

A Tale of Two Buildings Separated Only by the Distance of Time¹

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In 1850, after designing the Gothic Quadrangle for Queen's College Cork, Sir Thomas Deane designed a new medical building (the Clarendon) on an adjoining site which included a museum, lecture theatre, and demonstration rooms. The Clarendon has withstood times relentless corrosive forces but has undergone many alterations and additions resulting from social, economic and pedagogical needs. O'Donnell and Tuomey's new scheme incorporates adaptive reuse of this building and a contemporary extension to form a new building called the Hub at University College Cork (UCC). The Hub was opened in 2019 and houses many previously dispersed student amenities and a variety of flexible learning spaces. This paper narrates the evolution and transformation of the Clarendon into the Hub while comparing the works of these two acclaimed Irish architects. This longitudinal study of the building seeks to relay and compare a perspective of society through its lifespan. Focusing specifically on the relationship between architecture and pedagogy, this study attempts to ascertain how changes in different learning theories have affected the built environment. The historical study benefits from original archive drawings as well as campus masterplans, conservation reports and historical photographs. While project documents, drawings, visits to the construction site and interviews with the design team support the study of the contemporary works. Although it is easier to differentiate their style and approach to architecture, commonalities exist between the work of Deane and Woodward and O'Donnell and Tuomey.

Keywords: O'Donnell and Tuomey; Deane and Woodward; University College Cork; Queens College Cork; hub; renovation

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Deane and Woodward

Sir Thomas Deane (1792-1871) was an architect and builder born in Cork. In 1845 he was appointed Architect for the new Queen's College Cork (QCC), and the following year he engaged Benjamin Woodward (1816-61) as his assistant. In 1850 his son, Thomas Newenham Deane (1828-99) joined the practice, and in the same year, they began work on the Clarendon Building at QCC. The following year both new employees became partners of the firm. Sir Thomas Deane then became less involved in design work and concerned himself more with the administration.² Woodward took the primary responsibility for design work, while the younger Deane looked after the financial matters (see figs 1-3). The firm is acclaimed for their role in the Gothic Revival, and their most famous projects include the Trinity Museum and the Oxford Natural History Museum (figs 4 & 5), completed in 1857 and 1860 respectively.

Architecture responds to the velocity of contextual change, and, as a result, many relatively recently constructed buildings fall into dilapidation, are demolished or become replaced.³ Buildings designed by renowned architects including Deane and Woodward are not immune from this fate. The 1916 Easter Rising, the Irish Civil War, as well as economic reasons and carelessness are blamed for much of this destruction.⁴ In the 1960s, even their most acclaimed project, the Oxford Natural History Museum, narrowly escaped destruction. Fortunately, at the heart of the campus of University College Cork (UCC, formally QCC), two Deane and Woodward buildings survive today. The first is the Gothic Quadrangle completed in 1849 and the second is the Windle Building (formally the Clarendon Building), the first stage of which was built in 1850 (figs 6 & 7).

¹ This paper is part of doctoral research supported by University College Cork's Student Charges and Fees Forum to whom I would like to thank. I would also like to express my gratitude to Dr Sarah Mulrooney (Cork Centre for Architectural Education) and Willie Carey (Project Architect for the Hub; O'Donnell and Tuomey) for their Assistance.

² Frederick O'Dwyer, *The Architecture of Deane and Woodward* (Cork: Cork University Press, 1997).

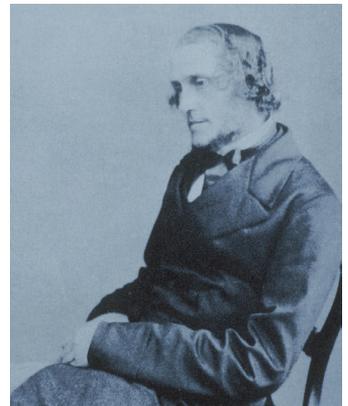
³ Marvin Trachtenberg, *Building-in-Time: From Giotto to Alberti and Modern Oblivion* (New Haven, CT: Yale University Press, 2010).

