

THE ARCHITECTURAL SOURCES FOR THE MUSEUM BUILDING

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If the purpose of this research project, as stated by Christine Casey at the start of this book, is to highlight the process of making (rather than meaning), then we must query the ‘making’ that went into the design itself. For the Museum Building is not just a rich combination of materials, but also a rich combination of architectural features from disparate sources. Appropriately for a scientific building, its architecture emerges from the Victorian need to travel, label, catalogue, compare, master, and ultimately distil. While Ruskin’s influence has long been acknowledged in this process, the building’s eclecticism and quality of execution have deeper roots and a longer gestation than a dependence on Ruskin alone will allow.¹ Ruskin’s illustrations of Venice, published largely in the three volumes of *The stones of Venice* between 1851 and 1853, focus almost exclusively on architectural details, hardly equipment enough for so assured a change in direction.

Edward McParland’s 1976 *Country Life* article on Trinity College and subsequent research by Douglas Scott Richardson, Eve Blau and Frederick O’Dwyer have already uncovered wider influences on Deane and Woodward, including Charles Barry’s Travellers’ Club, engravings of Venetian palazzi published in *The Builder*, and the mosque at Córdoba.² As these studies have established, the Museum Building set Deane, Son and Woodward on a new trajectory, which would produce an extraordinary series of public and private works across two countries. The purpose of this paper is to continue the search for the stylistic ingredients in the remarkable first step on that journey.

English and Italian architectural literature 1815-55

As Jean-Philippe Garric has noted in relation to France, publication in Italy itself was an important precursor to the export of architectural ideas.³ The same point might be made in relation to Britain and Ireland. While early Venetian engravings, such as Luca Carlevarijs’s

¹ For the relationship between Ruskin and Benjamin Woodward, see O’Dwyer, *Deane and Woodward* and Geoff Brandwood and Rebecca Daniels, *Ruskin and architecture* (London, 2003).

² Edward McParland, ‘Trinity College, Dublin - II’, *Country Life*, 13 May 1976, 1242-3.

Eve Blau, *Ruskinian gothic*; Douglas Scott Richardson, *Gothic revival architecture in Ireland*; O’Dwyer, *Deane and Woodward*.

³ Jean-Philippe Garric, *Recueils d’Italie: les modèles italiens dans les livres d’architecture français* (Brussels, 2004), p. 12.

Veduti di Venezia (1703), and Michele Marieschi's 1741, *Magnificentiores selectioresque urbis venetiarum prospectus* (1741), did not provide enough architectural detail to be useful to Victorian architects, by the early nineteenth century more scholarly work had begun to appear. Antonio Quadri and Dionisio Moretti published the first orderly sequence of views of the palazzi on the Grand Canal in 1831, which include clear views of its facades and laid the groundwork for a more comprehensive view of the city's architecture.⁴ In the same year Giuseppe Antonelli published *Collezione de' migliori ornamenti antichi sparsi nella città di Venezia*, which had detailed drawings of the city's gothic churches and comparative views of richly carved Byzantine capitals. The first expansive study of the history, art and architecture of the Palazzo Ducale in Venice, which Ruskin would later regard as the central building of the city, was published in 1842 by Italian scholar Francesco Zanotto (with a second edition of 1853).⁵ More significant was a two-volume work on Venetian architecture by Leopoldo Cicognara, president of the Venetian academy of fine art, of 1815-20, with further expanded editions by Zanotto in 1838-40 and 1858. Ruskin dismissed Cicognara at the start of the *Stones of Venice* as 'so inaccurate as hardly to deserve mention'. Whatever about the historical inaccuracies, his drawings were wide ranging and detailed.

The influence on British architecture was slow. When *The Builder* published an article on the architecture of Venice in July of 1845, it reviewed Cicognara's work as if it had freshly appeared and expressed mixed views about its contents:

We find that the Gothic style, which prevailed in Italy during the 13th and 14th centuries, had considerable influence in Venice, but it must be confessed that the buildings in which it was used display little of that elegance observable in other parts of Europe, or even in other cities of Italy. The "Casa d'Oro" has gothic forms and arches, but has horizontal lines. The external elevations of the Ducal Palace were in the main gothic, but had many peculiarities assimilating them to the buildings of Lombardy. Much beautiful carving is observable about the capitals of the columns.⁶

⁴ Antonio Quadri and Dionisio Moretti, *Canal Grande di Venezia* (Venezia, 1831).

⁵ Francesco Zanotto, *Il Palazzo Ducale*, vol. 1 (2nd ed. Venezia, 1853).

⁶ 'The architecture of Venice illustrated in the work of Cicognara', *The Builder* 3:77 (1845), 326-7.

Nevertheless, *The Builder* praised the scholarly activity of the Venetian academy that had produced the work, contrasting it with ‘the spiritless existence of similar bodies at home.’ By the early 1850s there were few detailed engravings of Venetian architecture to draw upon in English language literature, but there had been a scholarly turn towards medieval Italy for several decades. Some monographs focused on specific groups of buildings, such as Cressy and Taylor’s monumental study of Pisan romanesque (1829).⁷ Thomas Hope’s posthumously published two-volume *Essay on historical architecture* (1835) did much to promote the Lombardic style, as did the work of Alexander Crawford Lindsey’s two volume *Sketches of the history of Christian art* (1847), the latter reflecting the influence of late eighteenth and early nineteenth century German Romanticism.⁸ Hope championed the architecture of the early Christian basilicas of Rome over the Renaissance and modern works of the city,⁹ and celebrated the Italian tradition of *pietre dure*, paved in geometrical patterns in Italo-Byzantine churches.¹⁰ (The Italians were thinking along the same lines. Luigi Canina’s illustrated study of 1843 of the early basilica churches of Rome promoted them as a model for Christian architecture. A copy of his book made its way into the Trinity College library before 1872.)¹¹

Henry Gally Knight commissioned drawings from Italian, German and English artists for his two-volume survey of the ecclesiastical architecture of Italy (1842-3), from the time of Constantine to the fifteenth century. Kathleen Curran has demonstrated Knight’s influence on the commissioning of SS Mary and Nicholas at Wilton for the Earl of Pembroke, the first full expression of Italian Romanesque in Britain begun in 1842.¹² Most of Knight’s engravings were monochrome but he praised the use of colour in Italy, writing that

...[t]he external decoration of Italian churches of this period arises less from the forms than from the materials employed, and the manner in which they are disposed. The fronts, and even the sides of the fabric are enriched with panels of marble of various shapes, sizes, and colour. Sometimes Mosaics, on a larger scale, are introduced in the west front, as at Orvieto,

⁷ E. Cressy and G. L. Taylor, *Architecture of the middle ages in Italy* (London, 1829).

