



ARCHITECTURE AND ARTIFICE

*The Crafted Surface in
Eighteenth-Century Building Practice*

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Endpapers: Robert Havell after Joseph Cartwright,
An Interior View of the Devon Haytor Granite Quarries
(detail of fig. 79).

Frontispiece: The saloon, Provost's House, Trinity College
Dublin. Photo: Future Publishing Ltd.

Image on p. vi: The saloon, Russborough House, County
Wicklow. Photo © Joanna Barry, courtesy of the Alfred
Beit Foundation.

For my wonderful children, Catherine and Michael



1 Thomas Malton the younger, 'West Front of the Mansion House', 1798 (detail of fig. 18).
Photo © Royal Academy of Arts, London.

Introduction

Materials and Workmanship in Architecture

*We want rather Art then stuffe,
to satisfie our greatest Fancies.*
Henry Wotton, *The Elements of Architecture*¹

*Art is first and foremost about stuff,
the materials from which it is made and the means
by which it is fabricated.*
William E. Wallace, *Michelangelo, God's Architect*²

This book is about 'stuffe' and the methods by which it was translated into built form. It is also about the working lives of those who effected this translation and their relationships with other agents in the building industry. The book focuses on the classical architecture of Britain and Ireland in the long eighteenth century, public and private, for it is the elite record that contains the richest, and often the only, documentation of materials and workmanship in the architecture of this period. The tooled surfaces of undocumented stone buildings across Britain and Ireland reflect techniques that are named and priced in the records of great houses and monumental public buildings. Blenheim, Holkham and the public buildings of London, Dublin and Bristol thus illuminate material practices that, it is hoped, will inform understanding of wider craft activity in eighteenth-century architecture – high, low and middling. This was a period of intense activity and investment in building that sustained a vibrant

craft culture in masonry, carving, joinery and plasterwork. Yet, despite the emphatic materiality of eighteenth-century British buildings and a 'material' turn in scholarship, analysis remains dominated by conceptual issues. Understanding how things are made and the relationship between making and the properties of raw materials has been the country cousin of commentary on how buildings 'mean'. Indeed, the medium has been divorced from the message and is too often seen as a mere reproductive and interim stage between rich and meaningful design and reception processes. This book argues that the materials and methods of making buildings play a crucial role in the semantic resonance of architecture.

Materials matter in all forms of tangible creative practice, and in architecture, where designer and maker are distinct, their deployment involves significant intermediary challenges. 'Architecture's relationship with its production is vexed', proposes Alina Payne, because 'the architect conceives something that is far too large to be executed by himself'.³ Yet the processes by which materials were sourced, supplied and worked are habitually concealed. In the past, material processes went unregarded, while for historians conceptual and semantic content far outweighs material concerns. 'Do you know what a brick is?' proclaimed Frank Lloyd Wright: 'a brick is a small, worthless ordinary thing that costs 11 cents, but give me a brick

and it becomes worth its weight in gold.’⁴ Tell that to the master brickmakers of Ferrara who in the 1560s supplied the bricks for Palladio’s courtyard of the Carità in Venice or those who fashioned circa 1730 the brick internal structure of Clandon Park in Surrey (figs 2 and 3), which was never intended to be seen, or the expert makers of differently sized and coloured bricks for Grafton Architects’ recent Toulouse School of Economics, sited at a breach in the ‘pink’ city’s ancient brick

wall (fig. 4). Wright knew well the potency of materials, even if on this occasion he rendered them hostage to myth-making. Disdain for mere matter is evident at all levels of commentary on artistic and architectural production. John Pope-Hennessy observed that ‘never or scarcely ever, do scholars look at Michelangelo’s works and ask themselves how they came into being’.⁵ Jennifer Montagu noted a similar blind spot in writings on seventeenth-century Italian sculpture: ‘One would



2 Andrea Palladio, view of the upper order, Convent of Santa Maria della Carità, Venice, circa 1561.
Photo © Pino Guidolotti – CISA A. Palladio.

3 Fire damage to the interior at Clandon Park, Surrey, 13 January 2016.
Photo © National Trust Images / James Dobson.

4 Grafton Architects, Toulouse School of Economics, Toulouse, completed 2019.
Photo © Frédérique Félix-Faure.

read, even in contemporary biographies that a sculptor took a block of stone, but not where he found it, where it was quarried, how he assured it was the right size, how it got to Rome, or what it looked like when he got it.’⁶ Malcolm Baker has observed ‘the marginalisation of the mechanical, artisanal elements’ in the making of buildings and monuments in eighteenth-century Britain.⁷ Indeed, despite copious evidence of collaborative workshop achievements, attachment to the notion of individual artistic genius remains entrenched, as David Esterly recounts in his commentary on the ‘myth-encrusted’ oeuvre of Grinling Gibbons: ‘Tour guides, pointing to a Gibbons

overmantel and seeking to inflate the drama of his performance, often describe it as carved from a solid block of wood’ (fig. 5); ‘Construction from separately-carved pieces seems a lesser feat, if not a kind of perfidy committed upon the observer.’⁸ Even those who have pioneered scholarship on the material properties of architecture have been hampered by the dominance of design narratives. In an exemplary doctoral thesis on the building history of the Bristol Exchange (1741–43), Gordon Priest apologetically concluded that ‘not very much will have been changed’ by the material production of the building even as he ultimately found significance in the ‘ordinariness’ of the

record and its illumination of ‘citizens at work’.⁹ Likewise, Andor Gomme, who did so much to integrate the histories of architecture and craftsmanship in Britain, laboured under the weight of canonical classicism, deeming it necessary to place the Smiths of Warwick in the ‘shadow of greater men close behind or beside them’ even though ‘the technical quality of craftsmanship, of the actual laying of brick and stone and plaster and the cutting and fitting of wainscot is as high as has ever been known.’¹⁰

Wait, you may say, hasn’t construction and building history transformed the history of architecture in its focus on materials and methods of making buildings? And hasn’t the work of Andrew Saint, Valérie Nègre, Elizabeth McKellar, James Campbell, Conor Lucey, Christine Stevenson and others stretched understanding of agency to include the office intermediary and craft practitioner?¹¹ Don’t we now understand authorship as authority or control of the design and building process? Certainly, construction history has led the way towards knowledge of materials and making in architecture. However, as the designation suggests, it deals principally with the constructive elements of architecture and not the cosmetic or surface layer of buildings. This is an aspect of architectural production that has been largely sidestepped by construction historians and architectural historians alike, resulting in a neglect of colour, texture, plasticity and regional variation in building materials. For instance, while we now know a great deal about the seminal project organisation at St Paul’s Cathedral, the relationship of the extensive sculptural programme to the design, execution and impact of the building has not yet received sustained analysis. As Alina Payne has demonstrated for Renaissance Italy, the plastic and glyptic dimensions of architecture have been undervalued.¹² We are therefore well informed about the volumetric and compositional conventions of eighteenth-century architecture and methods of constructing buildings but not about their surface articulation. The *naked*, as the carcass of the building was then known, is well documented but, apart from its compositional norms, the ‘casing’ remains a neglected subject of enquiry. Yet, the casing, or facing (external and internal), is the very tangible meeting of representation and building in architecture, the interface of structure and rhetoric (fig. 6). It is in this cosmetic layer that the greatest artifice or ‘agreeable cheat’ is conducted.¹³ James Gibbs



noted the alchemical powers of stucco and wainscot to transform indifferent or inferior fabric ‘and so it passes for a fine thing’.¹⁴ As Neil Levine has argued more broadly for premodern architecture, eighteenth-century buildings are not what they seem, for ideal and historically referential representation dominates the facts of construction.¹⁵ This book proposes that artifice as practised by *artificers* is not just a tangible vehicle of representation in architecture in eighteenth-century Britain and Ireland but that this material dimension of architecture is integral to its representative character. Building on previous exploration of plasterwork in the eighteenth-century interior, this study encompasses a wider range of

5 Grinling Gibbons, overmantel, withdrawing room, Hampton Court Palace, Richmond upon Thames, circa 1699.

Photo: Crown Copyright: Historic Royal Palaces (portrait of Charles I, part of the Royal Collection).

