked any redeeming qualities, an attitude which would only grow towards the apotheosis of modernism in the 1920s. At the time of Eastlake's text, interest had turned to the High Victorian Gothic which fundamentally differed from its predecessor, and the Arts and Crafts movement, the stylistic effects of which showed the influence of the Gothic Revival immediately preceding. William Morris' interest in knights in shining armour and gallantry – a sort of medievalism quite different from that of Pugin – and, of course, his use of handmade techniques to produce his goods

[26] See Michael Trappes-Lomax, *Pugin: A Mediæval Victorian* (London: Sheed and Ward, 1932); Phoebe Stanton, *Pugin* (London: Thames and Hudson, 1971); and Rosemary Hill, *God's Architect: Pugin and the Building of Romantic Britain* (London: Allen Lane, 2007, hereafter cited as *God's Architect*).

[27] Charles L. Eastlake, *A History of the Gothic Revival: An Attempt to Show how the Taste for Medieval Architecture, which Lingered in England during the Last Two Centuries, has Since been Encouraged and Developed* (London: Longmans, Green, 1872).

(when it suited him to do so), positioned the medievalist attitude as a primary concern to stylistic pursuits. Subsequent historians appraising the Gothic Revival, with gothic and medieval being seemingly synonymous, could and did easily assume these periods shared these same characteristics, particularly regarding mechanisation.[28]

During his lifetime, Pugin often featured in a variety of periodicals, both as subject and author. Following a spate of eulogies immediately following his death, mentions of Pugin tailed off.[29] Therefore it is surprising that British architect Paul Waterhouse chose to include a lengthy retrospective of Pugin's work in the *Architectural Review*.[30] Consisting of seven parts published over issues from 1897-98, this was a bold move for a journal established only a year earlier in 1896. Here, Waterhouse provides a sympathetic assessment of Pugin's buildings complete with copious illustrations, which architectural historian Roderick O'Donnell considers to be both "an early architectural reappraisal" and a "seminal review of Pugin."[31] Twenty years after Waterhouse's publication, Harry Sirr's "Augustus Welby Pugin: A Sketch" appeared in the *Journal of the Royal Institute of British Architects* but, on the whole, further articles on Pugin's input were few in number.[32] Successive generations of design historians looked down upon Victorian art in general and the fruits of the Gothic Revival in particular, making "judgments which are valid only in relation to [their] own contemporary experience," and finding nothing worthy of further study.[33] Consequently, the task of reappraising the artistic contributions of the Victorian era was left to later scholars who were forced to delve into the past and reinterpret that which had been forgotten and neglected.

1.3.1 Post-Victorian Era

Historians first began to examine and re-evaluate Victorian architecture and manufactures in the twentieth century, and the expanse of time that had elapsed by the

[28] For clarity going forward, to differentiate between their varied uses of the Gothic style, this work shall follow Bright's approach wherein "Gothic Revival" as manifested by Pugin will be used "in contradistinction to the Medieval Revival in order to differentiate between the specifically architectural manifestation of medievalism and the generally cultural aspects of it." Bright, *Cities Built to Music: Aesthetic Theories of the Victorian Gothic Revival*, 3.

[29] Brittain-Catlin, "G. J. Hyland, The Architectural Works of A.W.N. Pugin," 214. Brittain-Catlin describes how "[p]ublications following Pugin's early death in 1852 (according to the architectural historian Peter Howell) actively sought to exclude his name."

[30] Paul Waterhouse, "The Life and Work of Welby Pugin," *The Architectural Review: For the Artist and Craftsman* 3 (1897-98): 167-75, 211-21, 264-73; 4 (1898):23-27, 67-73, 115-18, 159-65.

[31] Roderick O'Donnell, review of *A.W.N. Pugin: An Annotated Critical Bibliography* by Margaret Belcher, *The Burlington Magazine* 132 no. 1047 (June 1990), 422.

[32] Harry E. G. Sirr, "Augustus Welby Pugin: A Sketch," *Journal of the Royal Institute of British Architects* 25 no. 10 (August 1918).

[33] John Steegman, review of *From Gothic Revival to Functional Form* by Alf Bøe, *Victorian Studies* 2 no. 4 (June 1959), 328.

time this period of work was finally reappraised meant that writers were now looking backwards at an historical moment rather than writing about contemporary events taking place around them. One of the first scholarly examinations is found in the work of the British art historian Kenneth Clark who, in 1928, published *The Gothic Revival: An Essay on the History of Taste*.[34] Art historian and academic Tina Waldeirer Bizzarro states how Clark approached the Gothic Revival as "intrinsic to English society, an idea foreign to the historicizing eighteenth- and nineteenth-century consciousness and rooted within his early twentieth-century critical context."[35] While not specifically about Pugin, Clark's text nonetheless included Pugin's work in his overview, gradually reintroducing Pugin to a new generation of readers.

At this stage, authors were unlikely to focus strictly on Pugin, but any discussion of the Gothic Revival would not be complete without mentioning his name. Following on from Clark's survey, in October 1931 English architect and writer Harry Goodhart-Rendel gave a lecture on Victorian decorative arts at the Victoria and Albert Museum titled "The Age of Euphemism," which was then published in *The Architect* the following month. Goodhart-Rendel also lectured on the topic of Victorian art at Oxford in 1934, and art and architecture scholar Nikolaus Pevsner states that, in regard to scholarly studies in Victorian art, that lecture series represented the start of a new direction of inquiry where "positive values were seen as positive values" as both architects and their buildings were appraised "succinctly and with brilliant insight characterized."[36] While not strictly about Pugin, Goodhart-Rendel brought new attention to the Gothic movement, although his lecture was not published until 1953, delaying its introduction to the larger public.[37] Pevsner nonetheless acknowledges the impact of Goodhart-Rendel's work, crediting it for breaking ground and leading the way for his own influential book, *Pioneers of the Modern Movement From William Morris to Walter Gropius* (1936), a text that was central to the establishment of a narrative of twentieth century architecture and design that culminated in the triumph of modernism.[38] For Pevsner, being positioned between the Industrial Revolution and the Arts and Crafts Movement made the Victorian era seem like "the dark ages of English architecture,"[39] and he describes his *Pioneers* as "biased in favour of" modern

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[34] Kenneth Clark, *The Gothic Revival: An Essay on the History of Taste*, 3rd edition (London: J. Murray, 1962), hereafter cited as *The Gothic Revival.*

[35] Tina Waldeirer Bizzarro, "'The Scattered Limbs of the Giant': Recollecting Medieval Architectural Revivals," in *A Companion to Medieval Art: Romanesque and Gothic in Northern Europe*, edited by Conrad Rudolph (Malden, MA: Blackwell, 2006), 623.

[36] Nikolaus Pevsner, "Foreword," in *Victorian Taste: A Study of the Arts and Architecture from 1837 to 1870* by John Steegman (London: Nelson, 1970), v.

[37] Pevsner, "Foreword," vi.

[38] Pevsner, "Foreword," vi.

[39] Miles Taylor, "Introduction," in *The Victorians since 1901: Histories, Representations and Revisions,* edited by Miles Taylor and Michael Wolff (Manchester UK: Manchester University Press, 2004), 4.

architecture "rather than a treatment of the Victorian style for its own sake."[40] The success of Pevsner's *Pioneers* was characteristic of the growing importance given to the development of a design style in the interwar years that was not only the product of contemporary methods of industrial production but was also rooted in theories of social reform. The widespread adoption of the International style represented a new architecture that was antithetical to the more decorative and commercial products of the nineteenth-century. Consequently, Pevsner began his survey of "pioneers" with William Morris, ignoring Pugin in favour of his successor.

Attitudes towards Victorian design shifted after the Second World War, and Pevsner's *Pioneers* was reissued by the Museum of Modern Art in 1949 with a new title, *Pioneers of Modern Design*, and a slightly less polemical tone.[41] Interestingly, Pevsner began to reappraise Pugin's work and included him in his revised text, moving away from what architectural historian James Stevens Curl calls a "Pevsnerian bias against" the Gothic Revival."[42] Art historian Paul Crossley notes that Pevsner, in moving forward, had to reassess "his own anti-Victorian position in *Pioneers,* even though *Pioneers* had itself helped to lay out (albeit rather negatively) the academic field of nineteenth-century architectural history."[43]

By 1954 with the publication of *Early Victorian Architecture in Britain*, American architectural historian Henry-Russell Hitchcock who, like Pevsner, was invested in writing the history of modernism, was unapologetically appreciative of Victorian architecture and felt it was worthy of academic interest. The architect, writer, and curator Edgar Kaufmann, Jr. wrote in 1960 that, "careful investigations have shown nineteenth-century design to be the matrix of new concepts suited to the modern world, preliminary in fact to twentieth-century design."[44] Nevertheless, anti-Victorian attitudes persisted. For example, in his 1970 book, *Victorian Architecture in England—Four Studies in Evaluation,* British architectural historian John Summerson wrote, "we are accustomed to begin evaluating the contents of a period of architecture

[40] Pevsner, "Foreword," vi. Pevsner mentions that he only addressed Victorian architecture in its own right in *High Victorian Design: A Study of the Exhibits of 1851* (London: Architectural Press, 1951).

[41] Taylor, 6. Taylor notes that "Pevsner now began to curb some of his earlier hostility to Victorian design," perhaps as Pevsner's role as editor of *Architectural Review* from 1942-1945 and his ongoing place on the editorial board put him in close contact with John Betjeman, former Assistant Editor, who also had a newfound appreciation for Victorian art.

[42] James Stevens Curl, *Piety Proclaimed: An Introduction to Places of Worship in Victorian England* (London: Historical Publications, 2002), 12.

[43] Paul Crossley, "Introduction," in *Reassessing Nikolaus Pevsner*, edited by Peter Draper (Burlington, VT: Ashgate, 2004), 11.

[44] Edgar Kaufmann, Jr., "Nineteenth-Century Design," *Perspecta* 6 (1960), 56.

on the assumption that in relation to the society which built it, it was right." [45] However, with Victorian architecture, "it would be much safer to begin, at least, on the assumption that it was wrong" because, as Summerson contends, "early and mid-Victorian architecture was, in its own time and in the eyes of its own best informed critics, horribly unsuccessful." [46]

1.3.2 Modernist Re-evaluations

Pugin had largely been viewed through the eyes of modernist historians such as Pevsner, Hitchcock, and Kaufmann, each of whom was interested in exploring the development of twentieth-century architecture and design. These men saw the Arts and Crafts Movement of the late nineteenth century as the origin of the functionalist tendencies found in modern architecture. Therefore, it may have been difficult if not impossible to grasp the nuanced nature of Pugin's simultaneous passion for the historical and embrace of modern manufacture. As seen with Pevsner's eventual reappraisal of Pugin, a change in attitude towards Pugin and the Gothic Revival was slow but forthcoming. As Helene Lipstadt, architectural researcher at Cambridge, notes, "[u]nder the aegis of John Betjeman, then Assistant Editor at the *Architectural Review* [1930-1935], propagandists for Modernism came to view the Victorians sympathetically."[47] Here, she states that traditionalists and modernists were "united in a search for roots and sources – for origins that were entirely British."[48]

1.3.3 Pugin Studies today

While Pugin was slowly gaining acceptance amongst scholars, with Belcher and Wedgwood's useful yet isolated contributions to knowledge, he was far from a popular topic of research and study, and interest in his goods and structures continued to lay dormant. The next serious exploration of Victorian art in general and the first in-depth look at the work of Pugin was taken up by a new generation of researchers, aware of the potential for advancing studies in architecture, design, and British studies. Two exhibitions in the mid-1990s did much to increase awareness of Pugin's immense contributions in the areas of architecture, design, and theory. The first of these displays was held at the Victoria & Albert Museum in London from June to September 1994, and had the distinction of being the first major exhibition devoted entirely to

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[45] John Summerson, *Victorian Architecture: Four Studies in Evaluation*. Bampton lectures in America, no. 19 (New York: Columbia University Press, 1970), 2.
[46] Summerson, 2.
[47] Helene Lipstadt, "Polemic and Parody in the Battle for British Modernism," *Oxford Art Journal* 5 no. 2, Architecture (1983), 24.
[48] Lipstadt, 24.

Pugin.[49] The exhibition's accompanying publication, *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright, gathered an impressive group of scholars to contribute a collection of essays dealing with the various areas of Pugin's work; wallpaper, furniture, ceramics, book design, textiles, and jewellery are all addressed here to achieve the stated aim of bringing to light "as wide a range of Pugin's work as possible."[50]

Following this model, a second exhibition, *A.W.N. Pugin: Master of Gothic Revival* was presented by The Bard Graduate Center for Studies in the Decorative Arts from November 1995 to February 1996.[51] As in the previous exhibition, the Bard Graduate Center event made advances towards its objective of highlighting Pugin's involvement in the Gothic Revival while exploring "the multifaceted nature of Pugin's career as both architect and designer, of the forces that shaped his remarkable infatuation with the Gothic realm, and of the extent of his influence."[52] Overlapping the previous exhibition in both content and contributors (Atterbury served as editor for this publication as well) it nonetheless provided fresh interpretations of many areas of Pugin's life and practice.

Although the available scholarly research regarding Pugin's output has increased in the last twenty years it is also true that, "for as significant a figure as [Pugin] was, he has been studied by only a small coterie of scholars and is surprisingly little known to the general public."[53] One such group attempting to elevate the knowledge and appreciation of Pugin amongst the public is the eponymously named Pugin Society. This registered charity was established in 1995 with the goal of raising the awareness and appreciation of Pugin and his family members to ensure his legacy. *True Principles*, the Society's publication named after Pugin's text of the same title, offers a trove of specialised studies and articles relevant to the study of Pugin's life and work.

1.3.4 Pugin's Collaborators

Other publications of the 1990s serve to highlight the work of Pugin's collaborators. Chief among them are Megan Aldrich, *The Craces: Royal Decorators 1768-1899*

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[49] Michael Blakenham, "Sponsor's Preface" in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press, 1994), [ix]. The exhibition catalogue notes that "Although Pugin was one of the most talented and prolific designers of the nineteenth century this has never before been demonstrated in a major exhibition."

[50] Blakenham, [ix].

[51] Unlike the exhibition at the V&A, the Bard exhibition had a catalogue plus essays.

[52] Susan Weber Soros, "Foreword," in *A.W.N. Pugin: Master of Gothic Revival*, edited by Paul Atterbury and Megan Brewster Aldrich (New Haven: Yale University Press, 1995), 6.

[53] Weber Soros, 6.

(1990),[54] Patricia Spencer-Silver, *Pugin's Builder: The Life and Work of George Myers* (1993),[55] and Joan Jones, *Minton: The First Two Hundred Years of Design & Production* (1993).[56] A more recent addition to this material is Michael Fisher's *Hardman of Birmingham: Goldsmith and Glasspainter* (2008).[57] Although these books do not explicitly deal with Pugin, his work is so inextricably intertwined with that of the four collaborators mentioned here that he plays an integral role in any discussion of their manufactures. In order to better understand Pugin one must also consider the exhibitionary practice as well as the religious climate in which he lived and worked, topics addressed by Jeffrey Auerbach, in his book, *The Great Exhibition of 1851: A Nation on Display* (1999), and Roderick O'Donnell, in his book, *The Pugins and the Catholic Midlands* (2002).

[54] Megan Aldrich, *The Craces: Royal Decorators 1768-1899* (London: Murray, 1990).
[55] Patricia Spencer-Silver, *Pugin's Builder: The Life and Work of George Myers* (Hull, UK: Hull University Press, 1993).
[56] Joan Jones, *Minton: The First Two Hundred Years of Design & Production* (Shrewsbury, UK: Swan Hill Press, 1993).
[57] Michael J. Fisher, *Hardman of Birmingham: Goldsmith and Glasspainter,* Landmark collector's library (Ashbourne, Derbyshire: Landmark Pub., 2008).

In order to answer the research questions presented here, it was necessary to develop a unique, bespoke combination of methods, the various facets of which are considered below. Select aspects surrounding Pugin's attitude towards and adoption of mechanised working methods have been previously written about in different ways, as outlined in the literature review that follows, and this thesis forms a synthesis of the most relevant of these methodological approaches. This combined approach is needed for a full understanding of the history and circumstances surrounding Pugin's approach to mechanisation.

2.1 Intellectual Antecedents

Best known for his role as Senior Research Fellow in Nineteenth-Century Studies at the Victoria and Albert Museum, Wainwright began his career not in academia but by working as a research chemist, and the influence of his hands-on and practical background is evident in his interest towards furniture development and manufacture. A piece published in *Studies in the Decorative Arts* follwing his passing describes him as "the preeminent Pugin scholar of our generation" who was able to bring "his pioneering researches to a broader audience."[1] Indeed, in the text "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," Wainwright examines Pugin's working methods, describing the latter's "positive and pragmatic attitude toward the use of machines," noting that "Pugin's books and letters reveal that he had no particular regard for handcraftsmanship or, indeed, for the happiness and well-being of the craftsmen."[2] Wainwright examines Pugin's manufactures within the context of the Victorian workshop, portraying Pugin as "enthusiastically embracing modern discoveries" that were "immediately applicable to mass-produced artefacts."[3] The work presented in this thesis aims to further Wainwright's research and take its place in a very important chain of intellectual thought regarding Pugin's use of technology.

Throughout this piece Wainwright provides many excellent starting points for further inquiry that have since gone unexplored by subsequent scholars. While the thesis presented here aims to continue this line of thought, it does not exist within a vacuum

[1] Pat Kirkham, "In Memoriam: Clive Wainwright (1942-1999)," *Studies in the Decorative Arts* 7 no. 1 (Fall/Winter 1999-2000), 136.

[2] Clive Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," in *A.W.N. Pugin: Master of Gothic Revival,* edited by Paul Atterbury and Megan Brewster Aldrich (New Haven: Published for the Bard Graduate Center for Studies in the Decorative Arts, New York by Yale University Press, 1995), 163.

[3] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 172.

and even though scholars have largely ignored Pugin's working relationship with industrialisation, there is a rich chronology of academic research upon which this project stands and advances. Key amongst these antecedents are the works of Alexandra Wedgwood and Margaret Belcher, both of whom collated aspects of Pugin's own work to create seminal pieces for the research of Pugin's life and working methods. This includes Pugin's unfinished and unpublished autobiography and diaries in Wedgwood's *A.W.N. Pugin and the Pugin Family* of 1985 and Belcher's *A.W.N. Pugin: An Annotated Critical Bibliography* of 1987. Wainwright himself notes how "Pugin's books and letters reveal" details instrumental in his appraisal of the man as accepting of machinery, and he undoubtedly relied on these sources to provide the necessary details to form this assessment.[4]

Regarding the availability of Pugin's letters, locating each one individually required travel and legwork along with the foresight to know that such a letter even existed and where it might be found. Therefore, for Wainwright to survey Pugin's letters must have been a gargantuan task, the results of which are undeniably useful for this study. Starting in 2001, Belcher began publishing *The Collected Letters of A.W.N. Pugin*, with the fifth volume published in 2015. In total, these texts contain Pugin's correspondence from 1830 to his death in 1852 and represent a major advancement in the development of Pugin studies. Instead of having to locate each letter individually, researchers can now find all of Pugin's correspondence in one place. Featuring an index no less, one can easily pinpoint precisely the required information. The research included in this thesis builds upon the tool that Belcher created, and such an assessment would not have been possible previously. Therefore, the five volumes of *Collected Letters* provide the groundwork upon which this analysis can take place.

2.1.1 History of Technology

The history of technology, while itself not a methodology per se, is nonetheless relevant here as the discipline focuses on issues like the research question posed here, and this in turn provides another avenue for research into the tools and equipment used to fashion Pugin's buildings and goods. Although this thesis centres on Pugin, it examines his attitude to and use of machinery through the lens of the history of technology and addressing one aspect without considering the other does injustice to the nuances contained in both. In the article "Toward a Discipline of the History of Technology," author Eugene Ferguson notes how, in the United Kingdom, "formal recognition of the history of technology, this time as an appendage of the history of

[4] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 163.

science, was granted in 1961."[5] Along with Belcher and Wedgwood, the history of technology has provided certain tools so that, returning to Wainwright and his text on Pugin's design as applied to manufacture, this topic can now be considered here in a way in which it could not have been addressed before.

2.2 Methodological Approach

The survey of literature presented here is necessary to recognise the value of Wedgwood, Belcher, and Wainwright's contributions to this field of study, as it places Pugin within the larger context of the Gothic Revival and assesses his contributions to Victorian art and architecture as viewed over time. Both primary and secondary sources are consulted to reveal not only how Pugin produced his goods and buildings, but also what his true feelings and actions were, if they were at odds with his methods. This required reading widely and deeply on the topic, which revealed the extent to which Pugin's work has been considered from a variety of approaches over the years.

2.2.1 Literature Review

While consulting a wide range of texts is valuable in creating a well-rounded depiction of Pugin's beliefs, it nonetheless necessitated a judicious culling of works which strayed from the topic of architecture and design and the initial research question of Pugin's production methods. This in turn revealed that the interpretations of Pugin's approach to labour and manufacture, and consequently the ways in which his work was undertaken, are equally varied. This inconsistency in approach indicates a gap in the scholarship surrounding not only Pugin, but also the production of goods and buildings in the nineteenth-century Gothic Revival.

The lack of specific details on Pugin's working methods is surprising, given the large quantity of buildings and goods produced in varied media over his forty-year life span. Additionally, some projects such as the construction and furnishing of the new Houses of Parliament required a large quantity of goods to be produced in a short period of time. It would seem that the topic of the production of Pugin's goods and his attitude towards the methods utilized would be examined within academic studies on Pugin and his work but this is not the case.

This literature review also revealed the waxing and waning of Pugin and the Victorian gothic revival as both were topics of derision in the late nineteenth and early twentieth

[5] Eugene S. Ferguson, "Toward a Discipline of the History of Technology," *Technology and Culture* 15 no. 1 (January 1974), 14.

century and the quantity of work dealing with this area dropped off following Hitchcock's publication of *Early Victorian Architecture* in 1954. Wedgwood and Belcher's contributions appear in this gap but these are less original contributions to scholarship and more collations of existing details presented as a research tool and would only be useful to scholars already invested in the topic of Pugin and his works. It took some time for later generations of scholars to reappraise this work, once again bringing Pugin to the forefront. It is almost as though his work was rediscovered after a long hibernation at best or outright condemnation at worst. These intervening years introduced changes into the disciplines of the history of art and architecture that pushed Pugin to the margins.

The Victoria and Albert Museum's 1994 show *Pugin: A Gothic Passion* marked the turning of the tide in regard to Pugin studies, and the exhibition catalogue was a trove of scholarly detail on Pugin's life and works. Similarly, the publication for the sister exhibition at The Bard Graduate Center for Studies in the Decorative Arts, *Pugin: Master of Gothic Revival*, contains chapters covering a range of topics on Pugin's life and works but it was Wainwright's aforementioned chapter "A.W.N. Pugin and the Progress of Design as Applied to Manufacture" that is especially relevant to the study presented here.

While other chapters within this text examined established areas of Pugin's life and work such as religion, architecture, and interior design, and may have provided new insight into these areas, Wainwright's work stands out in its investigation of an unexamined topic relevant to Pugin and his legacy, providing a new trajectory of inquiry for Pugin scholars. Although a community of academics has been highly active in researching and publishing aspects of Pugin's work, any substantive investigation of Pugin's relationship with manufacturing, following on from Clive Wainwright's investigation in the exhibition catalogue, has not been forthcoming.

It is this area where this work positions itself, hoping to continue Wainwright's investigation to reveal how Pugin made his goods and constructed his buildings. This involves first understanding the industrial and mechanical working conditions during his lifetime to see if the areas in which he worked, chiefly metals, home furnishings, and tiles, were representative of the stereotypical characterisation of large factories and inhumane working conditions. The combination of Pugin studies with the history of technology demonstrates the ability to engage with a multidisciplinary field of study to synthesize this information into a coherent investigation. This approach merges these two disparate fields, finding their similarities to develop a framework within which to address Pugin and his collaborators' contributions.

2.2.2 Bibliography as Method

When assembling sources relevant to this investigation, it has been enormously useful to consult the work of others, particularly their bibliographic entries, to get a sense of the range of available scholarship. Belcher's *A.W.N. Pugin: An Annotated Critical Bibliography* is, foremost, the most thorough and comprehensive work on all things Pugin. Other texts with highly relevant bibliographical information are Michael Bright's *Cities Built to Music: Aesthetic Theories of the Victorian Gothic Revival* (1984), Jeffrey Auerbach's *The Great Exhibition of 1851: A Nation on Display* (1999), and Lara Kriegel's *Grand Designs: Labor, Empire, and the Museum in Victorian Culture* (2007). These examples are jumping-off points from which further works have been located and additional scholarship brought to light. The same is true for the history of technology, where Eugene S. Ferguson's aptly named *Bibliography of the History of Technology* (1968) and Jack Goodwin's "Current Bibliography in the History of Technology (1969)" (1971) are similarly useful in regard to that field of study. The lengthy and comprehensive bibliography contained within this investigation both departs from and contributes to the examples provided here in that it features works most relevant to a further study of both Pugin and technology. It is the hope of this researcher that the sources provided here prove useful to other researchers in locating sources relevant to further study.

2.2.2.1 Biography

Examining a figure's background can lend insight into motivations and actions. The work of several of Pugin's biographers are consulted here and, while useful, this method is also fraught with difficulties that it is worth addressing before beginning. The biographical method is a potential minefield where, as Elizabeth Darling states, "[t]he trope of the hero or heroine can take over a piece of writing about an individual."[6] Indeed, the investigation into Pugin's upbringing is not intended to constitute a hagiographical survey, nor is it a Freudian analysis meant to discern his deepest desires. Authors who focus on an individual often do so because of an interest in that particular figure and this can tend to skew their analysis to see that person as irreproachable and possessing some genius qualities that set him or her apart from their peers. As Michael Freedan notes, tracing the "[p]ersonal and linear influence of individuals is simply not a sufficient mechanism for explaining the rise of complex

[6] Elizabeth Darling, "Review: Charlotte Perriand: An Art of Living," *Journal of Design History* 17 no. 4 (December 2001), 420.

belief systems."[7] While an important and useful methodological approach, one must tread carefully since, as Giberti states, "it is not enough for scholars to tell the story of individual designers and their creations."[8] This survey does not propose to designate Pugin as the originator of larger schools of thought nor does it seek to elevate Pugin as the genesis for the Gothic Revival; instead it attempts to focus on those elements of Pugin's background which create the foundation upon which his approach in later life is based. Just as it is naïve to think that one's subject is beyond reproach, it is equally naïve to feel that one's life experiences would not lend insight into the motivations and desires in later life. For that reason, this investigation looks at events from Pugin's childhood forward to show how his interest in machinery and technological progress developed over time.

2.2.3 Textual Analysis

Having examined the bibliographic material of scholars in relevant fields of study, a wide range of materials has been consulted. The bulk of the works examined here are mostly secondary sources, inasmuch as they are contemporary readings and interpretations of the texts published by Pugin during his lifetime. Of course, Pugin's original words have also been examined so that the efficacy and impact of these secondary approaches can be analysed. While this includes Pugin's published works, it also incorporates new primary source material that has only recently become available. Here Margaret Belcher's *Collected Letters of A.W.N. Pugin* offers a glimpse into Pugin's mind, beyond his printed works, as presented candidly to his correspondents. Although attributed to Belcher, the contents are all Pugin and she presents these without commentary, interpretation, or judgment.

It is worth noting here that while Pugin was a brilliant draughtsman and designer whose published works are well written with exemplary grammar, spelling, and syntax, his personal correspondence lacks these qualities. At times this makes his letters difficult to read and comprehend, and here Belcher undertook the monumental task translating his minute and sketchy handwriting for the printed page. What she did not do, however, is make any edits or corrections, instead presenting his words, errors and all. In that regard, this thesis follows the same approach, best elucidated by The Pugin Society in the front matter of their journal, *True Principles*: "[q]uotations from contemporary texts are rendered as they appear in the original, avoiding the frequent use of 'sic'. Transcriptions from A.W.N. Pugin's letters are always reproduced in the

[7] Michael Freedan, "The Stranger at the Feast: Ideology and Public Policy in 20th Century Britain," *Twentieth Century British History* 1 no. 1 (January 1990), 18.

[8] Bruno Giberti, review of *Design History and the History of Design* by John A. Walker and *The Meanings of Modern Design* by Peter Dormer, *Design Book Review* 22 (January 1991), 54.

form in which they appear in Margaret Belcher's definitive *Collected Letters of A.W.N. Pugin.*"[9]

Belcher's first volume of Pugin's letters was published in 2001, with the fifth and final volume appearing in 2015 and a sixth special edition of newly discovered correspondence presented by The Pugin Society in 2018, following Belcher's death. Therefore, the ready availability of this source material is relatively recent. As previously noted in this work, prior to collating Pugin's letters, researchers had to find these examples of correspondence in archives across the UK and further afield. One was also required to know if a letter even existed on a particular topic, and where it might be accessed. Belcher may have done the legwork, bringing these sources together to create an invaluable tool for researchers, but this is just a tool, presenting Pugin's correspondence and allowing researchers the task of historical interpretation.

2.2.4 Comparative Analysis

The value of this investigation arises from the consideration of Pugin's correspondence alongside his published works to more fully develop an understanding of the man and his working methods, and in examination of this information alongside secondary sources from the history of technology and the period in which Pugin was active. Therefore, this research is comparative in several ways, starting with the use of primary and secondary sources. Although by the very nature of the investigation into how authors have written about Pugin and his attitude towards mechanisation, the line between primary and secondary sources has blurred, as what is traditionally considered a secondary source now becomes the primary locus for these details. A better descriptor may instead be works by Pugin in his own words (whether published texts or correspondence) versus works written about Pugin by others, as the comparison between these two areas reveals where assumptions have been made along the way to arise at the view of Pugin as anti-industrial. Pugin's beliefs as expressed in both publications and private correspondence are also compared to his practice and the practice of those firms he employed to fabricate his goods, occasionally revealing a conflict between his "principles and practice" alluded to in this thesis's title. Pugin's rationale and reasoning behind this disjunct is then examined to see whether it can lend further insight into Pugin's working methods.

2.2.5 Revisionism

Methodologically, the study presented here may be considered revisionist in its approach, as it presents the traditional view of Pugin, examines how authors may have

[9] The Pugin Society. *True Principles*, front matter.

arrived at their conclusions, and offers a new way of interpreting these findings. In this regard, the distinction between primary and secondary sources is complicated by this revisionist approach to this work, in which secondary sources become primary source material. While this investigation utilizes the work of others, it does so in an original manner, presenting previously held assertions and offering a new way of interpreting this information. Through the effort to reappraise the scholarly interpretation of Pugin's relationship to manufacturing and production, this study is equally substantive in the generation of new scholarship on an area of neglected study, collating what little has been written about the topic into a larger investigation.

Revisionism and its linguistic root, revision, imply modifying an existing viewpoint. However, it appears that there is no consistent and established understanding of Pugin's use of mechanisation to counter, and that the revisionist approach as applied to this investigation consists more in the creation of this understanding. This necessitates both re-evaluating the current scholarship on Pugin and his working methods and creating a new narrative to fill this void. The revisionist approach employed herein varies from the accepted methodological approach which pits this new evaluation against traditionalist historians. It does not presuppose that historians failed to appraise Pugin's working methods nor does it suggest that these scholars were lacking in a thorough analysis of the documentation surrounding this phenomenon. However, it does consider that new sources of evidence have appeared, casting light over this previously neglected area of Pugin's oeuvre. By providing evidence that makes generalisations and misconceptions about Pugin untenable, this work utilises a revisionist approach to make a new contribution to scholarship.

2.2.5.1 History of Technology

To fully understand how Pugin and his collaborators fit into the Victorian landscape, it is necessary to once again address the history of technology to conduct a survey of manufacturing methods and processes as studies in the history of technology provide the necessary resources. This includes an examination of the factory system and the extent to which this affected the areas of Pugin's manufactures, if at all. The reader will notice throughout this text that the terms 'workmen' and 'craftsmen' are used because the majority of workers and makers in the areas discussed here were male. Women were employed in select industries, such as the cotton manufactories in Lancashire, and Pugin mentions the work of females - coincidentally, supervised by Lucy Powell, John Hardman's sister - in producing ecclesiastical textiles and

vestments.[10] But beyond these select examples, those involved in metalworking, decorating, tile manufacture, and building construction were male. Therefore, the gendered terms 'craftsmen' and 'workmen' are less generalisations and more historic representations of the work force involved at that time in the fabrication of Pugin's goods.

Throughout the consideration of Pugin's working methods, this investigation adopts a contextual approach by examining the circumstances in which Pugin's work takes place, but it adopts neither a historicist nor a reductionist view and attempts to avoid a Hegelian and teleological approach to Pugin's production. In other words, Pugin's work is not viewed as following a predetermined path, unfolding over time to reach an inevitable outcome. While Pugin's family and upbringing informed his approach to making and designing, this work is also careful not to adopt a Freudian psychoanalytical approach. Semantics are employed in examining the way in which authors interpret Pugin's published works to arrive at their stated conclusions.

The value of this investigation arises from the consideration of Pugin's correspondence alongside his published works to more fully develop an understanding of the man and his working methods, and in examination of this information alongside secondary sources from the history of technology for the period in which Pugin was active.

2.3 Case studies

A study of Pugin's working methods must extend to his main collaborators who actually undertook the creation and fabrication of these items. The group of individuals considered here are the four main producers whom Pugin relied upon throughout his lifetime to produce his goods. This includes John Hardman for metalwork and stained glass, John Gregory Crace for wallpaper and furniture, Herbert Minton for tiles, and George Myers for building construction.

Throughout his lifetime Pugin worked with other manufacturers beyond the four considered here. However, more often than not, these four men were involved on projects at the same time and location and the decision to focus on these individuals was made by the importance that Pugin himself placed upon their work. This is evident throughout his correspondence as the bulk of his letters in which he discusses fabricating goods and constructing buildings were addressed to one or more of these

[10] Dom Bede Millard, "Ecclesiastical Textiles," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 210.

four individuals. Additionally, at the Great Exhibition, Pugin devoted each of the four sides of his display area to one of the aforementioned individuals, with the man's name emblazoned upon the cornice along with a description of his trade. In this sense, Pugin self-selects these men as the most important of his collaborators.

Case studies involving the work of each of these key figures has been undertaken to reveal the ways in which each man produced the goods designed by Pugin. While this investigation could have selected one or two manufacturers upon whom to focus, it is useful to see the range of approaches used depending on factors such as the quantity of goods needed, the constraints of the industry, sophistication of production methods, and the facilities available. As shown in the case studies, these approaches were not uniform and varied widely between each of these four producers.

The investigation undertaken here includes examining both documentary and physical evidence in the form of manufacturing accounts and extant machinery. Here, the use of hand work, tools, and machinery is considered and balanced to give an accurate portrayal of Pugin's working methods. While scholars have considered each of Pugin's collaborators to varying degrees, these approaches often view the man not as one of Pugin's collaborators, but as an individual, adopting a biographical slant. None of these examinations have been conducted through the lens of architectural history, whereas the case studies in this thesis combines methodology specific to that discipline with a variety of other approaches to paint a fuller picture of Pugin and his collaborators. The established working methods of these individuals are compared with the popular portrayal of Pugin and his own words in both published texts and private letters. Various additional methods are utilised within this context to better assess the production of goods and a comparative analysis of the similarities and differences of each collaborator's working method is undertaken in chapter 7.

2.3.1 Site Visits

Whenever possible, locations relevant to this research were visited, including historic buildings, museums, collections, and workshops. While the written word can provide details about these locales, actually visiting in person provides a much richer experience that one can appreciate with all the senses. Photographs can give a sense of, say, the Houses of Parliament, but actually entering the building overwhelms the visitor with the totality and scope of Pugin's work. Whether historic recreations or functioning spaces, workshops can provide a similar experience. One can witness workers interacting with the tools and machines of their trade to fabricate goods to Pugin's designs.

2.3.2 Interviews

Visiting sites relevant to this study has, on occasion, provided the opportunity to speak with the practitioners of the particular craft under consideration, or the curators and archivists responsible for safeguarding the legacy of Pugin's objects and/or buildings. Oftentimes these visits reveal details and opinions not found in published texts. This experiential knowledge adds a further dimension to this investigation

2.3.3 Object Analysis

Another benefit to site visits is the chance to handle some of the objects being examined and opportunities such as these were wide ranging and diverse. Whether handling a Pugin chalice to invert it and view its unfinished base, flipping through pages of Pugin's wallpaper samples to view their saturation and sheen, handling an encaustic tile to feel its thickness and heft, or crawling underneath one of Pugin's tables to look for signs of its construction, experiences like these have been invaluable to completing this study. This certainly brings an experiential and, where possible, haptic element to the fullness of the research undertaken.

2.3.4 Visual Analysis

In situations where buildings are no longer standing or objects are not easily procured, a visual analysis has been undertaken. This is most relevant to depictions of nineteenth-century manufacturing. Aside from a select few examples, these workshops are no longer extant and paintings can give a sense of the environment and conditions therein. This might also hint at the layout and the arrangement of tools and machinery. In some cases, workers are depicted interacting with their environment which adds another level to the sense of how these spaces functioned.

2.4 Summary

In sum, the range of methods explained here, used in combination, has informed this study of Pugin's principles and practice and provided a richer and more accurate representation of the man and his work as the remainder of this thesis will demonstrate.

This combination of methods is unique and has been brought together on a needs basis to enable this researcher to answer the research questions contained herein, and this work has further developed skills in these areas.

Throughout his correspondence Pugin repeatedly addresses his reputation. He seems particularly aggrieved that others may be damaging his character and expresses a responsibility for maintaining his good name. Therefore, he undoubtedly would be upset if his views on machinery, the production of his items, and the construction of his buildings were being misrepresented. This in turn requires not only a survey of the reasons some scholars portray Pugin as anti-industrial, but also a survey of his own views on machinery and production to see if these views conflict. An examination of the literature on Pugin's life and works, both during his lifetime and after, has revealed several main trends for the origin of his characterisation as anti-industrial, with the three main causes discussed here.

3.1 Authors who point to Pugin's own writings as evidence of his opposition to machinery and industrial progress

The first source of Pugin's portrayal as anti-industrial originates from Pugin's own published writings, wherein his own statements are ambivalent or at times contrary to his actual practice. The texts presented here include authors who point to Pugin's own writings as evidence of his opposition to machinery and industrial progress. This in turn is compared with his candid personal letters that often speak more directly about the way in which his items are produced, to build up a more fully developed realization of his working methods rather than the flat depictions given in his printed works. As his letters have only recently been collated and published, these scholars, through no fault of their own, have portrayed Pugin as opposing the use of machinery and mechanisation based on the primary source material available to them at that time.

3.1.1 *Contrasts* (1836)

The public was first introduced to Pugin through his insistence upon the superiority of the Gothic style throughout his literary output. It was his writing more than his building that first brought him to the attention of a wider audience and Pugin recognized this impact upon his legacy, stating in later years "my writings much more than what I have been able to do have revolusionised the Taste of England."[1] When examining Pugin's reception by authors and critics both of his own time and of today,

[1] Margaret Belcher, *The Collected Letters of A.W.N. Pugin, Vol. 5 1851-1852* (Oxford: Oxford University Press, 2015), 149 (hereafter cited as *Collected Letters, Vol. 5*).

particularly in regard to his attitude to machinery and industrialization, one must first turn to Pugin's own publications.

Aside from the construction of his own home, St Marie's Grange, in Alderbury outside Salisbury, Pugin had little experience as a practicing architect. He knew a great deal about architectural drawing from his father and he had some experience of architects' offices having worked with Gillespie Graham at Murthly Castle and Holyrood Abbey where he provided sketches and supplied models, decorations, and carvings. In his study of the working relationship between Gillespie Graham and Pugin, James MacAulay notes that at this time (1829), Pugin was "unknown to all but a limited circle" and "could be listed with the other suppliers" unlike in later years "when he had become a national figure and a Catholic controversialist, it would be politic to conceal his aid."[2]

In these early working relationships, Pugin was exposed to the activities of the architectural profession under the tutelage of an experienced practitioner who could step in and correct any errors and omissions, shouldering the responsibility for any potential mishaps. Pugin himself had yet to undertake any large scale architectural projects when, on 4 August, 1836, he published *Contrasts, or A Parallel between the Noble Edifices of the Fourteenth and Fifteenth Centuries, and Similar Buildings of the Present Day; Shewing the Present Decay of Taste: Accompanied by Appropriate Text*.[3] A highly polemical work of satire, *Contrasts* contains thirty-five pages of text and twelve pages of appendices in which Pugin discusses the disparity between the architecture of the Middle Ages and that which was produced in his day.[4] *Contrasts*' greatest impact originates in its illustrations, which make effective use of twelve side-by-side etchings, presented in pairs to illustrate medieval architecture versus contemporary examples of the same structures. Indeed, the work's very title announces the principle upon which the text is organised, wherein Pugin "sets a picture of an alternative society, his own."[5] As Belcher notes, "the appeal and the

[2] James MacAulay, "The Architectural Collaboration between J. Gillespie Graham and A. W. Pugin," *Architectural History* 27, Design and Practice in British Architecture: Studies in Architectural History Presented to Howard Colvin, 1984, 408.

[3] Alexandra Wedgwood, *A.W.N. Pugin and the Pugin Family, Catalogues of the Architectural Drawings at the Victoria and Albert Museum* (London: Victoria and Albert Museum, 1985), 35 (hereafter cited as *Pugin and the Pugin Family*.) Pugin records this date in his diary for 1836.

[4] Margaret Belcher, "A study of *Contrasts* and other writings of A. W. N. Pugin in relation to the mediævalist tradition in Victorian literature; together with a bibliography of publications by and about him" (PhD. diss., University of Canterbury, New Zealand, 1987), 58 (hereafter cited as "A study of *Contrasts*"). Belcher quantifies the pages as shown here and these figures are used, owing to her experience in handling Pugin's original works. The author acknowledges that different publications, reprints, and re-binding of original publications can change the layout and total number of pages.

[5] Belcher, "A study of *Contrasts*," 24.

impact of the plates in his illustrated volumes are immediate in a way that words can never be."[6]

It was through these images that Pugin was most able to compare, as Tim Barringer, Yale Professor in the History of Art, states in his 2005 text *Men at Work: Art and Labour in Victorian Britain*, "an image of the spiritual, communitarian, and organic society of the Middle Ages against the radical disjunctures, cruelties, and ugliness of the modern industrial world."[7] Jeffrey Auerbach, historian and author of *The Great Exhibition of 1851: A Nation on Display* (1999) expressed this notion, noting that *Contrasts* offered a graphic depiction of modern life and the built environment, using pairs of images to demonstrate "the superiority not only of Gothic architecture to modern Classic, but of medieval to modern society."[8] While not incorrect, Auerbach and Barringer's descriptions of the "ugliness of the modern industrial world" and the "superiority" of "medieval to modern society" leave this reader questioning the nature of these statements. What, specifically, was it about the modern world that Pugin found so ugly? Barringer's use of the qualifier "industrial" positions this statement as applicable to industrialisation, meaning manufacturing and the use of the machine. Was this the same element of society that Auerbach references as inferior to that of the Middle Ages? Even Belcher notes that Pugin's illustrations may represent "his ideal in response to the ugliness and ignorance he saw around him."[9] Her statement, however, does not tie this ugliness and ignorance to a specific cause.

3.1.1.1 Social Theory

Is the architecture to blame for this disparity, or is Pugin suggesting that other factors have played a part in creating this modern disillusionment? Patrick Conner states that "those who attribute to Pugin a 'social theory' of architecture may have been misled by the illustrations to *Contrasts*" as "the social issues suggested by the plates" do not appear in the writing.[10] It is true that none of the buildings in Pugin's illustrations are discussed in his text; it is almost as if *Contrasts* were itself a work of two halves. Belcher's account is consistent with this interpretation, having noted that "[t]here is no literal connection of that sort between the two parts of Pugin's book."[11] Instead, [t]he

[6] Belcher, "A study of *Contrasts*," 3.
[7] T. J. Barringer, *Men at Work: Art and Labour in Victorian Britain* (New Haven: Published for the Paul Mellon Centre for Studies in British Art by Yale University Press, 2005), 248.
[8] Jeffrey A. Auerbach, *The Great Exhibition of 1851: A Nation on Display* (New Haven, CT: Yale University Press, 1999), 114.
[9] Belcher, "A study of *Contrasts*," 39.
[10] Patrick R. M. Conner, "Pugin and Ruskin," *Journal of the Warburg and Courtauld Institutes* 41 (1978), 349.
[11] Belcher, "A study of *Contrasts*," 80.

text spells out what the plates will visualize; the plates visualize what the text has spelled out," but the two never converge.[12]

Still, the inference is clearly present, and it is only natural that scholars and historians would assume, based on Pugin's texts and their accompanying illustrations, that Pugin had such a 'social theory' of architecture. Belcher addresses this point in her chapter on Pugin's writing that appeared in the publication for the V&A exhibition, describing how "*Contrasts* is a work of social criticism, satirizing the increasing secularization and materialism of the incipient Victorian period and endeavouring to counter those tendencies by a recall to the values imputed to the past."[13] She continues, claiming elsewhere that Pugin's "concern is not so much with the forms of architecture, however beautiful and impressive these may be, as with the cast of mind and the state of soul of the community which creates them. What he writes thus takes on the character of social criticism."[14] This approach leads one to question whether Pugin really advocated a return to all aspects of medieval culture, including its production methods, even though he never described his views in this way.[15]

3.1.1.2 Religion

The social aspect authors identify may encompass the impact of Pugin's conversion to Catholicism the year prior to the publication of *Contrasts*, as Pugin takes every opportunity to promote his new faith. He does so through his conflation of the terms "Gothic" and "Christian," seeing them as synonymous and leading art historian and author Albert Boime to decree that for Pugin "the restoration of Gothic architecture and the conversion of England were inseparable aims."[16] Boime is not alone in his belief that Pugin converted specifically because of his admiration of the Gothic style – the "'medievalism' of contemporary aesthetic romanticism" – which he equated with Catholicism.[17] Pugin was aware of this confusion and claimed that his conversion to

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[12] Belcher, "A study of *Contrasts*," 80.

[13] Margaret Belcher, "Pugin Writing," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 100.

[14] Belcher, "A study of *Contrasts*," 28.

[15] See Phoebe B. Stanton, "Pugin: Principles of Design versus Revivalism," *The Journal of the Society of Architectural Historians* 13 no. 3 (October 1954), 22; Michael J. Lewis, *The Gothic Revival* (London: Thames and Hudson, 2002), 86. The scholarly uncertainty and contradiction surrounding Pugin's relationship to industry can be seen in Lewis' statement that "Pugin's *Contrasts* was one of the nineteenth century's most heartfelt and anguished responses to the Industrial Revolution" while Stanton believes that "the implied social and political meaning of Pugin's famous plates from *Contrasts* (1841) has been greatly exaggerated."

[16] Albert Boime, *Art in an Age of Counterrevolution, 1815-1848* (Chicago: University of Chicago Press, 2004), 616.

[17] Edward Norman, *The English Catholic Church in the Nineteenth Century* (Oxford: Clarendon Press, 1984), 207. See also Leonor Ingraham-Swets, review of *A. W. N. Pugin: Master of Gothic Revival*, edited by Paul Atterbury and Megan Brewster Aldrich, *Victorian*

Catholicism was not centred on this admiration for the aesthetics of an architectural form that he felt embodied that faith. In a letter to William Osmond on 30 January, 1834, Pugin states "I can assure you after a most close & impartial investigation I feel perfectly convinced the roman Catholick church is the only true one – and the only one in which the grand & sublime style of church architecture can ever be restored."[18] Although he stresses that his conversion was not due to his appreciation of the Gothic style, it was at least a contributing factor as he believed that the two must be linked and henceforth the reason for Pugin's adoption of Catholicism dogged him throughout his life.[19]

Despite his protestations, Belcher nonetheless questions the origins of this conflation, asking "[w]hat foundation is there for his equation of 'Gothic' and 'Christian?'"[20] She concludes that "there is no justification in precedent when there is none in semantics or history for fusing the meanings of the two words and using them, as Pugin does, interchangeably."[21] And yet Pugin employs this rhetorical technique throughout his work, basing the entire premise upon this turn of phrase.

In this light, the "modern society" that Barringer feels Pugin finds so disagreeable is one in which the Catholic faith is not only greatly diminished, but also highly persecuted. The passage of the Catholic Emancipation Act of 1829 was the first instance in Pugin's lifetime where some of the restrictions upon Catholics were lessened. Prior to this date, Catholics were legally disenfranchised and their worship faced surveillance.[22] The religious historian and academic Alan Gilbert notes that this discrimination was indicative of their "inferior status" as "English Catholic[s] faced general antipathy and suspicion" in a culture whose "anti-Catholic prejudices dat[e]

Periodicals Review 30 no. 3 (Fall 1997), 286; [Thomas Mozley], review of *Contrasts; or a Parallel between the noble Edifices of the Fourteenth and Fifteenth Centuries, and similar Buildings of the present day; shewing the present decay of Taste: accompanied by appropriate Text* by A. Welby Pugin, *British Critic and Quarterly Theological Review* 25 no. 50 (April 1839), 480; and John Grant Rhodes, "Ornament and Ideology: A Study in Mid-Nineteenth-Century British Design Theory" (PhD. diss., Harvard University, 1983), 180, who claims that "Pugin's campaign for Gothic is also an undisguised campaign for Catholicism."

[18] Margaret Belcher, *The Collected Letters of A.W.N. Pugin, Vol. 1 1830-1842* (Oxford: Oxford University Press, 2001), 24 (hereafter cited as *Collected Letters, Vol. 1*).

[19] A. Welby Pugin, *A Reply to Observations Which Appeared in "Fraser's Magazine", for March 1837, on a Work Entitled "Contrasts"* (London: Printed for the Author, by James Moyes, 1837), 6. In an effort to quell his critics, Pugin went as far as publishing this article in which he states: "I therefore hope that in Christian charity my conversion will not any longer be attributed solely to my admiration of architectural excellence: for although I have freely acknowledged that my attention was first directed through it to the subject, yet I must distinctly state, that so important a change was not effected in me, but by the most powerful reasons, and that after long and earnest examination."

[20] Belcher, "A study of *Contrasts*," 59.

[21] Belcher, "A study of *Contrasts*," 59.

[22] See A. D. Gilbert, *Religion and Society in Industrial England: Church, Chapel and Social Change, 1740-1914* (London: Longman, 1976).

back to the Reformation."[23] Although the Catholic Emancipation Act reduced this disenfranchisement by allowing Catholics to hold civil and governmental positions, anti-Catholic suspicions remained high.[24] Pugin's unease was manifested in the fortifications built into his homes including a moat at St Marie's Grange, Alderbury, his use of heavy doors with substantial hinges and reinforcements, and his discussion of anti-Catholic sentiments in his correspondence.[25] He even went so far as to suggest in a letter to Lord Shrewsbury of 26 July, 1842 that the fellow Catholic "should not by any means relax in vigilance" as Pugin himself awaited the arrival of the "brass guns" he had ordered.[26] Professor of Ecclesiastical History Nigel Yates notes, "obligation and stability, the essential hallmarks of medieval feudal society, were entirely missing from a society for which the interests of capital, industry and trade were predominant," stimulating a sense of unrest that Yates suggests Pugin incorporated into *Contrasts.*[27]

Indeed, *Contrasts* was founded upon the belief that architecture cannot be judged apart from the society that produced it, a belief that had a profound impact on Victorian architecture and society. When considered in this context, the "ugliness and ignorance" that Pugin abhors are immediately recognizable; the antagonist in this work is the Protestant and "heathen" forms of architecture Pugin lambasts in both text and image.

The religious overtones present in *Contrasts* are readily identifiable in images such as the "Contrasted Parochial Churches" [fig. 3.1]. Here, Pugin depicts St Mary's Redcliffe, a cruciform gothic church dating from the 13th century onwards, with the bulk of its construction predating the Reformation.[28] A mixture of perpendicular, decorated, and early English styles, it represents Pugin's ideal Gothic. He contrasts this with John

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[23] Gilbert, 16.

[24] Curl, *Piety Proclaimed: An Introduction to Places of Worship in Victorian England*, 25.

[25] Belcher, *Collected Letters, Vol. 1,* 48. Pugin writes to E. J. Willson on 17 July 1835 describing "the great thickness of the walls" (3 feet) and the "approach over a drawbridge" at his new home. Hill, *God's Architect*, 134. Hill describes how Pugin's home in Alderbury featured "a dry moat with a working drawbridge, overlooked by a watchtower."

[26] Belcher, *Collected Letters, Vol. 1*, 368.

[27] Nigel Yates, "Pugin and the Medieval Dream," in *Victorian Values: Personalities and Perspectives in Nineteenth-Century Society*, edited by Gordon Marsden (London: Longman, 1990), 37.

[28] Historic England, "Church of St Mary Redcliffe," https://historicengland.org.uk/listing/the-list/list-entry/1218848 What is interesting here is that Pugin does not seem to have viewed the church in person prior to the etching of this plate. Belcher, *Collected Letters, Vol. 1,* 242 shows how Pugin's first recorded interaction with the church appears in a letter to John Rouse Bloxam dated 9 June, 1841, where he writes, "I have just spent a day at Bristol. what a wonderful church is Redcliffe & how ruined. a very Little money expended in removing the horrible pictures at the East end & restoring the glass in the window & opening the fine screen now blocked up, into the Ladye chapel-the effect would be Glorious-there are some very fine things in the Mayors chapel-but Little known." One questions where Pugin saw the church and whether he visited as a child with his father on a sketching trip. Alternately, he could have consulted Britton's text on the history and architecture of the site. This raises the question as to the standard on which Pugin bases his depiction.

Nash's All Souls, Langham Place, an Anglican church from 1824. Built in the Regency style, its odd proportions had already made Nash's church a subject of derision from those outside of Pugin's circle, with *The Mirror of Literature, Amusement, and Instruction* stating that "among all our specimens of contemporary church-building, none has excited more animadversion [....] Its general effect is extraordinary and objectionable," making it "one of the most miserable structures in the metropolis."[29]

Pugin's illustration of St Mary's Redcliffe depicts an ideal medieval world in which people are congregating, the clergy winding their way down the steps at the south-east side of the church, interacting with the congregation and mingling outside following a church service, making for a stark distinction from the modern streetscapes of Langham Place with its lone figures disassociated from one another and their surroundings. Although Pugin intends for *Contrasts* to illustrate the change for the worse in architectural styles, the inclusion of human figures tells a separate yet complementary tale – separate in the sense that the viewer is presented with images not strictly architectural, but complementary as they reinforce Pugin's belief in the ethical implications of the built environment.

3.1.1.3 Human Depictions

Pugin's critics were also aware of this effect, with Thomas Mozley using his anonymous review in *The British Critic and Quarterly Theological Review* of April 1839 to critique it as an example of Pugin's manipulation of depictions in favour of the older, Catholic setting.[30] Mozley focuses on the impact of these figures, stating that Pugin's interior scene of his "Contrasted Parochial Churches" shows "[t]he most solemn act of worship in the Catholic ritual [...] contrasted with the Protestant *opus operatum*, or sermon; rows of stately ecclesiastics with a mingled mass of ladies and gentlemen; devotion with easy negligence" which "suggests to us an agreeable third contrast, not in building, but in persons and worship" [fig. 3.1].[31] Thus it is not the architecture alone which concerns Pugin, but the way in which the inhabitants interact with the buildings. It is "less a picture of the church itself than one of the activity for which it is a setting" as "Pugin creates a scene filled with human experience and makes that his focus," presenting, "in its full implications, an image of a way of life."[32] It is vital to note, however, that this way of life does not include any depictions of machinery or workers and cannot be seen as a comment upon industrialization or working methods.

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[29] "All-Souls Church, Langham Place," *The Mirror of Literature, Amusement, and Instruction* 12 no. 325 (August 2, 1828): 66.
[30] See [Mozley], 479-498.
[31] [Mozley], 491.
[32] Belcher, "A study of *Contrasts*," 18.

Pugin's use of figures serves multiple purposes. Hill feels that Pugin placed human figures in his drawings to not only add a sense of scale but more importantly "to add a narrative, sometimes comic element" as "the disorderly crowd bursting out of Saint Pancras Chapel [from his Contrasted Chapels] and the bobbing bonnets at Brighton [from his Contrasted Royal Chapels] spoke for the secularity of the modern age" [figs. 3.2, 3.3].[33] Belcher notes that the inclusion of figures "[is] another device to attract the viewer to one scene and repel him from the other,"[34] singling out the disparity between Pugin's Parochial Churches as an instance in which "the figures Pugin has introduced contribute to the effect of the plates."[35] It is the use of human figures that moves Pugin's work away from a purely architectural critique to include an examination of the social and religious characteristics of each era.

3.1.1.4 Conduits

Pugin's approach of depicting not only the architecture but also how people interact with their built environment helps to more fully contrast the "architecturally rich, socially coherent medieval past against an impoverished, discordant present."[36] In his plate depicting "Contrasted Public Conduits," a man is shown partaking in the free-flowing water issued from a fountain at West Cheap Conduit in 1479, the purpose of which was decreed to be "so the rich and middling persons therein might there have water for preparing their food, and the poor for their drink" [fig. 3.4].[37] While the fountain and its surrounding buildings are rich in Gothic details, by the modern age this ready access to water has been replaced by a vaguely Georgian gas lamp/fountain as seen at St Anne's in Soho, a chain around the pump to restrict access to the water.

A police station appears in the background of the modern scene, and an officer brandishing a truncheon chases away a child holding a tankard, who pleads unsuccessfully for access to the chained water supply. Not only are the conduits themselves very different in appearance, the background structures also reinforce this contrast, with the contemporary scene being flat with little shading and depth compared to the medieval gothic setting. In the modern depiction a man lounges in the doorway of the police station, arms folded, watching the scene unfold. A man also

[33] Rosemary Hill, "Reformation to Millennium: Pugin's *Contrasts* in the History of English Thought," *The Journal of the Society of Architectural Historians* 58 no. 1 (March 1999), 31.
[34] Belcher, "Pugin Writing," 106.
[35] Belcher, "A study of *Contrasts*," 79.
[36] Chris Brooks, *The Gothic Revival: Art & Ideas* (London: Phaidon Press, 1999), 234.
[37] Henry Thomas Riley, *Memorials of London and London Life in the XIIIth, XIVth, and IVth Centuries: Being a Series of Extracts, Local, Social, and Political, from the Early Archives of the City of London, A.D. 1276-1419. Selected, Translated, and Edited by Henry Thom. Riley* (London: Longmans, 1868), 255.

appears in roughly the same position in the gothic setting, and although he appears in a recessed doorway and is depicted in shadow, the silhouette of his robes is evident. He appears to hold a crosier in his right hand whereas the modern policeman wields a truncheon; here Pugin conveys the contrast of guiding by faith versus guiding by brute force.

While the built environment is depicted to visually illustrate the superiority of the medieval over the modern, Hill sees in this a Dickensian social commentary in which "the message is carried almost entirely by the figures" which "says more about modern morals than does the architecture."[38] It is this similarity between Pugin's depictions and Dickens' exaggerated world of hardships that leads contemporary viewers, unfamiliar with Pugin's religious leanings, to believe that *Contrasts* condemns Victorian society, including industrialization.

3.1.1.5 The Trade

Even with his heavy emphasis on religion and morality, Pugin still found several opportunities to overtly lambast the modern building trade. What Pugin targets here is not contemporary construction methods but architects' preferential treatment of the Classical style and lack of understanding of the "true principles" that he himself would later enunciate. Pugin starts out with a frontispiece [fig. 3.5] showing "selections from the works of various celebrated British architects" where he singles out the neoclassical John Soane by engraving "Johannas Soane" on pendentives reminiscent of Soane's own work at, for example, the Dividend Office in the Bank of England [fig. 3.6].[39] Toward the bottom of the page he calls out the Greek revival architect Robert Smirke, or "Robertus Smirke invt", engraving his name under an altar whose reredos displays architectural tools. He labels this "the new square style,"[40] which Snodin notes is an epithet Pugin employed to refer to the classical and Greek styles of architecture which he regarded as boxy and lacking in verticality.[41]

In the frieze-like border of this image Pugin depicts several other buildings worthy of his insincere praise, including Westminster Hospital. While originally established in the 18th century, the structure sketched here is the Hospital's newly constructed

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[38] Hill, "Reformation to Millennium," 31.

[39] A.W.N. Pugin, *Contrasts; or a Parallel Between the Noble Edifices of the Fourteenth and Fifteenth Centuries and Similar Buildings of the Present Day; Shewing the Present Decay of Taste: Accompanied by Appropriate Text*, (Salisbury: for the Author, 1836), frontispiece (hereafter cited as *Contrasts* 1836).

[40] Pugin, Frontispiece, *Contrasts* 1836.

[41] Michael Snodin, "Style," in *Design & the Decorative Arts: Victorian Britain 1837-1901*, edited by Michael Snodin and John Styles (London: V&A Publications, 2001), 41.

building at Broad Sanctuary built in 1832 by the architect Henry William Inwood.[42] Best known for his works in the Greek Revival idiom, Inwood's attempted Gothic style was clearly not sufficient for Pugin's tastes, particularly as it was located directly across from the medieval Westminster Abbey. John Nash's All Souls, Langham Place also appears here, only to return once again in Pugin's "Contrasted Parochial Churches." As the *Polytechnic Journal* of August 1841 states, *Contrasts* "was a fulminating invective against the whole of the profession and their works *en masse*. No one was spared [...] but all were treated, without distinction, as offenders, and as having degraded the art of architectural design to a mere mechanical 'trade.'"[43]

It is important to note that the *Polytechnic Journal*'s use of "mechanical" is not meant to describe contemporary architecture as originating through the use of machinery, but of having a rote construction, as the Oxford English Dictionary defines the term as "acting or performed without thought; lacking spontaneity or originality; automatic, routine."[44] The same applies to Pugin's depictions of the Trade's output – he does not mention machinery or industrialisation. In fact, when he does depict tools as with the "new square style", what he shows are hand tools. Belcher notes that Pugin readily employs "the practice of juxtaposing antithetical views in order to discredit one and recommend the other."[45] One would think that if he were opposed to industrialisation and the move away from handicraft, this would be an opportune time to include the depiction of machinery as a further example of the degeneracy of the modern period, and yet this does not appear here or elsewhere in this work.

Pugin's frontispiece sets the scene for *Contrasts*, and another plate dedicated to the architectural practice appears immediately following his text [fig. 3.7].[46] In this image, Pugin depicts "the practise of architecture in the 19th century on new improved cheap principles" which he dedicates "without permission to The Trade."[47] Meant to resemble the façade of a building housing both an architectural office and student lodging, and titled "Temple of Taste, and Architectural Repository," it is a pastiche of architectural and ornamental styles, broken up by advertisements. Here "ready-made" elements in "mixed styles" are offered "considerably under prime cost."[48] He also depicts notice for a lecture at the Mechanics Institute on "a new designing machine

[42] Peter Cunningham and Henry Benjamin Wheatley, *London Past and Present: Its History, Associations, and Traditions, Vol. 3* (London: John Murray, 1891), 209.
[43] "Professor Welby Pugin and his opinions," *Polytechnic Journal* 5 (August 1841), 74.
[44] *Oxford English Dictionary*, Third Edition, s.v. "mechanical."
[45] Belcher, "A study of *Contrasts*," 25.
[46] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[47] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[48] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.

capable of making 1000 changes within the same art of ornaments."[49] It would be easy to aver that this is evidence of Pugin's own opposition to machinery but, as Cheshire notes, the main intent of this illustration is to mock "those whose interest in architecture was primarily financial."[50]

Present at the top of the page is an announcement of an open competition for a new church. This appears as a modified tympanum flanked with decorative scroll acroterion. Pugin abandons the traditional triangular form, opting for stacked rectangular blocks which not only better accommodate his text but also further illustrate the "new square style" mentioned in the frontispiece. The church competition is aimed at "youthful, unemployed and aspiring architects."[51] Perhaps referencing the meagre recompense offered in the competition for the new Houses of Parliament, the design must be executed in either the "Gothic or Elizabethan" style and must, quite unrealistically, encompass a church to hold 8,000 people while not exceeding £1500.[52] Here it is not the style to which he is opposed, but the unrealistic financial constraints for the generous accommodations placed upon those who enter the competition. Candidates must submit four elevations, three sections, plans, and three perspective views (not a small amount of work for a competition) with the best design winning £5 (£561 in today's values).[53] In contrast, the winning design for the new Houses of Parliament received £1500, or £168,303, and only required a plan of the proposed building, providing a much larger sum for far less work and showing, in contrast, the paltry amount offered in Pugin's fictional contest.[54] That Pugin chose to present this information in a geometric, classical layout only confirms his opposition to both the competition and the style in which it is depicted.

Pugin also takes aim at the state of design education with a notice claiming "designing taught in 6 lessons" held two nights a week from 6 to 8pm.[55] In the course of only twelve hours, students are promised mastery in "Gothic, Severe, Greek and the mixed styles."[56] That a student could master any one of those styles in only six lessons is unlikely, and was intended to make a mockery of the foundations upon which the modern architectural practice was based.

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[49] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[50] Jim Cheshire, *Stained Glass and the Victorian Gothic Revival* (Manchester: Manchester University Press, 2004), 21.
[51] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[52] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[53] Bank of England. "Inflation Calculator," https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator estimates this to be £561 in 2018.
[54] United Kingdom, *Hansard Parliamentary Debates*, Lords, 3rd. ser., vol. 28 (1835), col. 774.
[55] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[56] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.

Perhaps, however, a student versed in such a wide range of styles would be the ideal candidate to provide the list of "Designs Wanted" that Pugin advertises. These include "'a Moorish fish market with a literary room over, an Egyptian marine villa, a castellated turnpike gate, a gin temple in the baronial style, a dissenting chapel in a plain style to serve occasionally for a lecture or reading room, a monument to be placed in Westminster Abbey, a colossal figure in the Hindoo style, and a Saxon cigar divan."[57] Belcher states that "[a]rchitects contemporary with Pugin were willing to draw plans in any style their clients asked for; hence the bite of Pugin's satire in the plate at the beginning of *Contrasts* which he dedicated to 'The trade,' where he mocks both those who commission and those who supply such anomalies."[58] In his examination of the architect's changing role, Hanson notes how Pugin questioned "the new compact between the architect and industrial discipline about the 'baseless' eclecticism it spawned."[59] The willingness to work in any style is akin to having no style and, as Belcher believes, no integrity. For architecture "is not a 'trade,' which is independent of convictions, but a profession, the consequence of beliefs professed: a man can no more be a true architect in any number of styles than he can be a true follower of any number of religious sects."[60] Viewed in this light, Pugin is suggesting that an architect take sides, and for him aligning oneself with the Gothic style is also to align oneself with the ancient Christian, or Catholic, faith. As Eastlake states, when taken in aggregate, this plate "draw[s] attention to the judicious skill displayed by the Mediæval builders as compared with those of a modern and degenerate age."[61]

3.1.1.6 Restorations

It was not enough for Pugin to simply restore a structure to its gothic form. As George Edmund Street notes in 1861, ancient buildings "connect the present with the past" and that "the restoration of ancient buildings may very easily – as it does, only too often – mean their *destruction*."[62] Pugin was familiar with the disastrous effects of so-called architectural restorations after Salisbury Cathedral was "improved" by James Wyatt, a "monster of architectural depravity" and "pest of Cathedral architecture"[63] whose renovations involved "the removal of screens, and the carting away of old stained glass to the city ditch."[64]

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[57] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.
[58] Belcher, "A study of *Contrasts*," 37.
[59] Brian Hanson, *Architects and the "Building World" from Chambers to Ruskin: Constructing Authority* (Cambridge, UK: Cambridge University Press, 2003), 14.
[60] Belcher, "A study of *Contrasts*," 38.
[61] Eastlake, 214.
[62] G. E. Street, "On the Restoration of Ancient Buildings," *The Civil Engineer and Architect's Journal* 24 (July 1861), 199.
[63] Belcher, *Collected Letters, Vol. 1*, 23.
[64] G. E. Street, 200.

Pugin addresses the plight of unsympathetic restorations in his image of the west doorway of St Mary Overies, Southwark, better known as St Saviour's church following a name change after the Dissolution of the Monasteries [fig. 3.8]. Here Pugin depicts the gothic western doorway of the twelfth century, shown open with congregants milling about inside. The modern version features a new entrance consisting of three arched doors, the centre being the largest. The doors are made of painted deal panelling with concealed hinges and, depicted closed, appear more like a wall than an entryway. Perhaps the most shocking element of the modern doorway is the inclusion of architectural scrap with a sign advertising "old materials for sale."[65] Judging by their appearance, these are parts of the original gothic entrance, now busted and discarded. Far from hyperbole, this undoubtedly references the fact that, as the English author and antiquary John Timbs states in *Curiosities of London* (1867), "the nave, it is believed, the oldest part of the structure, was, in 1839, taken down within 7 feet of the ground, and was sold for 150 guineas!"[66]

Pugin also shows a cross section of the ancient and modern door jambs with the ancient example revealing its undulating depths creating its gothic silhouette. In contrast, the modern doorjamb consists of right angles and appears very plain and nondescript. It would be easy to infer that this is an indictment of the degeneracy afforded by modern machinery. However, if one considers the effort that is involved in carving each of these profiles, it would be much more expedient and less laborious to carve the gothic example using a machine such as Jordan's Patent Steam Carving machine, which Pugin would put to great use in his work at the Houses of Parliament (see Chapter 7). Conversely, if one could only rely on hand tools, it would cause much less difficulty to fashion the two horizontal and two vertical cuts of the new door jamb.

While Pugin intends for the gothic examples shown here to be more aesthetically pleasing in comparison with the bland and utilitarian modern designs, one must not lose sight of the fact that it is not the construction of the building and its elements that concerns him here. Instead he is protesting what he regards as the demolition of faith and heritage, parcelled off for sale. It is not only a disgrace that the old building has been corrupted by its supposed 'restoration', but also an ultimate insult to display its component parts laid out as if in a butcher shop. As George Gilbert Scott states, this was not an uncommon occurrence as historic buildings "have been taken down for the

[65] Pugin, "St Mary Overies, Southwark," *Contrasts* 1836.
[66] John Timbs, *Curiosities of London: exhibiting the most rare and remarkable objects of interest in the metropolis; with nearly sixty years personal recollections* (London, Virtue, 1867), 201.

value of their materials [...] they would become the quarries which would supply all the petty buildings around them."[67]

3.1.2 Second Edition of *Contrasts* (1841)

Contrasts brought Pugin to the attention of the general population, its notoriety enduring in the public press as reviews and commentaries continued to appear years after its publication. A review in *The British Critic and Quarterly Theological Review* from April 1839 deemed Pugin "the first Gothic architect of the age"[68] while *The Ecclesiologist* agreed that "a new work by Mr. Pugin must always excite attention."[69] *The Builder* of 1843 exclaimed that "acknowledged or not acknowledged, [Pugin] is the virtual pope or chief pontiff in these matters."[70] Of course a host of far-worse vitriolic statements against Pugin's "Romanist sympathies" also began to appear in the press[71] alongside more light-hearted fare such as *Punch* magazine's inclusion of Pugin amongst "The Pilgrims to Rome," where he is depicted as a "Limnere and ye Architecte," carrying a gothic crocket as he sees "[t]he thirteenthe, in ye nineteenth centurie" [fig. 3.9].[72]

This publicity gained him architectural commissions from fellow Catholics who were pleased to employ one of their own on projects for which an understanding of the faith was vital. These commissions included residential work at Scarisbrick Hall, Lancashire, along with the churches of St James, Reading; St Mary's, Derby; Our Lady and St Thomas of Canterbury, Dudley; St Anne's, Keighley; St Alban's, Macclesfield; St Augustine's, Solihull; St Marie's, Southport; St Marie's, Uttoxeter; St Wilfred's, Hulme; Chancel of St John's, Banbury; St Michael's, Wexford; and most notably the St Chad's, Birmingham – the first cathedral to be built in England since the Reformation.[73]

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[67] George Gilbert Scott, "Copyism in Gothic Architecture," *The Builder* 8 no. 375 (April 13, 1850), 42.

[68] [Mozley], 481.

[69] "Pugin's Floriated Ornament," *The Ecclesiologist* 10 no. 86 (February 1850), 324.