⁸ For the influence of German thinking on the relationship between nature and art on Wordsworth, Carlyle, Pugin, and ultimately Ruskin, see Mark Swenarton, *Artisans and architects* (Basingstoke and London, 1989).

⁹ Hope, *Essay on historical architecture*, p. 112.

¹⁰ *Ibid.* 164.

¹¹ Cavaliere Luigi Canina, *Ricerche sull’architettura piú propria dei tempi Cristiani e applicazione della medesima ad una idea di sostituzione della chiesa cattedrale di S. Giovanni in Torino* (Roma, 1843).

¹² Kathleen Curran, *The romanesque revival: religion, politics and transnational exchange* (State College, 2003).

and, uninjured by the serener skies of southern climes, produces a striking and brilliant effect.’¹³

Knight also praised the secular buildings of the thirteenth and fourteenth centuries in Italy as ‘often magnificent structures, most notably the impressively solid and round-arched Palazzo Pubblico of Piacenza of which he provided a detailed engraving – as had Hope’s *Illustrations* in 1835 (6.1).

As early as 1849, the church at Wilton had inspired an article in the *Builder* arguing that the Romanesque style was a more natural ecclesiastical style than gothic for the modern streetscape. Churches in this idiom would blend more naturally with the ‘Pimlico palaces and west-end squares’, avoiding the ‘violent juxtaposition’ of horizontal and perpendicular lines that produced ‘the most jarring and unpleasant contrasts of which architecture is capable.’¹⁴ It was but a short step from this to recommending its adoption for secular purposes. According to the anonymous writer, the Romanesque style was unfinished business, having been interrupted by the development of gothic. Weighty monolithic forms, with what Ruskin would later call – as Edward McParland has already noted - ‘one visible bounding line’, provided the formal template for the new kind of palazzo architecture Barry had proposed at the Travellers’ Club and in the other Pall Mall clubs which followed. The dissemination of a more diverse range of secular Italian exemplars in published sources over the following twenty years, often aimed specifically at practising architects, laid the groundwork for the arrival of Ruskinian gothic in the 1850s.

Just as photography arrived on the architectural scene, chromolithography was giving traditional engraving the edge in capturing the colour of northern Italian and Byzantine architecture. Already in 1842 Owen Jones had added coloured engravings of Italian mosaics to the otherwise monochromatic views in Henry Gally Knight’s two volume survey *The ecclesiastical architecture of Italy*. The same year Henry Shaw’s *Encyclopaedia of ornament* appeared with deliberately eclectic chromolithographs of English, French, German, Greek, Italian and Egyptian architectural decoration. He wished to provide ‘hints for a selection of parts which when combined may produce a new arrangement of equal elegance; thus

¹³ Henry Gally Knight, *The ecclesiastical architecture of Italy from the time of Constantine to the fifteenth century*, vol. 1 (London, 1842), p. x.

¹⁴ ‘The value of the romaneseque style’, *The Builder* 7:343(1849), 410.

constituting a mass of materials from which the artist or manufacturer may derive a succession of entirely novel designs.’¹⁵

The most earnest attempt to record the ornament of medieval Italy for practicing architects in Britain was by J. B. Waring & T. R. Macquoid, two members of the Royal Institute of British Architects, who in 1850 published *Examples of architectural art in Italy and Spain*. As *The Builder* commented in its review of the book in August 1850, ‘It is not merely a pretty work, and a pleasant work to turn over, but a practically useful work, presenting a mass of data, models to work upon, and materials for re-combination.’¹⁶ It is this idea of re-combination, already articulated by Shaw in 1842, that underpins the working method of Deane and Woodward. And in choosing the round-arched rather than the pointed, they were following Waring and Macquoid’s prescription for a stylistic departure in British architecture:

There is much talk, in this age of inventions, of a new style, that is, a system of Architecture possessing a distinct character from those already known ; if such a reward does attend the activity and creative power of the century, it seems pretty certain that the semi-circular arch will be its constructive and characteristic feature ; and a more noble foundation art never rested on ; perfect in its form, calm, powerful, continuous, it is certainly suited to give grandeur to any system that may be raised on it. However this may be, considering the constant use of the arch at the present day, its ornamentation has been strangely neglected, and we have, therefore, sought for the best examples of its ornamental construction in Romanesque and Cinque-Cento, where it forms an important feature.

Unsurprisingly, given their conviction of its merits, it was Waring, along with Matthew Digby Wyatt, who would arrange the Byzantine and Romanesque courts at the Great Exhibition of 1851.¹⁷

Whatever the impact of Waring and Macquoid’s work, the more general scholarly neglect of Venetian domestic architecture gave *The Builder* the confidence in 1853 to claim credit in providing the sources for Deane & Woodward’s in their series of nine engravings of Venetian

¹⁵ Henry Shaw, *The encyclopedia of ornament* (London, 1842), p. iii.

¹⁶ *The Builder* 8:391 (1850), p. 361.

¹⁷ Matthew Digby Wyatt and John Burley Waring, *The Byzantine and romaneseque court in the Crystal Palace* (London, 1854).

palazzi in their volume of 1851.¹⁸ They were engraved by Charles Laing, the *Builder's* usual engraver, and were published in sets of two, showing a full elevation and a group of its ornamental details, and were signed with the initials 'J. T. W'.¹⁹ They appeared in a nine month period between March and December 1851: the Palazzo dei Pergoli Intagliati (15 March 1851), the Palazzo Dario (29 March 1851), the Casa Visetti (Gussoni Algarotti) (24 May 1851), the Palazzo Cornaro (Corner Spinelli) (23 August 1851), and, finally, a single engraving of four capitals of the Ducal Palace (27 December 1851) (fig. 6.2). It is important to note however that any English or Irish architect visiting Venice would have encountered engravings of these facades in the work of both Leopoldo Cicognara (1815-20, 2nd edition 1838-40) and Pietro Selvatico (1847), so it would not do to over-emphasise the importance of sources printed in Britain.

Comparison with the actual elevations of these palaces shows a general inaccuracy of detail in the engravings in *The Builder*. The engraving of the Ca' Dario, for example, has altered or 'improved' several features, such as the proportions of the pilasters, the coursing of the stone, and the spatial arrangement of ornamental features. That J. T. W. did not entirely endorse the building in its original form is reflected in his warning 'of a fault...in this building which should not be imitated, that is, the almost equal height of all the stories (*sic*).'²⁰ The impact of these engravings has already been asserted, though in a rather loose way. (More literal transcriptions are found in the banks of W. H. Lynn at Dungannon, Co. Tyrone (1854-5) and Newtownards, Co. Down (1855),²¹ which draw on the Palazzo dei Pergoli Intagliati (Contarini Fasan).) Blau has argued that the 'the twisted colonettes on the corners and string course moldings' on the Museum Building derive from this latter engraving, but as will be shown below there are better sources for each of these features.²²

McParland has also offered a convincing case for giving more attention to the manner in which Venetian influence on Victorian architecture was mediated through the German Rundbogenstil, and we might extend this to considering the *type* of building to which Venetian

¹⁸ Eve Blau, *Ruskinian gothic*, p. 31.