⁴ Eve Blau, *Ruskinian Gothic: The Architecture of Deane and Woodward, 1845-1861* (Princeton, NJ: Princeton University Press, 1982); Maurice Craig, *Dublin, 1660-1860: The Shaping of the City* (Dublin: Liberties Press, 1952).

Figure 1. *Left*. Photograph of Sir Thomas Deane (www.artstor.org).

Figure 2. *Middle*. Photograph of Thomas Newenham Deane (www.artstor.org).

Figure 3. *Right*. Photograph of Benjamin Woodward (www.artstor.org).



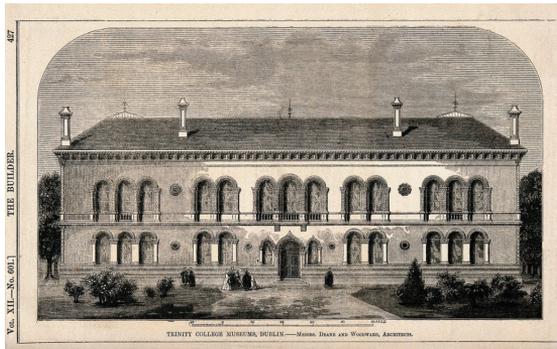


Figure 4. Trinity College Museum, Dublin. (Wood engraving by W.E. Hodgkin, 1855, Courtesy of the Wellcome Collection (www.artstor.org)).



Figure 5. University Museum, Oxford. (Wood engraving by W.E. Hodgkin, 1855, Courtesy of the Wellcome Collection (www.artstor.org)).

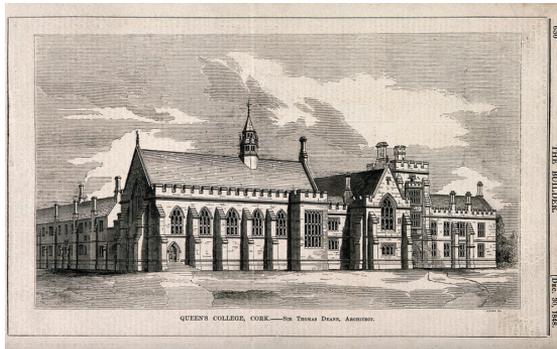


Figure 6. Queen's College, Cork. (Wood engraving by C.D. Laing, 1848. Courtesy of the Wellcome Collection (www.artstor.org)).

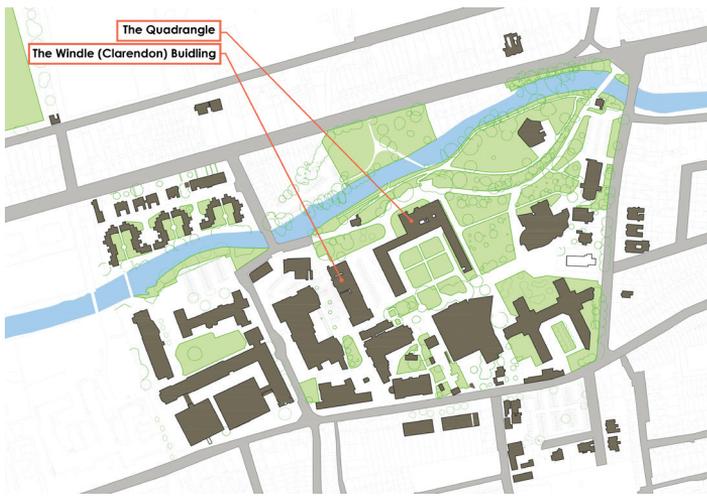


Figure 7. University College Cork Campus. (Map courtesy of UCC. Overlay notes by author.)

In 2014, another acclaimed Irish practice, O'Donnell and Tuomey (ODT), were appointed architects to design the new Hub building at UCC which would incorporate the renovation and extension of the Clarendon.