[70] Review of *The Present State of Ecclesiastical Architecture in England* by A. Welby Pugin, *The Builder* 10 no. 6 (March 18, 1843): 69.

[71] Eastlake, 152. Historians such as Eastlake look unfavourably upon Pugin's proselytizing, remarking that Pugin's religious convictions "are excusable in the mind of a zealous convert, but they have no legitimate place in the polemics of art."

[72] "The Pilgrims to Rome," *Punch* 20 (1851), 230.

[73] Dates for the work listed here are: Scarisbrick Hall (1837), St James, Reading (1837), St Mary's, Derby (1837), Oscott College Chapel (1837), Our Lady and St Thomas of Canterbury, Dudley (1838), St Anne's, (1838), St Alban's, Macclesfield (1838), St Augustine's, Solihull (1838), St Marie's, Southport (1838), Convent of Mercy, Bermondsey (1838), St Peter's College Chapel, Wexford (1838), St Marie's, Uttoxeter (1839), St Wilfred's, Hulme (1839), Mount St Bernard's Abbey (1839), Chancel of St John's, Banbury (1839), St Chad's Cathedral, Birmingham (1839), Warwick Bridge presbytery (1840), St Michael's, Wexford (1839), Convent of Mercy, Birmingham (1840).

Having accrued extensive architectural experience, Pugin returned to *Contrasts*, publishing a second edition in 1841.

This second edition featured a change in title, from *A Parallel between the Noble Edifices of the Fourteenth and Fifteenth Centuries, and Similar Buildings of the Present Day* to *A Parallel between the Noble Edifices of the Middle Ages, and Similar Buildings of the Present Day*, accompanied by a revision of the text. Regarding the illustrations, Pugin removed one and added five new plates, featuring what Pevsner calls "the most venomous" of his illustrations.[74] Indeed, for those who saw Pugin's 1836 edition of *Contrasts* as an anti-industrial diatribe, this sentiment was only reinforced in the second edition of 1841. Lewis notes that the updated 1841 version included "even more ferocious contrasts, [creating] a shocking indictment of Industrial Revolution England whose physical repulsiveness was claimed to be of a piece with its moral degradation."[75] What is not clear is whether Lewis uses the term "Industrial Revolution" as a chronological signifier, or to refer to the increase in the use of machinery in factory settings. Nevertheless, the added plates for the second edition show Pugin moving from critiquing individual buildings to attacking the entire social order. Frampton and Cava point out that Pugin's "polemic is sharpened considerably" in the revised edition, in which he "criticizes a whole range of utilitarian practices" including the erection of a panopticon, the establishment of work houses, and the "dissect[ion of] the bodies of the poor in the name of medical research."[76]

3.1.2.1 Residences for the Poor

The image that Frampton and Cava reference is Pugin's "Contrasted Residences for the Poor," wherein the monastery-like poorhouse of the 1440s, identified by Pevsner as St. Cross Hospital outside Winchester, has been replaced by a large panopticon with its radiating branches and central observation deck, a form most closely associated with a prison [fig. 3.10]. Here the modern poorhouse is compared with its medieval counterpart – a monastery. While the buildings themselves are very different in appearance, it is the small images flanking the margins in which the real story is told. Once again Pugin places figures into these architectural settings, to "give life to the illustrations of ancient buildings and deny its presence in the modern. They are intended to bear out and ratify the argument of the text"[77] and illustrate how place and

[74] Nikolaus Pevsner, *Some Architectural Writers of the Nineteenth Century*, (Oxford: Clarendon Press, 1972), 106.
[75] Michael J. Lewis, 85.
[76] Kenneth Frampton and John Cava, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture* (Cambridge, MA: MIT Press, 2001), 36.
[77] Belcher, "A study of *Contrasts*," 79-80.

person are interdependent. Here Pugin shows 'one of the poor men' – the modern man barefoot, huddled on the floor in a setting reminiscent of a prison cell, while the medieval man is richly attired, standing fully erect outside of a gothic building from which he is presumably free to come and go as he chooses.

Pugin also depicts the 'master' of each complex; in the medieval setting this is a priest or monk, distributing food or coins to a parent and child. There is a reciprocity shown here, of thanks and respect from both parties. In the modern depiction, the master is a man of enforcement, shown holding a whip and handcuffs, with shackles on the wall behind him. He is a figure of control and hierarchy, leaving no doubt that he is superior in status and character to the poor souls who depend upon him. This is illustrated in the plates where the master is shown "enforcing discipline." Here the modern master utilizes the implements of restraint shown in his surroundings, as he separates a woman from what are presumably her children. A door with a chain and padlock await, perhaps as the new dwelling for this family. In the medieval setting, the poor are shown receiving the "discipline of an edifying sermon" in contrast to "that of a public flogging."[78]

These depictions are emblematic of the newly reformed Poor Laws of 1834 which generated "a wave of workhouse building programmes across Britain."[79] As Gilmour states, the Poor Law of 1834 was intended "to reorganise an inefficient old system on the basis of discouraging the able-bodied poor from depending on the rates."[80] Although this old system may have been inefficient, the new approach was inhumane and Pugin lambasted the effects of "mandatory poor relief and urged the superior merits of old-fashioned almsgiving."[81] The doors of the medieval church are thrown open to embrace the less fortunate, while modern wardens administer stern corporal punishment to keep the poor in line. It is a bleak scene, designed to contrast the richness of medieval life with the squalor and dehumanization of the present day.

Pugin illustrates other aspects of modern life, showing the medieval poor man's diet of beef, mutton, bacon, milk, ale, cider and wheat bread contrasted with the modern pittance of bread and gruel. Should the body fail, medieval clergy are shown attending to the funeral rites of a deceased brother. Surrounded by mourners, the ecclesiastics

[78] Yates, 70.

[79] Alex Lawrey, "The (In)dignity of Labour: Craft, Contrasts and Conflict in Pugin's Gothic Revival," in *Gothic Revival Worldwide: A.W.N. Pugin's Global Influence*, edited by Timothy Brittain-Catlin, Jan De Maeyer, and Martin Bressani (Leuven: Leuven University Press, 2016), 207.

[80] Robin Gilmour, *The Victorian Period: The Intellectual and Cultural Context, 1830-1890* (London: Longman, 1993), 47.

[81] Robert Kent Donovan, "The Denominational Character of English Catholic Charitable Effort, 1800-1865," *The Catholic Historical Review* 62 no. 2 (April 1976), 207.

wear full ceremonial garb and have all the accoutrements of the Catholic burial ceremony. Meanwhile, in the present day a cart is shown removing a coffin labelled 'for dissection'. This was reflective of the Anatomy Act of 1832 which was contrary to the Christian belief that the body must remain whole to be eligible for resurrection. In the 2016 book *The Study of Anatomy in Britain, 1700-1900*, lecturer in Social and Cultural Studies Fiona Hutton affirms the Victorian belief that "[u]nder the punishment of dissection, there was no final resting place for the body, as it was mutilated and dispersed into anatomical collections." [82] Allowing the body of those who died without means to be utilised for dissection offered a final insult to the poor by destroying "the final hope of the reunification of the soul and body on the Day of Judgement."[83]

What is most interesting about this plate is that it provides Pugin the perfect opportunity to illustrate his feelings about machinery and industrialization. He could easily have included a scene showing modern figures working in a factory setting of enforced employment, with men, women and children all toiling over presumably dangerous machinery while the medieval adult poor worked on handicraft projects, learning a trade while producing goods for sale. However, Pugin does not include depictions such as these, not because his work did not provide the opportunity to do so but presumably because he does not hold these beliefs.

3.1.2.2 Towns

Another highly controversial image features "Contrasted towns" which Belcher regards as "possibly the best known of all his illustrations" [fig. 3.11].[84] In these frames a "Catholic Town in 1440" and "The Same Town in 1840" are depicted, showing how large, featureless warehouses crowd the banks of the river while once open green spaces are overrun by barriers and walls to restrict free access. Even the modern bridge has been equipped with a toll booth to limit passage. A panoptic jail and lunatic asylum appear while the abbey now lies in ruins.[85] In the caption Pugin notes the appearance of new houses of worship for Quakers, Socialists, and Wesleyans as the once proud steeples rising from the town's many Catholic churches have been replaced by belching smokestacks; Pevsner notes that "[t]here were eleven churches; now there are five, but they are fortified by six non-conformist chapels and the Socialist Hall of

[82] Fiona Hutton, *The Study of Anatomy in Britain, 1700-1900* (London: Routledge, 2016), 62.
[83] Fiona Hutton, 62.
[84] Belcher, *Collected Letters, Vol. 1*, 149.
[85] Although they are not readily distinguishable, Pugin notes the existence and subsequent disappearance of these buildings in the captions for his illustrations.

Sciences.[86] A town once unified by a single religion and architecture now lies fractured, its inhabitants isolated by both their faith and the built environment. All aspects of the modern town appear regulated and dominated not by faith but commerce, making it easy to see how readers could attribute an anti-industrial approach to Pugin's works. More appropriately, however, these illustrations indicate the extent to which Pugin believed "there should be one style [Gothic] as there was one faith [Catholic], and maintained that good buildings could be built only by good men."[87]

Pugin moves from microcosm to macrocosm, "critiquing modern society through its urban form"[88] as if to say that if left unchecked, the questionable buildings which first appeared in 1836 would lead to a total degeneracy in the community. The key here is understanding that Pugin's remedy was to reinstate the Catholic Church and through its beneficence such ills could be corrected. As Gissen notes, Pugin saw the modern townscape "as indicative of a modern capitalist society without core religious beliefs" whereas "[t]he noticeably less smoky and far more picturesque medieval town illustrates the harmony of precapitalist religious society."[89] Yates agrees, stating that "[t]he modern industrial city, choked with filth and grime, was contrasted with the spacious medieval town dominated by its churches and monasteries."[90]

In his new town, steeples have been replaced with smokestacks. The town of 1840 lacks verticality; even the plate itself lacks the height present in the medieval town. It is a shallow representation, both visually and spiritually. However, it is not that factories have appeared in the modern town, it is that they have replaced the churches that once occupied those spaces with prisons, factories, and warehouses. In the new town, "the greed, inurbanity and bitter ugliness of the early industrial age have replaced the spaciousness and beauty of the mediæval city" along with "the classic idiom that was accepted as the respectable and safe solution for secular and sacred buildings."[91]

Pugin was not contrasting the townscapes based on date alone, and in case there was any confusion, he quite literally spells it out. It is not a town of 1440 it is a *Catholic*

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[86] Pevsner, *Some Architectural Writers of the Nineteenth Century*, 106.
[87] Asa Briggs, *The Age of Improvement, 1783-1867* (Harlow, UK: Longman, 2000), 469.
[88] Chris Miele, "Conservation and the Enemies of Progress?" in *From William Morris: Building Conservation and the Arts and Crafts Cult of Authenticity, 1877-1939*, edited by Chris Miele (Studies in British art, v. 14. New Haven, CT: Yale University Press, 2005), 9.
[89] David Gissen, *Subnature: Architecture's Other Environments* (New York: Princeton Architectural Press, 2009), 48.
[90] Yates, 69.
[91] John Gloag, *Victorian Taste: Some Social Aspects of Architecture and Industrial Design, from 1820-1900* (New York: Barnes & Noble Books, 1973), 22.

town of 1440.[92] He titles the modern example "the same town in 1840" rather than "the same Catholic town of 1840."[93] As Schmiechen states, "Pugin's message was clear: the architectural landscape of the medieval past was moral, 'Christian,' and beautiful, while the new industrial landscape was ugly" and therefore immoral and unchristian.[94] While Schmiechen's use of "ugly" references the decline in aesthetics, it is striking that he does not expand upon this to indicate the population's waning moral wellbeing as the disintegration of the church buildings communicates a moral disintegration in the population. There are a reduced number of spires in the modern plate, some of which may have fallen down on their own due to lack of maintenance. One spire in the right third of the image is now missing its top section, indicating that it has crumbled due to neglect, indicating that the congregation has not been attending or contributing to the building's upkeep. This is not only a matter of aesthetics, but also indicative of amorality and a move away from practicing Christian religion, and it is striking that Schmiechen does not expand upon this point.

3.1.2.3 Typefaces

The literature on Pugin makes clear the way in which he was comparing images, but what has been neglected was the way in which he used a typographic element to support this comparison. In her book *A.W.N. Pugin and the Pugin Family*, Alexandra Wedgwood examines examples of Pugin's own typeface designs by locating five unidentified typographical compositions including title pages, capital letters, decorative motifs and gothic alphabets.[95] These designs are in the Gothic style and are unique to Pugin whereas in *Contrasts* Pugin appropriates typography outside of his own realm to enhance his argument and prove a point. Here, each of his contrasted pairs is identified with a descriptor and each building therein is given a title. To return to the "Contrasted Public Conduits" [fig. 3.4], "West Cheap Conduit" is written in a gothic script with flourishes and serifs. "St Annes Soho", however, is labelled using a far more modern sans-serif typeface. While well known today, the sans-serif style was first commercially cast in 1816 by William Caslon IV [fig. 3.12]. Given the rise in popularity and commercialisation of sans-serif fonts in the early 19th century, one may be tempted to think that Pugin's use of these typeforms is an indictment of modernization and industry. However, prior to this date, sans serif type was depicted by John Soane, who sketched examples of the lettering found on the Temple of Vesta at

[92] Emphasis mine.
[93] Pugin, "Contrasted Towns," *Contrasts* 1836.
[94] James A. Schmiechen, "The Victorians, the Historians, and the Idea of Modernism," *American Historical Review* 93 no. 2 (April 1988), 292.
[95] Wedgwood, *Pugin and the Pugin Family*, 277.

Tivoli [fig. 3.13].[96] 'Heathen' buildings such as these are in marked contrast to Pugin's Gothic structures which display their Catholic origins. Given Pugin's abhorrence of Soane and the Classical style the latter championed, Pugin surely adopted the use of the sans-serif font to show a similar disapproval to the plates in which it was featured.

The advertisements and notices depicted in Pugin's plate dedicated to the Trade are comprised entirely of a nondescript sans-serif font. The type varies only in size and features text advertising a "New Church Open Competition" rendered in the style of an inscription, using Roman monumental capitals with the use of a *V* instead of *U*.[97] Design historian Philip Meggs describes the development of this typeface, stating that "a Roman inscription became a sequence of linear geometric forms adapted from the square, triangle, and circle," a typographic example of "the new square style."[98] Furthermore, the frontispiece showing "selections from the works of various celebrated British architects" includes the title and author at the bottom of the illustration [fig. 3.5]. While sans-serif like the rest of the type featured on the print, this text is unique in that it features the outlines of the text, copying the Greek sans-serif capitals seen in the 1810 work of classical archaeologist William Gell [fig. 3.14].[99]

Quite tellingly, Pugin also utilizes this same typeface is in his "Contrasted House Fronts" where he uses it to label John Soane's house, an image that Belcher describes as "a petty and personal attack" and which was consequently dropped from the second edition [fig. 3.15].[100] In his dissertation, Timothy Brittain-Catlin states that although Pugin and Soane were vastly different, Pugin nonetheless "shared with Soane the understanding that architectural symbols carry meaning."[101] It would seem that Pugin was utilizing this approach regarding his selection of typefaces throughout his work, to denigrate both Soane and the Classical or 'pagan' style of architecture.

Pugin's selection of typefaces throughout *Contrasts* is both subtle and calculated. At first glance, the labels for "Contrasted Residences for the Poor" [fig. 3.10] both appear to be written in sans-serif capital letters, however the *A* in "Antient Poor House" is

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[96] Margaret Richardson, "John Soane and the Temple of Vesta at Tivoli," *Architectural History* 46 (2003): 127-146.

[97] Pugin, "Plate dedicated to the Trade," *Contrasts* 1836.

[98] Philip Meggs and Alston W. Purvis, *Meggs' History of Graphic Design* (Hoboken, NJ: Wiley, 2012), 29.

[99] William Gell, *The Itinerary of Greece, With a Commentary on Pausanias and Strabo and an Account of the Monuments of Antiquity at Present Existing in That Country* (London: Printed for T. Payne, 1810),

[100] Belcher, "A study of *Contrasts*," 84; A. Welby Pugin, *Contrasts; or, a Parallel Between the Noble Edifices of the Middle Ages, and Corresponding Buildings of the Present Day; Shewing the Present Decay of Taste. Accompanied by appropriate Text* (London: Charles Dolman, 1841), x (hereafter cited as *Contrasts* 1841).

[101] Timothy John Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context" (PhD. diss., Cambridge University, 2004), 20.

written in a style reminiscent of Albrecht Dürer, whose work Pugin had previously studied [fig. 3.16].[102] While not the same sort of flourishes that appear on serif type today, Pugin's typeface is decidedly more Gothic than sans-serif.

3.1.2.4 Morality

It is important to stress once again that *Contrasts* was far from a work condemning industrialization. Instead of purely critiquing architecture, the work was a social and moral commentary that blurred the boundaries between architectural criticism and rhetoric, introducing an ethical element by implying that architectural truth and religious truth were one and the same.[103] As Belcher notes, "properties of the architecture become qualities of the society which builds it; aesthetic values indicate spiritual and moral ones."[104] Pugin's advocacy of the Gothic went beyond simply promoting its appearance as he repeatedly stresses that "[w]e do not want to revive a facsimile of the works or style of any particular individual, or even period; *but it is the devotion, majesty, and repose of Christian art, for which we are contending;* – it is not a *style*, but a *principle.*"[105] Pugin also states that "I seek antiquity and not novelty. I strive to *revive* not *invent*" a modern Gothic appropriate for his own age.[106]

Pugin's argument is stylistic, insomuch as he believed style and faith were synonymous. Eastlake summarizes that Pugin's writing is marked by, first, an "assumption on the part of its author that the moral and social condition of England was infinitely superior in the Middle Ages to that of the present, and secondly that a good architect ought to inaugurate his professional career by adopting the faith of the Roman Catholic Church."[107] Here Pugin is interested in Catholicism as a progenitor of the Gothic style, with which David Watkin agrees, as he strongly believes that throughout *Contrasts* Pugin "wrote about the forms of Gothic architecture as though they were the unchanging truths of the Catholic Church itself," situating Pugin's work as a religious tract.[108] Megan Aldrich follows, stating that Pugin "linked spiritual belief

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[102] Review of "Ferrey's Recollections of Pugin" by Benjamin Ferrey, *The Ecclesiologist* 22 no. 146 (October 1861), 307.

[103] David Watkin, *Morality and Architecture: The Development of a Theme in Architectural History and Theory from the Gothic Revival to the Modern Movement* (Oxford: Clarendon Press, 1977). Watkin was the first to explicitly address this concept in this text.

[104] Belcher, "A study of *Contrasts*," 31.

[105] A. Welby Pugin, *An Apology for the Revival of Christian Architecture in England* (London: J. Weale, 1843), 44.

[106] Belcher, *Collected Letters, Vol. 1*, 144.

[107] Eastlake, 152.

[108] David Watkin, *English Architecture: A Concise History*, rev. ed. (London: Thames and Hudson, 2001), 156.

to the quality of design, claiming that this connection between spirituality and art had produced artistic brilliance during the Gothic period."[109]

Returning to the anti-industrial qualities that some authors perceive, Aldrich asserts that Pugin attributed the influence of religion upon craftsmen which led them to produce products of superior quality to those made in Pugin's lifetime.[110] In this case Pugin's primary interest was not the Gothic style itself but the quality of craftsmanship that resulted in the Gothic style. The pointed arch becomes a signifier, synonymous with both religion and craftsmanship. Lastly, Pugin himself avers "let our fervent prayer ever be, that the Church may again, as in days of old, cultivate the talents of her children to the advancement of religion and the welfare of their own souls; – for without such results talents are vain, and the greatest efforts of art sink to the level of an abomination."[111] He asks that the (Catholic) Church inspire believers to produce the highest quality of work; should quality works be produced in circumstances outside of the Church, whether by hand or machine, these "talents are in vain" and the works "sink to the level of an abomination."[112]

When assessing *Contrasts,* it is easy for scholars to become distracted while trying to discern Pugin's motivation and Pugin himself is partly to blame as his writings are generally ambiguous on the topic. A reading of Pugin's published works gives the overwhelming impression that he strongly opposed the architecture and artistic output of the times in which he lived, and this has led to the assumption that Pugin also opposed industrial production and mechanisation. However, nowhere in the text of *Contrasts* does Pugin explicitly address the manufacturing processes by which these buildings were constructed, and based on his fervent rhetoric and contentious illustrations it is easy to assume that Pugin was disillusioned with modern day construction and manufacture. For example, Barringer sees in *Contrasts* "vivid discussions of the labour practices by which an object or building is produced and the characteristics of its producers" which it is not easy to pinpoint in the text and, further, he infers that "the industrial working class emerges as sullen and degenerate" in these depictions.[113] In fact, *Contrasts* eschews judgment on mechanisation and instead addresses "the direct connection between art and morality";[114] between "religious truth

[109] Megan Aldrich, *Gothic Revival* (London: Phaidon Press, 1994), 149.
[110] Aldrich, *Gothic Revival,* 152.
[111] A. Welby Pugin, *The True Principles of Pointed or Christian Architecture* (London: John Weale, 1841), 33 (hereafter cited as *True Principles*).
[112] Pugin, *True Principles*, 33.
[113] Barringer, 251.
[114] Clark, *The Gothic Revival*, 148.

and architectural truth."[115] Pevsner states that "it is Pugin the Catholic more than Pugin the architect who speaks in *Contrasts*"[116] as Pugin introduced an ethical component into the architectural debate while his social critique was appropriated to further the idea that he was anti-industrial. Michael J. Lewis pinpoints the crux of the argument, stating that "*Contrasts* turned on a single insight: that architecture can not be judged apart from the society that produced it."[117]

3.1.2.5 *Veritas*

The final plate in *Contrasts* features a scale labelled "*veritas*" – Latin for truth – balancing a medieval building on one side and a modern building on the other [fig. 3.17]. Pugin literally spells out his message as he states that "they are weighed in the balance and found wanting."[118] Here he appropriates the biblical verse from Daniel 5:27 in the King James Version where King Belshazaar receives a message from God who is displeased with his behaviour [fig. 3.18].[119] By including this plate Pugin shows that not only is he displeased with the construction and appearance of the modern building, but that this censure extends to the holy realm. By placing this image at the end of the text, Pugin does not need to explicitly state the deficiencies between the two buildings divided in time. After reading his text and viewing the previous plates, by the time his readers encounter this plate they should understand exactly what is lacking.

3.1.2.6 Reception

The confusion about how to correctly assess *Contrasts* is not just a symptom of modern-day readers, although they are at a disadvantage for not being as aware of the religious and social issues occurring at the time of its publication. Nonetheless, both then and today, Pugin's work is both highly original and strongly polemical, and it elicited both support and opposition as "reviewers fail[ed] to agree about the quality of the book [....] some took it as architectural history, others as ecclesiastical."[120] Still others saw Pugin's writings as a work of literature that used the common convention of invoking "a period from the medieval past as a rhetorical device for a critique of the

[115] Watkin, *Morality and Architecture: The Development of a Theme in Architectural History and Theory from the Gothic Revival to the Modern Movement*, 21.
[116] Pevsner, *Some Architectural Writers of the Nineteenth Century*, 104.
[117] Michael J. Lewis, 85.
[118] Pugin, "*Veritas*," *Contrasts* 1836.
[119] 5 Dan. 5:13. "And this *is* the writing that was written, MENE, MENE, TEKEL, UPHARSIN. 26 This *is* the interpretation of the thing: MENE; God hath numbered thy kingdom, and finished it. 27 TEKEL; Thou art weighed in the balances, and art found wanting. 28 PERES; Thy kingdom is divided, and given to the Medes and Persians."
[120] Belcher, "Pugin Writing," 106.

failings of contemporary society."[121] Alexander summarises when he identifies *Contrasts* as "an original combination of several traditions: witty polemical cartoon, architectural satire, and a polarized moral vision of a prophetic, revolutionary and Romantic kind."[122] He goes on to note that Pugin's work is an example of an "extreme caricature [that] serves a satirical purpose" but veers off track when he states that "the increase of industrial production has come at dire human and spiritual cost, visible in the greed, cruelty, social division and harshness of urban life."[123]

It has already been shown that Pugin does not address industrialization throughout *Contrasts*, beyond using contemporary buildings as a foil to the religious Gothic buildings of the Middle Ages. Voorthuis is closer to the mark when he summarizes that *Contrasts* "exhibits not so much a contrast in architectural styles as much as a contrast in social, ethical and political attitudes,"[124] and Clark convincingly articulates the fact that, ultimately, "the central doctrine of the *Contrasts* [...] is the direct connection between art and morality. Good men build good buildings."[125] For Pugin, morality and architecture were so closely intertwined that one could not exist without the other and the images and text of his publications demonstrate this belief. In his writings Pugin implies that it is not the chronological significance of medieval works that he desires, nor even the Gothic style, but rather the emphasis that buildings and goods of this time period and of that style were produced by practitioners of the Catholic faith. The antiquated Gothic style that he so admires is merely visual evidence that the creators of these works were men of god, fabricating their wares within the framework of social and religious continuity that Pugin hopes to resurrect.

3.1.3 *True Principles*

Following on the success (or infamy) generated by *Contrasts*, Pugin published his next work, *The True Principles of Pointed or Christian Architecture,* consisting of two lectures presented at St. Marie's Seminary in Oscott, Birmingham whilst Pugin was employed there as Professor of Ecclesiastical Antiquities [fig. 3.19]. Where *Contrasts* showed what Pugin found objectionable in contemporary architecture, *True Principles* provided the instruction and means of avoiding similar pitfalls in both building and design. He starts the text with his "two great rules for design", that "there should be no features about a building which are not necessary for the convenience, construction, or

[121] Barringer, 252.
[122] Michael Alexander, *Medievalism: The Middle Ages in Modern England* (New Haven: Yale University Press, 2007), 76.
[123] Michael Alexander, 76.
[124] Jacob Voorthuis, "The Necessity of Architecture, A Study of Edward Lacy Garbett's Theory of Architecture" (PhD. diss., University of Leiden, Netherlands, 1996), 107.
[125] Clark, *The Gothic Revival,* 148.

propriety" of said building, and "that all ornament should consist of the enrichment of the essential construction of the building."[126] He qualifies these rules by stating that "it is in *pointed architecture alone that these great principles have been carried out*" because "the architects of the middle ages were the first who *turned the natural properties of the various materials to their full account*."[127]

Eric Turner, Curator of the Department of Sculpture, Metalwork, Ceramics and Glass at the V&A, regards *True Principles* as "a piece of propaganda for the Gothic" wherein "Pugin was advocating not only a revival of Gothic design but also a return to the values of medieval craftsmanship."[128] Turner's statement implies that Pugin opposed the mechanisation and labour practices of the present day and instead looked to medieval craftsman-workshops as the ideal. The understanding of Turner's phrase depends upon the word "values", as it was not the methods of production Pugin wanted to revive; it is true that Pugin's choice of Gothic was in many ways a response to the Industrial Revolution, but it was a response to the worker's lack of understanding, the rote production of items, and the inappropriate use of ornament that was so common in his time. Pugin referred to these characteristics as embodying the "true thing" in *True Principles* - a combination of knowledge, experience, accuracy, and precision that are apparent in one's work, regardless of manufacturing method.

Considering the ornamentation frequently found on Gothic buildings, one wonders how Pugin can advocate the treatment of structure before ornament. Pugin addresses this seeming inconsistency in *True Principles* in his call for "convenience, construction, and propriety" in the design of buildings. Here he looks to flying buttresses, pinnacles, and crockets – those elements which are often seen as unnecessary accompaniments included to appease the architect's whimsy. Pugin acknowledges these beliefs when he states that "I have little doubt that pinnacles are considered by the majority of persons as mere ornamental excrescences, introduced solely for picturesque effect" yet he holds firm that these are "warranted by the soundest principles of construction and design" as their verticality not only "throw[s] off rain" but also "represent[s] an emblem of the Resurrection."[129]

These dual uses are apparent in spires and pointed rooflines, particularly common in northern climates, where "the most beautiful pitch of a roof or gable end is an

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[126] Pugin, *True Principles*, 1.
[127] Pugin, *True Principles*, 1.
[128] Eric Turner, "Toward a Modern Collecting Policy: The Metalwork Collections of the Victoria and Albert Museum," *The Journal of Decorative and Propaganda Arts* 9 Metalwork Theme Issue (Summer 1988), 100.
[129] Pugin, *True Principles*, 9.

inclination sufficiently steep to throw off snow."[130] Indeed, as Pugin states, wherever these decorative vertical features "are introduced in pure pointed architecture, they will be found on examination to fulfil a useful end," thus satisfying his building requirements for convenience and construction.[131] Pugin mentions other features common to gothic buildings and explains how each is more than a mere decorative element. Hood mouldings above a pointed arch are necessary to direct rainwater to either side of the window or door; the use of projections "answers a purpose, and therefore is not only allowable but indispensable."[132] Pugin also qualifies the addition of ornamental base moulds, weatherings, and string courses using this same rationale of protecting joints by throwing off water. Regarding niches with canopies on church facades, Pugin notes that these are "really necessary to preserve the sculpture [usually of a saint or religious personage placed beneath them] from the injuries of weather."[133] It appears that Pugin justifies the use of niches and canopies to preserve statues, but these would not be required if the statue were not present. As if to catch himself in this contradiction, he qualifies his statement by addressing the reader, stating "[h]aving now, I trust, successfully shown that the ornamental parts of pointed stone buildings are merely the decorations of their essential construction, and that the formations of mouldings and details are regulated by practical utility."[134]

Following this same rationale, Pugin turns to the use of flying buttresses which allowed medieval builders to build higher structures with larger voids while still supporting the outward thrust on the walls. Once again, these features enhance a building's "*height* or the *vertical principle*, emblematical of the resurrection, [which] is the very essence of Christian architecture."[135] Pugin also praises buttresses for their ability to "produce a fine effect of light and shade."[136] Although it may seem that here Pugin approves of flying buttresses for aesthetic purposes, he follows this by stating that any pleasing visual quality is yet another example of "the true principles of Christian architecture, by the conversion of an essential support of the building into a light and elegant decoration."[137]

3.1.3.1 Revealed Construction

[130] Pugin, *True Principles*, 11.
[131] Pugin, *True Principles*, 10.
[132] Pugin, *True Principles*, 14.
[133] Pugin, *True Principles*, 19.
[134] Pugin, *True Principles*, 20.
[135] Pugin, *True Principles*, 7.
[136] Pugin, *True Principles*, 4.
[137] Pugin, *True Principles*, 4.

Pugin identifies another true principle of the Gothic style when he states that "[p]ointed architecture does *not conceal her construction, but beautifies it*."[138] This statement then provides a point of attack against Classical structures such as St. Paul's Cathedral in London where Pugin takes Christopher Wren to task for the building's construction where "one of the greatest defects [...] is its fictitious dome. *The dome that is seen* is not *the dome of the church*, but merely a construction for effect."[139] Although the inner construction was hidden to the casual observer, Pugin was well aware of its arrangement as his father, in conjunction with the antiquarian publisher John Britton, drew plates for their co-authored *Illustrations of the Public Buildings of London with Historical and Descriptive Accounts of Each Edifice*.[140] Here the elder Pugin illustrated a detailed cross section of St Paul's [fig. 3.20]. The Victorian author William Longman describes its constructional details:

> "Many persons entering the Cathedral suppose that the Dome over their heads is the actual lining of the external Dome. They are not aware that it is a shell, of a different form from the outer structure, with a brick cone between it and the outer skin – so to speak; that this brick cone is supported by the main walls and great arches of the Cathedral, and that the brick cone supports the outer structure, the lantern, the upper Cupola, and the gilt cross and ball."[141]

While it cannot be established whether the younger Pugin accompanied his father while sketching St. Paul's, his autobiography describes how he did so at other locations so this would have been entirely possible.[142] A.C. Pugin was able to clearly depict these inner constructional features as Wren placed stairs in the void between the outer dome and the inner brick cone to allow access to the lantern at the top of the building. In the case that Augustus Pugin did not join his father on this trip, he could have returned even after the building was completed as these stairs remained (and continue to remain) available to visitors who wish to climb the 528 steps to the Golden Gallery 85 meters from the Cathedral floor [fig. 3.21].[143] Interestingly, the brick cone between the inner and outer domes resembles a steeple with its acute angular projection and flat sides. Although a steeple would not have been out of place in a setting such as this, Longman surmises that Wren was pushed by hubris as he "was haunted with the idea

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[138] Pugin, *True Principles*, 3.

[139] Pugin, *True Principles*, 8.

[140] J. Britton and A[ugustus Charles] Pugin, *Illustrations of the Public Buildings of London with Historical and Descriptive Accounts of Each Edifice, Vol.1* (London: J. Taylor, 1825).

[141] William Longman, *A History of the Three Cathedrals Dedicated to St. Paul in London: With Reference Chiefly to Their Structure & Architecture, and the Sources Whence the Necessary Funds Were Derived. With 6 Engravings on Steel & Nearly 50 Woodcut Illustrations* (London: Longmans, 1873), 195.

[142] Wedgwood, *Pugin and the Pugin Family*, 24. Among the first entries into Pugin's incomplete and unpublished autobiography is a description of assisting his father by sketching buildings in Normandy in 1823 at age eleven. Elsewhere in this text Wedgwood describes a sketch of St Paul's Cathedral as being "a mature work of A.C. Pugin" that was previously attributed as being by A.W.N. Pugin, p. 303.

[143] St Paul's Cathedral. "Climb the Dome," https://www.stpauls.co.uk/history-collections/history/explore-the-cathedral/climb-the-dome (accessed 28 February, 2019).

that the external dome should be very lofty, and did his best to construct a cupola of proper dimensions,"[144] using the brick cone as a constructional device to accomplish this feat.[145]

Pugin took great exception to St. Paul's because of both its Classical styling and its false outer dome.[146] He concedes that, even while not in his preferred style of Gothic, the dome at St. Peter's in Rome "*is the actual covering of the building*, and is therefore constructed in that respect on the true principle."[147] However, the dome at St. Paul's "is mere imposing show, constructed at a vast expense without any legitimate reason."[148] On the contrary, Pugin states that Christian architects made their buildings "convenient and suitable to the required purpose and decorated them afterwards."[149] Crucially, however, Pugin neither lauded Wren's work for his utilization of pre-industrial construction techniques, nor did he criticize modern works where mechanisation was employed. In both cases, Pugin's comments were centred on style, ornamentation, and validity to his "true principles" which did not concern themselves with manufacturing methods.

3.1.3.2 Propriety

Pugin uses his rhetorical skill to demonstrate the necessity of features common to gothic buildings because of their convenience and construction, but what of propriety? It is worthwhile to consider how this quality, which Pugin feels "*the external and internal appearance of an edifice should be illustrative of, and in accordance with, the purpose for which it is designed*," appears in these structures.[150] Roger Dixon and Stefan Muthesius explain that propriety "meant a place in the hierarchy of decorum, whether ecclesiastical or social,"[151] while David Raizman states that although one could argue that "such decoration is demanded neither by convenience nor construction," readers are reminded that "propriety is, after all, a matter of judgment."[152] Here Pugin

[144] Longman, 199.
[145] Alan Powers, personal correspondence, 18 August 2020. Powers rightly observes that "Pugin did not seem to consider that the stone vaults of Gothic buildings are not the same as what is seen on the outside."
[146] Britton and Pugin, 32. Here Britton states that the building is constructed of "a composed [Classical] order, but principally Corinthian."
[147] Pugin, *True Principles*, 8.
[148] Pugin, *True Principles*, 9.
[149] A. Welby Pugin, *The Present State of Ecclesiastical Architecture in England*. "Republished from the Dublin Review" (London: Charles Dolman, 1843), 18 (hereafter cited as *Present State*).
[150] Pugin, *True Principles*, 42.
[151] Roger Dixon and Stefan Muthesius, *Victorian Architecture* (New York: Oxford University Press, 1978), 186.
[152] David Raizman, *History of Modern Design: Graphics and Products Since the Industrial Revolution* (London: Laurence King, 2003), 49.

anticipates the modernist idea of form following function while justifying what most would consider purely ornamental features.[153] While authors such as Goodhart-Rendel criticized Pugin for applying this criteria at will,[154] others appreciated his methods and an editorial published in *The Times* (1855) posthumously praises Pugin for "the honesty of the work" in his architecture; "[w]ith all his crotchets and with an absurd attachment, not merely to the spirit, but to the letter of mediævalism, he has perhaps done more for architecture than any of those who run him down."[155]

3.1.3.3 The Rise of Art-Manufactures

While *Contrasts* focused exclusively on architecture, *True Principles* ventured to the decorative arts of furniture and interior design to locate further examples of bad taste and to provide instructions by which these defects could be remedied. This approach was very much of its time as the effects on public taste inflicted by the rapid production of a large number of "art-manufactures" of questionable quality made this a widely discussed topic that encompassed the realms of design and production. The emphasis on decorative arts found in *True Principles* occasioned another opportunity for authors to attribute Pugin's complaints to the use of machine production.

3.1.3.4 Middle Class Consumerism

Although, as Richard Price states, the market for "consumer durable goods clearly existed by the middle of the eighteenth century", the population growth of the nineteenth century led to an increase in consumerism driven by the middle class.[156] The introduction of machinery into the manufacturing cycle enabled large numbers of items to be produced very quickly at a lesser price than similar items made entirely by hand. The urbanization of the middle class and their increasing disposable income impelled manufacturers to produce more goods at a faster rate and, as professor of history James Schmiechen states, "[c]entral to this design revolution – an age of design

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[153] This retrospective assessment is based on the influence extending from Pugin to the Arts and Crafts to Modernism, as documented in Paul Greenhalgh, *The Persistence of Craft: The Applied Arts Today* (New Brunswick, NJ: Rutgers University Press, 2003) and Nikolaus Pevsner, *Pioneers of Modern Design* (New York: Museum of Modern Art, 1949).

[154] H. S. Goodhart-Rendel, "The Age of Euphemism" (lecture, The Victoria and Albert Museum, London, 29 October 29, 1931), 82. Here the author states that Pugin "hated porticoes, therefore they were 'features' not justified by convenience, construction, or propriety. He loved spires; – perhaps they were not 'features,' or was propriety their justification? Festoons and frets were heathenish; they therefore could not be enrichment of essential construction. Crockets and niches apparently could."

[155] [Editorial]. *The Times* (December 28, 1855): 6.

[156] Richard Price, *British Society, 1680-1880: Dynamism, Containment and Change* (Cambridge UK: Cambridge University Press, 1999), 33.

mania as it was called – was the machine."[157] It was the "application of machinery and the invention of new machines for ornamental industry" which, according to historian Toshio Kusamitsu, allowed manufacturers to create goods to sell to a growing market.[158]

3.1.3.5 Ornamentation

Once again Pugin discusses the misuse of excess ornamentation made possible by machine production, but it is not the use of machinery to which he is opposed, it is the ease with which ornament, regardless of quality, could be produced and the unnecessary use of this ornament. For Pugin this violates his belief that "the smallest detail should have a meaning or serve [the] purpose" of "enrichment of the essential construction."[159] He complains that, as a result of the proliferation of ornamentation and the ease at which it could be added to products, workers have gotten into the habit of "*disguising* instead of *beautifying* articles" with decoration that was often unnecessary.

3.1.3.5.1 Interiors

Regarding modern interiors, Pugin laments how "the whole is covered with trifling details, enormously expensive, and at the same time subversive of good effect." [160] Pugin applies this criticism to goods that fell foul of his standards, whether machine-made or hand-crafted. Similarly, it is crucial to note that items in the Gothic style are not exempt from Pugin's complaints and he illustrates how furniture is "made not only very expensive, but very uneasy" in an 1843 plate titled "the extravagant style of Modern Gothic Furniture and Decoration."[161] The plate illustrates what Pugin described in *True Principles* two years earlier: "diminutive flying buttresses about an arm-chair; [where] every thing is crocketed with angular projections, innumerable mitres, sharp ornaments, and turreted extremities" [fig. 3.22].[162] Surely this is what Kenneth Clark had in mind when he stated "the real reason why the Gothic Revival has been neglected is that it produced so little on which our eyes can rest without pain."[163]

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[157] Schmiechen, 59, 60.
[158] Toshio Kusamitsu, "British Industrialisation and Design 1830-1851: With Special Reference to Printing and Figure-Weaving in the Lancashire and West Riding Textile Industries" (PhD. diss. University of Sheffield, 1982), 46. For a more recent appraisal, see Alistair Grant and Angus Patterson, *The Museum and the Factory: The V&A, Elkington and the Electrical Revolution* (London: Lund Humphries in association with V&A Publishing, 2018).
[159] Pugin, *True Principles,* 1.
[160] Pugin, *True Principles,* 40.
[161] Pugin, *An Apology for the Revival of Christian Architecture in England,* 35.
[162] Pugin, *True Principles,* 40.
[163] Clark, *The Gothic Revival,* 7.

Pugin's attack on gothic items constitutes neither a condemnation of their style nor their method of manufacture. Instead it is the overuse of decoration with which he takes exception as ornament should be no more than "enrichment of the essential composition."[164] Regarding his tenets for design, although he affirms that "it is in *pointed architecture alone that these great principles have been carried out*", it is just as evident that fixtures, fittings, and household goods are not exempt from such failures in design.[165] He says as much when he states how, even in "pointed decoration *too much* is generally attempted; every room in what is called a Gothic house must be fitted with niches, pinnacles, groining, tracery, and tabernacle work."[166] Decorating in this way was not only costly, but also "contrary to the true spirit of the style, which does not admit of the introduction of these features in any situation but that to which they properly belong."[167] Pugin addresses such delinquencies present designed goods in various media – items which would be considered "art-manufactures" – throughout the pages of *True Principles*.

3.1.3.5.2 Metalwork

Turning to metalwork, he notes that "[i]t is impossible to enumerate half the absurdities of modern metal-workers; but all these proceed from the false notion of *disguising* instead of *beautifying* articles of utility" and not from their method of manufacture.[168] He continues, asking "[h]ow many objects of ordinary use are rendered monstrous and ridiculous simply because the artist, instead of seeking the *most convenient form*, and *then decorating it*, has embodied some extravagance *to conceal the real purpose for which the article has been made!*"[169] Here Pugin focuses on the excessive use of ornamentation which should only decorate the "essential construction" of structures and goods yet appears all over an object. There is no doubt that the profusion of ornamentation was facilitated by increased machine production, but Pugin does not specify this distinction in his writings. Indeed, his rules for design do not specify manufacturing methods, only requiring that the final product is in accordance with his dicta.

With metalwork, Pugin complains how decorative motifs are being misused and appear out of context.[170] While it is debatable as to whether the appropriation of forms for situations other than their intended use would violate Pugin's concepts of

[164] Pugin, *True Principles*, 1.
[165] Pugin, *True Principles*, 1.
[166] Pugin, *True Principles*, 40.
[167] Pugin, *True Principles*, 40.
[168] Pugin, *True Principles*, 23.
[169] Pugin, *True Principles*, 23.
[170] Pugin, *True Principles*, 24.

convenience and construction, it is likely that these are instances in which a sense of propriety – an accuracy or justness – is lacking. Indeed, he laments how metalwork "has sunk to a mere trade, and art is rigidly excluded from its arrangements."[171] Pugin's emphasis on the *manufacture* of goods as a *mere trade* calls into question his attitude to industrialisation and the new factory arrangements.[172] However, this is yet another instance of Pugin lamenting the absence of the "true thing" he admires in ancient works, not the means in which they were produced.

3.1.3.6 Cast Iron

Given his disapprobation of the false dome in St Paul's Cathedral and his insistence on the *true thing* as found in the very title of his work, it is no surprise that Pugin addresses what he considers imitation materials, stating how "Christian architecture is opposed to all deception" and that architects "should never make a building erected to God appear better than it really is by artificial means."[173] Here Pugin turns his ire towards the use of cast iron as its appearance in beams, columns, and roof supports made it a prominent feature of the Victorian era "from the late eighteenth century onwards."[174] In *True Principles* he complains that the material is "a source of continual repetition" as expensive moulds are required for fabrication and manufacturers must continually make use of this form to make the investment pay.[175] Thus, Pugin suggests that "we see the same window in green-house, gate-house, church, and room" even when "by the principles of pure design these various positions require to be differently treated."[176] With stone mullions and tracery in Pugin's hypothetical windows, each design is suited to its particular context. Instead he feels the cast forms are simultaneously lacking the variety and individuality found in the original material and increasing the cost of production. This in turn elicited the response to a friend stating, "I hate *cast iron* in any shape."[177]

However, cast iron appears in buildings Pugin designed and worked on, and his use of this much maligned material seems to run counter to his design principles and proclamations found in his works. Indeed, anyone turning to Pugin's publications for details on his production methods would arrive at a very different conclusion than those who also consult his only recently published correspondence. Brittain-Catlin

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[171] Pugin, *True Principles*, 33.
[172] Emphasis mine.
[173] Pugin, *True Principles*, 44-45.
[174] A. E. Musson, *The Growth of British Industry* (New York: Holmes & Meier, 1978), 132.
[175] Pugin, *True Principles*, 26.
[176] Pugin, *True Principles*, 29-30.
[177] Margaret Belcher, *The Collected Letters of A.W.N. Pugin, Vol. 2 1843-1845* (Oxford: Oxford University Press, 2003), 25 (hereafter cited as *Collected Letters, Vol. 2*). Here Pugin is writing to John Dalton on 9 March, 1843.

suggests that iron lintels were employed in the building of St Mary's Convent, Birmingham in 1840, the use of which not only contradicts Pugin's published comments on his dislike of the material, but also "blatantly departs from Pugin's aim of expressing structural forms externally."[178] In November 1844, Pugin writes to Hardman without complaint, informing him of Barry's decision that the roof at the new Houses of Parliament "will be principally in Cast & wrought iron."[179] This is not to suggest that Pugin was disingenuous, but that he was judicious and pragmatic in his manufacturing. This is also another case where Pugin applies technicalities to his condemnation and subsequent employment of a material to justify its use. With cast iron, Pugin objected to it attempting to appear like other materials, calling it "a deception" because "it is seldom or never left as iron."[180] As neither its use as lintels nor as a roof covering violated this rule, Pugin had no reason to decry its use. Instead, he regarded it as a very useful load-bearing building material since it could support high ceilings and span openings while offering fire resistance. Pugin's complaints about the material are based on its use in place of other materials and its subsequent disguise, as when iron is cast in the shape of a Greek column and painted to look like stone. This, to him, is nothing more than a structural deceit and is the source of his comment that, although cast iron is "a most valuable invention [...] it can but rarely be applied to ornamental purposes."[181]

As cast iron was a relatively new invention of the Victorian era, and was produced in bulk in factory settings, it is easy to see how some scholars may conflate Pugin's reprobation of the material with the very nature of its fabrication. However, this is yet another example where it is not the material to which Pugin objects, nor its creation, but the mishandling of these forms for contexts in which they are not appropriate.

Perhaps owing to the novelty of this product, designers and manufacturers had neither worked out their effective and relevant handling nor come to appreciate and incorporate its own characteristics where employed. Pugin complains that "[c]ast-iron is a deception; it is seldom or never left as iron. It is disguised by paint, either as stone, wood, or marble" making it unsuitable for Gothic architecture which is otherwise "utterly opposed to all deception," a statement that extends to all imitative materials by

[178] Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context," 121. At St Mary's Convent, Brittain-Catlin describes how "the [lintel] at the head of the timber windows was concealed by a course of chamfered brick headers, which cannot have themselves any structural value: they are presumably sitting over a hidden iron lintel."
[179] Belcher, *Collected Letters, Vol. 2*, 290.
[180] Pugin, *True Principles*, 27.
[181] Pugin, *True Principles*, 29.

their very nature.[182] Here Pugin is advocating a truth to materials which is often lacking in these compositions.

3.2 Authors who paint Pugin as anti-industrial by equating him with Ruskin

Pugin was not the only nineteenth-century architect and designer working in the gothic idiom. As the style gained popularity the number of practitioners also rose. Although Pugin's staunch Catholicism and outspoken nature was unique among architects and designers in many ways, he was nonetheless apt to be included in the larger genre of the "Gothic revival" and his support of the style resulted in his conflation with another great lover of the Victorian gothic, the author and critic John Ruskin [fig. 3.23]. Barry Katz, Professor of Design, states that the main feature found in "the polemics of [both] A. W. N. Pugin and John Ruskin" was "a critique of the social as well as the aesthetic consequences of the industrial division of labour."[183] This conflation of Pugin's ideas with those of Ruskin (and later with those of both William Morris and Karl Marx) can be seen across disciplines. Professor of English Deborah Nord claims that "John Ruskin and especially Augustus Pugin rejected the celebration of mechanical production,"[184] while art historian Michael J. Lewis believes that "Ruskin, like Pugin (and Marx), was troubled by the degradation of human labour in the modern world."[185] Such ideas echo those proposed in the 1930s by the Marxist art historian Francis Klingender, who states that Pugin "advocate[d] a return to medieval forms of existence."[186] However, as Nigel Yates, Professor of Ecclesiastical History, notes that while "Morris and Ruskin, Pugin and Pusey, might all agree that medieval society formed a model for the reform of Victorian society, their perceptions of that model were vastly different."[187]

3.2.1 Ruskin's Background

Pugin and Ruskin followed remarkably similar paths and shared many beliefs from an early age. Both were only children born to parents in the Bloomsbury area of London – Pugin at 39 Keppel Street and Ruskin seven years later in 1819 at 54 Hunter Street,

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[182] Pugin, *True Principles*, 30.
[183] Barry Katz, review of *Leading 'The Simple Life': The Arts and Crafts Movement in Britain, 1880-1910* by Wendy Kaplan, *Design Issues* 16 no. 2 (Summer, 2000), 87.
[184] Deborah Epstein Nord, review of *The Great Exhibition of 1851: A Nation on Display* by Jeffrey A. Auerbach and *London 1900: The Imperial Metropolis* by Jonathan Schneer, *The Journal of British Studies* 41 no. 1 (Jan. 2002), 135.
[185] Michael J. Lewis, 115.
[186] F. D. Klingender, review of *Work and Leisure* by Eric Gill, *The Burlington Magazine for Connoisseurs* 68 no. 397 (April 1936), 201.
[187] Yates, 71.

Brunswick Square.[188] Pugin grew up surrounded by activity in his father's drawing school, and Ruskin's biographer Edward Cook notes that, similarly, it was "[t]o his father Ruskin owed the cultivation of artistic gifts."[189] As children, both Pugin and Ruskin travelled extensively throughout the English countryside and further afield to Continental locations. Pugin's voyages were taken in conjunction with his father's drawing school and he continued these "travels in search of the beautiful"[190] throughout his life "for the purpose of studying the ancient Ecclesiastical glories of Christendom."[191] Cook states how "[f]rom his earliest days the young Ruskin had [also] accompanied his parents on their journeys" which included "most of the cathedrals and castles of England."[192] Clark describes how "twice a year the family set out on coaching expeditions which took them through the most picturesque scenery of England," calling these "the formative episodes in Ruskin's youth."[193]

3.2.2 Shared Preference for Gothic

Both Pugin and Ruskin detested the Classicism of the Renaissance, condemning the 'Pagan' style of "architecture of the previous three centuries as worthless"[194] and the two men were equally appalled by the attempted restoration and resulting mutilation of ancient architectural forms.[195] They shared the belief that architecture and morality were linked and that these values were best represented within the Gothic style.[196] As stated in his autobiography *Praeterita*, Ruskin's infatuation with Gothic centred on the Venetian Byzantine style, first encountered in 1834 with his parents and then in earnest six years later.[197] His renewed interest began with his study of "the schools of painting which crowned the power and perished in the fall of Venice; so forcing me into the study of the history of Venice herself," which ultimately led to a survey of Venetian architecture.[198] One might feel, as Frank P. Chambers states, that both Pugin

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[188] E. T. Cook, *The Life of John Ruskin in Two Volumes – Vol I 1819-1860* (London: George Allen & Co. Ltd., 1911), 6; Hill, *God's Architect*, 40.
[189] Cook, 14.
[190] Belcher, *Collected Letters, Vol. 1*, 19.
[191] A. Welby Pugin, "Mr. Pugin and the 'Rambler'." *The Tablet* 11 no. 523 (April 20, 1850), 254.
[192] Cook, 19.
[193] Kenneth Clark, *Ruskin Today* (London: John Murray, 1964), 3.
[194] Boime, 619.
[195] John Ruskin, *The Seven Lamps of Architecture* (New York: John Wiley, 1849). Ruskin addresses this in his chapter on "The Lamp of Memory" within this text.
[196] For Pugin's beliefs on morality and architecture, refer to Chapter 3. For Ruskin, see Peter Anthony, *John Ruskin's Labour: A Study of Ruskin's Social Theory* (Cambridge: Cambridge University Press, 2008); Kristine Ottesen Garrigan, *Ruskin on Architecture: His Thought and Influence* (Madison: University of Wisconsin Press, 1973); Mike Paterson, *A Brief History of Life in Victorian Britain: A Social History of Queen Victoria's Reign* (London: Robinson, 2008); Rachel Teukolsky, "This Sublime Museum: Looking at Art at the Great Exhibition," in *Victorian Prism: Refractions of the Crystal Palace*, edited by James Buzard, Joseph W. Childers and Eileen Gillooly (Charlottesville: University of Virginia Press, 2007).
[197] John Ruskin, *Præterita, Vol I* (London: George Allen, 1907), 80.
[198] John Ruskin, *Præterita, Vol II* (London: George Allen, 1907), 205.

and Ruskin "should have shared a true community of interest" over their shared love of gothic as allies for the revival of the same style, yet their differences were insurmountable.[199]

3.2.3 The Role of Religion

The early lives of both men were dominated by mothers whose religious views were felt to be overbearing by their sons. Pugin was disenchanted by his mother's Evangelical religious practices, having to weekly endure the "cold and sterile" sermons of the Scottish clergyman Edward Irving[200] while Clark describes how Margaret Ruskin "was deeply religious in a narrow Sectarian manner, and Ruskin's early life was dominated by Bible readings and by the swelling, minatory cadences of low-church sermons."[201] For Ruskin "Sundays in the Evangelical household [...] were a sore trial" and his biographer states that a sense of foreboding loomed "over the whole of Friday and Saturday by the horrible sense that Sunday was coming."[202] Crucially, Pugin chose to recant his beliefs and adopt Catholicism in which he felt most fulfilled, whereas Ruskin came to embrace his mother's rigid Protestantism which he followed with "unquestioning obedience."[203] The art historian Alfred Boime claims that Ruskin's mother hoped her son would "take holy orders" and "indoctrinated him from earliest childhood in biblical study," such was the level of devotion in the Ruskin household.[204]

Bright notes that Pugin favoured Northern Gothic and felt the Venetian style was "alien" and "inappropriate" as it "evolved to suit a southern climate" [205] and therefore had no place in English architecture, whereas British cultural historian Robert Hewison suggests that Ruskin's appreciation of Venetian Gothic "stemmed from its traditional resistance to the [Catholic] authority of Rome."[206] Michael W. Brooks describes how, "[l]ike most Protestant Evangelicals, Ruskin felt threatened by the forces of Roman Catholicism and Tractarianism" that largely defined Pugin.[207] Boime suggests that the biblical studies in Ruskin's childhood took an anti-Catholic bent which spurred him to "de-Catholicize and nationalize the Gothic" to separate the form

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[199] Frank P. Chambers, *The History of Taste: An Account of the Revolutions of Art Criticism and Theory in Europe* (New York: Columbia University Press, 1932), 231.
[200] "Literature," *The Athenaeum* no. 1761 (July 27, 1861), 108.
[201] Clark, *Ruskin Today*, 3.
[202] Cook, 10.
[203] Cook, 13; Ferrey, 45. Ferrey suggests that Pugin's forced attendance at these services pushed him away and "helped forward the change in his religious views."
[204] Boime, 606.
[205] Michael Bright, "A Reconsideration of A.W.N. Pugin's Architectural Theories," *Victorian Studies* 22 no. 2 (Winter 1979), 169.
[206] Robert Hewison, *Ruskin* (Princeton, NJ: Princeton University Press, 1976), 26.
[207] Michael W. Brooks, *John Ruskin and Victorian Architecture* (New Brunswick, NJ: Rutgers University Press, 1987), 34.

from Catholic theology and to "remove the sectarian taint from his beloved style."[208] Pugin's Catholic proselytizing was anathema to Ruskin's anti-Romanist beliefs and Boime claims that "[t]his distinction constituted the core of the difference between Pugin and Ruskin, who otherwise viewed the Gothic with similar concerns."[209] This difference extended beyond any acknowledgement of similarities as Ruskin moved beyond disagreement to outright hostility towards Pugin.

3.2.4 Similar Circles

While Ruskin's argument was roughly similar to Pugin's, Ruskin was a Protestant, and he seized upon Pugin's reputation in order to garner support for himself as the two men frequented the same circles. This included the Tractarians of the Oxford Movement, also known as the High Church wing of the Church of England. This group, founded in 1833 by John Henry Newman, focused on the "*Catholic* nature of the Church of England, and on the apostolic authority of its bishops and clergy."[210] Interestingly, Patrick places Ruskin, "then an undergraduate of Christ Church," Oxford, amongst those who assisted Newman in establishing the society.[211] Even when in this environment, Ruskin was able maintain his Evangelical beliefs, perhaps due to the influence of Mrs. Ruskin who followed her son to Oxford where she monitored the religious environment surrounding her son. As Osborn Smallwood states, "this was the type of thinking that guided Mrs. Ruskin in her counselling of her son during his college days, and it is to be expected that he would reflect this guidance in his reaction to the Tractarian movement during that period."[212]

The extreme role that religion played for both Pugin and Ruskin was part of the religious zeal that swept Britain in the nineteenth century. The increase in Irish Catholics immigrating to the United Kingdom put pressure on the government to pass the Catholic Emancipation Act of 1829.[213] Alexander suggests that this act, which lifted civil penalties against Catholics, was "unpopular in the 1830s and became more unpopular in the 'Hungry Forties'."[214] Indeed, coming to a boil in the 1840s, men like Newman, Sibthorp and Faber were responsible for whipping the population into a

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[208] Boime, 607.
[209] Boime, 619.
[210] Simon Dentith, *Society and Cultural Forms in Nineteenth-Century England,* (Basingstoke, UK: McMillan Press, 1998), 34.
[211] James Patrick, "Newman, Pugin, and Gothic," *Victorian Studies* 24 no. 2 (Winter 1981), 190.
[212] Osborn T. Smallwood, "John Ruskin and the Oxford Movement," *CLA Journal* 3 no. 2 (December 1959), 115.
[213] Sheridan Gilley, "Roman Catholicism," in *Nineteenth Century English Religious Traditions: Retrospect and Prospect*, edited by Denis G. Paz (Westport, CT: Greenwood Press, 1995), 40.
[214] Michael Alexander, 73.

frenzy and inflaming religious sensibilities. Previous legislation such as the Test and Corporation Acts of 1828 which no longer required elected officials to join the Church of England, along with the Catholic Emancipation in 1829, "initiated a fundamental change in the relationship between Church and State" and gave "the Church's opponents the opportunity to call into question the whole idea of an Established Church."[215] These fears infiltrated the Anglican clergy and caused much questioning and soul searching, resulting in the conversion of prominent members such as Newman to Roman Catholicism. Her son's close association with Newman while at Oxford was thus a cause for concern to Mrs. Ruskin as Newman "came from an Evangelical background" and "was distinctly anti-Roman in his views."[216] Leach suggests "[h]e had been brought up to look upon the Pope as anti-Christ"[217] and yet he could still not avoid the allure of Catholicism. As Norman states, Newman's conversion "sent a *frisson* of alarm through English Protestantism, leading some to suppose that the Church of England really was liable to disintegration."[218]

Mrs. Ruskin was surely relieved as her son managed to retain his convictions during his time at Oxford. Surprisingly, Ruskin managed to do so while simultaneously praising those involved in the movement such as Edward Bouverie Pusey, who he regarded as "the greatest divine in England."[219] Smallwood points out that Ruskin's praise "would indicate that he had the greatest respect for Dr. Pusey as a theologian although he did not agree with his Tractarian teachings," showing that even though his own beliefs substantially differed, Ruskin was able to set aside his religious differences when it suited him.[220]

The Tractarians favoured the Gothic style because it was "the architecture of pre-Reformation England, which symbolized the continuity with the past that they claimed as the basis for the Church's authority in the present."[221] Pugin's views found sympathy with the Tractarians because his knowledge and understanding went beyond a stylistic surface treatment of the building's façade to encompass a truly archaeological recreation of the pre-Reformation church, and Brooks suggests that

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[215] Frances Knight, *The Nineteenth-Century Church and English Society* (Cambridge, UK: Cambridge University Press, 1995), 12.
[216] G. I. T. Machin, *Politics and the Churches in Great Britain, 1869 to 1921* (Oxford: Clarendon Press, 1987), 76.
[217] Thomas Leach, *A Short Sketch of the Tractarian Upheaval* (London: Bemrose and Sons, 1887), 116.
[218] Norman, 209.
[219] John Ruskin, *The Works of John Ruskin, Vol. XXXV*, edited by E. T. Cook, and Alexander Wedderburn (London: George Allen, 1908), 192.
[220] Smallwood, 118.
[221] Michael Hall, "What do Victorian Churches Mean? Symbolism and Sacramentalism in Anglican Church Architecture, 1850-1870," *The Journal of the Society of Architectural Historians* 59 no. 1 (March 2000), 78.

Ruskin would have discussed many of these same ideas along with those of Pugin "with fellow members of the Oxford Architectural Society."[222] Smallwood discusses how Ruskin's private correspondence shows that he had "done some reflecting about the Oxford Movement and that he thought the teachings were wrong and the leaders inconsistent" yet he still "showed a very normal and actively interested attitude toward the momentous events which were taking place around him.[223]

Another group with which both Pugin and Ruskin were associated was the Cambridge Camden Society, founded in 1839 by Benjamin Webb, John Mason Neale, and Alexander Beresford-Hope (renamed the Ecclesiological Society in 1845), to "promote the study of Ecclesiastical Architecture and Antiquities" [fig. 3.24].[224] The group, described by Watkin as "probably the most influential undergraduate society of all time,"[225] emphasized the correct, *i.e.* medieval, forms of church building and liturgy. Dentith explains that, as a direct result of the Ecclesiologists, "more elaborate [church] rituals became widespread, along with more elaborate vestments for the clergy, decorated church furniture, and the revival of stained glass."[226] Whereas Pugin was well-poised to provide these items, Ruskin did not practice the arts or architecture and "had no academic training in the history of art or in philosophical aesthetics."[227] Biographer Russell Sturgis notes that Ruskin "was not fitted for the task by any of those preparatory studies which generally go to the making of the art critic, properly so called. He had not studied profoundly the essential nature of the art he was about to criticise."[228] Nonetheless, Ruskin gained fame and notoriety amongst the Society for his texts, leading men like Eastlake to later laud Ruskin in his *History of the Gothic Revival* as "one of the most accomplished art critics, and perhaps the most eloquent writer on art that England has seen, in this or any other age" whose "views on the subject of art may in the main be sound."[229]

It was Ruskin's writing which drew him to the attention of the Ecclesiologists. In *The Stones of Venice*, Ruskin praises All Saints', Margaret Street, a church by William Butterfield that was "intended as a 'model' church by its sponsors, the Ecclesiological Society" [fig. 3.25].[230] Here he states that the "noble architecture [...] challenges

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[222] Michael W. Brooks, 49.
[223] Smallwood, 116, 118.
[224] "Cambridge Camden Society," *The Ecclesiologist* 1 (November 1841), 15.
[225] Watkin, *English Architecture: A Concise History*, 158.
[226] Dentith, 34.
[227] Michael Alexander, 88.
[228] Russell Sturgis, *Ruskin on Architecture: A Critical and Biographical Sketch* (New York: Appleton & Co, 1906), vi-vii.
[229] Eastlake, 272.
[230] Henry-Russell Hitchcock, "High Victorian Gothic," *Victorian Studies* 1 no. 1 (September 1957), 50.

fearless comparison with the noblest work of any time."[231] He assuredly states that "[h]aving done this, we may do anything; there need be no limits to our hope or our confidence; and I believe it to be possible for us, not only to equal, but far to surpass, in some respects, any Gothic yet seen."[232] Once again there is a mismatch between Ruskin's praise and the nature of worship at All Saints', which although Anglican, adopted an Anglo-Catholic approach. Ruskin acknowledges this discrepancy when he says that "it will be looked upon with fear and suspicion, as the expression of the ecclesiastical principles of a particular party."[233] He quickly qualifies this statement when he notes that "whether thus regarded or not, this church assuredly decides one question conclusively, that of our present capability of Gothic design."[234] Here Ruskin is willing to look past the nature of worship because the structure in which it takes place is pleasing, yet he is unwilling to overlook Pugin's beliefs to acknowledge the other tenets they both follow.

Despite the suspicion surrounding Catholicism, Pugin had enough in common with the Tractarians and Ecclesiologists to find common ground on which to collaborate. However, Pugin's "insistence that the revival of the [Gothic] style must depend on the revival of the feelings from which it originally sprang; the architectural revival must be part of a general religious, and truly Catholic, revival" also served to alienate these same groups.[235] The Ecclesiologist John Mason Neale wrote in 1844, "[w]e know that Catholick ethics gave rise to Catholick architecture; may we not hope that, by a kind of reversed process, association with Catholick architecture will give rise to Catholick ethics?"[236]

Statements such as Neale's could help explain why Ruskin failed to see any worth in Pugin's manufactures or theories. Having attended Oxford from 1837 to 1842, Ruskin was at the epicentre of the Oxford Movement (Newman published Tract 90 in 1841) and although these beliefs varied substantially from his own, Ruskin was nonetheless able to separate ideology from opinion to form a relationship of mutual respect for his colleagues. Why then was he unwilling and unable to do so with Pugin? As shown above, both men were raised in similar environments and held many of the same beliefs as regards the superiority of Gothic architecture, yet Ruskin failed to see

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[231] John Ruskin, *The Stones of Venice. Volume the Third. The Fall* (London: Smith, Elder and Co., 1853), 196 (hereafter cited as *The Stones of Venice, Vol. 3*).
[232] Ruskin, *The Stones of Venice, Vol. 3*, 196.
[233] Ruskin, *The Stones of Venice, Vol. 3*, 196.
[234] Ruskin, *The Stones of Venice, Vol. 3*, 196.
[235] Raymond Williams, *Culture and Society, 1780-1950* (New York: Harper and Row, 1958), 131.
[236] J. M. Neale, *The Place Where Prayer Was Wont to Be Made: The Re-Introduction of the System of Private Devotion in Churches Considered in a Letter to the Venerable the President of the Cambridge Camden Society* (Rugeley, UK: J.T. Walters, 1844), 20.

anything worthwhile in Pugin. Whatever the reason for Ruskin's opposition, "the religious foundation of Pugin's work estranged many from him" yet "few were so raving-mad in their detestation as Ruskin."[237] Perhaps it is the similarity with an individual of a diametrically opposed faith that caused Ruskin to overreact, or it could be that his close involvement with his staunchly Evangelical mother further inflamed his opinions and he felt the need to distinguish himself from his rival by becoming more vociferous towards Pugin. Regardless of the reasons behind his actions, Ruskin insisted on opposing Pugin by repeatedly condemning him in the press and in his own writings.

3.2.5 Ruskin's Publications

Both Pugin and Ruskin were well known and highly regarded authors and, although they expressed many of the same beliefs in their works, their approaches were not shared. An examination of their writing shows that Pugin prefigured Ruskin, establishing the groundwork upon which Ruskin would build his case by reconfiguring these same ideas, presenting them as a new approach. Pugin's theories may pre-empt and overlap those of Ruskin, but Ruskin looked to the Gothic style not as an expression of religious faith but as a "comprehensive response to the dislocations and traumas of the Industrial Revolution."[238] Although Ruskin owes a heavy debt to Pugin, he did much to obscure Pugin's legacy. Therefore it is worth examining Ruskin's own relationship and approach to Gothic architecture for the insights it reveals pertaining to Pugin's reception and legacy.

3.2.5.1 *The Seven Lamps of Architecture* (1849)

Ruskin first codified his beliefs on Gothic architecture in *The Seven Lamps of Architecture*, an extended essay published in May 1849. Here Ruskin identifies seven "lamps," or features, that architecture must possess, and "without which there can be no satisfactory result for the present, nor hope for the future."[239] Although his terminology may differ, Ruskin's work is remarkably similar to Pugin's *True Principles* published eight years earlier. In this regard, Rosemary Hill regards Ruskin's *Seven Lamps* as containing "essentially the same aesthetic philosophy [as Pugin's *True Principles*, but] recast for the High Victorians."[240] Pugin's *True Principles* regarding propriety, truth, and ornament were highly influential on subsequent architects and designers, leading Saint to state that no architectural text "ever had so dynamic a

[237] Pevsner, *High Victorian Design: A Study of the Exhibits of 1851*, 54.
[238] Michael J. Lewis, 7.
[239] "The Great Exhibition," *Morning Chronicle* (July 2, 1851), 2.
[240] Hill, *God's Architect,* 425.

consequence."[241] One of the first iterations of Pugin's theories appeared in Ruskin's essay "On the Nature of Gothic Architecture" in which he outlined his "three broad and simple rules":

> "1. Never encourage the manufacture of any article not strictly necessary, in the production of which Invention has no share.
> 2. Never demand exact finish for its own sake, but only for some practical or noble end.
> 3. Never encourage copying or imitation of any kind, except for the sake of preserving records of great works."[242]

Clive Wainwright also noted the similarity when he stated that "all the ideas in it [*The Seven Lamps*] concerning Truth to Materials and Revealed Construction are Pugin's"[243] and that Ruskin was inadvertently responsible for "further popularising and disseminating Pugin's *True Principles.*"[244] This resemblance did not go unnoticed and as Hill notes, "since the publication of *Seven Lamps,* people had commented on the similarity between Ruskin's ideas and Pugin's."[245]

It is no coincidence that Ruskin's text was published shortly after the building of the new Houses of Parliament, with the first stone of the new building laid in 1840, the House of Lords opened in 1847, and the House of Commons in 1852.[246] Although it is doubtful that Ruskin ever set foot within the structure, he and the rest of the nation could observe the building progress from the vista across the Thames. In a letter to *The Builder* dated December 9, 1854, Ruskin deems the Houses of Parliament a "most effeminate and effectless heap of stones" that are "utterly unfit for their position."[247] His vitriol continues unabated and in his first entry into *Fors Clavigera,* a collection of "letters to the workmen and labourers of Great Britain," dated January 1, 1871, he wastes no time in stating that he would "like to destroy and rebuild the Houses of Parliament."[248] In a lecture given at Oxford in 1872 he calls the structure "the absurdest [sic] and emptiest piece of filigree", eternal foolscap in freestone" by which "human beings disgraced their posterity."[249]

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[241] Andrew Saint, "The Fate of Pugin's True Principles," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 279.

[242] John Ruskin, *On the Nature of Gothic Architecture: and Herein of the True Functions of the Workman in Art* (London: Smith, Elder, & Co., 1854), 10.

[243] Clive Wainwright, "The Legacy of the Nineteenth Century," in *Modernism in Design. Critical views*, edited by Paul Greenhalgh (London: Reaktion Books, 1990), 30.

[244] Wainwright, "The Legacy of the Nineteenth Century," 29.

[245] Hill, *God's Architect,* 458.

[246] Montagu H. Cox and Philip Norman, *Survey of London. Vol. 10, Pt. 1* (London: Batsford Ltd. for the London County Council, 1926), 55.

[247] J. Ruskin, "'Limner' and Illumination," *The Builder* 12 no. 618 (December 9, 1854), 630.

[248] John Ruskin, *Fors Clavigera: Letters to the Workmen and Labourers of Great Britain Vol. 1* (London: George Allen, 1871), 5.

[249] John Ruskin, *The Eagle's Nest. Ten Lectures on the Relation of Natural Science to Art, given before the University of Oxford in Lent Term, 1872* (Orpington: George Allen, 1880), 196.