¹⁹ 'The Palace dei Pergoli Intagliati, Venice', *The Builder* 9: 423 (1851), 171; 'Palazzo Dario, Venice', *The Builder* 9:425 (1851), 202-203; 'Casa Visetti, Venice', *The Builder* 9:433 (1851), 331; 'Palazzo Cornaro, Venice', *The Builder* 9:446 (1851), 530-531. 'Capitals: Ducal Palace, Venice', *The Builder* 9:464 (1851), 815. The two of the Casa Visetti (Gussoni) were unsigned but are by the same hand, see *The Builder* 9:433 (1851).

²⁰ 'Palazzo Dario, Venice', *The Builder* 9:425 (1851), 202.

²¹ See O'Dwyer, *Deane and Woodward*, p. 406; James Stevens Curl, *Victorian architecture* (Reading, 2007), p. 300.

²² Blau, *Ruskinian gothic*, p. 32.

forms were applied. Heinrich Hübsch's design for the Polytechnische Hochschule, Karlsruhe (1833-37), while it has clear parallels in terms of massing, form and fenestration, also perhaps offered a model for a school of the applied sciences. Indeed, Hübsch's close relationship with the Nazarenes and his belief in combining the arts seems to echo the Deane and Woodward's status among the Pre-Raphaelites a generation later.²³ Hübsch's own involvement with the school, which offered a range of scientific courses, and his promotion of architecture as both a science and an art (he devised the architecture curriculum), allowed him the perfect opportunity to combine theory and practice in developing a new institutional style.

The link between northern Italian romanesque and Hübsch's technical school in Germany is paralleled by the School of Art in Sheffield, completed in 1857, by the young and little-known architects Michael Manning and Frederick Mew (fig. 6.3).²⁴ Like the contemporary Museum Building in Dublin, it was described as being in the 'Byzantine and Romanesque style'.²⁵ Stylistically it takes its cue from the Fondaco dei Turchi rather than the later palazzi associated with Pietro Lombardo and his circle. Notably, it drafts onto this specifically Venetian source an eaves cornice derived from the Palazzo Bolognini in Bologna, suggesting a familiarity with the engravings of Waring and Macquoid (see below). After its completion the building was opened to the public so that 'the Artizans and Workmen of the Town especially will avail themselves of this opportunity of becoming acquainted with a Building erected principally for their own advancement.'²⁶

As Richardson noted, the competition for the Museum Building had been merely for a suitable plan. College architect John McCurdy was the winner, after which, much to his dismay, the college called in Deane and Woodward to design the elevations. The Deanes then insisted in having a hand in the plan.²⁷ It is unclear why the Board chose the Cork architects to intervene but it may be that there was awareness among them of Deane and Woodward's interest in pursuing a new architectural direction. Whatever the case for this, the architects pursued their cause in every part of the building from the ground up.

To date there has been no systematic study of the Museum Building's architecture and the section below attempts to untangle the diversity of sources – largely printed - brought into play by the architects. As will be shown, the Museum Building is a work immersed in the

²³ For Hübsch's career, see Curran, *The romanesque Revival*, 1-35.

²⁴ Brodie *et al.* (eds). *Dictionary of British architects 1834-1914*, vol. 2, p. 128 and 172.

²⁵ 'The New School of Art in Sheffield', *Morning Post*, 27 Jan. 1857.

²⁶ 'Sheffield School of Art', *Sheffield Daily Telegraph*, 7 Feb. 1857.

²⁷ Richardson, *Gothic revival architecture in Ireland*, vol.2, p. 387;

architectural literature of its time and stands as a nuanced distillation of the emergent mid-Victorian enthusiasm for north Italian, continental and middle eastern architecture.

Wall base

Ruskin had stated clearly in *The stones of Venice* that he did not approve of renaissance style rustication: ‘Do not think that nature rusticates her foundations. Smooth sheets of rock, glistening like sea waves, and that ring under the hammer like a brazen bell,—that is her preparation for first stories’.²⁸ The bold undulating profile of the Museum Building’s base nevertheless gives the impression of strength and relates loosely to those on the 15th century palazzi on the Grand Canal. Ruskin gave a diagram of the Italian wall base in its most elemental form in fig. 2 of the *Stones of Venice*, before elaborating on it later on the book with a series of 28 separate examples which he drew in profile, based on a common in the Veneto composed of ‘two rolls, separated by a hollow’. In its proportions the Museum Building base is closed to those at San Zeno, Verona, San Stefano, Venice, and on the windows of the Ducale Palace, Venice - see *The stones of Venice* I, plate X, nos 19-21 (fig.6. 4), which Ruskin considered to be the finest examples. The use of bold projections here, he argued, was to ‘prevent the attention from being drawn to the joints of the masonry, and besides form a simple but beautifully connected group of bars of shadow, which express, in their perfect parallelism, the absolute levelness of the foundation’. Earlier than Ruskin, Cicognara had published the base of San Zaccaria (vol. 2, plate 142), which has similar projections.

Dado string-course

The convex dado string-course, featuring a guilloche motif with 654 flower carvings, is one of the more remarkable features of the Museum Building façade (fig. 6.5). There are a number of Venetian exemplars. The Palazzo Contarini Polignac has a flower guilloche though the flowers are not varied. A better precedent is that on the Palazzo Pisani Moretta, the elevation of which was published by Cicognara, along with several details including this one.²⁹ The original carving on the façade of the Pisani Moretta has weathered considerably and is now hard to see

²⁸ Ruskin, *Stones of Venice*, vol. 1, p. 297.