O'Donnell and Tuomey

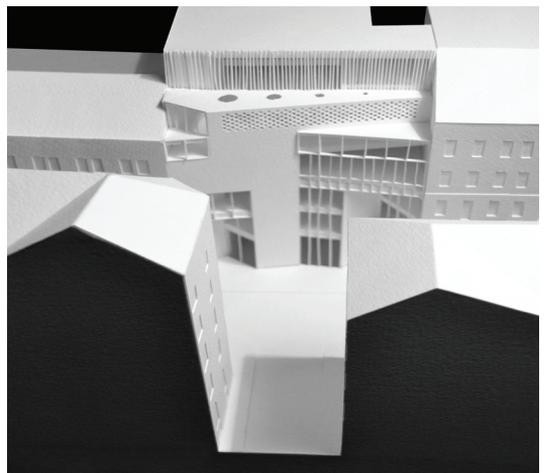
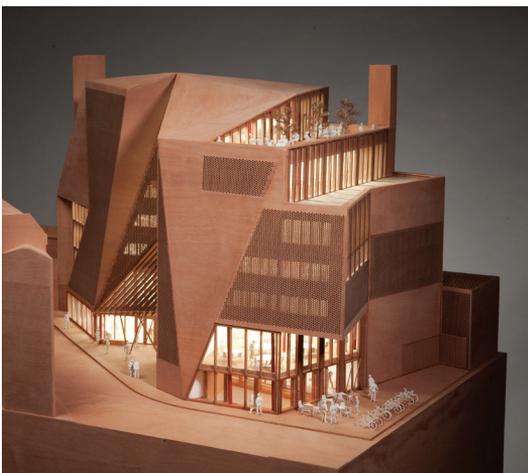
Sheila O'Donnell and John Tuomey (fig. 8) were born in 1953 and 1954 respectively and met as students at University College Dublin. After graduating, they went to work in London for James Stirling and Colquhoun and Miller. They returned to Dublin and established their own architectural practice in 1988. As recipients of many international awards, ODT have numerous acclaimed university projects to their portfolio, including the Glucksman Gallery at UCC, the Saw Swee Hock Building at the London School of Economics and the

Figure 8. *Top Left.* Photo of Sheila O'Donnell and John Tuomey. (Image courtesy of O'Donnell and Tuomey.)

Figure 9. *Top right.* Model of the Glucksman Gallery at UCC. (Image courtesy of O'Donnell and Tuomey.)

Figure 10. *Bottom left.* Model of the Saw Swee Hock Building. (Image courtesy of O'Donnell and Tuomey.)

Figure 11. *Bottom right.* Model of the Central European University Redevelopment. (Image courtesy of O'Donnell and Tuomey.)



redevelopment of the Central European University in Budapest which were completed in 2004, 2014 and 2016 respectively (figs 9-11). ODT were also selected to design the Academic Hub Building at the Technological University Dublin. In 2019 the practice won an international design competition for the new Student Hub at University of Leeds and another for the School of Architecture at the University of Liverpool.

To have had such renowned practices share the role of architect for the Clarendon/Hub, across the divide of time, adds to its distinctiveness. A quotation, which Tuomey has cited from Melville seems fitting to describe the significance of the building's endurance: "for small erections may be finished by their first architects; grand ones, true ones ever leave the copestone to posterity. God keep me from ever completing anything."⁵ Despite the passage of time, and the obvious differences in the architect's approach to architecture, certain parallels between Deane and Woodward and ODT are easily accounted for. Both practices have completed a significant number of highly commended university buildings. Both practices were engaged by the same client (QCC/UCC) to carry out another campus projects before being commissioned for this building. Deane and Woodward had completed the Quadrangle while ODT had designed the Glucksman Gallery. Additionally, both firms worked in the same geographical areas, established studios in Cork, London and Dublin while achieving international acclaim. Furthermore, another resonance between the two firms is their connection with Ruskin.

5 Herman Melville, *Moby Dick* (London: Penguin, 1994), 155; John Tuomey, *Architecture, Craft and Culture: Reflections on the Work of O'Donnell + Tuomey Architects*, ed. John O'Regan (Oysterhaven: Gandon Editions, 2008).