In *The Seven Lamps* Ruskin complains that the Houses of Parliament ignore the effective use of mass and shadow on the façade. A review of Ruskin's text in *The Weekly Chronicle* gives the Houses of Parliament as an example of violating this principle by not making "any attempt at producing picturesque or grand effects by means of judicious disposition of light and shade," stating that the building is "wretchedly deficient" in this regard.[250] Ruskin includes a note in the 1880 edition of *The Seven Lamps* describing how his love of heraldic decoration found in Italian architecture has been destroyed by a "detestation of our Houses of Parliament."[251] Whether he had already established his rules for architecture prior to the erection of the façade, or if he developed his guidelines in reaction to what he witnessed, Ruskin's *Seven Lamps* can be read as a critique of the seat of national government and as a condemnation of the work of the Catholic Pugin in its decoration.

In his text *Architects and the 'Building World' from Chambers to Ruskin: Constructing Authority*, author Brian Hanson claims that Ruskin has been overlooked and situates him at the culmination of "an earlier tradition" of architecture and building.[252] Hanson feels that "[r]ecovering this tradition provides new insight [...] into the work of architects" such as Pugin, perhaps forgetting that Ruskin did not create art, build structures, or design them. Instead of crediting Pugin for establishing the foundations upon which he himself expounded, Ruskin repeatedly criticised Pugin in an attempt to distance himself from the latter's beliefs. Clark attributes Ruskin's approach to his goal "to disassociate Gothic architecture and high ritualism by fierce, irrelevant attacks on popery."[253] Whether driven by his anti-Catholic creed or incensed by the suggestion that his work was less than original, Ruskin continued his anti-Pugin approach.

3.2.5.2 *The Stones of Venice* (1851-53)

Ruskin followed *The Seven Lamps* with *The Stones of Venice*, a three-volume text published from 1851-1853 that drew from his previous work. Again the similarities with Pugin's work were noted. Boime claims that both *The Stones of Venice* and Pugin's *Contrasts* shared the notion that the Gothic derived from a moral society whereas the classical "pagan" style represented a "decline of virtue and a corrupted

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[250] "Literary Chronicle. *The Seven Lamps of Architecture*," *Weekly Chronicle* (June 3, 1849), 10.

[251] John Ruskin, *The Seven Lamps of Architecture*, New Edition (Orpington, UK: George Allen, 1880), 110. Ruskin's note on heraldry and the Houses of Parliament does not appear in his earlier editions of 1849 and 1855.

[252] Hanson, 9.

[253] Clark, *The Gothic Revival*, 195.

faith."[254] Ruskin's argument was similar to Pugin's, leading Pevsner to state that Ruskin seized upon Pugin's texts in order to garner support for himself.[255] Pevsner also points to the conflicting religious beliefs of the two men as the reason why Ruskin, a fellow advocate of the Gothic style, insisted on opposing Pugin, failing to see any worth in Pugin's manufactures or theories and condemning his colleague in the press.[256]

Perhaps the claims of plagiarism first encountered with *The Seven Lamps* were a step too far for Ruskin and he lashed out against his Catholic rival in his next publication. In an appendix titled "Modernist Roman Art" in *The Stones of Venice* (1851), Ruskin takes Pugin to task. After outlining Pugin's many deficiencies, Ruskin deems that:

> "[t]he basest is the being lured into the Romanist Church by the glitter of it, like larks into a trap by broken glass; to be blown into a change of religion by the whine of an organ-pipe; stitched into a new creed by gold threads on priests' petticoats; jangled into a change of conscience by the chimes of a belfry. I know nothing in the shape of error so dark as this, no imbecility so absolute, no treachery so contemptible. I had hardly believed that it was possible, though vague stories had been told me of the effect on some minds, of mere scarlet and candles [....] One might have put [Pugin] under a pix, and left him, one should have thought; but he has been brought forward, and partly received, as an example of the effect of ceremonial splendour on the mind of a great architect."[257]

Ruskin summarizes his thoughts, stating that Pugin "is not a great architect, but one of the smallest possible or conceivable architects" owing to his association with Catholicism.[258] In a half-hearted apology toward his treatment of Pugin, Ruskin replies, "I am sorry to have to speak thus of any living architect," followed by the backhanded insult, "expect no cathedrals of him; but no one at present can design a better finial."[259]

3.2.6 Attitude toward Design

The similarities between Pugin and Ruskin extended beyond the realm of architecture to include principles of design. Olin finds this hardly surprising, as the "theories of the applied arts were inextricably entwined with and frequently indistinguishable from theories of architecture, which often centered on ornamentation."[260] Throughout his

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[254] Boime, 620.
[255] Pevsner, *Some Architectural Writers of the Nineteenth Century*, 141.
[256] Pevsner, *High Victorian Design: A Study of the Exhibits of 1851*, 54.
[257] John Ruskin, "Romanist Modern Art," in *The Works of John Ruskin, Vol. IX* by John Ruskin, edited by E. T. Cook and Alexander Wedderburn (London: George Allen, 1903), 438-439.
[258] Ruskin, "Romanist Modern Art," 437.
[259] Ruskin, "Romanist Modern Art," 437.
[260] Margaret Olin, "Self-Representation: Resemblance and Convention in Two Nineteenth-Century Theories of Architecture and the Decorative Arts," *Zeitschrift für Kunstgeschicht* 49 bd., H. 3 (1986), 378.

lifetime Pugin advocated a reform of design standards and increased awareness that "the essence of the Gothic comprised its structure rather than its ornament."[261] Pugin's approach to design as stated in *True Principles* was swept up in the larger debate led by Ruskin who laid out his beliefs in *The Seven Lamps of Architecture.* The Reverend W. A. Wickham points out these similarities when he states that "it is almost impossible to read Ruskin's *Lamp of Truth,* and to compare it with Pugin's *True Principles,* written eight years earlier, without concluding that at least Ruskin was greatly indebted to Pugin."[262] With its description and illustration of "the growing confusion of ornamentation," [263] O'Donnell suggests that *True Principles* served as a design manifesto, making it "the book on which Pugin's reputation as a design reformer must be based."[264] Here Pugin states that architects should avoid ornamental features which are "*constructed*, instead of forming the decoration of *construction*" as "the smallest detail should *have a meaning or serve a purpose.*"[265]

Where Pugin calls for truth and honesty as illustrated by his "true principles", Ruskin identifies what he calls "deceits," which are responsible for hiding a building's authentic nature: a structural deceit is "the suggestion of a mode of support other than the true one," a surface deceit involves "the painting of surfaces to represent some other material than that of which they actually consist," and an operative deceit involves "the use of cast or machine-made ornaments of any kind."[266] Ruskin takes inspiration from a variety of Pugin's works. His doctrine that ornament should imitate natural forms is reminiscent of Pugin's 1849 work *Floriated Ornament*. Here, Pugin writes how "[*n*]*ature* supplied the mediaeval artists with all their forms and ideas" and urges modern designers to explore this "inexhaustible source" for inspiration to "produce a multitude of beautiful designs treated in the same spirit as the old, but in new form."[267] Ruskin would echo these beliefs in *On the Nature of Gothic Architecture* when he writes that Gothic artists were inspired "by Naturalism, that is to say, the love of natural objects, for their own sake, and the effort to represent them frankly unconstrained by artistical laws."[268]

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[261] Michael J. Lewis, 59.
[262] Rev. W. A. Wickham, "Pugin and the Re-Building of Winwick Chancel," in *Transactions of the Historic Society of Lancashire and Cheshire for the year 1907, Vol. 59,* (Liverpool: Printed for the Society, 1908), 133.
[263] Auerbach, 114.
[264] Roderick O'Donnell, "Introduction," in *The True Principles of Pointed or Christian Architecture* and *An Apology for The Revival of Christian Architecture* by Augustus Welby Pugin (Leominster: Gracewing, 2003), x.
[265] Pugin, *True Principles*, 1.
[266] Ruskin, *The Seven Lamps of Architecture*, 29.
[267] Augusts Welby Pugin, *Floriated Ornament* (London: Henry G. Bohn, 1849, [3].
[268] Ruskin, *On the Nature of Gothic Architecture: and Herein of the True Functions of the Workman in Art,* 19.

Pugin saw truth as a necessary element of design - the very term is present in the title of *True Principles* where, in a discussion of imitative materials, he decrees that it is better "to do a little substantially and consistently with truth than to produce a great but false show."[269] In the chapter "The Lamp of Truth" in *The Seven Lamps*, Ruskin expounds on this doctrine of truth to materials. In *True Principles*, Pugin declares that "plaster, cast-iron, and composition ornaments" are nothing more than "mere impositions."[270] An article of 1849 describes how "Ruskin indignantly denounces architectural deceits of all kinds" including "imitations of marble" and "cast-metal or machine work." [271] Brooks considers Ruskin's pronouncements the "mid-Victorian version of Pugin's doctrine of architectural truth" and, consequently, "a straight development of Pugin."[272]

In architecture and design, morality and truth became touchstones for both Pugin and Ruskin. In his essay of 1883, Robert W. Edis suggested that "shams and pretentious deceits should be repugnant to all morality, as they are utterly at variance with all good taste and real art", and the writings of Pugin and Ruskin reflect this assessment in regard to both materials and morals.[273] Both men shared a hatred of the Victorian propensity for excessive ornament and the artifice and pretence of decoration facilitated by modern production techniques. Each used these concepts as springboards to promote other ideals related to the decorative arts and the appropriate use of ornament when making a high-quality product.

Pugin argues that architecture and the decorative arts are reflections of society and, in a reciprocal fashion, can improve the society in which they were produced. Conversely, Ruskin "takes this basic notion [and] applies it to the workman."[274] Craig suggests that Ruskin's appreciation for the Gothic appeals "to the shared goods and standards of social practices as measures of craftwork and artistic excellence."[275] Ruskin detested machine-made ornament due to the social consequence of robbing the worker of the dignity and enjoyment in artistic labour whereas Pugin's argument was based on aesthetic concerns "about the appropriate use of ornament and truth to materials, not about hand craftsmanship versus the machine."[276] Evidence of this view is found in *Contrasts* as Pugin insists that "all mouldings, pinnacles, tracery, and details, be they

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[269] Pugin, *True Principles*, 27.
[270] Pugin, *True Principles*, 38.
[271] "Literature," *John Bull* (May 26, 1849), 326.
[272] Chris Brooks, *Signs for the Times: Symbolic Realism in the Mid-Victorian World* (London: George Allen & Unwin, 1984), 160.
[273] Robert W. Edis, "Furniture and Furnishings," in *Our Homes, and How to Make Them Healthy*, edited by Shirley Forster Murphy (London: Cassell, 1883), 356.
[274] Bright, "A Reconsideration of A.W.N. Pugin's Architectural Theories," 167.
[275] David Melville Craig, *John Ruskin and the Ethics of Consumption* (Charlottesville, VA: University of Virginia Press, 2006), 158.
[276] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 164.

ever so well executed, are a mere disguise" that replaces the "boldness of execution, so admirable and beautiful in ancient carved works."[277]

3.2.7 Criticism of Ruskin

While celebrated, Ruskin was equally reviled for his "overweening confidence in his own theories and feelings, and a proportionate contempt for all who disagree with him," and none more so than Pugin.[278] The satirical publication *Punch* seized the opportunity to mock Ruskin's ego, portraying him as Narcissus gazing at his own reflection with the caption "Who is it that says most? Which can say more, than this rich praise, – that You alone are *You*!" [fig. 3.26].[279] In his study on depictions of Ruskin, B. E. Maidment describes the "precociousness which is exploited" in this depiction as characteristic of Ruskin's inflated self opinion.[280] However, Ruskin's behaviour went beyond ego and self-importance and his statements against Pugin, plagiarism, and Catholicism took on a desperate tone that was noted amongst the press. Whether they themselves supported Pugin's works and beliefs, journalists began to note the inappropriate and uncalled for nature of Ruskin's statements toward Pugin. Writing for the Catholic *Rambler* in 1849, John Capes states that Ruskin's "egotism is singularly disagreeable and out of place," and that "he writes with an assumption of infallibility which is simply absurd."[281] The author of an article in the same journal, discussing Ruskin's "Art-Philosophy", immediately clarifies the journal's approach, stating that "we are not of those who accept Mr. Ruskin as the art-hero he proclaims himself."[282] While one may assume that the Catholic journal would take such an approach against the Protestant Ruskin in favour of the Catholic Pugin, the publication "came into frequent collision with Pugin," who in turn regarded the journal as "the mouthpiece of adversaries of Gothic in general."[283]

In an 1854 article simply entitled "Ruskinism", *The Civil Engineer and Architect's Journal* also took Ruskin to task, stating that he "shows himself also to be no less foolhardy than foul-mouthed, flying in the face of, and scornfully trampling upon, all established authority whether as regards theory and criticism, or practice."[284] The

[277] Pugin, *Contrasts* 1836, 35.
[278] [J. M. Capes], "Ruskin's Seven Lamps of Architecture," *The Rambler* 4 no. 19 (July 1849), 193.
[279] "Punch's Fancy Portraits. – No. 12," *Punch* 79 (December 18, 1880), 286.
[280] B. E. Maidment, "Ruskin and 'Punch', 1870-1900," *Victorian Periodicals Review* 12 no. 1 (Spring 1979), 23.
[281] [Capes], 193.
[282] "Mr. Ruskin's Art-Philosophy," *The Rambler* 2 New Series no. 8 (August 1854), 155.
[283] Margaret Belcher, *A.W.N. Pugin: An Annotated Critical Bibliography* (New York: Mansell Publishing Co., 1987), 91.
[284] Candidus, "Ruskinism," *The Civil Engineer and Architect's Journal* 17 no. 239 (February 1854), 75.

piece was written by *Candidus*, nom de plume of W. H. Leeds, "who had already shown himself an able critic of Pugin."[285] Here, Leeds claims that "[t]he tide is beginning to turn against Ruskin; his popularity is now ebbing away very fast [....] No doubt, because conscious that it is impossible either to ignore or to refute the charges now brought against him by those who really do understand something of architecture."[286]

3.2.7.1 Plagiarism

Ruskin's anti-Catholic diatribe in *The Stones of Venice* did little to quell the claims of plagiarism which only intensified following the publication of that text, prompting Ruskin to speak out to further disassociate himself from Pugin. As Ruskin did not practice architecture or design, Pugin, ill at the time, felt the attacks were baseless and paid no attention, simply stating "let the fellow build something himself."[287]

Ruskin continued to claim his innocence towards copying Pugin's ideas and in the third volume of his 1856 work *Modern Painters*, Ruskin included an appendix where he says that "though I do not usually care to justify myself from the charge of plagiarism, I felt that a few words were necessary in this instance."[288] He continues: "[i]t is also often said that I borrow from Pugin. I glanced at Pugin's *Contrasts* once, in the Oxford architectural reading-room, during an idle forenoon. His 'Remarks on Articles in the Rambler' were brought under my notice by some of the reviews. I never read a word of any other of his works, not feeling, from the style of his architecture, the smallest interest in his opinions."[289]

According to Conner, Ruskin's proclamation is "certainly untrue. A series of notes in Ruskin's 'Sketchbook 4' (1846) [...] is taken directly from one of Pugin's most important books, *The True Principles of Pointed or Christian Architecture* (1841)."[290] Perhaps, as Graham Hough suggests, "recently published material on Ruskin's private life has shown him as a pathological liar when his self esteem was concerned, and it may well be that Pugin's influence was greater than he cared to admit."[291] It is suspect that Ruskin chose to publish these statements when he did as Pugin died four years prior in 1852 and was no longer alive to defend himself, ensuring that Ruskin faced little opposition to his claims. Whatever his motivation, it does seem that Ruskin

[285] [Henry Harcour] Hyde Clarke, "William Henry Leeds, Architectural Critic," *The Building News and Engineering Journal* 14 (October 4, 1867), 681; Belcher, *Collected Letters, Vol. 1*, 264.
[286] Candidus, 74.
[287] Trappes-Lomax, 323.
[288] John Ruskin, *Modern Painters Volume III* (London: George Routledge & Sons, 1856), 346.
[289] Ruskin, *Modern Painters Volume III*, 347.
[290] Conner, 344.
[291] Graham Hough, *The Last Romantics* (London: Gerald Duckworth & Co. Ltd., 1949), 90.

protests a bit too much, raising suspicion that he may have, in fact, been highly influenced by his Catholic rival.

Perhaps this is because, as a theorist and moralist, Ruskin never had to put his platitudes into practice; while Pugin was married three times, widowed twice, and had eight children to raise, Ruskin was separated with no dependents and had "inherited from his father a considerable fortune."[292] With independent financial security since he did not rely on his manufactures to earn a living, Ruskin had no reason to compromise his ideals. As Pevsner points out, "Ruskin never knew an hour's worry about money nor about a job" and was able to "establish himself comfortably,"[293] and indeed James Smetham, a struggling artist and acquaintance, mentions Ruskin's circumstances with some scorn when describing him as "the son of a wealthy merchant born with 'this art gift of mine,' buttressed with money, emancipated by leisure, [and] urged on by taste."[294] When Ruskin asserts that society as a whole should maintain these same ideals his argument becomes problematic. Ruskin separated Catholicism and Gothicism, as identified by Pugin, in favour of the social aspects of medievalism, and the academic and historian of Catholicism Philip Gleason notes how "Pugin's linking of the splendors of Gothic architecture to the healthy medieval social order was carried much further by John Ruskin" because "[m]edievalism had by now become thoroughly mixed up with the critique of individualism and industrial capitalism."[295]

3.2.7.2 Audience

Despite the claims of plagiarism, Ruskin was highly regarded in the literary world and it is here that his audience can be found. While Pugin and Ruskin often addressed the same topics, they were writing for very different audiences – a discrepancy that has been overlooked when examining the work of both men. From his earliest years Ruskin showed talent in composition, winning the Newdigate prize in English poetry in 1839 while at Oxford. Following the death of Tennyson in 1892, Prime Minister William Gladstone contemplated appointing Ruskin as Poet Laureate and, as Kenneth Clark suggests, "was only prevented from doing so by the fact the he [Ruskin] was out of his mind."[296]

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[292] Clark, *Ruskin Today*, 10.
[293] Nikolaus Pevsner and Third Programme, "Victorian Thought on Architecture," *The Listener* (July 26, 1951), 137.
[294] James Smetham, Sarah Smetham, and William Davies, *Letters of James Smetham* (London: Macmillan, 1902), 197.
[295] Philip Gleason, "Mass and Maypole Revisited: American Catholics and the Middle Ages," *The Catholic Historical Review* 57 no. 2 (July 1971), 266.
[296] Clark, *Ruskin Today*, xiii.

In the fifty plus years between these accomplishments, Ruskin published a large volume of works encompassing multi-volume texts, reprints, and lectures "which had brought him a certain literary reputation" before contributing articles to Loudon's *Architectural Magazine* and *The Builder*.[297] Considering Ruskin's oeuvre, Clark suggests that "there was hardly a distinguished man of letters who did not admire him" while critics "believed him to be one of the unassailable masters of English prose."[298] Publications during Ruskin's lifetime deemed him "the foremost living man of letters in England to-day [...] that have given the Victorian age its high place in the literature of the world."[299]

George P. Landow, Professor of English and Art History Emeritus at Brown University, sees in Ruskin characteristics akin to Thomas Carlyle and Matthew Arnold.[300] He regards Ruskin as adopting the role of the Victorian sage, employing "the techniques of the Victorian sermon, neoclassical satire, classical rhetoric, and Old Testament prophecy to create credibility for the interpretations of contemporary phenomena [...] who stands apart from his audience and society."[301] In this role, Ruskin "understands matters that others do not" and they therefore need his assistance.[302] Landow suggests that this approach was also part of "his long campaign against High Anglican and Roman Catholic proponents of Gothic architecture."[303]

Indeed, both Pugin and Ruskin were appreciated for their contributions to architectural discourse; an 1858 *Times* article points out that "amid a host of writers who have done good service to the cause" of Gothic Revival architecture, Pugin and Ruskin are selected as deserving of special mention.[304] Through his use of language, Ruskin became "known chiefly to the world as a writer of exquisite and inspiring prose."[305] However, his approach was quite different from the sort of writing produced by Pugin in one crucial way: Pugin was a practitioner of architecture; Ruskin was its critic.

3.2.8 The Second Half of the Nineteenth Century

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[297] Marcus Whiffen and Third Programme, "Ruskin and Architecture," *The Listener* (August 18, 1949), 265.
[298] Clark, *Ruskin Today*, xiii.
[299] "John Ruskin as Laureate," *Daily Inter Ocean* (May 10, 1893), 6.
[300] George P. Landow, "Ruskin as Victorian Sage: The Example of 'Traffic'," in *New Approaches to Ruskin: Thirteen Essays*, edited by Robert Hewison (New York: Routledge, 2015), 89.
[301] Landow, 89-90.
[302] Landow, 90.
[303] Landow, 96.
[304] "Gothic Architecture," *The Times*, no. 22892 (January 16, 1858), 12.
[305] "John Ruskin as Laureate." *Daily Inter Ocean* (May 10, 1893): 6.

In the mid-nineteenth century, the literate members of the newly-enlarged middle class Victorian public would have been able to identify similarities between Pugin and Ruskin including their comparable backgrounds, their appreciation for gothic forms, and their tenets towards design and architecture, particularly given that both men made appearances in the press when speaking of architecture.[306] The divide between the two men involving their religious biases would have also been very apparent at this time. While both Pugin and Ruskin may have advocated for a revival of the Gothic style, in the latter half of the nineteenth century Ruskin adapted this approach to combine aesthetics with social philosophy.[307] Collins states that "[f]rom 1860 onwards, Ruskin abandoned architectural criticism entirely and devoted himself to social reform, by lecturing and writing on industrial problems, education, morals and religion"[308] while Hough finds evidence of this shift "as early as 1853, the date of the second volume of *The Stones of Venice*," where "the emphasis of neo-Gothic thought is shifted from religion to sociology and economics."[309] Although Pugin died in 1852 and no longer posed a threat – real or imagined – to Ruskin, Ruskin continued to attack Pugin's legacy and reception even while changing his own emphasis away from religion and towards social issues.

Pevsner notes that while Pugin "fought violently and relentlessly for Catholicism, for Gothic forms as the only Christian forms, and also for honesty and truthfulness in design and manufacturing [...] Ruskin took up the latter causes but not the former."[310] While Pugin's ideas would continue to echo throughout the writings of subsequent scholars, his elements of moralizing Catholicism were stripped away. With the appearance of secondary sources – of those who were not alive or practicing during this time – the importance of religion and the details surrounding the nuances of each man's approach were overlooked, and the two became conflated, often with Pugin subsumed into Ruskin's greater oeuvre. As previously noted, interest in Pugin declined so that there was a time in which very little was being written about him. When interest returned to Pugin, scholars had to reassess his approach and in so doing they overestimated his similarities with Ruskin while underestimating the divide created by their religious beliefs. As Clark wrote, "[i]f Ruskin had never lived, Pugin

[306] Appearances in newspapers and journals brought these similarities and differences to light. See, for instance, [Margaret O. W. Oliphant,] "Augustus Welby Pugin," *Blackwood's Edinburg Magazine* 90 no. 554 (December 1861) and "Gothic Architecture," *The Times*, no. 22892 (January 16, 1858), 12.

[307] Tracy Granger, "The Handicraft Ideal of Nineteenth Century England and the Industrial Age" (Masters' thesis, California State University Dominguez Hills, 2004), 24.

[308] Hough, 89.

[309] Peter Collins, *Changing Ideals in Modern Architecture, 1750-1950* (London: Faber and Faber, 1965), 109.

[310] Pevsner, *Pioneers of Modern Design*, 16.

would never have been forgotten." [311] The fact that Pevsner overlooks Pugin to begin his *Pioneers of the Modern Movement* with William Morris illustrates this point.[312]

3.2.9 Ruskin's Anti-Industrial Approach

One area in which Pugin and Ruskin are most conflated involves the adoption of an anti-industrial approach. While Ruskin remained faithful to the superiority of the Gothic style, his reasoning changed. He now pointed out that the Gothic was superior to the Renaissance "chiefly because in the former the workman was a free man, while in the latter he was a slave."[313] Evidence of this growing attitude can be seen in 1849 when, in *Seven Lamps*, Ruskin states that "if the man's mind as well as his heart went with his work," the effect "will be like that of poetry."[314]

Reynolds describes how "Ruskin was concerned both with the ethical and the aesthetic and looked to models of the past for the solution of contemporary social, moral and political problems,"[315] and this took the form of increased suspicion of mechanisation and the condemnation of industrialisation. Although Pugin also included an ethical component into the architectural debate, his social critique was appropriated to further the idea that he was anti-industrial. Lewis identifies in Pugin's principles a "heartfelt and anguished response to the Industrial Revolution," and this approach is characteristic of the general attitude towards Pugin's relationship with mechanization by both modern and Victorian scholars. [316] As Gilchrist states, "Ruskin followed hard on [Pugin's] heels and took over and transformed Pugin's ideas without mentioning him," which led Pugin to become conflated with Ruskin. [317] Pugin's approach was swept up in the larger debate led by Ruskin and the proponents of the Arts and Crafts style on the negative implications of Victorian labour practices and the integrity of the worker that is the hallmark of the Arts and Crafts ethos which sets the two men apart. Pugin was dedicated to improving the quality of goods through artistic education for manufacturers while Henry Dorra argues that "Ruskin was a social utopian, dedicated to improving the lot of the working class through artistic education."[318] It is not Ruskin's appropriation of Pugin's ideals that is so problematic, but the fact that this

[311] Clark, *The Gothic Revival*, 144.
[312] Nikolaus Pevsner, *Pioneers of the Modern Movement from William Morris to Walter Gropius* (London: Faber & Faber, 1936), 1936.
[313] Agrawal, 244.
[314] Ruskin, *The Seven Lamps of Architecture*, 141.
[315] Reynolds, 38.
[316] Michael J. Lewis, 86.
[317] Agnes Gilchrist, *Romanticism and the Gothic Revival* (New York: Gordian Press, 1967), 74.
[318] Henri Dorra, *Symbolist Art Theories: A Critical Anthology* (Berkeley: University of California Press, 1995), 82.

approach has caused historians to fail to see each man's work and design philosophy in his own right.

Ruskin looked to gothic not as an expression of religious faith but as a "comprehensive response to the dislocations and traumas of the Industrial Revolution."[319] As Belcher states, Ruskin had "recourse to an idealized Gothic past in a bid to reform" what he felt was an "unhappy present."[320] Ruskin felt that labour had a nobility and spiritual dimension that factory workers were deprived of because of piece-work, which denied them the satisfaction of seeing a single product through to completion. He believed that human labour had an intrinsic worth that machine production could not duplicate and he looked to the ideal of the medieval workshop as an antidote to this modern condition. Hanson attributes Ruskin's interest in the Pre-Raphaelite and Arts and Crafts movements to his belief that they "might be able to raise up a body of artists prepared to bridge the gulf between the lofty ideals of art and commonplace manual labour."[321] Pevsner notes that "[t]ruth in making is to Ruskin making by hand, and making by hand is making with joy."[322] Although otherwise praising Ruskin, Eastlake admits that Ruskin's "intentions are, we doubt not, sincere; but, considered in combination as they are usually associated, they present a scheme which is utterly impracticable."[323]

During the first half of the nineteenth century, the beliefs and publications of Pugin and Ruskin shared many similarities, and Hough states that "[n]o doubt a good deal of the resemblance between the two men was personal and accidental," with the issue of religion serving as the impenetrable division between the two.[324] However, Ruskin was still able to set aside matters of religion when interacting with his Tractarian and Ecclesiological peers, but not Pugin. Perhaps Ruskin was aware of these similarities and took a disinterested approach as a defence mechanism to distance himself from his rival, and the claims of plagiarism levelled at Ruskin lend credence to that similarity, as it was noticed amongst the public, as shown above. As vocal supporters of the Gothic revival in Victorian England, both men were often mentioned in the same breath.[325] However, at the same time, the distinction between the two would have

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[319] Michael J. Lewis, 7.
[320] Belcher, "Pugin Writing", 110.
[321] Hanson, 185.
[322] Pevsner, *Pioneers of Modern Design*, 32.
[323] Eastlake, 272.
[324] Hough, 91.
[325] See, for example, "Miscellaneous," *John Bull* 37 no. 1925 (October 31, 1857), 701; "Gothic Architecture," *The Times*, no. 22892 (January 16, 1858), 12; "New Publications, Extracts, &c.," *Stamford Mercury* 163 no. 8494 (February 5, 1858), 6; "Mr. E. M. Barry's Lecture on Architecture," *Birmingham Daily Post*, no. 54 (February 17, 1858), 2; "The Gothic Revival," *Pall Mall Gazette*, no. 2210 (March 14, 1872), 11-12; "The Adaptation of Art to Decorative Purposes," *Leicester Chronicle* 65 no. 3413 (December 26, 1874), 10.

been very apparent as the issues surrounding religion at this time were at the forefront of public awareness, particularly the suspicion towards Catholicism. Pugin passed away just as Ruskin began to explore the social implications of the Gothic style. As Hill notes, Ruskin "outlived and out-talked him by half a century," and consequently Pugin's views became conflated with those of his louder and bolder rival.[326] Brooks suggests that Ruskin's influence was overinflated to the point that "Ruskin was considered almost the sole creator of the Gothic Revival. Credit or blame was sometimes shared with Pugin, but rarely with any understanding of the differences between Pugin's understanding of architecture and Ruskin's."[327]

Styles states that Ruskin "shared Pugin's belief in the degeneracy of modern civilization and in the moral and aesthetic superiority of the Gothic style."[328] While both men certainly agreed about the supremacy of the Gothic, one has to question whether both felt modern civilization had degraded. In this sense, any degeneracy that Pugin may have expressed was related to the lack of religion in general and the Catholic faith in particular. Pugin felt the Gothic era expressed the ideal combination of spirituality and architecture, each dependent upon the other to achieve greatness, while Ruskin attributed this superiority to the social structure. Mark Swenarton starts his book *Artisans and Architects* with the claim that Ruskin "has been arguably the major British contribution to architectural thought in the past 150 years," completely overlooking the fact that a majority of Ruskin's content was appropriated from Pugin.[329] He further states that the "central notion in this tradition was that architecture should be the expression of the character of the worker."[330] The conflation of Pugin's views with Ruskin's, and particularly those which Ruskin developed after Pugin's death, does a disservice to both men.

3.2.10 William Morris

Pugin's similarity with Ruskin extended to those who followed Ruskin's teachings, including the Arts and Crafts practitioner William Morris (1834-1896) [fig. 3.27]. Morris was first introduced to Ruskin's writings "in 1854 while a student at Oxford and became his friend in 1856" and after reading Ruskin's *Nature of Gothic*, "to which he referred reverentially, Morris hoped to implement Ruskin's advice to eliminate as

[326] Hill, *God's Architect,* 493.
[327] Michael W. Brooks, 320.
[328] John Styles, "Introduction," in *Design & the Decorative Arts: Victorian Britain 1837-1901*, edited by Michael Snodin and John Styles (London: V&A Publications, 2004), 36.
[329] Mark Swenarton, *Artisans and Architects: The Ruskinian Tradition in Architectural Thought* (London: Macmillan Press, 1989), xv.
[330] Swenarton, xv.

much as possible the division of labour."[331] In a letter to the Viennese furniture designer and Socialist exile Andreas Scheu dated September 5, 1883, Morris recounts key events in his life, including how, during his time at Oxford, his influence by the High Church was "corrected by the books of John Ruskin which were at the time a sort of revelation to me."[332] This statement illustrates how not only was Ruskin instrumental in forming Morris's thoughts and beliefs, but also that Morris felt this worthy of comment alongside the details of his birth and his father's death.

Although Morris took many of his ideas from Ruskin, his work also benefitted from the influence of Pugin. Conner believes that "Morris saw Pugin as a prominent figure in the first act of the Gothic revival [...] but in the eyes of Morris, it was Ruskin who ushered in the second act."[333] Stanton assesses this interplay of ideas, summarizing that "William Morris carried the argument of the revivalists well beyond the depth to which Pugin was prepared to follow it. Return to craft methods had occurred to Pugin but he had not recommended it,"[334] and henceforth Ruskin and Morris became known as the "originators of the narrative of modern craft."[335] Morris secularized the theory of the Gothic Revival, substituting for religious revivalism the re-establishment of the mediaeval relationship between the craftsman and his craft."[336] Morris' disavowal of the machine became a hallmark of the Arts and Crafts movement and served to further distance his ideas from those of Pugin. The practitioners of the Arts and Crafts created sturdy, sober handmade goods that were meant to be inexpensive and within reach of the working class, so it is ironic that these "honest, workmanlike products became coveted luxury goods in a capitalist society."[337] Perhaps, as Joseph Breck notes, Morris and his followers "would have exerted more influence on popular taste if [they] had made greater use of the facilities for inexpensive quantity production offered by the despised machine."[338]

3.2.11 Reaction to Ruskin's Approach

The unintended effect of creating products that were entirely out of reach of the working class became a point of contention in modern debates on design reform and, once again, Pugin served as a catalyst for this discussion. George Wallis, Pugin's

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[331] Dorra, 91-92.
[332] William Morris and Gillian Naylor, *William Morris by Himself: Designs and Writings* (London: Time Warner, 2004), 23.
[333] Conner, 349.
[334] Stanton, "Pugin: Principles of Design versus Revivalism," 25.
[335] Glenn Adamson, *The Invention of Craft* (London: Bloomsbury Academic, 2013), xxii.
[336] Stanton, "Pugin: Principles of Design versus Revivalism," 25.
[337] Michael J. Lewis, 161.
[338] Joseph Breck, "The Decorative Arts in the Nineteenth Century," *The Metropolitan Museum of Art Bulletin,* 21 no. 12, Part 1 (December 1926), 292.

colleague from Oscott and fellow design reformer, presented a paper titled "Recent Progress in Design as applied to Manufacture" at a meeting of the Society of Arts in 1856 and published in the Society's journal, in which he praised Pugin, now four years dead, for his working methods. Wallis held up Pugin's goods as an example of the quality and historical authenticity made possible by mechanization. He states, "the late Mr. Pugin, as to his special views of the mission of art, and the application of modern scientific and mechanical means to the reproduction of works of excellence [...] it is to the influence of his example, in one direction, that we owe so much of the progress to be recorded in other departments of art-manufacture."[339]

Among those in attendance at Wallis' lecture that evening was John Ruskin who, following the presentation, repeatedly voiced his disappointment that, throughout his praise of Pugin's manufactures, Wallis "did not show the effect of the production of art upon the workman" as "surely the happiness of the workman was a thing which ought to be considered."[340] Also in attendance was Pugin's collaborator John Crace who took the opportunity to respond to Ruskin's complaints about mass production. Referring to items manufactured according to Ruskin's arts and crafts methods, Crace notes that "from the nature of the work, and the material and labour bestowed, they [are] far too costly to be in the hands but of very few. If, by any scientific process, the full beauty of the originals could be preserved, and the work of art could be enjoyed by thousands, surely you would not condemn that process."[341] This leads Wallis to conclude that the artist and manufacturer should "avail himself of every means which modern invention and discovery affords him to reproduce, in suitable form and material, such beautiful objects of art-manufacture."[342] This view was echoed by the other attendees who, much to Ruskin's chagrin, also expressed their desire to create quality products by "bringing to bear every possible appliance of mechanical skill throughout every process and stage of the production."[343]

3.3 Authors whose comments on Pugin's attitude to machinery and industrialisation are ambiguous

A third group of authors have been identified whose comments on Pugin's attitude to machinery and industrialization are ambiguous and open to interpretation. This survey includes both scholarly and popular literature, *i.e.* that meant for an academic audience as well as newspaper and television coverage intended for a general audience.

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[339] George Wallis, "Recent Progress in Design as applied to Manufacture," *Journal of the Society of Arts*, IV no. 173 (March 14, 1856), 296.
[340] Wallis, "Recent Progress in Design as applied to Manufacture," 299.
[341] Wallis, "Recent Progress in Design as applied to Manufacture," 300.
[342] Wallis, "Recent Progress in Design as applied to Manufacture," 292.
[343] Wallis, "Recent Progress in Design as applied to Manufacture," 304. This approach was in keeping with the aims of the Society of Arts, the institution hosting the event.

Due to their generalizing approach and lack of specifics, these statements can be presented to insinuate that Pugin was opposed to mechanisation. In each of these cases primary source material is introduced to fashion an alternative reading of Pugin and his working methods.

In many instances, as previously shown, authors do not misrepresent Pugin with outright inaccuracies, but the ambiguity of their statements can result in readers drawing an inaccurate conclusion regarding Pugin's attitude to machinery and industrialization. Such generalizations are part and parcel of survey texts which, for the average student, offer the first (and often the only) exposure to Pugin and his output. The American art historian Marilyn Stokstad's survey text simply titled *Art History* claims that Pugin looked to the "Middle Ages, which he represented as an idyllic epoch of deep spirituality and satisfying handicraft."[344] Does she suggest that Pugin opposed the mechanisation and labour practices of the present day and instead looked to medieval handicraft as the ideal? While it is true that some of Pugin's contemporaries exalted the Gothic style for its pre-industrial connotations of handicraft, to include Pugin in this assessment without further explanation is ambiguous. This lack of clarity, particularly for those not invested in a deeper study of Pugin, provides just enough detail for readers to draw conclusions with existing knowledge. Although not untrue, sweeping statements such as Stokstad's ignore many of the subtleties that differentiate Pugin from his contemporaries or, in some cases, align him with others whose views are diametrically opposed.

Such generalizations also appear in popular culture, as seen in *People's Palaces: The Golden Age of Civic Architecture* which appeared on BBC Four in 2010. In the episode "The Gothic Revival," historian Dr Jonathan Foyle states that "Pugin popularized the medieval past as an architectural template and social manifesto for the future. The message was particularly pertinent in the urban industrial north."[345] As with Stokstad's claim, Foyle's assertion is not untrue but it raises many questions. In what way did the medieval era provide a social manifesto for the future, and why was this so applicable to the areas affected by industrialization? It is likely that Foyle intends this to mean that religion – particularly the Catholic faith which was so prevalent during the Middle Ages – was crucial to the social structure that Pugin wanted to resurrect. However, this should have been clearly stated as this statement could just as easily be interpreted to mean that Pugin wanted a social structure based on a handicraft economy.

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[344] Marilyn Stokstad, *Art History, Vol. 2.* 3rd edition (Upper Saddle River, NJ: Pearson Prentice Hall, 2008), 1009.

[345] Jonathan Foyle, "People's Palaces: The Golden Age of Civic Architecture," BBC Four, 19 September, 2010.

Whether in a college classroom or via a public broadcast, unclear assertions become engrained beliefs that become very difficult to shift when contradictory information is presented. In her article "The Shifting Paradigm: Learning to Unlearn," Carmen Elena Cirnu states how "[o]ftentimes, having previous information serves as a barrier to change" which would require a process of *unlearning*.[346] According to Hislop et al. in their article "The process of individual unlearning: a neglected topic in an under-researched field," this involves "a conscious process of choosing to give up, abandon or stop using knowledge, values or behaviours."[347] An area of study within the realms of education, psychology, and business management, professionals have not reached a definitive conclusion on how best to unlearn, but they agree that it is a complex process that requires individuals willingly "rejecting a previously-held belief or repudiating a long-revered theory."[348]

The consequence of this ambiguity and lack of specificity surrounding Pugin's working methods has led to his approach being misinterpreted. In his discussion on Fascism in Britain, Thomas Linehan reveals how "[a]pprehension about the machine and the machine age was prevalent in British fascist discourse."[349] As a result, the British Union of Fascists "attempted to position itself within a long-standing domestic tradition of anti-industrial thought that reached back to the pre-Victorian era" which "could be discerned in the outlook of Augustus Pugin (1812-52) and his contemporaries in the neo-Gothic revival movement. In Pugin this anxiety translated into nostalgia for the Catholic Middle Ages [....] It was a comforting image which he set against the dominant one of environmental ugliness and social dissonance that characterised his own secular age of unfettered industrialisation."[350] Here Linehan reads into Pugin's approach and illustrates how inaccuracies such as these are open to adoption by disparate groups not in keeping with Pugin's beliefs. For a multitude of reasons, it is best to learn the facts the first time around so that, whether regarding Pugin's working process or any other issue, an accurate appraisal may be presented from the outset.

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[346] Carmen Elena Cirnu, "The Shifting Paradigm: Learning to Unlearn," *Internet Learning* 4 no. 1 (Spring 2015), 131.
[347] Donald Hislop, et al., "The process of individual unlearning: a neglected topic in an under-researched field," *Management Learning* 45 no. 5 (2014), 7.
[348] Cirnu, 126.
[349] Thomas P. Linehan, *British Fascism, 1918-39: Parties, Ideology and Culture* (Manchester: Manchester University Press, 2000), 257.
[350] Linehan, 258.

Having identified the source of Pugin's anti-industrial reputation as originating from his published works as opposed to his personal correspondence along with the bias of Ruskin and his successors, it is vital to examine the nature of industrialization during Pugin's lifetime as to accurately situate his work and the work of his collaborators. This section, therefore, discusses the different meanings of the term "machine made" during Pugin's lifetime. Additionally, the line between tool and machine will be considered alongside an investigation into where this differentiation becomes objectionable to those who oppose industrialization. Considering these areas will help clarify Pugin's actual views on industrialization, mechanisation, and machinery and how these aligned with his design principles.

4.1 Terminology

As the historian Reese V. Jenkins notes in an article on the history of technology, "words have dominated both the content and the form of historical works" as a "verbal conception of documents continues to dominate historical documentary editing."[351] When discussing the creation of Pugin's goods, and indeed, any production or manufacturing in the Victorian era, confusion often arises as terms take on different meanings, not only over time but also from one writer to the next. Therefore, a discussion of what is meant by "tool" and "machine" is useful for clarity's sake. The unfortunate truth however is that the distinction between these terms, and the others to be discussed, is not always clear cut. From a purely semantic view, the word "mechanical" predates "machine" and, although similar, the two terms have unique differences. In *The Invention of Craft*, Glenn Adamson, curator and commentator on the intersections of design and craft, notes that the nineteenth century "was the moment when the term 'mechanical' acquired its modern sense" as it "came to mean rote execution that could be clearly distinguished and separated from intellectual work."[352] Raymond Williams, a Welsh Marxist theorist who helped establish the fields of cultural studies and materialism, examines the origins of popular terminology in his 1976 work *Keywords: A Vocabulary of Culture and Society*. Here, he explains how "machine" refers to a complex arrangement of interrelated moving parts. This definition dates from the late 18th century along with "the distinction from *tool*, and the

[351] Reese V. Jenkins, "Words, Images, Artifacts and Sound: Documents for the History of Technology," *The British Journal for the History of Science* 20 no. 1 (January 1987), 39.
[352] Adamson, xxi.

distinction between *machine-made* and *hand-made*."[353] Williams therefore provides a relatively recent interpretation of Charles Babbage's 1832 text, *On the Economy of Machinery and Manufactures.* Here Babbage acknowledges the difficulty in terminology when he states that "the difference between a *tool* and a *machine* is not capable of very precise distinction."[354] Still, he surmises that tools are generally simpler devices operated by the hand whereas machines incorporate tools into a larger framework which is operated by an external motive power. Machines save time and increase accuracy although one may argue that they impart a repetitive sameness that lacks the craftsman's hand.[355] Associate Professor of Physics William Ballantyne Anderson, in his 1914 text *Physics for Technical Students*, states that "[a] machine is usually a device for transmitting power."[356] He expands upon this notion, pointing out that "[m]any machines are simply devices by means of which a force, applied at one point, gives rise at some other point to a second force which, in general, differs from the first force both in magnitude and direction."[357] This literature survey reveals that, in general, a "machine" is a form of transmitting motion and force. By their design and arrangement, machines incorporate levers, wheels, pulleys, screws, and ramps (themselves referred to as "simple machines"[358]) to amplify the motive power acting upon them. In other words, machines can utilize these effects to generate power and speed beyond that which humans alone can produce.

Matters are complicated when the motive power behind the machine is generated by a human operative. For example, tile production originally required forcing a mass of clay into a mould and beating the clay flush to ensure that it completely fills the recesses [fig. 4.1]. Mechanical tile presses were invented which greatly reduced the exertion required to compress clay into the mould [fig. 4.21]. However, these presses still required physical exertion by the operator as the weights are forced to rotate to depress the form. By the end of the nineteenth century, these presses were operated by steam, but at intermediate points between hand production and full mechanisation, the tile press was operated by the worker's hand. Is this a machine or a tool? If tools are powered and guided by the worker, the press would be a tool. However, as it

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[353] Raymond Williams, *Keywords: A Vocabulary of Culture and Society* (New York: Oxford University Press, 1985), 201.

[354] Charles Babbage, *On the Economy of Machinery and Manufactures* (London: Charles Knight, 1832), 10-11.

[355] The devaluation of the worker/craftsman was central to Ruskin's argument against the use of machinery.

[356] William Ballantyne Anderson, *Physics for Technical Students Mechanics and Heat* (New York: McGraw-Hill, 1914), 110.

[357] William Ballantyne Anderson, 110.

[358] William Ballantyne Anderson, 111. While "simple machine" is a well-known term in the realm of engineering, it is further elucidated by Anderson when he says "The *Simple Machines* are devices used, as a rule, to secure a *large* force by the application of a *smaller* force. These machines are the lever, the pulley, the wheel and axle, the inclined plane, the wedge, and the screw."

employs levers and gears (simple machines) to reduce the amount of exertion required by the worker, it would be classed as a machine. This conundrum is presented to illustrate the difficulty in arriving at a definition for these terms that fits all eras and instances. This is nearly impossible and attempting to do so does not do justice to the gradations that exist between strictly handmade goods and full automation.

The distinction between "making" and "manufacturing" is equally problematic. Making generally involves creating a small number of items whereas manufacturing involves larger quantities produced by multiple people. The *Illustrated Catalogue, the Industry of All Nations* of 1851 notes that the term has developed further, stating that manufacture originally referred to "the production of human manipulation" but noting how it "is now generally applied to articles made by machinery."[359]

The term "industrial revolution" in small letters refers to the introduction of inanimate forms of motive power and the substitution of machine for human skill as to enact a shift away from handicraft. When capitalized, the term means the historical occurrence of the change from agrarian, handicraft production to one dominated by machine manufacture. "Industry" referred to human skill and perseverance until Adam Smith used the term in his 1776 text *An Inquiry into the Nature and Causes of the Wealth of Nations* to refer to manufacturing institutions.[360] In his anthology of British literature, Joseph Laurence Black describes how the Industrial Revolution went through two phases, the first of which began "in the eighteenth century with the invention of new technology for spinning and weaving, and with the invention of the steam engine to power these machines" and the second arriving "with the spread of the railway in the 1840s."[361] The terminology introduced by Smith remained in use nearly 200 years later, as seen when architect and advocate for social housing A.W. Cleeve Barr, in 1964, wrote that "[i]ndustrialisation is a process of change which involves the substitution of hand labour by machines both on site and in the factory. It involves the use of new techniques and new materials and the use of traditional materials in new ways."[362]

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[359] *Illustrated Catalogue, the Industry of All Nations, 1851* (London: Published for the Proprietors by George Virtue, 1851), 1.

[360] Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations by Adam Smith* (London: W. Strahan and T. Cadell, 1776).

[361] Joseph Laurence Black, et al., eds., *The Broadview Anthology of British Literature, Volume 5: The Victorian Era*, Second edition (Peterborough, Ontario: Broadview Press, 2013), 49.

[362] A.W. Cleeve Barr, "Progress report on achievement in industrialised housing," *System Building 2* (1964), quoted in Ralph Morton, *Construction UK: Introduction to the Industry* (Oxford: Blackwell Sci, 2005), 11.

"Technology" is frequently employed as a catch-all term relating to both the industrial process and product. Indeed, the definition and usage has remained fairly consistent since Johann Beckmann (1739–1811), Professor of Economics at Gottingen, "was the first writer who made use of the word technology as applied to the history of mechanical arts."[363] The Oxford *History of Technology* (1954) defines the term as "how things are commonly made or done" and "what things are done or made."[364] In his article of 1987, Jenkins furthers this concept when he states that "[t]echnology involves tools and machines and the objects they produce," which are known as "artifacts."[365] Thus it appears that this is one term where the definition has remained stable since its first use 200 years ago.

While this survey has illuminated the varying definitions of words common to this study, it has also revealed that very rarely is there an established definition for each term; each can be and often is used interchangeably depending on the author and his/her agenda, and the definitions can vary according to the nature of the enquiry. Therefore, the best that can be done is to point out these instances in the writings examined here and analyze what the author was intending to convey by their choice of words.

4.2 Authors

The bulk of the scholarship examining the nature of mechanisation and industrial progress in the 19th century has been written by economists, historians and sociologists. Thus the primary areas of specialization from which this is addressed are economics and the history of technology and the relationship between this last category and the work of Pugin and his collaborators is an area of very little scholarship. As discussed in the previous chapter on literature relating to Pugin's works, authors did not begin to seriously and scholarly address the Gothic Revival until long after Pugin had died. Some simply treated him and his work as part of a larger overview of the Victorian era, where Pugin barely received a mention. A select few, however, addressed this topic with more interest and attention in an attempt to make a notable impact in the understanding of the Gothic style.[366] While these authors

[363] K. R. H. M., "The History of Technology. Second and Concluding Notice," *The Practical Magazine* 3 no. 15 (1874), 233.
[364] Charles Singer, et al, *A History of Technology* (Oxford: Clarendon, 1954), vii.
[365] Jenkins, 41.
[366] Notable examples include Eastlake, *History of the Gothic Revival* (1872); Clark, *The Gothic Revival: An Essay in the History of Taste* (1928); Nikolaus Pevsner, *Pioneers of the Modern Movement from William Morris to Walter Gropius* (1936); *An Outline of European Architecture* (1943); *Pioneers of Modern Design* (1949); *The Buildings of England* series (1951-74); and Henry Russell Hitchcock, *Early Victorian Architecture in Britain* (New Haven, CT: Yale University Press, 1954).

mentioned Pugin, any interest in his life and work was negligible between his death in 1852 and the Victoria and Albert Museum's *Pugin: A Gothic Passion* exhibition in 1994.[367]

The history of technology followed a similar path, in that select sources appeared towards the end of the nineteenth century but they failed to generate real interest. Johann Beckmann, Professor of Economics at the University of Gottingen, published several texts including an *Introduction to Technology* (1777), a *Sketch of General Technology* (1806), and the *History of Inventions* (1784-1805), but these works were in German and were translated for a niche audience years after their initial publication. Beckmann's student the German mathematician Johann Heinrich Moritz von Poppe, published a *History of Technology* in 1807 but, as the American science historian Robert P. Multhauf notes, "Poppe's book remained almost unique for a century and a half, during which nearly everyone forgot that it existed."[368]

Although early scholars who address the history of technology were few in number, there are valuable publications dating from the early 19th century onward. The first of these is Charles Babbage's *On the Economy of Machinery and Manufactures* of 1832. A mathematician, philosopher, inventor, and mechanical engineer, Babbage sought to identify "effects and the advantages which arise from the use of tools and machines; to endeavour to classify their modes of action; and to trace both the causes and the consequences of applying machinery to supersede the skill and power of the human arm."[369] In so doing, he surveyed what he considers "the vast extent and perfection to which we have carried the contrivance of tools and machines for forming those conveniences."[370]

Much like the study of Pugin's works, the investigation into technology lay dormant throughout the first half of the twentieth century. When the topic was revisited, it was almost as though work had to once again begin from the start and Charles Singer's five volumes of *A History of Technology*, published from 1954-1958, staked a claim for the legitimacy of this discipline, and it is both seminal and singular in this respect.[371] A historian of science and technology, Singer states that "not only is there no history of technology; there is no reasonably compact body of writings on it to which the student

[367] Pugin appeared in the Victoria and Albert Museum's 1971 exhibition on Victorian church art, and was the topic of research (both published and unpublished) by Phoebe Stanton, but as fig. 2.1 shows, the development of Pugin studies during this time was less than both the proceeding and following eras.
[368] Robert P. Multhauf, "Some Observations on the State of the History of Technology," *Technology and Culture* 15 no. 1 (January 1974), 2.
[369] Babbage, 1.
[370] Babbage, 3.
[371] Singer, et al.

may turn."[372] In his text he considers the history of technology as a discrete area of study, delineating and classifying the materials which would comprise the core of this new area of investigation.

In the United Kingdom, the history of technology was formally recognized in 1961[373] and the discipline grew in leaps and bounds, with Multhauf declaring in his 1974 essay "Some Observations on the State of the History of Technology" that "[a] serious interest in technology as a historical phenomenon has finally emerged in the 20th century" as the discipline is "pursued more vigorously and intelligently than ever before."[374] Having the benefit of looking back on a discrete time period, these scholars advanced the dialogue in a way that those such as Babbage, writing from a point within the events, could not visualize. The first of these is David S. Landes' *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* (1960). A professor of economics and history at Harvard, Landes' text raised many new questions about industrial changes to examine the cause and process of growth while he examined the technological developments of the Industrial Revolution, including the substitution of machines for human skill and the new forms of power available to industry.

In *Tools for the Job; A Short History of Machine Tools* (1965), English author Lionel Thomas Caswell Rolt laments how "not a single work on the history of tools and their makers has been published in England" as of the time of publication in 1965.[375] Thus, Rolt saw no progress in the investigation of machinery and mechanical development from the late nineteenth century to the mid-twentieth when he himself began to write. Here he attempts to redress this imbalance, focusing more on the infrastructure of factories and organized workshops because, as he himself notes, "[i]t is impossible to study the history of technology without becoming aware of the crucially important part played in that history by machine tools and their makers."[376] Indeed, the history of machinery should be viewed alongside other contemporaneous developments within the history of technology to present a true indication of the progress of industry, and Rolt provides the context in which to do this.

It is not unusual for scholars from the area of economics to venture into the realm of the history of technology. Maxine Berg, Professor of economics and history at the University of Warwick, has authored many valuable and relevant works in this field,

[372] Singer, et al., 306.
[373] Ferguson, 14.
[374] Multhauf, 11.
[375] L. T. C. Rolt, *Tools for the Job: A Short History of Machine Tools* (London: B.T. Batsford, 1965), 11.
[376] Rolt, 11.

including *The Machinery Question and the Making of Political Economy, 1815-1848* of 1976 where her stated purpose is "to chart the spread of the machine in a variety of important industries in early nineteenth-century Britain."[377] The British economic historian John Habakkuk examines the interrelation of technological growth on labour practices in the nineteenth century and his 1962 book *American and British Technology in the Nineteenth Century; The Search for Labour-Saving Inventions* balances the cost of technological investment against the gains and risks.[378] Speaking of Habakkuk's text, Berg agrees that "British historians have not, on the whole, taken up the challenge to analyse these economic, social and institutional determinants of technical change" and this is where Habakkuk's work fulfils a vital role.[379]

Finally, Raphael Samuel's 1977 article "Workshop of the World: Steam Power and Hand Technology in mid-Victorian Britain" challenges the assumptions made about industrial development in the nineteenth century. A Marxist historian and founder of the History Workshop movement which influenced his approach to historical writing and research, in this article Samuel examines the pace of development and the spread of technology, often contradicting the more popular and established theories on these matters. Here, he states that "mechanization, in short, was a process rather than an event" which "incorporates older systems of production rather than superseding them."[380] In light of these beliefs, Samuel still sees the worker as central to development, existing alongside rather than being replaced by technology ["many trades in mid-Victorian times remained divided between machinery and handicraft sections,"[381]] and contests the notion that steam power was widely adopted, causing hand work to become obsolete ["technological change characteristically took the form of 'improved' hand tools rather than of steam-powered machinery."[382]] While acknowledging "regional variations in the application of invention and progress of the machine," Samuel asserts that mechanical conveniences were introduced sparingly and the worker was still a vital piece of the manufacturing process throughout the nineteenth-century.[383]

By the time of the Pugin exhibition in 1994, a large amount of scholarship existed on both topics, setting the scene for these two disciplines to interact, and indeed Clive

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[377] Maxine Berg, *The Machinery Question and the Making of Political Economy, 1815-1848* (Cambridge, UK: Cambridge University Press, 1980), 20.
[378] H. J. Habakkuk, *American and British Technology in the Nineteenth Century; The Search for Labour-Saving Inventions* (Cambridge UK: University Press, 1962).
[379] Maxine Berg, *The Age of Manufactures: Industry, Innovation, and Work in Britain, 1700-1820* (New York: Routledge, 2005), 151.
[380] Raphael Samuel, "Workshop of the World: Steam Power and Hand Technology in mid-Victorian Britain," *History Workshop Journal* 3 (Spring 1977), 10-11.
[381] Samuel, 19.
[382] Samuel, 22.
[383] Samuel, 9.

Wainwright's chapter "A.W.N. Pugin and the Progress of Design as Applied to Manufacture" in the catalogue for the 1995 follow-up exhibition at the Bard Graduate Center for Studies in the Decorative Arts, offered a rudimentary start to this fertile area of study. Wainwright's death in 1999 stunted progress in this area, and with no one picking up the pieces to carry on further investigations, the line of enquiry was dropped. This thesis hopes to fill this gap as the study of the history of technology as related to Pugin's manufactures remains unwritten; previous scholars have failed to take this progress and new developments into consideration and apply them to Pugin's work.

4.3 Types of Source Material

The large number of periodicals first appearing in the nineteenth century represents a useful source of contemporary information on mechanisation. Besides the regular reportage, as the nineteenth century progressed, illustrations began to appear in these publications, with photography first appearing in the 1840s.[384] In both word and image, newspapers, journals, and magazines recorded daily life; cheap and plentiful, these publications are another source of details regarding living conditions and industrial progress in the Victorian era, and will be drawn upon when relevant to the discussion.

Scott Landes, freelance writer on woodworking, identifies three sources of information regarding Victorian workshops. The first includes written accounts, or what Landes calls "the documentary record."[385] The second source includes "historic workshop recreations in museum collections" and, finally, are the "precious few surviving 19th-century workshops."[386] This third area falls under what has become known as Industrial Archaeology. First coined by Donald Dudley of the University of Birmingham, Michael Rix was the first to utilize the term in print in a 1955 article.[387] The concept of industrial archaeology involves the preservation and documentation of the physical remains of industrialization, be it the structures in which it took place or the items used therein; examples include "living museums" such as those at Ironbridge

[384] Mandler, 25; Celina Fox, "The Development of Social Reportage in English Periodical Illustration during the 1840s and Early 1850s," *Past and Present* 74 (February 1977), 90. Mandler dates the introduction of illustrated journals from 1823, while Fox dates the use of photography in publications to the 1840s.

[385] Scott Landis, *The Workshop Book: A Craftsman's Guide to Making the Most of Any Work Space* (Newtown, CT: Taunton, 1998), 6.

[386] Landis, 6.

[387] Walter Minchinton, "World Industrial Archaeology: A Survey," *World Archaeology* 15 no. 2, Industrial Archaeology (October 1983), 125.

Gorge in Coalbrookdale, but finding such remains are incredibly rare.[388] The garret workshop of James Watt at the Science Museum in London is one such example of an extant workshop as it remained untouched after Watt's death. Traditionally, after a worker's death, his tools were either sold, given away, or were in such poor condition they were disposed of and "little physical or documentary evidence exists regarding the contents of these early workshops."[389] Watt was an exception owing to his wealth and status as his workshop, which existed in an outbuilding on his estate, remained "undisturbed practically from the time or his death [in 1819] till 1924, when the objects were moved to [the Science Museum at] South Kensington" where "[t]his Garret [workshop] with its contents is reproduced exactly as it stood."[390] Surprisingly, little documentary evidence exists about even the largest and best-funded workshops such as those at the Thames Bank for the construction of the Houses of Parliament.

4.4 Depictions

Where extant workshops no longer exist, depictions from the time period can provide a visual analysis of the contents and arrangement. In the article "Slaves to Industry" from the *New Statesman* (2008), the British journalist and historian Richard Gott relays how Victorian artists failed to depict the machines and tools "that enabled Britain to lead the world."[391] This marked a difference from the Germans and Spanish who, Gott suggests, "drew pictures of industrial activity in the 19th century" whereas English producers were not interested, thus making a visual analysis of working conditions problematic.[392] Historian Celina Fox concurs when she states that "representations of craftsmen at work are rare in British art of this period" [fig. 4.3].[393]

Some British publications offered descriptions of workshops in the belief that, as G. A. Siddons pointed out in his *Cabinet Maker's Guide* of 1837, "[n]othing is more calculated to improve the mechanical arts than giving publicity to the various processes used among work men in their several trades."[394] As Gott suggests, artists may have

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[388] Michael Rix, "Industrial Archaeology," *The Amateur Historian* 2 no. 8 (October-November 1955), 225. Here Rix states that "[t]he cradle of this [industrial archaeology] movement, which is still thickly sown with monuments, is the small valley, Coalbrookdale, on the edge of the Severn Gorge in eastern Shropshire."

[389] Landis, 10.

[390] H. W. Dickinson, *The Garret Workshop of James Watt* (London: Science Museum, 1970), 3.

[391] Richard Gott, "Slaves to Industry," *New Statesman* (March 21, 2005) http://www.newstatesman.com/200503210041

[392] Gott.

[393] Celina Fox, "Interior of the Carpenter's Shop at Forty Hill, Enfield," Tate Gallery, https://www.tate.org.uk/art/artworks/hill-interior-of-the-carpenters-shop-at-forty-hill-enfield-t03668

[394] G. A. Siddons, *The Cabinet Maker's Guide; or, Rules and Instructions in the art of varnishing, dying, staining, japanning, polishing, lackering, and beautifying wood, ivory,*

shied away from depicting industrial working conditions but "novelists were happy to describe the social and physical conditions created by the 'dark Satanic mills'" and these settings can provide a sense of the environment during that time.[395]

Evocative depictions in both image and text resonated with a public who would probably have noticed a shift in the nature of production and the introduction of improved tools and early machinery. The degraded factory town had become a literary trope as seen in Dickens' *Hard Times* of 1854, where he describes the fictional Coketown.[396] Based just enough on reality to make it believable, Dickens exaggerates the town's negative characteristics for effect, creating a character akin to a pantomime villain. The very real and visible progress occurring in society, exaggerated by its depictions in popular culture, became a nightmarish scene representing far too well what the future held if this industrial progress was not checked. Even in later years, as historians looked back at the time period and its changes, these accounts overpowered the reports of amenable progress, both in number and in content.

The issue here may centre on smoke, a great unifier that did not discriminate between segments of the population and could be seen throughout the area. The population at large witnessed the detrimental effects of pollution as building facades began to darken and crumble. In 1826, German architect Karl Friedrich Schinkel visited the Midlands and in his journal he wrote of the "smoke from hundreds of tall obelisks" creating a "grey, smoke-filled town built on hills and in valleys" where "buildings appear as blackened with smoke as if they had been in use for a hundred years. It makes a dreadful and dismal impression."[397] Schinkel also noted how across the skyline, smokestacks competed with steeples, stating that their height "destroys all the impact of the church towers."[398] This comparison between steeples and smokestacks begins to establish the dividing line between what is wholesome and good versus destructive and potentially immoral, and also makes an appearance in Pugin's *Contrasts*. One could easily point to Pugin's depictions as an example of his opposition to progress. However, it was not industrial advancement that Pugin is against, but a lack of religious devotion amongst an increasingly capitalist society that was not present in the medieval town.

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tortoiseshell, & metal. With Observations on their Management and Application (London: Sherwood, Gilbert, and Piper, 1837), vii.

[395] Gott.

[396] Charles Dickens, *Hard Times*, (London: Bradbury & Evans, 1854).

[397] Karl Friedrich Schinkel, David Bindman, and Gottfried Riemann, *Karl Friedrich Schinkel "The English Journey": Journal of a Visit to France and Britain in 1826* (New Haven, CT: Published for the Paul Mellon Centre for Studies in British Art by Yale University Press, 1993), 140.

[398] Schinkel, 180.

There is no doubting that industrial progress was a polarizing affair, regardless of how seemingly benign it might be, and individuals could utilize these effects for their own purposes. One such example is the Sadler Report of 1832, prepared by Michael Sadler, Tory MP for Newark, Nottinghamshire and social reformer. In 1831 he introduced a bill to protect children working in factories, arguing that excessive working hours and poor conditions prohibited education and was detrimental to proper childhood health and development. This bill was "opposed by the manufacturing interest" and was subsequently deferred to a Select Committee which Sadler oversaw.[399] In total, the Committee questioned 89 witnesses about factory working conditions. However, the Report was later debunked and testimony discounted as "critics have alleged that some of the evidence was biased, incomplete, sometimes inaccurate or even deliberately misleading" as much of it "referred to conditions that had long been ameliorated."[400] This is not to say that significant issues were not present or that working conditions did not need improvement, but it seemed that the testimony and evidence provided were not a fair representation and were rather influenced to produce a specific outcome. Indeed, "the very worst of these conditions" were espoused by the press "who sought to arouse public concern and affect change."[401]

As a result, "a whole crop of literature bemoaning the morals of the people had burst forth" which "seems to have influenced and perhaps inspired many of the subsequent writers in a like vein."[402] One does not doubt that these conditions did appear, and as Harrison and Hutchins note, "the Report of this Committee is one of the most valuable collections of evidence on industrial conditions we possess."[403] However, it seems that these situations did not affect all forms of industry and were not as uniformly widespread as modern historians would like to believe.

4.5 Working Conditions

As exaggerated and overstated working conditions flooded the media, appearing in both fiction and non-fiction, it is vital to investigate what the situation was really like for the average worker in general, and for those specifically employed in the areas in which Pugin's goods were manufactured. Because, as the previous chapter has shown, Pugin has been portrayed as anti-industrial at worst and simply unappreciative of

[399] A. Harrison and B. L. Hutchins, *A History of Factory Legislation* (London: P. S. King & Son, 1903), 34.
[400] E. Royston Pike, *Human Documents of the Industrial Revolution in Britain* (London: Routledge, 2006), 116. Research states that even Engels acknowledged the insufficiency of this report.
[401] Black, et al., 47.
[402] W. H. Hutt, "The Factory System of the Early 19th Century," *Economica* no. 16 (March 1926), 85.
[403] Harrison and Hutchins, 34.

innovation at best, it is worthwhile to establish the state of progress during Pugin's lifetime to compare with his working methods and those of his collaborators. General opinions expressed in both primary and secondary sources appear to be divided. Significant changes took place in the nineteenth century, but it is the pace of these industrial developments and the judgment on whether they were socially, economically, and/or artistically beneficial or detrimental, where the rift occurs. Some authors such as the British economic historian Louis Francis Salzman felt that the pace of innovation exploded in the nineteenth century after centuries of stagnation, stating in his work *Building in England down to 1540: a documentary history* (1952) that hand tools "varied little between the Roman period and the nineteenth century."[404] Others chart a gradual increase in development prior to this date, perhaps due to the decline of guilds so that craft methods were more easily passed along.[405] Authors such as the American historian and philosopher of technology Lewis Mumford divided this development into distinctive eras, but these labels have not gained widespread acceptance and use, and therefore scholarship lacks identifiable goalposts regarding developments throughout the nineteenth century.[406]

As establishments grew in size, developments in machinery began to dictate the pace of industrial development, the rate of change being dependent upon the speed with which producers can supply the machinery. In turn, this increased demand led to the introduction of new production techniques.[407] Over the first half of the nineteenth century, these phases occurred at a slowly accelerating pace, progressing with an increased energy and success dependent upon receptive critics and sellers and consumers willing to purchase the goods produced. As the popularity of machines grew, they gained complexity and scale, implying that the spread of technology was dependent on large-scale operations. Besides being too expensive for small producers to afford, machines were more common in the factory environment because they were too large for domestic work. This progression consists of a series of small, tentative

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[404] L. F. Salzman, *Building in England Down to 1540: A Documentary History* (Oxford: Clarendon Press, 1952), 330.

[405] L. R. Shelby, "Medieval Masons' Tools: The Level and the Plumb Rule," *Technology and Culture* 2 no. 1 (Spring 1961), 129. Although Shelby's article is not relevant to this study, he nonetheless makes a point to disagree with Salzman, stating that "[w]e thus take issue with Mr. Salzman's assertion" that "'[t]he tools in use in the building trade varied little between the Roman and the nineteenth century'."

[406] Lewis Mumford and Langdon Winner, *Technics and Civilization* (Chicago: The University of Chicago Press, 2010), 109-110. The authors identify "three successive but *over-lapping and interpenetrating phases* [....] the eotechnic phase is a water-and-wood complex: the paleotechnic phase is a coal-and-iron complex, and the neotechnic phase is an electricity-and-alloy complex." A less specific and more accepted distinction was established by Karl Marx in *Capital*, where he identifies three "great epochs" including the handicraft stage, capitalist manufacture, and modern industry, but these distinctions are too general to be attributed solely to his invention.

[407] Summarized in Boyd Hilton, *A Mad, Bad, and Dangerous People?: England, 1783-1846* (Oxford: Clarendon Press, 2006).

advancements rather than a complete dispersal of hand labour by machinery. This transition was prolonged and production remained small far longer than acknowledged, and this represents one of the major roadblocks in discussing industrial development. Landes summarizes when he says that "[o]ne of the cherished myths of economic history is the image of a swift and drastic shift from rudimentary hand tools to machines."[408] This assumption starts with workers using "chisels and files, cutting and scraping by eye and feel" and quickly transforms into a situation where "we have machinists and engineers operating precision power tools and working to specifications and blueprints."[409] In reality, as Landes asserts, "the old and new were not that far apart, and the change was slower than usually pictured."[410]

The introduction of machinery was part of a long and diverse process, and as Mumford states, "the notion that a handful of British inventors made the wheels hum in the eighteenth century is too crude even to dish up as a fairytale to children."[411] This representation persists even though, as Landes just noted, the full-fledged arrival of the Industrial Revolution and its attendant ills was much slower than commonly portrayed. Rather than going from birth to adulthood, skipping over any growing pains, there is a full gradient of activity and development that is overlooked, particularly during the first half of the nineteenth century, which needs to be fully discussed as the working methods found in the production of Hardman, Minton, Crace, and Myers all fall along this trajectory.

The machine industry came on gradually in England as an evolution of handicraft techniques. This progression started off as innocuous, with inventive workers modifying existing tools and combining them in ways to create new devices, and this improvement and progression represents one step in the march forward. In terms of motive power, the hand was still the main driver of equipment, and Samuel stressed how "[t]echnological change characteristically took the form of 'improved' hand tools rather than steam-powered machinery."[412] Berg furthered this point, recognizing how "[t]he rapid development of a technology of hand tools and small-scale machinery, and the rapid proliferation of new hand techniques and skills, were just as notable as the more commonly recognized 'new technology' of mechanized steam-powered processes."[413]

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[408] David S. Landes, *The Unbound Prometheus: Technological Change and Industrial Development in Western Europe from 1750 to the Present* (London: Cambridge University Press, 1969), 105.
[409] Landes, 105.
[410] Landes, 105.
[411] Mumford and Winner, 109.
[412] Samuel, 22.
[413] Berg, *The Age of Manufactures,* 146.