²⁹ Cicognara, *Le fabbriche piu cospicue di Venezia*, vol. 1, plate 104.

from a passing boat. Importantly, Cicognara shows the unique design of each flower (**Figure 6**). Another potential source, also with floral variety, is the guilloche on the plinth of the outer courtyard of the Scuola San Giovanni, though no published source has been identified. Beyond Venice, there is the façade of Santa Maria dei Miracoli, Brescia, a detail of which formed part of the illustrated lectures given by R. N. Wornum to the Government schools of design in the late 1840s and early 1850s from a cast in Marlborough House (see Chapter 8, Fig. x).³⁰

Doorway

The doorway, with its flanking side-lights and two differently scaled registers of pilasters, is derived from the Palazzo Visetti.³¹ The original design, as published in *The Builder* of 12 August 1854, featured an elaborate ironwork fanlight of a common Venetian type, with distinct similarities to the tympanum over one of the doorways of the Palazzo Ducale overlooking the Prigione, as illustrated by Leopoldo Cicognara.³² Although the outer detail of the archivolt would remain the same, at some point after 1854 Woodward altered the design in favour of a heraldic device over a grid-like diaper pattern in Caen stone, probably derived from Ruskin's view of a door tympanum in Campo di Santa Margarita in his *Examples of the architecture of Venice* (1851). The orthogonal grid is replaced with a diaper pattern and the flowers with shamrocks (**Figure 7**). The fine doorway by the Ponte S. Toma, Venice, is also of this type, though it was not published until the second edition of G. E. Street's *Brick and marble in the middle ages* of 1874.³³

Door

The original design was a very plain four-panel arrangement, published in *The Builder* of 12 August 1854. It seems likely that Deane & Woodward never intended to execute something so bland, but had yet to formulate an appropriate design. The executed work, with its distinctive lobed panels, is almost certainly derived from Street's engraving of the door of Santa Anastasia, Verona, in his *Brick and marble in the middle ages* (1855) (**Figure 8**), which he called the 'noblest pointed church in the north of Italy'.³⁴ From the west portal of the church, it has a

³⁰ Ralph Nicholson Wornum, *Analysis of ornament. The characteristics of styles: an introduction to the study of the history of ornamental art* (2nd ed. London, 1860), p. 97.

³¹ Richardson, *Gothic Revival architecture in Ireland*, vol. 2, p. 393.

³² Cicognara, *Le fabbriche piu cospicue*, vol. 1, plate 28.

³³ G. E. Street, *Brick and marble in the middle ages: notes of a tour in the north of Italy* (London, 1855).

³⁴ Street, *Brick and marble*, p. 77.

strong graphic quality that clearly appealed to the architects. Street makes the following comment on it: ‘The wooden framework of this door, of which I give a detail, is very curious; it is of deal, coeval with the doorway, and the framework is external, not internal.’³⁵

Windows

The distinctive fenestral architecture of the Museum Building derives from the influence of the rear elevation of Charles Barry’s Travellers’ Club (1828-32), as established by Edward McParland (fig. 5.2). The rhythmic grouping of the bays, with a trio at the centre, appears in other British designs, probably also inspired by Barry, such as that by E. B. Lamb of an Italianate villa, published in an early edition of the *Builder* in 1843.³⁶ For ornament Woodward reputedly acknowledged a debt to *The Builder*’s 1851 view of the Casa Visetti, an enriched façade on the narrow Rio de la Fava, which has a singular arrangement of doorway and flanking round-headed windows.³⁷ Of all the engravings of Venice published in *The Builder* in 1851, that of the Casa Visetti is the only one to show the busily decorated pilaster used so extensively by Woodward around his exterior. However, *The Builder* was not the only publication to feature a detailed drawing of this façade as the Casa Visetti had been published a year earlier by Waring and Macquoid. They also provided detailed views of the enriched round-arched window ornament of Bolognese palaces (largely of terracotta) – the Casa dei Caracci, the Palazzo del Podestà, the Palazzo dell’Arte dei Drappieri, and the Palazzo Felicini. The Palazzo Bevilacqua, the most notable example, has a comparable double register of enriched pilasters on the windows of the upper floor.³⁸

In addition to the Bolognese precursors, minor cities such as Pavia, Como, Piacenza, Brescia, Cremona, and Ferrara – represented in the work of Hope, Waring and Macquoid, and later Street – demonstrate a weighty solidity that is absent from the Venetian palazzi and offer the kind of window enrichment lacking in the medieval and renaissance palazzi of Florence and Rome. The form of the pilasters flanking the windows on the upper storey of the Museum Building (divided into seven on the north front, and varied to four and one elsewhere) echo

³⁵ Street, *Brick and marble*, p. 100.

³⁶ It was used to publicise a supplement to J. C. Loudon’s *Encyclopaedia of cottage, farm and villa architecture* (London, 1846), which contained a large number of Italianate designs.

³⁷ Richardson, vol. 2, p. 393. Blau, p. 32.

³⁸ J. B. Waring & T. R. Macquoid, *Examples of architectural art in Italy and Spain...* (London, 1850).

those on the doorway of San Michele, Pavia, published by Hope (1835) and, in more detail, by Knight (1842). Ruskin regarded it as one of the two most important churches in Lombardy (the other being Sant' Ambrogio, Milan)³⁹. The distinctive bases of these pilasters – an ovolo moulding without a fillet, deeply undercut to create strong black shadows, are found on the small church of Santa Maria della Spina in Pisa, which is among the plates published by Waring and Macquoid (1850).

The treatment of the window archivolts is more Venetian. The use of nailhead ornament on the ground floor archivolts echoes that on the lower arcade of the Palazzo Ducale, while the semi-circular rope moulding on the upper windows is found on the deeply moulded archway on the courtyard side of the entrance to the Palazzo Ducale – as well as on several gothic doorways and windows elsewhere in the city.

The emphatic first-floor sill course comprises several mouldings to give the necessary visual support to the weight decorative scheme at this level, is similar to the one on San Zaccaria, Venice.

The alterations to the Museum windows, which saw the insertion of carved gothic relieving arches of Portland stone over the round-headed openings, follow the style of von Gartner's Bavarian state library. Richardson refers to Florentine precedents and Waring and Macquoid's engraving of the Palazzo Niccolini, Florence (1850) was a ready published exemplar. Ruskin published something similar in the *Stones of Venice* (vol. 1), plate V showing the Broletto at Como. The device had been resurrected also by Friedrich von Gartner in his Staatsbibliothek in Munich (1827-43) and his Damenstiftsgebäude, Munich (1835-9). It appeared too on Owen Jones's oriental houses at no. 8 and no. 24 Kensington Palace Gardens (1845-49), unusually precocious works for their date. No. 8 has the cusped outer arches seen on the Museum Building.⁴⁰ Whatever the exact source, the builders in Dublin went to great lengths to make the change, making their carved variation considerably richer than the examples above. The list of alterations show that it took stonecutters 42 days to carve out the granite ashlar to allow this inlay of Portland stone over the upper windows, and 23 days of labourers altering and preparing the scaffolding.⁴¹

³⁹ Ruskin, *Stones of Venice*, vol. 1, p. 80.

⁴⁰ 'Plate 92: Kensington Palace Gardens', in *Survey of London: Volume 37, Northern Kensington*, ed. F H W Sheppard (London, 1973), p. 92. *British History Online* <http://www.british-history.ac.uk/survey-london/vol37/plate-92> [accessed 17 July 2018].

⁴¹ TCD Ms. MUN-P-2-351-7, p. 18.