Ruskin's Endorsement and Influence

Ruskin's endorsement of Deane and Woodward is well acknowledged and is exemplified by his description of their Trinity College Museum as "the first realisation I had the joy to see of the principles, I had until then been endeavouring to teach."⁶ Along with Pugin and Butterfield, Ruskin's influence on Deane and Woodward's work is much accredited. Blau states that Ruskin's writing, which included his books *The Seven Lamps of Architecture* and *The Stones of Venice*, "struck a responsive chord and not only articulated ideas already nascent in the firms work but gave direction and form to these ideas."⁷ *The Seven Lamps of Architecture* was first published in 1849 and detailed the seven architectural principles or moral attributes Ruskin believed to be inseparable from design.⁸ Given the book's powerful and pervading influence on architecture in the nineteenth century, I suggest it could have already begun to

6 John Ruskin and John D. Rosenberg, *The Genius of John Ruskin: Selections from His Writings* (Charlottesville: University of Virginia Press, 1998), 327.

7 Blau, *Ruskinian Gothic*, 25.

8 John Ruskin, *The Seven Lamps of Architecture* (London: John Wiley, 1849).

influence the work of Deane and Woodward by the time the Clarendon was constructed. The fact that this book is also said to have had an immediate influence on William Butterfield's All Saints, London (which similarly began construction in 1850), makes this theory all the more conceivable.

In 2015 ODT were presented with one of the world's most prestigious architectural prizes; the RIBA Gold Medal. At a conference later that year, Tuomey discussed this accolade and reminded the audience that Ruskin was awarded the same prize in 1874 but refused to accept it. Tuomey also stated that *The Seven Lamps of Architecture* was the first book his father gave him early in his architectural education. He focused on one main disparity: Ruskin believed that architecture could be measured only by that which is unnecessary, whereas ODT would "aspire towards an architecture of useful beauty."⁹

However, this rather inimitable connection and comparison suggests that *The Seven Lamps of Architecture* could provide an interesting framework by which to compare the work of these two firms. It is acknowledged that Ruskin's principles are complex, often contradict each other and would by themselves require considerable analysis and discussion which is out of the bounds of this study. For this paper, they nonetheless provide a touchstone to compare and contrast the work of the two aforementioned architectural practices across the divide of time.

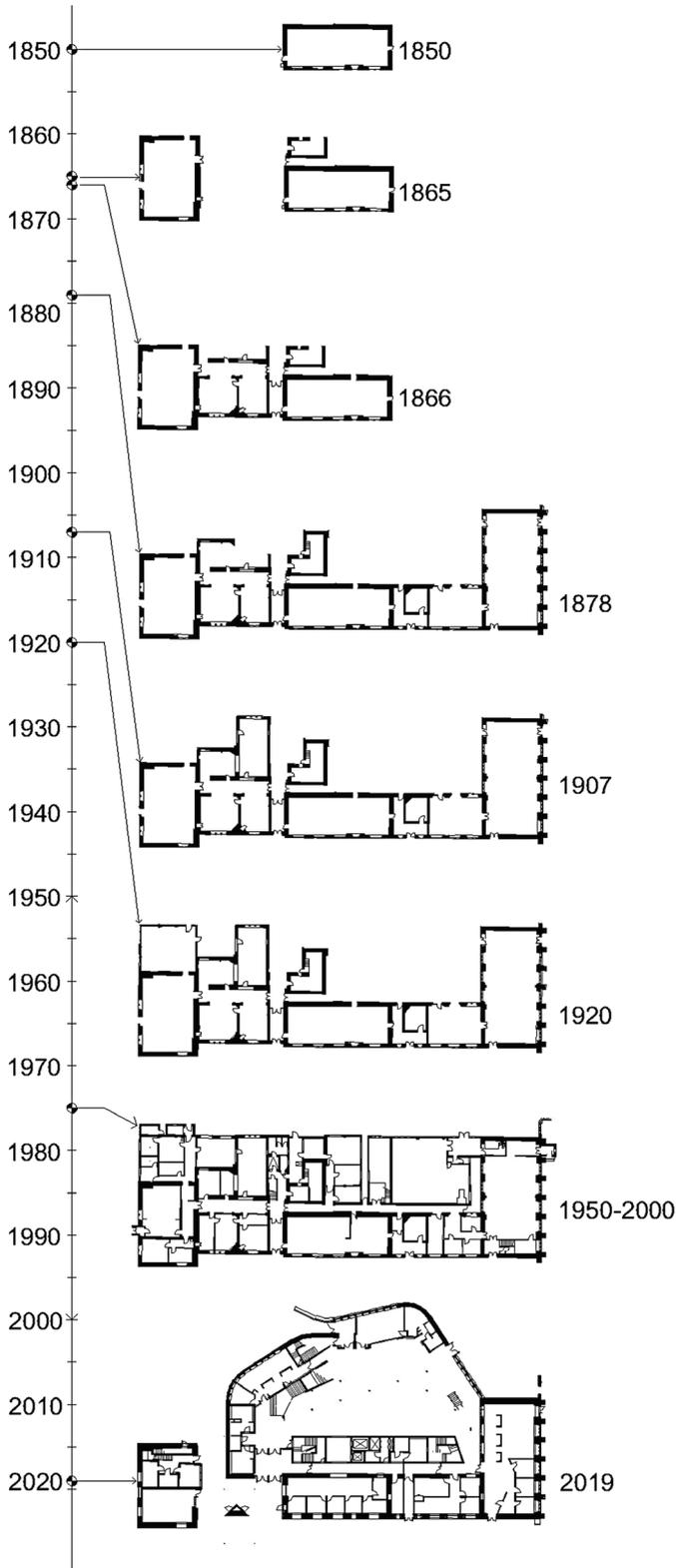
9 O'Donnell + Tuomey Architects in: *Situ*, New Zealand Institute of Architects, 2015, <https://www.youtube.com/watch?v=k-xM8buX2Dk>.