Progress that was slow but steady is portrayed as a huge leap from strictly hand-based production with rudimentary tools to fully automated factories where workers faced long hours and poor working conditions. Indeed, these situations did occur, but, at least during Pugin's lifetime, they appear to be limited to the cotton industry in Lancashire, and even these multi-story factories only appeared at the later stages of industrialization. Initially there were merely larger shops and an increasing division of labour, and the 1831 Census Report notes that "small-scale operations of London industry, [were] as yet almost untouched by machinery."[414]

4.6 Production Locales

A combination of production involving factory work and workshop manufacture existed in the 19th century, and Richard Price states that both "mechanised and hand-labour sectors were integral to the productive process of the period."[415] Here, manufacturing involved "a combination of small and large units" linked "by many layers of subcontracting with labour process that were highly subdivided and dominated by hand technology."[416] The factory and workshop were interdependent, and large-scale production "complemented rather than displaced small-scale production", incorporating older methods of fabrication instead of replacing them.[417] In this arrangement, large machines "were ancillary to hand labour, rather than its substitute" and were "relevant only to one part of the manufacturing process," illustrating how even as large-scale operations grew in the nineteenth century, craftsmen and workshops still played an important and vital role in the manufacturing process, particularly during Pugin's lifetime.[418]

4.6.1 The Workshop System

As industrialization and demand grew, the arrangement of workers changed. Rather than going from home-based production to a regimented factory setting, larger manufacturers employed contract workers who supplied their own tools and paid rent for a space at the bench in a workshop setting. This arrangement comprised what is known as the "workshop system." Within this arrangement there existed levels of production, starting with the craftsmen shopkeepers who worked as independent designers. These men were their own bosses who produced and sold their goods from

[414] J. H. Clapham, *An Economic History of Modern Britain* (Cambridge UK: University Press, 1926), 164.
[415] Price, 35.
[416] Price, 35.
[417] Price, 35.
[418] Price, 35.

their premises. Working masters and journeymen worked under the shopkeepers and these men made goods in their own workshops for wholesale or retail. The journeymen were paid by piece work rather than time spent. Some of these workshops involved integrated working premises and this approach was regularly used in Birmingham's metalworking trades where, as Berg notes, "the evidence for large-scale workshops and factories is balanced by other evidence that most firms were very small in scale – part of a workshop-dominated economy."[419] In these cases, it was a "flexible workshop culture" which "formed the basis for a progressive technological stance."[420]

In some cases, these workshops combined a variety of skilled craftsmen, so that groups of specialist workers would pass their piece from one to another as it was finished. This could take place in several adjacent houses, with each family of workers coming together to produce the finished product. Using this method, a large number of goods could be produced while variations were easily achieved. This form of 'mass production' is distinct from machine production wherein "every object produced is identical and variety is impossible."[421]

Even as they expanded, industries continued to operate from a workshop system, adding steam power and mechanical equipment as needed. This represents a unique form of shared workspace centralized around a steam engine, often located in an outdoor courtyard. Here, workers could rent a bench space indoors and connect their own machinery to the line shaft so that it could be driven by the shared engine. Sabel and Zeitlin reiterate this arrangement, stating that "shops may be grouped in large buildings housing a steam engine; a system of belts transmitted torque to workrooms which could be rented by the day."[422] Berg notes that "[d]eductions were frequently charged in factories against the wage for shop room, gas and power."[423] In this arrangement, workers now had to leave home to do their work, the work schedule being dictated by the hours when the steam engine was run. However, there was still a large amount of independence involved and in these situations, subcontracting was very common.

4.6.2 Small-Scale Factory Settings

High-end bespoke goods of the sort Pugin designed for Crace to make for a wealthy market were produced on a small scale. Snodin and Styles say these working

[419] Berg, *The Age of Manufactures,* 223.
[420] Berg, *The Age of Manufactures,* 156.
[421] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 167.
[422] Charles Sabel and Jonathan Zeitlin, "Historical Alternatives to Mass Production," *Past and Present* 108 (1985), 148.
[423] Berg, *The Age of Manufactures,* 241.

arrangements "characteristically tak[e] the form of a free-standing workshop, run by a master manufacturer employing waged workers and apprentices, who were usually numbered in single figures or tens, not hundreds."[424] Goods produced in this manner required a centralized location and some coordinating effort; proto-factories of sorts known as "manufactories" or simply large workshops. These manufactories enabled increased subdivision of labour allowing for specializations, and better supervision for workers, and Landes identifies the independent craft shop as a typical form of organization prior to factories.[425] Here, a master was assisted by apprentices, and this model developed into the manufactory. Those who worked in these small-scale establishments still used traditional tools.

The change in working environments and the advance of mechanisation also led to a changing workforce as new manufacturing methods replaced skilled with unskilled labour. Attitudes varied towards this shift in labour structure. Andrew Ure, polymath and economic theorist, was one of a group of "factory apologists" who felt this division was beneficial for both business and workers. In *The Philosophy of Manufactures* (1835), Ure discusses "[t]he blessings which physico-mechanical science has bestowed on society, and the means it has still in store for ameliorating the lot of mankind."[426] For Ure, "[t]he constant aim and effect of scientific improvement in manufactures are philanthropic",[427] and this view persisted into the latter half of the nineteenth century and beyond, as seen when *The Builder* of 1869 concluded the article "Labour Saving Mechanical Devices" with the statement, "[a]ll are advanced ultimately by machines that lessen human labour."[428]

Skilled labourers generally received higher wages and, to an extent, a higher status than their unskilled counterparts. In "Art, Science, Manufacture, as an Unity" (1851), artist, curator and educator George Wallis declares that "the use of machinery and its productions is one of the features of modern progress that every true and enlightened man would seek to encourage."[429] He continues, addressing claims that "the use of machinery deadens the energies of the worker, renders him too a machine, and lessens

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[424] Michael Snodin and John Styles, *Design and the Decorative Arts: Britain, 1500-1900* (London: V&A Publications, 2001), 287.
[425] Landes, 43.
[426] Andrew Ure, *The Philosophy of Manufactures; or, an Exposition of the Scientific, Moral, and Commercial Economy of the Factory System of Great Britain* (London: Charles Knight, 1835), 7.
[427] Ure, 8. It is also worth noting that Ure was firmly against the Sadler Report, "the partial, distorted, and fictitious evidence conjured up before the Committee of the House of Commons on factory employment, of which Mr. Sadler was the mover and chairman." Ure, 290-291.
[428] "Labour Saving Machines for Builders," *The Builder* 27 no. 1384 (August 14, 1869): 640.
[429] George Wallis, "Art, Science, Manufacture, as an Unity," *The Art-Journal* 13 (October 1851), 249.

his interest in his work."[430] However, Wallis assures his reader that, based on his experience, this is not the case and that, in fact, "far from the machinery they direct and superintend reducing them to a state of mere mechanical exertion, it produces the very opposite result."[431] Indeed, "the man must of necessity be superior in action to the machine, since he has to think for it."[432] In this regard, a machine is given the same characteristics as a tool, being dependent upon the worker's hand to guide and mind to judge its actions.

Prior to this time, inexpensive labour was in great supply, and it was the workmen who "had a great effect in retarding the progress of machinery."[433] By the mid-nineteenth century, "the representative Englishman was still far from being a worker directly employed in the machine industry."[434] The average British worker was still classed as a craftsman or labourer, an assertion borne out by the Census returns of masters and workmen in 1851. It was not until the latter half of the century that the craftsman transformed into the skilled industrial worker reliant on machinery. As Landes points out, it was "the high and rising cost of English labour [which] was an encouragement to mechanization."[435]

4.7 Disputes about Machinery

Disputes about machinery became more commonplace in the latter half of the nineteenth century. Workers' strikes, Ludditism and machine sabotage, and unchecked drive for profit all began to take shape from this point forward. That is to say, these events were not so common in the first part of the century, during Pugin's working years, and therefore did not come into the picture when considering his working methods. If unchecked industrialization was not as rampant as one is historically led to believe, then why were opponents like Ruskin so against its introduction? Evidence reveals that the trades which Pugin used to produce his Gothic items were not rapidly mechanizing, and yet Ruskin decried their forms of production. The key to this discrepancy may lie in the growth of the cotton industry. Landes notes that "the historian must remember that the large, many-storied mill that awed contemporaries was the exception" and that where these establishments did exist, it

[430] Wallis, "Art, Science, Manufacture, as an Unity," 249.
[431] Wallis, "Art, Science, Manufacture, as an Unity," 249.
[432] Wallis, "Art, Science, Manufacture, as an Unity," 249.
[433] Guilford Lindsay Molesworth, "On the Conversion of Wood by Machinery," *Minutes of Proceedings of the Institution of Civil Engineers; with Abstracts of the Discussions* 17 (1857-58), 19.
[434] Jonathan David Chambers, *The Workshop of the World; British Economic History from 1820 to 1880*, the Home university library of modern knowledge, 246 (London: Oxford University Press, 1961), 15.
[435] Landes, 115.

was most frequently in the form of Lancashire cotton mills.[436] Returning to Dickens, biographer Claire Tomalin notes that Coketown of *Hard Times* was "an industrial town populated by mill-workers, and based on Preston in Lancashire, where Dickens went early in 1854 to observe a long-running strike."[437] Even Dickens' fictional town was based on a very real locale within this area.

Karl Marx and Friedrich Engels were two of the most outspoken critics of industrialization. Both Marx and Engels lived and studied in Manchester, which was at the heart of the Lancashire cotton mills, and would have had first hand experience interacting with the workers and reading the local news reports. They in turn solidified this view in their published works. One does not doubt that both men witnessed the effects of horrific working conditions on the human spirit, but as seen with the Sadler Report, even these travesties of employment were exaggerated for effect. Landes supports this assertion, stating how "[t]he facts are reasonably clear. By 1830 there were hundreds of thousands of men, women, and children employed in factory industry."[438] However, he also notes how "[t]he interpretation of these facts is something else again. For a long time, the most accepted view has been that propounded by Marx and repeated and embellished by generations of socialist and even non-socialist historians."[439]

Marx began studying the history of technology in 1845 to eventually arrive at his interpretations of the origins and effects of the Industrial Revolution, outlining the social consequences of capitalism and machine production. Klemm and Singer note that he was "one of the first to draw urgent attention to the distress to which ruthless industrialization was leading the working class,"[440] while Thompson points to Marx as the first to "stalk out and survey" the Industrial Revolution, and he was the first of many to perpetuate this familiar 'catastrophic' view of the era.[441] Engels' *The Condition of the Working Class in England* from 1845 is a study of industrialism and class structure. Together the two "hit upon their grand concept of Britain's world-wide industrial monopoly that 'corrupted' the working class."[442] It happens that Ruskin, one of Pugin's most vocal critics, became a great adherent to the socialist policies espoused by Marx and Engels, so much so that "concepts taken from Marx are often

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[436] Landes, 65.
[437] Claire Tomalin, *Charles Dickens: A Life* (London: Viking, 2011, 250.
[438] Landes, 114.
[439] Landes, 114.
[440] Friedrich Klemm and Dorothea Waley Singer, *A History of Western Technology* (Cambridge, MA: Massachusetts Institute of Technology, 1968), 308.
[441] E. P. Thompson, *The Making of the English Working Class* (New York: Vintage Books, 1966), 195.
[442] Morton H. Cowden, "Early Marxist Views on British Labor, 1837-1917," *The Western Political Quarterly* 16 no. 1 (March 1963), 35.

expressed in the language of Ruskin."[443] However, Ruskin's hatred of machines as influenced by Marx and Engels was based on the latter's experience with the cotton industry in Lancashire, and not any of the industries in which Pugin's goods were made. This association no doubt coloured Ruskin's views of goods made using machinery, whether by Pugin or another art manufacturer.

Mechanisation and industrial progress was fraught with confusion and misinformation in Pugin's day, some of which has carried on to successive generations resulting in the current state of affairs. This approach, both then and now, tends to oversimplify the forward trajectory of change. As Lewis Mumford and Langdon Winner state, "the modern machine age cannot be understood except in terms of a very long and diverse preparation. The notion that a handful of British inventors suddenly made the wheels hum in the eighteenth century is too crude even to dish up as a fairy tale to children."[444] This idea ignores the gradients of change that took place, and even this slow march forward was not as quick as imagined; it seems that, fuelled by the writings of Marx and Engels, Ruskin's approbation of the machine was rooted in this latter approach. To accurately situate Pugin within these competing attitudes, one must now examine Pugin's attitude towards machinery as expressed in word and action.

[443] A. L. Morton, "Morris, Marx and Engels," contribution to a colloquium on William Morris, held at Karl Marx University, Leipzig (October 25-26, 1984), 48.
[444] Mumford and Winner, 109.

Having examined the ways in which Pugin's attitude towards machinery and progress has been portrayed by scholars, it is vital to investigate Pugin's own beliefs on the matter. One of the most instructive places to start is with his own background and life events that shaped his views, keeping in mind the potential difficulties associated with this approach.[1]

5.1 Pugin's Father

Augustus Charles Pugin (c. 1769-1832) worked as a draughtsman for the architect John Nash and it was here Gloag posits that Nash urged the elder Pugin to "study authentic Gothic buildings and publish an illustrated work that would be of great service to the architectural community."[2] In 1821 A.C. Pugin published his first volume of *Specimens of Gothic Architecture* and, meeting with great success, followed up with a second edition in 1831. A.C. Pugin also designed his own furniture and his sketches were regularly featured in Rudolph Ackermann's *The Repository of the Arts* from 1825 onwards with Aldrich suggesting that a young A.W.N. may have assisted in these designs [figs. 5.1, 5.2].[3]

In addition to his many creative endeavours, A.C. Pugin ran a drawing school out of the family home. Within such living arrangements the pace was always active, with tradesmen coming and going. Alexander describes how, rather than being excluded from the practicalities of his father's business, Pugin "grew up in the workshop."[4] A young Pugin saw these men (and they were all men at this point) not as a lower class employed for manual labour, but as creative equals. Hill notes that, being a man of many talents, A.C. Pugin "had connexions with the humbler fringes of the commercial art world."[5] The workers entering the home were not necessarily of the most genteel comportment yet A.W.N. Pugin had no fear of their rough and tumble nature and was comfortable within their presence. This quality would serve him well in later years when manufacturing his own goods.

Following in his father's footsteps, A.W.N. Pugin was also a skilled author, designer, and draughtsman. Having spent time as a student in A.C. Pugin's drawing school,

[1] See the discussion of 'Biography' in Chapter 2.
[2] Gloag, 20.
[3] Aldrich, *Gothic Revival*, 143.
[4] Michael Alexander, 66.
[5] Rosemary Hill, "A.C. Pugin," *The Burlington Magazine*, Vol. 138, No. 1114 (January 1996), 12.

A.W.N. Pugin's biographer Benjamin Ferrey describes how his instructor's "superior knowledge of Gothic architecture" led to requests "for aid. This he was always ready to afford, and through the help of his son and his pupils he assisted others in carrying out their works."[6] Thus it is no shock that, when approached by Nicholas Morel of Morel and Seddon, suppliers of furniture and fittings to George IV, regarding gothic designs for the refurbishment of Windsor Castle, this work was appointed to his son.[7] As Wedgwood notes, this provided "just the opportunity" to "draw forth the abilities of his son, to whom his father immediately transferred the business."[8] What was surprising is that A.W.N. Pugin was only fifteen at the time and yet was capable of such a prestigious commission.

Wainwright states that in the course of his work Pugin spent "a great deal of time in the workshops of the celebrated London cabinetmakers, Morel and Seddon, overseeing the manufacture of furniture he was designing for Windsor Castle."[9] Wainwright places Pugin in the workshops themselves – on the shop floor where his designs were produced – in order to supervise the fabrication portion of the work and it was here that he was able to observe "the constructional methods" present in a cabinet makers' workshop.[10] In his autobiography, Pugin states that he "superintended the execution of" the furniture "at Mr. Seddons manufactory Aldergate Street in the City."[11] This suggests that his involvement in the project was not confined to designing the goods but encompassed all aspects of the project from start to completion, an approach that would serve him well throughout his career.

5.2 Background in Theatre

It was during his time at Windsor, perhaps in the workshops mentioned above, that Pugin met George Dayes, a subordinate at Morel and Seddon who was also manager of stage scenery at Covent Garden Theatre. As Michael Richard Booth points out in his text *Theatre in the Victorian Age*, stage machinery in the nineteenth century became more sophisticated and extensive,[12] and Pugin notes in his autobiography that it was

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[6] Ferrey, 50-51.

[7] Royal Collections Trust, "Morel & Seddon," *https://www.rct.uk/collection/people/morel-seddon#/type/subject*

[8] Alexandra Wedgwood, "The Early Years," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 24.

[9] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 163.

[10] Clive Wainwright, "Furniture," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 130.

[11] Wedgwood, *Pugin and the Pugin Family*, 27.

[12] Michael Richard Booth, *Theatre in the Victorian Age* (Cambridge: Cambridge University Press, 1991), 72.

through Dayes "that I first imbibed the taste for stage machinery and scenic representations to which I afterwards applied myself so closely."[13] This is significant in that Pugin's first involvement in artistic life outside of his father's workshop was through a pursuit which was largely machine-driven. This further confirms that Pugin's involvement in the manufacturing portion of the Windsor job put him in direct contact with the workmen and he utilized this closeness to make real inroads in learning about the men themselves. This also indicates that Pugin was accepted by these men, not in a supervisory role, but as a peer with whom they felt comfortable discussing outside interests.

Dayes' camaraderie with Pugin must have inspired the latter and Ferrey suggests that Dayes' "description of the scenery, property, and machinery of the stage filled Pugin's youthful imagination with a longing to see the concealed mechanism used for stage effects" so that before long Pugin began working in the theatre.[14] Seen by his parents as a dubious endeavour, Pugin nonetheless took great pleasure in working behind the scenes to create backdrops and stage scenery and in 1831 he designed the stage sets for the ballet *Kenilworth*.[15]

Pugin's theatrical efforts extended beyond the purely decorative elements of stagecraft to encompass the technical and mechanical aspects of stage settings as much as the portion visible to the audience, and he found himself creating devices to more easily and expeditiously move scenery. In *Pugin and the Pugin Family*, Wedgwood identifies one of Pugin's notebooks, c. 1829, which contain "drawings and notes of stage machines" which are "both vivid and practical, full of information about the workings of grooves, wings (or 'borders' as he seems to call them), flats and travellers."[16] Here Pugin includes annotated sketches showing pulleys used for raising and lowering items of considerable weight [fig. 5.3].

That Pugin illustrates these devices, which are themselves simple machines (see chapter 4), shows a rudimentary understanding of physics and the benefits to using such equipment. The inclusion of these machines in his notes shows that Pugin was as interested in the mechanical workings of the theatrical sets as with their appearance.

[13] Wedgwood, *Pugin and the Pugin Family*, 52.
[14] Ferrey, 57.
[15] Ferrey, 58. Ferrey suggests that prior to this time, Pugin's mother had prohibited him from attending "any theatrical performances."
[16] Wedgwood, *Pugin and the Pugin Family*, 127.

Brittain-Catlin notes how Pugin took his role very seriously, building a model theatre in his parents' home[17] where, as Clark suggests, he spent time "inventing devices to heighten the effect of those operas the scene of which was set in the middle age."[18] Pugin's interest in stagecraft has a familial connection; his father helped design Daguerre's Diorama building in Regent's Park in 1823 and in his thesis "Augustus Welby Northmore Pugin's Influence in the Theatre" (1974), Alan Philip Marlis explains how Pugin and his father "were entrusted with Daguerre's secret formula for dioramic painting and construction. This early mechanical knowledge aided Pugin when he rearranged the stage machinery at Drury Lane."[19] Although the elder Pugin designed the structure in which to house Daguerre's diorama and was not involved in the performances themselves, he must have been aware of the inner workings in the theatre and this could have contributed to his less than enthusiastic reaction to his son becoming involved with the behind-the-scenes portion of stagecraft.

5.3 Furniture Business

In his unpublished autobiography, Pugin notes how he first began working as a stageman at Covent Garden on 8 October, 1829 and that his employment as a stage carpenter gave him "the thorough knowledge of the practical part of the stage business which has so materialy [sic] served me since."[20] Pugin was quick to apply these newly acquired skills and, while still involved with the theatre and unbeknownst to his family, he established a furniture manufactory.[21] Wainwright identifies November 1829 as the date when "he set up in business in an upper loft at 12 Hart street – now Floral St. – the same street as Covent Garden Theatre."[22] His exact reasons for "dashing with hot haste into a business enterprise"[23] is unknown and his incomplete autobiography only

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[17] Timothy Brittain-Catlin, review of *The Houses of Parliament: History, Art, Architecture* by Christine Riding and Jacqueline Riding, *AA Files* no. 47 (Summer 2002), 85.

[18] Clark, *The Gothic Revival*, 124.

[19] Alan Philip Marlis, "Augustus Welby Northmore Pugin's Influence in the Theatre" (PhD. diss., City University of New York, 1974), 2.

[20] Pugin, Augustus Welby Northmore. "Autobiography." In *A. W. N. Pugin and the Pugin Family, Catalogues of the Architectural Drawings at the Victoria and Albert Museum* by Alexandra Wedgwood, 24-31. (London: Victoria and Albert Museum, 1985), 28.

[21] [Thomas] Talbot Bury, [Mr. Welby Pugin Obituary,] *The Builder* 10 no. 503 (September 25, 1852), 606.

[22] Wainwright, "Furniture," 129. As to whether Pugin opened his manufactory while still employed in the theatre is a matter of debate. Along with Wainwright, Darlow dates the inception of Pugin's business to 1829. Mike Darlow, *Woodturning Design* (East Petersburg, PA: Fox Chapel Pub., 2003), 30. Glisson says Pugin opened his business at the age of nineteen, making it 1831. Nicholas J. Glisson, "Augustus Welby Pugin: The Architect As Liturgist" (PhD diss., Graduate Theological Union, 1997), 44. Ferrey also says the business ended in that year. Ferrey, 67. Hanson, however, dates the establishment to 1833. Hanson, 81. Owing to Wainwright's expertise in other aspects of Pugin's career, the author feels that 1829 reflects the starting date of Pugin's business.

[23] [Oliphant,] 676.

states “Novr. 23 began business for myself in the carving and joinering line.”[24] While one can only guess at his motivations for this decision, Wainwright states that this “complete change of direction [was] typical of his early life” and therefore not out of character for the precocious young man finding his own identity.[25]

An article in *Blackwood's Edinburgh Magazine* of 1861 recalls this early venture as “a manufactory of carved work and Gothic decorative ‘detail’ of every kind, to execute which the young designer trained and collected a staff of art workmen”[26] with the goal to “supply all the ornamental portions of buildings” which could “be executed apart from the structure and be fixed afterwards.”[27] Initially this venture was successful and as Ferrey writes, “he obtained extensive commissions from Scotland and Ireland” where “a great desideratum was supplied.”[28] Closer to home, Wainwright states that Pugin’s firm “furnished several houses including Weston Hall in Warwickshire and Perry Hall at Handsworth near Birmingham.”[29]

Throughout his endeavour “a vast amount of excellent detail, both in wood and stone, was prepared under his immediate directions.”[30] It was not enough to simply provide the drawings from which his employees would work; Pugin insisted on superintending the manufacture of his goods to “have all caved work, whenever possible, executed under his own eye” for fear that, as Ferrey explains, his “reputation would suffer by the bungling way in which objects said to be taken from his drawings would be executed.”[31] In this role Pugin was responsible for all aspects of the business including designing, manufacturing, bookkeeping and customer relations; extending beyond his areas of expertise, the work soon became too demanding.

Whether Pugin’s firm utilized machinery in-house is unknown. It is unlikely that he had the capital required to invest in equipment and it is more likely that it was the responsibility of the craftsmen to provide whatever tools and equipment were involved.[32] This is not to suggest that Pugin was opposed to the use of machinery as it would have enhanced the convenience and construction of these goods, as stated in his

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[24] Augustus Welby Northmore Pugin, “Autobiography,” in *A. W. N. Pugin and the Pugin Family, Catalogues of the Architectural Drawings at the Victoria and Albert Museum* by Alexandra Wedgwood (London: Victoria and Albert Museum, 1985), 28.
[25] Wainwright, “Furniture,” 129.
[26] [Oliphant,] 676.
[27] Ferrey, 65.
[28] Ferrey, 65.
[29] Wainwright, “Furniture,” 130.
[30] Ferrey, 66.
[31] Ferrey, 65.
[32] Berg, *The Age of Manufactures*, 176, 241. Here Berg mentions the tendency for workmen to supply their own tools.

"two great rules for design" outlined in *The True Principles*.[33] Even in cases where workshops could afford to provide machinery, Edwards notes that "most furniture continued to be fabricated with hand tools well into the nineteenth century and in some cases beyond."[34]

5.4 Financial Ruin

Pugin was quick to realize the necessity of generating a profit as well as upholding one's standards in design, as less than a year after opening, his works were showing signs of strain. In a letter of 18 October, 1830, he writes to a customer, Jane Elizabeth Gough of Perry Hall near Birmingham, asking "[c]ould you do me the favour of sending me some money before saturday next as without it I should be much distressed."[35] He follows with a letter of 27 October, updating her on the progress of her commission, thanking her for the funds and, after some dithering about how "it would be the Last idea in my mind to trouble you on the money matters," he quite forwardly asks if she could "only oblige me by £60 pounds by next saturday I should feel very grateful."[36] In a further letter of 9 November, Pugin thanks Mrs. Gough "for your kindness in sending me so Large a remittance" and this appears to have brought his works out of debt for the time being.

At some point between late 1830 and the summer of 1831, Pugin fell further into arrears and after a failure to pay rent on his premises, his business came to a disastrous end when he was "placed in a sponging house near Chancery Lane."[37] Ferrey describes how A.C. Pugin sought the assistance of architectural publishers Weale and Hogarth to "become security in a bond for the payment of his son's debts, so that he might be released from confinement."[38] Pugin was spared the indignity of debtors' prison but, as Ferrey surmises, "he must have become bankrupt" and was only saved from further action by his maternal aunt, Selina Welby, who paid off his creditors.[39]

Authors give varying reasons for the failure of Pugin's business. *Blackwood's Edinburgh Review* claim that Pugin "could not control nor keep steadily at work these

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[33] Pugin, *True Principles*, 1.
[34] Clive D. Edwards, *Eighteenth-Century Furniture* (Manchester: Manchester University Press, 1996), 89.
[35] Belcher, *Collected Letters, Vol. 1*, 7.
[36] Belcher, *Collected Letters, Vol. 1*, 8.
[37] Ferrey, 67.
[38] Ferrey, 67.
[39] "Literature," *The Athenaeum*, 108.

slippery and insubordinate labourers,"[40] while Eastlake suggests that Pugin's "inexperience in the varying piece of labour and material soon brought him into pecuniary difficulties."[41] Perhaps, as Ferrey surmises, both aspects were involved since Pugin, having "not being brought up as a man of business was incapable of estimating the sufficient profit to be attached to labour and materials in order to secure a proper return for his invested capital; nor could he exercise sufficient check over the art-workmen in his employ."[42] Coupled with Wainwright's claim that "[t]he high standards of craftsmanship Pugin insisted on ate into his profits," Pugin's business ended in financial ruin.[43]

This experience would inform his business dealings throughout his lifetime. Ferrey notes that Pugin "had sense enough to see that he was not fitted for commercial enterprise" and from that point forward was determined to focus on "the exercise of his profession in a regular manner."[44] In addition to learning to avoid financial disaster, Wainwright notes how the experience Pugin "gained in the practical aspects of carving and cabinet-making was of crucial importance to his future career, giving him an unusually close rapport with the craftsmen who worked on his buildings, and their furnishings."[45] Indeed, Pugin learned "the reality of having to run a business to make a profit while also making a product to a high standard."[46]

5.5 Familial Considerations

Financial issues became ever more pressing since, during his involvement in the theatre, Pugin developed a romantic relationship with Anne Garnet (1814-1832), the niece of George Dayes.[47] In January 1832, Pugin married a pregnant Anne and four months later on 20 May, 1832, his first child, a daughter also named Anne, was born. A week later on 27 May, his nineteen-year-old wife succumbed to the effects of childbirth and passed away, leaving the twenty-two-year-old Pugin with a new-born to care for.[48]

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[40] "Augustus Welby Pugin," 676-677.
[41] Eastlake, 148.
[42] Ferrey, 66.
[43] Wainwright, "Furniture," 130.
[44] Ferrey, 68.
[45] Wainwright, "Furniture," 130.
[46] Wainwright, "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," 167.
[47] Belcher, *Collected Letters, Vol. 1*, 16. Here Belcher notes the familial relationship between Garnet and Dayes.
[48] Caroline Stanford, "Introduction," in "*Dearest Augustus and I": The Journal of Jane Pugin* by Caroline Stanford and Jane Pugin (Reading: Spire Books, 2004), 15.

Pugin's desire to remain solvent only grew in later years as, by the time of his death in 1852, he had seven children to provide for [fig. 5.4][49]. His first two wives – the aforementioned Anne and then, in 1844, Louisa Button (1813-1844) – died, leaving him as a single parent for almost four years before meeting his third and final wife Jane Knill (1825-1909). His household expenses also included child care as Pugin himself could not afford time away from work. Boarding school and other costs needed to be paid and Pugin's letters reveal a keen awareness of the ingress and egress of money; Wedgwood notes how "[f]inancial calculations frequently appear" in Pugin's diaries as he "seems to have been very careful in money matters."[50] He frequently complains of the cost of building his own church of St Augustine next to his family home in Ramsgate and his fears that the project would be his ruin. Pugin also began experiencing health related issues, initially involving his eyesight but progressing on to encompass more of the body, and at times this prevented him from working. That is to say, money (or the lack thereof) was always on Pugin's mind and his failed business and potential of imprisonment must have reinforced the need to cover his costs.

Day to day life changed considerably for Pugin following the birth of his first child. Later that same year his father died, followed by his mother and aunt the following year. In a letter to Edward James Willson of 26 February, 1833, Pugin states "I have resolved to give up my theatrical connection altogether and to devote *myself – entirely* to the pursuit of Gothic architecture."[51] As Wedgwood notes, this time of intense grief was "a crucial period when Pugin took the decision to become an architect" and "his energy and his formidable knowledge of medieval sources combined with his skill as a draughtsman and his originality as a designer contributed to a growing reputation."[52]

5.6 Pugin the Architect

Financial considerations took on a new importance within Pugin's architectural endeavours. As a single man working in the theatre and running his own business, he lived with his parents and had no dependents. Now, however, he was on his own, caring for a baby, and had to reconcile his own beliefs with the need to turn a profit. As Oliphant notes in her reminiscences, Pugin stated "'I will not sell myself to do a wretched thing.' Thus spoke Pugin, impatient and arrogant, the *wretched thing* being, of course, the thing the patron wanted, but [by] which the artist refused to compromise

[49] Although Pugin had eight children at the time of his death, he would have no longer been providing for his eldest daughter Anne following her marriage in October 1850.
[50] Wedgwood, *Pugin and the Pugin Family*, 74.
[51] Belcher, *Collected Letters, Vol. 1*, 14.
[52] Wedgwood, "The Early Years," 31, 24.

his reputation."[53] While his correspondence with patrons reveals that he expressed the need to adhere to his tenets, it also shows that he was willing to negotiate to accommodate his client's wishes.

Hill points out how "Pugin was building cheap and, after 1837, at breakneck pace. Between 1838 and 1841 he built or designed twenty-two churches, three cathedrals, three convents, several schools, one cottage and at least seven presbyteries. Few of the latter were designed to do more than the job in hand as economically as possible."[54] In many cases disputes between Pugin and a prospective patron centred on the cost of the project and Eastlake notes how "the restriction of cost had often affected to considerable disadvantage the execution of his design."[55] Atterbury concurs, stating how "Pugin took any attempt at economy as a personal insult."[56] Although he may have wished to do so and threatened as much, Pugin never abandoned a project and instead worked with his clients to design within their budget.

Lockhart points out how throughout Pugin's architectural pursuits, "his Catholic employers were almost always pinched for money, and at the same time so devoid of sympathy for the principles of which he was the chief exponent, that they almost always insisted on the greatest amount of display at the cheapest rate."[57] This approach can be clearly seen throughout his correspondence with clients where he was often forced to explain that their expectations for price and scale were disjointed.

At St. George's, Southwark [fig. 5.5], begun in 1839, he was forced to "spread a small sum of money over a very large area."[58] Faced with reporting to a committee for church building, Pugin declined the job, stating that he was asked "to furnish designs for a cathedral, chapter-house, cloisters, and conventual buildings, upon a grand scale. I complied with the request, and supposed that I was dealing with people who knew what they wanted. The absurd questions, however, put to me soon showed my mistake."[59] Significantly, Pugin would go forward to complete the church albeit at a disadvantage to his original design. Here he complained about how "St. George's was

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[53] [Oliphant,] 682.
[54] Hill, "Pugin's Small Houses," 155.
[55] Eastlake, 152.
[56] Paul Atterbury, "Pugin and Interior Design," in *A.W.N. Pugin: Master of Gothic Revival*, edited by Paul Atterbury and Megan Brewster Aldrich (New Haven: Published for the Bard Graduate Center for Studies in the Decorative Arts, New York by Yale University Press, 1995), 194.
[57] Robert M. Lockhart, "Augustus Welby Pugin," *The Westminster Review* 149 no. 1 (January 1898), 96.
[58] A. J. B. Beresford Hope, *The English Cathedral of the Nineteenth Century* (London: John Murray, 1861), 213.
[59] Ferrey, 169.

spoilt by the very instructions laid down by the committee" and "in consequence height, proportion, everything, was sacrificed to meet these conditions."[60]

Regarding St Mary's Church in Newcastle, begun in 1842, Pugin writes "I do not believe it is possible to build the church *including the fittings* for the sum you state [....] it will be for the gentlemen of the committee to determine wether they will reduce the size of the building or increase the expenditure."[61] Choosing to proceed with his design despite his warning on cost, Pugin was forced to write how "I always had great misgivings from the very comencement that your proposed could be erected for the" proposed sum and "the result of minute calculations fully bears out my opinion."[62] He was then forced to defend his work, writing how "I can assure you I have not indulged in the Least extravagance of ornament or enrichment throught the building. it is very Large & substantial & swallows up a vast deal of Material."[63]

In late January 1841, Pugin writes to Lord Shrewsbury saying "*Every one* of my small churches have been spoilt for *want of a small sum* just to finish them [....] It is the same case everywhere. I have been so *pinched at the last* that the money that had been laid out did not produce half the effect for want of a little more."[64] However, Pugin's disappointment on the financial constraints placed upon his work was not confined to his personal correspondence. In *Some Remarks Relative to Ecclesiastical Architecture and Decoration* of 1850, Pugin considers how The Cathedral Church of St. Barnabas in Nottingham "was spoilt by the style being restricted to lancet,– a period well suited to a Cistercian abbey in a secluded vale, but very unsuitable for the centre of a crowded town" and the Church of St John the Evangelist in Kirkham "was spoilt through several hundred pounds being reduced on the original estimate [...] the area of the church was contracted, the walls lowered, tower and spire reduced, the thickness of walls diminished and stone arches omitted."[65] Pugin resigns himself to the fact that "I have passed my life in thinking of fine things, studying fine things, designing fine things, and realising very poor ones. I have never had the chance of producing a single fine ecclesiastical building, except my own church, where I am both paymaster and architect, but everything else, either for want of adequate funds or

[60] A. Welby Pugin, *Some Remarks on the Articles Which Have Recently Appeared in the "Rambler," Relative to Ecclesiastical Architecture and Decoration* (London: C. Dolman, 1850), 12 (hereafter cited as *Some Remarks*).
[61] Belcher, *Collected Letters, Vol. 1*, 354.
[62] Belcher, *Collected Letters, Vol. 1*, 365.
[63] Belcher, *Collected Letters, Vol. 1*, 366.
[64] Belcher, *Collected Letters, Vol. 1*, 197.
[65] Pugin, *Some Remarks*, 12.

injudicious interference and control, or some other contingency, is more or less a failure."[66]

Publications picked up on Pugin's complaints and some were sympathetic, with *The Saturday Review of Politics, Literature, Science, and Art* stating that "the poor things which Pugin threw off were not poor from poverty of invention, but from insufficiency of material to match the imagination."[67] *The Athenaeum* pointed out how, when required, "Pugin could acquiesce in the miserable conditions of cheapness and parsimony."[68] However, Pugin's willingness to express his disdain on financial constraints was seized upon by his critics, namely Ruskin. In "Romanist Modern Art," Ruskin says how "Pugin is inexpressible in less than a cathedral," using St. George's as an example.[69] He writes, "St. George's was not high enough for want of money? But was it want of money that made you put that blunt, overloaded, laborious ogee door into the side of it? Was it for lack of funds that you sunk the tracing of the parapet in its clumsy zigzags? Was it in parsimony that you buried its paltry pinnacles in that eruption of diseased crockets?"[70] Ruskin ends his attack in dramatic fashion, concluding that Pugin's architectural difficulties were not rooted in lack of finances "but in mere incapability of better things."[71]

5.7 *An Apology for the Revival of Christian Architecture* (1843)

Ferrey notes how "[t]he annoyance to which Pugin was subjected by applications for designs to be executed from ridiculously insufficient funds, made him at times very irritable."[72] Pugin becomes more discerning with his commissions as seen in his correspondence with Charles Scarisbrick on 11 May, 1845 where he says "I have every wish to meet your intentions but I cannot afford to lose money – or work on the same terms which I did as a young man almost without expense."[73] Having experienced these situations throughout his career, Pugin was interested in and open to methods which could reduce costs while maintaining a high standard and included a chapter titled "Modern Inventions and Mechanical Improvements" in *An Apology for the Revival of Christian Architecture* in 1843. Here Pugin clearly states "[i]n matters purely mechanical, the Christian architect should gladly avail himself of those

[66] Pugin, *Some Remarks*, 11.
[67] "Pugin Redivivus," *The Saturday Review of Politics, Literature, Science, and Art* 13 no. 338 (April 19, 1862), 441-442.
[68] "Literature," *The Athenaeum*, 109.
[69] Ruskin, "Romanist Modern Art," 438.
[70] Ruskin, "Romanist Modern Art," 438-439.
[71] Ruskin, "Romanist Modern Art," 438-439.
[72] Ferrey, 171.
[73] Belcher, *Collected Letters, Vol. 2*, 389.

improvements and increased facilities that are suggested from time to time."[74] As if to show his authority in addressing such matters, before any text appears, Pugin includes a frontispiece titled "The Present Revival of Christian Architecture" [fig. 5.6] depicting twenty five of his churches in the manner of Cockerell's "A Tribute to the memory of Sir Christopher Wren" [fig. 5.7]. Here Pugin shows his readers that he writes with authority, as the text to follow is based on his own architectural experience.

Pugin's attitude to machinery and modern improvements is spelled out over the course of several pages. He begins by praising the steam engine as "a most valuable power" that, were it available in previous times, the old masons "would undoubtedly have used it."[75] As if to reference his difficulties with patrons and their unrealistic financial demands, he notes that "[t]he readier and cheaper the *mechanical* part of building can be rendered, the greater will be the effect for the funds [....] By saving and expedition in these matters, there would be more funds and a greater amount of manual labour to expend on enrichments and variety of detail."[76] It is clear that Pugin would have used this machinery in constructing his buildings, lamenting how he would have been able to achieve his vision had this technology been available to him.

Rather than a hindrance, these tools would have improved his buildings because, as long as the structure is "*treated naturally, without disguise or concealment,* [it] *cannot fail to look well.*"[77] He states that the precedent of using machinery is present in Gothic architecture which is itself "a series of inventions."[78] He continues, saying that "[*i*]*t is only when mechanical invention intrudes on the confines of art, and tends to subvert the principles which it should advance, that it becomes objectionable.*"[79] In the cases where Pugin does oppose new technology, it is not "because such methods were unknown to our ancestors, *but on account of their being opposed in their very nature to the true principles of art and design*."[80]

5.8 Pugin the Designer

Toward the end of *An Apology* Pugin surmises that "England is, indeed, awakening to a sense of her ancient dignity; she begins to appreciate the just merits of the past, and to work eagerly for the future."[81] It seems this future includes modern manufacturing

[74] Pugin, *An Apology for the Revival of Christian Architecture in England,* 39.
[75] Pugin, *An Apology for the Revival of Christian Architecture in England,* 39-40.
[76] Pugin, *An Apology for the Revival of Christian Architecture in England,* 39-40.
[77] Pugin, *An Apology for the Revival of Christian Architecture in England*, 39.
[78] Pugin, *An Apology for the Revival of Christian Architecture in England*, 40.
[79] Pugin, *An Apology for the Revival of Christian Architecture in England*, 40.
[80] Pugin, *An Apology for the Revival of Christian Architecture in England*, 40.
[81] Pugin, *An Apology for the Revival of Christian Architecture in England*, 51.

methods when appropriate. For Pugin this included not only buildings but also the decorative arts; as his architectural commissions began to wane his design and manufacture of fixtures and fittings increased and diversified. The Fine Art Society describes how "Pugin was also deeply concerned about affordability and he sought to produce ideologically sound but cheap furniture" amongst other goods.[82]

Hill says that Pugin "noticed the results of standardized production were often inadequate."[83] That is not to say the methods were responsible for this inadequacy, or that workmen, if properly educated, could not use these new tools to create quality items of the sort Pugin admired from the Middle Ages. Through his works Pugin called for a revival of the traditional skills of medieval craftsmen. As Stanton states, "[i]t is significant that [...] Pugin nowhere suggests that mediæval methods of production be revived."[84] Instead, she feels that "the importance of his contribution depends" upon "his sound understanding of contemporary methods of manufacture."[85]

To best achieve these aims he set about educating workmen to create goods to a high standard. As Bright states, Pugin felt the restoration of Gothic buildings and indeed Gothic goods "is to be accomplished not by mechanical invention but by recapturing the original spirit."[86] This is what he sought to achieve when educating workmen. Because these interactions focused so heavily and were dependent upon Pugin teaching what he felt were "correct" design principles it is worth examining Pugin's beliefs in this regard.

5.9 Relationship with Workmen

As Pugin sought to educate the workmen who fabricated his goods, it is useful to examine his approach as it formed the foundation of his interactions with makers. Clark notes how Pugin saw "the need of craftsmen who understood the old forms" and felt that he, "more than anyone, was responsible for the revival of craftsmanship."[87] Ferrey describes how Pugin instructed craftsmen to work "not with a view to their making servile copies of ancient examples, but that they might imbibe the feeling and spirit belonging to mediæval art and throw like expression into their own productions."[88] This was made possible by duplicating not the forms but the spirit of

[82] Fine Art Society, Rowena Morgan-Cox, and Annamarie Phelps, *The John Scott Collection. Architect-Designers from Pugin to Voysey, Vol. 8* (London: The Fine Art Society, 2015), 12.
[83] Rosemary Hill, "A. W. N. Pugin," *Crafts (London)* no. 164 (May/June 2000), 25.
[84] Stanton, "Pugin: Principles of Design versus Revivalism," 24.
[85] Stanton, *Pugin*, 183.
[86] Bright, "A Reconsideration of A.W.N. Pugin's Architectural Theories," 161.
[87] Clark, *The Gothic Revival*, 134.
[88] Ferrey, 186.

medieval craftsmen, and does not rule out the use of modern manufacturing methods so long as the ancient principles of the true thing are still present.

Pugin's impression of workmen seems pessimistic as noted in a letter to Charles Bruce Allen where he states that workers are a unique group of men, ready to leave their employer for a better opportunity. Written shortly before Pugin's death,[89] it represents a lifetime of experience working with the trades. Here, Allen contacts Pugin for suggestions on establishing a school for architects, to which Pugin replies that he anticipates great difficulties in training workers. "Workmen are a singular class, and from my experience of them, which is rather extensive, are generally incapable of taking a high view on these subjects, – and ready at a moment to leave their instructors and benefactors for an extra sixpence a day for the first bidder that turns up."[90] Pugin continues, noting that he has "been all my life instructing men" which seems to imply that he had negative experiences with workers who lacked fidelity and who were only motivated by financial gain.[91]

Regarding the failure of his furniture business at the start of his career, *Blackwood's Edinburgh Magazine* states that in his enterprise, Pugin "trained and collected a staff of art workmen, those least manageable and unsatisfactory of all operatives."[92] While proficient at instruction, the magazine states that Pugin could not manage his workmen which led to the collapse of his works.[93] His correspondence does not suggest a preponderance of difficulties with his workers, so perhaps this event and its financial ramifications were enough to taint his opinion towards workers. Although he readily associated with them, joining them on the workshop floor, his relationship with workmen was cordial but not overly familiar; Brittain-Catlin notes that "Pugin occasionally referred to individual craftsmen in his correspondence" but he only mentioned them to their employers, using "the phrase 'your man' in relation to a craftsman who has caught his attention."[94] That said, any prior disappointments did not dissuade him from continuing to educate and instruct makers on what he felt were true principles based on medieval precedent.

5.10 Railway Travel

[89] Belcher, *Collected Letters, Vol. 5*, 505-506; Ferrey, 260. Belcher dates this letter to late 1851 while Ferrey says it was written in April 1852.
[90] Belcher, *Collected Letters, Vol. 5*, 506.
[91] Belcher, *Collected Letters, Vol. 5*, 506.
[92] "Augustus Welby Pugin," 676.
[93] "Augustus Welby Pugin," 676-677.
[94] Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context," 148.

Throughout his working career, Pugin garnered commissions throughout the UK and Ireland. The post was efficient and swift by this date and Pugin regularly used it to correspond and send goods and drawings. As well as conducting business via post, Pugin also visited the locales in which his buildings and interior schemes were constructed, doing so to secure the commission and to supervise the construction as he had no office or clerks to undertake this work on his behalf. To facilitate the vast amount of travel required, Pugin turned to the burgeoning rail service spreading throughout the UK [fig. 5.8]. As Kondo notes, the nineteenth century was marked by "the rise of modern technology, the expansion of industrial urban spaces, and rapidly improved transportation systems and facilities [which] had a tremendous impact upon the domain of fine arts, as well as on design and architecture of the time."[95] Indeed, Pugin would not have managed to visit as vast an area without this new form of travel reducing transport times.

The introduction of rail travel was a revolutionary new mode of transport that provided superior conveniences versus the traditional horse and carriage. As Dentith notes, the railways "shrunk distances in dramatic ways in the course of the century. National systems of canals and tarmacadamed roads were succeeded from the 1830s onwards by a national network of railways; journeys that had only recently taken days could now be made in a matter of hours."[96] Pugin utilized the time spent travelling by catching up on his correspondence, and he states as much in a letter to John Rouse Bloxam from May 1841 when he remarks how "the railway is the only place where I find time to write."[97]

Often Pugin's letters include details of his travel arrangements, noting in the header the route travelled: York & Stockton railway, London & Birmingham railway, Leeds & Manchester railway, etc. In her *Collected Letters*, Belcher remarks on the inclusion of these rail lines in Pugin's correspondence, often stating that the line mentioned had recently opened. For example, a letter to Bloxam from 9 June, 1841 includes the notation "Birmingham & Gloucester Railway," and Belcher comments that this line had only been opened six months prior.[98]

In his correspondence, Pugin often alludes to railway travel in positive terms. In October 1840, Pugin writes to a client that his builder George Myers will "proceed with

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[95] Ariyuki Kondo, "The Rise of Modern Technology and Symbolic-Functionalism: The Expression of 'Englishness' in the Functionalist Theory of A.W.N. Pugin" (paper presented at the 6th Asian Design Conference, Tsukuba International Congress Center, Tsukuba, Japan, October 14-17, 2003), 1.
[96] Dentith, 46.
[97] Belcher, *Collected Letters, Vol. 1*, 237.
[98] Belcher, *Collected Letters, Vol. 1*, 241-242.

railway speed," indicating that the working process, like the railway, will be expedient and efficient.[99] In January 1841, Pugin extends this metaphor to himself when he writes to a friend, "I am such a Locomotive being always flyin about," hinting at his own busy schedule of regular travel.[100] He ends a letter to John Rouse Bloxam in January 1841 by saying, "with the advantage of the railway I hope to run down to you very shortly," once again indicating his opinion of rail travel as a quick and efficient method of transportation.[101] Later that same year, on 29 September, 1841, Pugin wrote to Lord Shrewsbury about a recent illness, remarking how "I have indeed suffered dreadfully" and as a consequence, "I mean to be very careful for the future but I live in dread of a return – and would not go out of reach of a railway between me & home on any account."[102] Here Pugin commends rail transport for the ability to arrive close to his destination and eliminate the need for coach travel which might otherwise expose him to the elements or undue stress.

Pugin includes a sketch of his railway car [fig. 5.9] in a letter written "en route" to Birmingham in May 1843.[103] The rough drawing, titled "traveling companions," shows three individuals seated inside a rail car, and includes the note, "I hope you will be able to read this by 30 miles is fast even for a *moving* hand."[104] This shows that unlike some of his contemporaries, Pugin accepted the advantages that railway travel afforded. In *The Seven Lamps of Architecture,* Ruskin comments on rail travel, stating that "[i]t transmutes a man from a traveler into a living parcel. For the time he has parted with the nobler characteristics of his humanity for the sake of a planetary power of locomotion."[105] Crook feels Ruskin's condemnation reflects his view of "the railway as an instrument of the devil; an agent of modernism, disruptive of the peace, the beauty, the civility, and the natural harmony of the world."[106]

It is clear that Ruskin was in the minority with his views, as the public took to the new railways in great numbers and the rail industrialists responding with an ever-growing network of lines. In his study on exhibitions, Kusamitsu discusses the era of the "railway boom," pointing out that "[r]ailways in operation in 1840 covered 1,331 miles; by 1850 the figure was 6,635 miles, five times as many as ten years before."[107] Indeed,

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[99] Belcher, *Collected Letters, Vol. 1*, 152.
[100] Belcher, *Collected Letters, Vol. 1*, 193.
[101] Belcher, *Collected Letters, Vol. 1*, 195.
[102] Belcher, *Collected Letters, Vol. 1*, 275.
[103] Belcher, *Collected Letters, Vol. 2*, 48.
[104] Belcher, *Collected Letters, Vol. 2*, 47.
[105] John Ruskin, *The Seven Lamps of Architecture*, 159.
[106] J. Mordaunt Crook, "Ruskin and the Railway," in *The Impact of the Railway on Society in Britain: Essays in Honour of Jack Simmons*, edited by A. K. B. Evans and John Gough (Aldershot, Hampshire: Ashgate, 2003), 129.
[107] Kusamitsu, 82.

as Dentith states, "[b]y the end of the 1840s there was a recognisable national system by which all parts of Britain were connected."[108]

While the railways were useful for passenger travel, they also made great advancements in the carriage of goods. Chaloner and Musson note how economic growth was "made possible by revolutionary transport changes in the nineteenth century" including "the development of steam railway locomotives and steamships. Railways opened up markets both internally and overseas, quickening and cheapening transport and making possible the movement of the increasing quantities of goods being mass-produced by the factories and of the raw materials which they required."[109] Prior to the railways, the canal system was used to ship goods, and Deane notes how "the Canal Age made a massive contribution to the first industrial revolution and was a worthy forerunner of the railway age,"[110] with Powell describing how the "[i]nland waterways could bring down rates to about one-third of overland charges and had the important effect of reducing local price differences."[111] While Clapham describes how building materials, industrial machinery, and "whatever other bulky wares there might be, moved along the new waterways," the railways facilitated the movement of goods, especially for smaller items.[112]

Pugin makes frequent reference to the carriage of letters, drawings, and items via the railways. He writes to Lord Shrewsbury in October 1843, telling him that an order of soft furnishings "will all go off tomorrow evening by Rail & Express."[113] Belcher describes how Pugin ordered a brass "[t]o be sent – by N Midland Railway – to Swinton station."[114] Pugin also requests that his collaborators send him items in the same way; he writes to Hardman in March 1845 instructing him to send items "by railway to be forwarded by the London & Dover line Directed *Goods train*"[115] and to Crace in 1846 telling him to put his goods "in a skeleton Case & send it by *goods train*."[116] To his third wife Jane Pugin he writes in October 1848 how she "could not imagine a letter could come 386 miles in *one night* even by Railway," hinting at his amazement and appreciation of the speed at which train service can move goods.[117]

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[108] Dentith, 46.
[109] W. H. Chaloner and A. E. Musson, *Industry and Technology* (London: Vista, 1963), 45.
[110] Phyllis Deane, *The First Industrial Revolution* (Cambridge, UK: University Press, 1965), 81.
[111] Christopher G. Powell, *The British Building Industry Since 1800: An Economic History* (London: E & FN Spon, 1996), 41.
[112] Clapham, 79.
[113] Belcher, *Collected Letters, Vol. 2*, 125.
[114] Belcher, *Collected Letters, Vol. 2*, 39.
[115] Margaret Belcher, *The Collected Letters of A.W.N. Pugin, Vol. 3 1846-1848* (Oxford: Oxford University Press, 2009), 354 (hereafter cited as *Collected Letters, Vol. 3*).
[116] Belcher, *Collected Letters, Vol. 3*, 197
[117] Belcher, *Collected Letters, Vol. 3*, 602.

Whether for the transport of items or for his own travel, Pugin was an enthusiastic supporter of the new railway system appearing across the UK. Whereas Ruskin "saw the railroad's tentacles strangling town and countryside; eroding the contours of familiar landscapes, and sundering a multitude of social relationships built up seamlessly over centuries" with its misuse of steam power,[118] Pugin utilized the new form of travel, embracing the expedient nature afforded by the railways, for both goods and travel. This is yet another example of Pugin's acceptance of modern conveniences and his willingness to engage with products and services that enhanced his personal life and business practice.

[118] Crook, "Ruskin and the Railway," 129.

There is evidence that Pugin not only accepted but even encouraged modernization, an attitude that is most clearly expressed in his correspondence and working methods with his manufacturers. Throughout his career Pugin "preferred to work with a small number of close colleagues who understood his aims and could interpret his drawings."[1] This included John Hardman, a Birmingham metalwork manufacturer, the London-based interior decorator John Gregory Crace, Herbert Minton, a Staffordshire potter, and George Myers, a London builder originally from Hull. Pugin would come to depend on these four men, "Gothic labourers for the present day – rough and imperfect men, savage even, but exuberant in their celebration of God's creation," for not only the manufacture of his goods but as confidantes of the highest calibre.[2]

Although Pugin was interested in spreading his beliefs regarding architecture and decorative arts, it must have been time consuming to instruct each manufacturer he worked with. Over time Pugin assembled a group of men - each a leader in their respective field - to accomplish these aims. Ferrey states that these men "came to so readily understand both the detail and the spirit of Pugin's work that their work required the minimum of supervision and control," being a boon to Pugin whose sketches were at times little more than a fragment of the whole with the instruction to complete the project in the same manner as to what was provided.[3] Pugin's sketches were almost a form of shorthand which few could accurately interpret to their creator's satisfaction. That Hardman, Myers, Crace and Minton were able to do so is nothing less than astounding. Brooks feels that the ability to realize Pugin's designs "required a combination of new skills and revived craft methods" and that these men "became an informal consortium of art-manufacturers with Pugin as their principal designer."[4]

While Pugin "made great efforts to [...] build up a network of skilled craftsmen to execute" his designs, the correspondence between Pugin and his collaborators is scarce.[5] No letters exist from any of these men to Pugin as he was in the habit of "keeping a clean [drawing] board" by burning all letters once he had written a reply.[6]

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[1] Alexandra Wedgwood, ed., "'Pugin in His Home': A Memoir by J. H. Powell," *Architectural History* 31 (1988), 171.
[2] Barringer, 256.
[3] Ferrey, xxxiii.
[4] Chris Brooks, *The Gothic Revival: Art & Ideas*, 244.
[5] Andrew Saint, "Cities, Architecture, and Art," in *The Nineteenth Century: The British Isles 1815-1901*, edited by Colin Matthew (Oxford: Oxford University Press, 2000), 290.
[6] Wedgwood, "Pugin in His Home," 181.

However, an abundance of letters written from Pugin to his associates and clients survive and these have been collated and documented by Margaret Belcher in her *Collected Letters of A.W.N. Pugin*. Here Belcher establishes the groundwork for further study, providing an invaluable research tool with which to conduct a detailed survey of Pugin's working methods.

Pugin may have been the common denominator that brought Hardman, Crace, Minton, and Myers together, but he did not assume a superior role and instead worked with his collaborators on equal footing. Pugin guided and instructed his collaborators, especially regarding medieval precedents, but their relationship was decidedly not one of employer and employee. Ferrey describes how when Pugin was "asked why he didn't give the more mechanical part of his working drawings to a clerk to do," he replied, "'Clerk, my dear sir, clerk, I shall never employ one; I should kill him in a week.'"[7] After the death of Louisa in 1844, Pugin took on one employee, and he did so with reluctance, as John Hardman sent his nephew, John Hardman Powell, to live with Pugin and train in drawing. Belcher notes that "it is not known exactly what form – articles, apprenticeship, or something different again – the arrangement among Pugin, Hardman, and Powell took" but it appears that Pugin instructed Powell in his rules for drawing and design.[8] Pugin was a pedantic master and in 1844 he writes to Hardman how his nephew "has not the first ideas of *principles* [….] he does not eveng know the ordinary rules."[9]

Pugin adopted a decidedly different approach when dealing with his collaborators, treating them as equals and acknowledging their mastery of a skill set that he did not possess. Ferrey describes how Pugin found "very few craftsmen or manufacturers [who] could supply well made Gothic Revival objects or execute the necessary internal carved or painted details."[10] To remedy this situation, Pugin "created almost single-handed over the next two decades a whole industry devoted to the creation of Gothic Revival schemes of interior decoration."[11]

Pugin also realized that while he could make some progress from his own workshop, he was limited in size and scale and could accomplish more if he found established manufacturers who shared his mindset and were willing to create goods to his specifications. Each of his collaborators had a dedicated work space with infrastructure suited to their particular specialty, business connections, and an

[7] Ferrey, 187.
[8] Belcher, *Collected Letters, Vol. 3*, 397.
[9] Belcher, *Collected Letters, Vol. 2*, 308.
[10] Ferrey, xxxiii.
[11] Ferrey, xxxiii.

available workforce. Pugin established a group of close-knit contacts amongst whom he encouraged communication so that the best results could be achieved. With the expertise of these men, Pugin was able to realize his designs. Ferrey notes how Hardman, Crace, Minton, and Myers "came to so readily understand both the detail and the spirit of Pugin's work that their work required the minimum of supervision and control" that together, they were "able to carry out their schemes with an ease and success unknown when Pugin started his career."[12]

6.1 Metalwork, Stained Glass – Hardman

Of his collaborators, Pugin was closest to John Hardman [fig. 6.1], a Catholic metalworker based in Birmingham who understood and sympathized with Pugin's religious beliefs. Despite their similarities, it is surprising that the association between the two men ever took hold. Hardman came from a family of metalworkers in Birmingham, the centre of metalwork activity in the Victorian era. The city's association with metals dates from the 16th century when an abundance of local raw materials stimulated the growth of small scale manufacturers of metalworks.[13] As a descriptor, metalworking covers a large range of activities, and key amongst these was the establishment of brass founding in the 18th century,[14] which Vance calls "the staple that caused the whole world to turn to Birmingham."[15] Despite the city's impressive lineage, Pugin complained about Birmingham and its products in *True Principles*, calling it, along with Sheffield, another location known for metalwork, "inexhaustible mines of bad taste," and included an illustration showing examples of "Brummagem Gothic" goods – Brummagem being an epithet for showy, worthless metalwares [fig. 6.2]. He considers these items abominations, noting how they feature "staircase turrets for inkstands, monumental crosses for light-shades, gable ends hung on handles for door-porters, and four doorways and a cluster of pillars to support a French lamp."[16] Here, Barringer suggests that the "debased culture of industrialism was his [Pugin's] true target," attacking goods "where decorative elements from historical architecture are applied in an illiterate fashion to commodity design,"[17] and illustrating these items in his text as examples of works that went counter to his tenets.[18]

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[12] Ferrey, xxxiii.
[13] "Birmingham: Its Manufactures and Approaching Exhibition of Products of Industry," *The Journal of Design and Manufactures* 2 no. 7 (September 1849), 2.
[14] Berg, *The Age of Manufactures,* 233. Here Berg suggests that "by 1797 there were seventy-one brass founders in the city."
[15] James E. Vance, Jr., "Housing the Worker: Determinative and Contingent Ties in Nineteenth Century Birmingham," *Economic Geography* 43 no. 2 (April 1967), 121.
[16] Pugin, *True Principles*, 24.
[17] Barringer, 250.
[18] Pugin, *True Principles*, 24.

Pugin favoured revealed construction and this encompassed works in metal. Items such as hinges and locks "which are always *concealed in modern designs,* were rendered in pointed architecture, *rich and beautiful decorations.*"[19] This includes small sundries like bolts, nails, and rivets which "were always shown and ornamented" as they can be "busy enrichments, if properly treated."[20] Pugin states how "[i]t is impossible to enumerate half the absurdities of modern metal-workers; but all these proceed from the false notion of *disguising* instead of *beautifying* articles of utility."[21] These deceitful practices which "*conceal the real purpose for which the article has been made*" only serve to render items "monstrous and ridiculous" and he uses the productions of Birmingham as representative of this deceit.[22]

Following the first publication of *True Principles* in 1841, the *Polytechnic Journal* in October of that year remarked how "Mr Pugin has not been sparing of his ridicule – certainly well-merited enough – of 'Brummagem Gothic,' and the barbarous absurdities perpetrated."[23] The publication agreed that "[s]uch horrible architectural sophistications most assuredly deserve to be denounced to the full."[24] Pugin was not the only person to note the decay in taste these goods represented, although he may have been one of the few to be able to articulate why. By recreating in metal designs originally in stone and wood, Pugin's examples violated the forms and characteristics exclusive to each particular material.

6.1.1 Opinion of Birmingham

Not only did Pugin complain about the manufactures from Birmingham, he also deplored the city's architecture. A spate of new building took place in the 1820s and 1830s which altered the city's appearance with the introduction of several Greek and Roman revival buildings. In a letter dated 30 January, 1834 he describes the city as "that most detestable of all detestable places" where "Greek buildings & Smoking chimneys – radicals & disenters are blended together."[25] It is likely that his trip to Birmingham (and subsequent letter about its architecture) were related to his work on the King Edward VI Grammar School [fig. 6.3]. Designed in 1833 by Charles Barry in the perpendicular Gothic style and built between 1834-1837, Barry employed Pugin to assist him in rendering his drawing plans and, Hanson notes, the project was "notable

[19] Pugin, *True Principles*, 19.
[20] Pugin, *True Principles*, 21.
[21] Pugin, *True Principles*, 21-22.
[22] Pugin, *True Principles*, 22.
[23] "Puginism and Catholicism," *Polytechnic Journal* 5 (October 1841), 229.
[24] "Puginism and Catholicism," 229.
[25] Belcher, *Collected Letters, Vol. 1*, 23.

because it provided the first opportunity for the young A.W.N. Pugin to lend his assistance to the up-and-coming Barry,"[26] and the building is seen as a precursor for their most important commission, the Houses of Parliament.[27] While the school no longer stands, its location on New Street placed it on a main thoroughfare in the city centre.[28]

Birmingham was a hotbed of political action in the and, as Andy Foster notes in the Pevsner guide to the city, "[t]his new self-confidence was reflected in a series of high quality public buildings, on a larger scale than anything existing in the town, and increasingly showing the stylistic pluralism" of the age.[29] The first of these buildings was Charles Edge's Greek revival Market Hall, ca. 1833, with a Grecian Doric façade with an entablature [fig. 6.4], followed by the Roman revival Town Hall [fig. 6.5], opened in 1834.[30] Designed by Joseph Aloysius Hansom and Edward Welch, the town hall was a "temple design raised on a high basement, based on the Temple of Castor and Pollux in the Roman Forum."[31] The erection of a pagan temple for civic purposes was sure to have fuelled Pugin's ire as expressed in *Contrasts.* The Pevsner guide to Birmingham notes the discrepancy with Barry's school, stating that the gothic King Edward VI Grammar School provided "a great contrast" to the nearby Town Hall, located atop a hill in Victoria square where New Street and Paradise Street meet.[32]

While the Town Hall was visible at the termination of New Street, directly across from the school was the Pantechnetheca (23 New Street) [fig. 6.6], a building dating from 1824 built "for the exhibition and sale of articles in the finer department of the arts, selected from the various manufactories in the town."[33] In his *Topographical Dictionary of England,* Samuel Lewis singles out the structure, describing how "the exterior of the building is fronted, on the basement story, with a Grecian Doric colonnade, supporting another of the Ionic order, surmounted by a handsome balustrade with projecting pedestals, on which are emblematical figures well

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[26] Hanson, 76.
[27] Alfred Barry, *Memoir of the Life and Works of the late Sir Charles Barry* (London: John Murray, 1870), 132.
[28] Parts of Pugin and Barry's design including the corridor, staircase, and landing with vault were transferred to the school's new site at Edgbaston.
[29] Andy Foster, *Birmingham - Pevsner City Guide* (New Haven, CT: Yale University Press, 2005), 8.
[30] William Hutton, *The History of Birmingham, with Considerable Additions* (London: George Berger, 1835), 64.
[31] Foster, 8.
[32] Foster, 9.
[33] Samuel Lewis, *A Topographical Dictionary of England, Comprising the Several Counties, Cities, Boroughs, Corporate & Market Towns ... & the Islands of Guernsey, Jersey, and Man, with Historical and Statistical Descriptions; Illustrated by Maps of the Different Counties & Islands; a Map of England, shewing the Principal Towns, Railways, Navigable Rivers, and Canals; and a Plan of London and Its Environs, vol. 1 of 4* (London: S. Lewis & Co, 1831), 173.

sculptured."[34] Here it was not only the building, but the goods contained inside that disgusted Pugin. The Grecian style was also selected for the nearby church of St Thomas [fig. 6.7], a commissioners' church by Thomas Rickman opened in 1829 and the Doric mortuary chapel at Key Hill Cemetery, 1836 [fig. 6.8], which offered burial to nonconformists.[35]

Lewis notes how the city was also home to "two churches built in the Tuscan order", and contained places of worship for Baptists, Independents, Methodists, Unitarians, and other faiths that Pugin found objectionable. Within the city Pugin must have felt surrounded by heathens, milling about their pagan architecture, buying Brummagem goods. As these buildings literally encroached upon the gothic grammar school, Pugin's proclamation of Birmingham as full of "Greek buildings" and "radicals and disenters" seems less of an exaggeration and more of an accurate picture of the city during that time which can explain his reluctance to engage with manufacturers from that locale.

6.1.1.1 Role of Religion

Pugin's dislike of Birmingham was overshadowed by its importance as a "haven from religious persecution,"[36] making it attractive to Catholics. O'Donnell notes how prior to his conversion, "Pugin's reaction to Birmingham was damning [....] But Pugin the Catholic convert architect was to find in the Catholic Midlands his best friends, patrons and supporters."[37] In 1837, following the success of *Contrasts*, Pugin was appointed Professor of Ecclesiastical Architecture and Antiquities at St. Mary's College [fig. 6.9], a Catholic school and seminary in Oscott, then on the outskirts of the city. His role here put him in contact with members of the larger Catholic community, including John Hardman Jr. The Hardmans were a family of metalworkers involved in the city's toy trade, producing small goods like buttons and buckles. Despite the inconsequential nature of these goods, Hardman was both a skilled craftsman and a Catholic industrialist "who was ready to invest his skill and business acumen in work for the church."[38]

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[34] Samuel Lewis, 173.

[35] Julie Rugg, "Researching early-nineteenth-century cemeteries: sources and methods," *The Local Historian* 28 no. 3 (August 1998), 141.

[36] Berg, *The Age of Manufactures*, 232.

[37] Roderick O'Donnell, *The Pugins and the Catholic Midlands* (Leominster, UK: Gracewing, 2002), 6.

[38] Brian Doolan, *The Pugins and the Hardmans* (Birmingham, UK: Archdiocese of Birmingham, Historical Commission, 2004), 2.

Given the large number of Catholics in the area, Pugin was savvy enough to realize it was against his best interests, both personally and professionally, to alienate such a large body of sympathizers and potential patrons. "It would be wrong to insinuate that Pugin exploited this opportunity cynically" but this does not mean that he was unaware of its implications and potential.[39] Indeed, his association with the city's Catholic population would lead to his involvement in building St. Chad's Cathedral and other ecclesiastical structures within the city. Champ highlights the role of the Hardman family, placing them "at the forefront of activities, leading the proposition made in 1833 to build a cathedral and paying for the building of the Convent of Mercy in Handsworth."[40] In a letter from June 1839 Pugin describes how he has "several large churches to do" including "five near Birmingham," showing that his prospects of future work were correct.[41]

It is surprising, given Pugin's reprobation of Birmingham and its Brummagem metalwork, that he would willingly engage with a producer from this region, but he recognized the opportunities afforded to him by Birmingham's large Catholic community and in Hardman he saw a kindred soul with whom he could rectify the city's wrongs in both building and manufacture. As Hardman was knowledgeable about his craft, enthusiastic to advance his business, and devoted to the Catholic faith, he and Pugin quickly struck up a genuine friendship and a successful partnership with Pugin's diary of 29 May, 1837 noting, "Dined at Mr. Hardman's," marking their first close interaction.[42] The two began corresponding regularly and their letters outline the corporate structure of a profitable Victorian business while highlighting Pugin's working methods.[43]

In the first letter dated 10 June, 1837,[44] Pugin sends "all my drawings for the proposed new [Catholic] church," showing that he wasted no time in networking with his new associate to improve religious life in the Birmingham area.[45] The city already featured two Catholic churches, but these were not up to Pugin's standards as he referred to one

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[39] S. Bury, "In Search of Pugin's Church Plate: Pugin, Hardman and the Industrial Revolution," *The Connoisseur* 165 no. 663 (May 1967), 33.

[40] Judith Champ, *A Temple of Living Stones* (Oscott: St Mary's College Oscott, 2002), 13.

[41] Belcher, *Collected Letters, Vol. 1,* 119. In the notes Belcher remarks that the "'five churches near Birmingham' are a puzzle" and only manages to identify three buildings, questioning "how far 'near' stretches."

[42] Pugin, Augustus Welby Northmore. "Diaries." In *A. W. N. Pugin and the Pugin Family, Catalogues of the Architectural Drawings at the Victoria and Albert Museum* by Alexandra Wedgwood, 32-100. (London: Victoria and Albert Museum, 1985), 78

[43] Doolan, *The Pugins and the Hardmans*, 2.

[44] Wedgwood, "Pugin in His Home," 186. Here Wedgwood notes that "more than three hundred [letters] remain of those to Hardman, a mixture of business, of his own work, Catholic progress, current great wants, indeed all subjects." Today these are housed at the Birmingham Reference library.

[45] Belcher, *Collected Letters, Vol. 1,* 77.

of them – St. Peter's in the city centre – as "the present filthy hole" not fit for Catholic worship.[46] Soon after, Pugin and Hardman would be instrumental in the erection of St Chad's, England's first cathedral to be built since the Reformation [fig. 6.10].

6.1.2 The Pugin Hardman Collaboration

Dismayed by the lack of skilled and knowledgeable makers, by 1838 Pugin had convinced Hardman to move away from the 'toy' trade in small items, in which his family worked and to instead begin making ecclesiastical metalwork. Adopting the name the Medieval Art Manufactory, Pugin and Hardman sought "to produce the increasing amount of metal fitments needed to decorate and beautify the churches that Pugin was erecting and other buildings, including the Palace of Westminster."[47] The first products from the Pugin-Hardman collaboration were ready in June 1838.[48] These "initial orders were for modest articles [...] but by the end of the year" more elaborate items were being introduced.[49] The venture proved so successful that Pugin began advertising in the Laity's *Directory* [fig. 6.11], promoting "Ecclesiastical Ornaments Designed from ancient authorities and examples" created by "Mr. Pugin, having procured the zealous co-operation of his respected friend, Mr. J. Hardman of Birmingham" alongside an illustration of the various types of items the firm could produce. [50]

In the transition from toy trade to ecclesiastical metalwork, Hardman's firm underwent some changes in arrangement and manufacturing, and it is worthwhile to examine how these items were made to see what this reflects on Pugin's attitude to industrialization. Some of the first items offered were simply an extension of Hardman's current practice as he continued to use the family's button manufactory at 12 Paradise Street – coincidentally located in the shadow of the Greek town hall – to create Pugin's orders.[51] These goods included stamped ware, which was an expedient way to create a large number of items in the same style, and Pugin recommended to

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[46] Belcher, *Collected Letters, Vol. 1,* 78.
[47] Doolan, *The Pugins and the Hardmans,* 19.
[48] Ann Eatwell and Anthony North, "Metalwork," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 174.
[49] Eatwell and North, 174.
[50] "Ecclesiastical Ornaments designed from ancient authorities and examples by A. W. Pugin," *The Catholic Directory and Annual Register for the Year* (London: Simpkin and Marshall, 1839), 194.
[51] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 32. Bury notes how details in the Hardman records "make it perfectly plain that John Hardman made use of these facilities on occasion for his base metalwork and perhaps also for his silverwork."

Hardman that when a good pattern was on hand, multiple items be produced for stock.[52]

6.1.2.1 Metalworking Processes

This process relied on the use of die-stamping where a cast is created to act as a permanent pattern which would serve to produce thousands of similar items. Due to the investment of time and materials, these casts or dies were a valuable resource to manufacturers [figs. 6.12, 6.13]. An entry in the *Official Descriptive and Illustrated Catalogue* for the Great Exhibition of 1851 notes how "dies are expensive, and each change of pattern involves the production of a new die."[53] An article in *The Illustrated Examiner and Magazine of Art* in 1852 described the stamping process at Elkington's works, noting how depending on the complexity of the pattern, multiple dies may be necessary to achieve the desired depth and relief and an article.[54] This article also notes that the "preparation of dies is exceedingly costly; and each new pattern wanting a fresh die, the amount of capital involved in sinking dies is almost incredible."[55] This meant that it was unrealistic to produce a die for each and every component part and firms had to economize by accommodating existing designs to incorporate the same elements in multiple pieces.