6 Giacomo Leoni and Platt family, south front, Lyme Park, Cheshire, begun circa 1725.

Photo © National Trust Images / Arnhel de Serra.



materials and working methods, embracing both the envelope and the interior of the building.¹⁶ This introduction sets out the themes that underlie the book and airs the buzzing bees in the historian’s bonnet,¹⁷ namely the significance of materials and making in architecture; the neglect of surface agency in historical analysis; the fundamental yet fugitive role of quality in craft production; the challenges of accessing and articulating tacit knowledge; and the interdependence of minds and bodies in architectural production.

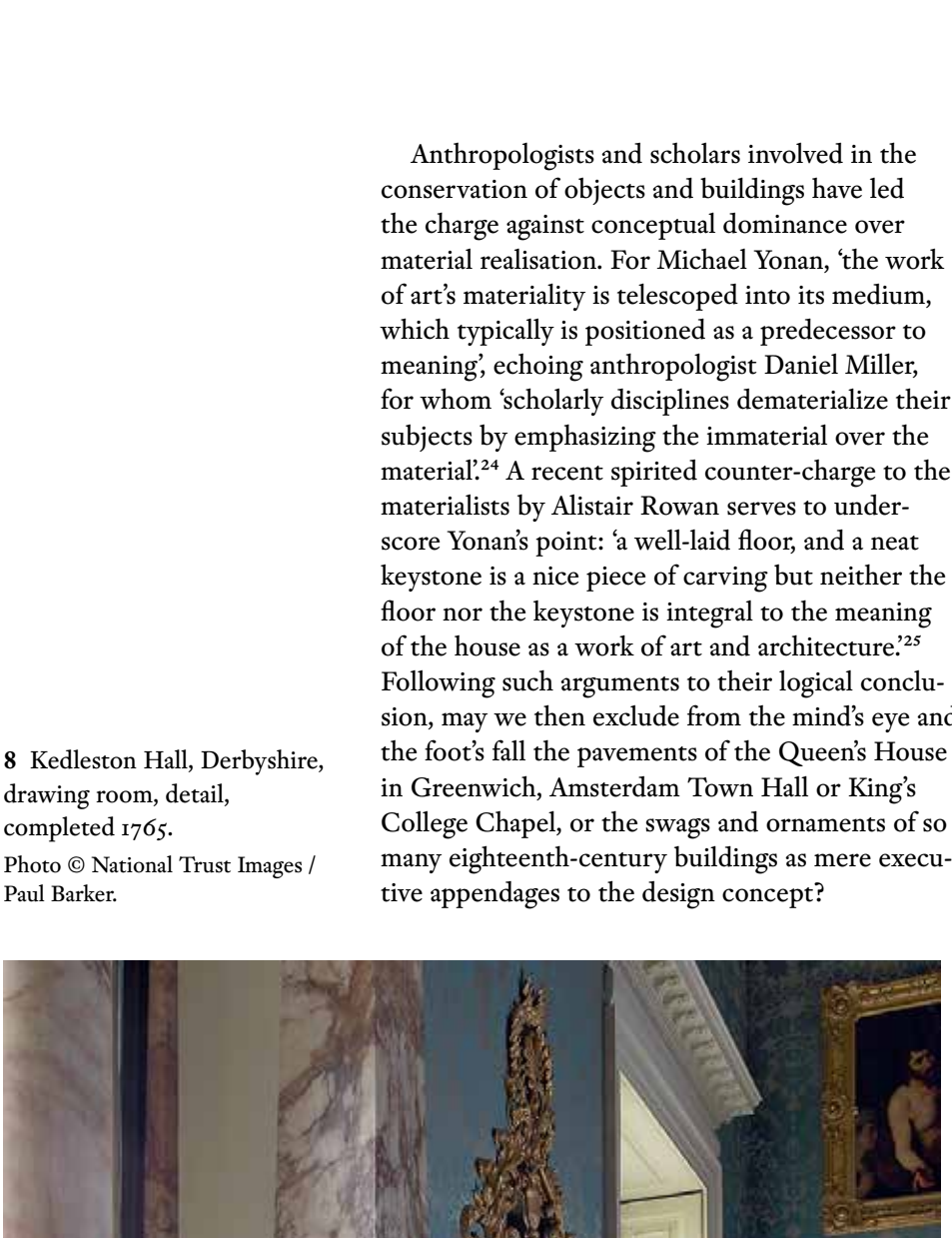
Materiality

The juxtaposed statements of Henry Wotton and William Wallace in the epigraphs to this introduction bear witness to a persistent binary in the perception of materials in art and architecture, namely *Materie-feindliche* or *Werkstoff-orientierte* approaches, respectively hostile or orientated towards the material condition of artistic production.¹⁸ While the work of Michelangelo, for instance, has attracted much greater analysis of its material dimensions since Pope-Hennessy’s day, there remains a pronounced emphasis on its semantic import, even in work ostensibly dedicated to material and its manipulation.¹⁹ For good reason William Wallace felt moved to articulate his fascination with ‘the difficulties of making art, the arduousness of carving marble, the challenge of transporting and lifting heavy objects, the tedious necessity of erecting scaffolding, and the quotidian preoccupation with mechanics, detail and complexity of buildings’.²⁰ Disciplinary boundaries tend to intensify and maintain a twin-track trajectory of concept and technique, the ‘techies’ and the ‘thinkers’, heightening the silo effect of preference and exclusion and, I suggest, continuing to relegate materials and making to a lesser ontological status. Indeed, in art and architectural theory of the twentieth century the term *materiality* has been stretched to its conceptual limits, from El Lissitzky’s ‘immaterial materiality’, or imaginary constructed space, to Alexander Vesnin’s ‘materialised energy’, to recent discussion in which materials and immateriality are ‘constantly re-imagined’.²¹ Yet, as neatly articulated by Michael Tawa, ‘in spite of all enduring efforts to virtualise it, architecture remains fundamentally a material and materialised condition. As such, its sheer presence enables encounters with substances that weigh, more or less heavily.



With buildings we still have the opportunity to read, sense, experience and be affected by the traces of process, provenance, generation, construction and intentionality embodied in their fabric’ (fig. 7).²² For Antoine Picon *materiality*, as opposed to material, represents ‘the relationship of matter to human thought and practice’ and ‘simultaneously articulates the realm of values and representations and the realm of concrete practices’.²³ But can these realms be clearly defined? For the practitioner, the relationship of material, tool and value is a given. ‘What is wrong with plain “material”?’ enquired a stone carver of a course prospectus entitled ‘Architecture and Materiality’. Indeed, the relationship between the terms *materiality* and *material* is perhaps not dissimilar to that between *ornament* and *decoration* in contemporary academic discourse, the former denoting a theoretical perspective and the latter a tangible practice.