Perspective of Society

This paper provides a discursive analysis of the Clarendon, tracing its origin from the medical teaching facilities into its role as UCC's new hub building. Through this analysis, a perspective of society through the building's lifespan is exposed. Ruskin argued for the conservation of ancient buildings because of their links with the past and to communicate eternal human truths. This viewpoint is echoed in Tuomey's writing: "The language of architecture is not written like in a poem or depicted like in a tapestry, yet intentions are embodied and ideas are communicated by buildings, which speak to each other across the divide of time."¹⁰ The many additions and alterations (fig. 12), invariably demonstrate needs arising from different demographic, technological, economic, social and pedagogical forces. I argue that the deepening of the plan in the 1900s for example, is firstly representative of a sudden increase in student numbers; secondly, demonstrative of the introduction of electricity onto the campus, whereby the depth of the plan is not as dependent on natural daylight; and thirdly, illustrative of

10 Tuomey, *Architecture, Craft and Culture*, 28.

Figure 12. Timeline showing main additions and renovations of the Clarendon Building floor plan from 1850-to present, based on drawings by Jack Coughlan Associates



the availability of newer faster forms of construction. I maintain that through analysis of the building, through time, the changes in pedagogical theory and practice are most evident in the form and fabric of the building and thus are the focus of this study.

The Quadrangle, 1845-49

Under the Queen's Colleges (Ireland) Act 1845, three Colleges of Belfast, Cork, and Galway were established "for the better advancement of learning of all classes of Your Majesty's subjects in Ireland."¹¹ The prior success of medical education in Cork is acknowledged as one of the motives for placing a college there.¹² When QCC officially opened in 1849, medicine was one of the three founding faculties. However, despite this, there was no provision for medical facilities. In February 1849, as the construction of the Quadrangle was nearing completion, the QCC President wrote to the Board of Works highlighting the absence of medical accommodation being provided for: "There has been no prospect made for the more specifically medical lecturers, nor the anatomical dissections and demonstrations."¹³ The reply pointed out that no reference to this accommodation had been made in the original instruction. Subsequently, the lack or inadequate nature of medical teaching facilities at QCC became a recurrent issue. Murphy discusses many accommodation problems with the Quadrangle in its inaugural year but lists the absence of medical facilities as the most serious. A disparity between the failure to deliver these essential teaching spaces and the provision of residences for the College President and Vice-President, which were, in contrast, successfully added to the brief after the estimates were approved is highlighted by Murphy and O'Sullivan.¹⁴

11 'Bill to Enable H.M. to Endow New Colleges for Advancement of Learning in Ireland', Pub. L. No. (299) 1 357. Pages: 6, HC 299 (1845), 6, <http://www.dippam.ac.uk/eppi/documents/11909>.