In *True Principles,* Pugin complains how "silversmiths are no longer artists," calling their work "a mere trade" as their goods, "being struck in a die, do not even possess the merit of relief" and in light of this denunciation of mechanisation, it seems strange that he would willingly employ these techniques to manufacture his goods.[56] Although utilizing a craftsman to fashion items by hand is more akin to the medieval method that Pugin championed, this was also vastly more expensive than the mechanical duplication offered by stamping and die pressing. An entry in Hardman's records dated February 1850 "describes a silver chalice and paten with the words 'Stamped pattern'", indicating that stamping was indeed in use in the production of Hardman's wares.[57] As Bury points out, "so much for Pugin's diatribes against the die-stampers of Birmingham as held in his *True Principles*."[58]

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[52] Belcher, *Collected Letters, Vol. 2,* 308.
[53] *Official Descriptive and Illustrated Catalogue. Supplement* (London: Spicer Brothers, 1852), 1510.
[54] "Messrs. Elkington, Mason, & Co.'s Electro-Plate Works, Newhall-Street, Birmingham," *The Illustrated Exhibitor and Magazine of Art*, 1 (January 3, 1852): 299.
[55] "Messrs. Elkington, Mason, & Co.'s Electro-Plate Works, Newhall-Street, Birmingham," 299.
[56] Pugin, *True Principles*, 32-33.
[57] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 32.
[58] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 32.

Working metals was labour intensive and in this regard, Pugin states that "in matters purely mechanical, the Christian architect should gladly avail himself of those improvements and increased facilities that are suggested from time to time."[59] Perhaps drawing from his own prior experience in furniture manufacture, Pugin understood that Hardman's manufactory must produce quality goods at competitive prices and this "reinforced the need for greater standardization and repetition of designs."[60] Pugin addressed this difficulty in a most creative manner as seen in the numbered pieces which line the pages of Hardman's catalogues [fig. 6.14]. Here a close examination reveals the same elements utilized throughout a variety of items on offer. Thus, a processional cross may have the same base as a chalice, which may share the same knop as a monstrance, all while reducing the number of unique dies necessary to produce an item.

An examination of one of Pugin's chalices sheds further light on his construction techniques. Here a length of brass rod is soldered to the base of the calyx (bowl), and the foot, stem, and knop are strung along the rod so that the metal spine runs through the centre of the assembled components, leaving the threaded end of the rod protruding through a hole in the brass base plate [fig. 6.15]. A washer and nut are then put in place, and as the nut is tightened the whole assembly becomes completely rigid.[61] This construction process was applied to a large variety of items produced by the firm, and one soon realizes that "[Pugin's] work can be immediately distinguished by his preoccupation with certain elements of shape and a distinctive repertoire of ornament" along with the use of embellishments which could be screwed on to the larger structure.[62] These production techniques allowed the firm to arrange elements in a variety of ways and customize the work with gilding, engraving, chasing, and the use of gemstones and enamels to produce a variety of unique, skilfully manufactured items within the customer's budget. This hints at Pugin's willingness to compromise his stringent rules for production methods and allows Hardman to have the base structure ready for customization once an order was placed.

In the first years of collaboration between Pugin and Hardman each commission was bespoke, with Pugin providing designs either directly to the client or to Hardman's. A letter from John Hardman to a potential customer in 1840 outlines their use of this approach:

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[59] Pugin, *An Apology for the Revival of Christian Architecture*, 10.
[60] Eatwell and North, 176.
[61] Brian Andrews, *Creating a Gothic Paradise: Pugin at the Antipodes* (Hobart, Tasmania: Tasmanian Museum and Art Gallery, 2002), 223.
[62] Eatwell and North, 183.

> My general method of working is this, either parties come and see the articles I have by me and purchase from them or otherwise they say what they want and how much they can afford to give and then trust Mr Pugin or me to send them as much as can possibly be done for the money – it is possible to make so much difference in all these articles by adding engraving and chasing or leaving it out as the case may be, adding or taking away other work, that it is almost impossible to give a correct list of prices.[63]

Hardman's statement is significant in that it outlines a working process that is adaptable to both taste and budget and shows that "compromise, pragmatism and a willingness to meet clients' needs dictated the Hardman productions" while "Pugin himself recommended adjustments to the materials used, to bring the price within the customer's budget."[64]

6.1.2.2 Plating Base Metals

Pugin's letters of instruction reveal that "more than ninety-five per cent of Hardman's output during Pugin's lifetime consisted of base metal" with brass being the most readily available.[65] Base metals necessitated the intervention of modern manufacturing techniques in order to appear more expensive. In *The Present State of Ecclesiastical Architecture in England*, Pugin complains of individuals whose "sideboards of their dining rooms are ten times more costly than the altar," noting that the Eucharist is "received in a vessel of meaner material than what is generally used for the domestic table."[66] It would seem, therefore, that Pugin implies that only the finest, most expensive goods, *i.e.* those not plated, are appropriate for ecclesiastical purposes. In *True Principles* Pugin discusses "the false notion of *disguising* instead of *beautifying* articles of utility"[67] and it seems that plating, like wooden veneer or plaster over brick, would fall into this category by hiding the characteristics of the item. However, if considered semantically, plating does not *disguise* the item (which Pugin opposes) but instead *beautifies* it in its attempt to appear more luxurious, which he endorses. Pugin complains about deceitful practices which "*conceal the real purpose for which the article has been made*" but does plating an item conceal its purpose?[68] If anything, it increases the durability of the item as in the case of wine in a brass chalice as *Winemaker Magazine* states that "drinking wine out of a metal vessel, especially

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[63] Hardman correspondence, Birmingham library, clients' letter box, 1839-44.
[64] Eatwell and North, 182.
[65] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 31. Letters between Pugin and Hardman also reference brass items that would later be plated or otherwise transformed.
[66] Pugin, *Present State*, 12.
[67] Pugin, *True Principles*, 21-22.
[68] Pugin, *True Principles*, 21-22.

brass, will most likely change your wine and likely for the worse."[69] Whether the teetotal Pugin was aware of this effect or whether he simply felt that plating and gilding did not violate his principles is unknown. What is certain, given Pugin's attitude as expressed in his published works, is that he and Hardman regularly gilded their goods, both domestic and ecclesiastical, in gold and silver.

Pugin writes to John Rouse Bloxam on 13 September, 1840 about the work at St. Chad's Cathedral in Birmingham where Pugin is "paying the most unremitting attention" to this "unrivalled" structure which will contain a "book of the holy gospels [...] covered with enamels ivory carving & gilt plate – set with stones."[70] Clearly Pugin does not feel that plated metal in any way diminishes the church. Perhaps since, as Pugin writes to Edward James Willson in 1834, he purchased a "double gilt Chalice of the 15th Cent.", he felt that gilt plate had a medieval origin and was in keeping with an authentic revival of Gothic goods.[71]

Gilded medieval plate may not be without precedent, but the antiquated technique of "fire-gilding" was injurious to health as the process involved the inhalation of mercury vapours from the gold amalgam.[72] New techniques were constantly sought and in 1836 the Elkingtons patented "[a]n improved method of gilding copper, brass, and other metals or alloys of metals" using an electric current, followed by a second patent in 1837 for "[i]mprovements in covering or coating certain metals."[73] Not only do records in the Hardman archive "make it perfectly plain that the Hardman firm made use of these methods,"[74] but Hardman collaborated directly with Henry and George Richards Elkington, signing a "deed of partnership" in February 1837 "for the purpose of working the gilding processes developed" by the Elkington cousins [fig. 6.16].[75]

Hardman and Pugin freely employed "electroplated nickel silver for their goods, compensating for its lack of medieval authority by lavishing as much craftsmanship

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[69] Alison Crowe, "Drinking From Brass," WineMaker Magazine, https://winemakermag.com/wine-wizard/1604-brix-in-fermentation-wine-wizard

[70] Belcher, *Collected Letters, Vol. 1,* 143.

[71] Belcher, *Collected Letters, Vol. 1,* 43.

[72] Andrew Oddy, "Gilding of metals in the Old World," in *Metal Plating and Patination: Cultural, Technical, and Historical Developments*, edited by Susan La Niece and P. T. Craddock (Oxford: Butterworth-Heinemann, 1993), 177.

[73] Great Britain, *Abridgements of the Specifications Relating to Metals and Alloys (Excepting Iron and Steel)* (London: Great Seal Patent Office, 1861), 75-76.

[74] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 32.

[75] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 32. For a general overview of the firm and its works, see Grant and Patterson, *The Museum and the Factory: The V&A, Elkington and the Electrical Revolution* (London: Lund Humphries in association with V&A Publishing, 2018).

upon it as if it had been sterling silver."[76] This is another example of Pugin accepting the use of "modern conveniences" as long as the finished item displayed his true principles. While his publications included condemnations of German silver and Sheffield plate, Pugin's correspondence reveals that he regularly ordered Hardman to employ these materials. In a letter dated 27 December, 1844 he instructs Hardman to "make the cheadle chalice the same only the foot *copper gilt* or german silver plated & parcel gilt for Lord S[hrewsbury] is sure to ask me – & he will be angry if it is all silver."[77] The realization that Pugin recommended the use of composite materials seems to contradict his vehement condemnation of these products in his published works. Michael Fisher, former archivist for John Hardman & Co., states that "while in public Pugin extolled the virtues of matching medieval craftsmanship to design, in private he countenanced Hardman's [use of] materials like nickel alloy, electroplated to imitate silver."[78] However, Fisher qualifies this statement, noting that "there was no question, however, of sacrificing quality to cheapness."[79]

At times Pugin's principles and practice diverge, making it difficult to discern his true feelings. What is known is that Hardman's "business was mainly run on the basis of industrial production"[80] which included Sheffield plate, die stamping, and electro-plating, even though they were not Pugin's preferred methods. Indeed, throughout the metalwork industry, one finds that even where machinery is used, "final processes were still largely hand-done."[81] In the case of Hardman's goods, the pieces may have been fashioned with machinery, but their decoration and final fabrication required a craftsman's touch to ensure a quality finish. As Hardman did not have a large factory, this also included outsourcing items to area manufacturers and specialist firms for various details such as plating, gilding, engraving, and sawpiercing and Eatwell and North note how the Hardman archives show the firm "buying from other suppliers ready-made elements which can be fitted to the required designs."[82] In this regard "Pugin compromised his own doctrines when it was expedient. He designed a great deal of ecclesiastical metalwork, most made of alloys like brass or German silver (copper and nickel) but electroplated with gold or silver to look as if it were made of precious metal."[83]

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[76] Shirley Bury, "The Palace of History and Art: Metalwork," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 261.
[77] Belcher, *Collected Letters, Vol. 2*, 308.
[78] S. Bury, "Pugin and the Tractarians," *The Connoisseur* 179 no. 719 (January 1972), 16.
[79] Fisher, *Hardman of Birmingham: Goldsmith and Glasspainter,* 23.
[80] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 33.
[81] W. H. B. Court, *The Rise of the Midland Industries, 1600-1838* (London: H. Milford, Oxford University Press, 1938), 259.
[82] Eatwell and North, 177.
[83] Janet Koplos and Bruce Metcalf, *Makers: A History of American Studio Craft* (Chapel Hill: University of North Carolina press, 2010), 3.

6.1.2.3 Educating Craftsmen

Pugin's biggest challenge throughout his work with Hardman was the modern workers' lack of skill and craftsmanship required to execute his metalwork designs and he outlines the problem in *Some Remarks Relative to Ecclesiastical Architecture and Decoration*. He laments that "in metal work such was the difficulty of procuring operatives, that I was compelled to employ an old German, who made jelly moulds for pastry cooks, as the only person who understood beating up copper to the old forms" [figs. 6.17, 6.18].[84] He continues, saying that "it was impossible to have procured the commonest articles" because "[a]fter three centuries of neglect, the loss of ancient traditions, and of the very means employed by the old artists, it was no easy matter to reproduce their skilful works, in all their variety."[85] Even his advertisement in the Catholic Directory acknowledges the "great difficulty of procuring ecclesiastical ornaments suitable to the wants and dignity of the ancient religion" which Pugin attributes to the "utter ignorance of both artists and artisans in these manners."[86] Perhaps in this regard Hardman offered the "increased facilities" that Pugin supported and did not impede but facilitated the return to the skilled production of the Middle Ages.

The scholar and antiquarian Samuel Timmins notes how medieval metalworking techniques which were "wholly dissimilar from those then existing and practiced, may be understood by intelligent practical men, but can hardly be so by the uninitiated."[87] To rectify this deficiency in his work with Hardman, Pugin sought to educate the craftsmen with whom he worked but he faced an immense learning curve which he acknowledges when he states that "the whole restoration has been a series of experiments, everything had to be created from the employer to the artisan."[88] It is interesting that Pugin points out "the utter ignorance"[89] of not only the workmen, but also their employers – he struggled to find men like Hardman – who were willing to take on such a task. Indeed, "[u]ntil Pugin, the craft of hand-raising silver" and working metals were "almost lost arts and it was due to these experiments with

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[84] Pugin, *Some Remarks*, 15.
[85] Pugin, *Some Remarks*, 15.
[86] "Ecclesiastical Ornaments designed from ancient authorities and examples by A. W. Pugin," 194.
[87] W. C. Aitken, "The Revived Art of Metal-Working in the Precious Metals," in *The Resources, Products, and Industrial History of Birmingham and the Midland Hardware District; A Series of Reports, Collected by the Local Industries Committee of the British Association at Birmingham, in 1865*, by the British Association for the Advancement of Science and Samuel Timmins (London: Robert Hardwicke, 1866), 538.
[88] Pugin, *Some Remarks*, 15.
[89] "Ecclesiastical Ornaments designed from ancient authorities and examples by A. W. Pugin," 194.

Hardman that they were revived," albeit slowly.[90] In 1843, five years after the start of their collaboration, Pugin was still adamant about the need for skilled craftsmen and he writes to John Rouse Bloxam, "thurible makers are rare birds at present & we have only one man who can make a good job of them."[91]

At Hardman's Pugin advocated a study of medieval examples as a way of imparting knowledge of the "true thing" found in Gothic art and in so doing advanced the understanding of the principles of design and craftsmanship. Indeed, until Pugin, the craft of working metals was almost a lost art and it was due to his work with Hardman that these skills were revived.[92] It is important to note, however, that the need to revive antiquated methods of metalworking arose from the failure of new manufacturing methods to produce the same quality and effect as handicraft methods. Pugin cautions that "it is only when mechanical invention intrudes on the confines of art, and tends to subvert the principles which it would advance, that it becomes objectionable."[93] Thus, if an item could be produced to a standard that exemplified Pugin's true thing of the Middle Ages, then the use of machinery and technology was not only condoned but encouraged.

That Pugin's production techniques fail to correspond with his published writings was less duplicitous and more pragmatic – the younger Pugin was sent to debtor's prison after the failure of his furniture business so he understood the necessity of producing a quality product at a reasonable price. As Bury notes, "[w]hile in public Pugin extolled the virtues of matching medieval craftsmanship to design, in private he countenanced Hardman's development of a two-tier system of production. The upper, most expensive level largely conformed to Pugin's requirements" whereas "[t]he lower, cheaper, level drew on materials like nickel alloy, electroplated to imitate silver."[94] Indeed, it appears that "Pugin was perfectly well aware of what was going on in the Hardman firm; he may have regretted its necessity, but he clearly accepted it as the inevitable price he had to pay for the propagation of his beliefs."[95]

6.1.2.4 Stained Glass

Dr Jim Cheshire notes how, "[b]etween 1830 and 1860 the demand for stained glass, and the glass-painting profession's capacity to produce stained glass, soared at an

[90] Anthony Symondson, "Bold as Brass," *Catholic Herald* (March 20, 2009), 15.
[91] Belcher, *Collected Letters, Vol. 2*, 35.
[92] Aitken, 171; Symondson, 15.
[93] Pugin, *An Apology for the Revival of Christian Architecture in England*, 40.
[94] Bury, "Pugin and the Tractarians," 16.
[95] Bury, "In Search of Pugin's Church Plate: Hardman and the Industrial Revolution," 33.

unprecedented rate."[96] Certainly, the increase in church building was responsible for the renewed interest in stained glass, and Raguin points more specifically to the growing interest in ecclesiology.[97] Not only did a new market exist for stained glass, but Pugin was also growing increasingly frustrated with the firms he had used in previous projects. This included William Warrington of London who, in 1837, produced Pugin's windows at Oscott College chapel outside Birmingham [fig. 6.19].[98] In her text on the history of Oscott College, Judith Champ notes how, "[i]nfluenced by Pugin, Victorian glassmakers had to reinvent techniques, using the technology of the Industrial Revolution. This window [at Oscott] was the first to be produced by a new method of production perfected by Warringtons."[99]

Pugin's association with Warrington was short lived, as Cheshire states that the stained glass producer "was portrayed as a tradesman dealing with a subject beyond his reach" in *The Ecclesiologist*.[100] Pugin next turned to Thomas Willement but this partnership also ended quickly, with Cheshire discussing how "Willement seems to have been charging relatively high prices in the 1840s" [fig. 6.20].[101] A 28 August, 1841 letter to Lord Shrewsbury, for whom Willement was working, supports this assertion as Pugin complains how "the Glass painters will shorten my days. they are the greatest plagues I have."[102] He explains how "the reason I did not give warrington" a job for stained glass is because "he has become Lately so conceited that he has got nearly as expensive as Willement – & the Newcastle man had not turned up when they were commenced [....] Warrington is a wretched herald."[103] The "Newcastle man" in Pugin's letter was his third stained glass producer, William Wailes who, Cheshire claims, "ran the most successful stained-glass studio in early Victorian England" becoming "the most prolific producer in the country" [fig. 6.21].[104] This association ran from 1841 to 1845 before Pugin moved on to his final producer – John Hardman.

Following Hardman's expansion to new premises at 166 Great Charles Street in 1845, Pugin successfully persuaded him to start the manufacture of stained glass, first hinting at the idea in a letter dated February, 1845. Here Pugin includes the postscript: "I have some great schemes in my head which I will tell you by & bye. it does me good to scheme. I am scheming a stained glass shop-but this only between

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[96] Cheshire, 2.
[97] Virginia Chieffo Raguin, "Revivals, Revivalists, and Architectural Stained Glass," *The Journal of the Society of Architectural Historians* 49 no. 3 (September 1990), 310.
[98] Champ, 11.
[99] Champ, 11.
[100] Cheshire, 45.
[101] Cheshire, 40.
[102] Belcher, *Collected Letters, Vol. 1*, 269.
[103] Belcher, *Collected Letters, Vol. 1*, 269.
[104] Cheshire, 40.

ourselves."[105] Belcher identifies this as "the first intimation in the correspondence of Pugin's conviction that Hardman should make his glass" followed by a letter from September 1845 which mentions "the ushaw windows," undoubtedly referring to the first project of eight windows for Ushaw College.[106]

On 15 February, 1846, Pugin confidently wrote to Lord Shrewsbury, informing him that "I have quite succeeded in establishing my own manufactory for stained glass at Birmingham."[107] By late 1847, Pugin writes to a friend, reflecting how, finding no success with prior collaborators, he "was as anxious as yourself to do something very good & I induced Hardman to set up furnaces & begin."[108] Hardman slowly transitioned away from metalwork as stained glass occupied the bulk of the firm's resources whilst he and Pugin worked exclusively with each other. Their work garnered praise with George Edmund Street in his article on glass painting in *The Ecclesiologist*, remarking how "it would be ungenerous in the extreme if in speaking on such a subject one were to omit mention of the thorough appreciation shown by Mr. Pugin for the true principles of art in this as in other matters in the glass which he has of late been designing."[109]

As with his metalwork, Pugin was much more interested in an impressive finished product than in using medieval methods of manufacture and the same can be said for his work on stained glass. However, this did not stop him from attempting to authentically recreate the quality and depth of colour found in medieval glass. To this end he established a workshop at The Grange, his family home in Ramsgate. In a memoir written late in life, John Hardman Powell reflects on how Pugin "built a Cartoon Room in his Garden, covered its walls with fine carvings and casts, and got Hardman to send youths who shewed marked gifts for Art, from the works at Birmingham to be trained by himself."[110]

While Pugin's supervision of workmen meant he could ensure they were producing designs that met his standards, he was also able to experiment on recreating the techniques of glass production using modern technology. For example, in the Conservation Plan for The Grange, Paul Drury suggests that a small building was erected next to the cartoon room, extending to the north-east in the area currently occupied by the gated entrance. Drury notes that the "shadow [of the former

[105] Belcher, *Collected Letters, Vol. 2*, 343.
[106] Belcher, *Collected Letters, Vol. 2*, 344.
[107] Belcher, *Collected Letters, Vol. 3*, 29.
[108] Belcher, *Collected Letters, Vol. 3*, 272. Letter to Charles Newsham, 22 August, 1847.
[109] George Edmund Street, "On Glass Painting," *The Ecclesiologist* 13 no. 91 (August 1852), 245.
[110] Wedgwood, "Pugin in His Home," 184.

extension] is still visible as a clean area on the east wall of the cartoon room."[111] Drury suggests that the lack of algae is indicative of brickwork which has "been used in connection with metal-working, probably involving lead" since "brickwork having been exposed to lead vapour would not support algal growth."[112] Although not definitive, this could have originated from "lead working – presumably soldering of cames" for the production of stained glass windows.[113] Rather than leaving stained glass production up to Hardman alone, Pugin also took an active role in achieving the desired colours and consistency for his glass. This also shows that not only did Pugin want to educate workers on draftsmanship, he also guided them on actual manufacturing techniques.

6.2 Wallpaper, Furniture – Crace

Pugin's interest in furnishing both sacred and secular spaces extended beyond metalwork and stained glass to encompass furniture, carpets, wallpaper, floor tiles, and various other fixtures and fittings. Pugin used *True Principles* to set out his rules for design and in *Contrasts* he framed these beliefs in the context of architecture, although these tenets are also applicable to designed objects. Pugin even states that he "feels confident that [he] could extend this principle throughout all the branches of what are termed the fine arts" although he declines to do so.[114] Instead these beliefs are enunciated in the conclusion to *Contrasts*, titled "On the Wretched State of Architecture at the Present Day."[115]

6.2.1 "Sham" Materials

Here Pugin rails against the use of "sham" materials including cast iron, papier-mâché, plaster, stucco, gutta percha, and "a host of other deceptions that only serve to degrade design, by abolishing the variety of ornament and ideas as well as the boldness of execution, so admirable and beautiful in ancient works."[116] Ferrey describes how it was Pugin "who first exposed the shams and concealments of modern architecture, and contrasted it with the heartiness and sincerity of mediæval work."[117] Pugin begins by pointing out the work at Windsor Castle where "the vile scroll-work" is the production of "the plasterer and the putty presser, instead of the sculptor and the artist" [fig.

[111] Paul Drury, The Grange, Ramsgate, Kent: Conservation Plan (unpublished report, Landmark Trust, February 2001), 18.
[112] Drury, 18.
[113] Paul Drury, e-mail message to the author, 27 January, 2020.
[114] Pugin, *Contrasts* 1836, 30.
[115] Pugin, *Contrasts* 1836, 30.
[116] Pugin, *Contrasts* 1836, 35. See section 3.1.3.6 for a discussion of Pugin's opposition to cast iron.
[117] Ferrey, 106.

6.22].[118] He attributes the popularity of techniques like this to it being "cheap – that is, it is cheaper than what an artist can design and produce," being passed off as evidence of taste and refinement, when in reality, it only displays "a love of cheap, gaudy, and vulgar show."[119] Pugin further elucidates his view on imitation materials in a letter to *The Builder* of 23 March 1850 where he states that he has "always endeavoured to set forth that most important principle of *reality, both in design, material, and construction*, and of scrupulously avoiding all shams, or dressing-up of buildings with unreal features."[120]

One composite material gaining popularity in the Victorian era was papier-mâché. Originating as an inexpensive substitute for carved ornament, it was "completely transformed by the introduction of steam-powered presses in the 1830s" wherein "a large mass could be cast in a single mold, rather like plaster."[121] The 'false' nature of papier-mâché and its presentation as another, more expensive material, was against Pugin's design standards. It is not known whether Pugin would have felt papier-mâché was appropriate if it were not employed under false pretences. That said, it is difficult to imagine a scenario where papier-mâché was not used in place of another material. Its lack of strength prohibited its use in furniture or architecture and instead it only appeared as ornament in place of more costly materials or processes.

An article in the *North Devon Journal* of 1851 suggests that the light and sturdy nature of papier-mâché has "led to the employment of it in the decoration of our theatres."[122] Whether they are suggesting that the theatre buildings themselves are decorated with the material or whether papier-mâché is used to dress the stage is not clear. Certainly, the low cost and light weight would be ideal for the production of stage scenery and props which could be quickly and easily moved during scene changes. This connotation could have been off-putting to Pugin as he knew that, by their very nature, theatrical productions centred on a realistic facade and not much else. His desire for his own goods reached beyond a surface appreciation and therefore required a different material fit for purpose.[123]

6.2.2 Collaboration with Crace

[118] Pugin, *Contrasts* 1836, 32.
[119] Pugin, *Contrasts* 1836, 35.
[120] A. Welby Pugin, "How shall we build our churches?" *The Builder* 8 no. 372 (March 23, 1850), 134. Here Pugin explicitly uses the derogatory term "sham" to refer to imitation materials.
[121] Adamson, 83.
[122] "The Great Exhibition," *North Devon Journal* (November 27, 1851), 2.
[123] The *North Devon Journal* suggested that "[t]he House of Lords may be adduced as a very remarkable example" of the decorative use of papier-mâché, seemingly suggesting that the material was used in the decoration of the chamber, but no further evidence of this has been forthcoming. "The Great Exhibition," *North Devon Journal*, 2.

Finding individuals who could produce his necessary furnishings while maintaining his standards was invaluable to Pugin and for this purpose he turned to the London decorator John Gregory Crace, who was able to create furniture pieces as well as soft furnishings such as draperies, carpets, and wallpaper [fig. 6.23]. As part of a family of decorators, Crace was able to draw upon a vast range of experience to produce these goods.

The Crace firm was established in 1768 by Edward Crace, John Gregory Crace's great-grandfather. In her survey of the family's output, Megan Aldrich notes how the Crace firm took "an active role in designing the decoration of interiors and furnishings [....] of the leading decorative schemes of the day," including "supplying and installing wallpapers, textiles, and upholstery for fashionable interiors, as well as arranging furniture and decorative objects."[124] Aldrich describes how the family worked in "the predominant styles of the day": rococo, neo-classicism, orientalism, and chinoiserie.[125] They were not known for their production of gothic items at this early stage and, as Aldrich notes, the firm's use of the Gothic style only "became more accurately observed and more archaeological in character as a direct result of the influence of Pugin."[126]

The exact circumstances under which Pugin and Crace became acquainted are unknown; Aldrich remarks that the two met after being "introduced at Alton Towers, Staffordshire, by Lord Shrewsbury"[127] and Wedgwood concurs that their mutual friend was the likely connection.[128] O'Donnell notes that "[a]lthough there was not the same close collaboration with Crace as there was with Hardman," the surviving collection of letters and drawings "does establish the high level of Pugin's involvement in the decorative schemes on the edge of his own architectural *oeuvre*."[129]

Although he might not have realized it at the time, Pugin had been exposed to the Crace family's work during his time in the theatre. A survey in *The Journal of Decorative Art*: *An Illustrated Technical Journal for the House Painter, Decorator, and all Art Workmen* focusing on the Crace firm as the first in their series on "Celebrated House Decorators" discussed the origins of the company, pointing out how

[124] Megan Aldrich, "The Georgian Craces, *c.* 1768 to 1830," in *The Craces: Royal Decorators 1768-1899*, edited by Megan Aldrich (London: Murray, 1990), 3.
[125] Aldrich, "The Georgian Craces, *c.* 1768 to 1830," 4.
[126] Megan Aldrich, "The Victorian Craces, *c.* 1830 to 1899," in *The Craces: Royal Decorators 1768-1899*, edited by Megan Aldrich (London: Murray, 1990), 74.
[127] Aldrich, "The Victorian Craces, *c.* 1830 to 1899," 68.
[128] Alexandra Wedgwood, "J.G. Crace and A.W.N. Pugin," in *The Craces: Royal Decorators 1768-1899*, edited by Megan Aldrich (London: Murray, 1990), 137.
[129] Roderick O'Donnell, "London, V. & A. Architectural Drawings," *The Burlington Magazine* 127 no. 991 (October 1985), 724.

John Crace (1754-1819), grandfather of John Gregory Crace, completed work at both Drury Lane and Covent Garden Theatres.[130] The nature of the decorative work undertaken at the theatres is unknown and Pugin may have approached these with indifference. However, Pugin would have taken umbrage with the "extensive and important works" undertaken for the classical architects Robert Taylor and James "Athenian" Stuart.[131] Crace also decorated two ceilings for John Soane at his home at 12 Lincoln's Inn Fields, as depicted in watercolours of Joseph Michael Gandy [fig. 6.24].[132] Crace's trellis and vine on the ceiling of Soane's breakfast room is precisely the sort of illusionistic design Pugin despised and it is surprising that he either was not aware of the relationship between the two Craces or he had seen enough of the younger man's work to realize his capabilities extended beyond that of his grandfather.

Pugin first mentions Crace in a letter to Lord Shrewsbury in August 1841, and the first recorded correspondence between the two begins in January 1844.[133] In March of that year, Pugin writes to Crace regarding "a paper for the ceiling of the bed room which could be pasted up at once instead of being composed of strips."[134] This hints at the new developments in wallpaper production, which Pugin and Crace seized upon, and it is worth examining this development in greater detail as it illustrates Pugin's willingness in adapting new production methods.

6.2.2.1 Wallpaper Printing and Machinery

The history of wallpaper is outwith this study. Suffice it here to mention that Morton dates the first instance of wallpaper manufacture in England to 1692, when these "earliest attempts are supposed to have been in imitation of the tapestry, velvet, silk, linen, and cotton hangings then in fashion, and they were naturally called Paper Hangings."[135] These papers were literally just that – papers, rather than a continuous roll, and Ackerman describes how "[e]ach sheet was painted separately and formed a separate panel of the design."[136] By the sixteenth century the blocks used to print paper hangings "were very long – some more than two yards," making them difficult to

[130] "Celebrated House Decorators, A History of the Most Distinguished Decorating Firms in Great Britain. No. 1 – John G. Crace & Son, Wigmore Street, London, W," *The Journal of Decorative Art: An Illustrated Technical Journal for the House Painter, Decorator, and all Art Workmen*. 1 no. 7 (July 1881), 81 (hereafter cited as "Celebrated House Decorators").
[131] "Celebrated House Decorators," 81.
[132] Aldrich, "The Georgian Craces, *c*. 1768-1830," 10.
[133] Belcher *Collected Letters, Vol. 2*, 152-153.
[134] Belcher, *Collected Letters, Vol. 2*, 181.
[135] George H. Morton, *The History of Paper Hangings: With a Review of Other Modes of Mural Decoration; Read Before the Architectural and Archæological Society of Liverpool, February the 10th, 1875* (Liverpool: G.H. Morton, 1875), 19.
[136] Phyllis Ackerman, *Wallpaper, its history, design and use: with frontispiece in colour and numerous illustrations from photographs* (London: William Heinemann Ltd., 1923), 6-7.

work with, so necessitating improved methods of printing papers.[137] In 1753 Edward Deighton obtained a patent for a "method [that] consisted of etched or engraved plates of metal. The design was impressed on paper under a rolling mill, and then painted or coloured by hand, with pencils."[138] On 18 March, 1786 Jacob Bunnett was granted a patent "for 'a machine for the printing of paper-hangings'."[139] By 1800, Sugden and Edmondson estimate that there were "some 150 'paper-stainers,' that is, block printers or 'marble' paper makers, or both, in existence in this country."[140]

Developments in paper printing were constrained by governmental regulations. Sugden and Edmondson note that even though "attempts were made during the second half of the 18th century to increase wallpaper production by mechanical means [....] the continuous roll of paper necessary for the great expansion of the industry was not a practicable attainment."[141] The Georgian Group describes how a tax of 1*d* per square yard was levied in 1712, increased in 1809, and was finally repealed in 1836.[142] The repeal of this "noxious tax" which "weighed down the spirit, and clogged the energies of the manufacturer" led to a development of continuous lengths of wallpaper.[143] Gradually, a series of producers began to develop machine-driven processes for wallpaper printing, with the most notable being William Troutbeck of Liverpool who, in 1838, "claimed to have used a calico printing machine" for this purpose [fig. 6.25].[144]

6.2.2.2 Pugin's Attitude Towards Wallpaper Production

Although not opposed to the use of machinery in creating his wallpapers, Pugin insisted his designs be hand-printed to maintain the high quality of craftsmanship he sought. The exact reasons for this decision are not precisely spelled out, but one can glean insight into his possible motivation.[145] Regarding printing for book illustrations, Pugin tells Hardman that the plate "must be a Wood Block" because "nothing but wood will ever get the richness [....] a [metal] plate is beastly."[146] It could be that Pugin's

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[137] George H. Morton, 21.
[138] George H. Morton, 22.
[139] Alan Victor Sugden and John Ludlam Edmondson, *A History of English Wallpaper, 1509-1914* (New York: C. Scribner's Sons, 1926), 115.
[140] Sugden and Edmondson, 135. As the authors are writing in 1926, their use of the phrase "this country" refers to the United Kingdom.
[141] Sugden and Edmondson, 114.
[142] Georgian Group, *Wallpaper: A Brief Guide to the History, Design and Restoration of Georgian Wallpaper* (London: Georgian Group, 1991), 5.
[143] [Charles] Cowtan, "On Paper-Hangings," *The Builder* 2 no. 89 (October 19, 1844), 526.
[144] Sugden and Edmondson, 127.
[145] Linda Osband, *Victorian Gothic House Style* (Newton Abbot: David & Charles, 2003), 132. Osband writes how "[d]espite all the new technology, Pugin's papers had to be hand-printed and were therefore costly to produce," but does not explain the reasoning for this statement.
[146] Belcher, *Collected Letters, Vol. 2*, 472.

opinion was based on the quality of detail available in block versus machine printing, and he applied this reasoning to wallpaper as well. Pugin also speaks of "the great facility by which the *same wood block can be altered*" as to repurpose the design for additional uses. This would certainly be more difficult if not impossible to achieve on a metal cylinder used in mechanized printing processes. He writes to John Henry Newman in March of 1844 regarding the re-use of a design, informing him how, "with a little alteration the same block might be made available for many subjects."[147] This adaptability may explain why Pugin preferred to use the older technique of block printing to the newer mechanized process.

Documentation outlining the contents of Crace's workshops and what machinery, if any, was present has not been located. What is known is that the Crace firm had premises at 14 Wigmore Street which they extended to the building behind them on Little Welbeck Street [fig. 6.26].[148] The *Survey of London* describes how "houses with rear access were attractive to businesses requiring space" and from "the early 1840s most of the gardens were wholly or partly built over with showrooms, warehouses, workshops, and counting houses."[149] An article in *The Literary World* from August 1839 describes the nature of "Mr. Crace's Studio":

> We enter a small shop of a plain and subdued character, with a few decorative patterns lying about, and then proceed through a passage, into the studio. This consists of three compartments thrown into one suite, and is fitted up with all the richness of a nobleman's library.

It seems that the portion of the premises viewed by *The Literary World* was devoted to displaying Crace's goods in rooms fitted up to a particular style. However, in her entry on Crace & Son in *The Encyclopedia of Interior Design*, Aldrich notes how Andrew Spencer Cavendish, the 6th Duke of Devonshire, "suggested [Crace] add cabinet-making to his business, and workshops in Little Welbeck Street and Welbeck Mews, behind the Wigmore Street showrooms, were established."[150] This seems to indicate that provisions for manufacturing goods were included, perhaps at a later date, but definitely within the timeframe for Pugin to visit.

Whether Crace opted to produce his wallpaper designs on-site is also unknown, but if he chose to do so, the premises would have taken on characteristics similar to other workshops documented elsewhere, including in Crace's own description of the "History of Paperhangings" taken from a paper of the same name, presented before the Royal

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[147] Belcher, *Collected Letters, Vol. 2*, 175.

[148] London County Council, *Survey of London: pt. 1 South-East Marylebone, Vol. 51*, edited by Andrew Saint, Philip Temple, and Colin Thom (London: University of London, 2017), 259.

[149] London County Council, *Survey of London: pt. 1 South-East Marylebone, Vol. 51* edited by Andrew Saint, Philip Temple, and Colin Thom (London: University of London, 2017), 259.

[150] Joanna Banham, ed., *The Encyclopedia of Interior Design*, (London: Routledge, 2015), s.v. "Crace & Son."

Institute of British Architects in 1839. Here Crace describes "three modes in which paperhangings were manufactured. By printing the outline with blocks and then colouring by hand; by stencilling; and by blocks alone" and noting how "[t]he third is the mode now almost universally adopted in this manufacture, whereby every colour is applied by a separate block, according to the tints and shadows intended to be represented."[151] Utilizing carved blocks to print wallpaper designs involved more physical exertion than mechanized production, although advancements in materials – particularly rolls of paper rather than individual sheets – lessened the toil.

Crace describes how a background colour is first applied, where a "workman with two large brushes filled with colour, one in each hand, passes them over the paper with a circular motion, and as each piece is completed it is supported and carried by the attending boy on a stick, and placed on the rack to dry."[152] He then describes the printing process "which is performed by means of blocks."[153] Here "[t]he colour with which the printing is to be performed [...] is spread with a brush on what is called the sieve – & wooden frame covered with a blanket."[154] Acting like a stamp on an ink pad, "the block is pressed on this and then applied to the paper, on which it leaves the impression of the design."[155] Blocks are needed for each colour utilized, and Crace describes how "in order that the second block may be placed exactly in its proper situation, you perceive that there are pin marks in each block corresponding with each other, and on the marks printed by the first block the pins of the second block are placed, and the pattern is thus completed with the required correctness."[156]

A better sense of this process can be gleaned from visual representations of manufacturing. An article by the French wallpaper manufacturers Jules Desfossé and Hyppolite Karth on "The Manufacture of Paper Hangings" includes illustrations depicting the interior of a workshop.[157] The image titled "Grounding" shows a group of three workers applying a base colour to a length of paper laid out on a long table [fig. 6.27]. A second image, labelled "Printing" depicts workmen pressing blocks onto what is presumably this same paper, having been readied for its design [fig. 6.28]. The men use purpose-built equipment amounting to a second-class lever,[158] to wield the heavy

[151] [J.G.] Crace, "History of Paperhangings," *The Civil Engineer and Architect's Journal* 2 no. 19 (April 1839), 140.
[152] Crace, 140.
[153] Crace, 140.
[154] Crace, 140.
[155] Crace, 140.
[156] Crace, 140.
[157] [Jules] Desfossé and [Hyppolite] Karth, "The Manufacture of Paper Hangings," *The Practical Magazine* 3 no. 14 (1874), 101-105.
[158] William Ballantyne Anderson, 113. In this example, the fulcrum is at one end, the load (printing block) in the middle and the force (workman and apprentice) at the opposite end.

blocks into position, which a boy sits on the opposite end of a long wooden arm to provide additional leverage.

In the *Dictionary of Arts, Manufactures, and Mines*, 1845, Andrew Ure describes how "[a]n expert workman, with one or two children, can lay the grounds of 300 pieces in a day" which are then "suspended upon poles near the ceiling, in order to be dried."[159] While the drying racks are not shown in the previous image, the upward angle of the paper as it moves off the printing table suggests it is being elevated for this purpose.

Although wallpaper printing machinery may have been available, it appears from these illustrations that manufacturers still heavily relied on hand printing. In his description of the printing process, Crace mentions such machinery, designed to expedite the process. He includes an "ingenious machine" that uses three brushes to "completely and evenly" colour the ground and a "method of printing" by Messrs. Archer and Teverner which used "the labour of merely turning a lever handle, which is done by a boy."[160] The equipment in the latter method was "found, however, too cumbrous to move."[161] He also mentions "[a]nother important mechanical contrivance" capable of printing striped papers "with great exactness and clearness by a machine in lieu of' blocks."[162] However, this machinery would be of no use as Pugin never printed striped papers, instead relying on block printed motifs. It is equally important to note that while Pugin rejected mechanized production for printing his wallpaper designs he did so out of concern for quality, adaptability, and control of the creative process, not because of the social consequences of the machine replacing the worker.

In some of his first correspondence with Crace dated 22 March 1844 regarding papers for Alton Towers, Pugin asks that he "be so good as to get a block cut [for the wallpaper] from the drawing I herewith send you."[163] The block cutting process required drawing a mirror image of the design onto a slab of pear wood and then removing the negative space so the final design forms a raised pattern.[164] On 4 November, 1844 Pugin asks Crace to "take great care of My Paper Blocks" as these represented a great investment in time and effort, similar to the dies created by Hardman.[165] Whether something happened between Pugin's first letter to Crace of 22 March that year to his plea for greater care of his printing blocks eight months later is unknown. However, it appears that Pugin placed great value in his printing blocks,

[159] Ure, 921.
[160] Crace, 140.
[161] Crace, 140.
[162] Crace, 141.
[163] Belcher, *Collected Letters, Vol. 2*, 181.
[164] Crace, 140.
[165] Belcher, *Collected Letters, Vol. 2*, 273.

regarding them as investments, and he sought to maintain control over their use to prevent the unauthorized duplication of his designs.

After discovering that Crace printed a paper using one of his designs without permission, Pugin writes demanding that Crace "explain to me how it is you have supplied a gentleman [...] with *my own paper*."[166] Pugin implies that, having "paid for the Blocks", the design belongs to him. He is quite upset about seeing the design "which is quite a family thing hawked about as a *mere pattern* & in the posibility of finding its way into a tap room [....] if any quantity has been sent out pray let me know & I will instanly paint my walls & cut paper for ever."[167] While the specific design is not mentioned, given that Pugin refers to a family connection and that the same design appeared on his own walls, he could be referring to the "en avant" paper at The Grange which feature his family motto and crest [fig. 6.29]. Regardless of design, Pugin resolutely concludes, "I thought if I paid for the blocks they became my own property as much as a copper plate."[168]

There were other areas of wallpaper manufacture in which Pugin could not deny the advantages offered by mechanisation. Several of Pugin's wallpapers were flocked, wherein the wallpaper pattern was printed using glue and then small fabric particles were applied to give it texture and tactile appeal. Pugin felt these papers offered "an admirable substitute for the ancient hangings" of tapestries found on the stone walls of medieval castles.[169] Machines were used to feed the wallpaper roll in a continuous straight line while another machine with sticks beat the underside of the wallpaper to equally disperse the flocking and ensure that all areas of glue would be covered. These machines, as well as the original Pugin printing blocks, are still in use today at Cole and Son, the firm that acquired Crace's designs.

Even though Pugin used an older, more time-consuming process for printing his designs, he still paid great attention to pricing for his clients. He writes to Lord Shrewsbury in mid-March 1845, complaining that he was blamed "for *advocating* the same pattern for Sitting room & bed room ceilings" which, he states, was done to save on the cost of carving additional designs. Pugin pleads that he did so "with the best & most *economical* intentions" in an attempt to "combine economy with taste."[170] The same could be said about his suggestion to Newman that wooden printing blocks could be reused and adapted to feature a new design.

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[166] Belcher, *Collected Letters, Vol. 3*, 46.
[167] Belcher, *Collected Letters, Vol. 3*, 46.
[168] Belcher, *Collected Letters, Vol. 3*, 46.
[169] Pugin, *True Principles*, 26.
[170] Belcher, *Collected Letters, Vol. 2*, 362-363.

6.2.2.3 Principles of Pattern Design

Technology may have advanced to allow the production of wallpaper *en masse*, but to Pugin, what was being produced was the worst sort of design. In *True Principles* he complains about these "absurdities" for "hanging walls, where a wretched caricature of a pointed building is repeated from the skirting to the cornice in glorious confusion,—door over pinnacle, and pinnacle over door [fig. 6.30]."[171] Pugin focuses on the use of shading in patterns to imitate depth, railing against "the extreme absurdity of *repeating a perspective* over a large surface with some hundred different points of sight" as being unnatural and a form of deceit.[172] He notes the failure of wallpapers that attempt to appear three dimensional, "for, as a paper is hung round a room, the ornament must frequently be shadowed on the light side."[173] To appear accurate, each wall would need a different design showing the direction of shading in relation to the light source. Instead, these wallpapers with their three-dimensional illusionary patterns give a false sense of depth and in no way constitute a pattern acceptable for repetition across a large area.

This same concept regarding the use of shadow to represent high relief is applied to the design of carpets which feature shaded patterns. The idea of walking upon carpets which use trompe l'oeil representations is absurd to Pugin and he states "[n]othing can be more ridiculous than an apparently *reversed groining* to walk upon, or highly relieved foliage and perforated tracery for the decoration of a floor."[174] Instead he suggests that carpets "should be treated in precisely the same manner" as encaustic tiles which are "ornamented with a pattern not produced by any apparent relief, but only by *contrast of colour*."[175]

Late 1847 into 1848 sees Pugin's correspondence with Crace focus on patterns for carpets. One such example dates from 10 February, 1848 when Pugin writes "I found 2 patterns which I think would make beautiful carpets so I have drawn them out for carpet width."[176] In November 1849, having encountered success with their wallpaper production, Pugin writes to Crace, suggesting that they "must have a turn at *Carpets* next – let us reform them altogether."[177] Here he points to "ancient paving tiles" which

[171] Pugin, *True Principles*, 25.
[172] Pugin, *True Principles*, 25.
[173] Pugin, *True Principles*, 23.
[174] Pugin, *True Principles*, 23.
[175] Pugin, *True Principles*, 26.
[176] Belcher, *Collected Letters, Vol. 3*, 429.
[177] Belcher, *Collected Letters, Vol. 3*, 304.

are “merely ornamented with a pattern not produced by any apparent relief, but only by *contrast of colour*,” and suggesting that carpets be treated in the same manner.[178]

He continues on to other soft furnishings, including draperies whose original function was to block out drafts and cold temperatures but had become merely “endless festoons and bunchy tassels.” [179] Pugin states that these modern draperies are “contrary to the use and intentions of curtains, and [are] abominable in taste” as they fail in their original purpose and become “depositories of thick layers of dust” and, “not unfrequently become the strong-holds of vermin.”[180] In his discussion of curtains and fabrics, Pugin delves into the minutiae surrounding the acceptable uses of fringe. Bordering on the pedantic, he states that fringe was originally the selvage edge of a fabric which was knotted to prevent unravelling and wastage. He complains that fringe is now manufactured “as an ornamental edging,” offering the example of fringe comprised of “turned *pieces of wood*” which is applied randomly across the fabric, no longer confined to the edge [fig. 6.31].[181] Whether made by hand or machine, the introduction of fringe as an extraneous feature rather than an organic part of the original fabric is nothing more than a deceit to which Pugin objects. What was once a necessity for fabrics has become an ornamental device, no longer fulfilling its original use.

Moving beyond materials to appearance, Pugin also addressed pattern designs found in wallpapers and carpets. Guild notes how, in addition to his complaint about three dimensional depictions on flat surfaces, Pugin also based his objection on the fact that “direct, almost photographic, copying of nature did not constitute a pattern.”[182] In *True Principles*, Pugin addressed what he found objectionable and in *Floriated Ornament* of 1849, he identified nature as the source of decoration in ancient examples. According to Pugin, medieval designers “disposed the leaves and flowers of which their design was composed into geometrical forms and figures, carefully arranging the stems and component parts so as to fill up the space they were intended to enrich.”[183] These artists succeeded in representing natural forms “in such a manner as not to destroy the consistency of the peculiar feature or object they were employed to decorate, by merely imitative rotundity or shadow.”[184]

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[178] Pugin, *True Principles*, 24.
[179] Pugin, *True Principles*, 27.
[180] Pugin, *True Principles*, 25.
[181] Pugin, *True Principles*, 25.
[182] Robin Guild, *The Victorian House Book: A Practical Guide to Home Repair and Decoration* (London: Sheldrake Press, 2008), 190.
[183] Pugin, *Floriated Ornament*, [2].
[184] Pugin, *Floriated Ornament*, [2].

Pugin describes *Floriated Ornament* as "the means of leading designers back to *first principles*" and includes coloured plates to serve as a "sketch of what can be produced on those principles."[185] Although published in 1849, Pugin himself had employed these design techniques throughout his career, and examples of stylized floral flat patterns can be found in his work with Crace, particularly in wallpaper designs. Aldrich remarks how "Pugin's stress on the appropriateness of ornament and on the uniting of form with function as set forth in his various writings was enthusiastically, if on occasion inappropriately, seconded by J. G. Crace."[186] In response, "Crace's Gothic became more accurately observed and more archaeological in character as a direct result of the influence of Pugin."[187]

6.2.3 The Pugin Crace Working Method

Pugin provided Crace with a wide array of designs for wallpaper and carpets, producing over one hundred patterns for the Palace of Westminster alone [fig. 6.32].[188] Pugin often sent these designs by post, and Suzanne Fagence Cooper of the Victoria and Albert Museum notes that many of these drawings amount to little more than a rough sketch; she describes how Pugin merely suggests elements for inclusion, that "he doesn't need to fill in all the details now because his designers know how to work with him, they're so familiar with his ideas [....] It is one of the ways he managed to be so productive."[189] Crace's ability to extrapolate the finished design to create a finished product made him an invaluable asset to Pugin.

Over time, Crace proved himself a worthy decorator of sound judgment, and Pugin increasingly depended upon him to flesh out his designs. In addition to sending snippets of a design, Pugin further instructs Crace to "*adapt the sizes* of the ornaments I send you to the actual spaces,"[190] having previously suggested that Crace "try other colours – & make any improvement you can – keeping to the principle."[191] For the production of carpets, in 1849 Pugin writes "I leave the colours to you for they are so various in carpets – & the same pattern can be worked to so many different colours."[192] Flores identifies how "the technique of changing coloration and manipulating a few words or phrases to create new ornamentation was fundamental to [Pugin's] designs,

[185] Pugin, *Floriated Ornament*, [3].
[186] Aldrich, "The Victorian Craces, *c.* 1830 to 1899," 73.
[187] Aldrich, "The Victorian Craces, *c.* 1830 to 1899," 73-74.
[188] Osband, 133.
[189] Suzanne Fagence Cooper, in Tony Robinson, "The God of Gothic: A Time Team Special" (Channel 4 [UK], 1 March, 2007), 30:50.
[190] Margaret Belcher, *The Collected Letters of A.W.N. Pugin, Vol. 4 1848-1850* (Oxford: Oxford University Press, 2012), 261 (hereafter cited as *Collected Letters, Vol. 4*).
[191] Belcher, *Collected Letters, Vol. 3*, 79.
[192] Belcher, *Collected Letters, Vol. 3*, 429.

enabling them to create hundreds of patterns for wallpaper, textiles, and carpets in a brief period."[193]

6.2.3.1 Furniture Production

This working method extended in later years to encompass furniture designs as well. Looking at an octagonal table designed for Eastnor Castle, Atterbury describes how Pugin produced a sketch of the marquetry and, upon its receipt, "Crace could extrapolate the whole pattern around the table, work it out. There might be an overall sketch for the whole [table], but that was enough" to complete the finished product [figs. 6.33, 6.34].[194]

Although Pugin did not exclusively depend on Crace to produce his furniture, on occasion turning to antique dealers Edward Hill, John Webb, and John Swaby for pieces, Crace is perhaps the best known of his producers.[195] The working relationship between the two men extended to Pugin supplying furniture designs to be manufactured and sold in Crace's workshop and showroom. While most of these designs were completed to Pugin's exacting standards, there were times when Crace interpreted and even altered the designs to suit his own needs. Throughout their working relationship Pugin tried to "convince Crace that there was a market for simple honestly constructed [furniture] pieces."[196] However, Crace "had not been accustomed to catering for anything less than the gentry"[197] and his familiarity with producing upscale, high-end pieces resulted in "the manufacture of only the more elaborate and therefore more profitable Pugin designs."[198] Nonetheless, throughout their correspondence Pugin repeated his belief in the need to make simple and affordable furniture for domestic settings. In a letter dated 28 October, 1849, Pugin writes, "I do not think we make enough *plain* furniture. I shall send you a lot of designs for *plain* things & furniture" as he is "sure these are very much wanted indeed & would take well."[199] Pugin repeats his request, writing only days later on 30 October that he is "so anxious to induce a sensible style of furniture of good oak & *constructively* put together that shall compete with the vile trash made & sold."[200] According to Pugin,

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[193] Carol A. Hrvol Flores, "Engaging the Mind's Eye: The Use of Inscriptions in the Architecture of Owen Jones and A. W. N. Pugin," *The Journal of the Society of Architectural Historians* 60 no. 2 (June 2001), 173.
[194] Paul Atterbury, in Robinson, "The God of Gothic: A Time Team Special" (Channel 4 [UK], 1 March, 2007), 31:40.
[195] Wedgwood, "The Early Years," 31.
[196] Wainwright, "Furniture," 141.
[197] Hill, *God's Architect*, 426.
[198] Clive Wainwright, "The Early Victorian Interior," in *The Decorative Arts of the Victorian Period*, edited by Susan M. Wright (London: Thames and Hudson, 1989), 13.
[199] Belcher, *Collected Letters, Vol. 4*, 261.
[200] Belcher, *Collected Letters, Vol. 4*, 266.

"the great sale will be in articles that are within the reach of the middling class" and the designs sent to Crace are "very simple & I am certain with a litle practice they can be made to pay – & sell well."[201]

These "plain pieces" for the middle class included Pugin's structural tables [fig. 6.35]. First produced in 1838 for Saint Mary's College in Oscott and later appearing at St Mary's Convent in Handsworth and King Edward Grammar School, these tables were designed to be produced in a multitude of sizes, from bedside to dinner hall. By following his "true principles", the table's revealed construction, minimal decoration and "strong functionalism" indicate a proto-modernist tendency which Pugin would not live to fully explore.[202] This design would continue to intrigue Pugin throughout his career so much that Pugin urged Crace to "frame a Dozen of each to make them Pay – & keep them all ready seasoned for putting together at a day's notice keeping one of a sort always on shew."[203]

Pugin's interest in revealed construction extended to tusked tenon joints. As Wainwright summarizes, "Pugin saw clearly that the use of pegs, complex tenon, and especially tusked tenon joints" as found in the carpentry of ancient buildings "was as applicable to modern furniture as it had been to medieval furniture. He realized that in the Middle Ages the carpenter and joiner had made both large timber structures and furniture applying the same structural principles to both."[204] One of the first examples of Pugin's use of the tusked tenon joint can be found in the design of his Hall Chairs. Most likely meant for his own home, the design makes use of Pugin's decrees for revealed construction while engaging the Middle Ages in a dialogue with modernity.

It is significant that many of Pugin's furniture pieces combine medieval precedents with modern elements, be it in the item's style, intent, or method of manufacture. Perhaps most strikingly forward-looking was Pugin's flat pack furniture [fig. 6.36]. Stylistically similar to his structural tables, these pieces were made of prefabricated components that would be assembled at home by the consumer. These tables were never mass produced as one can imagine Crace refusing to manufacture or market them. It is tantalizingly frustrating that very little information can be found about this scheme, although their existence is noted in several respected publications. The Catalogue of the Exhibition *A.W.N. Pugin: Master of Gothic Revival* mentions the existence of the flat pack table, stating that Pugin "designed a version [of the structural

[201] Belcher, *Collected Letters, Vol. 4*, 265-266.
[202] One such table, produced for Horsted Place in Sussex, was manufactured by John Webb and is now on display at the Victoria and Albert Museum.
[203] Belcher, *Collected Letters, Vol. 4*, 265-266.
[204] Wainwright, "Furniture," 133.

table] that could be made to be packed flat in component form for easy assembly at home."[205] Wainwright notes that tables of this type "could have been sold in 'flat packs'" where "all that is needed is to insert the pegs to lock the stretcher in place and turn the cleverly designed L-shape blocks screwed under the table top into the slots in the table frame to secure the top."[206] While research has failed to reveal finished pieces or prototypes for this table, Pugin's correspondence and sketches featuring joints and constructional diagrams hint at the possibilities. Nonetheless, Pugin's flat-pack pieces are "a reflection of his eagerness to make modern Gothic a genuinely universal style."[207]

6.3 Encaustic Tiles – Minton

As Pugin expanded his repertoire to address complete interior schemes, he needed to find additional suppliers and manufacturers for the goods outside Crace's remit. As previously noted, Crace produced carpets and floor coverings for Pugin, but there were instances where more durable flooring was required. Following medieval precedent, Pugin "saw the restoration of medieval-style encaustic floor-tiles as an essential part of his revival of Gothic architecture."[208]

Ferrey claims that "[a]mong the various objects occupying Pugin's attention, not one received a greater share than the revival of the manufacture of encaustic tiles."[209] Pugin collected medieval examples from England and the continent, including "Tiles from the foundations of Merton College, Oxford" and "Tiles from the Ducal Palace of Caen", both given by "A.W. Pugin Esq." for inclusion in the museum of architectural antiquities Pugin established at St Mary's College, Oscott [fig. 6.37]. In his survey of Merton College, Henry Julian White identifies Merton as "the oldest [college] in either Oxford or Cambridge" and dates its foundation to 1264, placing it within the medieval era.[210] In his unfinished autobiography, Pugin describes visiting Caen in 1823 to assist his father with sketching and measuring, presumably for the latter's publication *Specimens of the Architectural Antiquities of Normandy* in 1827. Pugin describes how

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[205] Paul Atterbury, et al., "Catalogue of the Exhibition," in *A.W.N. Pugin: Master of Gothic Revival*, edited by Paul Atterbury and Megan Brewster Aldrich (New Haven: Published for the Bard Graduate Center for Studies in the Decorative Arts, New York by Yale University Press, 1995), 352.

[206] Wainwright, "Furniture," 142.

[207] Atterbury, et al., 352.

[208] Michael Fisher, "Pugin's Designs and Minton Tiles," paper presented at the anniversary conference "Church Ceramics: Decorative tiles, mosaic and terracotta during and after the Gothic Revival" of the Tiles and Architectural Ceramics Society (Coalbrookdale, UK, October 6-7, 2006), [2].

[209] Ferrey, 250.

[210] Henry Julian White, *Merton College, Oxford* (Cambridge: Cambridge University Press, 1906), 1.

during this trip he "first began to collect antiquities, purchas[ing] some tiles from the Ducal Palace, Caen."[211] In his chapter on Pugin and France, Wainwright suggests that these are the same tiles that now appear at Oscott College and, if not, "[a]t the very least, they are from the same floor."[212]

This is significant because it shows that Pugin was not only exposed to extant medieval floor tiles, but that he also brought those tiles home with him for closer inspection. As with Hardman's stained glass, the manufacturing process for encaustic tiles had been lost to the ages; Jardine describes how the craft of making encaustic tiles "died out in the sixteenth century partly as a consequence of the dissolution of the monasteries."[213] In their text on the preservation of historic floor tiles, Anne Grimmer and Kimberly Konrad identify the 12th century as the date when Cistercian monks first produced encaustic tiles for flooring and they note that production ceased thereafter and did not resume until the mid-19th century.[214] Although, as Atterbury claims, Pugin did not deal with ceramics until 1839 when they are first mentioned in his diary,[215] once he decided to utilize tiles, Pugin became fully invested in seeing the project through to completion.

6.3.1 The Minton Firm of Staffordshire

Pugin could not accomplish the restoration of encaustic floor tiles single-handedly and required a skilled specialist who was familiar with pottery and had the resources to rediscover the ancient methods of manufacture. In a "List of work to be done" at the end of Pugin's diary of 1839, he includes tiles, and Wedgwood suggests this is the first example of Pugin mentioning the product.[216] In her notes, she states how "[i]t seems probable at this date that he was buying reproduction medieval tiles from a firm such as Chamberlain," *i.e.* Walter Chamberlain of the Worcester Porcelain Company.[217] By March 1840 he was writing to associates, claiming that "you will be delighted to hear that I have at Length Suceeded in restablishing the manufacture of church paving

[211] Wedgwood, *Pugin and the Pugin Family,* 24.
[212] Clive Wainwright, "A.W.N. Pugin and France," in *A.W.N. Pugin: Master of Gothic Revival,* edited by Paul Atterbury and Megan Brewster Aldrich (New Haven: Published for the Bard Graduate Center for Studies in the Decorative Arts, New York by Yale University Press, 1995), 63.
[213] A. T. Jardine, "Encaustic pavements. Conservation, Protection and Replacement Issues," in *Historic Floors: Their History and Conservation,* edited by Jane Fawcett (Oxford: Butterworth-Heinemann, 1998), 187.
[214] Anne E. Grimmer and Kimberly A. Konrad, "Preserving Historic Ceramic Tile Floors," *Preservation Briefs* 40 (October 1996), 2.
[215] Paul Atterbury, "Ceramics," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 143.
[216] Wedgwood, *Pugin and the Pugin Family,* 44.
[217] Wedgwood, *Pugin and the Pugin Family,* 48, 83.

tiles."[218] The maker of these tiles is unknown, although Herbert Minton begins to increasingly appear in Pugin's notes [fig. 6.38]. Minton's address appears in the end papers of Pugin's 1840 diary, which Wedgwood identifies as "the first mention of Minton, whose encaustic tiles Pugin was to design with great effect."[219]

Herbert Minton was the second generation of successful Staffordshire potters of the same name, and was successful in his own right prior to meeting Pugin. From their headquarters in Stoke on Trent, the Minton firm produced pottery, table wares, ornamental wares, and a wide range of products, becoming what Bonython and Burton regard as "the most innovative and successful china merchant in the world."[220] Atterbury suggests that Pugin's introduction to Minton was motivated by the "need to find a suitable manufacturer for a new generation of medieval-style encaustic, or inlaid, floor tiles."[221] Minton's success with encaustics was not without difficulty, however, and Minton pledged to revive this lost art, saying how "'I will make these tiles if they cost a guinea each!'"[222]

6.3.1.1 Wright's Patent

Although the process of creating encaustic tiles is fairly straightforward, Minton sought the guidance of other professionals who had advanced the manufacturing process. As Hans van Lemmen notes, Minton may be credited as establishing "the foundation for nineteenth-century machine production of tiles" but "[t]wo parallel stories unfold here, the manufacture of floor tiles based on the patent of Samuel Wright, and the machine production of wall tiles developed from the patent of Richard Prosser."[223] Both of these inventions were acquired by Minton, who proved himself a shrewd and opportunistic businessman.

Samuel Wright of Shelton, North Staffordshire, was granted a patent in January 1830 "for a manufacture of ornamental tiles, bricks, and quarries, for floors, pavements, and other purposes."[224] The patent spells out Wright's process of "impressing the intended patterns or figures" on tiles placed "in moulds of gypsum or plaster of Paris" designed "to bear a great degree of pressure, and consequently to indent very clear and perfect

[218] Belcher, *Collected Letters, Vol. 1,* 135.
[219] Wedgwood, *Pugin and the Pugin Family,* 85.
[220] Elizabeth Bonython and Anthony Burton, *The Great Exhibitor: The Life and Work of Henry Cole* (London: V & A Publications, 2003), 84.
[221] Atterbury, "Ceramics," 143.
[222] Joan Jones, 159. Regrettably, Jones does not give the original source for this quote.
[223] Hans van Lemmen, *Tiles: 1000 Years of Architectural Decoration* (New York: Abrams, 1993), 98
[224] Samuel Wright, Ornamental Tiles, Bricks, and Quarries, UK Patent 5,890, filed 26 January, 1830, and issued 26 July, 1830.

impressions" which were later "filled up or inlaid with the coloured clays."[225] Upon drying, the tiles are "gradually planed down to a clean and distinct exhibition of the pattern, and both the upper and lower surfaces are rendered exact and smooth, thus capable of forming a perfectly level floor or pavement."[226] In other words, Wright pressed clay into plaster moulds which featured a pattern in relief. The recessed areas were then filled with liquid clay in a different colour and, once dry, sanded even to reveal the contrasting colours. Wright's patent goes on to describe the machinery utilized to accomplish the process detailed above, which efficiently levels the tile to a consistent thickness but does not manufacture the tile itself. This required an additional process which neither Wright nor Minton had perfected.

Mechanic's Magazine of October 1830 discussed Wright's patent, describing how he "had sought, not only to revive the use of these tiles, but to manufacture them of a description much superior to any which had been handed down to us."[227] Furnival suggests that "Wright seems to have put his process into practical operation himself first, and to have made some pavements."[228] These initial efforts met with a positive reception, as Wright's "ornamental and substantial flooring" was featured in Loudon's 1835 *Encyclopædia of Cottage, Farm, and Villa Architecture and Furniture*.[229] Here Loudon describes how "these tiles were executed by indenting the required ornament in the substance of the clay while moist, and filling up the vacuities with clay of a different colour, after which they were subjected to the fire."[230] Despite Loudon's support Wright failed to attain an appreciable level of commercial viability; Darby conjectures that "Wright must have obtained his 1830 patent before he had actually perfected his attempt to revive encaustic tile manufacture" which explains why his patent did not lead to large-scale manufacturing he envisioned.[231] Dismayed by his

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[225] Wright. Ornamental Tiles, Bricks, and Quarries.
[226] Wright. Ornamental Tiles, Bricks, and Quarries.
[227] "Samuel Wright's Patent for Encaustic Tiles," *Mechanics' Magazine* 34 no. 1038 (July 1843), 29.
[228] William James Furnival, *Leadless Decorative Tiles, Faience and Mosaic: Comprising Notes and Excerpts on the History, Materials, Manufacture and Use of Ornamental Flooring Tiles, Ceramic Mosaic and Decorative Tiles and Faience, with Complete Series of Recipes for Tile-Bodies and for Leadless Glazes and Art-Tile Enamels* (Stone, Staffs: W.J. Furnival, 1904), 184.
[229] J. C. Loudon, *An Encyclopædia of Cottage, Farm, and Villa Architecture and Furniture; Containing Numerous Designs for Dwellings; from the Cottage to the Villa, Including Farm Houses, Farmeries, and other Agricultural Buildings; Several Designs for Country Inns, Public Houses, and Parochial Schools, with the Requisite Fittings-Up, Fixtures, and Furniture, and Appropriate Offices, Gardens, and Garden Scenery; each Design Accompanied by Analytical and Critical Remarks, Illustrative of the Principles of Architectural Science and Taste on which it is Composed* (London: Longman, Brown, Green, & Longman, 1835), 280.
[230] Loudon, 941.
[231] Susan Darby, *Prosser The Engineer: 'A Forgotten Birmingham Genius' – The Dust-Pressed Process: The Button Wars & The Tile Revolution*, (14 October, 2017), 210.

lack of success, in 1835 Wright granted Minton a share in his patent for approximately £10,000 in today's money.[232]

Wright's patent was a valuable part of encaustic tile fabrication, but it was only one part of a larger process and Minton was still faced with the rediscovery of encaustic manufacture in total. Durbin states that, following Minton's acquisition of the patent in 1835, "it took a further five years of experimentation in clay mixes, firing temperatures and shrinkage rates" before Minton "could confidently market a product which could be relied upon to be consistent in production."[233] This would be 1840, the same time at which Minton's name begins to appear in Pugin's diary and letters.

6.3.2 Pugin's Collaboration with Minton

It is interesting to note that Minton was not the only manufacturer using Wright's patent; a license was also granted to Walter Chamberlain, previously identified as the producer Pugin was utilizing for his early encaustic tiles. Wright's patent was only capable of producing two-colour tiles, and Atterbury notes that Chamberlain was "content to produce coarser tiles in the traditional colours of brown and buff, [and] was first in the market, while Minton took more time to perfect his production methods and to introduce more colours."[234] This suggests that Pugin was aware of Wright's patent as neither Chamberlain nor Minton would have been producing encaustic tiles without utilizing this machinery. This also shows that as Minton perfected the manufacturing technique, Pugin moved away from Chamberlain, perhaps indicating that he valued Minton's willingness for innovation. Atterbury also notes Minton's "fascination with new technology" and how his "passion for technical improvement" along with "an overriding concern for quality, was at the basis of the relationship between Minton and Pugin."[235]

In her book on the Minton Company, Joan Jones claims that Minton and Pugin "made the discovery of a medieval tile manufactory at King's Lynn, Norfolk in 1833."[236] She notes how other medieval tileries at St Mary Witton and Great Malvern had also been

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[232] "Samuel Wright's Patent for Encaustic Tiles," 30. The article, written in 1843, states that "The sum which he [Wright] had received from Mr. Minton for royalty did not amount to more than about 80*l*." 80*l* is 80 pounds, and using the Bank of England's inflation calculator, £80 in 1835 at the time when Wright sold his patent is the equivalent of £9,984.72 as of 2018. Bank of England. "Inflation Calculator," https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator

[233] Lesley Durbin, *Architectural Tiles: Conservation and Restoration; from the Medieval Period to the Twentieth Century* (Oxford: Butterworth-Heinemann, 2005), 38.

[234] Atterbury, "Ceramics," 144.

[235] Atterbury, "Ceramics," 143-144.

[236] Joan Jones, 159.

discovered, creating "a wave of interest leading to the publication of articles."[237] This seems to indicate that Pugin and Minton first worked together in 1833; were this true, it would establish a new timeline for Pugin's first association with Minton which predates Minton's purchase of Wright's patent. In turn, this would provide evidence that Pugin was present and perhaps encouraging or even assisting Minton in his effort to acquire the rights to Wright's machinery. Jones' timeline brings into question why Pugin would not continue collaborating with Minton and instead started out with Chamberlain as his encaustic manufacturer.

After much research, no evidence of this interaction could be established, nor could the publication of the discovery of medieval tileries in either of these locations. Evidence exists of medieval tiles *in situ* at both of these locations but not the discovery of premises with "evidence of tiles at different stages of manufacture."[238] Jones gives no documentation for her statement, making this claim difficult to confirm. In this light, the date of 1840 (as mentioned in Pugin's diary) stands as the accepted date for their first interaction. This indicates that Minton was already deeply invested in the development of machinery to assist encaustic tile manufacture and, as Atterbury suggests, had made significant advancements by the time he and Pugin began working together. Were Pugin opposed to mechanized production, he surely would have avoided a manufacturer who had established himself in this pursuit many years prior.

Even if Pugin had wanted to find a potter who employed only hand techniques, he would have been hard pressed to do so. The growth in construction of public buildings during the Victorian era[239] required durable flooring that could withstand large amounts of foot fall, and being "comparatively indestructible," encaustic tiles were suitable.[240] As these structures were often of large scale and required vast amounts of tile to furnish, a manufacturer would have a difficult time meeting this demand on time by hand. Therefore, machinery and mechanized processes that could facilitate and expedite the manufacture of tiles were necessary for a successful nineteenth-century potter. As Stock notes, "[t]he mass production of ceramic tiles affected architects and designers differently, some [such as Pugin] embraced the change and tried to work positively with it."[241] Unlike his approbation of mechanized wallpaper production, Pugin made no comments against this process in regard to tiles.

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[237] Joan Jones, 159.
[238] Joan Jones, 159.
[239] See James Stevens Curl, *Victorian Architecture: Diversity and Invention* (Reading: Spire, 2006); Asa Briggs, *Victorian Cities* (New York: Harper & Row, 1970).
[240] Zerah Colburn, "The manufacture of encaustic tiles and ceramic ornamentation by machinery," *The Journal of the Society of Arts* 13 no. 652 (May 19, 1865), 447.
[241] David Stock, "Ceramic Tile Production and the Industrial Revolution," *Tile Today* 83 (2014), 56.