Venetian dentils

The term ‘Venetian dentil’ was first used in the 1830s by Robert Willis, as acknowledged by Ruskin.⁴² It was a sort of alternating chamfer, described in the Dublin press of 1855 as ‘interlacing bands of bevelled notchwork’, and features prominently on the perimeters of the roundels of coloured marble on the ground floor of the Museum Building, and around some interior arches.⁴³ However, the usually cited source for these roundels – the illustrations of the Ca’ Dario in Ruskin’s *Stones of Venice* (vol. 1, 1851) and the Builder (1851) – do not have this type of frame. Ruskin illustrated the feature in a rectilinear window surround from the Ca’ Foscari in the *Seven Lamps of Architecture* (1849), from where Woodward may have adopted it, and in fig. LVIII in *The Stones of Venice* vol. I, and in the roundel of plate XIV in the same volume. It also features very extensively on the façade of the Ca’ d’Oro in a rectilinear fashion. The first-floor wall roundels have a variation on the above dentil, which incorporates an inner and outer band, derived from the *Stones of Venice*, vol. 1, plate IX, no. 16 (fig.6. 10).

The double alternating line of dentils under the eaves, set on separate planes above and below a concave moulding, is a confident and well-executed feature of the façade. A similar arrangement of dentils appears around the arches on the elevation of San Marco, but on the Museum Building they are considerably amplified in scale to make them visible from the ground. The most likely source is Ruskin’s *Stones of Venice* vol. I, plate IX, detail no. 13, which gives isometric and section views of them. See also vol. II, plate VII, no. 10.

Roundels of marble

The Museum Building exterior was executed largely in a Renaissance palette – what Ruskin would refer to as ‘winter...colourless as it was cold’, relieved only by roundels of inlaid Irish marble.⁴⁴ As already well-established by others, these derive from several Venetian exemplars, such as the Palazzo Dario and the Casa Contarini on the Grand Canal, and were given great prominence by Ruskin who made them his first plate in volume 1 of *The stones of Venice* (fig.

⁴² Ruskin, *Stones of Venice*, vol. 1, p. 271, citing Robert Willis, *Remarks on architecture of the middle ages, especially Italy* (Cambridge, 1835).

⁴³ Dublin Daily Express, 25 Sept. 1855.

⁴⁴ *The Stones of Venice*, vol. 1, p. 296.

6.11). Ruskin regarded these buildings highly, but by the time volume 3 appeared in 1853 he was scathing about the use of inlaid marble in roundels, seeing it as an example of the decline of Venetian gothic. He wrote of their ‘peculiar feebleness and want of soul’, which marked them

as belonging to a period decline; as well as the absurd mode of introduction of their pieces of coloured marble: these, instead of being simply and naturally inserted in the masonry, are placed in small circular or oblong frames of sculpture, like mirrors or pictures, and are represented as suspended by ribands against the wall; a pair of wings being generally fastened on to the circular tablets, as if to relieve the ribands and knots from their weight, and the whole series tied under the chin of a little cherub at the top, who is nailed against the façade like a hawk on a barn door.⁴⁵

Ruskin notes a decline in the use of coloured marble in Venetian architecture between the Byzantine period and gothic:

...the principal difference in general form and treatment between the Byzantine and Gothic palaces was the contraction of the marble facing into the narrow spaces between the windows, leaving large fields of brick wall perfectly bare. The reason for this appears to have been that the Gothic builders were no longer satisfied with the faint and delicate hues of the veined marble; they wished for some more forcible and piquant mode of decoration, corresponding more completely with the gradually advancing splendour of chivalric costume and heraldic device.⁴⁶

Unsurprisingly, these ribands, knots and cherubs (which can no longer be seen on the Venetian originals) were not replicated by Deane and Woodward (see Chapter x, p. x).

⁴⁵ *Stones of Venice*, vol. 3, pp 16-17.

⁴⁶ *Stones of Venice*, vol. 3, pp 17-18.

Angle-shafts

The twisting shafts on the corners of the Museum Building are not illustrated at all in the *Stones of Venice* and those that appear in the illustration of the Palazzo dei Pergoli Intalgiati in vol. IX of *The Builder* (1851) are of a simpler type, more akin to a vertical rope-moulding. Instead, the feature appears on the window shafts of Giotto's campanile in Florence, which combine both concave and convex elements, illustrated in plate IX of the *Seven Lamps of Architecture* (1849), but a more likely source is the Palazzo Ducale, which has somewhat similar shafts – though the prominent shaft rings were omitted in Dublin. The most notable difference in Dublin is the lesser angle of the spiral and the extra width of the convex element. This makes the shafts look more reposed, avoiding the tightly wound and taut appearance of those on the Palazzo Ducale.⁴⁷

One detail on the angle-shafts suggests that at least one of the architects may have already visited Venice in person. This is the manner in which the rope moulding below the eaves dips in around the base of the capital as it rounds the corners of the building (fig.6.12). It is a curiously subtle feature, which appears only on the Ca' d'Oro, but which is too minor a detail to render effectively in an engraving. It is almost impossible to see on the Ca' d'Oro without standing at the base of the building and looking up.

Cornice

The richly carved cornice moulding is boldly expressed and emphatically divides the floors of the building. Ruskin devotes a whole chapter to cornice mouldings and capitals, which he termed 'the crowning members of the wall and shaft.'⁴⁸ The architects seem to have taken their cue from the acanthus leaf cornice from San Giovanni e Paolo, Venice, as illustrated in Ruskin's *Examples of the architecture of Venice* (1851) (fig.6.13).

Eaves brackets

The source for Deane and Woodward was almost certainly the south elevation of Charles Barry's Travellers' Club (1829). The brackets are a distinctive and complicated type, with an elaborate tongue-like element; at the Museum Building the motif is doubled up to support an eaves which is both high and deep (fig. 6.14). In this way, the visual impact is as powerful as

⁴⁷ *The Builder* 12:601 (1854), 425.

⁴⁸ *Stones of Venice*, vol.i, p. 213.

the eaves in the Reform Club, which takes its bold form from the Palazzo Strozzi in Florence. However the detailing remains here emphatically that of the Veneto – specifically that of Vicenza, where it probably originated on the town hall or Basilica, the upper part of which remained unmodified by Palladio. There are several examples on the town's main thoroughfare, the Corso Andrea Palladio, and also the Contra Porti, which Barry would have seen while studying the buildings there during his Grand Tour of 1817-20.⁴⁹ Barry's rendering of the detail was in turn published in plate 9 of W. H. Leeds 1839 book on the Travellers' Club.⁵⁰ This eaves bracket later reappears in a form closer to Barry's original on Dublin's Natural History Museum and National Gallery.