12 John A. Murphy, *The College: A History of Queen's/University College Cork, 1845-1995* (Cork: Cork University Press, 1995).

13 Murphy.

14 Murphy; Denis J. O'Sullivan, *The Cork School of Medicine: A History* (Cork, Ireland: UCC Medical Alumni Association, University College, Cork, 2007).

The Clarendon Building, 1850-65

The Clarendon Building was the first Medical building at QCC and was built in 1850. It was constructed at a cost of £1000 and was named after the Earl of Clarendon, who had funded part of the building while the Bord of Works had funded the rest of the project.¹⁵ The building was faced in squared local rubble limestone with cut limestone to the openings and a steeply pitched slate roof. The building possessed several chimney stacks with one laterally placed on the front façade. Along the elevation, several twin-pointed arched openings with small-pane metal pivot casement windows were also positioned (original archive drawings in figs 13 & 14).¹⁶ These features created

15 O'Dwyer, *The Architecture of Deane and Woodward*.

16 Jack Coughlan Associates, *Proposed Student Hub, Windle Building, University College Cork: Architectural Heritage Impact Assessment*, 2015.

a building similar in character and style to the Quadrangle. However, in comparison, I argue that the Clarendon is simpler and more austere than it and most of Deane and Woodward's other work. Without the carved decoration and ornamentation which is a hallmark of Deane and Woodward, it is difficult to credit the Clarendon with the same "spirit of generosity and joy in the diversity of the work" that Blau has praised the Quadrangle of possessing.¹⁷ I suggest that in the design of the Clarendon, less attention was given to the principles outlined in Ruskin's *Lamp of Beauty: Aspiration towards God* expressed in ornamentation drawn from nature. The lack of ornamental decoration here may indicate that Woodward did not contribute to this particular project. His involvement in the Quadrangle is not under question, and conversely, archive drawings pertaining to the Quadrangle indicate that Deane first produced the outline drawings and that the detail drawings of ornamentation and

17 Blau, *Ruskinian Gothic*, 31.

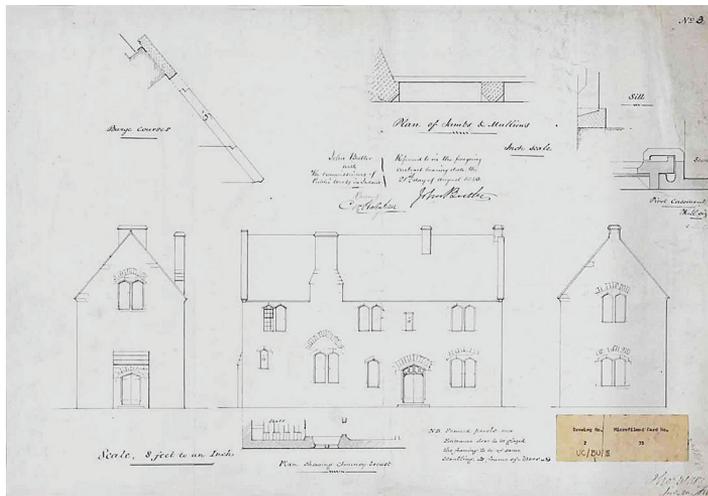


Figure 13. Elevations and technical details of Clarendon, 1850. (Drawing courtesy of UCC Archive [ref. IE/UC/BU/8].)