7 The Pantheon, Rome.
Photo: author.



8 Kedleston Hall, Derbyshire,
drawing room, detail,
completed 1765.
Photo © National Trust Images /
Paul Barker.

Anthropologists and scholars involved in the conservation of objects and buildings have led the charge against conceptual dominance over material realisation. For Michael Yonan, ‘the work of art’s materiality is telescoped into its medium, which typically is positioned as a predecessor to meaning’, echoing anthropologist Daniel Miller, for whom ‘scholarly disciplines dematerialize their subjects by emphasizing the immaterial over the material’.²⁴ A recent spirited counter-charge to the materialists by Alistair Rowan serves to underscore Yonan’s point: ‘a well-laid floor, and a neat keystone is a nice piece of carving but neither the floor nor the keystone is integral to the meaning of the house as a work of art and architecture’.²⁵ Following such arguments to their logical conclusion, may we then exclude from the mind’s eye and the foot’s fall the pavements of the Queen’s House in Greenwich, Amsterdam Town Hall or King’s College Chapel, or the swags and ornaments of so many eighteenth-century buildings as mere executive appendages to the design concept?

Contemporaries did not think so, for the quality, variety and cost of materials and workmanship were dominant features of seventeenth- and eighteenth-century commentary. John Evelyn, Celia Fiennes and numerous eighteenth-century tourists paid close attention to the ‘curious’, ‘exquisite’ and ‘sumptuous’ properties of materials and workmanship.²⁶ Indeed, censure of design in the period focused on the perceived waste of good materials it entailed. In his critique of the gauche-ries at Chicheley Hall in Buckinghamshire, the aficionado Burrell Massingberd claimed that ‘the Knight and his builder... have made shift to spoil a great deal of free stone of several sorts’,²⁷ while Lord Oxford dismissed the work ‘fitted up by Mr Kent’ at Raynham in Norfolk as ‘over-charged’ and ‘preposterous’ ‘to the great waste of fine marble’.²⁸ The autobiographical manuscript of the architect James Gibbs, recounting his sojourn in Rome, is replete with descriptions of highly fashioned materials in ancient and modern buildings, noting ‘Curious Incrustations of the finest antient Marble’, ‘finely finished’ in a ‘most expensive manner’, ‘handsomely done by a good hand’ or ‘handsomely performed in stucco work richly gilt’.²⁹ In recent years a growing scholarly literature has highlighted the neglect of such ornament due to its artisanal origins and has placed renewed focus on the methods of its production.³⁰ Scholarship on the decorative environment of ancient Rome corroborates the evidence of eighteenth-century observers, ornaments being seen not as ‘accompaniments to the great artistic and architectural works... but [as] the constitutive media that produce them... the building blocks of the Roman aesthetic environment. There is no sense in which the ornament of the Roman world skirts the margins of an important centre’.³¹ In the Augustan architecture of eighteenth-century Britain, crafted ornaments ranging from the mouldings of windows, doors, walls and ceiling frames to the patterns of parquetry and marble floors participate in a similar all-embracing ‘ornament-scape’ whose materials and execution are, I argue, integral to the building’s meaning.³² In joinery, plasterwork and masonry, the lexicon of classical ornament extended across all interior and exterior surfaces, articulating and amplifying the visual, haptic and representative character of the whole. The alabaster door and window columns and the sumptuous furnishings of the state drawing room at Kedleston Hall, for instance, are vital elements in the semantic resonance of the room (fig. 8).

Wall coverings were likewise seen to participate in the representative character of the interior. In his *Compleat Body of Architecture* Isaac Ware compared the susceptibility of stucco, hangings and wainscot to light and the impact of each in the interior:

a room of the same dimensions: which is wain-scoted, will take six candles to light it, will in stucco require eight, and if hung ten.... Of the three kinds we have named, the grandest is stucco; the neatest that of wainscot: and the most gaudy that in hangings...for a noble hall, nothing is so well as stucco; for a parlour, wainscot seems proprest; and for the apartments of a lady, hangings.³³

Beyond their quality and richness, materials were chosen for their distinctive properties and characteristics and for their cost and availability, factors of significance for the pattern of architecture across regions and countries. While knowledge of materials has expanded significantly through the research of geologists, arborists and historians of constructive media, it has had negligible impact on the history of architecture in Britain and Ireland.³⁴ Though Nikolaus Pevsner’s great survey of British architecture included preliminary essays on the geology of counties and regions, too often there was little connection between these analyses and the accounts of buildings within the gazetteers. How many

students of British architecture could name the stones employed in landmark buildings such as Castle Howard, Houghton Hall and Kedleston? Likewise, while furniture historians have considerably advanced our understanding of wood and its properties in eighteenth-century furnishings, beyond the provenance of structural timbers this knowledge has not been extended into the sphere of the eighteenth-century interior.³⁵ Historians of continental European art and architecture are ahead of the game. In discussing the properties of Travertine ‘marble’ and its use in the late works of Michelangelo, Alina Payne, summoning Vasari to her aid, has likened the effects of its pitted, ‘spongy’ surfaces to the experience of brushwork in painting (fig. 9).³⁶ If we extend this analogy to the diverse materials and workmanship of eighteenth-century British architecture, the potential for the visual and haptic expansion of existing analyses becomes clear. What book-taught, far-flung student knew that Sir Christopher Wren’s great library at Trinity College, Cambridge, is crafted in pink and gold Ketton limestone, which glows in elevation and in watery reflection (fig. 10)? What a different building this would be in white Portland stone. As Michael Tawa notes, ‘materials retain the memory of their formation as constitutive and characteristic traces and traits, demanding an extensive technics of manipulation, fabrication and production.’³⁷ As we shall see, in eighteenth-century Ireland the predominance of

9 Bramante, Palazzo dei Tribunali, Via Giulia, Rome, detail of travertine.

Photo: author.

10 Trinity College Library, Cambridge, from the River Cam, designed by Sir Christopher Wren, built 1676–95.

Photo: Southdevonian, via Wikimedia Commons.



11 Workshop of Giovanni di Bertino (and twentieth-century restorers), detail of the facade of the Basilica di Santa Maria Novella, Florence.

Photo: Rufus46, CC BY-SA 3.0 via Wikimedia Commons.

hard limestones and granites dictated a distinctive juxtaposition of native and imported building materials of chromatic, textural, compositional and semantic resonance. The ‘native’ simply could not be worked in the same way as the soft limestones of southern and central England. The choice of wood, whether oak, pine, walnut or mahogany, likewise reflected economic, technical and aesthetic concerns, not least the logistics of transport and sawing. And, like the revelatory character of building stones with their marks of composition and metamorphosis, the direction and density of wood fibres or grain affects the texture of sawn timber and produces variable and perceptible surface effects. Yet we have few words to describe the divergent effects of a room wainscoted in oak, walnut or mahogany. Part of this problem is a need for greater precision in description and terminology. ‘We need terms’, wrote Michael Baxandall in his pioneering work on the limewood sculpture of northern Europe.³⁸ The same is true of eighteenth-century architectural manufacture. Ashlar and rustication are simply not enough for an understanding of the textural effects of stone architecture in the period and the methods

of making buildings. David Pye, in his seminal research on workmanship, lamented the absence of nomenclature for the haptic properties of surface: ‘We have few enough names for colours but for surface qualities all but none. Yet the variety of our experience of surface quality must be every bit as wide as that of colour.’³⁹ It is to the crafted surface that we now turn.