Eaves moulding

The eaves moulding, which appears nowhere in Ruskin, is particularly curious and features two motifs that are widespread in Deane and Woodward's work - firstly, a semi-circular pattern on the S and E faces, and secondly, an angular chevron pattern on the N and W faces (fig. 6.14). The transition between them at the corners is an awkward one and it is hard to account for the decision to use to separate motifs other than a wilful pursuit of variety. The semi-circular motif, forming a subtle series of crescent-shaped shadows, was used again to ornament the transverse timber roof beams inside the building, while both motifs reappear in stone in the atrium of the Oxford Museum, around the doorway and window impost cornices of St Ann's Diocesan School, Molesworth Street (1857-8, demolished), and around the doorway and in the interior of Glandore House, Co. Dublin (1858-9). Something similar appears on the Duomo at Verona, above the first arch, as seen in Knight (1842), though the parallel is too vague to be convincing. Another possible source is George Lewis's *Illustrations of Kilpeck Church, Herefordshire* (1842), one of the most detailed studies to be published of a single Romanesque church in these years. One reviewer, in the *Gentleman's Magazine*, decided that the ornate south doorway was 'a fine specimen of Lombardic decoration; doubtless, the workmanship of a foreigner from Pisa, or some other portion of Italy, indulging in the taste of his time for grotesque and extraordinary sculptures.'⁵¹ A further potential source is George Edmund Street's *Brick and*

⁴⁹ Alfred Barry, *Memoir of the life and works of the late Sir Charles Barry, Architect* (London, 1870), pp 47 and 60.

⁵⁰ W. H. Leeds, *Studies and examples of the modern school of English architecture. The Travellers' Club House, by Charles Barry* (London, 1839).

⁵¹ *Gentleman's Magazine*, vol. 172 (1842), p. 57.

marble in the middle ages (1855), which shows a similar detail on the broletto of Brescia.⁵² The detail was later used extensively by Victor Laloux on his Neo-Byzantine Basilica of St Martin, Tours (1886-1924).

The mouldings on the chimney stacks (fig.6. 14), in contrast, are a more conventional chevron motif (here executed from moulds in Portland cement), ubiquitous on the eaves of Grand Canal palazzi (e.g. Palazzo Giustinian, Palazzo Barbaro and Palazzo Loredan, and countless others), and repeated by the architects as a full eaves moulding on the Oxford Museum where it appears with stunted ogee-shaped corbels or eaves brackets – again, the latter of Venetian type. On the Museum Building chimneys, the motif is inflated in size to make it more visible from the ground and is supported by simple concave corbels (the less common Venetian type, as seen at the Ca' Forsetti).

Inner hall

There is a remarkable tonal shift in materials from the cool exterior to the richly hued marble interior, which has a much stronger Eastern and Islamic resonance (fig.6. 15). The impact of this has been somewhat lost due to the greying of the Caen stone that lines the walls, which formerly contrasted with the coloured Irish marble supporting the galleries, as seen by the late watercolour attributed to Henry Hill (fig.5.4.).⁵³ As already noted by other writers, the polychromatic marble and banded arches are likely derived from the mosque of Cordoba, while the shallow saucer domes have clear Byzantine precedents in Hagia Sophia and San Marco, Venice. But the origin of the double-domed space is less obvious. The more natural arrangement, as at Hagia Sophia, is to have a central dome flanked by two half domes, or a sequence of domes entered from one end as at San Marco, Venice. As O'Dwyer and others have already remarked, the original plan was by the college architect John McCurdy, which was modified by the Board and by Deane and Woodward (much to McCurdy's annoyance), so it's possible its evolution was due to practical considerations. However, if we are to look for exemplars, then perhaps the architects saw Henry Gally Knight's engraving (1840) of the

⁵² G. E. Street, *Brick and marble*, pp 68-9.

⁵³ Private collection.

Islamic inspired San Giovanni degli Eremiti in Palermo, which includes a cross section of its double-domed nave.⁵⁴

Ruskin reappears in the bases of the columns, which with their chamfered fillets and carved spurs are close to those illustrated in plates X and XII, vol. 1 of the *Stones of Venice*, and earlier by Cicognara for the Palazzo Pisani Moretta.

Frederick O'Dwyer has cited the inspiration of the hall of the baths in the Alhambra, an idea supported by the Islamic ventilation openings on the walls. Engravings of these were published by Cork architect James Cavanah Murphy in his *Arabian antiquities of Spain* 1815 and by Owen Jones and Jules Goury's in their volumes of chromolithographs of the Alhambra which appeared 1836-1845. By the 1850s interest in Eastern influences further increased with Jones's *Grammar of ornament* (1856), while David Urquhart's book *The pillars of Hercules* (1850) inspired a new enthusiasm for bath houses in Ireland in the mid-to-late 1850s.⁵⁵

The latter influence is worth further consideration. It inspired the hydro-therapist Richard Barter to build the first Victorian Turkish bath at Blarney in 1856, sparking off what would become a popular Victorian trend in Britain and on the continent. One of the largest and most architecturally exotic Turkish baths opened in 1859 at Lincoln Place, Dublin (fig. 6.16), almost within sight of the Museum Building, while a chief proponent of the movement was Edward Haughton, senior moderator in natural sciences at Trinity College, who in 1860 became manager of the William Dargan's large new bathhouse at Bray.⁵⁶ It is tempting to see his or even Barter's (given the Deanes' cork connections) influence at play in the decision to create a space so much in the Islamic architectural tradition, where concerns of ventilation and heating are put into action in so visually striking a manner. The clean enamelled surface of the domes' brickwork (fig.6.17) suggests an attempt to limit the effects of condensation from rising humidity, while the drafts of air funnelled through the building reflect contemporary attempts to engineer the flow of hot and cold air.

Blending well with these eastern influences is the central arcade between the outer and inner hall which is of Italian derivation (fig.6.18). The chevron pattern of inlaid coloured marble

⁵⁴ Henry Gally Knight, *Saracenic and Norman remains, to illustrate the Normans in Sicily* (London, 1840), plate vi.

⁵⁵ Teresa Breathnach, 'For health and pleasure: The Turkish bath in Victorian Ireland', *Victorian Literature and Culture* 32:1 (2004), 159-175; Ronan Foley, 'The Roman-Irish Bath: Medical/health history as therapeutic assemblage', *Social Science and Medicine* 106 (2014), 10-19; Malcolm Shifrin, *Victorian Turkish baths* (London, 2015).

⁵⁶ For Haughton's association with Trinity, see 'Galtrim House hydropathic establishment', *Irish Times* 10 Jan. 1860.