Why Pugin turned to Minton is unknown; unlike with Hardman the two did not share a religion and unlike with Crace they did not have prior experience working on a shared project. The Minton pottery firm was founded in 1788 by Thomas Minton whose son, Herbert (1793-1858) began working for the family business in 1817. Based in Stoke on Trent, an area known as The Potteries, Minton was one of a number of potters in the area.[242] The most successful local producer was Wedgwood, whose founder Josiah Wedgwood grew the family business to achieve commercial success and worldwide recognition. McKendrick, Brewer, and Plumb suggest that Wedgwood's success was at least partially attributable to his efficient adoption of the factory system and it seems that Minton adopted a similar approach.[243] They state how both Wedgwood and the Potteries "would [not] have flourished without new inventions, new methods of production and new standards of workmanship" and it seems that Minton was keen to follow in this tradition.[244]

In a retrospective of Minton's life, *The Ecclesiologist* states how "Stoke-upon-Trent was situated very few miles from Alton Towers, and Pugin accordingly was a frequent visitor at Mr. Minton's, and aided much in developing the new processes."[245] As seen in the discussion on Pugin's use of the railway to conduct business across the country, distance was not a determining factor in selecting a working partner, but it certainly helped.

Perhaps Pugin was drawn to Minton's years of experience and artistic talent when choosing to collaborate with the firm. Like Crace, Minton had an established premises and infrastructure to accommodate additional manufacture such as that of encaustic tiles. Jewitt suggests that Minton's works were successful from their inception and the company was responsible for developments in manufacturing.[246] Pugin's letters reveal he made occasional visits to Stoke and therefore must have been aware of Minton's mechanized workshops.[247] This may be why Fisher believes that "[i]t was almost certainly Minton's passion for technical improvement that led Pugin to Minton."[248]

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[242] Stock, 54. See Jessie Matson, "Staffordshire and the American Trade," *The Metropolitan Museum of Art Bulletin*, New Series 4 no. 3 (November 1945), 82 for a discussion on the number of manufacturers in the area, as Matson notes that in the "Staffordshire directory, published in Hanley in 1802. About six hundred manufacturers are listed."

[243] Neil McKendrick, John Brewer, and J. H. Plumb, *The Birth of a Consumer Society: The Commercialization of Eighteenth-Century England* (Bloomington: Indiana University Press, 1982), 105

[244] McKendrick, Brewer, and Plumb, 143.

[245] "The Late Mr. Minton," *The Ecclesiologist* 19 no. 126 (June 1858), 174.

[246] Llewellynn Frederick William Jewitt, *The Ceramic Art of Great Britain* (London: J.S. Virtue, 1883), 397.

[247] Belcher, *Collected Letters, Vol. 1*, 368. Pugin mentions how he "travelled through Stoke on 22 July [1842], the day when he left Alton." Belcher, *Collected Letters, Vol. 2*, 435 discusses

6.3.2.1 Prosser and Dust-Pressing

Minton's success in reproducing medieval tiles involved both Wright's invention and the work of another man, the Birmingham civil engineer Richard Prosser, and his process for dust-pressed tiles. As Traill states, "few could have foreseen what an important branch of business would ultimately grow out of Prosser's patent, which Herbert Minton perfected and applied to so many uses."[249] Indeed, as he notes, the Victorian tile industry "is practically built on the use of [Prosser's] patent."[250] Prior to Prosser's invention, floor tiles were made with wet, or "plastic" clay which required a long drying and firing time. Instead, Prosser used a powdered or "dust" form of clay that was nearly dry. His patent invention [fig. 6.39] illustrates the workings of his process which compressed powdered clay (dust) between metal plates, squeezing out any moisture and rendering the clay solid. As Grimmer and Konrad note, "[d]ust-pressing replaced tile-making by hand with wet clay, and facilitated mechanisation of the tile-making industry."[251]

On 17 June, 1840 Prosser was granted a patent for "certain improvements in manufacturing buttons from certain materials, which improvements in manufacturing are applicable in whole or in part to the production of knobs, rings, and other articles from the same material."[252] According to Jones, Minton purchased Prosser's patent and "set up two workrooms with six button-presses in one and a large tile press in the other"[253] and Jewitt shows how Minton's infrastructure grew from twenty-five presses at the end of 1841 to ninety presses in March 1844, only four years after his acquisition of Prosser's patent.[254] It is interesting to note that Darby claims Prosser had already sold an interest in his invention to Minton prior to his 17 June, 1840 patent date, suggesting that Prosser "retained the exclusive right to supply the presses to

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how Minton writes to Hardman on 10 September, 1845 to say that "Mr. Pugin called here a few days since."

[248] Fisher, "Pugin's Designs and Minton Tiles," [4].

[249] H. D. Traill, ed., *Social England: A Record of the Progress of the People in Religion Laws Learning Arts Industry Commerce Science Literature and Manners from the Earliest Times to the Present Day by Various Writers. Vol. VI from the Battle of Waterloo to the General Election of 1885* (London: Cassell and Company, 1897), 382-383.

[250] Traill, 383.

[251] Grimmer and Konrad, 2.

[252] Richard Prosser, Certain Improvements in Manufacturing Buttons from certain Materials, which Improvements in Manufacturing are applicable in whole or in part to the Production of Knobs, Rings, and other Articles from the same Materials, UK Patent 8,548, filed 17 June, 1840, and issued 17 December, 1840.

[253] Joan Jones, 164.

[254] John Turley, notes on Prosser's patent and its application, quoted in Llewellynn Frederick William Jewitt, *The History of Ceramic Art in Great Britain: From Pre-Historic Times Down Through Each Successive Period to the Present Day. Vol. 2* (New York: Scribner, Welford, and Armstrong, 1878), 202.

Minton."[255] This could also be the reason for Darby's belief that Prosser's role in Minton's creation of encaustic tile "must have been 'chiefly' of a mechanical nature."[256]

The circumstances surrounding Minton's use of Prosser's patent require some clarification. As Durbin noted, "[d]ust pressing, as a technique, created the opportunity for floor tile production on a huge scale" and soon "encaustic floor tile designs were part of every tile manufacturer's mainstay of production."[257] While Prosser and Minton certainly "revolutionised the production of *wall* tiles," the process "could not be used for encaustic floor tiles until 1854."[258] Although the exact reason for this delay in application to floors is not succinctly expressed in literature of the day, it seems that Prosser's technique was not yet capable of producing goods to Minton's standards, be it durability and/or appearance. Nevertheless, Mr. Minton was so determined to revive the manufacture of the ancient tiles and tesserae that, although dissuaded by Mr. Prosser from making the attempt, he persevered; indeed, in his 1858 article "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," Matthew Digby Wyatt describes how, "had it not been for [Minton's] determination, the beautiful machine of Mr. Prosser would have been applied solely to the manufacture of buttons."[259]

Although the 1854 date for the appearance of dust-pressed floor tiles places this outside Pugin's lifetime, it shows how Pugin worked with Minton to achieve that feat, albeit posthumously. Tiles made by Prosser's patent "needed less time to dry, and were able to be fired without contracting or warping as regularly. Their smooth surfaces made it possible to accelerate and sharpen printing processes and various decoration techniques" and this in turn "encouraged mass production of affordable ceramic tiles to an impressively high standard."[260]

6.3.2.2 Experimentation in Tile Manufacture

Although Pugin supported Minton in the development of encaustic floor tile, he did not disregard the immediate application of Prosser's patent and together the men worked

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[255] Darby, 121.
[256] Darby, 12, 215.
[257] Lesley Durbin, "Nineteenth-Century Tiles: Industrial Mass Production and Construction Methods of Interior Tile Schemes in the Nineteenth and Early Twentieth Centuries," in *Proceedings of the 2nd International Congress on Construction History: Queen's College, Cambridge University, 29 March-2 April 2006, Vol. 1,* edited by Malcolm Dunkeld (Cambridge, UK: Cambridge University Press, 2006), 994.
[258] Atterbury, "Ceramics," 144; emphasis mine.
[259] M. Digby Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," *Journal of the Society of Arts* 6 no. 288 (May 28, 1858), 451.
[260] Stock, 55.

to create "the first block printed tiles for use as interior wall decoration."[261] As Jones states, "Pugin was eager to make use of the new block-printing technique and examples in the Smoking Room at the House of Commons are probably the earliest examples of decoration on tiles provided by this process [fig. 6.40]."[262] Pugin must have seen the growing number of presses at work in Minton's factory, working toward this end. Knowing this, the fact that Pugin took part in this collaboration speaks to his progressive attitude towards machinery.

Durbin notes that men of industry like Minton were "serious in their intent" to manufacture "a product which was materially consistent, [and] quick to produce for an affordable cost."[263] As a result, "[t]hey eschewed the haphazard nature of previous technologies which were based on hand crafting rather than machine production."[264] Even in the five years between his acquisition of Wright's patent in 1835 and the start of his collaboration with Pugin in 1840, Minton undertook extensive experimentation in an effort to perfect the medieval tile making process and Champ suggests that "[b]y the time Pugin made contact with him, Minton had become interested in the production of encaustic tiles and had mastered the complex techniques needed."[265] Indeed, Shaw notes how the Minton firm "has been intimately connected with many of the improvements in the manufacture" of encaustic tiles.[266]

Minton's interest in the advancement of tile production led to the acquisition of a range of patents and the machinery to manufacture these goods. This included a patent issued 14 March, 1848 to Frederick William Michael Collins and Alfred Reynolds for "Ornamenting China, Earthenware, and Glass."[267] Lemmen describes how Minton "took advantage" of this invention "which made it possible to print areas of flat colour, and adapted this to printing on tiles."[268] The Catalogue of the Exhibition in *A.W.N. Pugin: Master of Gothic Revival* states that this process "was in use at the Minton factory by 1849" and that "Pugin is likely to have watched the development of the Collins and Reynolds process with considerable interest, fully aware of its potential

[261] Durbin, *Architectural Tiles: Conservation and Restoration; from the Medieval Period to the Twentieth Century*, 72.
[262] Joan Jones, 167.
[263] Durbin, "Nineteenth-Century Tiles: Industrial Mass Production and Construction Methods of Interior Tile Schemes in the Nineteenth and Early Twentieth Centuries," 992.
[264] Durbin, Nineteenth-Century Tiles: Industrial Mass Production and Construction Methods of Interior Tile Schemes in the Nineteenth and Early Twentieth Centuries," 992.
[265] Champ, 23.
[266] Simeon Shaw, *History of the Staffordshire Potteries; And the Rise and Progress of the Manufacture of Pottery and Porcelain* (Hanley, UK: Jackson, 1829), 61-62.
[267] Fred W. M. Collins and Alfred Reynolds, Ornamenting China, Earthenware, and Glass, UK Patent 12,097, filed 22 March, 1848, and issued 13 September 1848.
[268] Lemmen, 100.

for the mechanical printing of flat pattern in strong colours."[269] While describing how this was first used on fireplace tiles at the Houses of Parliament, they include one of Pugin's plates bearing the motto "souveigne vous de moy" or "remember me," its colourful pattern produced using this method [figs. 6.41, 6.42].[270]

A patent dated 26 April, 1851 was filed by Minton and the engineer James Nasmyth for "improvements in machinery or apparatus to be employed in the manufacture of tiles, bricks, and other articles from disintegrated or pulverized clay."[271] The patent documents describe how this invention "consists of a certain arrangement of machinery or apparatus for effecting the said object in a more perfect, economical, and expeditious manner than has been attained by the methods heretofore employed for that purpose," showing that Minton was actively engaged in the development of machinery for his premises.[272] They continue, stating how "[h]itherto this object has been effected by the employment of what is termed a screw or fly-press, or by an hydraulic press," which could refer to Prosser's original patent of 1840.[273]

Minton was involved with a wide range of further developments, encompassing the entire tile-making process. Furnival describes how up until 1841, the colour palette for encaustic tiles was limited to "buff, red, and chocolate."[274] With experiments in chemical compositions and firing temperatures, Minton was able to create the additional encaustic colours of "blue, green, white, crimson, lilac, and purple" while expanding his design vocabulary.[275] Minton also patented kilns and ovens for firing his pottery.[276] The regulation of temperatures during the firing process was a vital component of tile manufacture as different coloured clay achieves the intended colour at different times and temperatures. Also notable is that encaustic tiles are comprised of a sandwich of different clays, each of which constrict at a different rate. Known as crazing, this occurs due to the expansion and contraction rates of different clays when exposed to heat.[277] Lemmen describes how when "the inlaid clay shrank more than the

[269] Atterbury, et al., 356.
[270] Atterbury, et al., 356.
[271] James Nasmyth and Herbert Minton, Certain Improvements in Machinery or Apparatus to be Employed in the Manufacture of Tiles, Bricks, and other Articles from Disintegrated or Pulverized Clay, UK Patent 13,608, filed 26 April, 1851, and issued 24 October, 1851 (hereafter cited as Patent).
[272] Nasmyth and Minton, Patent.
[273] Nasmyth and Minton, Patent.
[274] Furnival, 185.
[275] Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," 445.
[276] Andrew Popp, "Specialty Production, Personal Capitalism and Auditors' Reports: Mintons Ltd., c. 1870-1900," *Accounting, Business & Financial History* 10 no. 3 (November 2000), 350.
[277] Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," 445.

body of the tile, it would fall out, but if it did not shrink as fast as the body, the tile would crack during firing."[278]

Finessing the composition of clays and the firing times to create a product which was both durable and beautiful was akin to alchemy and Minton employed artists and engineers to facilitate this process. One such individual, the French artist Léon Arnoux, was employed as art manager of the works in 1849. Wyatt describes how, in the manufacture of tiles, "with the assistance of M. Arnoux, Mr. Minton resumed the attempt to make a body infusible, at very high temperatures, and of elements so pure as to be unaffected by ordinary chemical solvents."[279] In a lecture on "Ceramic Manufactures, Porcelain and Pottery," Arnoux describes how Minton "introduced a new oven, in which the fuel is so completely utilized, that it requires only one-half of the usual quantity of coals, besides doing away with the dense smoke, which is the annoyance of the district."[280] Documents in the Minton Archive, rendered in Arnoux's hand, show the layout of the kiln [fig. 6.43]. Throughout the development of materials, processes, and infrastructure, one comes to see how Ferry can claim, "we owe entirely to Mr. Minton the beautiful means of enrichment supplied through the multiplied form and colour which his tiles afford."[281]

6.3.2.2.1 Premises

Minton's interest in the development of tile production required a large manufactory in which to experiment, which can be seen in the firm's large purpose-built premises depicted in Henry Lark Pratt's panorama of Stoke [fig. 6.44]. This provided Minton with the infrastructure to experiment on encaustic tiles; men of lesser means would have certainly found it difficult to acquire the workforce, materials, and premises to undertake a similar endeavour. Indeed, the popularity of encaustic tiles "gave an impetus to the manufactory with which Mr. Minton was ready, willing, and able to cope."[282]

Records indicate that Minton's premises, which closely resemble a factory arrangement, included buildings and machinery devoted to tile production. This represented a change from the traditional model "which consisted of an open yard

[278] Lemmen, 98.
[279] Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," 443.
[280] L[éon] Arnoux, "Ceramic Manufactures, Porcelain and Pottery," in *Lectures on the Results of the Great Exhibition of 1851, Delivered before the Society of Arts, Manufactures, and Commerce,* Second Series, 375-416. London: David Bogue, 1853, 35.
[281] Ferrey, 251.
[282] "The Late Mr. Minton," 174.

surrounded by bottle kilns and workshops."[283] Minton moved beyond the primitive layout to a purpose-built factory which utilized linear production "with raw materials entering the facility at one end and finished tiles departing from the other" while "steam power was used to drive heavy machinery."[284] Lemmen states how "[m]achine processes pioneered in Britain were rapidly adopted by the tile industries"[285] so that British potteries "led the world in mechanised tile production and decoration."[286] This in turn assisted in securing overseas trade thanks to the canal system's cost-effective form of shipping products long distances.[287] As Adamson notes, these characteristics went hand in hand with a "shift in the ceramic industry: from an alchemical, secretive, and arcane art to a self-consciously modern, scientific industry based on such new social technologies as patenting."[288]

Reflecting on Minton's works, the *Journal of the Society of Arts* discusses how "[f]or many years he battled against the difficulties in making pavement tiles and mosaics by machinery, sinking an immense capital year after year without any return."[289] In his 1883 book on *The Ceramic Art of Great Britain*, Llewellynn Jewitt revisits this claim, discussing how "Mr. Minton had sacrificed many thousands of pounds to perfect the manufacture" of encaustic tiles" including "adopting every mechanical or other improvement – hydraulic presses under Prosser's patent, Napier's steam-hammer, &c. that promised further success."[290]

6.3.2.2.2 Machinery

Although the family manufactory was well established when Herbert Minton took over from his father, Jewitt notes aspects of its modern inception. Upon the receipt of Wright's patent, "Mr. Minton commenced the manufacture [of encaustic tiles] in a single room next to the present throwing house at the earthenware works, and only three men were at first employed."[291] Jones believes these works were spread over two rooms, one with "six button-presses" and a "large tile press in the other, under the supervision of John Turley, an engineer."[292] As Wyatt states, Minton "set to work with a thorough English determination to succeed, and with untiring energy and perseverance [...] at length succeeded in producing tiles very far superior to those of

[283] Stock, 56.
[284] Stock, 56.
[285] Lemmen, 95.
[286] Stock, 54.
[287] Matson, 81.
[288] Adamson, 70.
[289] "Late Mr. Herbert Minton," 328.
[290] Jewitt, *The Ceramic Art of Great Britain*, 405.
[291] Jewitt, *The Ceramic Art of Great Britain*, 402.
[292] Joan Jones, 164.

the ancients."[293] The efficient use of machinery certainly facilitated this process, and Jones describes how "[b]y September 5th 1842, sixty-two presses were in operation at Minton," increasing to ninety by March 1844.[294] Additionally, McCarthy identifies "seventy-six kilns and ovens" in operation at Minton's works.[295]

In his 1829 discussion of the *History of the Staffordshire Potteries; And the Rise and Progress of the Manufacture of Pottery and Porcelain*, the writer, teacher and antiquary Simeon Shaw describes how "connected with [Minton's workshops] are a Steam Engine and Mill to grind the materials, and colours."[296] Jones describes how by 1842, "greater pressure was required" for tile production and "this was effected by hydraulic presses, the pumps of which were steam powered."[297] Writing in 1849, *The Art Union* explains in the article "Illustrated Tour in the Manufacturing Districts: Stoke-upon-Trent," how "the river [is] dotted ever and anon with water-mills of every possible diversity of form and feature. [...] Steam now lends its powerful aid; but water power is still in extensive use." [298] Written seventeen years after Shaw's description of the steam engine at Minton's premises, *The Art Union*'s claim that steam was secondary to water mills shows just how progressive Minton's works were.

In his article "Specialty Production, Personal Capitalism and Auditors' Reports: Mintons Ltd., c. 1870-1900," Andrew Popp includes a list of items taken from a "Schedule or Inventory of Fixtures and Articles in the Nature of Fixtures In and About Certain Manufactories, Works and Premises at Stoke-upon-Trent, Staffordshire, Belonging to C. M. Campbell Esq.', 1 January 1884."[299] Although this inventory post-dates Pugin's death by thirty two years (and Herbert Minton's by twenty seven years), it has already been shown that Minton was accumulating machinery throughout the duo's working relationship so it is likely that at least a portion of this infrastructure was present during Pugin's lifetime. This consisted of "172 forming machines, comprised of a combination of throwing wheels, whirlers and jiggers" as well as twenty-seven steam powered forming machines.[300]

6.3.2.2.3 Workforce

[293] Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," 445.
[294] Joan Jones, 164, 166.
[295] James Francis McCarthy, "Pottery and Porcelain-IX" in *Great Industries of Great Britain: Illustrated,* 217-220 (London: Cassell Petter & Galpin, 1877), 220.
[296] Shaw, 61.
[297] Joan Jones, 164.
[298] "Illustrated Tour in the Manufacturing Districts: Stoke-upon-Trent. The Works of Copeland and Garrett," *The Art Union* 8 (November 1846), 287.
[299] Popp. 366.
[300] Popp, 366.

A substantial manufactory like Minton's covered an area of twelve acres and employed a vast number of people, both specialists and labourers.[301] Wyatt notes how, at its inception, "Mr. Thomas Minton's establishment at Stoke gave employment to just about fifty hands, and at the date of his son's death [Herbert, 1858] upwards of 1,600 were in active occupation."[302] The factory's annual output must have been staggering – Gesimondo and Postell point out that Prosser and Minton's hand operated flywheel press could "press up to 3000 ceramic tiles per day."[303] With the application of an external motive power and an increase in the number of presses, this quantity would have grown exponentially, enabling the firm to take on larger commissions.

6.3.2.3 Designs

Pugin and Minton's huge commercial success is evident as many of the designs remained in production well into the twentieth century long after both men were buried. Fisher comments on this, saying that "Pugin was not averse to using the latest industrial processes when it came to the implementation of his designs. This applied to the manufacture of ceramic tiles," enabling them "to become plentiful and affordable."[304] Once again Pugin followed the same approach to design with Minton as he did with Crace and Hardman. That is, he presented a portion of the finished piece and expected his collaborator to flesh out the design. Referring back to his "Souveigne Vous de Moy" plate, extant sketches show how only key elements of the design were finished, with the understanding that Minton and his workmen understood how to see the work through to completion [fig. 6.42].

The huge variety of designs Pugin produced for Minton throughout a wide range of pottery goods is testament to the close friendship between the two, an aspect that "tends to be overshadowed by Pugin's relationships with Hardman and Crace."[305] Nonetheless, the two men shared a deep and meaningful friendship that extended beyond the bounds of their commercial involvement. Caroline Stanton describes how "Pugin records his own decline in a poignant series of letters written in January 1852 about his accounts to Minton,"[306] ominously relaying how, seven months before his death, "[t]he medical men said I had worked one hundred years in forty. I have not

[301] McCarthy, 220.
[302] Wyatt, "On the Influence Exercised on Ceramic Manufactures by the Late Mr. Herbert Minton," 442.
[303] Nancy Gesimondo and James Christopher Postell, *Materiality and Interior Construction* (Hoboken, NJ: John Wiley, 2011), 15.
[304] Fisher, "Pugin's Designs and Minton Tiles," [1].
[305] Atterbury, et al., 357.
[306] Stanford, 38.

time to say more."[307] During their working years, however, a whole array of goods was produced and the encaustic process rediscovered, leaving behind a lasting legacy.

6.4 Building Construction – Myers

Hardman, Crace, and Minton were capable of creating elements of interior decoration, fixtures, and fittings for the structures Pugin designed. Not be overlooked, he adopted a similar working relationship with a builder for his structures. George Myers was responsible for not only the construction of Pugin's buildings but also stone and wood carving [fig. 6.45]. Belcher remarks how not much is known about Myers, and indeed were it not for the monograph *Pugin's Builder: The Life and Work of George Myers* by a distant relative, Patricia Spencer-Silver, he may have slipped into obscurity.[308]

Born in Hull, as a youth George Myers (1803-1875) was "apprenticed to William Comins, the Master Mason at Beverley Minster."[309] Recollecting Myers, George Gilbert Scott describes how through this apprenticeship Myers "had acquired an ardent love of Gothic architecture."[310] Myers' time at the Minster coincided with the restoration of the original Gothic features of the medieval building between 1825-26 after previously experiencing a "'Georgianising' process from *c.*1717 to 1769."[311] Spencer-Silver notes how the Day Book for the work at the Minster "records the work done by Myers and his fellow masons" including "the repair of the north side of the choir, the floor and the altar rails."[312] She also suggests that Myers was involved with the restoration of the reredos and indeed a drawing attributed to him is bequeathed in his will to his eldest son, indicating that it held special interest.[313]

Myers' introduction to Pugin centres on his work at Beverley Minster. Although A.C. Pugin mentioned Beverley Minster in his *Specimens of Gothic Architecture*, including an illustration of its mullions, the publication date of 1821 places it before Myers' involvement at the location. Instead, it was at a later date when the younger Pugin, perhaps encouraged by his father's publication, visited the locale to sketch the

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[307] Belcher, *Collected Letters, Vol. 5*, 598.
[308] Belcher, *A.W.N. Pugin: An Annotated Critical Bibliography*, xix.
[309] Patricia Spencer-Silver, "George Myers, 1803-75, Stonemason, Builder, Contractor," *Construction History* 5 (1989), 2. Spencer-Silver believes Myers began his apprenticeship at age 13 or 14 years old.
[310] George Gilbert Scott, *Personal and Professional Recollections* (London: Sampson Low, Marston, Searle, & Rivington, 1879), 88.
[311] Philip Brown, *Old Beverley* (Beverley, Humberside: East Yorkshire Local History Society in association with Humberside Leisure Services, 1983), 12. For an overview of the "beautification" that took place in the 18th century, see Waltraud M. Jacob, *Lay People and Religion in the Early Eighteenth Century* (Cambridge, UK: Cambridge University Press, 2002).
[312] Patricia Spencer-Silver, *Pugin's Builder: The Life and Work of George Myers*, 3.
[313] Spencer-Silver, "George Myers, 1803-75, Stonemason, Builder, Contractor," 48.

building. Ferrey recalls how, "while Pugin was sketching at the Minster, [Myers] rendered him some assistance in procuring ladders and scaffolding to enable him to reach the lofty portions of the building, manifesting much interest in Pugin's proceedings."[314] Spencer-Silver questions whether the antiquarian and architect E. J. Willson was responsible for their introduction, stating how "[p]erhaps Willson and A.W.N. Pugin went together on a sketching expedition to Beverley."[315]

The two men were to part ways until Myers submitted a tender in 1838 for a new Catholic church in Derby.[316] Ferrey recalls how Myers, visiting the town, "desired an interview with the architect and to his surprise found it was Pugin whom he had previously known."[317] Ferrey continues, noting how "Pugin quickly recognized in Myers the enthusiastic mason who had taken such interest in what he was doing at Beverley, and had there rendered his help. Rushing to him he clasped him in his arms, exclaiming, '[m]y good fellow, you are the very man I want, you shall execute all my buildings'."[318]

6.4.1 Changes in the Architectural Profession

While Pugin's involvement in the development of his decorative art objects is fairly clear, his role in the fabrication and erection of his buildings is less so. The roles of architect, designer, and builder were all undergoing drastic changes during his working years as new standards and responsibilities were aligned with each title. In his book *The British Building Industry Since 1800: An Economic History,* Christopher G. Powell describes how the role of the architect changed during Pugin's lifetime, explaining how "[i]nitially they were hardly distinguishable from builders and measurers and their skill was commonly combined with those of others. From around the 1820s they gradually began to divorce themselves from direct involvement in building," hinting at the reasons for Pugin's reliance upon Myers.[319] Crook further addresses this topic, noting that "the pre-Victorian period is a process of fragmentation, the splitting up of the idea of an *architect* into its component elements – the builder, the surveyor, the architect and the engineer."[320] Gloag summarises

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[314] Ferrey, 185.
[315] Spencer-Silver, *Pugin's Builder*, 5.
[316] Wedgwood, *Pugin and the Pugin Family,* 39. In his diary of March 17, 1838, Pugin writes "Sent off working drawings to Mr. Sing" and in a footnote, Wedgwood identifies this as the start of the commission for Pugin's church of St. Mary, Derby.
[317] Ferrey, 185.
[318] Ferrey, 185-186.
[319] Powell, 30.
[320] J. Mordaunt Crook, "The Pre-Victorian Architect: Professionalism and Patronage," *Architectural History* 12 (1969), 62.

these roles, noting how "engineers saw themselves as 'putters-up of structures', while architects were 'putters-on of styles'."[321]

As architects began to "see themselves *and* to be seen by others as belonging to a recognized profession," their numbers rose.[322] The (Royal) Institute of British Architects was established in 1834. In the opening address, Secretary Thomas Leverton Donaldson outlined the group's goal "to uphold in ourselves, the character of Architects, as Men of Taste, Men of Science, Men of Honour."[323] This involved elevating the architectural profession by discouraging the dual role of builder-architect so common in earlier years and Satoh notes how "the role of the 'architect-contractor' declined" into the nineteenth century.[324] Rather than having the same individual handle both the layout and construction of a building, architects were urged to concentrate solely on the design while leaving the construction to others.

The specifics involving the translation from architectural plan to three-dimensional structure were not within Pugin's remit. Indeed, his career went through various stages, from author to architect to designer. His architectural practice was stimulated by his publications and not because of previous practice, so much was learned on the job as Pugin's buildings were erected according to his designs. This may be one reason why, as Hanson notes, Pugin welcomed the introduction of the general contractor "because of what it could offer the architect."[325] This meant less time worrying about the technical aspects and more time creating and designing. In light of these changes in architectural practice, Pugin increasingly depended on Myers, whose ability to translate architectural drawings into reality was crucial to Pugin's success.[326] This is not to say that Pugin was not an architect, but that he was not a *builder* as these roles involved specific skill sets.[327] Pugin often turned to Myers to handle the practicalities of erecting the buildings he designed, and on occasion, Myers was able to remedy structural issues that Pugin did not anticipate. Hill notes how Pugin's churches at

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[321] Gloag, 3.
[322] K. Theodore Hoppen, *The Mid-Victorian Generation, 1846-1886* (Oxford: Clarendon Press, 1998), 417.
[323] [Royal] Institute of British Architects, *Address and Regulations, Explanatory of Their Views and Objects, with a List of the Members, and Contributors to the Collection, Library, Etc. As Also the Report of the Proceedings at the Opening General Meeting, at 43, King Street, Covent Garden, on 15 June, 1835* (1835), 69.
[324] Akira Satoh, *Building in Britain: The Origins of a Modern Industry*. Translated by Ralph Morton (Aldershot, UK: Scholar Press, 1995), 17. In a study published ten years later, Andrew Saint extends this study to consider the divide been architecture and engineering. Andrew Saint, "Architect and Engineer: A Study in Construction History," *Construction History* 21 (2005-6), 21-30.
[325] Hanson, 14.
[326] Powell, 30.
[327] Emphasis mine.

Macclesfield and St Alban's were plagued with "design faults from which Myers would have saved Pugin" had he been awarded the building contract.[328]

Regarding the term 'builder', Satoh notes how "in the past it implied generally one who attended to or directed building projects, sometimes referring to the proprietor or his agent and in some cases the person who functioned as an architect."[329] With the creation of the [Royal] Institute of British Architects, members could no longer "carry out any measuring except on work they were themselves superintending."[330] In keeping with this new role it was customary for an architect to provide detailed drawings and specifications upon which the builder – now a separate designation – could estimate the amount of materials required and the labour hours necessary for construction and in turn provide a bid or tender for completing the work.[331] This system meant it was possible for an architect to work with any number of builders on a particular project depending on the price quoted. Perhaps put off by the uncertainty and potential for varying quality of craftsmanship and skill, Pugin avoided this process, preferring instead "to appoint Myers for contracts rather than go to tender."[332]

In a letter to John Rouse Bloxam dated 24 December, 1849, Pugin writes regarding the construction of St Anne's bedehouses in Lincoln, a project for which Myers was the builder. A chapel was to follow, but the client chose a different builder. Pugin's reaction to this decision throws some light onto his desire to only work with Myers as he states how, "had the work at Linclon been continued under Mr. Myers there would not have been any difficulty but with a strange builder I could [not] undertake the responsibility."[333] He continues, describing how "it is imposible for me to carry out the details of pointed architecture sucessfully with strange workmen – & without the means of having surveillance over what is done, – after the miserable failures I have experienced nothing would induce me to work with men whom I have not schooled."[334]

Reflecting upon these changes in the profession, *The Architect* published an article titled "Division of Labour in Architecture" which describes "[t]he surveyor-architect, a plodding man of business whose province is bricks and mortar, their combinations, values, and universal practical administration" who is "altogether a different kind of

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[328] Rosemary Hill, "Pugin's Churches," *Architectural History* 49 (2006), 182.
[329] Satoh, 11.
[330] M. H. Port, "The Office of Works and Building Contracts in Early Nineteenth-Century England," *The Economic History Review* 20 no. 1, New Series (April 1967), 110.
[331] Timothy Brittain-Catlin, *The English Parsonage in the Early Nineteenth Century* (Reading: Spire Books, 2008), 199-200; Port, "The Office of Works and Building Contracts in Early Nineteenth-Century England," 98.
[332] Powell, 32.
[333] Belcher, *Collected Letters, Vol. 4*, 352.
[334] Belcher, *Collected Letters, Vol. 4*, 352.

person from the artist-architect, whose faculties are specially directed to the design of form and colour, of essential character, aesthetic fitness, and instinctive grace."[335] Of these, Pugin seems to fit into the latter category while also supervising and instructing workers. Hanson describes how, in adopting the artist-architect approach, both Pugin and Barry shared "an understanding that, in addition to their technical advantages, new forms of organisation in building" could assist the architect in "the realisation of his ideals."[336] Regarding the demands involved with the profession, Pugin remarks how "[p]eople imagine that anybody can execute church work but it is not so – & it takes years to bring a man into it."[337] Regardless of his professional title and duties, Pugin felt he had invested a great deal of time and effort into Myers and his workmen and was keen to take advantage of this in exclusively continuing his practice with them.

As seen with his churches at Macclesfield and St Alban's, there were occasions where Myers was not awarded the contract and, much to his chagrin, Pugin had to compromise and work with other firms and builders. Pugin appealed to his patrons' sense of economy to ensure Myers was awarded the contract; his rates for designing buildings are indicated in his correspondence, and usually amount to 2.5% of the estimated building cost, but as Brittain-Catlin notes, they "were higher where Myers was not to be contractor for the work."[338] Whether influenced by pricing or assurances of quality, by mid-century Myers had completed thirty-six of Pugin's churches to an exacting standard.[339]

6.4.2 Raw Materials

Satoh notes how "[b]y 1844 Myers was established in London ranking with the big Metropolitan builders."[340] Powell describes how Myers' success continued to grow, labelling him "a top-ranking contractor in the third quarter of the [nineteenth] century."[341] While Myers' expertise encompassed all areas of the building trade, he was first and foremost a stonemason and it was in this area that he excelled.

In this role Myers was responsible for acquiring the stone from which to build his structures, and it was vital to select the right type to withstand the elements and erosion. For the discerning builder and architect this involved personally selecting the stone to be used and, less frequently due to cost, opening one's own quarry to supply

[335] "Division of Labour in Architecture," *The Architect* 11 (June 20, 1874), 342.
[336] Hanson, 71.
[337] Belcher, *Collected Letters, Vol. 4*, 352.
[338] Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context," 141.
[339] Talbot Bury, 605.
[340] Satoh, 66.
[341] Powell, 81.

the necessary material. Both Pugin and Myers were aware of this, and in 1840 with his work at Cheadle, Staffordshire, Pugin recommended Lord Shrewsbury make use of a new quarry "opened at Counslow Hill, between Cheadle and Alton [fig. 6.46]."[342] Fisher identifies the building material as Hollington sandstone and states that Pugin opened a quarry at Counslow which was the primary source for worked stone for his projects in the area.[343] This is crucial as it positions Pugin as playing a role far beyond that of architect. If Pugin actually "opened" the quarry, *i.e.* scouted the location, approved the quality of the stone, and arranged for its mining, he assumes a role more technically complex than one of simply supplying designs for others to interpret.

Pugin's correspondence with his patron Lord Shrewsbury gives further insight into the quarry. On 5 December, 1841, he writes saying the masons "are all gone to Cownslow quarry to work for Cheadle where there is a very fine winter shop so arranged that they will not be stopped even in the severest weather."[344] Pugin provides further details in a letter on 24 December of that year:

> "the counslow quarry is capitally worked. I think there is as good a masons shed as any in England. they can work in it during the severest frost as it all shuts up & the blocks of stone run into it on a sort of railway from the crane. 2 Labourers sleep there to protect the tools and the men have a capital refectory. it is quite a settlement & they turn out a deal of work."[345]

This suggests that Pugin also made provisions for on-site housing for the workers.

Fisher describes how "[t]he quarry-faces at Counslow can still be seen, along with the well from which the masons would have drawn their water. Remains of the buildings mentioned by Pugin still exist, and portions of the paved wagonways by which stone was transported."[346] Aside from Fisher, scholars have overlooked Pugin's sophisticated role as quarry master.

Lord Shrewsbury requested that Pugin employ local workmen for his Staffordshire projects, thus excluding Myers from these works. Instead, "[t]he Baileys – a family of stonemasons from Alton – were the principal builders" and Myers continued to work with Pugin on other projects.[347] Myers was a stonemason by trade and Spencer-Silver surmises that his experience expanded as he "must have learnt not only how to carve and sculpt but also how to use bricks and stone for building," a skill necessary for

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[342] Michael Fisher, *A.W.N. Pugin Guides: St Giles' Church Cheadle* (Stoke-on-Trent: Urban Vision North Staffordshire, 2012), 24.
[343] Michael Fisher, *Pugin-Land: A.W.N. Pugin, Lord Shrewsbury, and the Gothic Revival in Staffordshire* (Stafford: Michael J. Fisher, 2002), 58.
[344] Belcher, *Collected Letters, Vol. 1*, 298.
[345] Belcher, *Collected Letters, Vol. 1*, 307.
[346] Fisher, *Pugin-Land: A.W.N. Pugin, Lord Shrewsbury, and the Gothic Revival in Staffordshire*, 96.
[347] Fisher, *A.W.N. Pugin Guides: St Giles' Church Cheadle*, 24.

large-scale contracting.[348] Also required in this pursuit was the acquisition of quality stone for building and he undoubtedly gained much knowledge from Pugin's experience quarrying his own materials.

In his book *Building Materials*, Kenneth Hudson discusses how the "Victorian building boom" was fuelled by the use of Bath stone.[349] Spencer-Silver notes how Myers utilized Bath stone "to build some of Pugin's 'Gothic' churches" such as St George's Cathedral in Southwark.[350] Here, she points out how Pugin specified that "'the whole of the dressings, external and internal [... are] to be worked in the best Bath stone'."[351] Collectively, Pugin and Myers utilized enough Bath stone that Myers, perhaps following in Pugin's footsteps, found it advantageous to acquire his own quarries. Spencer-Silver states that although Myers leased quarries in Box, Kingsdown, and Pickwick, Wiltshire, he also "bought his own [....] not later than 1847," so within Pugin's lifetime.[352] She describes how Myers quarried stone "by means of the large square-ended saws which had to be kept wet with water. The great blocks of stone were then removed from the workface with a crane and lowered onto a trolley mounted on tramlines and towed by a horse to the quarry head."[353] In total, Myers acquired enough stone for it to be necessary to lease "a stone yard and wharf (with a crane)" to accommodate his stock.[354]

6.4.3 Workshop

In 1845 Myers established a workshop in Lambeth on the banks of the Thames. Ordnance Wharf, located at 9 Belvedere Road on the Pedlar's Acre Estate, was "a piece of ground with a road frontage of 45 ft, and was 145 ft long ending in a jetty stretching out into the Thames."[355] In details not entirely clear, it seems that Myers' establishment spanned Belvedere Road to include both the waterfront locale to the northeast and a warehouse to the southwest where Myers's "workshops and machinery" occupied the bottom floors of a five-story building [fig. 6.47].[356] Spencer-Silver describes how, "[i]n the yards outside the building the timber was stacked, much

[348] Spencer-Silver, "George Myers, 1803-75, Stonemason, Builder, Contractor," 48.
[349] Kenneth Hudson, *Building Materials* (London: Longman, 1972), 21.
[350] Spencer-Silver, *Pugin's Builder*, 90.
[351] Spencer-Silver, *Pugin's Builder*, 90. Spencer-Silver does not give a source for Pugin's building specifications.
[352] Spencer-Silver, *Pugin's Builder*, 92.
[353] Spencer-Silver, *Pugin's Builder*, 92.
[354] Spencer-Silver, *Pugin's Builder*, 90; "The Fire in Lambeth," *The Times* (February 8, 1850), 5. *The Times* reports that "[t]he whole of the buildings and houses destroyed and injured are said to be the property of Messrs. Grissell," *i.e.* the contractors Grissell and Peto who also had premises in that same area. Whether these men were the lessors of Myers' yard and workshops is unclear.
[355] Spencer-Silver, *Pugin's Builder*, 20.
[356] Spencer-Silver, *Pugin's Builder*, 22.

of it rare and costly. Here too were the sawmills, the smithy and other workshops, with stables for the horses and sheds for the drays and carts."[357]

Situated in an area dominated by other builders, Myers was in good company. Spencer-Silver describes how this "was a prime site on the main route from the South to Westminster and the Houses of Parliament. Waterloo Station was within a stone's throw, and the River Thames, in those days a busy waterway, provided access to the Port of London and world-wide trade."[358] This location along the Thames facilitated the shipment of raw materials by water, and eventually Myers "on his own initiative and at his own expense built a light railway, branching off the London to Southampton line, to carry bricks and other building materials" by land as well.[359] It appears that Myers' locale provided good transportation links for incoming raw materials while also providing working space for processing these goods into finished products. Indeed, "[w]ith his 'modern' machinery it was more efficient and economical to carry out as much skilled work as possible at the Wharf and then transport the finished articles to the site."[360]

6.4.3.1 Fire

A fire in the early hours of 7 February, 1850 decimated Myers' workshop, with a report describing how the premises were so large, "the fire was not discovered till the flames had gained considerable ascendancy, a fact which probably explains the subsequent great devastation of property [fig. 6.48]."[361] Reports such as this also describe the layout and contents of the premises, which gives a good idea of Myers' working methods and the setting in which Pugin's goods were made. Pugin's correspondence indicates that he visited Myers' works in person, and would have been aware of its arrangement and the equipment in use.[362]

The Times describes how "Mr. Myers' premises contained very extensive steam sawmills, a range of carpenters' workshops capable of employing nearly 200 men, a timber-yard, blacksmiths' shop, stables, and other appurtenances."[363] This same article notes how "[t]he fire is supposed to have originated in the north-west corner of

[357] Spencer-Silver, *Pugin's Builder*, 22. Spencer-Silver cites the *Illustrated London News*' account of the event for this information yet, while extremely useful, these details do not appear there.
[358] Spencer-Silver, *Pugin's Builder*, 21.
[359] Spencer-Silver, *Pugin's Builder*, 135.
[360] Spencer-Silver, *Pugin's Builder*, 88.
[361] "Destructive Fire in Lambeth," *Bell's Life in London and Sporting Chronicle* (February 10, 1850), 3.
[362] Belcher, *Collected Letters, Vol. 5*, 25. Pugin's letter to his wife Jane dated February 7, 1849 contains the heading "Myers warf".
[363] "The Fire in Lambeth," 5.

the works [...] in the blacksmiths' shop"[364] while another in the *Illustrated London News* states how the fire "is supposed to have broken out in this timber-yard."[365] Hinting at the devastation, the *Morning Post* writes that "in the extent of its ravages, up to the moment at which this account is written, has very far exceeded any catastrophe of the kind with which the metropolis has been visited for many years past."[366]

Consumed in the fire were all of Myers' offices and administrative buildings, along with a stable within which "four valuable horses were literally burned to death."[367] *The Times* describes how "[t]he quantity of timber in log and plan destroyed is something enormous."[368] This included the timber yard, sawmills, and "a very valuable and powerful steam engine."[369] Of the steam engine, Spencer-Silver notes how Myers would have used it "to drive most of the machinery in the workshops by means of a system of shafts, pulleys and belts" similar to the arrangement in Hardman's metalworks.[370]

While one might expect wood and timber to be consumed in a fire, *Bell's Life in London* reports how "blocks of solid Portland stone lying in the yard, of several tons weight each, have been crumbled to fragments and converted into lime by the action of the fire."[371] Here, *The Times* describes how "the chief loss we believe will arise from the entire destruction of a very valuable collection of carved stone work, executed for ecclesiastical structures for which Mr. Myers is the contractor, under Mr. Pugin, the eminent architect."[372] Having learned of the fire, Pugin writes to Crace, saying with foreboding how he "just heard that Myers shops are burnt. I hope & trust – it is not the warf shops were all the Gothic work is [....] I thought something would happen."[373] He writes to Hardman the following day, saying how he just heard the news "but as yet I know not which" portion of Myers' workshops was affected by fire, "although I hope it is those premises he hired of Grissell & not the water side premises where all the Models are but any way I fear it will be serious for him."[374] Spencer-Silver notes how Pugin most likely mentioned the models in his letter to Hardman because Myers was

[364] "The Fire in Lambeth," 5.
[365] "Great Fire in Lambeth," *Illustrated London News* 16 no. 412 (February 9, 1850)," 93.
[366] "Destructive Conflagration in Lambeth," 5.
[367] "Destructive Fire in Lambeth," 3.
[368] "The Fire in Lambeth," 5.
[369] "The Fire in Lambeth," 5.
[370] Spencer-Silver, *Pugin's Builder*, 88.
[371] "Destructive Fire in Lambeth," 3.
[372] "The Fire in Lambeth," 5.
[373] Belcher, *Collected Letters, Vol. 4*, 404.
[374] Belcher, *Collected Letters, Vol. 4*, 405.

responsible for making wooden models from Pugin's drawings for Hardman's metal work.[375] Fortunately for Pugin and Hardman, the models were unaffected.

It is important to note that Myers was also working independently of Pugin, gaining his own commissions. Therefore, some of Myers' infrastructure and machinery may have been used on works outside of Pugin's scope. However, if Pugin were opposed to Myers' practice he would have made it known. The fact that Pugin depended on Myers for the construction of his family home and accompanying church in Ramsgate – the Grange and St Augustine's, respectively – shows that he felt confident enough to employ Myers on his most personal of works. Their working relationship continued up until Pugin's death and, as with Pugin's string of stained-glass manufacturers, if working methods were questionable and products not up to his standards, Pugin would have turned elsewhere.

While a portion of Myers' wharf remained untouched, the area affected by fire was a total loss. *Bell's Life in London* reports how, "[o]f all the workmen employed by Mr Myers not one has saved a single tool, and there are upwards of 50 men who have lost property of this description."[376] While the workmen were responsible for their own losses, owing to Myers' fortitude and the provision of a hefty insurance settlement, "[t]he workshops were rebuilt, the stone was replaced, the patterns were remade and everything went on as before."[377]

6.4.3.2 Machinery

The reports of the fire give a good indication of Myers' use of machinery during his prime collaborative years with Pugin and show a willingness to accept mechanisation as a time-saving convenience. In his autobiography, the MP Henry Broadhurst discusses beginning his career as a stonemason. He recounts how, upon visiting London, he "found employment for a short time in the firm of George Myers and Son" where "above, below, and around me machines throbbed and whirled ceaselessly," indicating that Myers made ready use of machinery.[378] While not specifically mentioned in the account of fire losses, on 8 January, 1846, Myers patented "a machine for cutting wood, stone, or other material, by means of a rotatory cutter-frame and cutters" and it would not be out of line to assume that Myers had this machinery

[375] Spencer-Silver, *Pugin's Builder*, 25.
[376] "Destructive Fire in Lambeth," 3.
[377] Spencer-Silver, *Pugin's Builder*, 30.
[378] Henry Broadhurst, *The Story of His Life from the Stonemason's Bench to the Treasury Bench* (London: Hutchinson & Co., 1901), 12-13.

on-site and incorporated these tools into his collaboration with Pugin.[379] Remarking on this invention, Edwards states how architectural elements and stone tracery of the Gothic style were "potentially the most likely to have benefited from the development of the carving machine."[380]

Pugin alludes to carving methods in *True Principles*, where he points out how inventions such as cast iron and Roman cement should be avoided when used "as the meagre substitute for masons' skill," stating that "we cannot allow them to replace the carver's art."[381] Given that Myers patented a purpose-built machine to produce Gothic carvings, it is clear that Pugin did not feel this invention impinged upon the masons' skill. He states that "we should neither cling pertinaciously to ancient methods [...] nor reject inventions because of their novelty, but try both by sound and consistent principles, and act accordingly."[382] Apparently Pugin felt that Myers' machinery fulfilled these criteria.

6.4.4 Scope of Work

While Pugin's other collaborators (with the exception of Hardman and his dual engagement in metalwork and stained glass) generally confined themselves to one industry, Myers' work ranged from building construction to decorative elements and furniture. As he is regarded as Pugin's builder, a survey of Myers' work in the building industry provides a good starting place for a discussion of his activity. Authors claim the Victorian building industry was slow to incorporate innovations, instead continuing to rely on traditional materials and practices.[383] Clapham states that prior to 1825 "the building trades had gone through no revolution in technique,"[384] but Myers began working with Pugin in 1838 at Derby, which puts him outside the date established by Clapham. Additionally, Musson describes how this "lack of

[379] George Myers, Certain Improvements in Cutting or Carving Wood, Stone, and other Materials. UK Patent 10,756, filed 8 July, 1845, and issued 8 January, 1846.
[380] Clive Edwards, "The Mechanization of Carving: The Development of the Carving Machine, Especially in Relation to the Manufacture of Furniture and the Working of Wood," in *History of Technology: Annual Volume 20*, edited by Graham Hollister-Short (London: Mansell, 1999), 95.
[381] Pugin, *True Principles*, 41.
[382] Pugin, *True Principles*, 42.
[383] Musson, 132. Musson states that "there was remarkably little technological change in the building trades during this period." G. R. Burnell, "Sixty Years Since: or Improvements in Building Materials and Construction During the Present Century," *Papers read at The Royal Institute of British Architects* (Session 1859-60), 36. Burnell claims that "[i]n ordinary building operations very little improvement has been, or could be, made upon the implements formerly used." Francois Crouzet, *The Victorian Economy* (London: Routledge, 2013), 80. Crouzet describes how in the nineteenth century, "there were sectors where technical progress was very limited and where structures remained traditional, in particular one as important as the building trade."
[384] Clapham, 162.

technological innovation in building was associated with generally small-scale production" that dominated the industry.[385] Once again, Myers falls outside Musson's criteria, being considered "a top-ranking contractor in the third quarter of the century." Satoh notes how Hobhouse claims "the period 1820 to 1850 was one of technological advance in the building industry" but, as he is sure to point out, "hers is a minority view."[386]

It is difficult to find authors who support the idea of the growth of innovation in the building industry as it seems the average builder still relied on handicraft and traditional methods of manufacture. However, Myers was far from average, having grown his sizeable business. Peters describes how this development required builders to transition from a craft-based approach to "an industrial viewpoint" which was out of the reach of the small-scale builder but this qualifier excludes Myers.[387] An article in *The Builder* describes how "machinery can pay only in very large establishments, and that unless a builder can afford to expend a great sum of money upon an extensive plant, and have separate machines for each operation, he had better be without machinery altogether."[388] This goes a long way in explaining how and why one can portray Myers as innovative and progressive when the industry as a whole was seen as stagnant and slow to embrace change.

An evaluation of Myers' place in the building trade is further complicated by a general lack of scholarship on construction. As Dunkeld states, "virtually no attempt has been made to establish the intellectual credibility of construction history."[389] In his work Satoh examines how "our present perception of the genesis of the modern industry is distorted by an almost total neglect of the study of contractors" such as Myers.[390] Identifying where and how Myers fits into this industry is no easy task. In his correspondence Pugin only mentions details such as foundations and load-bearing aspects of the structures he designed and it seems, based on his correspondence, that he entrusted these details to Myers.[391] He must have been confident with the work given that Myers was regarded as "one of the leading contractors in the country,"[392]

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[385] Musson, 132.
[386] Satoh, 172.
[387] Tom Peters, *Building the Nineteenth Century* (Cambridge, MA: MIT Press, 1996), 49.
[388] "Machinery for Joiners' Work - The Redcliffe Estate, Brompton," *The Builder* 26 no. 1911 (March 21, 1868), 201.
[389] Malcolm Dunkeld, "Approaches to Construction History," *Construction History* 3 (1987), 3.
[390] Satoh, 5.
[391] Belcher, *Collected Letters, Vol. 1*, 176. Pugin writes to the building committee for St George's that "George Myers has duly performed the foundations of St Georges church" but little else. As an aside, he mentions "extra concrete in foundation" which indicates that Myers was pouring concrete foundations.
[392] Spencer-Silver, "George Myers, 1803-75, Stonemason, Builder, Contractor," 51.

responsible for completing "many large, high-quality buildings throughout the country."[393] Accounts exist of other large-scale builders contemporary with Myers, along with general descriptions of the building industry, but to discuss details of Myers' construction methods, particularly in regard to his work with Pugin, would be conjecture.[394]

6.4.4.1 Stone

Hobhouse describes how masons were considered a principal trade in the nineteenth century "in an age when every building had stone cills, stone coping, and stone steps, often inside as well as out."[395] Pugin's correspondence to Francis Kerril Amherst in June 1841 about the church of St Augustine's, Kenilworth, includes a discussion of the building and layout. Having heeded Pugin's suggestion that Amherst employ Myers for the work, Pugin states how "Myers will [now] furnish you with an account of the extras" employed at "the building. They are as follows. Making drains. Carting bricks. stone coping & cross on Middle gable. fittings of sacristy. Lich gate. stone cross."[396] While interesting to see what Myers added to the structure, it would be equally useful to see what the original specifications entailed.

While there may be a lack of detail surrounding his building work, much more is known about Myers' furniture and architectural detail produced for Pugin. Originating from his background as a mason and the subsequent invention of carving machinery, Myers created many stone works for Pugin including fireplaces, altars, staircases and reredos.[397] One of the best-known items, however, is the monument for Bishop Walsh (1776-1849) at St Chad's Cathedral, Birmingham [figs. 6.49, 6.50]. Carved in Bath stone,[398] Walsh is shown recumbent, "attired in full episcopal vestments" including mitre and crosier while resting under "a richly crocketed canopy."[399]

Walsh was instrumental in the building works at both Oscott College and St Chad's Cathedral and while Pugin was keen to honour the memory of this key Catholic figure,

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[393] Powell, 32.
[394] See, for example, Hermione Hobhouse, *Thomas Cubitt: Master Builder* (Didcot, UK: Management Books, 2000).
[395] Hobhouse, *Thomas Cubitt: Master Builder*, 8
[396] Belcher, *Collected Letters, Vol. 1*, 357. On 24 December, 1841 Pugin wrote "I think you had better have this done by Myers. he has already done several and if it is put in the hands of a stranger he will be astonished & make a regular job of it."
[397] Spencer-Silver, "George Myers, 1830-75, Stonemason, Builder, Contractor," 50.
[398] Brian Doolan, *The Metropolitan Cathedral and Basilica of St. Chad Birmingham; A Guide for Visitors* (Birmingham, UK: St. Chad's Cathedral, 2006), 4.
[399] John Tallis, *Tallis's History and Description of the Crystal Palace, and the Exhibition of the World Industry in 1851; Illustrated by Beautiful Steel Engravings* (London: Tallis, 1852), 228.

Myers undoubtedly appreciated Walsh appointing him as builder for St Chad's.[400] Perhaps this is why a low-relief profile of Walsh holding a model of the church is shown on the back wall of the monument. Also, Spencer-Silver suggests that Myers carved the effigy by hand.[401] Whether this is implies that the rest of the monument was carved by machine, or perhaps done by workers under Myers' instruction is not known. What is certain is that the work garnered praise, with *The Ecclesiologist* deeming the work "one of the most successful reproductions of the ancient tomb which has yet been made"[402] and, more recently, O'Donnell describing the monument as "one of the best examples of the extremely high quality of architectural sculpture produced by Myers from Pugin's drawings."[403]

6.4.4.2 Wood

Myers' area of expertise extended beyond masonry work as Pugin's "collaboration with Myers on both furniture and architectural work clearly involved much carving of wood and stone."[404] Myers was purchasing wood for his construction work and Spencer-Silver identifies "'Thomas Gabriel & Sons' of New Barge House, Commercial Road, Lambeth" as supplying timber.[405] This most likely would have come down the Thames to Myers' wharf rather than travelling over land.

Spencer-Silver describes how, at his workshop, Myers completed sculpting, carving and joinery necessary for his architectural commissions.[406] Hobhouse identifies the carpenter as "the most competent and best educated tradesman [....] responsible for 'roofing, flooring, and fixing the Timbers of a Building', that is the structural woodwork of a building" whereas a joiner tended to "'wainscoting, doors, shutters and sashes'."[407] Hobhouse also notes that "in smaller jobs the work of the two tradesmen [carpenters and joiners] often overlapped" but surely an establishment of Myers' size employed both types of workers.[408] Whether Myers himself tended to all or, indeed, any of these tasks is uncertain.

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[400] Bernard Nicolas Ward, *The Sequel to Catholic Emancipation; The Story of English Catholics Continued Down to the Re-Establishment of Their Hierarchy in 1850, Vol. II 1840-1850* (London: Longmans, Green and Co, 1915), 233-234.
[401] Patricia Spencer-Silver, "George Myers, Pugin's Builder," *Recusant History* 20 no. 2 (October 1990), 265.
[402] "Ecclesiological Aspect of the Great Exhibition," *The Ecclesiologist* 12 no. 84 (June 1851), 180.
[403] O'Donnell, *The Pugins and the Catholic Midlands*, 61.
[404] Edwards, "The Mechanization of Carving: The Development of the Carving Machine, Especially in Relation to the Manufacture of Furniture and the Working of Wood," 82.
[405] Spencer-Silver, *Pugin's Builder*, 92-93.
[406] Spencer-Silver, *Pugin's Builder*, 88.
[407] Hobhouse, *Thomas Cubitt: Master Builder*, 8
[408] Hobhouse, *Thomas Cubitt: Master Builder*, 8.

Besides requiring timber for the construction of buildings, Wainwright describes how Myers "was not only Pugin's usual builder but made furniture for him. His remarkable understanding of wood and its structural requirements made him an essential example for later designers."[409] Wainwright also notes how "there were a number of firms who could reach [Pugin's] high standards" in furniture production, so that "[b]y the late 1840s, Webb, Crace, Myers, Gillow and Holland were all manufacturing to his designs."[410] Of these individuals, Crace was "[t]he chief supplier of furniture in Pugin's group" which, as Wedgwood notes, undoubtedly led to "some professional rivalry between Crace and Myers."[411]

One of Myers' best-known wooden pieces for Pugin is the oak cabinet Pugin designed for his own dining room at The Grange in Ramsgate [fig. 6.51]. The catalogue for *Pugin: Master of the Gothic Revival* describes this piece, ca. 1846, as "among the most splendid of [Pugin's] known domestic pieces" and indeed a great deal of this accolade belongs to Myers' ability to translate Pugin's design into reality as "the carving of the oak is of the highest quality, a reflection of George Myers's excellent craftsmanship."[412] Records at the Victoria and Albert Museum, home of the cabinet, describe how Myers produced "a cabinet of very similar design" for the Great Exhibition.[413] Recalling this item, the *Exhibition Supplement to The Illustrated London News* describes an "oak cabinet of very elaborate design" where "the enrichments of the panels contain the various tools used in masonry, ornamentally disposed with foliage."[414] It is quite telling that Myers chose to ornament the piece with tools of the trade, as it is perhaps indicative of Myers' workshop "which produced carved wooden Gothic detailing and furniture."[415]

6.4.5 Working Methods

While dealing with architectural commissions, Pugin once again took the approach of sketching a portion of a design and trusting that his collaborator could flesh out the rest to bring his concepts to fruition. Brittain-Catlin describes how Pugin relied "on

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[409] Clive Wainwright, "'Not a Style but a Principle': Pugin & His Influence," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 16.

[410] Wainwright, "Furniture," 128.

[411] Alexandra Wedgwood, "The Mediæval Court," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 242.

[412] Atterbury, et al., 391.

[413] Victoria and Albert Museum, "Cabinet," The Victoria and Albert Museum, http://collections.vam.ac.uk/item/O78389/cabinet-aw-pugin/

[414] "The Mediæval Court," *Exhibition Supplement to The Illustrated London News* 19 no. 518 (September 20, 1851), 362.

[415] Ferrey, xxxiii.

Myers' methods, to avoid the need for extensive working drawings" and he instead "transferr[ed] instructions to his builders in the form of formal and informal specifications."[416] Thankfully for Pugin, as Spencer-Silver states, Myers "was an artist and craftsman of considerable skill" who also had extensive building and contracting experience and "[t]he understanding between the two men was to be such that detailed drawings would be unnecessary."[417]

Speaking of his work with Myers at the Convent of Mercy in Handsworth, Birmingham, Belcher discusses Pugin's "reliance placed on the builder [Myers] to work without detailed guidance" and "the freedom with which he invites suggestions for even greater economy."[418] Brittain-Catlin even states that there is "evidence that much of Pugin's constructional detailing was in fact learned on site from Myers' methods," suggesting that the relationship between the two men was less one of superior and worker and more of equals.[419] Indeed, Ward notes how when Pugin frequented a building site, "he went into every detail, and mixed with his workmen, whom he often knew personally, for he considered it essential to have men used to his designs."[420] Ward believes this is another reason why Pugin chose whenever possible to employ Myers, because his workers "were accustomed to him."[421]

Pugin outlines his working method with Myers in a letter to Lord Midleton dated 5 January, 1843. Here Pugin explains how "I have the advantage of a man [Myers] of tried skill and integrity – one who perfectly understands my principles of work – & my drawings."[422] Pugin informs his client that the drawings he provided "are quite sufficient for Myers to produce an excellent work" but "if a stranger has to execute it" it will be "a dead Loss of time – which I can ill afford.... for the future therefore I must really decline executing any work to which I cannot appoint my own builder.... I cannot waste time with strangers."[423]

Pugin seems to have played an intermediary role, negotiating between Myers and the client. At times this included acrimonious discussions regarding payment, as seen in an 1841 letter to Thomas Doyle of St George's when Pugin states that "you have a right

[416] Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context," 151.
[417] Spencer-Silver, *Pugin's Builder*, 12.
[418] Belcher, *Collected Letters, Vol. 1*, 142.
[419] Brittain-Catlin, "A.W.N. Pugin's English Residential Architecture in its Context," 155.
[420] Ward, 92.
[421] Ward, 92.
[422] Belcher, *Collected Letters, Vol. 2*, 4.
[423] Belcher, *Collected Letters, Vol. 2*, 6.

to expect Mr. Myers to execute every thing in the best maner & he has a right to expect the payment at the stipulated times."[424]

Although Pugin complained about Myers in his correspondence with his other collaborators, he supported his colleague to those outside of his inner circle. In 1840 he assures Thomas Doyle that he "may rely fully on Myers. the more I see of him the better I feel satisfied of his skill & integrity."[425] Ten years later Pugin continues to sing the praises of his builder when he tells Bloxam, "I feel quite satisfied that Mr. Myers is incapable of doing anything wrong *intentionally* & that no man is better able to produce both a good & a reasonable work under my personal superintendence than he is."[426]

6.5 Advertising and Promotion

Throughout his collaborative efforts, Pugin suggested ways to appeal to the public and improve sales by advertising their wares, particularly those made in conjunction with Pugin's designs. Regarding "the commercial enterprise which he had hoped would revolutionise Victorian taste," Wedgwood states how Pugin "was always aware of the importance of advertising."[427] Brooks also notes how, as much as Pugin and his collaborators favoured the medieval style, "their eagerness to advertise, [was] not medieval at all but modern. Inevitably, they were capitalist."[428]

As previously shown, Pugin and Hardman advertised in the 1839 issue of *The Catholic Directory and Annual Register for the Year*. This featured a full-page spread illustrating the assortment of goods on offer, including an altar cross, holy water stoup, candlesticks, cruets, processional cross, sacrying bell, holy water vat, thurible, missal binding, and chalices, each "[e]xecuted in a very superior style, and with a scrupulous regard to Canonical laws [fig. 6.11]."[429] The text accompanying the image describes how Pugin and Hardman address "[t]he great difficulty of procuring ecclesiastical ornaments suitable to the wants and dignity of the ancient religion" as caused by the "utter ignorance of both artists and artisans in these manners."[430]

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[424] Belcher, *Collected Letters, Vol. 1*, 184.
[425] Belcher, *Collected Letters, Vol. 1*, 152.
[426] Belcher, *Collected Letters, Vol. 5*, 370-371.
[427] Wedgwood, "J.G. Crace and A.W.N. Pugin," 145.
[428] Chris Brooks, *The Gothic Revival: Art and Ideas*, 244-246.
[429] "Ecclesiastical Ornaments designed from ancient authorities and examples by A. W. Pugin," 194.
[430] "Ecclesiastical Ornaments designed from ancient authorities and examples by A. W. Pugin," 194.

This persuasive piece must have had its intended effect with an uptick in sales as Pugin continued to advocate for advertising. In February 1850, he sent Crace a letter regarding the text for an announcement, stating how an "upper line of letters is far the best for your advertisement" and that the text should be presented "in letters corresponding to the style of the furniture," *i.e.* gothic.[431] Hill notes how this was a new venture for a hesitant Crace "who needed persuasion to do anything so déclassé as advertise."[432] An advertisement corresponding to Pugin's description appeared in *The Builder* on 26 July, 1851 [fig. 6.52]. Regarding work "in the Mediæval Styles," the ad states how Crace has "directed their particular attention to this subject, and have prepared appropriate specimens in the various branches of Furnishing" including textiles, carpets, wallpapers, and furniture.[433] The advertisement concludes by noting that "the whole of the above-mentioned Furniture, &c. is designed after Ancient Authorities, and executed under the immediate superintendence of Mr. A.W. Pugin, Architect."[434]

Crace's advertisement also mentions Hardman, suggesting how items of metalwork were presumably also for sale at Crace's shop.[435] Indeed, as the output of his collaborators grew, they opened showrooms outside of their main locale. Belcher notes how the satirical publication *Punch* picked up on Hardman's new premises in their feature on "Pugsby" [fig. 6.53], a medieval figure that has "opened a manufactory for every article in the Mediæval line,"[436] suggesting that it is "an oblique reference to advertising for Hardman's new shop."[437]

These firms took on a decidedly modern and progressive approach to growing their businesses which incorporated advertising and multiple branches from which to shop. Catalogues formed an integral part of sales, and Doolan describes how Hardman produced a catalogue of his goods for both dealers and consumers.[438] Pugin also pushed his collaborators to produce stock to keep on hand. In November 1847 Pugin writes to Crace, "I am very anxious to get lots of good Patterns for papers. I am sure they will anser your purposes but when you get a stock you should make them known."[439] Pugin sent a similar letter to Hardman in October 1848, saying how "[i]n this Bad state of trade what do you think of getting up some good patterns but cheap

[431] Belcher, *Collected Letters, Vol. 4*, 404.
[432] Hill, *God's Architect,* 385.
[433] "Ancient House Furniture" [Advertisement], *The Builder* 9 no. 442 (July 26, 1851), 473.
[434] "Ancient House Furniture," 473.
[435] "Ancient House Furniture," 473. Hill describes how Pugin was working on products "which would be sold by Hardman as well as in Crace's Wigmore Street showroom." Hill, *God's Architect,* 385.
[436] "A Card," *Punch* 9 (1845), 238.
[437] Belcher, *Collected Letters, Vol. 4*, 467.
[438] Doolan, *The Pugins and the Hardmans,* 21.
[439] Belcher, *Collected Letters, Vol. 3*, 304.

for coffin plates handles &c. I am sure they must sell. even here I have had 3 coffins to make lately & am obliged to *buy wretched things* at a comparatively Large cost – if well advertised you might sell a deal for People always die even in bad times."[440] As Wedgwood notes, Pugin's desire to target the general public was "allied to his business sense, which told him that there was a substantial market for domestic interior decoration waiting to be tapped."[441] Presumably it was this wider market that he hoped to target through advertising.

[440] Belcher, *Collected Letters, Vol. 3*, 621.
[441] Wedgwood, "J.G. Crace and A.W.N. Pugin," 141.

7.1 The Houses of Parliament

Pugin's work with Hardman, Crace, Minton, and Myers elevated his work beyond purely ecclesiastical circles and into the public sphere, designing furniture, wallpapers, and tiles for both private homes and public buildings, including perhaps the most iconic public building of the nineteenth century in the UK, the new Houses of Parliament. Pugin's work at the Palace of Westminster has previously been alluded to here, but it is worth examining this work on its own in greater detail, particularly in light of his collaborative efforts.

The old Palace was a series of buildings, expanded and modified over the years to accommodate changing needs and fashions.[1] Despite its medieval origins, Pugin despised the antiquated building and its hodgepodge of ill-fitting styles, a sense of which can be gleaned from Prevost's 1815 panorama of the site [fig. 7.1]. Pugin reports his joy in watching John Soane and James Wyatt's "composition mullions & cement pinncles & battlements flying & cracking" when the building caught fire on 16 October, 1834 [fig. 7.2].[2] A competition was established for the design of a new national seat of government, with a Commons Select Committee specifying the new building be Gothic or Elizabethan in design to harmonize with the surviving Westminster Hall, St. Stephen's Chapel, and the nearby Westminster Abbey.[3]

An 1852 text on the construction of the new Palace of Westminster notes how "97 sets of designs, containing not fewer than 1400 drawings" were entered for the rebuild, but Pugin's was not among them.[4] One would think that Pugin would jump at such a chance but he did not enter the competition himself, having previously mentioned his dislike of the process, noting that "I should not like to incur the expense on so great an uncertainty [....] I would not enter into anything like a competition on any consideration."[5] In later years, Edward Pugin would claim that his father chose not to compete because, "being a Catholic he was under the idea that he had no chance of

[1] Paul Brand, "The Development of Parliament, 1215-1307," in *A Short History of Parliament*, edited by Clyve Jones (Woodbridge, UK: Boydell Press, 2009), 10. Brand explains that the institution of Parliament began in 1215 with the Magna Carta, although at that date the location was not yet fixed.

[2] Belcher, *Collected Letters, Vol. 1*, 42.

[3] Alfred Barry, *Memoir of the Life and Works of the late Sir Charles Barry*, 236.

[4] *The House of Lords; A Description of that Magnificent Apartment, together with the Peers' Lobby and the Victoria Hall in the New Palace of Westminster* (London: H. G. Clarke and Co., 1852), 5-6 (hereafter cited as *The House of Lords; A Description*).

[5] Belcher, *Collected Letters, Vol. 2*, 134.

success."[6] Interestingly, Rorabaugh describes the expense associated with taking part in the competition, with its "rushed, four-month deadline" and that "few noted architects chose to compete."[7] Perhaps accepting that his religion would work against him and choosing to spend time on projects with a guaranteed income rather than scramble to meet the hasty deadline,[8] Pugin accepted work drawing the plans for two other entrants – the Scottish architect Gillespie Graham and Charles Barry, with whom he had worked on the gothic King Edward Grammar School in Birmingham [fig. 7.3]. Boime suggests that Pugin's draughtsmanship for other contenders "reveal Pugin's commercial interests" and that "his 'Gothic' was essentially for hire."[9]

Although Pugin was not impressed with Barry's design, claiming that it was "[a]ll Grecian, Sir; Tudor details on a classic body,"[10] Wedgwood notes that he was impressed with Barry's plan, as Pugin realised he could not have "worked out the different routes through the buiding for its different users," while retaining "the best medieval bits, Westminster Hall, the cloisters, and the lower chapel of [St] Stephen with the upper chapel as part of the main public route into the building."[11] Barry's design was selected and, even though the "perpendicular skyline did not satisfy a medieval purist like Pugin," it did lend credence to "Gothic as a *national* architecture."[12] Regarding Barry's winning design, the Commons Select Committee noted how "it is impossible" to "not feel confidence in the author's skill in Gothic Architecture."[13] Whether their praise belongs to Barry or to Pugin, whose "skill and imagination in the use of the ornaments of the style were better than anything Barry or anyone else could produce in 1835,"[14] is a moot point since the Houses of Parliament display a quality of ornament not seen in Barry's prior Gothic commissions.[15]

7.1.1 Building Innovations

[6] E[dward] Welby Pugin, "Correspondence - Westminster Palace," *The Pall Mall Gazette* 6 no. 784 (August 15, 1867), 3.
[7] W. J. Rorabaugh, "Politics and the Architectural Competition for the Houses of Parliament, 1834-1837," *Victorian Studies* 17 no. 2 (December 1973), 168.
[8] Belcher, *A.W.N. Pugin: An Annotated Critical Bibliography*, 328. Belcher states that "Pugin's reason for not entering the competition was not his Catholicism but his preference of certain income from helping Barry and Graham to the risk of loss in the uncertainty of competition."
[9] Boime, 637.
[10] Ferrey, 248.
[11] Alexandra Wedgwood, personal correspondence, 18 August 2020.
[12] Gilmour, 225-226.
[13] Alfred Barry, *Memoir of the Life and Works of the late Sir Charles Barry*, 148.
[14] Phoebe B. Stanton, "Barry and Pugin: A Collaboration," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 70.
[15] Peter Fleetwood-Hesketh, "Sir Charles Barry," in *Victorian Architecture*, edited by Peter Ferriday (Philadelphia: Lippincott, 1964), 131.