Surface Agency

Antipathy to surface agency in architectural history results from a multiplicity of factors, not least modernism’s idealisation of volume and proportion and its attendant rejection of ornament.⁴⁰ While few would disagree with Mies van der Rohe’s quiet claim for proportion as a defining element of architecture, its privileging at the expense of the physical and haptic properties of buildings skewed understanding of architectural invention and production. Every student of Renaissance architecture of the past seventy years will have encountered, whether directly or indirectly, Rudolf Wittkower’s compelling proportional analysis of Santa Maria Novella in Florence, first published in 1949 at the height of international modernism.⁴¹ Designed by Leon Battista Alberti in the 1450s to mask a medieval nave and aisles, the facade loudly proclaimed the new *all’antica* architecture of the city. Its prescription within a square and sequence of progressively co-related dimensions described in Wittkower’s text and diagram eloquently conveyed the proportional rigour of Alberti’s design. Yet, on first experience of the actual building, many will have been surprised by the impact of the stupendous polychrome intarsia of the facade, which was sidestepped in so many iterations of its ‘harmonic’ design (fig. 11). Wittkower’s characterisation of seicento architecture manifested similar emphases. Cosimo Fanzago’s rich and colourful intarsia wall and floor surfaces in Neapolitan churches were juxtaposed conceptually with the more restrained work of his Roman contemporaries and seen as ‘something added and fastened on rather than innate and proper.’⁴² Thus, ‘structure’ was used to describe the ‘real’ material presence of architecture, an unspecified reality beneath the ornamental surface.⁴³ At the heart of these analyses was a conviction about the constitution of truth in architecture, the essential and inessential dimensions of Platonic philosophy. The heady





amalgam of modernist aesthetics and Neoplatonic philosophy that underpinned this brilliant and brilliantly persuasive work had far-reaching implications for the perception of historic architecture in Britain. Wittkower's protean scholarship embraced both the early modern architecture of Europe and the Palladian architecture of his adoptive home. Thus, the same critical criteria were applied to the buildings of the quattrocento in Italy and those of eighteenth-century England. Binaries of structure and skin did much to establish the 'eloquence of a plain surface' as the ultimate expression of eighteenth-century architecture in Britain, despite the wealth of plastic articulation in Palladian interiors.⁴⁴ In the academic imaginary, black-and-white prints, grey-wash drawings and a sequence of canonical exemplars reduced the great river of contemporary architecture to a precocious episode in neoclassicism.⁴⁵ And, while there is clearly truth in the characterisation of British taste as more chaste and classicising than that of eighteenth-century

Europe, much was lost in privileging the plain and the bold. Sir John Summerson compared Sir Christopher Wren's stylar compositions unfavourably to the 'sheer mass' of Nicholas Hawksmoor's buildings: 'the change is a fundamental one, a change of feeling, a renewed interest in the *intrinsic* qualities of mass, rhythm, and proportion as opposed to the *extrinsic* management of form by the apparatus of classical design'.⁴⁶ Hawksmoor became the poster boy of the British baroque while Wren, James Gibbs and lesser academic designers were also-rans. The intrinsic-extrinsic argument was persuasive. In a mid-twentieth-century monograph on Sir John Vanbrugh Laurence Whistler argued for the need 'to distinguish between sculptor's ornament and architect's ornament, between the applied and the integral.... The stone carving which lavishly covers the exterior of Castle Howard... is fine though somewhat too clearly an accessory' and distracts from 'Vanbrugh's natural inclination to plain surfaces and bold effects' (fig. 12).⁴⁷

12 Castle Howard, North Yorkshire, begun 1699. Photo: jcw1967, CC BY 2.0 Deed Attribution 2.0 Generic via Flickr.

13 Casino at Marino, Dublin, circa 1758–76, carving in Portland stone. Courtesy of Felix Martin. Photo: Tim Scheuer.

14 Custom House, Dublin, 1781–91, dentil course. Photo: Andrew Tierney.



Antipathy to surface articulation was further complicated by modernist concerns with originality, authenticity and authorship. How could grand-scale, ambient and collective workmanship be assessed on these terms? Though Giovanni di Bertino is the named *marmista* at Santa Maria Novella and Grinling Gibbons the sculptor at St Paul's Cathedral, large workshops were required to embellish facades of such scale as these buildings presented. Yet, in his fine study of Gibbons, David Green dismissed the swags and ornaments of seventeenth-century architectural practice as 'gap filling' and humdrum; the interior enrichments of Inigo Jones and John Webb as 'stiff bulbous swags subservient to the architect's scheme for the room'; and the monumental chimneypieces of Vanbrugh as 'architect's pieces, without flower or flourish'.⁴⁸ David Esterly likewise dismissed a vast part of Gibbons's workshop output as mere rote carving, echoing Ruskin's dismissal of classical ornament as mindless repetition.⁴⁹ Tell that to the carvers of the Casino at Marino or the Dublin Custom House in which a delicate dentil course beneath the first-floor window sills is threaded across the facade 'with a jeweller's finesse'⁵⁰ (figs 13 and 14) or the carvers of dados, doors and window shutters that enliven and enrich the margins and boundaries of so many eighteenth-century interiors (fig. 15). Applying yardsticks of individual skill, virtuosity and originality to architectural carving simply misses the point. Occupying a liminal space between architecture and sculpture, carved surface ornament has been aptly described by Elizabeth den Hartog as 'the Cinderella of the arts'. For historians of sculpture, architectural sculpture does not count as 'high art': 'for the architectural historian it reeks too much of it'.⁵¹ We need to know a great deal more about the relationships between architects and sculptors, the composition of workshops and the methods by which the classical orders were translated from the drawn or printed page to the columns and entablatures of porticoes and interiors.⁵² Matthew Craske has argued that the emphatic amalgamation of the sister arts in the neoclassical buildings of Britain resulted in the creation of a hybrid street monument, at once architecture and sculpture.⁵³ Yet, while much can be said about empire and economy in the 'speaking stone' of grand iconographical schemes such as that of the Dublin Custom House, the myth-encrusted career of its principal sculptor, Edward Smyth, obscures the contribution of others, his shadowy assistant



15 Sanderson Millar, Farnborough Hall, Warwickshire, circa 1745–50, doorcase in the dining room. Photo: Future Publishing Ltd.

Benjamin Schrowder and the wider workshop involved in this extensive sculptural and masonry programme (fig.16).