(fig.xx) recalls Ruskin's illustration of the archivolt of San Donato in Murano (*Stones of Venice*, vol. 2, plate v, 1853), a church which had also appeared in Henry Gally Knight (1842). Indeed the detail also appears extensively in the inlaid floor of the same church. This kind of triangular geometry is also reminiscent of the Cosmati work published by Matthew Digby Wyatt, but a more convincing source is San Marco, Venice, which had already inspired the paving of the Friedenskirche, Potsdam (1845-8). Variations on the pattern also appear in the paving of SS Mary and Nicholas, Wiltshire, by T. H. Wyatt, laid down in 1849,⁵⁷ and on the inlaid marble pulpit of William Butterfield's All Saints, London (1849-59). It later appears in the baptistery of St Francis, Nottinghill (1861), by J. F. Bentley and in the paved floor of Pearson's St Augustine, Kilburn (1871-78).

Although the overall conception of the inner hall was clearly in place early on, Frederick O'Dwyer has noted that the design evolved as the building rose. In a letter of 4 May 1855 to the Rev. Dr Sadleir, the chairman of the building committee, Sir Thomas Deane described the evolution of their thinking on the finish for the interior. He said that his own original proposal had been to use lower quality Caen stone of small size throughout the inner hall, while the Board of the University had countered that he should use the best quality on the lower storey only and leave the upper for further consideration – putting plastered rubble masonry in as a short-term option. He now recommended, in a tone of confident self-assurance, that they use the best quality stone throughout. Similarly, he wished to change the material of the arches of the gallery. 'I suppose it was economy that suggested to our minds the use of brick'. (The original bill of quantities specifies enamelled brick.⁵⁸) For him it was a matter of adopting consistency in quality of materials. 'I now think it may (perhaps) look incongruous, in contrast, with marble columns and richly carved capitals, and as the general beauty of the whole exceeds our own expectation, I hope this subject for criticism will not be permitted, and that the extra expenditure will be sanctioned.'⁵⁹ Cockburn & Son then quoted for the upper storey, but confusion followed as to whether the intention was to go all the way up to the enamelled brickwork (which it did), and a second quote had to be submitted after extra stone had already been ordered.⁶⁰

⁵⁷ *Worcester Journal*, 21 June 1849.

⁵⁸ TCD Ms. Mun/P/2/329. Patrick Kerr. *Detail of quantities in the proposed new building etc.* (Dublin: William Underwood, 1853), pp 1 and 7.

⁵⁹ TCD Ms. MUN P/2/340.

⁶⁰ TCD Ms MUN P/2/342.

In addition to changes to the walls, a list of alterations dated 1857 show that Benjamin Woodward altered the design of the floor of the inner hall and corridors from plain flags to a lively tessellated pavement of coloured stone (see fig. x, p. x) at an extra cost of £129, further enriched the corbels of the pilasters supporting the central arch between the two domes, which are very visible features on entering, and changed the stone in the arches of the galleries from Caen to Portland stone.⁶¹

The decorative treatment of the domes requires some explanation, as this too changed during the course of building work. It is clear from the recorded alterations of materials listed in the surviving papers that the existing diaper-patterned brickwork (in white, blue, red, green and black) was not part of the original design. The bill of quantities specifies that 9 inch hexagonal hollow bricks were to be used for the domes.⁶² In the mid-1840s a Mr Prosser of Birmingham was manufacturing hexagonal bricks described as being of ‘great durability’, regarded by one observer as ‘better than stone’.⁶³ He had also contributed a chapter on that subject to Edward Dobson’s *Rudimentary treaty on the manufacture of brick and tiles* (1850). In addition a recent government report on the cost of materials in new sanitation works in London had found that hollow bricks were both cheaper and stronger than conventional stock brick. For architects seeking a cost-effective and structurally sound way to build a dome, the hollow hexagonal brick was the perfect new material to try out.

The change to rectangular brick may have been suggested by a change of inspiration. Enamelled brickwork was not common in the 1850s. It had come into the public consciousness through recent excavations of Babylonian and Assyrian ruins, which had produced a number of beautiful specimens, some of which had found their way into the Museum of Practical Geology in London and had been analysed for their chemical make up.⁶⁴ In tandem with this was increasing awareness of the medieval mosques and tombs of Persia with their intensely coloured domes of geometrically patterned enamelled brick. The closest example to the Museum Building is the lozenge pattern on the tomb of Sheikh Safi al Din in Ardabil, which has a similar colour palette of azure blue, white and black. These patterns depend on the stepped relationship between each brick, which would be impossible to achieve with a hexagonal shape.

There is no Byzantine intermediary for this pattern (as far as this author can tell) indicating that the designers must have directly consulted Iranian sources via engravings. There were

⁶¹ TCD Ms. MUN-P-2-351-7.

⁶² TCD Ms. Mun/P/2/329. Patrick Kerr. *Detail of quantities in the proposed new building etc.* (Dublin, 1853), p. 1.

⁶³ *The Mechanic’s Magazine*, vol. 39 (1843), 191.

⁶⁴ Mayo Constitution, 12 Apr. 1853, citing *The Literary Gazette*.

several engraved sources on Persian architecture in the 1872 Trinity College library catalogue which may have been there in the 1850s, including the early engravings in the work of Chevalier Chardin, and more usefully the multi-volume the studies of architect Xavier Pascal Coste and painter Eugène Flandin on middle eastern architecture, published 1839-54.⁶⁵ As Edward McParland has noted, both Thomas Deane and Benjamin Woodward applied for reader's tickets prior to starting their work in Trinity. Nevertheless these engravings are monochrome and it was not until 1867 that Coste and Flandin published a fuller treatment of Persian architecture in colour.⁶⁶

The colour of the brickwork has bled out considerably in the last 160 years or so. We now need to reimagine its vibrant effect against the brilliant whiteness of the Caen stone (fig.6. 19), which itself has become a clouded grey. While the early watercolour of the interior attributed to Henry Hill captures something of this boldness of colour in the hall, unfortunately the domes themselves are omitted. Part of our work has been to try to recover the appearance of the enamelled brick coating. This has been helped by Patrick Wyse Jackson's discovery of several undamaged samples of the original glaze during recent repairs to the domes (fig. 6.20). These show that each brick was faced with an underlying white glaze, which was left exposed on the white bricks, but painted over with a secondary glaze on all the others. The white glaze is the best surviving element and has either fallen off completely or remained intact, where the other colours, have largely bled out into the surrounding brickwork. Interestingly the loss of enamel on glazed bricks had already made the news when construction was starting on the Museum Building. The polychromatic Italianate water tower recently completed at Rugby, Warwickshire, had blue and white glazed bricks around the top. A surveyor in 1853 reported that 'they were chipping off, and showed every symptom of soon becoming the colour of ordinary bricks. He was 'anxious to save other towns, who might feel disposed to follow the example of Rugby, from falling into the same error'.⁶⁷ Deane and Woodward may have thought they were safe using the bricks on the interior only.