Pugin's work drawing the design and exterior decorations to Gothicise Barry's structure continued after the design's submission on 1 December, 1835[16] as he pepared detailed estimate drawings of the building between August 1836 and January 1837.[17] Following the completion of these drawings, Pugin's work at the Palace of Westminster came to an end and Barry was faced with the solo task of construction. Barry's design was certainly ambitious, with the March 1836 issue of *The Architectural Magazine* describing how he proposed "to sweep away the whole of the existing buildings on the site of the present Houses of Parliament, with the exception of Westminster Hall, and to erect a quadrangular pile, with the principal front facing the Thames, and a tower in the centre."[18] Although the plan changed quite a bit between the competition and construction, with "more land being added at the southern end of the site and on the river front" and the addition of the clock tower, this statement by *The Architectural Magazine* nonetheless serves to recognise the enormity of Barry's undertaking.[19]

Port notes that, although the new Houses of Parliament were not structurally innovative, it did utilize "the most advanced technology in such important features as the process of selection of the building stone, use of concrete foundations, all-timber nailed scaffolding, [and] machinery for carving. In the actual process of construction, new techniques were devised on the site."[20] Hobhouse describes how modern construction machinery "such as mason's cranes and hoists like Dr. Spurgin's 'endless ladder'" was used in erecting the building, "exploiting the Victorian genius for innovation and experiment."[21] It is this combination of modern technology and historic forms that led to Brooks' proclamation that the project represents "medievalism quite literally built upon the stuff of modernity."[22]

Even contemporary publications realized the prescience of the works at the new Houses of Parliament. *The Athenaeum*, writing in 1847, describes how "[e]very element of modern science, every material and process of modern manufacture and invention, that could facilitate the execution or secure the stability of the edifice, have been unsparingly used."[23] These groundbreaking technologies included "zinc roofing, iron rafters, cast-iron beams, plate glass – all new – introduced into the work as materials; and railroads, railroad carriages and travelling cranes, and rectangular

[16] Stanton, "Barry and Pugin: A Collaboration," 53.
[17] Wedgwood, *Pugin and the Pugin Family*, 77n26, 77n54.
[18] "Miscellaneous Notices respecting the Competition Designs for the New Houses of Parliament," *The Architectural Magazine* 3 no. 25 (March 1836), 104.
[19] Alexandra Wedgwood, personal correspondence, 18 August 2020.
[20] M. H. Port, "Introduction," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 2.
[21] Hermione Hobhouse, review of *The Houses of Parliament*, ed. Michael H. Port, *Victorian Studies* 21 no. 2 (Winter 1978), 283.
[22] Chris Brooks, *The Gothic Revival: Art & Ideas*, 220.
[23] R. S. L., "Fine Arts," *The Athenaeum* no. 1015 (April 10, 1847), 393.

combinations of parallel framing, all contributing to the perfection of a work so different from use and wont, yet so congruous to the effect intended."[24] *The Westminster and Foreign Quarterly Review* of 1848 added to this list of innovations, noting how the building was erected "with sawing up by machinery the most huge blocks of stone, of executing by the same means the most delicate carving on their surface; as well as that of drying, airing, and seasoning artificially every part of the building as it arose; and with the fullest command not only over the supply of stone, but of timber, and of metals used in the construction."[25]

Writing in 1860, Wyatt describes how building products common at the time were, upon their introduction at the Houses of Parliament, "rarities attainable only after repeated experiments."[26] Indeed, if not for "[m]echanical arrangements for saving labour [...] the Houses of Parliament could never have been completed."[27] If Pugin were opposed to these methods or materials, he could have declined Barry's later invitation for further assistance or, if he had not been aware, he could have left shortly thereafter. Perhaps realizing this possibility, *The Athenaeum* concludes "[t]hat a man of Mr. Pugin's celebrity should have lent his great talents and profound knowledge of decorative detail to assist in the completion of this work is a matter for congratulation to the public who benefit by the combination."[28]

Of the innovations taking place in the building's construction, one of the foremost was Barry's ambitious civil engineering plan to extend the building plot into the Thames and "reclaim a strip some eighty to a hundred feet wide from the river bed by building a wall within a timber coffer dam" [fig. 7.4].[29] In his study on the building techniques used at the site, Smith details how "[e]xcavation was carried down to 25 feet below Trinity High Water"[30] and a "10-horsepower steam engine pumped out the water" from the cofferdam enclosure.[31] Once excavated to the required depth, this void was filled in with twelve feet of concrete to form a solid foundation upon which the structure could be built.

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[24] R. S. L., 393.
[25] "Reports of the Committee of the House of Commons on the Progress of the new Houses of Parliament," *The Westminster and Foreign Quarterly Review* 49 no. 2 (1848), 471.
[26] M. Digby Wyatt, "On the Architectural Career of the Late Sir Charles Barry," in *Papers read at the Royal Institute of British Architects*, Session 1859-60 (London: RIBA, 1860), 130.
[27] Wyatt, "On the Architectural Career of the Late Sir Charles Barry," 130.
[28] R. S. L., 393.
[29] Denis Smith, "The Houses of Parliament: Structure and Building Services 1835-1870," *Transactions of the Newcomen Society* 45 (1972), 89.
[30] Smith, "The Houses of Parliament: Structure and Building Services 1835-1870," 89.
[31] Denis Smith, "The Techniques of the Building," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 197.

The foundation having been secured, construction on the superstructure could begin and the latest and most efficient machinery was employed for this purpose. Three 6-horsepower Gough's Patent Portable Steam Engines were employed to power lifting machinery [fig. 7.5].[32] Clearly this steam engine was important enough that Barry was compelled to endorse its use, writing in *The Builder* of 11 May, 1850 of the "saving of time and materials, with solidity of building" offered by the engines, noting that "they have fully answered the purposes for which they were required, viz. hoisting the building materials."[33]

Even the scaffolding at the Palace was state-of-the-art. For the construction of the towers – the Victoria, Central, and Clock (now Elizabeth) - mechanical scaffolding was used and in an 1854 address to the Royal Institute of British Architects, Charles Barry Jr. noted how "[t]he elaborately decorative character of the face masonry at the New Palace made it necessary either to execute the finishing *in situ*, which is still nearly always the method abroad, or to employ a system of scaffolding, by means of which heavy worked blocks might be raised without any chance of injury, and adjusted in their places with the same precision and facility as a brick could be laid by hand."[34] This machinery allowed the work to continue safely and expeditiously according to the latter method.

7.1.2 Interior Details

The skeleton of the structure complete, Barry was tasked with the interior fixtures and fittings. Despite his previous design for the King Edward Grammar School (for which he also relied on Pugin) and employment in building what Hitchcock regards as "cheap Commissioners' Gothic churches," Barry was not known for working in the Gothic idiom.[35] According to Hitchcock, Barry's "favourite mode was the Renaissance Revival."[36] His command of the Italianate style is seen in two buildings which sit side by side in Pall Mall – the Travellers' Club (1829), which was "inspired by Raphael's Palazzo Pandolfini in Florence"[37] and the Reform Club (1837) "for which its model was obviously San Gallo's Farnese Palace in Rome" [fig. 7.6].[38]

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[32] Smith, "The Techniques of the Building," 211.
[33] [Advertisement,] *The Builder* 8 no. 379 (May 11, 1850), 228.
[34] Charles Barry, Jun., "Some Description of the Mechanical Scaffolding Used at the New Palace at Westminster, Particularly in Reference to the Three Main Towers of the Building," in *Papers Read at the Royal Institute of British Architects* by Royal Institute of British Architects (London: The Institute, 1854), 157.
[35] Hitchcock, *Architecture: Nineteenth and Twentieth Centuries,* 72.
[36] Hitchcock, *Architecture: Nineteenth and Twentieth Centuries,* 72.
[37] The Travellers Club, "Architecture," https://www.thetravellersclub.org.uk/architecture
[38] Hitchcock, *Architecture: Nineteenth and Twentieth Centuries,* 75.

With the scope of detail required at the Houses of Parliament, and with national interest focused on the project, Stanton states that Barry found himself overwhelmed and once again in need of Pugin's assistance, especially for the interior of the House of Lords.[39] Barry writes to Pugin on 3 September, 1844 with the news that "I am in a regular fix respecting the working drawings for the fittings and decorations of the House of Lords, which it is of vital importance to me should now be finished with the utmost possible dispatch."[40] Barry flatters Pugin, stating that "I know of no one who can render me such valuable and efficient assistance" and requesting that Pugin "enter into some permanent arrangement that will be satisfactory to you, as to occasional assistance for the future in the completion of the great work, as well as for the discharge of my obligations to you for what you have already done."[41]

Despite his original disapproval of the building during the design phase, Pugin changed his opinion of the Houses of Parliament in later years. In the 1843 publication of *An Apology for the Revival of Christian Architecture*, Pugin claims the "erection of the Parliament Houses in the national style is by far the greatest advance that has yet been gained" in the construction of noble buildings.[42] Here he describes how other buildings – palaces, churches, colleges, civic buildings, public monuments, and private homes – have failed due to their "*inconsistency of design*."[43] It would seem then, that the new Palace of Westminster was consistent enough in this regard to garner Pugin's praise, negating his claim that the building was a combination of Gothic and Tudor. Perhaps to justify this earlier reprobation, in *An Apology for the Revival of Christian Architecture* Pugin notes that while the "long lines of fronts and excessive repetition" of the riverfront façade, *i.e.* the Tudor arrangement, is "not in accordance with the ancient spirit of civil architecture," its Gothic "detail is most consoling."[44] He declares the building "the morning star of the great revival of national architecture and art" which "has not been surpassed even in antiquity."[45] It may have been this favourable approach expressed in the period after drawing Barry's design, along with his capable knowledge of the Gothic style, which inspired Barry to seek Pugin's assistance shortly thereafter.

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[39] Phoebe B. Stanton, "The Collaboration Renewed: Barry and Pugin, 1844-52," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 129.

[40] Alfred Barry, *The Architect of the New Palace at Westminster: A Reply to a Pamphlet by E. Pugin Entitled "Who Was the Art-Architect of the Houses of Parliament?"* (London: J. Murray, 1868), 38 (hereafter cited as *The Architect of the New Palace at Westminster*).

[41] Alfred Barry, *The Architect of the New Palace at Westminster*, 39.

[42] Pugin, *An Apology for the Revival of Christian Architecture in England*, 10.

[43] Pugin, *An Apology for the Revival of Christian Architecture in England*, 9.

[44] Pugin, *An Apology for the Revival of Christian Architecture in England*, 10.

[45] Pugin, *An Apology for the Revival of Christian Architecture in England*, 10.

Notably, even though Pugin was not involved in the project when his comments were published, accounts of the erection of the building were a regular feature in the public press. Throughout his correspondence with his collaborators, Pugin regularly refers to comments in the press, demonstrating his awareness of current events, making it entirely likely that he would have read about the ongoing construction of the Houses of Parliament and the descriptions of the machinery and innovations employed therein. Even with a basic knowledge of the work being undertaken on the project and the machinery involved, Pugin chose to praise the building. His claim that the structure "embodies every possible convenience of access, light, and distribution" is expressed without qualification, and perhaps even with the realisation that said features were made possible through the use of machinery.

7.1.3 Real Architect Controversy

The methods undertaken in the building's erection did not dissuade Pugin from accepting Barry's request, and he was once again involved in the Houses of Parliament. Stanton notes how, from Pugin's reintroduction to the project and his death in 1852, "a kind of collaboration came into being as Barry fitted his building together and Pugin designed the parts of the decorative portions. Barry was the architect, Pugin and he shared the decoration."[46]

Pugin accepted Barry's invitation with the stipulation that he only be responsible to Barry so that he "would not have to appear before innumerable committees."[47] Although Pugin's hand was distinctive in his drawings for Barry, his involvement was never acknowledged. During his return in 1844, Pugin was granted the government position of Superintendent of Woodcarving and a salary of £200.[48] In a letter dated "not later than April 1845," Pugin writes to Barry wishing "*to state exactly my views*" on his role "*to prevent any misunderstanding.*"[49] For the annual stipend, Pugin agreed to "furnish drawings and instructions for all the carved ornaments in wood that may be required."[50] Additional payments covering travel expenses, casts and original models for the workers' instruction, and drawings for "glass, metal works, and tiles, &c." outside the scope of woodcarving, are also forthcoming.[51] Lastly, Pugin writes

[46] Stanton, "The Collaboration Renewed: Barry and Pugin, 1844-52," 137.
[47] Robert Cooke, *The Palace of Westminster: Houses of Parliament* (London: Burton Skira, 1987), 115.
[48] Bank of England. "Inflation Calculator," https://www.bankofengland.co.uk/monetary-policy/inflation/inflation-calculator suggests this is the equivalent of £25,000 in today's money.
[49] Belcher, *Collected Letters, Vol. 2*, 383.
[50] Belcher, *Collected Letters, Vol. 2*, 384.
[51] Belcher, *Collected Letters, Vol. 2*, 384.

that "*I am only responsible to you in all matters connected with the work. I act as your agent entirely, and have nothing to do with any other person.*"[52]

In his work with Barry, Pugin sought to establish "a perfect understanding at starting, for it is a great work and will occupy the greater part of my time."[53] However, the public was sceptical about Pugin's role and in a letter to Charles Barry on 7 June, 1845, Pugin states how "I have been informed that some most exaggerated statements respecting the nature of my employment at the Palace of Westminster have appeared in one of the papers [....] I am sure you know me too well to imagine that such statements would give me anything but great pain and annoyance."[54] Despite Pugin's protestations, *The Artizan* of July 1845 published the article "Charles Barry and His Right-Hand Man" which declares that Barry "submitted to the indignity" of a "champion of Romanism in all its most besotted superstitions."[55] Pugin, on the other hand, is portrayed as "publishing the fact [of his employment] in the most cock-crowing tone."[56]

Gloag claims that Barry originally had no intention of making Pugin's involvement public, but "soon found himself battling with an impulsive and industrious genius whose abilities transcended those of a mere anonymous assistant: the 'ghost' materialised and became an acknowledged collaborator."[57] Questions continued to circulate about the nature of their working relationship, prompting Pugin to publish a notice in *The Builder* on 6 September, 1845 to address "the misconception" surrounding "the nature of my employment in the works of the new palace at Westminster."[58] Here Pugin describes how he is "engaged by him [Barry], and by him alone, with the approval of the Government, to assist in preparing working drawings and models from his designs of all the wood carvings and other details of the internal decorations."[59] He finishes by noting that his "occupation is simply to assist in carrying out practically Mr Barry's own designs and views in all respects."[60] Pugin reassures the reader that he only assisted Barry and did not generate any unauthorized content; everything passed under Barry's watchful eye.[61]

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[52] Belcher, *Collected Letters, Vol. 2*, 384.
[53] Belcher, *Collected Letters, Vol. 2*, 384.
[54] Belcher, *Collected Letters, Vol. 2*, 393-394.
[55] "Charles Barry and his Right-Hand Man," *The Artizan* 3 no. 7 New Series (July 1, 1845), 137.
[56] "Charles Barry and his Right-Hand Man," 137.
[57] Gloag, 36.
[58] "Decorations of the New House of Lords," *The Builder* 3 no. 135 (September 6, 1845), 426.
[59] "Decorations of the New House of Lords," 426.
[60] "Decorations of the New House of Lords," 426.
[61] Alexandra Wedgwood, personal correspondence, 18 August 2020. Wedgwood notes how Pugin's letters to Barry show the two men enjoyed a good working relationship "but when there was a disagreement, as with the outline of the canopy to the throne in the House of Lords,

Despite Pugin's insistence that he was subordinate to Barry and that all work was subject to the latter's approval, the press was keen to perpetuate the myth that Pugin was the creative force behind the new Houses of Parliament[62] and these allegations reached a crescendo in what is deemed the Real Architect Controversy. Conducted between Pugin and Barry's sons in the press long after their respective fathers had died, the argument centred on each man's involvement in the design of the Houses of Parliament.The opening salvo came on 13 September, 1867, in the form of Edward Pugin's article for *The Building News* titled "Who was the architect for the Houses of Parliament?" Here Edward speaks of "the immense mass of designs" made by his father and how letters from Barry "ask for, or acknowledge the receipt of, designs for almost everything connected with the building."[63] Pugin's oldest son Edward, himself an architect, claimed that this collection of letters "point[ed] to one inevitable conclusion, – that my father's brain was the source from whence emanated the architectural, no less than the artistic, glories of the Palace of Westminster."[64]

Regarding the existence of letters supporting Pugin's claims, Barry's son complained that he could not respond to these assertions without seeing the letters for himself to verify their authenticity. Edward sent the letters to Barry, and they were never returned, prompting Pugin to conclude that "the correspondence with my father regarding the Houses of Parliament, which extended over a period of seventeen years, has been destroyed, and that for the purpose of concealing the actual facts."[65]

This was followed by a retort from Barry's son Alfred in the form of a pamphlet titled *The Architect of the New Palace at Westminster: A Reply to a Pamphlet by E. Pugin Entitled "Who Was the Art-Architect of the Houses of Parliament?"* Here, Alfred counters Pugin's claims and offers testimonials from those involved with the Parliamentary works including the assistant George Somers Clarke, the building contractor Thomas Quarm, the architectural sculptor John Birnie Philip, and R. Bayne, Practical Superintendent of the works at Millbank. Each of these individuals contributed a statement that confirmed Pugin's importance to the overall project but declared that he was secondary to Barry. They point out that "Pugin had nothing

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Barry's ideas prevailed," giving credence to the notion that he was fully in charge of the project and that he inspected and approved every feature of the building and its decoration.

[62] See "Pugin versus Barry," *The Building News* 14 (August 30, 1867), 589-590; John Mares, "Barry or Pugin?" *The Times* (September 16, 1867), 10; W. E. Gaine, "Pugin *v*. Barry," *The Building News* 14 (September 27, 1867), 674-675; "The Power of Truth," *The Building News* 15 (February 28, 1868), 143.

[63] E. Welby Pugin, "Who was the architect for the Houses of Parliament?" *The Building News* 14 (September 13, 1867), 639.

[64] E. Welby Pugin, "Who was the architect for the Houses of Parliament?" 639.

[65] E. Welby Pugin, "Pugin *v*. Barry," *The Building News* 14 (October 4, 1867), 692.

whatever to [...] beyond superintending the wood-carving at Thames Bank"[66] and that he "never took part in anything but ornamental detail."[67]

Other pieces including "Pugin *v*. Barry" in *The Building News* and "Barry or Pugin?" in *The Times* sought to stoke the fires surrounding the issue but, like the original argument between Pugin and Barry's sons, did nothing to resolve the matter, and this researcher is content to rely on Pugin's own comments regarding his involvement (or lack thereof) in the Palace's design. Both in published pieces and private correspondence, Pugin took great care to state how he worked for Barry, that the ideas were Barry's, and that he had no part in designing the building.

It cannot be overstated that, regardless of the exact terms of Pugin's employment, the working environment at the new Houses of Parliament would have been tricky for someone opposed to machinery and innovations. With the clatter of steam engines operating heavy machinery, the building itself would have been a hive of industrial activity. The whole building utilized the most innovative Victorian building methods in its construction. Ventilation, plumbing, and materials were all state of the art and would have posed a problem if Pugin truly advocated a return to the life of the Middle Ages. Additionally, regarding the mechanical scaffolding, Barry Jr. notes that before the machinery was used on the construction of the river front façade in 1840, "the first, or one of the very first instances, of the use of whole timber and tram-way scaffold was by my father at the New Grammar School at Birmingham, in 1833."[68] This is significant because it shows that Pugin chose to work with Barry at the Houses of Parliament having prior knowledge of Barry's working methods. Knowing that this project, like the one in Birmingham, would also utilize modern innovations was apparently no deterrent for Pugin and further illustrates his acceptance of machinery.

Additionally, the materials worked by these machines also called Pugin's principles into question. Barry employed modern materials such as cast iron in his design and in *True Principles* Pugin outlined how he was strongly against the material: it is devoid of light and shade, its forms are repetitive, it "is a deception" and "a mere trick."[69] However, Pugin also notes that "[w]hen viewed with reference to mechanical purposes, it must be considered as a most valuable invention."[70] Pugin's letter to Hardman in November 1844 to tell him that the "the chresting of roof will be principally in Cast &

[66] Alfred Barry, *The Architect of the New Palace at Westminster,* 86.
[67] Alfred Barry, *The Architect of the New Palace at Westminster*, 88.
[68] Barry, Jun., 157.
[69] Pugin, *True Principles*, 27-28.
[70] Pugin, *True Principles*, 27.

wrought iron"[71] is not one of shock or condemnation but is matter-of-fact. Once again this is not to suggest that Pugin was inauthentic in his beliefs, but that modern materials were welcomed so long as they did not violate his principles. With cast iron, Pugin objected to it attempting to appear like other materials. As a load bearing member, it was very useful to support high ceilings that span large expanses and it also offered improved fire protection. That Pugin accepted the job lends significant credence to his acceptance of modern construction and manufacturing techniques.

7.1.4 Superintendent of Woodcarving

Pugin's position as Superintendent of Woodcarving involved advising carvers at the large workshop at the Thames Bank. Smith states how Barry was "determined to concentrate the preparation of joinery in off-site workshops" and followed the lead of the builder Thomas Cubitt "where his steam-powered shops broke down the traditional insulation of building processes, 'so that the fullest possible mechanisation could be employed'" [fig. 7.7].[72] Opened in February 1845, Smith describes how the size and arrangement of the workshops were unable to accommodate the necessary work and that "Barry went ahead with a £7,000 extension (authorised in November) after complaining of the 'great inconvenience' and even 'risk' incurred for want of space" and by December 1847, they employed 335 men.[73] These workshops were certainly a sophisticated matter, being "organized in two divisions, carvers' and contractors'" where the carvers, "housed in a four-storey block, 340 ft long, were employed directly by Government."[74]

An article in *The Civil Engineer and Architect's Journal* from March 1848 describes how "[t]hese premises were taken to facilitate the progress of the interior finishings of the new buildings, by the erection therein of carving machines, and the employment of carvers and other workmen."[75] The carving machines were Jordan's Patent Steam Carving machine, and Satoh notes how the government leased five machines, powered by a 10 horsepower condensing steam engine and boiler [fig. 7.8].[76] These machines allowed a worker to duplicate, with the ease of mechanical assistance, several copies based on the same pattern. This machine worked according to the same principles as George Myers' patented carving machine, and why Myers' invention was not utilized is unknown. Regardless of the reasons for its selection, Barry recommended using

[71] Belcher, *Collected Letters, Vol. 2*, 290.
[72] Smith, "The Techniques of the Building," 215.
[73] Smith, "The Techniques of the Building," 217.
[74] Smith, "The Techniques of the Building," 217.
[75] "New Palace of Westminster," *The Civil Engineer and Architect's Journal* 11 no. 126 (March 1848), 93.
[76] Satoh, 159.

Jordan's carving machines at the Houses of Parliament, going so far as to publish a "testimonial" on the superiority of the machine just as he did with Gough's steam engine [fig. 7.9].[77] Barry also gave testimony before the Office of Works, describing the working method employed. Briefly put, a guide follows the contours of the original piece while rotating cutters remove wood from the areas of negative space in the blank media to create a duplicate of the original (rather like an elaborate and sophisticated key cutting machine). While carving machines were used to replicate elaborate three-dimensional items, they were most effective in duplicating works of low-relief such as linenfold panels which were used extensively throughout the Palace of Westminster [fig. 7.10].

7.1.4.1 Use of Machine Carving

Pugin embraced the use of Jordan's pattern-driven carving machinery in his position as Superintendent of Woodcarving. Here Pugin's duties involved "furnishing Barry with designs for internal fittings and furniture, and providing examples of medieval work for the carvers to use as models."[78] Keen to instruct his workers in the "true thing," Pugin acquired casts of architectural details for use at the purpose-built Thames Bank workshops [fig. 7.11]. The creation of casts of architectural elements was a common practice among craftsmen and designers during the Victorian era; even Pugin's father collected casts as part of his drawing school, for educating pupils in the intricacies of medieval design. The younger Pugin was raised in an environment where the procurement and use of casts for study and inspiration was a common practice. Adamson affirms how "patterns and prototypes, which could be replicated through casting or other processes, are an understudied but vital instance of industrial craft"[79] and therefore it is not out of the question that this practice has not been widely recognized in terms of Pugin's work, particularly when used in conjunction with carving machinery.

In his book *True Principles,* Pugin talks of the importance of imbuing one's own creations with the "true thing" as evident in medieval works, and he made frequent trips to the continent, travelling throughout Europe to collect German, French, Flemish, and English examples of authentic medieval carvings which he then deposited in collections such as the Architectural Museum at Oscott College in Birmingham, which he established in his role as Professor of Ecclesiastical Antiquities.[80] When he

[77] [Advertisement,] *The Builder* 8 no. 373 (March 30, 1850), 156.
[78] M. H. Port, "Problems of Building in the late 1840s," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 120.
[79] Adamson, 145.
[80] Flores, 169.

found architectural elements that were *in situ* but still particularly valuable for study, he employed antiques dealers to provide casts or "squeezes" of these elements. They were essential when the "form, size, and depth" of extant carvings were otherwise "impossible to convey by a working drawing."[81] These were made using a flexible mould and, when done by capable hands, could capture even the most intricate contours of the original item, making them valuable tools for training craftsmen. Pugin's personal correspondence with the wealthy Catholic benefactor the Earl of Shrewsbury for the church of St Giles in Cheadle describes his use of casts and medieval carvings. Here Pugin drew from a wide range of sources in preparing the plans and furnishings, assembling casts of medieval sculpture to serve as carving models; as Pugin himself states, "I have a cast for everything" and it appears he adopted the same approach for use at the Houses of Parliament.[82]

In a letter to Barry dated February 8, 1845, Pugin states that he requires reimbursement "for all the carved ornaments in wood that may be required" and that he be "empowered to send persons to collect squeezes &c. & all expenses connected with that object or the purchase of original models." [83] Pugin further asserts that he was "to be paid from time to time according to the accounts I will furnish you, and all journeys which I make for the purpose of finding out proper models."[84] With these arrangements in place, Pugin set about forming a collection of Gothic woodwork – either original or plaster casts – of examples both at home and abroad with which to instruct and inspire craftsmen.

As Wedgwood states, "the importance Pugin attached to the role of models of actual medieval work is most interesting. He wanted the carpenters to work surrounded by the best examples of the style he was aiming at [...] and to this end he built up in the Thames Bank Workshops a remarkable collection."[85] He once again turned to his suppliers, writing to one requesting a variety of designs with the instructions to "send the bill to me & the Casts to [the) Government Works Thames Bank London."[86] In May 1845, *The Builder* reported that "Mr. Pugin, the architect, has had several artists employed at [...] making casts of different parts of architecture [...] as examples for the decorative parts of the New Houses of Parliament"[87] and on June 7 of that year, Pugin

[81] Hanson, 89.
[82] Belcher, *Collected Letters, Vol. 1*, 250.
[83] Margaret Belcher, "Letters from Pugin to Charles Barry," *True Principles, The Journal of The Pugin Society*, 15 no. 3 (Autumn 2018), 140.
[84] Belcher, "Letters from Pugin to Charles Barry," 140.
[85] Alexandra Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture,* edited by David Cannadine (London: Merrell, 2000), 123.
[86] Belcher, *Collected Letters, Vol. 2*, 352.
[87] "Decoration of Houses of Parliament." *The Builder* 3 no. 120 (May 24, 1845): 250.

wrote to Barry saying that he had sent "a whole *cart load* of casts" to Westminster.[88] Pugin also notes that he expanded his workshop at his home in Ramsgate "so that I shall be able to have all the figures & difficult parts modeled under my own eye."[89]

Where casts were previously used as models for hand carving, they could now be employed as patterns for carving machinery. Pugin acknowledged that he could work better "by adopting the best examples and getting them carried out in execution than by making a lot of drawings which could never be worked from,"[90] and he took advantage of the capability that the machinery afforded. Regarding the specifics of the carving process, Wedgwood states that "[g]iven the outstanding quality of the work, it is particularly sad that it does not seem to be possible to give a full account of Pugin's views of how the carving was to be carried out and who did it."[91] One of the workers recalls that "[t]he usual course was that Mr. Pugin visited the works, averaging certainly not oftener than once in a fortnight, leaving a great number of sketches executed during the few hours he was with us. Sir Charles Barry was in the habit of visiting the works two or three times in each weeks, or oftener."[92] This provides very little detailed information and it is truly astounding that so little evidence exists for such a large governmental undertaking. Indeed, very little documentation exists on the Thames Bank workshops overall; a project that lasted many years and cost large sums of money. Whether extant records were deemed unimportant and were destroyed at the project's completion, or if records were not initially taken, is unknown.

The use of carving machinery at the Houses of Parliament was not without controversy. Concerns surrounded the role of the craftsman in light of the repetitive duplication made possible by the machine. As Adamson points out, "[i]t would be easy, but very wrong, to assume that the artisans' traditional role [...] was superseded by machines."[93] In reality, machines were only used to rough out shapes in the first phases of production, with hand work then required to finish the product. With this approach in mind, Adamson notes that "even very large factories continued to depend on repetitive handwork to complete supposedly machine-produced articles."[94] The English Victorian journalist George Dodd pointed out this discrepancy years earlier when he stressed that this sort of machine benefits the artist by "placing at his disposal

[88] Belcher, "Letters from Pugin to Charles Barry," 143.
[89] Belcher, "Letters from Pugin to Charles Barry," 141.
[90] Cooke, 113.
[91] Alexandra Wedgwood, "The Throne in the House of Lords and Its Setting," *Architectural History* 27, Design and Practice in British Architecture: Studies in Architectural History Presented to Howard Colvin, (1984), 65.
[92] Wedgwood, "The Throne in the House of Lords and Its Setting," 65.
[93] Adamson, 145.
[94] Adamson, 145.

machines that shall relieve him from the mechanical labour of roughing out, and fashioning the rude-sawn block, and placing it in the hands ready for the exercise alone of the mastery of the best talents at his command."[95] Similar machinery was used in the stone carving department at the Thames Bank where the fear of being replaced by the "patent iron mason" played a part in an ongoing workers' strike.[96] The perceived ease (and carelessness) surrounding machine carving also inspired debates about copyism.[97] However, in cases such as linenfold panels, a repetitive consistency is required to give the interior a uniformity and to allow the other features, be it the metalwork, stained glass, furniture, carpets, etc., to be the room's focal point.

7.1.5 Collaborative Efforts

Pugin's role expanded over time as Barry came to depend on him for an increasing number of designs beyond his remit as superintendent of woodcarving. Committees were established to find the producers for interior fittings and in 1843 the Fine Arts Commission gave notice "to send in such designs [...] suitable to the style of the building, for the purpose of assisting the Commissioners in the selection of persons to be employed."[98] This included designs for stained glass, carved work in wood, ornamental pavements, and metalwork for gates and screens. These submissions were few in number and of poor quality and lacking in an understanding of the Gothic style.[99] It appears that Barry, tired of the poor selection offered by the competition process, "had undertaken upon his own responsibility the whole of the decorative work [...] with the exception of stained glass, though even here he had intervened."[100] Indeed, as Hanson notes, Barry's working arrangement with the Ofice of Works "allowed him to deal directly with trade masters and to exert a relatively high level of control over who was employed on what task."[101] As Wedgwood states, there can "be no doubt that Barry and Pugin much preferred to pick their own men"[102] and they set about assembling a capable team of craftsmen.

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[95] "Sketches of the Principal Manufactories of the Metropolis. No. 1 Patent Machine Carving Works," *Patent Journal and Inventor's Magazine* 4 no. 102 (May 20, 1848), 636.

[96] See Officinator, "The Patent Iron Mason," *The Builder* 1 no. 6 (March 18, 1843), 68; "Patent Iron Masons," *The Builder* 1 no. 5 (March 11, 1843), 54-55; "Patent Stone Cutting Machine and Patent Iron Masons!" *The Builder* 1 no. 4 (March 4, 1843), 41-42; P. M'Omie, "Patent Iron Masons," *The Practical Mechanic and Engineer's Magazine* 2 no. 3 (December 1842), 94-96.

[97] Robert Kerr, "Copyism in Architecture," *The Builder* 8 no. 406 (November 16, 1850): 542-544; Scott, "Copyism in Gothic Architecture."

[98] F. Knight Hunt, *The Book of Art: Cartoons, Frescoes, Sculpture, and Decorative Art, As Applied to the New Houses of Parliament and to Buildings in General: with an Historical Notice of the Exhibitions in Westminster Hall, and Directions for Painting in Fresco: Illustrated by Engravings on Wood* (London: Jeremiah How, 1846), 148.

[99] Wedgwood, "The Throne in the House of Lords and Its Setting," 63.

[100] T. S. R. Boase, "The Decoration of the New Palace of Westminster, 1841-1863," *Journal of the Warburg and Courtauld Institutes* 17 no. 3/4 (1954), 343.

[101] Hanson, 72.

[102] Wedgwood, "The Throne in the House of Lords and Its Setting," 68.

It was at this point that Pugin's collaborators enter the picture. Hardman, Crace, and Minton's reputations for quality goods were known outside of Pugin's circles but the ease with which Pugin could work with these men to produce Gothic designs no doubt played into their appointment. In governmental correspondence, Barry states that "Mr. Hardman's manufactory is the only one in the Kingdom where such work is properly executed."[103] Such a statement must have pleased Pugin, considering that it was justification for the work involved in establishing Hardman's workshop and educating the craftsmen to produce quality goods. Bury notes that over the course of their involvement at the Palace of Westminster, "the Hardman day books enumerate nearly 1600 different patterns for metalwork produced from Pugin's designs."[104] Certainly, as Cooke states, "[t]here is no metal object, however humble, for which Pugin was unable to produce a Gothic form."[105] Hardman was also involved in the stained glass production for Parliament, and Christian describes how Barry saw stained glass "as a major element in the furnishing of the Palace" with its ability to "create a sense of extreme richness."[106] Utilizing Pugin's designs with the assistance of his nephew John Hardman Powell, Hardman was to complete all of the stained glass in the Palace aside from the windows in the House of Lords.[107]

Pugin and Minton's collaboration reviving encaustic floor tiles was to find its greatest application at the new Houses of Parliament. The durability of such tiles was apparent by the existence of medieval examples found *in-situ*, and Pugin must have conveyed this to Barry to persuade him to utilize Minton's encaustics throughout the Houses of Parliament.[108] Not only did Pugin show Barry Minton's final product, but the two of them travelled to Stoke to tour Minton's factory in October, 1845.[109] If Pugin were against mechanized production he certainly would not have exhibited its results to Barry. Minton's tiles were celebrated, and in 1858 *The New Palace of Westminster* notes that "[t]he Encaustic Tiled Pavement from the richness of the colours is particularly striking: it was manufactured by Minton, in Staffordshire."[110] Figures do not exist showing the number of tile designs created by Pugin for the Palace but, as

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[103] Great Britain, House of Commons, "Accounts and Papers of the House of Commons, 46.-II," 120.
[104] Bury, "The Palace of History and Art: Metalwork," in *The Houses of Parliament,* edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 265.
[105] Cooke, 307.
[106] John Christian, "The Palace of History and Art: Stained Glass," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 245.
[107] Christian, 249.
[108] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 125.
[109] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 125.
[110] *The New Palace of Westminster* (London: Warrington & Co., 1858), 34.

Bury notes, “Pugin's resourcefulness as a designer in the decorative arts is as apparent in the variety of his patterns.”[111]

Crace was also involved in the project, and as with Hardman, Barry noted in governmental correspondence that “from the experience I have had of them as tradesmen, I have the greatest faith in their artistic skill to carry out my views in the most effective and workmanlike manner.”[112] Crace provided carpets, draperies, and wallpapers throughout the Palace. As with Minton’s tiles, Crace used a hierarchy depending on the design’s location. More prestigious areas feature more ornate designs, while utilitarian areas of less importance are less ornate. Cooke mentions this treatment in regard to wallpapers, as the “designs were carefully graded as to size of pattern and grandeur of treatment to suit the status of their surroundings.”[113] Dorian Church also addresses this use of ornament when he notes how in the House of Commons, “wallpapers and carpets designed by Pugin used simpler Gothic ornaments [than those used in the House of Lords], such as flat quatrefoil, trefoil and diaper patterns. The use of heraldic emblems accorded with the location of items and the status of their users.”[114]

Hardman, Crace, and Minton were each well-known purveyors of their goods by the time that manufacturers were required for the decorative elements at the Houses of Parliament. Barry was aware of each firm’s output and praised the quality of their output in the Accounts and Papers of the House of Commons, urging the members to approve the tenders supplied by each firm for projects within their remit.[115] Pugin also tried to funnel work to his established collaborators as not only was he familiar with their working methods, but he could, as Port suggests, collect a commission on his designs for them.[116] However, this was not always possible and other firms were occasionally used to provide goods. Such was the case with the furniture provided to the Palace.

7.1.5.1 Furniture

[111] Bury, “The Palace of History and Art: Metalwork,” 257.
[112] Great Britain, House of Commons, “Accounts and Papers of the House of Commons, 46.-II,” 126.
[113] Cooke, 319.
[114] Dorian Church, “‘New Furniture of a Suitable and Proper Character’: The Working Interiors, 1849-60,” in *The Houses of Parliament: History, Art and Architecture*, edited by David Cannadine (London: Merrell, 2000), 173
[115] Great Britain, House of Commons, “Accounts and Papers of the House of Commons, 46.-II. Further Return, being Copies of the several Contracts made with Builders or other Persons for the Construction of the Palace at Westminster, stating the Conditions and Amount of each original Contract,” in *Parliamentary Papers, Vol. 60, 1847-1848* (London: Her Majesty’s Stationery Office, 1848), (hereafter cited as “Accounts and Papers of the House of Commons, 46.-II). See tenders, contracts, and Barry’s testimony contained herein.
[116] Port, “Problems of Building in the late 1840s,” 121.

Traditionally, Crace and sometimes Myers provided furniture for Pugin's personal projects. Although there is evidence that he submitted tenders for construction work at the Palace, George Myers was overlooked in favour of a lower bid and consequently Myers does not feature at the Houses of Parliament.[117] Church notes that Crace may have produced some of Pugin's "early furniture" at the Houses of Parliament.[118] In a letter dated 11 November, 1850, Pugin writes to Crace saying how "Mr. Barry wants 4 octagon tables [...] for the house lobbies."[119] Pugin also suggests that Barry wants "a lot of plain useful chairs" and includes a sketch of what appears to be the standard House of Lords chair [figs. 7.12, 7.13]. Of this he suggests that "we must have some very simple chairs that will not come very expensive – or the board of works will be putting in modern things."[120]

Pugin once again wrote to Crace on the subject of furniture at the end of November, 1850, notifying him that "Mr. Barry wants a Pattern chair made for the commons lobbies. his idea is a light but strong chamfered chair like the above sketch Covered with green leather & stamped on the back. [*Sketch: portcullis stamp*] will you get up one of these for Mr Barry to see forthwith. of course the nails must shew. [*Sketch: head of nail*]" [fig. 7.14].[121]

Despite Crace being asked to produce a sample chair, the final contract went to the firm of Gillows, a cabinet making firm based in Lancaster with a factory in London.[122] Of the firm, Cooke notes that they were "active at Westminster between 1851 and 1856"[123] while Church states that their "major commission" lasted from 1852 to 1854.[124] Stuart mentions how "Gillows were the first cabinet makers to win a contract to supply furniture for the New Palace Westminster which they carried out in 1851 to Pugin's designs"[125] and Church identifies this order as comprising "[a] chair designed by Pugin, with upholstered seat and oak backrail."[126]

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[117] Satoh, 82. Satoh notes that "in 1852, Myers offered tender for succeeding work of the Westminster Palace (contract No. 11) with a result of being next to the lowest."
[118] Church, 166.
[119] Belcher, *Collected Letters, Vol. 4*, 676.
[120] Belcher, *Collected Letters, Vol. 4*, 677.
[121] Belcher, *Collected Letters, Vol. 4*, 696. Despite Pugin's letter describing this as the House of Commons chair, what he drew became the standard House of Lords chair.
[122] Amanda Girling-Budd, "Comfort and gentility: furnishings by Gillows, Lancaster, 1840-55," in *Interior Design and Identity*, edited by Susie McKellar and Penny Sparke (Manchester: Manchester University Press, 2004), 28.
[123] Cooke, 325.
[124] Church, 169.
[125] Susan Stuart, "A Survey of Marks, Labels, and Stamps Used on Gillow and Waring & Gillow Furniture 1770-1960," *Regional Furniture* 12 (1998), 64.
[126] Church, 170.

In her study of the "Marks, Labels and Stamps Used on Gillow and Waring & Gillow Furniture 1770-1960," Susan Stuart describes how the furniture produced for the Houses of Parliament was marked with the maker's stamp as a "condition specified by the Ministry of Works by whose strictures all cabinet makers who won a commission were bound."[127] As a consequence, the cataloguing and study of pieces was facilitated by easy identification. Hall describes how, in the 1980s, historian Clive Wainwright of the V&A pushed to catalogue all historic furnishings at the Houses of Parliament, making it easy to account for the work of Gillows and other manufacturers.[128] Stuart describes how chairs of this type were produced by Gillow but, "[o]ne chair stamped 'Crace' made to the same design was recently discovered when the Parliamentary collection was being catalogued."[129] As this chair is "crudely carved and somewhat heavier" than other chairs of this same style, she suggests that "it is possible that this was the original pattern chair made up [by Crace] for Barry's approval."[130]

7.1.5.2 The House of Lords

Pugin designed "various quantities of thirty-five different types of furniture" for the House of Lords alone.[131] Holland and Son, cabinet makers, upholsterers, decorators, and "one of the largest and most celebrated furnishing firms in Britain in the 19th century," were responsible for supplying huge quantities of furniture at the palace[132] and the furniture for the Lords' chamber "forms the main body of furniture made by Holland & Sons for the functional areas, to designs by and after Pugin."[133]

While Holland and Son may have created the largest quantity of furniture for the House of Lords, the most recognizable pieces are the throne and chairs of state produced by John Webb. The date of Pugin's introduction to John Webb, described as "both an antique dealer and a high-class cabinet-maker," is a matter of debate.[134] Bury writes that Pugin "had been acquainted [with Webb] at least since 1844"[135] whereas Wedgwood states that he was familiar with Webb "since at least 1837."[136] Through his

[127] Stuart, 64.
[128] Michael Hall, "Inside the House of England's Greatest Commoner," *Apollo* 159 (June 2004), 20. Here Hall says that the cataloguing was undertaken "partly at the instigation of" Wainwright.
[129] Stuart, 64.
[130] Stuart, 64.
[131] Church, 172.
[132] Joanna Banham, ed., *The Encyclopedia of Interior Design*, (London: Routledge, 2015), s.v. "Holland & Son."
[133] Church, 172.
[134] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 123.
[135] Bury, "The Palace of History and Art: Metalwork," 263.
[136] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 123.

trade in antiquities (including the acquisition of casts for educating workmen), Pugin was in contact with dealers including Webb and Champ seems to confirm this when she writes that some of the medieval woodwork items at Oscott chapel were supplied "by one of Pugin's regular antique importers, John Webb of Bond St., London," making Wedgwood's earlier date of introduction most probable.[137]

How Webb transitioned from antiquities to furniture production is not known, although surely he had carpenters who were putting together his antiques. At the Houses of Parliament his work included the Sovereign's Throne and the Chairs of State [fig. 7.15]. The 1852 publication *The House of Lords; A Description of that Magnificent Apartment, together with the Peers' Lobby and the Victoria Hall in the New Palace of Westminster* describes the space as "a room ninety feet by forty-five feet, and in height forty feet" and within this space the "[t]hrone is situated at the south end of the chamber, and is raised on a dais, the central portion having three, and the sides two steps."[138] Of these chairs, Wedgwood suggests that "their upholstered X-frames were based on sixteenth- and seventeenth-century models," suggesting that Webb's prior dealings with authentic medieval goods clearly informed his modern productions.[139]

The House of Lords was opened by Queen Victoria on 15 April, 1847 after Pugin completed "the furniture and fittings" for the space "together with those of the Peers Lobby and the Prince's Chamber to either side."[140] Considering the scope of Pugin's work, *A Report by the Victoria and Albert Museum Concerning the Furniture in the House of Lords* notes that the "design of every aspect of the interior decoration and furnishing" came from Pugin and, consequently, "hundreds of drawings in his hand survive."[141]

These "figures and difficult parts" encompassed works in all media, making the House of Lords a true *tour de force* of Pugin's work and one which *The House of Lords* descriptive survey calls "without doubt, the finest specimen of Gothic civil architecture in Europe" with "a blaze of gilding, carvings, and coloured decorations [which] is not to be elsewhere found in England."[142] Cooke points out the two large candelabra at either

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[137] Champ, 42.
[138] *The House of Lords; A Description*, 19, 30.
[139] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 123.
[140] Wedgwood, "The New Palace of Westminster," in *The Houses of Parliament: History, Art and Architecture*, 127.
[141] Victoria and Albert Museum, *A Report by the Victoria & Albert Museum Concerning the Furniture in the House of Lords: Presented to the Sub-Committee of the Offices Committee on Works of Art in the House of Lords* (London: Her Majesty's Stationery Office, 1974), 7, 9.
[142] *The House of Lords; A Description*, 19.

side of the throne area and the brass gates at the north end of the chamber as examples of Hardman's intricate workmanship.[143] As for Crace's contributions, the *House of Lords* descriptive survey makes note that the dais of the sovereign's throne is "covered with a carpet of the richest velvet pile. The ground colour of which is a bright scarlet, powdered with lions and roses, alternately. A gold-coloured fringe borders the carpet which with the other furniture, was supplied by Messrs. Crace and Son, of Wigmore-street."[144] There are no encaustic tiles in the House of Lords but the bold colour of Minton's work appears elsewhere in the palace.

Having already discussed how Hardman, Crace, and Minton fabricated their goods, it is reasonable to assume that these methods of production continued or were refined to produce the items at the Houses of Parliament. In all, the building's interiors and decorative details represent a full flowering of Pugin's collective creative skills which, "as an architectural work, does England an honour which few would have prophecied for it at its first inception."[145]

7.2 The Birmingham Exposition of 1849

Pugin and his team had been successfully employed at the Houses of Parliament for some time when, in July 1849, Pugin wrote to Hardman saying "I am at my wits end about arranging your shew place – at the Grand Meeting – I dont know what to do."[146] Although this comment appears without prior context, it appears to refer to the Exhibition of the Manufactures of Birmingham and the Midland Counties held at Bingley House, Birmingham [fig. 7.16]. Speaking of the event, *The Art-Journal* described how it "is meant to serve a double purpose; we improve public taste by the display, and we quicken the thoughts of the intelligent; through the agency of the stimulus which the profit arising from that display enables us to offer."[147]

The Journal of Design and Manufactures described "the advantage to the artisan of such exhibitions as these is incalculable; they tend to elevate his sympathies and connect them with art,"[148] it would seem that Hardman instigated taking part in the Exposition.[149] Perhaps encouraged by Hardman himself, Crace and Minton followed

[143] Cooke, 148.
[144] *The House of Lords; A Description*, 30.
[145] "In and About the Houses of Parliament," *The Architect* 1 (April 10, 1869), 186.
[146] Belcher, *Collected Letters, Vol. 4*, 158.
[147] "The Birmingham Exhibition of Manufactures and Art," *The Art-Journal* 11 (October 1849), 321.
[148] "Birmingham: Its Manufactures and Approaching Exhibition of Products of Industry," 16.
[149] "The Birmingham Exposition of Arts and Manufactures, Bingley House, Broad-Street," *Aris's Birmingham Gazette* 108 no. 5624 (September 3, 1849), 2. This work describes the event

suit, and as Crace says in a letter to Hardman dated 27 August, 1849, the exhibit "will be a sort of ovation to Mr Pugin I think and show the world what kind of man he is – to think that all your works of art & my stuffs &c come all from one head."[150] Indeed, Belcher suggests that "perhaps one reason why [Pugin] entered drawings in exhibitions at the Royal Academy in London was the hope of securing new clients" so it is entirely possible that he approached the Birmingham exposition with the same mindset.[151] In the end three of Pugin's four main collaborators ended up taking part in the display and Wedgwood states that Pugin felt he and his collaborators "could achieve much to improve design" and viewed the exposition "as a splendid opportunity to promote this cause – and their businesses."[152]

Keeping in mind that Pugin was still employed at the Houses of Parliament as well as completing his own work, his correspondence reveals his frustration with the extra work the Exposition created, while balancing his annoyance with an energy and enthusiasm for making enticing displays for his collaborators. His initial reluctance to take part quickly dissipated after realizing how much publicity the event would (and did) garner while generating interest amongst the general public. *Aris's Birmingham Gazette* describes how Crace included wallpapers "worked from Pugin's designs"[153] while Minton featured his "famous tiles" along with "[t]he earliest tableware design by Pugin" – the Waste not want not bread tray[154] – but perhaps due to his association with the host city, the bulk of attention was focused on Hardman.

Given Pugin's reprobation of "Brummagem" goods in *True Principles,* he must have been pleased to read *The Athenaeum* praise the "efforts the manufacturers of that locality have been making to convert the epithet 'Brummagem' from a term of contempt into one demanding respect."[155] *Aris's Birmingham Gazette* describes how Hardman showed both stained glass and "specimens of his exquisite and well-known silver and brass ecclesiastical furniture"[156] while *The Athenaeum* paid particular attention to the "gorgeous paraphernalia of Romanish pomp which are exhibited as the joint productions of the taste of Mr. Pugin and of the industrial skill of Mr.

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as giving "Birmingham men a prominent place" to "increase the well-merited reputation which their productions have already gained in every portion of the globe."

[150] Belcher, *Collected Letters, Vol. 4*, 159.

[151] Belcher, *Collected Letters, Vol. 4*, xii.

[152] Wedgwood, "The Mediæval Court," 237. Although Wedgwood makes this comment in regard to Pugin's work at the Great Exhibition of 1851, there is no reason that he did not apply this same outlook to the Birmingham Exposition two years earlier.

[153] "The Birmingham Exposition of Arts and Manufactures, Bingley House, Broad-Street," 2.

[154] Joan Jones, 53.

[155] "Exhibition of Manufactures and Art at Birmingham," *The Athenaeum* 3050 no. 1143 (September 22, 1849), 956.

[156] "The Birmingham Exposition of Arts and Manufactures, Bingley House, Broad-Street," 2.

Hardman."[157] Here the reviewer lauds how Pugin and Hardman "have wrought so extraordinary a change in the whole system of manufacture" so that "mediæval handicraft seems again instinct with life under their auspices."[158] *The Art-Journal* featured a thirty-page spread on the exposition, and included an etching of Hardman's goods along with a glowing review [figs. 7.17, 7.18]. They state that Messrs. Hardman & Co. "form an entire and distinct class of manufacture, almost exclusively devoted to the ornamental articles used in the Catholic church, and in peculiar truthfulness of design and beauty of execution are really wonderful productions."[159] The publication acknowledges how the works "have had the advantage of the knowledge and taste of Mr. Pugin as designer and supervisor; and it is not too much to say, that they have carried out each design with a finished perfection which may place their works on a par with those of the best antique originals."[160]

In spite of Pugin's frequent protestations about the additional work involved in participating, or perhaps owing to his extra exertions, the exposition was a success. In retrospect, any hesitation that Pugin may have encountered was quickly erased as these reviews came in. Regarding *Aris's Birmingham Gazette,* Pugin writes to Hardman saying how "I think the account in the paper will do good"[161] and later that year Pugin writes to an associate how "our exposition at Birmingham was very creditable [and] has attracted a deal of attention & done much good."[162] It is uncertain whether Pugin knew just how much good his participation would do as *The Art-Journal* describes how "the Exhibition will have been visited by two of the leading members of the present Government, their object being to examine the preparations there made, with reference to the great National Exhibition of 1851."[163]

7.3 Design Reform

The very title of the Birmingham event, while varying between called an Exhibition or Exposition depending on the source, was described as pertaining to Arts and *Manufactures.*[164] If Pugin only wanted to fabricate items by hand and was against mechanisation and industrial development, he would have refused to take part in an event dedicated to this pursuit. Instead, his involvement reveals an effort to guide

[157] "Exhibition of Manufactures and Art at Birmingham," 956.
[158] "Exhibition of Manufactures and Art at Birmingham," 956.
[159] "The Birmingham Exhibition of Manufactures and Art," 320.
[160] "The Birmingham Exhibition of Manufactures and Art," 320.
[161] Belcher, *Collected Letters, Vol. 4*, 218.
[162] Belcher, *Collected Letters, Vol. 4*, 318.
[163] "The Exhibition of Manufacturing at Birmingham," *The Art-Journal* 11 (September 1849), 286.
[164] Emphasis mine.

workmen on how to apply design principles to art manufactures – that is, machine made products.

Situated between fine art and industry, art-manufactures generated national interest that involved many of the stars of Victorian art and design and unleashed a dichotomy of judgments upon household goods – good and bad, true and false. To codify an item as one or other meant that designers, historians, and critics were forced to take sides and stake their allegiance to one or the other. Efforts to mediate this difference recognized the potential of mechanisation in the design process and sought to harness its powers to benefit the consumer by reducing costs and making design readily available to the public. These efforts took many forms, including the establishment of Government Schools of Design, the publication of journals, and the public display of goods to educate the consumer. Rather than opposing these efforts, Pugin was eager to educate the public on this issue.

By this point in his life Pugin was widely known but his work was always prefixed with the mention of his Catholicity, and his work on church buildings and adornments only encouraged this reputation. His involvement in the Birmingham Exposition elevated him from ecclesiastical circles into the realm of national design and manufactures, which he appears to have embraced. In this sense Pugin was one of a growing group of design reformers that included Henry Cole (1808-82), Richard Redgrave (1804-88), and Owen Jones (1809-74) [fig. 7.19]. Together these men formed the nucleus of design reform in Britain in the nineteenth century, and Pugin's involvement in this movement merits consideration.

These design reformers did not want to eliminate machinery or even ornamentation but, rather, to regulate its use in accordance with principles of good design – an admittedly subjective designation but one which gained much attention in the nineteenth-century, even if the public could not agree on what this constituted. In 1849, *The Art-Journal* asks (but does not answer), "[i]s there not rather a vague and unsettled notion in the manufacturing mind as to what a 'good design' is?"[165] The uncertainty surrounding good and bad design was an area of much anxiety for the Victorians that design reformers sought to address. Through their published works, addresses, and governmental reports, the men involved in design reform sought to "provide a guide to consumption as the absolute strictures imposed by severe religion

[165] B., "On the Government Schools of Design (Continued)," *The Art-Journal* 11 (December 1849), 373.

increasingly lost their hold."[166] This movement was significant enough that in her study "Pugin: Principles of Design versus Revivalism," Phoebe Stanton identifies a link between the Gothic Revival and "the search for basic principles of design."[167] She describes how, in the mid-nineteenth century, design reformers hoped to "discover the principles which should be the basis of a reform in taste."[168]

Working under the pseudonym Felix Summerly, the civil servant turned design reformer Henry Cole published the short-lived (1849-1852) but seminal *Journal of Design and Manufacture*, "the first English-language publication dedicated specifically to the cause of industrial design."[169] Cole spoke of how "an alliance between fine art and manufactures would promote public taste, and conduce to the interest of all concerned in the production of art manufactures."[170] His involvement with the Society of Arts, the Government Schools of Design, and his friendship with Prince Albert placed him in good stead to affect real change. Belcher states that "Cole and others were touring England to estimate and generate interest in what became the Great Exhibition of 1851 and Cole visited Birmingham for this purpose from 12 September to 14 September 1849" so he would have viewed Pugin's display first-hand.[171] Cole embraced Pugin's design ideas and Suga suggests Cole's *Journal of Design and Manufacture* "reiterated [Pugin's] thesis that the artistic value of design denotes its moral character,"[172] showing how Pugin laid the groundwork for the tenets his successors would adopt.

The author, designer, and educator Richard Redgrave was another influential figure within the design reform movement, and Bøe speaks of his "indebtedness to Pugin for some of his ideas [....] Of Pugin himself, Redgrave held the highest opinion, and always spoke of him and his work in laudatory terms."[173] Redgrave's principles of design as illustrated in his *Manual of Design* (1876) strongly echo Pugin's *True Principles*. As Bizup notes, Redgrave felt that design "should be governed by the principle of fitness, which demands, first, that ornament never interfere with an object's utility, and

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[166] Deborah Cohen, *Household Gods: The British and Their Possessions* (New Haven: Yale University Press, 2006), 20.
[167] Stanton, "Principles of Design versus Revivalism," 25.
[168] Stanton, "Principles of Design versus Revivalism," 25.
[169] Joseph Bizup, *Manufacturing Culture: Vindications of Early Victorian Industry* (Charlottesville: University of Virginia Press, 2003), 132.
[170] Henry Cole, Alan S. Cole, and Henrietta Cole, *Fifty Years of Public Work of Sir Henry Cole, K.C.B., Accounted for in His Deeds, Speeches and Writings* (London: G. Bell, 1884), 107.
[171] Belcher, *Collected Letters, Vol. 4*, 284.
[172] Yasuko Suga, "Designing the Morality of Consumption: 'Chamber of Horrors' at the Museum of Ornamental Art, 1852-53," *Design Issues* 20 no. 4 (Autumn 2004), 47.
[173] Alf Bøe, *From Gothic Revival to Functional Form: A Study in Victorian Theories of Design* (Oslo Studies in English, no. 6. Oslo: Oslo University Press, 1957), 60.

second, that it not convey meanings inconsistent with an object's intended function."[174] For example, Redgrave's belief that "we must ornament construction, not construct ornament"[175] is but a reiteration of Pugin's belief that "all ornament should consist of enrichment of the essential construction of the building"[176] while his edict that "[e]ach material has its own peculiar constructive qualities"[177] which must be observed is reminiscent of Pugin's statement that "designs should be adapted to the material in which they are executed."[178]

Pevsner describes how the designer Owen Jones's discussion of "fitness" is based on Pugin's *True Principles*.[179] Certainly the very title of Jones' *The True and False in the Decorative Arts* (1852) is, at the very least, inspired by Pugin's work. Jones also advocated patterns adapted from nature, showing a strong similarity to Pugin's insistence on flat patterns when, in *The Grammar of Ornament* (1856), he states that "[f]lowers or other natural objects should not be used as ornaments, but conventional representations founded upon them sufficiently suggestive to covey the intended image to the mind."[180]

Pugin's influence was felt throughout the design reform movement, and even though the bulk of these works were published after his death, Pugin can nonetheless be regarded as belonging to this group; if one considers his *True Principles*, it is, after all, a manifesto calling for better design. In this regard, Pugin was far from alone as he joined a growing number of designers, makers, and critics who called for a reassessment of design and taste amongst the growing middle class. When considering the scope and breadth of Pugin's designs for metalwork, woodwork, tiles, and furniture, and his influence on later generations of designers, the architect John Dando Sedding remarked that "[w]e should have had no Morris, no Street, no Burges, no Shaw, no Webb, no Bodley, no Rossetti, no Burne-Jones, no Crane, but for Pugin."[181] Stanton further states that, as one "of the architects of the Revival," Pugin was interested in "the discovery of a definition of art and the establishment of rules, principles of design, which could be used to reform England's impoverished taste in architecture and the arts of decoration" and directed his energies toward "the

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[174] Bizup, 174.
[175] Richard Redgrave and Gilbert R. Redgrave, *Manual of Design: Compiled from the Writings and Addresses of Richard Redgrave* (London: Chapman and Hall, 1890), 36.
[176] Pugin, *True Principles*, 1.
[177] Redgrave and Redgrave, 43.
[178] Pugin, *True Principles*, 1.
[179] Nikolaus Pevsner, *Academies of Art, Past and Present* (New York: Da Capo Press, 1973), 254.
[180] Owen Jones, *The Grammar of Ornament* (London: Bernard Quaritch, 15 Piccadilly, 1868), 6.
[181] John Dando Sedding, *Art and Handicraft* (London: Kegan Paul, Trench, Trubner & Co., 1893), 144.

establishment of principles of design."[182] While he may not have lived to witness the apotheosis of the design reform movement, Pugin is widely recognized as a founding member, setting the groundwork for those who followed.

7.3.1 Educating Workmen

Design reform meant little if workers were not taught how to incorporate these rules of design into their goods and Pugin corresponded with the other design reformers to advocate for the appropriate use of ornament. The introduction of machinery into the manufacturing process only meant that ornamentation could be affordably produced in far greater quantities, which stimulated the dissemination of these items amongst the growing middle class. In evaluating the growth in ornamented products, Goodison describes how the nineteenth century was a time when the growing population desired "greater material comfort, when manufacturing techniques were increasingly more industrial, when exports increased sharply, and when designers, in order to satisfy the wish of the rich to have something better than the furniture now available to an ever-widening public, were seeking for novelty to design not easily categorized."[183] This new breed of consumer did not care how products were made, especially if they cost less than comparable hand-made items as the (over)use of ornament "appeased the anxious appetite of the new rich and prosperous middle classes for visible evidence of their social status."[184] This approach to design and production violated Pugin's rules for design, leading him to declare that "the neglect of these two rules is the cause of all the bad architecture of the present time." [185]

This artifice and pretense of decoration facilitated by modern production techniques made it imperative for Pugin and his fellow design reformers that architects and designers avoid ornamental features which are "*constructed*, instead of forming the decoration of *construction*" as "the smallest detail should *have a meaning or serve a purpose.*"[186] As the art and architectural historian Brent C. Brolin states, "nineteenth-century reformers did not intend to eliminate ornament. Their goal was to control the way it was applied. Pugin's principles provided an excellent foundation for this"[187] and

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[182] Stanton, "Pugin: Principles of Design versus Revivalism," 20.

[183] Nicholas Goodison, review of *English Furniture 1800-1851* by Edward Joy, *The Burlington Magazine* 121 no. 913, Special Issue Devoted to Neapolitan Art in the Eighteenth Century (April 1979), 269.

[184] Gloag, 136.

[185] Pugin, *True Principles*, 1. Here Pugin refers to his "two great rules for design" laid out in *True Principles*, that "there should be no features about a building which are not necessary for convenience construction, or propriety" and "that all ornament should consist of enrichment of the essential construction of the building."

[186] Pugin, *True Principles*, 1.

[187] Brent C. Brolin, *Architectural Ornament: Banishment and Return* (New York: Norton, 2000), 106.

were considered and reviewed by the Schools of Design.[188] Stocker claims that in 1852, "Henry Cole was encouraging [Pugin] to publish an article on the principles of design," whether for inclusion in Cole's journal or for use at the Schools of Design.[189] Although his illness and death prevented Pugin from completing this task, it is worth investigating some of these ideas and how they were incorporated into the larger debate on design reform, particularly as applied to manufactures.

As Pugin sought to educate the workmen who fabricated his goods, it is useful to examine his design principles as these formed the foundation of his interactions with makers. Although, as in *Contrasts*, Pugin frames his beliefs in the context of architecture, these tenets are also applicable to designed objects; Pugin even states that he "feels confident that [he] could extend this principle throughout all the branches of what are termed the fine arts" although he declines to do so.[190] These beliefs are enunciated in the concluding chapter of *Contrasts*, titled "On the Wretched State of Architecture at the Present Day."[191] Here Pugin considers the role of the "great and important inventions" found in "[t]his great age of improvement and increased intellect," concluding that "as works of this description progressed, works of art and productions of mental vigour have declined in a far greater ratio."[192]

Pugin also states that "this country, however it may excel in mechanical contrivances, has so little to boast on the score of improvement in art."[193] Pugin ends the chapter by lamenting "the fallen condition of the arts, when each new invention, each new proceeding, seems only to plunge them deeper in degradation."[194] Instead, manufacturers need to be directed "back to the real merit of past and better days" as it is only "by studying the zeal, talents, and feelings, of these wonderful but despised times, that art can be restored, or excellence regained."[195] He further complains about the "host of rubbish annually imported and sold" based on the motive "of whim and fashion."[196] Pugin states that regarding goods made in "ancient styles," "[t]he continual purchase of these things, at extravagant prices, may benefit the broker and

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[188] Rhodes, 154.
[189] Mark Stocker, review of *God's Architect: Pugin & the Building of Romantic Britain* by Rosemary Hill and *Augustus Welby Pugin, Designer of the British Houses of Parliament: The Victorian Quest for a Liturgical Architecture* by Christabel Powell, *Victorian Studies* 50 no. 2, Papers and Responses from the Fifth Annual Conference of the North American Victorian Studies Association, Held Jointly with the Victorian Studies Association of Western Canada (Winter 2008), 323.
[190] Pugin, *Contrasts* 1836, 30.
[191] Pugin, *Contrasts* 1836, 30.
[192] Pugin, *Contrasts* 1836, 30.
[193] Pugin, *Contrasts* 1836, 33.
[194] Pugin, *Contrasts* 1836, 35.
[195] Pugin, *Contrasts* 1836, 35.
[196] Pugin, *Contrasts* 1836, 32.

the salesman, but does not advance a restoration of such art or style one iota."[197] To rectify these injustices, he recommends the establishment of museums "where the finest specimens of each style might be found, and from which the sculptor and the artist might school themselves in their principles."[198]

Pugin goes on to point out that the lack of well made goods is ironic given that "there never was a period when there were so many lectures, academies, drawing schools, and publications on the subject."[199] Instead he complains about "the absurd idea that persons can be brought up as easily to practise in those exalted professions, as to fill the humble station of a trafficker in merchandise or a mechanical trade."[200] Those eager to learn the "noble arts of Architecture, Painting, and Sculpture" must instead "depend entirely on their own souls and exertions" for institutions such as the Government Schools can convey little "beyond the mere mechanical use of the tools, and the general principles of drawing."[201] For this reason, architecture, along with the design of goods, has "fallen to a mere trade, and [is] conducted not by artists, but by mere men of business."[202]

Pugin was one of many who felt that manufacturers and workmen should be educated so they could best apply the principles of design to their products. Whether made by hand or machine, Pugin feels this lack of understanding is present in "the majority of our artisans in the nineteenth century, the enlightened age of mechanics' institutes and scientific societies."[203] Despite its lack of capitalization, Pugin's "mechanics' institute" refers to an actual entity established specifically for the education of artisans. Found throughout England, the London Mechanics' Institute was opened in November 1823 by George Birkbeck, a doctor and professor of natural history. According to Adamson, Birkbeck "resolved to begin a lecture series for their [the members'] edification in the principles of mechanics" which would also "serve as a means to keep artisans out of the pubs and in a self-improving frame of mind."[204]

Although the Mechanics' Institute seems to provide training and education of the sort necessary to remedy the evils in design which Pugin identifies, he dismisses them as nothing more than "a mere device of the day."[205] Fox notes how at "the London Mechanics' Institution, classes for teaching geometrical and mechanical drawing were

[197] Pugin, *Contrasts* 1836, 32.
[198] Pugin, *Contrasts* 1836, 32-33.
[199] Pugin, *Contrasts* 1836, 33.
[200] Pugin, *Contrasts* 1836, 33.
[201] Pugin, *Contrasts* 1836, 33.
[202] Pugin, *Contrasts* 1836, 35.
[203] Pugin, *True Principles,* 33.
[204] Adamson, 127.
[205] Pugin, *True Principles*, 33.

set up," recalling the courses on offer at Pugin's "Temple of Taste and Architectural Repository" in *Contrasts*.[206] This emphasis on geometrical drawing could very well be the source of Pugin's much maligned "new square style" of architectural instruction.

Rather than these dubious educational establishments, Pugin longs for the training offered by the Catholic Church which he regards as "the true mechanics' institute, the oldest and the best."[207] As Hanson says, "in a Gothic church one could receive moral as well as technical education from a structure which could as well serve as a model of society."[208] It was through the efforts of church building and decoration that artisans were trained, for the church "*was the great and never failing school in which all the great artists of the days of faith were formed.*"[209] Pugin once again melds his argument to the importance of religion, and illustrates how the lack of faith is felt throughout all aspects of society, including design principles and artisan training. Unlike the lecture structure of the mechanics' institutes, the church guided students as "they directed the most wonderful efforts of her skill to the glory of God.... For without such results talents are vain, and the greatest efforts of art sink to the level of an abomination."[210]

Pugin himself attempted to educate the public through his writing and his production of buildings and designed objects which conformed to the basic tenants presented in *True Principles.* Throughout his lifetime he addressed individual areas of production in publications including *Gothic Furniture in the style of the 15th century* (1835), *Designs for Gold and Silversmiths* (1836), *Designs for Iron and Brass Work* (1836), *Glossary of Ecclesiastical Ornament and Costume* (1844), and *Floriated Ornament* (1849). Some of these were published prior to *True Principles*, others afterwards, and one can only assume that he felt the need to collate this information from his prior works into the overarching publication of *True Principles*, and to continue to address certain aspects in individual tomes after *True Principles* was released. By learning from medieval examples produced during what Pugin regarded as the high point of design, Pugin presented this information to a new audience for application to modern art manufacturing.

Pugin's work at the Palace of Westminster encompassed "the guidance of workmen in respect of the taste and feeling to be imitated; to engage with artists, and the most

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[206] Celina Fox, *The Arts of Industry in the Age of Enlightenment* (New Haven CT: Yale University Press for The Paul Mellon Centre for Studies in British Art, 2009), 451.
[207] Pugin, *True Principles*, 33.
[208] Hanson, 85.
[209] Pugin, *True Principles*, 33.
[210] Pugin, *True Principles*, 33.

skilful workmen that can be procured in every branch of decorative art."[211] What Pugin describes here is the arrangement already successfully worked out amongst his collaborators in training their craftsmen to create the "true thing," albeit on a much larger scale. Reflecting on this phenomenon in 1844, Cowlan notes how "the encouragement given to the arts of design by the rebuilding of the Houses of Parliament, is in every way praiseworthy and will give an impetus to native art it has never received since the days when the royal patronage was displayed in the very same spot."[212] In 1845, *The Tablet* writes how "Mr. Pugin's workshops [at the Houses of Parliament] do themselves [...] constitute a School of Design far superior to the clumsy, pampered, full-fed and full-feed establishment of Somerset House," the site of the government schools of design.[213] Writing about his late father's works, Alfred Barry describes how "he also hoped to raise up in the course of its execution a school of decorative art [...] bringing to the evolution of Gothic principles all the resources of modern thought and science."[214] While Barry may have aspired to such ends, in 1898 Lockhart writes how it was Pugin who "not only designed and even modeled a great part of the sculpture and other decorations [at the Houses of Parliament], but had actually to train a school of masons and carvers to carry out the designs with accuracy."[215] Port acknowledges Pugin's role in this process, stating that the work at "the Houses of Parliament made a significant contribution, due largely to the opportunity given to Pugin to exercise his genius in the design of furniture and woodcarving, metalwork, stained glass, encaustic tiles and decorative painting" as "Barry provided him with the means to train that school of craftsmen the lack of which he had earlier found such a handicap to the realization of his designs."[216]

At the Thames Bank Workshops, under Pugin's guidance, Wedgwood describes how young, impressionable men were selected for carpentry work, "perhaps because they would do what they were told" and that these younger, "less skilful carvers were used for the less prominent positions."[217] Regardless of how these works were completed, they exhibit "an extraordinarily consistent style and high quality."[218] Cavendish suggests that both Barry and Pugin were hands-on in instructing their workmen. He states that "[a]s the work went on, Barry was often seen climbing about on the

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[211] "Decorations of the New House of Lords," 426.
[212] Mawer Cowlan, "On Paper Hangings," *The Civil Engineer and Architect's Journal* 7 no. 86 (October 1844), 386.
[213] "Mr. Pugin on the school of design," *The Tablet* 6 no. 267 (June 14, 1845), 370.
[214] Alfred Barry, *Memoir of the Life and Works of the late Sir Charles Barry*, 193.
[215] Lockhart, 97.
[216] M. H. Port, "The Palace of History and Art: Introduction," in *The Houses of Parliament*, edited by M. H. Port (New Haven, CT: Yale University Press, 1976), 232.
[217] Alexandra Wedgwood, "The New Palace of Westminster," in *Pugin: A Gothic Passion*, edited by Paul Atterbury and Clive Wainwright (New Haven: Yale University Press in association with the Victoria & Albert Museum, 1994), 226.
[218] Wedgwood, "The New Palace of Westminster," in *Pugin: A Gothic Passion*, 226.

scaffolding, with the ebullient Pugin laughing and capering cheerfully at his side."[219] Whether a true depiction or just a charming anecdote, it appears that in his actions and his words, Pugin sought to educate workmen in his true principles and was, in many ways, more effective at doing so than the governmental schools established for that very purpose.