A further complicating factor in antipathy to the surfaces of buildings is modernism's and neomodernism's disdain of luxury, architecture's principled refusal to articulate the resources by which it is sustained by operating as an agent of social change. Gernot Böhme gives voice to a widespread disquiet within the profession with recent 'material aesthetics' as 'a mandatory accessory of high profile and commercial buildings' and 'the trivial identification of the aesthetic and the beautiful'.⁵⁴ Le Corbusier had set a precedent for such critique in his use of Versailles and baroque polychromy as the epitome of decadent skin-deep taste: 'the final retreat for ostentation...inlaid

floors spread out like carpets of stone...intoxicated, the public learns and is dazzled...Good lord, how rich, how beautiful...and all made by hand'.⁵⁵ A lengthy contemporary critique of the Vanbrugh–Hawksmoor design for the saloon at Blenheim by Pierre Silvestre, a Huguenot physician and arbiter of taste, recommended sheathing its plain stone walls with a selection of highly polished polychrome marbles to render it 'as magnificent' as those of Europe.⁵⁶ In the event the room received only a half-hearted rusticated dado of variegated red marble and stupendous veined marble doorcases by the workshop of Grinling Gibbons (see cover image). But if mirror and marble were more sparingly used in the British interior it nevertheless exhibited a wealth of surface craftsmanship in stone, wood,

plaster and textiles. The hand raised and lowered over the sinuous surfaces of moulded stair rails (*caress* was the term used by John Harris), the feet treading parquet and inlaid floors, and the eye revelling in the light and shade of modelled plaster surfaces participate in a 'surfacescape' of immense variety and richness that is integral to the experience of architecture.⁵⁷ But resistance to the debilitating display of unbridled luxury need not throw out the sensory baby with the bathwater. 'What a shock it was at the beginning of a long

apprenticeship, that art history as an academic discipline discouraged the discussion of pleasure', wrote Johnathan Hay in his powerful argument for the significance of 'pleasurable things' and topographies of 'sensuous surface' in early modern decorative objects.⁵⁸ Thrilling if dangerous territory, which, like the *Complexity and Contradiction* of Robert Venturi and its attendant postmodern facadism, is ripe for superficial misappropriation. In architecture, notwithstanding the vicissitudes of taste – today Mies, tomorrow Lutyens – the

16 Workshop of Edward Smyth (and twentieth-century restorers), entablature of the Custom House, Dublin, 1781–91. Photo: author.



bar is firmly set in terms of quality. But ask the judges of the Stirling and Pritzker prizes what distinguishes the best from the rest and words may falter. The determination of quality is no mean task in any medium and relies on notoriously unquantifiable, intuitive and often inexpressible value judgements. In eighteenth-century workmanship such standards were likewise the unwritten law that guided the successful completion of buildings.

Quality

The regulation of materials and workmanship in the early modern period was ostensibly the preserve of the guild, the rigour of whose hierarchical system was the driving force of skilled craft production in the period. However, by the early eighteenth century guild regulation had become relaxed and the recommendation of peers was increasingly an alternative pathway to securing commissions.⁵⁹ If evasion of guild duties is a measure of institutional control, authority was certainly waning in the early decades of the eighteenth century when a swashbuckling master mason such as John Devall could repeatedly flaunt membership obligations with impunity and still emerge as one of London’s leading practitioners.⁶⁰ Frustratingly, the records of meetings and courts are largely silent on what constituted acceptable standards.⁶¹ The eighteenth-century London guild records for masons, joiners and plasterers are opaque on the nature of what might be regarded as a masterpiece and on the regulation of poor-quality work in building production.⁶² Furniture is better served. At a meeting in Joiners’ Hall on 13 May 1735 the master

acquainted the Court that he had on the last London search seized a Chair at the shop of James Bull in Saint Paul’s Churchyard being made of bad unsound and unserviceable stuff and sent the same to the Common hall and the same being now searched and viewed by the said Master and Wardens and major part of the Court of Assistants was by them condemned.⁶³

As Geoffrey Beard has observed, ‘While it could be claimed that the system had the framework for a rigid oversight of men and work, a great deal depended on the integrity of the guild officers.’⁶⁴ The silence of the record is too commonplace to reflect either neglect or complicity and may be

ascribed to other factors, such as the quotidian and taken-for-granted understanding of what constituted excellence and perhaps an unwillingness to articulate the so-called secrets of the trade. My money is on oversight rather than intention: as we shall see, those eighteenth-century practitioners who committed their craft to print were more concerned with formulating theoretical precepts from practice than with giving voice to the daily activities of the trade that were well known to their audiences.

In the absence of articulate records, we must look beyond Britain to Europe for insight into the process of peer review that underpinned architectural workmanship in the period. In a rare and instructive document of the 1680s for a contested Italian building site, the Certosa di San Martino in Naples, observations were made in sworn testimony by skilled sculptors in a legal dispute between the Carthusian monks and their architect, Cosimo Fanzago.⁶⁵ The comments refer to the carving of black marble roses on the jambs of the arches to the side chapels of the monastic church. The appraisal described seven roses of ‘sculpted bardiglio incised with bent leaves’ as being made in four different styles or manners (fig. 17). The *rosoni* in the Chapel of the Madonna were considered ‘not worth anything for being of a workmanship much inferior to the others’ (top left). Those in the Chapel of San Martino were deemed ‘a little better’ (top right). One *rosone* in the Chapel of San Gennaro was considered ‘acceptable’ (lower left), while those in the Chapel of San Bruno were ‘the most advanced in workmanship’ (lower right). Distinguishing the bad, better and best from among the seven giant roses requires scrutiny, but the standard identified by the assessors is apparent and convincing from close and sustained observation.⁶⁶ The roses of the favoured St Bruno Chapel exhibit greater complexity and plasticity in the manipulation of the marble to achieve optimum multiplicity of surface, movement and variety. Here the marble is ‘tortured’ to its limits by a ‘good hand.’⁶⁷ As in the seventeenth and eighteenth centuries, when qualitative standards were judged by makers, architects and aficionados, the judgement of the eye, aided by archival evidence, can be used to tentatively retrace the evaluative procedures of the past. James Gibbs distinguished between the British country house clients, visitors and practitioners who were proper judges of architecture and those who knew not whether ‘it be well or



17 a–d Marble *rosoni*, Certosa di San Martino, Naples: Chapel of the Madonna (top left); Chapel of San Martino (top right); Chapel of San Gennaro (lower left); Chapel of San Bruno (lower right).

Photo: © Ministero della Cultura – Fototeca Direzione Regionale Musei Campania.

ill performed’.⁶⁸ Having been dismissed as elitist and a vehicle of the art market and rendered redundant in the egalitarian analyses of material culture and visual culture studies, connoisseurship has undergone reappraisal in the context of the over-theorisation of creative practices. For David Carrier, art-historical writing even of the most radical nature exhibits elements of formal and connoisseurial analysis as criteria of intrinsic value for the study of all artistic practice.⁶⁹ A burgeoning neo-formalism likewise concerns itself with the rules of visual engagement and why a

work of art or architecture *looks* the way it does. Wren, Hawksmoor, Edward Lovett Pearce and their masons, joiners and plasterers knew precisely what constituted good workmanship, as did many, if not all, of their clients. It is the task of the historian to discover what went unspoken.