Staircase

⁶⁵ Xavier Pascal Coste, *Architecture arabe: ou monuments du Kaire, mesurés et dessinés, de 1818 à 1825* (Paris, 1839); Eugène Flandin and Pascal Coste, *Voyage en Perse entrepris par ordre de m. le ministre des affaires étrangères, d'après les instructions dressées par l'Institut. Publié sous les auspices de m. le ministre de l'intérieur, 6 vols* (Paris, 1839-54).

⁶⁶ Xavier Pascal Coste, *Monuments modernes de la Perse mesurés, dessinés et décrits* (Paris, 1867).

⁶⁷ 'Local News', *Coventry Standard*, 15 Apr. 1853.

Besides the domes, the most prominent feature of the entrance hall is the magisterial imperial staircase reaching the galleries and museums on each side of the building (fig. x.x). The architects' later staircase at Kilkenny Castle (1860) is derived from the Palazzo Stern in Venice, but the Museum Building staircase has no obvious Italian precursor. In plan it resembles the great staircase at Versailles (1674-78) by Francois d'Orsay, destroyed in 1752 but well-known through engravings. The inner hall of the museum is similarly entered through a triple arched arcade. A more contemporary precursor of this type was Charles Barry's initial design for Bridgewater House, London, published in the *Builder* in 1848 (though it was removed in an altered design the following year).⁶⁸

Whatever about the plan, in style the Museum Building staircase has medieval and early Renaissance exemplars in the stone parapet wall, the external articulation of the steps, and the beautifully wide semi-elliptical arches upon which each flight rests. For these features there are parallels in Italy, Croatia, and Spain among others. Its distinctive ornament - the carved triangular panels which give external expression to the tread ends - is less common. This can be traced directly to Catalan prototypes in Barcelona and the surrounding region, and principally that at the *Palau de la Generalitat de Catalunya* in Barcelona (fig.6.21), a more elaborate example of the same type. This was seen by J. B. Waring on his travels through Spain in 1847-48, which he entered from the sea via the port there.⁶⁹ However, he did not publish a good illustration making it uncertain where Woodward may have seen it. We can only speculate that it was via an unpublished sketch communicated to him privately by Waring or some other architect familiar with the region. It is notable that Spanish influence also appears in the distinctive ceiling in the outer hall where there are timber joists with concave arches between them - a common Catalonian device. As Waring noted: 'The ceilings at Barcelona, and generally as yet (to Saragossa), are formed by wooden joists and brick arches between.'⁷⁰

Venice reasserts itself in the several different types of ornamental timber brackets around the interior. A possible source for the complicated type in the outer hall is an engraving of the Casa Bembo in Pietro Selvatica, *Sulla architettura e sulla scultura in Venezia* (1847) (Fig. 22).

⁶⁸ "Plan and details of Bridgewater House, London," *The Builder* 6:295 (1848): 474-5 and 451; 'The Altered Plan of Bridgewater House, London,' *The Builder* 7:349 (1849), 284.

⁶⁹ 'The Deputacion, once the palace of the Kings of Aragon, and the Cathedral, are the two most complete things in the town. The palace has a beautiful court-yard and staircase, and is very picturesque.' J. B. Waring, *A Record of my artistic life* (London, 1873), p. 99.

⁷⁰ Waring, *A record of my artistic Life*, p. 100.

The house is a fairly obscure one, mentioned only briefly by Ruskin in his Venetian index, who called it ‘not a whit more interesting than many others of similar date and design.’⁷¹

Lecture theatres

The seven ground floor lecture rooms, now much subdivided, have cone-funnelled ceiling ventilation and are ornamented with elaborately carved trusses, slightly curved, and split in the middle where they are re-enforced with iron. The idea of re-enforcing timber beams with iron was discussed by James Owen at meeting of the RIAI in April 1850 attended by Sir Thomas Deane, who offered his own input on the subject.⁷² The notches on the vertical members are of the type illustrated by Ruskin in *The stones of Venice* vol. 3, fig. LVI, which he described as a form of dogtooth ornament ‘produced by oblique cuts slightly curved’ and ‘of great importance in northern architecture’ – he cites the organic and fantastic quality of this detail on the cathedral of Rouen, Lisieux, and Bourges.⁷³

Museums

The large first-floor geology and engineering museums, to east and west respectively, were identical spaces running the width of the building, measuring 84ft long, 38ft wide and 28ft high,⁷⁴ and lit brightly by windows on three sides and a long central roof light (fig. 6.23). They were destroyed when intermediary floors were inserted c. 1950, but in both cases the impressive Queen-post roof structure survives, supported by richly carved timber brackets based on those in the nave of San Stefano, Venice (for which no engraved source has yet been identified) (fig. 6.24). The brackets extend from an architrave with two rows of billet mouldings, while tie beams are edged with rope mouldings and were originally painted winding with blue tendrils against a red background (as per a surviving sample on the geology side) – a decorative decision probably inspired by those in San Stefano.

⁷¹ Ruskin, *The stones of Venice*, vol. III, p. 292.

⁷² ‘Institute of Architects’, *Southern Reporter*, 4 Apr. 1850.

⁷³ *Ibid*, p. 263.

⁷⁴ *Evening Freeman*, 19 June 1857.

A plan of the building published in 1855 has a margin of dotted lines around both spaces, suggesting the architects intended to insert galleries.⁷⁵ Surviving photographs of the interiors indicate these were never executed, though the idea certainly had parallels in the contemporary Natural History Museum and the Old Library in Trinity, as well as the recently completed Museum of Practical Geology in Jermyn Street, London. A gallery was inserted, however, into the ground floor lecture room on the north east corner, now the Freeman Library, where none is indicated in the original plan.

Conclusion

This paper is not intended as an exhaustive list of sources for the Museum Building, but it will hopefully add something to the material already compiled by others. What is increasingly apparent is the remarkably eclectic nature of the design, the sometimes tentative approach of the architects, and their willingness to rethink materials as work progressed, and finally their insistence on quality over economy. The surviving correspondence in the college muniments shows they were buoyed and emboldened by the initial results, a confidence surely built upon the support of the College Board and the competence of builder Gilbert Cockburn.

But that confidence was also built upon the change of direction within the architectural literature, without which the ‘combination’, as outlined by Shaw and Waring, could hardly have achieved so fluid and assured a result. But Woodward’s artistic sensibility was clearly crucial. In other hands the superabundant carving could have looked overloaded, the diverse architectural detailing crazy, and the polychromy garish. Luckily the success of the experiment won the praise of Ruskin and set the firm – and the architecture of Dublin and Oxford – off on an entirely new architectural path.

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⁷⁵ *The Civil Engineer and Architects Journal* 18 (1855), 49.

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