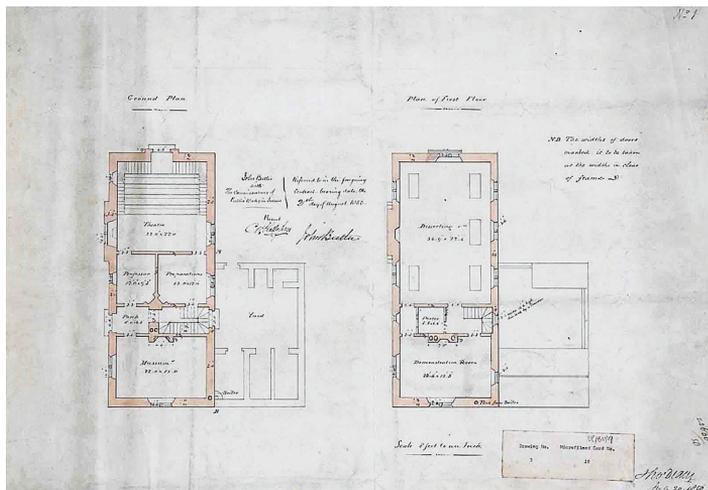


Figure 14. Ground and first-floor plans of Clarendon, 1850. (Drawing courtesy of UCC Archive [ref. IE/UC/BU/1].)

decoration were later produced by Woodward. In contrast, archive drawings of the original Clarendon are signed solely by Sir Thomas Deane.

The floor plans comprised of a professor's room and preparation room at ground floor level flanked on one side by a lecture theatre and a museum on the other. On the first floor, a dissecting room and demonstration room were positioned to each side of the stairwell. The construction of this building was an attempt to take account of the requirements that had been overlooked in the building of the original Quadrangle and therefore were urgently required. With this in mind, a link can be made between the more austere nature of the Clarendon and the principle outlined in the opening chapter of *The Seven Lamps*, "*The Lamp of Sacrifice*." Here Ruskin attempts to distinguish carefully between Architecture and Building and places priority on creating a basic structure and enclosure of space over decoration and ornamentation to provide a required function: "Do the people need place to pray, and calls to hear His word? Then it is no time for smoothing pillars or carving pulpits; let us have enough first of walls and roofs. Do the people need teaching from house to house, and bread from day to day? Then they are deacons and ministers we want, not architects."¹⁸

18 Ruskin, *The Seven Lamps of Architecture*, 14.

Within a few years after the opening of the Clarendon, a Medical Council Report acknowledged a very unsatisfactory state of affairs, low morale and poor building conditions. It considered that the theatre was "injurious to health" while concluding that a new medical building was crucial. A dramatic increase in the number of medical students registered (27 in 1864 to 133 the following year) greatly exacerbated things.¹⁹ Here a tragic yet compelling case in point of Zille's axe and building analogy can be made; overcrowding and lack of ventilation allowed the spread of typhoid fever and tuberculosis which was directly linked with the death of two students. In 1865 a complaint was made through the College Council that the demonstration and dissection rooms were insufficient and that ventilation "was positively prejudicial to health."²⁰ Although the Board of Works retorted that there were only funds for essential maintenance and repair, later in 1865, the Treasury agreed a new lecture room was necessary.

19 Murphy, *The College*, 79–82.

20 Murphy, 82.

Extensions, 1865-88

Thus, two building projects ensued shortly afterwards. The first of these involved the construction of a lecture building to

the southernmost side of the Clarendon in 1865. The second incorporated a central portion which was added a year later to link the previous work to the original building (fig. 15).²¹

An additional phase of work was carried out in 1878 under the presidency of Sullivan who placed importance on physical science and medical education as well as a new emphasis on practical instruction.²² This addition consisted of a two-storey extension of five bays to its northern gable as well as a double-height museum building further to the north. The next phase of work consisted of renovations to the southern-most building involving raising the roof to provide a double-height lecture theatre and tiered seating.²³

The architecture of these first extensions and alterations were carried out in the same style as the initial Clarendon to such an extent that the original building was asserted to be “barely distinguishable as a once separate entity.”²⁴ The accommodation provided for in the original building of these first extensions are listed in Table 1 and illustrate the emphasis on the lecture theatre as a space of learning, but also highlight the emergence of other learning spaces such as the museum and places that facilitate practical instruction.

21 Jack Coughlan Associates, *Proposed Student Hub, Windle Building, University College Cork: Architectural Heritage Impact Assessment*.