Tacit Knowledge

A fundamental problem in understanding historic craft practice is the non-linguistic character of ‘material intelligence’;⁷⁰ the ‘wisdom of...hands’⁷¹ which guided training through example, repetition and correction. Though the acquisition of such knowledge shared some common ground with the education of architects, unlike the latter this was not predominantly reliant on graphic, printed and textual material. The wills and inventories of craftsmen, unlike those of architects and ‘politer workmen’,⁷² do not suggest immersion in the literature of architecture, being focused instead on property, plate, jewels, clothing, furniture and the stock and tools of the deceased’s trade.⁷³ While books and prints may be interpreted as a vast educational repository of architectural knowledge, as we shall see in Chapter 1, we are on slippery ground in treating them as trustworthy reflections of craft education in the eighteenth century. Though the training of craft practitioners certainly had a theoretical dimension, principally relating to geometry and the classical orders, this well-understood aspect of architectural culture is not a focus of the present volume, which seeks instead to discover what is largely unwritten in the architectural literature of the period.⁷⁴

The opacity of the record in terms of craft education and the practice of workmanship in the period is complicated by conscious concealment of technique in classical architecture. The classical facade, wall, floor and soffit conceal not only structure but also the means of its own manufacture, a double illusion amplified by contemporary print media (fig. 18). We are not meant to understand how columns were fashioned in timber, plaster or stone or to know how timber staircases fly without apparent support or to apprehend the means by which plaster figures and ornaments project into space. This illusionism relied on highly developed skills honed through repetition. Yet, a recurrent theme in antipathy to workmanship is the concept of rote work as mindless repetition. Ruskin’s words ring in the ear:

you can teach a man to draw a straight line and to cut one; to strike a curved line, and to carve it; and to copy and carve any number of lines or forms, with admirable speed and perfect precision ... but if you ask him to think about any of those forms, to consider if he cannot find any better in his own head, he stops; ... ten to one he makes a mistake in the first touch he gives to his work as a thinking being.⁷⁵

The high game of classicism was intolerant of such error being reliant on prescription and consummate workmanship that was achievable only through the slow perfection of skill through patience, perseverance and precision. A mid-nineteenth-century text on marble masonry captures a general and still prevalent perspective on rote work: ‘To do things in order, appears to be a thing of easy attainment, belonging to the essentially common-place and uninteresting elements of work; hence, it is so frequently neglected, and any admonitions on the subject are generally received with weariness, if not contempt.’⁷⁶ Aspects of the building trades and their geometrical underpinnings are set out in treatises of the period, but the complexity and speed of tool-handling skills, tacit proportional judgement and intuitive understanding of materials resisted theorisation and contributed to a persistent view of the craftsman as an illiterate and innumerate practitioner who relied on the higher, quantifiable, skills of the architect and the surveyor.⁷⁷

Recent histories of technology and science have increasingly embraced the materials and methods of the artisan and demonstrated a fruitful dialogue, or ‘trading zone’, between scholars and practitioners, artists and craftsmen.⁷⁸ On a grander scale, anthropologists and social philosophers have analysed the contribution of artisanal practice and expertise to societal development. Tim Ingold’s concept of landscape as a vast and cumulative ‘taskscape’ has been particularly influential in repositioning the status of craft and manual labour,⁷⁹ as has the work of Richard Sennett who has proposed craftsmanship as a tangible exemplar for a dangerously cerebral society: ‘There is nothing inevitable about becoming skilled, just as there is nothing mindlessly mechanical about technique itself.’⁸⁰ Societal failure ‘in making connections between head and hand’ underpins Sennett’s persuasive arguments for craft practice as a behavioural model: ‘prepare, dwell in mistakes, recover form.’⁸¹ All of this had

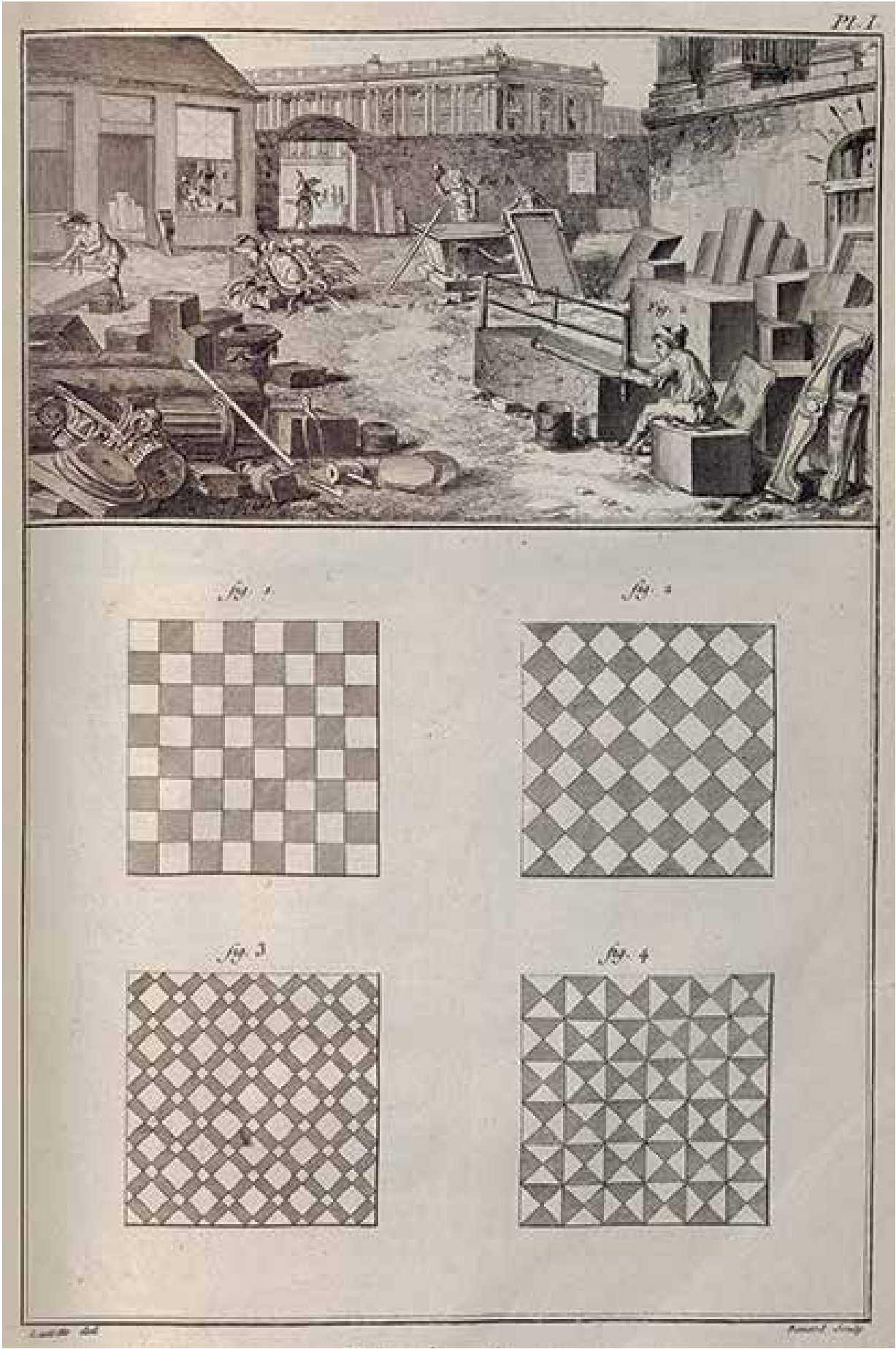


to some extent been prefigured in the remarkable work of Diderot, d’Alembert et al. but the impact of the *Encyclopédie* was slow to be felt in Britain (fig. 19). Not surprisingly, the most ‘enlightened’ perspectives on materials and craft practices in the eighteenth century emerged from practitioners of the empirical sciences.

Wider research on artisanal epistemology in eighteenth-century Europe and Britain has identified characteristics of artisanal culture that are vibrant rather than conservative such as entrepreneurship, collaboration and labour fluidity, and emphasises the proximity of the mechanical

18 Thomas Malton the younger, *A Picturesque Tour through the Cities of London & Westminster*, vol. 2 (London: T. Bensley, 1798), pl. 60, ‘West Front of the Mansion House’. Etching and aquatint. Royal Academy of Arts, London. Photo © Royal Academy of Arts, London.