7.3.2 Reform Applied to Manufactures

The introduction of machinery into the manufacturing process meant that products could be affordably produced in far greater quantities, which stimulated the dissemination of these items amongst the growing middle class. Were this a localized affair the issue may not have grown to such proportions, but the increase in trade with the continent meant that producers overseas who understood how to best incorporate decoration were in the position to capitalize on this understanding. Concerns regarding the quality of England's goods, its waning role in the international market, and the increasing threat from foreign competition, brought these aesthetic issues to the attention of Parliament. On 14 July, 1835, a Select Committee on Arts and Manufactures was established to "to inquire into the best means of extending a knowledge of the Fine Arts, and of the Principles of Design among the People – especially among the manufacturing population of the country."[220] The Select Committee sat in two sessions throughout 1835 and 1836 and produced a report recommending the formation of public art galleries and museums to improve taste along with the establishment of national schools of design for "the direct practical application of the Arts to Manufactures."[221] Attendees agreed, with the Scottish engineer and artist James Nasmyth stating that such efforts would encourage "the extension of the national prosperity in regard to improving our manufactures," while the English architect and writer Charles Cockerell felt they would surely lead to the "multiplication of industry and commerce."[222]

The first Government School of Design opened on 1 June, 1837 at Somerset House in London [fig. 7.20]. One time Rector of the Royal College of Art, Professor Christopher Frayling describes these schools as an attempt "to legislate the way to teach design."[223]

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[219] Richard Cavendish, "State Opening of the New Houses of Parliament," *History Today* 52 no. 11 (November 2002), 62.

[220] United Kingdom, *Hansard Parliamentary Debates,* Commons, 3rd. ser., vol. 29 (14 July, 1835), col. 554.

[221] Great Britain, *Report of the Department of Practical Art: Presented to Both Houses of Parliament by Command of Her Majesty* (London: Her Majesty's Stationery Office, 1853), 377.

[222] Great Britain, *Selection of Reports and Papers of the House of Commons: Arts Connected with Trade, Vol. 37* (London: Her Majesty's Stationery Office, 1836), 586.

[223] Christopher Frayling, *The Royal College of Art: One Hundred and Fifty Years of Art and Design* (London: Barrie & Jenkins Ltd., 1987), 9.

The schools were faced with difficulties from the start, including the "confused perception of what the Schools were meant to accomplish and to whom they were to serve."[224] Frayling notes that although the Schools set out to teach design, "there was little consensus about the exact meaning of the term, no one knew how to set about teaching it, and in the end the emphasis was put almost exclusively on copying motifs from architectural detail."[225] It should be no wonder, then, that a report on the Schools of Design claimed that "the English manufacturer still copies ornamental design much more than he originates it."[226]

Complaints about the schools continued to grow and, in his report to the Belgian government on "Industrial Instruction in England," Charles Cocquiel de Terherlier reflected how "[f]rom 1837 to 1849 upwards of 16,000 students passed through the different schools" but officials "could not lay [their] finger upon a single eminent designer who had come out of them."[227] Owing to these deficiencies, Parliament once again stepped in and in 1846 appointed a Special Committee on the State and Management of the Government School of Design to address the complaints and deficiencies which had arisen.

Although a steady stream of design reformers were involved in the establishment and subsequent intervention into the handling of design education, Pugin remained uninvolved, although not uninterested.[228] Alex Lawrey states that Pugin "flirted with educational concepts and entered the debate over the government-run School of Design at Somerset House"[229] as seen in a letter to his friend John Rogers Herbert, which was subsequently published in *The Builder* on 2 August, 1845 under the title "Mr. Pugin on Christian Art." Here Pugin writes:

> "I have almost given up my hope of seeing any real good effected by the School of Design, which ought and which (I feel assured) might be made the most powerful and effective means of creating a school of *national artists*, not mere imitators of any style, but men imbued with a thorough knowledge of the history, wants, climate, and customs of our country; who would combine all the spirit of the medieval architects and the beauties of the old Christian artists, with the practical improvements of our times."[230]

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[224] Rhodes, 203.
[225] Frayling, 16.
[226] "Reports of the Commons' Committee on the Schools of Design," *The Journal of Design and Manufactures* 2 no. 7 (September 1849), 32-33.
[227] Charles de Cocquiel de Terherlier, *Industrial Instruction in England: Being a Report made to the Belgian Government* (London: Chapman and Hall, 1853), 8. This report was undoubtedly stimulated by the outcome of the Great Exhibition of 1851.
[228] Harry Francis Mallgrave, *Gottfried Semper: Architect of the Nineteenth Century: a Personal and Intellectual Biography* (New Haven, CT: Yale University Press, 1996), 194. Mallgrave claims that Pugin supported a student rebellion in 1845, offering Pugin's letter to *The Builder* to support this claim.
[229] Lawrey, 211.
[230] Belcher, *Collected Letters, Vol. 2*, 418.

What is most striking about Pugin's letter is his desire to combine the spirit of the Middle Ages with the Christian faith to produce goods that exemplify history, wants, climate, customs – features that comprise the "true thing" he promotes in *True Principles*. Equally important is what he does not state, namely the avoidance of machinery and designing for the needs of industry. In his published letter, Pugin even explicitly states that the school should be "a place for the formation of *operative* as well as designing artists" – those who make the goods as well as those who design them – who he regards as "artists for the manufacture of stuffs."[231] By understanding the qualities of the materials and how best to work them, he feels it is possible to achieve "the revival of true taste in manufactures."[232]

Pugin certainly never shied away from expressing his opinions, and so to think that perhaps he felt it too controversial to condemn technological growth in a national publication is inaccurate. Even when a publisher refused his submission, Pugin would print the text himself, such was the extent of his drive to convey his opinions and confront injustices.[233] Similarly, it is impossible that Pugin was unaware of the difficulties faced by the Schools of Design. The proceedings were regularly reported in the press and two of his collaborators – the potter Herbert Minton and the decorator John Crace – both appeared before the Select Committee and would undoubtedly provide Pugin first hand accounts of the proceedings. Finally, John Rogers Herbert, to whom he addressed his public letter printed in *The Builder*, was a master at the Government Schools of Design who subsequently converted to Catholicism and painted Pugin's portrait [fig. 7.21], demonstrating the bond between the two men that would make Pugin privy to the debate surrounding design education.

Pugin had many opportunities both via public conduits and through private correspondence to express any reservations and concerns regarding the state of design education in England, particularly concerning the teaching of design *as applied to manufacture*.[234] However, he did not address the use of machinery because he was not opposed to its use in the fabrication of goods, nor did he feel it degraded the products manufactured in this way. What he did promote in his letter to *The Builder* was the superiority of *Christian* artists and designers, going so far as to state that "[i]f the students of the School of Design were trained in this manner, we should get splendid designers for stained glass, frescos, and brasses."[235]

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[231] Belcher, *Collected Letters, Vol. 2*, 367.
[232] Belcher, *Collected Letters, Vol. 2*, 367.
[233] See, for example, the first publication of *Contrasts* in 1836.
[234] Emphasis mine.
[235] Belcher, *Collected Letters, Vol. 2*, 418.

7.4 The Great Exhibition of 1851

Pugin's views regarding design reform, his success at the Houses of Parliament and the Birmingham Exposition, his association with influential design reformers, and his assembly of a group of skilled collaborators all played into his involvement in the Great Exhibition of 1851. As with the Houses of Parliament, this event provided the opportunity for Pugin and his collaborators to put their efforts into practice in front of an international audience.

One of the attendees at the Birmingham Exposition was Prince Albert [fig. 7.22] who, along with Henry Cole, hoped to launch an international exhibition. The idea for the Great Exhibition originated with the Society of Arts which, according to Luckhurst, "had by now fully succeeded in arousing the interest of the public and of manufacturers in the idea of industrial exhibitions."[236] Goodwin points out that, due to the scale of the endeavour they involved the Government, asking them to "appoint a Royal Commission to organise and manage the Exhibition."[237] On 3 January, 1851 a Royal Commission was formed with Prince Albert as Chair for the purpose of "promoting Arts, Manufactures, and Industry, by means of a great Collection of Works of Art and Industry of All Nations, to be formed in London, and exhibited in 1851."[238] Staffed by eminent men from the government, the arts, and industry [figs. 7.23, 7.24], the Commissioners hoped to replicate the success of the Birmingham event and involve manufactures and industry, placing economic concerns regarding production and sales on equal footing with aesthetic issues. Ideally a combination of the two was sought, where the speed and precision afforded by machine production could be utilized to make objects of good taste.

In the nineteenth-century, exhibits of design and manufactures were felt to "possess a great national and *popularly educational* value" to both producers and consumers, particularly in light of the failing schools of design.[239] In fact, in their 1852 "Report of the Head Masters on the State and Progress of the Head School [of Design]," J. R. Herbert, Richard Redgrave, and Henry James Townsend state that the Great Exhibition "has been, and will be, attended with most useful results to the students of

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[236] Kenneth W. Luckhurst, *The Story of Exhibitions* (London: Studio Publications, 1951), 95.
[237] Mark Goodwin, "Objects, belief and power in mid-Victorian England: The origins of the Victoria and Albert Museum," in *Objects of Knowledge,* edited by Susan M. Pearce (London: Athlone Press, 1990), 17.
[238] *Official Descriptive and Illustrated Catalogue: Great Exhibition of the Works of Industry of All Nations, 1851. By Authority of the Royal Commission, Vol. I* (London: Spicer Bros, 1851), 6 (hereafter cited as *Official Descriptive and Illustrated Catalogue, Vol. I*).
[239] "Birmingham: Its Manufactures and Approaching Exhibition of Products of Industry," 2.

design."[240] In this regard, exhibitions were designed to appeal to both makers' and buyers' visual interest by allowing each group to see for themselves examples of what the exhibition's commissioners deemed good design. In cases where designs were felt lacking, the schools of design could focus on improving these goods so that they achieved and maintained their superiority.

The display of manufactures also had strong commercial implications, particularly in light of England's perceived waning in the international market. Reflecting on his work, Cole wrote that "[t]he ultimate purpose of all Industrial Exhibitions is commercial. It is true that various motives, besides those of direct trade, induce some few exhibitors to display their productions, but the bulk of exhibitors will be always attracted by the hopes of extending commerce."[241] Where the Birmingham Exposition was meant to show what British manufacturers could offer, the Great Exhibition displayed these goods alongside foreign specimens. The display and attendant critique of goods put "very real pressure on the British design and manufacturing establishment"[242] and Cleve states that, as a consequence, "[t]he Great Exhibition was conceived to sharpen the competitive edge in the international trade of consumer goods."[243] As a result, "[c]omparisons were made between the manufactures from different countries" with the lamentable consensus that "manufactures made in England lacked 'taste'."[244]

While there were plenty of examples of good design at the Great Exhibition, Cleve describes how "the actual taste of the masses for the spectacular and sentimental, the cheap and practical was amply provided for at the Great Exhibition."[245] Flip through the pages of any of the event's illustrated catalogues and such examples become apparent. One particularly remarkable example by John Rogers of Sheffield involves a "[s]portsman's knife, containing eighty blades and other instruments, ornamented with views of different cities and other objects; the handle, 12 inches long, made of

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[240] J. R. Herbert, Richard Redgrave, and Henry James Townsend, "Report of the Head Masters on the State and Progress of the Head School," in *Reports and Documents Exhibiting the State and Progress of the Head and Branch Schools of Design, in the Year 1850-1851*, by the Royal College of Art (London: Eyre and Spottiswoode, 1852), 5.

[241] Cole, Cole, and Cole, 257.

[242] Clive Wainwright and Charlotte Gere, eds., "The Making of the South Kensington Museum I: The Government Schools of Design and the founding collection, 1837-51," *Journal of the History of Collections* 14 no. 1 (2002), 26.

[243] Ingeborg Cleve, "1851 - The Economic Context of Design. Design Made a Difference - That Counted. Economic and Aesthetic Aspects of Consumer Taste," in *Die Weltausstellung Von 1851 Und Ihre Folgen The Great Exhibition and Its Legacy*, edited by Franz Bosbach, John R. Davis, Susan Bennett, Thomas Brockmann, and William Filmer-Sankey (München: K.G. Saur, 2002), 188.

[244] Louise Purbrick, "The South Kensington Museum: The Building of the House of Henry Cole," in *Art Apart: Art Institutions and Ideology Across England and North America*, edited by Marcia Pointon (Manchester: Manchester University Press, 1994), 74.

[245] Cleve, 192.

mother-of-pearl, carved with a boar-hunt on one side, and the death of a stag on the other" [fig. 7.25].[246] The weight of the object renders it completely useless and the panoramas of Osborne House, Windsor Castle, and the Britannia Bridge and silhouettes of Victoria and Albert engraved on the blades serve no functional purpose.[247] It is almost as though the designer abandoned Pugin's rules of "convenience, construction, and propriety."[248] Granted, said knife may never have been intended for practical use and was produced merely to display the manufacturer's skill, but this is just one of a multitude of goods designed in this manner, disregarding utility and practicality in favour of showing off the producer's talents and the buyer's ability to afford such a product.

Principles of design are abandoned in favour of novelty and in many ways the Great Exhibition was Pugin's *True Principles* played out as his strictures are applicable to designed objects. For example, his belief that ornament itself should never be constructed and should only form "the decoration of *construction*, to which in good taste they should always be subservient,"[249] that only the "*essential form* be *decorated*,"[250] that flat patterns should be used and illusionistic devices abandoned,[251] and that design principles were ignored in favour of novelty and excess all fall into this category. In his article "An Attempt to define the Principles which should determine Form in the Decorative Arts," originally presented as a lecture before the Society of Arts, Manufactures, and Commerce, Matthew Digby Wyatt also calls out this misguided approach. Here he states that, at the Great Exhibition, "[i]n too many instances, in the furniture, fitness and structure were entirely disregarded; table-tops were supported on bulrushes, and what should have been the simple and rigid portions of looking-glasses, cabinets, &c., all made up of flowers, scrolls, figures, and so on, which apparently no material, and certainly no spiritual connexion, held together."[252]

7.4.1 Exhibiting Machinery

It was not just the finished product which was displayed at exhibits. Kusamitsu describes how manufacturers wanted "workmen to see new machinery, to learn from

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[246] *Official Descriptive and Illustrated Catalogue of the Great Exhibition of the Works of Industry of All Nations, 1851. By Authority of the Royal Commission, Vol. II* (London: Spicer Brothers, 1851), 667.
[247] Auerbach 112.
[248] Pugin, *True Principles*, 1.
[249] Pugin, *True Principles*, 1.
[250] Pugin, *True Principles*, 8.
[251] Pugin, *True Principles*, 28.
[252] M. Digby Wyatt, "An Attempt to define the Principles which should determine Form in the Decorative Arts," in *Lectures on the Results of the Great Exhibition of 1851, Delivered before the Society of Arts, Manufactures, and Commerce*, Second Series (London: David Bogue, 1853), 242-243.

it, and also perhaps to break down any resistance to new technology" [fig. 7.26].[253] Consequently, "machines were very popular at the exhibitions. The directors would ask industrialists for the loan of machines and operators [....] These machines were made especially for the exhibitions, since they were not usually of a size used in the ordinary manufacturing process. The praise for the sample machines and those who made them was high."[254] Writing in 1868, Elihu Burritt credits the Birmingham Exposition of 1849 as laying the groundwork for this type of display, stating that "[s]uch an aggregation of mechanical products was unknown until it was presented in Birmingham" as "it was here that Prince Albert" procured the idea for the 1851 event.[255]

Describing the rationale for exhibiting machinery at the Great Exhibition of 1851, Cocquiel de Terherlier states that a "radical defect of the schools of design, and which is admitted by many persons in England, that they were exclusively theoretical, and that the processes of manufacture formed no part of the studies pursued in them."[256] This could go some way in explaining the decision to show not only the finished product, but also the methods by which it came into being.

The *Official Descriptive and Illustrated Catalogue* describes how "[p]ersons who wished to exhibit machines, or trains of machinery in motion, were permitted to do so" at the north-west side of the building "on account of the motive power" being at that locale.[257] The boiler house was located in this area, situated at a distance from the main building to reduce the potential for fire to the primary structure and the transmission of sound and heat to the exhibition space.[258] The Commissioners for the Exhibition supplied steam power "gratuitously to the exhibitors, and conveyed it in clothed pipes" from this locale [fig. 7.27].[259] Large machines displayed included cranes, pumps, engines, a hydraulic press, and steam hammer, while a variety of smaller machines were shown in motion, "hard at work, and ingeniously occupied in the manufacture of all sorts of useful articles."[260] Power reached the exhibitors through a drive shaft which relied on leather belts overhead to power the individual

[253] Kusamitsu, 87.
[254] Kusamitsu, 78.
[255] Elihu Burritt, *Walks in the Black Country and Its Green Border-Land* (London: Sampson Low, Son, and Marston), 135-136.
[256] Cocquiel de Terherlier, 10.
[257] *Official Descriptive and Illustrated Catalogue, Vol. I*, 24.
[258] "The Great Exhibition. The Machinery in Motion," *The Illustrated London News* 19 no. 512 (August 23, 1851), 247.
[259] *Official Descriptive and Illustrated Catalogue, Vol. I*, 26.
[260] C. H. Gibbs-Smith, *The Great Exhibition of 1851: A Commemorative Album* (London: Her Majesty's Stationery Office, 1964), 80.

machines [figs. 7.28, 7.29].[261] The *Official Catalogue* describes the "distinguishing feature" of items on display, in that they are "representative of man himself engaged in industrial production" having been "constructed as to fulfil functions which were accomplished formerly only by direct human labour."[262]

7.4.2 The Crystal Palace

The Great Exhibition required a large space in which to accommodate exhibitors and visitors, and it was soon decided that a purpose-built structure was necessary. The building became an arguing point, with Joseph Paxton's "vast greenhouse of prefabricated and standardized modules of glass and iron," dubbed the Crystal Palace, chosen.[263] The location was equally problematic, and Hyde Park was eventually selected with the specification that the structure accommodated the trees in its footprint rather than cutting them down. The Crystal Palace was a sight to behold, and although the Victorian public was familiar with the idea of greenhouses, never before had one been erected on such a scale [fig. 7.30].

Briggs describes how "[t]he novelty of Paxton's plan lay not only in its conception but in its implementation [....] Interchangeable parts had to be employed – the product of the machine-tool industry – and plate glass had to be available in huge quantities."[264] He describes how, "[w]ithin seventeen weeks of the start, nearly a million feet of glass had been fastened on to the weblike structure of thirty-three hundred columns and twenty-three hundred girders."[265] Contractors Fox and Henderson commenced building work which "proceeded day and night without a break," the building rapidly increasing in size through the use of prefabricated components [fig. 7.31].[266] Briggs further details how the "material used on the Palace was interchangeable: the girders, columns, gutters, and sash bars were identical throughout the whole building."[267] The site employed over 2000 men who could erect three columns and two girders within sixteen minutes, marking the arrival of a new era in prefabricated construction.[268]

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[261] Roderick Floud, *The British Machine Tool Industry, 1850-1914* (Cambridge: Cambridge University Press, 1976), 25.
[262] *Official Descriptive and Illustrated Catalogue, Vol. I*, 261.
[263] Peter Bailey, review of *The Great Exhibition of 1851: A Nation on Display* by Jeffrey A. Auerbach, *The Journal of Modern History* 73 no. 3 (September 2001), 675.
[264] Asa Briggs, *Iron Bridge to Crystal Palace: Impact and Images of the Industrial Revolution* (London: Thames and Hudson in collaboration with the Ironbridge Gorge Museum Trust, 1979), 168.
[265] Asa Briggs, *Victorian People: A Reassessment of Persons and Themes, 1851-67* (Chicago: University of Chicago Press, 1955), 37.
[266] J. B. Priestley, *Victoria's Heyday* (New York: Harper & Row, 1972), 66.
[267] Briggs, *Victorian People: A Reassessment of Persons and Themes, 1851-67*, 37.
[268] Patrick Beaver, *The Crystal Palace: A Portrait of Victorian Enterprise* (Chichester, Sussex: Phillimore, 1986), 23.

It is interesting to note the reaction of some notable figures to this structure. Ruskin mocks Paxton, saying that his goal was nothing more than "to build a greenhouse larger than ever greenhouse was built before."[269] Of the large number of workers constructing the building, he claims this is "a *sign of Evil greater, as Evil, than the labour is great, as Good.*"[270] As for aesthetic concerns, Ruskin deems it "eternally impossible" that "new forms of beauty will result" from the use of glass and iron[271] and upon the building's relocation to Sydenham in 1854, he said it possessed "no more sublimity than a cucumber frame between two chimneys."[272] William Morris had a much more visceral reaction to the structure; legend has it that a seventeen-year-old Morris was so appalled that he ran from the building to vomit in the bushes.[273] In his lecture "The Architectural Significance of 1851," Robert Furneaux Jordan describes Morris being ill after spending "a day among the 'fine arts' in the Crystal Palace."[274] However, other sources suggest he only "got as far as the door with his parents, then sat on a bench and refused to go in because, he said, it was 'wonderfully ugly.'"[275] Even if merely hyperbole, the account of Morris's reaction illustrates that the Great Exhibition attracted condemnation as well as praise.

Pugin did not like the building, calling it a "Crystal Humbug" and a "monstre verre" or glass monster.[276] He wrote to Hardman saying that the building "*is fearful* to Look at [....] it is a bad, a vile construction" and "the most monstrous thing ever imagined."[277] Ferrey later recalled how Pugin "was rather disgusted at the notion of enclosing everything under the shelter of a huge green-house" and consequently, he "viewed the whole scheme with feelings of aversion."[278] However, unlike Ruskin and Morris, he was able to set his opinion to the side and take part in this event. Returning to the concept introduced in section 3.2.7.1, neither Ruskin nor Morris had produced any goods at this point – Ruskin never would while Morris would go on to manufacture his own designs – and this could have influenced their opinions.[279] Regarding Pugin's participation in the exhibition, Ferrey once again notes that, as "[p]owerful as were his

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[269] John Ruskin, *The Stones of Venice. Volume the First. The Foundations* (London: Smith, Elder and Co., 1853), 381 (hereafter cited as *The Stones of Venice, Vol. 1*).
[270] Ruskin, *The Stones of Venice, Vol. 1,* 381.
[271] Ruskin, *The Stones of Venice, Vol. 1,* 379.
[272] Ruskin, *Præterita, Vol I,* 57.
[273] Liza Picard, *Victorian London: The Life of a City, 1840 – 1870* (London: Weidenfeld & Nicolson, 2005), 137.
[274] R. Furneaux Jordan, "The Architectural Significance of 1851," *Royal Architectural Institute of Canada Journal* 29 no. 7 (July 1952), 208.
[275] Roy R. Behrens, review of *The Great Exhibition of 1851: New Interdisciplinary Essays* by Louise Purbrick, *Leonardo* 36 no. 2 (2003), 159; Philip Henderson, *William Morris: his Life, Work, and Friends* (London: McGraw-Hill Book Company), 9.
[276] Belcher, *Collected Letters, Vol. 5*, 52.
[277] Belcher, *Collected Letters, Vol. 5*, 21.
[278] Ferrey, 257.
[279] Alan Powers, comments to author, August 20, 2020. Thank you to Alan Powers for bringing this to the author's attention.

objections to the structure, he nevertheless took great pains that the objects exhibited in his own department of art should be fairly represented."[280] Suggesting both scepticism and potential, Pugin concludes his letter to Hardman in a way representative of neither Ruskin nor Morris, by concluding that "it appears to me *awful* but we shall see."[281]

7.4.2.1 Internal Arrangement

The Great Exhibition "allotted 400,000 square feet to British products and about the same to foreign nations,"[282] within which "more than 100,000 exhibits" were displayed, "sent in by almost 14,000 individual and corporate exhibitors" [fig. 7.32].[283] These items were grouped into four main categories: Raw Materials, Machinery, Manufactures, and Fine Arts. In his 1852 lecture on "The General Bearing of the Great Exhibition on the Progress of Art and Science," William Whewell describes how "[i]t was determined, that within each of the four sections the divisions which had been determined by commercial experience to be most convenient should be adopted."[284] The resulting thirty classes "may be considered as having been confirmed by their practical application to the collection, and to the work of the juries in dealing with it."[285] Auerbach describes how this system of taxonomy was "a testament to the power and status of commerce that everything in the world could be organized along commercial lines" as well as being "the first classification system ever attempted of industrial work."[286]

While the organization of the Great Exhibition reads as a linear process from raw material to finished product, there was also a geographical component to the layout. In his investigation of the "Exhibitionary Complex," Bennet describes how, at the Great Exhibition, "the earlier progressivist taxonomy based on stages of production was subordinated to the dominating influence of principles of classification based on nations and the supra-national constructs of empires and races."[287] These took the form of "national courts or display areas" under the guise of "separate pavilions for

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[280] Ferrey, 258.
[281] Belcher, *Collected Letters, Vol. 5*, 21.
[282] Edward P. Alexander, *Museum Masters: Their Museums and Their Influence* (Walnut Creek, CA: AltaMira Press, 1995), 148.
[283] Auerbach, 91.
[284] William Whewell, "The General Bearing of the Great Exhibition on the Progress of Art and Science," in *Lectures on the Results of the Great Exhibition of 1851* (London: David Bogue, 1852), 17.
[285] Whewell, 17.
[286] Auerbach, 93-94.
[287] Tony Bennett, *The Birth of the Museum: History, Theory, Politics* (London: Routledge, 1995), 94.

each participating country."[288] This in turn "transfer[ed] the rhetoric of progress from the relations between stages of production to the relations between races and nations by superimposing the associations of the former on to the latter."[289]

7.4.2.2 Pugin's Involvement

Given the praise generated by his involvement in the Birmingham Exposition, Pugin was invited to take part thus demonstrating that his contemporaries in the design reform movement regarded his goods as relevant to manufacture and industry, and felt that they might play some part in educating the public. That Pugin accepted the invitation to take part also illustrates how he was not opposed to being regarded in this light and that he welcomed the opportunity to instruct viewers.

Pugin's display was included within this arrangement of exhibitors. Pugin writes to Hardman on 18 January, 1851, telling him that "they have given us a court to oursels. 48 feet square & an entrance of 24 feet square."[290] Known as the Medieval Court, this space was singular in its arrangement, being the product of one mind and several hands. No other artist or designer was allocated a space devoted only to their goods so it is quite remarkable that Pugin was allowed this concession. It was located in a prime area just off the main latitudinal concourse and was guaranteed footfall [fig. 7.33]. The Medieval Court was unique in that it stood outside the organisational parameters established for exhibits in that it expressed neither the evolution of manufacturing nor a geographical designation, instead incorporating goods that would normally fall into different classes under one collective heading. Wedgwood states that although it seems like Pugin and his collaborators made "an unusual and difficult request" in their desire for an exclusive exhibition space outside of the usual parameters, their desire was accommodated and their goods were listed under Class XXVI, Decorative furniture and upholstery, paper hangings, papier-mâché and japanned goods.[291]

Regarding the display of goods at the Exhibition, Pugin had no way of knowing in advance what would be shown by other exhibitors. Given that the Exhibition sought to feature representative samples of domestic and foreign goods, it was likely that both well and poorly designed objects would appear. This may also have motivated Pugin to take part, with the chance to educate consumers with examples of his well-designed Gothic products.

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[288] Bennett, 94.
[289] Bennett, 95.
[290] Belcher, *Collected Letters, Vol. 5*, 21.
[291] Wedgwood, "The Mediæval Court," 237-238.

7.4.2.2.1 The Medieval Court

Pugin's Medieval Court generated interest in the press, and the *Exhibition Supplement to The Illustrated London News* describes how "[i]n the collection before us we have the results of an union of those manufacturers, or art-workmen [...] with the designs and superintendence of Pugin. We have the furniture of Crace, the stained glass and metal work of Messrs. Hardman, the stone and wood carving of Myers, and the encaustic tiles of Minton" [fig. 7.34].[292] The court itself was arranged with each side devoted to one of his collaborators, with signage along the cornice identifying the maker and his business. Within this layout the goods were further divided into ecclesiastical and domestic goods.[293] Any attempt to list the contents would be outside the goal of this investigation, and would undoubtedly be lacking as the products displayed were so numerous and varied [fig. 7.35]. Although detailed accounts of the Medieval Court which appeared in the press can give an idea of the layout, it is through its pictorial depictions that one can get the truest sense of the atmosphere. Of particular note is the chromolithograph in *Dickinson's Comprehensive Pictures of the Great Exhibition of 1851*, as this vivid image hints at the explosion of colours and details contained therein [fig. 7.36].

Pugin and his collaborators included both ecclesiastical and secular goods in the Medieval Court, including pieces that are still in existence today; smaller goods like wallpapers, textiles, and carpets no longer remain but appear in reproduction at the Houses of Parliament.[294] Wainwright notes how some of the goods included at the Medieval Court "were elaborate 'exhibition pieces'" that were shown alongside "examples of mass-produced design including tiles, jardinières, wallpapers and textiles."[295] Although what makes something "mass-produced" is a matter of debate, it is safe to say that multiple copies of the same item were produced in a standardized fashion, and this was done with the aid of a machine or tool to ensure consistency. This is an interesting observation as Wainwright acknowledges both the manufacturing component involved in the Great Exhibition and its interpretation by Pugin. What is most important to note, however, is that each of these items represented years of concerted effort between Pugin and his collaborators to achieve a quality product possessing the same principles as medieval items, regardless of the method of manufacture.

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[292] "Mediæval Court." *The Illustrated London News* 18 no. 484 (May 10, 1851), 396.
[293] "Mediæval Court," 397.
[294] See, for example, Myers' memorial for Bishop Walsh at St. Chad's Cathedral, and the stone font with wooden canopy and the oak screen for the Pugin chantry, both at St. Augustine's.
[295] Clive Wainwright, "Principles True and False: Pugin and the Foundation of the Museum of Manufactures," *The Burlington Magazine*, 136 no. 1095 (June 1994), 359.

7.4.2.2.2 Modern Machinery and Medieval Goods

As Pugin was not following the regulations for the Exhibition's classes as they had been laid down, the Medieval Court was given a privileged place outside of the standard taxonomy. It is notable that the place Pugin was awarded was located near the operating machinery, as noted on the plan of the "Great Exhibition Building" published in the *Journal of Design* [fig. 7.33]. Examples of "machinery in motion" listed on the layout include "cotton machinery, mills lathes and tools" amongst others. Although powered by a steam engine outside the building, the machines themselves would have made quite a bit of noise, and yet apparently this was not a deterrent for Pugin to take part. Whether he was desensitised after his involvement in similar settings at the Houses of Parliament, or was simply never sensitive to the conditions in the first place is unknown, but Pugin clearly did not allow the setting and its proximity to manufacturing equipment to impact his involvement.

Amongst the many accounts of the exhibition, *The Illustrated Exhibitor* of provides an interesting interpretation of this arrangement. The author describes the bulk of the exhibition as displaying a hodgepodge of styles, utilised in an unsuccessful attempt to revive the "truthfulness of design."[296] As a counterpoint, the author notes the machinery section, describing how "[o]ne may wander from engine to engine [...] without seeing one superfluous detail, or paltry disguise, or adventitious ornament."[297] Unlike the rest of the exhibition, where meretricious detail and ornament runs rampant, here the author declares that the steam engine dispenses with this unnecessary adornment and "is what it seems, and seems what it is."[298] This machinery is presented as sharing with gothic goods honesty in design and, consequently, "there is no reason, in respect of principle, for excluding a steam-engine from Mr. Pugin's" display since this machinery also "answer[s] the great conditions of reality and truthfulness" found in Pugin's works.[299]

This view is surprising as it looks beyond the seemingly decorative features of Pugin's gothic goods to acknowledge that these features are not ornamental but necessary, as Pugin intended, for "convenience, construction, and propriety." Beyond noting the similarity in style and intent, *The Illustrated Exhibitor* also notes how Pugin's collaborators did not hesitate "to make use of any improved processes or newly-invented machinery" in producing their goods.[300] This comment marks one of the first

[296] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee* (London: John Cassell, 1851), 91.
[297] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee,* 91.
[298] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee,* 91.
[299] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee,* 91.
[300] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee,* 91.

instances where the progressive nature of Pugin's production methods is acknowledged.

Writing in 1851, *The Illustrated Exhibitor*'s view that the austere design of a steam engine would fit right in with Pugin's goods as well as the acknowledgement that such progressive machinery was utilized in the production of Pugin's goods is a striking statement that newer publications have since failed to address. On the contrary, *Victoria & Albert: Art & Love* of 2010 remarks how the juxtaposition between the new machinery and Pugin's medievalising goods must have challenged the attendees' views on industrialization," disregarding the statements relating to the progressive similarities of these two displays made over 150 years earlier.[301]

7.4.2.2.3 Reception

As with other areas of his work, Pugin's involvement at the Great Exhibition garnered some hostility. There were claims of "popery" and accusations that Pugin had constructed a Catholic church on the site. This was fuelled by the display of the cross from the rood screen at St. Edmund's College, Ware, which was hung high enough to be seen from a distance. After a complaint, Pugin was instructed that it needed to be lowered, and he obliged. Some publications denigrated the Medieval Court for "looking dark and solemn for the display of the taste and art of dead men" [fig. 7.37].[302] The *Eclectic Review* accused Pugin and his collaborators of copyism, and lamented "the poor meretricious make-believe [....] false outlines [and] incongruous ornament" that embodied the goods.[303]

Pugin's involvement was also generated great praise. *The Illustrated London News* praised "the earnest enthusiasm and profound knowledge of one man," noting how "[i]n contemplating the remarkable exposition now made in the court or apartment devoted to this mediæval display, every one must acknowledge the influence exercised by Mr. Pugin in producing this result."[304] Reporting on the exhibition, the German architect and art critic Gottfried Semper also noted that "[m]ost prominent were the achievements of the well-known Mr Pugin, also famed abroad."[305] In his recollections, Ferrey describes how "[g]reat praise was awarded to him by the jury who reported on the medieval department" and singles out the celebratory comments given in the

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[301] *The Illustrated Exhibitor: A Tribute to the World's Industrial Jubilee*, 91.
[302] Louis Haghe, Joseph Nash, and David Roberts, *Dickinson's Comprehensive Pictures of the Great Exhibition of 1851 From the Originals Painted for His Royal Highness Prince Albert* (London: Dickinson, Brothers, 1852), not numbered.
[303] "The Great Exhibition," *Eclectic Review* 1 (June 1851), 748.
[304] "Mediæval Court," 396.
[305] Gottfried Semper, *The four elements of architecture and other writings* (Cambridge: Cambridge University Press, 1989), 153.

Reports by the Juries on the Subjects in the Thirty Classes into Which the Exhibition Was Divided.[306] Here the Commissioners note how Pugin "has endeavoured, with great success, to present to the spectator a general idea of the ecclesiastical art of the middle ages" and that, consequently, "[t]he merit of the collection has been duly acknowledged by the Jury."[307] The praise garnered by Pugin and his collaborators led to an increase in sales and Wainwright describes how a great deal of Gothic Revival interiors "were virtually furnished – often for clients who had visited the exhibition – with objects bought from the firms of Minton, Hardman and Crace for whom Pugin designed objects for display in the 'Medieval Court'."[308]

The Commissioners for the Exhibition chose to abandon monetary awards for items of distinction in favour of prize medals.[309] Despite the praise and adulation garnered by Pugin and his collaborators, the juries decided that the unique circumstances of their display meant they were not eligible for awards. Hardman, Crace, Minton and Myers all exhibited items in categories outside the Medieval Court, and were consequently eligible for awards in these categories, with each man ultimately acknowledged for his work.[310] Hardman was awarded four medals for goods which "are admirable in workmanship, and unrivalled for perfect development of the medieval design and taste in which they are executed."[311] Crace was awarded a medal for his carpets, the design of which "is unique and well coloured, the style mediæval"[312] and Minton was noted for "introducing very many and important improvements in encaustic tiles, thus restoring a manufacture which had long been extinct, by the application of a method more generally available than that originally adopted."[313] The report also recognized Minton's revived manufacture of tiles, stating that "[n]o Exhibitors can at all compete with Messrs. Minton for the variety, beauty, and excellence of the encaustic and mosaic tiles manufactured by them by a process which involves very great mechanical ingenuity, and which has been carried to a very high pitch of perfection."[314] Finally, Myers was awarded a prize medal for his stone works, which "are imitative of English mediæval architectural decoration."[315] Here, the jury praised Myers' "execution of the stone-work" and correct execution, while "the distribution of the details is effectually

[306] Ferrey, 258.
[307] Royal Commission, *Reports by the Juries on the Subjects in the Thirty Classes into Which the Exhibition Was Divided, Vol. 4* (London: Spicer, 1852), 1561.
[308] Wainwright, "The Early Victorian Interior," 12.
[309] Gibbs-Smith, 7
[310] Wedgwood, "The Mediæval Court," 244.
[311] Royal Commission, 502.
[312] Royal Commission, 475.
[313] Royal Commission, 554.
[314] Royal Commission, 578.
[315] Royal Commission, 557.

and well combined with unity of design, showing clearly the artist's knowledge of his subject and of art."[316]

7.4.2.3 The Designs Purchase Committee

Although each man won acclaim for their individual productions, it was their collective work with Pugin, driven by a singular purpose, which generated the most publicity and praise. Although Pugin only exhibited items within the Medieval Court and therefore did not "compete" with others and was not eligible to receive an award, his efforts did not go unnoticed. He was recognized by his fellow design reformers through his appointment as a Commissioner of Fine Arts on the Designs Purchase Committee.[317] Pugin chose to summarize his role more succinctly, noting in his diary his inclusion as a "commissioner for selection of best things."[318] The Great Exhibition was wildly successful, greatly outperforming estimates for attendance with over six million admissions generating a surplus of £186,000 at its close.[319] Following the recommendation of Prince Albert, a plot of land in South Kensington was purchased "to be appropriated to the furtherance of art and science."[320]

Additionally, at the close of the Exhibition "an expenditure of £5,000 was sanctioned" to form the basis of a new Museum of Manufactures.[321] This was an extension of the belief which underpinned the foundation of the Exhibition, that observing good design would elevate public taste. Where the exhibition showed good and bad design side by side, the museum would now separate the wheat from the chaff by only exhibiting the very best items. This was a momentous leap forward for Pugin who, along with Henry Cole, Richard Redgrave, and Owen Jones, was tasked with selecting items to literally shape public taste by selecting what should be included, echoing Pugin's call in *Contrasts* for "a museum where the finest specimens of each style might be found."[322]

Throughout the autumn of 1851, Cole, Redgrave, and Jones combed through the Exhibition, with Pugin taking part as his schedule and health allowed, searching for items of distinction to include in the new museum. Although records of their debates and discussions regarding these items do not survive, a catalogue remains. This outlines the 244 objects selected by this committee and provides explanatory remarks

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[316] Royal Commission, 557.
[317] Victoria and Albert Museum and Anthony Burton, *Vision & Accident: The Story of the Victoria and Albert Museum* (London: V&A Publications, 1999), 31.
[318] Wedgwood, *Pugin and the Pugin Family*, 72.
[319] Nikolaus Pevsner, *High Victorian Design: A Study of the Exhibits of 1851*, 18.
[320] United Kingdom, *Hansard Parliamentary Debates*, Commons, 3rd. ser., vol. 150 (17 June 1858), col. 2255.
[321] Great Britain, *First Report of the Department of Practical Art* (London: Printed by G.E. Eyre and W. Spottiswoode, 1853), 31.
[322] Pugin, *Contrasts* 1836, 32.

for each item's selection.[323] Examples of Pugin's own works selected for purchase include a chalice, candlestick, and vase all produced by Hardman [fig. 7.38]. The *First Report of the Department of Practical Art* comments on these acquisitions, saying that they are "[r]emarkable as specimens in the style of ancient brass work, of a flowing character of ornament, well suited to the purpose; and the material in which they are made."[324] Turner describes how "the chalice embodies many of the virtues Cole wished to promote – excellent workmanship and appropriate ornament which, although richly applied, never dominates the form of the object, and in a style which fit the purpose for which the object was intended."[325]

One example of furniture selected for inclusion was Crace's oak armoire, described in the *Art Journal Illustrated Catalogue* as "one of the most important pieces in the Mediæval Court [fig. 7.39]."[326] In its comments on the item which remains in its collections, the Victoria and Albert Museum describes how the cabinet was designed specifically for the Exhibition and is "a good example of Pugin's expert knowledge of Gothic form and detail" as well as his "use of decoration to emphasise, rather than conceal, the construction" of the piece.[327] A carpet and some paper hangings by Crace were also included for their "flat treatment of ornament"[328] which display the "right feeling for the particular style in which they are executed."[329] Several of Minton's items were selected for inclusion, although only some of them were created in conjunction with Pugin. This included tiles "made under Prosser's Patent" which were celebrated for their use as "a beautiful, clean, and economical wall decoration [...] arranged without relief or fictitious shadows."[330] Minton's tiles also decorated the two jardinières fabricated with Hardman, both of which were purchased by the Designs Purchase Committee following the close of the Exhibition [see fig. 7.38].

7.4.2.4 Poor Health

After several months spent selecting items for the new Museum of Manufactures, Pugin was confident to write that "that our purchases, as a collection, will be of infinite service" to design education in Britain.[331] While Pugin was "happy" to work "most cordially" alongside Cole, Redgrave, and Jones, his health was deteriorating and he

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[323] Victoria and Albert Museum and Burton, 31.
[324] Great Britain, *First Report of the Department of Practical Art*, 261.
[325] Turner, 99.
[326] *The Art Journal Illustrated Catalogue: The Industry of All Nations, 1851* (London: Published for the proprietors by G. Virtue, 1851), 317.
[327] Victoria and Albert Museum, "Armoire," http://collections.vam.ac.uk/item/O8162/armoire-aw-pugin/
[328] Great Britain, *Report of the Department of Practical Art*, 246.
[329] Great Britain, *Report of the Department of Practical Art*, 284.
[330] Great Britain, *Report of the Department of Practical Art*, 270-271.
[331] Belcher, *Collected Letters, Vol. 5*, 483.

complained of ailments, some of which may have been brought on "due to the mercury treatment he was given for his failing eyesight."[332] In November 1851 he writes to a client, describing how his "health is getting gradually worse. I have been very much overworked this last few months" but he "shall continue to do my best as long as I can hold up."[333] Consequently, Pugin's correspondence with his collaborators became increasingly tetchy and downcast; in one particularly poignant letter, he writes to Minton in February 1852 saying how he was "so reduced [...] – thin, trembling, hollow-eyed, changed and yet working tremendously at times – [....] you have no conception of the dreadful agony which I still suffer, the least thing agitates me."[334] Pugin complains about his vision, saying how he is "trembling and my eyesight is dimmed. I am obliged to bathe my eyes with sea water, and to drink the coldest water to bring my sight again."[335] Later that same month Pugin once again contacts Minton, saying how his "mind has been deranged through over exertion. The medical men said I had worked one hundred years in forty."[336]

Pugin continued to push himself at the Houses of Parliament, completing what would be his final sketches for the clock tower, colloquially known as Big Ben.[337] Regarding the clock tower, Pugin wrote to Hardman in February 1852 that he had "never worked to hard in my life for Mr Barry for tomorrow I render all the designs for finishing his bell tower & it is beautiful & *I am the whole machinery of the clock*."[338] It is unknown what Pugin meant when he described himself as the "machinery" of his design but it is nonetheless remarkable that he referred to himself using such a term. Hill describes how Pugin's letter was "full of enthusiasm, but barely lucid" and that his handwriting, not apparent in Belcher's printed text, fluctuated from legible and confident to "scrawled, blotted and illigible," suggesting that Pugin was "slipping in and out of coherence."[339] Indeed, within that same letter Pugin recounts how he was so "very ill this morning" that he "hardly Expected to live half an hour" but was now "as well as ever."[340] Clearly Pugin was not very well at all, and despite his claim of feeling "like a man risen from the grave," he was in fact at the start of his final illness.[341] On 14 September, 1852 Pugin, a shell of the once brilliant and fiery man who commanded the Gothic Revival, passed away.

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[332] Doolan, *The Pugins and the Hardmans*, 13.
[333] Belcher, *Collected Letters, Vol. 5*, 443.
[334] Belcher, *Collected Letters, Vol. 5*, 586.
[335] Belcher, *Collected Letters, Vol. 5*, 586.
[336] Belcher, *Collected Letters, Vol. 5*, 598.
[337] Pugin's work on the clock tower is another example of his subordination to Barry in terms of design. The Barry created numerous sketches for the tower independent of Pugin, who based his designs on his previously completed work at Scarisbrick Hall.
[338] Belcher, *Collected Letters, Vol. 5*, 588. Emphasis mine.
[339] Hill, *God's Architect*, 482.
[340] Belcher, *Collected Letters, Vol. 5*, 588.
[341] Belcher, *Collected Letters, Vol. 5*, 588.

Pugin was responsible for a wide variety of buildings and design work during his short life. To accomplish such a vast amount of work, he turned to a range of craftsmen, fabricators, and mechanised processes. By examining Pugin's working process, this thesis has sought to show that rather than rejecting mechanisation, Pugin took advantage of new materials and methods as a means to an end.

8.1 Opportunities for Future Investigation

Throughout the research into Pugin's working methods, areas for future investigation have been identified. The first of these involves Pugin's work for Lord Shrewsbury in Cheadle and his subsequent establishment of a nearby quarry in Counslow. Although Michael Fisher mentions this locale and Pugin's involvement in its works in his 2002 book *Pugin-Land*, further details are absent, both in Fisher's work and elsewhere. It is a significant aspect of Pugin's role beyond that of simply an architect that he was willing to take on scouting the location, finding workers, providing their accommodation, selecting and mining the stone. This deserves additional attention, as it expands the understanding of his involvement in his building projects. An initial investigation within the context of this thesis revealed a lack of further documentation about both the quarry and Pugin's involvement there.

In examining the train routes on the 1847 map of railways in England and Wales [shown in fig. 5.8], it became apparent that Pugin-designed churches are located at the terminus of many of these routes. It would be revealing to compare the chronological development of the railway system throughout Britain with Pugin's church building projects as this could reveal the extent to which his work depended on this new form of transportation. As Pugin described relying on the railways for travel, perhaps rail records would also show the shipment of building materials and decorative goods along these same routes. It would also be revealing to compare Pugin's diaries and correspondence with the date each rail line was open, as this could indicate the extent to which his work was dictated by the ease afforded by the railway.

A final area for future research, and one which has been surprisingly neglected, involves the Thames Bank Workshops erected for the construction of the new Houses of Parliament. Information about this governmental establishment is lacking and an investigation into the workshops would reveal details of how the initial work for the new Palace of Westminster was undertaken, including the equipment used and the

methods employed. This is especially pertinent given the current Restoration and Renewal project at the Houses of Parliament.

8.2 Economic Urgency

On 31 January, 2018, the House of Commons "accept[ed] that there is a clear and pressing need to repair the services in the Palace of Westminster in a comprehensive and strategic manner to prevent catastrophic failure in this Parliament" and accordingly voted that "a full and timely decant of the Palace is the best and the most cost-effective delivery option" to achieve these aims.[1] Remedial works on the Victorian structure were long overdue, with Andrea Leadsom, then Leader of the House of Commons, suggesting that this approach "should have taken place about 40 years ago."[2] For a moment, the restoration of the seat of power in the United Kingdom a *cause célèbre*. Once the metaphorical dust settled, the realities of the project were recognised: the project, with the projected cost of £3.52 billion to £5.67 billion would take years to complete.[3] Additionally, "for every year of delay, we add £60 million to £85 million to the cost of the project."[4] Chris Bryant, MP for North West Cambridgeshire, noted that in 2017 alone £49 million were spent on repairs alone.[5]

In a January 2017 session on the Parliamentary Restoration and Renewal project, Michael Ellis, Deputy Leader of the House of Commons, outlined the urgency of these repairs, stating that:

> All told, some 40% of the mechanical and engineering systems will be at an unacceptably high risk of failure by 2020, and five years after that the figure will have risen to 50%. In other words, we are just eight years away from being in a situation in which half the Palace's systems are so dilapidated that they could cause a major emergency that stops Parliament's work and forces our evacuation without warning, perhaps overnight. For all those reasons, it is clear that we cannot pass the buck any longer.

It is clear that the work must be undertaken but for architects and conservationists another question remained – how is this work to be done? Indeed, how *was* this work

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[1] United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 635 (31 January 2018), col. 878.

[2] United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 635 (31 January 2018), col. 879.

[3] United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 620 (25 January 2017), col. 120WH.

[4] United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 620 (25 January 2017), col. 109WH. Here Geoffrey Clifton-Brown, MP for The Cotswolds, cites a December 2013 report by Deloitte Real Estate. By June 2019, two and a half years after Clifton-Brown's statement, Christian Matheson, MP for City of Chester, notes how estimates have now risen to "between £5 billion and £10 billion." United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 662 (19 June 2019), col. 286.

[5] United Kingdom, *Parliamentary Debates*, Commons, 6th ser., vol 620 (25 January 2017), col. 102WH.

done initially?[6] Although MPs approved a full decant of the building, this necessary remedial work has yet to begin within the portions utilized by workers and visited by the public. It is possible that it will take a disaster such as the one that destroyed the original Parliament in 1834 for those in charge to admit with hindsight that action should have been taken sooner.

Should something calamitous (and entirely avoidable) happen at the Houses of Parliament, platitudes will undoubtedly be issued, claiming that lessons have been learned and that this knowledge will be taken on board to avoid a similar catastrophe in the future.[7] There have been many opportunities in the past involving small-scale remedial works where these lessons could have been learned while also providing the opportunity to learn how these works were originally completed. One such example involves the ceiling of the House of Lords.

8.2.1 Case Study – Ceiling of the House of Lords

In July 1980 during a debate in the House of Lords, a wooden boss fell from the Lords' ceiling, landing on a vacant area of the benches [fig. 8.1]. This in turn prompted swift action to both assess and remedy the problem, with the work going to the London architectural firm of Donald W. Insall and Associates. Following the completion of the ceiling restoration project in time for the Royal Opening of Parliament on 6 November, 1984 [fig. 8.2], Insall compiled his experience of his firm's involvement on the project, presenting a lecture on the topic to the Royal Society of Arts on 5 February, 1986.

Insall describes how the project quickly spiralled to encompass far more than simply replacing a fallen boss as the ceiling, which was discovered to be the Victorian equivalent of a drop-ceiling, was in a very poor and degraded condition, necessitating repairs beyond those initially planned.[8] Most of the ceiling, and indeed all of the damaged parts, were wood, and given that Pugin was the superintendent of wood carving for the project, he would have been aware of the ceiling's construction. Regarding the woodwork, Insall states that his firm had to consider "what was significant in terms of *craftsmanship*."[9] At the start of his lecture, Insall pointed out how careful historical research was undertaken before commencing the restorative

[6] Emphasis mine.
[7] See, for example, the reaction following the fire at Notre Dame Cathedral on April 15, 2019.
[8] Donald Insall, *Living Buildings: Architectural Conservation: Philosophy, Principles and Practice,* (Mulgrave, Vic: Images Pub, 2008), 117.
[9] Donald W. Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," *Journal of the Royal Society for the Encouragement of Arts, Manufactures and Commerce* 134 no. 5360 (July 1986), 485; emphasis mine.

efforts.[10] Undoubtedly, it is only through research that he was able to state with certainty that the ceiling included "two miles of moulded woodwork, all cut in the Thames Bank workshops" using steam-driven machinery.[11] Where modern intervention was necessary for the restoration efforts, these pieces were created "using the latest modern machinery, echoing its steam-driven predecessor [...] to reproduce the mouldings exactly."[12]

Throughout his lecture, Insall remarks how "[b]oth in the construction and decoration, we must honour the original work" by "relating new work to the original."[13] This includes using machinery where indicated by historic precedent. Following his talk, Insall took questions from the audience with one attendee asking if the same methods would be employed if replacing the whole ceiling rather than just a partial repair.[14] Insall replies by acknowledging the difficulty in determining what is valued most. He states that one might feel "it would be very important to copy and reproduce the original construction" and, as the work "would probably be carried out in as much of a hurry as the original was, probably you would indeed use some of the same tricks" as employed during its construction.[15] This requires first understanding what these original "tricks" involved, and this can only be accomplished through a study of Pugin's manufacturing methods. Knowing that the entire Palace will be faced with similar restoration efforts in the (hopefully not-so-distant) future, the investigation into these working methods as undertaken here is a timely endeavour.

8.2.2 Case Study – Encaustic Flooring

The Spanish American philosopher George Santayana said that "[t]hose who cannot remember the past are condemned to repeat it" and understanding Pugin's working methods offers an alternative to this bleak outcome.[16] For example, regarding metalwork, Pugin complained about the lack of skilled craftsmen who were trained to work metals in the medieval way.[17] In other words, these skills had not been recorded or passed on and Pugin faced a lengthy and costly progress to relearn these working methods and train others. The same was true with stained glass manufacture, where the formulations for the vibrant colours in medieval glass were lost. Yet again Pugin

[10] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 483.
[11] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 481.
[12] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 491.
[13] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 485.
[14] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 492.
[15] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 492-493.
[16] George Santayana, *The Life of Reason; or, The Phases of Human Progress* (New York: Charles Scribner's Sons, 1906), 284.
[17] Pugin, *Some Remarks*, 15.

and Hardman devoted large amounts of time and energy attempting to relearn these skills.

Encaustic tile production was another craft Pugin sought to resurrect and this presents a final case study for the importance of understanding his working methods. As described in Chapter 6.3, Pugin saw the durability of extant medieval encaustics and sought to recreate these designs for his Victorian buildings. Original documentation was not detailed enough to reproduce the technique, so the production of these tiles required rediscovery literally from the ground up. In the years after Pugin's death, encaustic tiles waned in popularity according to the dictates of fashion, so that by the 21st century this trade had once again slipped into obscurity. Similarly, the constant footfall on the encaustic flooring at the Houses of Parliament had caused significant decay of the fabric, with both aesthetic appearance and health and safety necessitating modern intervention.

Lead architect and head of architecture and heritage at the Houses of Parliament Adam Watrobski addresses this topic in the article "Encaustic Tiles at the Palace of Westminster" in *Building Conservation* magazine.[18] He describes how tiles were selected for replacement "according to a critical methodology based on the selective assessment of the condition of both the existing tiles and the associated stonework. This option would retain the historical integrity of the building, prolong the life of the original tiles, guarantee the durability of these heavily trafficked pavements and give an appearance of consistency."[19] As the project progressed, it was found that the skills used by Pugin to create encaustic tiles had once again disappeared from the modern industrial vocabulary, necessitating long hours at the public expense to relearn this craft.

In a talk on the Restoration and Renewal Project at the Houses of Parliament, Patrick Duerden of Donald Insall and Associates reiterated how his team had to re-establish the manufacture of encaustic tiles that are exact replicas of the original design, essentially relearning the skills used by Pugin and Minton in their initial fabrication.[20] Edward Lewis, Associate at Donald Insall and Associates, was involved in the encaustic restoration project and was kind enough to share his views on the resurrection of encaustic tile manufacture. Regarding the project, he states that modern tiles could have been used, but the building's Grade I listing and UNESCO World Heritage status along with "the significance of Pugin and Minton's collaboration, the development of the Victorian encaustic tile, their place in the gothic revival, and the scale and

[18] Adam Watrobski, "Encaustic Tiles at the Palace of Westminster," *Building Conservation*, https://www.buildingconservation.com/articles/encaustic-tiles/encaustic-tiles.htm

[19] Edward Lewis, personal correspondence, 30 January 2020.

significance of the design and relationship with the Palace interiors meant that it had to be [the same sort of] encaustic" that Pugin originally employed.[21]

Regarding the expense to relearn this craft, Lewis describes that although older building materials are almost always more expensive than their modern equivalents, in the long run, they end up paying for themselves in their durability and longevity.[22] Although it would have cost less to use replacement tiles that were "Chinese made, or even cement encaustics from Germany or Spain," there was a "desire to have them made in the UK and 'continue the craft'."[23] For this purpose, the work was entrusted to Craven Dunnill Jackfield, the oldest remaining tilery in Britain.

To oversee the project, Lewis and his team regularly travelled to Craven Dunnill's manufactory in Telford to oversee the project. A visit to the premises in the autumn of 2018 afforded the author a tour of the workshop and the chance to speak with Chris Cox, specialist ceramist and head of the Parliamentary encaustic project. Cox noted that the recipes still exist for Victorian-era encaustic tiles, but quantities and specifications are lacking, forcing those who hope to recreate the tiles to experiment and rediscover the construction. Pugin expressed similar frustrations as the skills used to create medieval originals had been lost to time, and his letters document the difficulty in finding craftsmen who could produce his designs across all media. He laments how these antiquated skills and formulae must once again be rediscovered, increasing the time and cost of these projects; complaints that resound nearly two hundred years later.

To remedy this lack of information and skill, Cox described how Craven Dunnill developed their own recipe for the tile fabric. Known as the Palace Encaustic Blend, or PEB, this composition mixes key elements from the historic composition with improved longevity and elasticity to extend the life of the tiles. As previously stated in this work, Pugin made hundreds of designs for the tiles at the Houses of Parliament, each requiring the creation of a new mould in which to cast them [fig. 8.3]. Although modern machinery is employed at certain stages of the manufacturing process, hand work is still required to create a product on par with Pugin and Minton's original compositions [figs. 8.4, 8.5].

While neither Craven Dunnill nor the supervisors associated with the project were forthcoming with expenses, it is reasonable to assume that there are sizable costs

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[20] Edward Lewis, personal correspondence, 30 January 2020.
[21] Edward Lewis, personal correspondence, 30 January 2020.
[22] Edward Lewis, personal correspondence, 30 January 2020.
[23] Edward Lewis, personal correspondence, 30 January 2020.

associated with this project, including the need to relearn and perfect the manufacture of encaustic tiles.[24] It is for this reason that it is vital to understand how Pugin made, fabricated, and built his goods and structures to avoid having to once again repeat this process if repairs are required. This is not only true for Pugin's work but for all Victorian architects and designers who worked in the same medium. Lewis spoke of the historic importance of the tiles which form an integral part of the fabric of the building; surely it is in the national interest to maintain these skills [figs. 8.6, 8.7].

8.3 Employment Opportunities

The need for craftspeople capable of working with historic materials generates employment opportunities. The dearth of workers trained in the historic building crafts is acknowledged by the Heritage Crafts Association (HCA) who publish their annual red list of endangered trades. As practitioners retire, new workers are not present to continue these same skills. Industrial pottery akin to the work undertaken by Minton is critically endangered, and tile making in particular is threatened. Echoing Edward Lewis's earlier statements, the HCA note how potteries outsource work to cheap labour overseas, giving "a misleading sense of the health of the crafts" within the UK.[25]

The lack of historic craftspeople extends to other areas of Pugin's manufacture including wallpaper making, which is listed as endangered. Here the HCA state that "while companies such as Cole & Sons have an archive of their blocks to design from and refer to, they are not used today as working tools" and that as of 30 April 2017, "[t]here are no companies in the UK which currently print from wooden blocks."[26] Whether the HCA means that blocks of other materials are utilised is unknown, as their Red List shows 11-20 professionals who list wallpaper making as their main income. Regardless, the number of practitioners is limited.[27] Also endangered are metalworking skills including gilding and coppersmithing, and areas where these skills

[24] As of the time of this thesis, estimates for the entire Parliamentary Restoration and Renewal project range from four to six billion pounds, which includes the cost to manufacture and install encaustic tiles. This number will undoubtedly fluctuate before the project is complete.

[25] Heritage Crafts Association, "The HCA Red List of Endangered Crafts," https://heritagecrafts.org.uk/redlist/

[26] Heritage Crafts Association, "The HCA Red List of Endangered Crafts – Wallpaper Making," https://heritagecrafts.org.uk/wallpaper-making/

[27] The website of The William Morris Society in the United States describes how Sanderson & Sons purchased the original wallpaper blocks from Morris & Co. and "have continued, ever since, to block-print Morris wallpapers by hand in the traditional manner." Sanderson has offices in both the UK and the USA, so it is possible that the printing takes place overseas and the Heritage Crafts Alliance is correct in their assertion. The William Morris Society in the United States, "Sanderson Morris and Co. Products," http://www.morrissociety.org/morris/popups/sanderson.html

are required for restoration purposes will, like Pugin, experience great difficulty finding practitioners who understand "beating up copper to the old forms."[28]

Programmes associated with restoration and preservation skills are needed to pass on this knowledge and, as an advocate of historic preservation, HRH The Prince of Wales addresses this issue. In the foreword for Donald Insall's book *Living Buildings*, Prince Charles speaks of the importance in preserving this collective heritage.[29] To this end he established the Prince's Regeneration Trust, a scheme which trains young workers in historic trades, ensuring that the skills are not lost and that a pool of talent is available for projects such as the upcoming Restoration and Renewal Programme at the Houses of Parliament. Chris Bryant, Labour MP for Rhondda, acknowledged the economic and employment opportunities afforded by the renewal project when he stated that "we should be seeing this as a training and employment opportunity for the whole country" as the success of the project depends on "people coming from every constituency in the land, learning trades that they have never had, whether that is in encaustic tiles or wood panelling, as well as modern technology."[30]

A visit to the Building Crafts College in Stratford, London, afforded this researcher the chance to speak with those well-versed in the practice of historic preservation and the education of those who wish to pursue this endeavour [figs. 8.8, 8.9]. Anthony Lainson, tutor in carpentry and joinery, stressed the necessity of emulating the original construction methods when repairing a historic building.[31] While admittedly biased towards hand-based production methods, Lainson acknowledged that if the original work was formed by a machine, then it would be appropriate to use the same sort of machine to replicate the same finish. He repeatedly stressed the importance of understanding the materials to replace "like for like," noting much in the same way as anthropologist Tim Ingold, that the process itself is as valid as the finished product.[32]

Will Nixon, tutor in carpentry and joinery at the Building Crafts College and consultant surveyor at Stonebow Heritage, has a strong background in the restoration of historic woodwork including work at Westminster Abbey. He attributes the lack of sympathetic and professional restoration workers to the decline of the artisanal system

[28] Pugin, *Some Remarks*, 15.
[29] HRH The Prince of Wales, "Foreword," in *Living Buildings: Architectural Conservation: Philosophy, Principles and Practice* by Donald Insall (Mulgrave, Vic: Images Pub, 2008), 7.
[30] United Kingdom, *Parliamentary Debates*, Commons, vol. 678 (16 July 2020), col. 1759.
[31] Anthony Lainson (tutor, Building Crafts College), in discussion with the author, Building Crafts College, 6 February 2020.
[32] Tim Ingold, *Being Alive: Essays on Movement, Knowledge and Description* (Abingdon, Oxford: Routledge, 2011), 9.

and the new prioritization of "programme, cost, [and] quality, in that order."[33] Turning to the department of stonemasonry, lead tutor Nigel Gilkison affirmed the attitudes expressed by his colleagues in the woodworking department, ending the conversation with the erudite observation that, in regard to the delay of projects like the restoration of the Houses of Parliament, those in charge need to realise "it is not their building, it's a national monument" and consequently, "it's their duty of care to look after it and leave it for the next generation."[34]

Whether through Prince Charles' acknowledgement of the need for workers capable of maintaining the nation's historic fabric, or by the efforts of those more intimately involved in the groundwork, the belief that a sympathetic and knowledgeable restoration of historic buildings is necessary is heartening. Whether conservationists and practitioners who are guided by the bottom line act on these recommendations is yet to be seen.

8.4 Designed Objects

While the implications for understanding Pugin's construction methods have been examined in relation to architecture, they are equally relevant for his designed goods as well. When compared with his buildings, these objects are smaller and the user interacts with them on a much more direct and personal level. Details and imperfections would be much more readily apparent, including the lack thereof when such imperfections are hallmarks of the worker's hand. It seems that the standards for understanding how Pugin made his goods may be set differently than those for his buildings. For items like furniture and metalwork, it is important to know how these items were made so they can be disassembled for maintenance and repair. An aggressive approach could do additional damage or even destroy the item that is meant to be salvaged. For example, it is crucial to understand that most of Pugin's metalwork was not cast in one piece like its medieval counterparts, but assembled from component pieces that can be disassembled for cleaning and repair work. For furniture, some items utilize screws and others are held together by tusked tenon joints. Of course, a thorough visual inspection is necessary before undertaking repair work on any of these items, but knowing Pugin's construction and fabrication processes in advance help guide the repair person, saving both time and money.

When discussing the need to understand Pugin's manufacturing processes, one immediately assumes that this means applying the use of machinery instead of relying

[33] Will Nixon (tutor, Building Crafts College and consultant surveyor, Stonebow Heritage), in discussion with the author, Building Crafts College, 6 February 2020.

[34] Nigel Gilkson (lead tutor, Building Crafts College), in discussion with the author, Building Crafts College, 6 February 2020.

solely on hand work. However, there are cases such as wallpaper manufacture where one must advocate for hand stamping instead of machine printing. As already mentioned, Pugin avoided machine printing for several reasons, the most important being that machinery could not achieve the required quality of work. Today's printing technology has vastly improved from Pugin's day and works of great quality are easily produced. However, machine papers are uniform and lack the slight imperfections present in hand printed panels. Given the limited number of practitioners who print with wooden blocks, those who require Pugin-designed wallpaper may soon have no choice but to purchase machine-printed papers.[35] While the technology may have changed, this core issue remains, albeit on different terms.

This also raises the question as to what is most valuable about historic works. Is it the design, which in the case of wallpaper can be reproduced indefinitely, or is it something else that is not quantifiable? This in turn leads to issues about the duplication of works of art, whether Pugin's wallpaper or another piece, and whether the ready availability of these goods devalues their *cachét*. Still discussed today, the issue of copyism and the devaluing of goods due to the drop in price and availability to a wider audience were present in Pugin's day.

In his book *To Have or to Be*, the German sociologist and psychoanalyst Erich Fromm describes how the actual process of creating is no longer as valued as the object that is created. Donald Insall countered this belief in his work at the Houses of Parliament, stressing how "in the construction and decoration, we must honour the original work."[36] These counterpoints reflect the tension inherent in restoration works. Addressing issues like these would require an entirely different sort of study and is outside the bounds of this thesis. However, it is worth acknowledging that this same indecision existed in Pugin's day and that there is still no consensus on manufacturing.

8.5 Legacy and Influence

It is especially troubling that, in his 1990 text on historic preservation of the built environment, the architect and preservationist James Marston Fitch discusses how Pugin, Ruskin and Morris all championed handcraft.[37] As shown throughout this thesis, that is incorrect in regard to Pugin, who was not encumbered with issues of workers' rights and the joy of labour. This investigation has recast Pugin as a

[35] See note 26 above.
[36] Insall, "Restoration of the Lords' Ceiling at the Palace of Westminster," 485.
[37] James Marston Fitch, *Historic Preservation: Curatorial Management of the Built World* (Charlottesville: University Press of Virginia, 1990), 20. Fitch refers to these three figures as promoting "the grandest and most sustained polemic in favour of preindustrial handicraft production ... [in] the last three-quarters of the nineteenth century."

progressive Victorian, receptive to the new inventions and methods of fabrication his generation produced. Rather than confining his work to older forms of manufacture, he embraced these innovations and championed them. The *Practical Magazine: An Illustrated Cyclopædia of Industrial News, Inventions and Improvements* of 1873 featured Pugin on its cover alongside Wedgwood, Watt, and Bessemer [fig. 8.10]. While Pugin was certainly amenable to the use of machinery, it is questionable why he would be featured amongst these pioneers of heavy industry. Clearly the publication found some aspect of Pugin's work worthy of such designation, yet modern day professionals like Fitch incorrectly label Pugin as anti-industrial and instead group him with his outspoken successors. Thus, this doctorate makes a valuable academic contribution by presenting a new way of seeing Pugin by recognising and reappraising his working methods. Based on historical documents and research, this study hopes to lead a vanguard of researchers investigating related topics and act as a useful source for scholars in other areas who reference Pugin. The academic impact represented herein is substantive and makes a robust contribution into this area of study. No longer will Pugin be grouped with Ruskin simply because both men worked in the same style. Instead, Pugin can now rightfully be seen as the technologically progressive individual he was.

The impact associated with understanding how Pugin constructed his buildings and produced his goods extends beyond just Pugin to encompass the work of other Victorian architects and designers. Aside from Hardman, each of his other three collaborators undertook work for other patrons, undoubtedly utilising the same techniques, tools, machinery, and infrastructure to do so. Therefore, it is reasonable to assume that if one understands how these men made Pugin's goods, it could be extended to include the work of other Victorian designers as well.

The economic impact herein is implicit in the looming Restoration and Renewal project at the Palace of Westminster. The discussion of employment opportunities above is especially relevant here as skilled workers will be needed to undertake these repairs. As Insall noted, extensive research was conducted prior to beginning his work on the Lords' ceiling. This thesis could act as a reference for this project, and indeed portions thereof have already been cited as a reference in the new edition of Palace of Westminster Conservation and Management Plan.[38]

[38] Jamie Jacobs, "Pugin's Pattern-Driven Carving at the Houses of Parliament" (paper presented at Victorian Patterns, the annual conference of the British Association of Victorian Studies, Exeter, UK, August 29-31, 2018.

Pugin's designs show a consideration of industry and the capabilities of production gathered from his first-hand experience in the trades, using modern (to him) materials, machinery, and techniques to create both buildings and goods that appeared much older. Therefore, it seems hypocritical to suggest that present-day workers abandon their modern materials and working methods and rely solely on historic techniques of Pugin's day to work on these buildings and items as this very idea runs counter to Pugin's own belief that builders and makers should not forego modern improvements if they contribute to convenience, construction, and propriety. The key here is that all of Pugin's structures were new builds using new materials. They may have been produced in the style of the Middle Ages but they were decidedly of their time as Pugin sought to portray Gothic as a living style applicable to his own era. One cannot help but wonder if this approach would have been different had Pugin restored medieval buildings, as here he would have been forced to consider whether Victorian materials and techniques were capable of handling the medieval structures in a way sympathetic to their original appearance.[39] Pugin did not restore buildings and actually complained about those who did in the Victorian era, suggesting their work mutilated medieval structures with new materials, new ways of working with the fabric, and new ideas of what was appropriate and aesthetically pleasing. The same applies to present day repairs on structures like the Houses of Parliament. If the building were raised and built from the ground up, the workers would take a much different approach to working on the building. However, to address the existing fabric of the structure they hope to preserve may involve new goods and improved ways of using them, but other times it will require the use of the original materials in the original manner. This is yet another reason why it is worthwhile to understand how Pugin designed and fabricated his goods so that this technology is not lost and can be drawn upon if and when necessary, and this text hopes to provide a resource for ensuring this knowledge is not lost.

8.6 Summary

From the outset, this thesis has sought to assess Pugin's working methods and relationship to mechanisation, and in so doing, has determined that he was remarkably progressive for a man enamoured with the style of the Middle Ages. Starting from the premise hinted at in Wainwright's chapter on "A.W.N. Pugin and the Progress of Design as Applied to Manufacture," this work has extended beyond Wainwright's

[39] An investigation of the work done by Stephen Dykes Bower (1903-1994) at St Edmundsbury Cathedral in Bury St Edmunds provides insight on how a modern builder might construct (or at least significantly enlarge) a medieval gothic building using new materials and methods to do so. Thank you to Alan Powers for bringing this contemporary example of gothic construction to the author's attention.

comments to fully examine Pugin's working relationships with his four main collaborators and the ways in which, in his goods and buildings, Pugin and his team made use of the rapidly developing Victorian technology characteristic of their day to inspire viewers by the beauty of the old in the present. This side to Pugin has been largely ignored by researchers who find evidence to the contrary in Pugin's published writings while conflating him with that other outspoken champion of the Victorian Gothic Revival, John Ruskin. The study of industrial growth and the history of technology in nineteenth-century Britain provides the groundwork for this investigation, which then goes on to examine Pugin's recently published letters and the working methods of his four main collaborators to assess both Pugin's beliefs and actions. With the looming restoration works at the Houses of Parliament and the lack of scholarship on this topic, this is a timely and relevant endeavour. Through a thorough examination of Pugin's principles and practice, this thesis revises the misinterpretation of Pugin as anti-industrial and reliant on handicraft, so that his work may be afforded its rightful acknowledgement as forward-looking as much as his style utilised stylistic elements of the past.

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