19 Denis Diderot and Jean le Rond d’Alembert, *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.*, vol. 22 (Paris: Le Breton, 1767), pl. 1, ‘Marbrerie’. Photo: ARTEL Project, University of Chicago, <https://encyclopedia.uchicago.edu>.



and fine arts in the early industrial age.⁸² These findings are of considerable significance for eighteenth-century architectural production because of the frequent relationships between supplier and practitioner, the introduction of mechanical processes in the materials industry and the entrepreneurial dimensions of the building trade, though these traditional methods of workmanship in crafting the surfaces of buildings endured into the nineteenth century. For example, in seeking to recreate medieval mouldings in his buildings in the 1760s, the architect Henry Keene experimented with the employment of woodturning to speed up and cheapen the process but disliked the effect and returned to traditional carving.⁸³ Keene was unusual in his immersion in the building world. A lost conversation piece by Robert Pyle of 1766, set in the Guildhall at High Wycombe, depicts the architect and his clerk Euclid Alfray among their building associates, including Thomas Gayfere, mason to Westminster Abbey; John Devall, master mason, stone merchant and Keene's brother-in-law;⁸⁴ the mason and sculptor Benjamin Carter, brother of the late Thomas Carter who dominated chimneypiece production at mid-century; and Thomas Collins, a plasterer, business associate, close friend and sole executor of Sir William Chambers's estate (fig. 20).⁸⁵ According to Benjamin Carter, the group were members of a celebrated club of which Keene was president, while Howard Colvin records a tradition related to the picture's provenance that Keene habitually dined with his favoured craftsmen and that the painting was their gift to him.⁸⁶ The cumulative expertise and artisanal knowledge represented by the participants in this conversation piece gives life to the arguments of Sennett et al. on the hundreds of thousands of hours invested in the perfection of workmanship. The same holds true for any given building of quality. The Senate House at Cambridge, which plays an important cameo in this narrative, is a case in point (fig. 21). The interior, described by its architect, James Gibbs, as 'beautyf'd' by stuccowork, is the outcome of contributions by master masons, carpenters, joiners and plasterers. James Essex senior, then an established joiner some forty years in business, was responsible for the wainscot, gallery and reredos;⁸⁷ Giuseppe Artari and Giovanni Bagutti, prominent stuccatori with extensive European experience, created the enriched coffered ceiling,⁸⁸ while marble masons laid at enormous expense the diaper-patterned



black-and-white floor for the contractor Christopher Cass, a leading stonemason consistently employed by Vanbrugh, Hawksmoor and James Gibbs and ultimately master mason to the Board of Ordnance.⁸⁹ The quasi-ecclesiastical atmosphere engendered by the richly restrained combination of stained wood, marble paving and modelled stucco in the ostensibly Doric interior is bound up with the ceremonial and symbolic functions of the room. Henry Keene, like James Essex junior, was the son of a carpenter-joiner and, unsurprisingly, both men spent much of their careers in the maintenance and repair of medieval buildings. Essex knew Keene and his associate John Sanderson and worked with them at Ely Cathedral, and his extensive surviving papers provide a vivid insight into his knowledge of materials and methods.⁹⁰ As architect to the Dublin Barrack Board from 1763 to 1766, Henry Keene may well have encountered the Dublin carpenter-architect Michael Wills, who like Essex was precocious in articulating his knowledge of workmanship. While most of Wills's buildings appear to have been destroyed, his remarkable annotated translation of the first five books of Vitruvius's *De architectura*, made prior to the publication of William Newton's translation, provides a singular insight into the eighteenth-century building world.⁹¹ The heroes of this book are men such as these: stonemasons,

20 Robert Pyle, *Conversation Piece, Showing the Interior of the Guildhall, High Wycombe, 1760*, destroyed in a fire at Buxted Park, Sussex. The names, reading from left to right, are Ben Carter, Euclid Ab[1]fray, Devereux Fox, Henry Keene, Thomas Dryhurst, Thomas Hefford, George Mercer, Edmund Rawlinson, Thomas Gayfere, J. Pratt, William Cobbett, an unnamed gentleman [chairman?], John Devet[all] and Jeremiah Hutchinson, with Thomas Collins behind. From H. Clifford Smith, 'Henry Keene: A Georgian Architect', *Country Life* 97, no. 2515 (30 March 1945): 556. Photo: Country Life / Future Publishing Ltd. © The Board of Trinity College Dublin.

sculptors, joiners and plasterers, and builder-architects who, like the Smiths, were immersed in all aspects of building production. Architects are present too but for their orchestrating role rather than for their ingenuity as designers. Unlike the copious documentation for design and patronage, patchy records and a cast of thousands dictate a different kind of narrative centred on the retrieval of craft practice. In the absence of contemporary description, how can craft processes and standards be recaptured? How do we discover more about the shadowy activities of Thomas Gayfere, John Devall and Benjamin Carter? 'If writing, and even language is lacking', asks Pamela Smith, 'how do we reconstruct historical techniques of making, experiencing and knowing?'⁹² Four principal types of evidence have been drawn on to retrieve embodied knowledge in eighteenth-century craft practice: buildings that are rich in the work of masons, joiners, carvers and plasterers; archival documentation such as building accounts, articles of agreement, measurers' accounts, correspondence and the daybooks and journals of practitioners; published sources of the period that throw light on material processes; the findings

of architectural conservation where buildings have been damaged or opened up have revealed the methods employed by eighteenth-century craftsmen. Who knew that giant stucco figures could be fixed to the ceiling surface with the barest of supports, that the carving of column capitals could be dictated by stone size and haulage or that joiners cross-laminated the thinnest of slats to create wainscot of robust appearance? These types of insights come only from direct access to conservation sites and skills. Gillian Darley has recently commented on architectural history's need 'to get out more' and wonders 'why... the conservation world [is] still largely existing as a silo'.⁹³ Ongoing workmanship that seeks to analyse and emulate the processes employed in historic buildings, combined with surviving documentation, provides a valuable link to the craft practice of the past.

Interdependence

D'Alembert's words in the epigraph to this book articulate one of its core concerns, namely the interdependence of actors in the creation of

21 Senate House, Cambridge, 1722–30. Photo: Historic England Archive.



buildings, while acknowledging the generative and orchestrating role of the architect. In comparison to the design activity of the architect, the more workaday but vital oversight of building production has received relatively little attention. In the eighteenth century, architects were rarely on site for protracted periods of time and relied on the intermediary skills of middlemen and office staff, a great no man's land of architectural labour as characterised by Valérie Nègre.⁹⁴ Witness statements of the 1720s in the court case over costs at Blenheim repeatedly refer to the 'pains' taken by the clerk of works, Henry Joynes, in communicating the designs of the building verbally and in graphic form to tradesmen, in directing the supply of materials, in overseeing measuring of the building and in keeping multiple building accounts. Described by John Townsend as a very diligent and faithful servant, Joynes was seen by Christopher Cass to have 'had the greatest part of the Trouble' in carrying out the extensive works at the palace.⁹⁵ Sir William Chambers's letters to his clerks of works and building contractors likewise illustrate their considerable agency on the building site and their capacity to make or break a design.⁹⁶ Knowledge of materials was also recognised as the preserve of building practitioners. Writing about the supply of stone for the bridge at Milton, Chambers noted of the stonemason Cowley, 'he understands the Nature of the stone better than I do therefore all that I have to recommend to him is Accuracy in his Dimensions', while, as we shall see, a valuation of the stonework at Chatsworth made in 1692 and ascribed to Sir Christopher Wren is far from an assessment of the building by an individual architect.⁹⁷

Expanding knowledge of material supply and executive agency reflects a wider trend in scholarship that shifts the focus from individual to collective achievement, a communitarian approach reflected in the writings of Tim Ingold and Richard Sennett. 'Discipline by discipline', writes Paul Collier, 'the concept of the common purpose is being promulgated' while 'groups seem to be more realistic components for the study of society than individuals.'⁹⁸ Yet opinion remains divided on the relationship between individual and group in creative endeavour. For Andrew Saint,

22 Long Room, Old Library, Trinity College Dublin. Photo: David Liff, CC BY-SA 3.0 Deed Attribution-ShareAlike 3.0 International via Wikimedia Commons.



Architecture is...like a highly organized collaborative business. The designer never stands alone. ...Crediting buildings to [architects]...whether it is done through drawings, documentation or the eye is quite a narrowly conceived business. It may even mislead...Architecture in all ages is intensely collaborative, and we mislead our readers if we present it as a craft of pure, creative individualism...Architects like to come top, and we historians usually place them so. Should we be encouraging that?⁹⁹

Nonsense, counters *de haut en bas* argument such as that of the novelist Emmanuel Carrère:

Modern scholars reject top-down versions of history. They prefer the evolution of the land registry and three-year-crop-rotation to treaties, battles or the coronation of Napoleon...their key concern is to play down individual contributions in favour of a disembodied, collective tradition. They say: a Gospel...is the product of such and such a community...let's not succumb to the naive idea that it was written by one person.¹⁰⁰

Alistair Rowan is likewise sceptical of the bottom-up perspective, 'a predilection in contemporary architectural history, based perhaps on an egalitarian concept of equality of esteem'.¹⁰¹

Collective and interdependent contributions to architecture are probably best seen in the procurement, supply and qualitative control of materials, an aspect of building production that exerts considerable impact on the end product. A clearing in a European forest, wind-powered saws of Dutch invention, the enterprise of international timber merchants and the skill of sea captains and their crews lie behind the soaring oak-lined interior of the Long Room at Trinity College Dublin and many other wood-panelled interiors of the period (fig. 22).¹⁰² George Devall, brother of the guild-defying master mason and the leading ironsmith and plumbing contractor of his age, supplied Derbyshire lead for the dome of the Radcliffe Camera and countless other roofs as well as hundreds of thousands of iron holdfasts, clamps that held in place the oak lathing of innumerable stuccoed interiors.¹⁰³ The list of debtors included with the inventory of Devall's estate is a roll call of the great and the good of British society.¹⁰⁴ Who paid and who did not is a further illustration of interdependence in building production of a less beneficial sort, with knock-on effect on the lives of Devall's suppliers. The provision of stone

was likewise an essential and often problematic element in the building process, whereby lack of capacity or delays had a tangible impact on the building process. At Blenheim, for instance, frenzied efforts to put the shell in place led to the use of entirely unsuitable materials in parts of the building, resulting in an astonishing degree of retrofitting, while at Oxford the convenient and economic supply of soft local limestone had catastrophic effects on the city's facades.¹⁰⁵

Economic historians and historians of the ancient and medieval world have had less difficulty in conceiving of artistic and architectural production as a system of interconnected actions, 'an element in the systems of production and supply whereby the material needs of the contemporary world were satisfied'.¹⁰⁶ For David Ormrod, 'most artists in early modern times regarded themselves as artisans and the historical study of art as a series of interdependent crafts and trades ... provides a more reliable starting point than ... the *musée-imaginaire* of traditional art history'.¹⁰⁷ Historians of Greece and Rome and of the Middle Ages have long since shown that the organisation of workshops and the type of work they produced was related to sources of material supply. The cult of the individual in post-Renaissance art and architecture and a tendency to see through material achievement in search of deeper meaning has militated against such an approach. This book is with Andrew Saint while respectful of Rowan and Carrère. If clients and architects are gently nudged aside, it is to foreground – not to privilege – the work of those who physically achieved the classical visage of eighteenth-century Britain and Ireland. Rather than diminishing the role of the individual designer, it aims to amplify the vast background noise of the workshop that has been drowned out by the eloquence of drawing and the written word. It does not pretend to be a study in construction history but rather explores the interface between construction, compositional design and surface finish. As such it might be seen to offer a connective tissue between the disciplines of craft history, architectural history and construction history. A central aim is to expand knowledge of the interactions between multiple agents in the making of architecture, to give voice to silent actors and processes and to valorise the 'wisdom of...hands' that underpins eighteenth-century architectural production.¹⁰⁸

As noted in the Preface, this is but a preliminary study of a vast subject. It builds upon the

work of those who have laid the foundation for the study of craftsmanship in eighteenth-century architecture: Geoffrey Beard, James Ayres, Andor Gomme, Richard Hewlings and many others. Having outlined the parameters of the book, let us proceed to the four principal chapters, which deal respectively with the oversight of craft practice, the procurement and supply of materials and workmanship in the building's envelope and interior. While this is a broad overview of craft practice in the period, the cumulative evidence from a wide trawl of archival sources weighs the discussion towards masonry and carving in stone. Perhaps because of the high costs of stone and marble and architects' close supervision of their use, the records for this medium are more explicit than for others. Take, for example, Hawksmoor's church of St George's, Bloomsbury (see fig. 169), where the interior stonework of the Corinthian order cost almost three times as much as the plasterwork that does most to create the impression of a great cubic stone hall. Thus stone provides a specific focus for discussion of the materials industry and for workmanship in the building's envelope. Oversight of workmanship is a vital element in the translation of design into three-dimensional plastic architecture. In Chapter 1 the process is sketched out from archival and built sources to indicate the apparatus by which eighteenth-century architects guided and monitored the work of practitioners. The selection and supply of materials for building projects was

of fundamental importance for the quality and durability of eighteenth-century workmanship, but the topic has received scant attention from architectural historians. Charting its history may begin with any building material, but research for this volume has uncovered more detailed documentation for stone than any other. Therefore, Chapter 2 provides an overview of the eighteenth-century stone industry that foregrounds procurement and provision in the building process. Workmanship embraced many media and in Chapters 3 and 4 the surface arts of joinery, plasterwork and masonry are the principal foci for discussion with discrete chapters on the exterior and interior of the building. Chapter 3's analysis of masonry, column composition and decorative carving in stone illuminate how the casing of the building was achieved. Chapter 4 addresses the interior and a wider range of media, joinery, plasterwork and 'marble'. Throughout, the evidence of archival sources is combined with the findings and practices of conservation practitioners whose work seeks to analyse and emulate that of their eighteenth-century forebears. Many moons ago, having completed a decade-long project and casting around for a new one, I sought advice from John Harris on what next. 'Craftsmanship', he replied. 'What kind?' 'All of it', he responded with characteristic gusto. Plasterwork led to this bird's-eye perspective on materials and workmanship in the eighteenth century, while stone anchors it to quotidian craft practice of the period.