22 Murphy, *The College*.

23 Jack Coughlan Associates, *Proposed Student Hub, Windle Building, University College Cork: Architectural Heritage Impact Assessment*.

24 O’Dwyer, *The Architecture of Deane and Woodward*, 86.

Figure 15. Top. R. French & W. Lawrence, Queen’s College, Cork City, Co. Cork (1866-77). Courtesy of the National Library of Ireland.

Table 1. List of Accommodation provided for in the first five phases of work of the Clarendon building.



DATE	1850	1865	1866	1877	1888
ACCOMMODATION	Professors Room	Lecture Room	Preparation Room	Museum &	Renovations to
	Preparation Room		Professors Room	Gallery	form double
	Lecture Theatre		Lecture Theatre		height Lecture
	Museum				Theatre & tiered seating

The Windle Building, 1900-70

Early in the 1900s, the Clarendon became known as the Windle Building after Professor Bertram Windle was appointed President of QCC. Since then other phases of work included a miscellany of smaller ad hoc additions to the western side of the building. These additions generally consisted of single-storey flat roof extensions of poor construction that demonstrated little respect for their historical context.

The Lamp of Memory: Resisting Destruction, 1970-2011

The fact that the client and function of the Clarendon have remained the same since 1850 has undoubtedly helped its durability. Nevertheless, like the Oxford Museum, the Clarendon narrowly escaped demise. The 1970s UCC Development Plan, produced at the height of postmodernism, concerted to demolish and replace the building in its entirety.²⁵ However, the 1993 Development Plan conceded that “funding for this building programme would not keep pace with the continuously increasing demands for places” and thus it survived.²⁶ The building continued to be used by medical anatomy students up until September 2011 when the department relocated to the new Western Gate Building with state of the art laboratories.

²⁵ Murray & Murray and Pettit & Partners, *University College Cork Development Plan Review*, 1972.

²⁶ E.G. Pettit & Company, *University College Cork Development Plan Review*, 1993, 2.

The Hub, 2014 to the Present

ODT were appointed architects for the Hub in 2014 (figs 16, 17, 18 & 19). Construction commenced in 2017 with a contract value of €12.1 million and the building was finished in December 2019. The Hub is 3,800m² spread across six storeys. The height was established so as not to exceed the roofline of the Quadrangle tower. ODT developed a site-specific sculptural concept, “which uses the Windle Building as its organising element.” They refer to the solidity of the historic Windle Building which they recognise as “a stable anchoring element around and through which the building accommodation is woven.”²⁷

²⁷ O Donnell + Tuomey. “O Donnell + Tuomey, UCC Student Hub.” *Global Architecture Document International* (2017): 160–63.

The Lamp of Power

In its most basic form, the Hub can be broken down into four spatial elements: firstly, the linear monolithic volume of the Windle Building; secondly, the double-height curved cut-stone

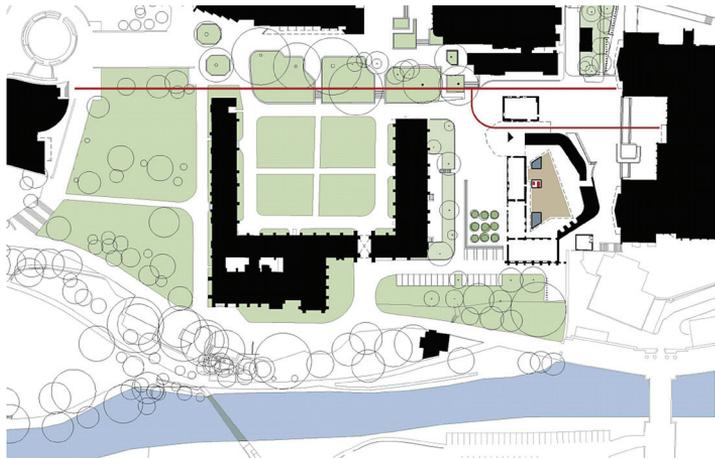


Figure 16. Site Plan illustrating campus spine by O'Donnell and Tuomey. (Drawing courtesy of O'Donnell and Tuomey.)

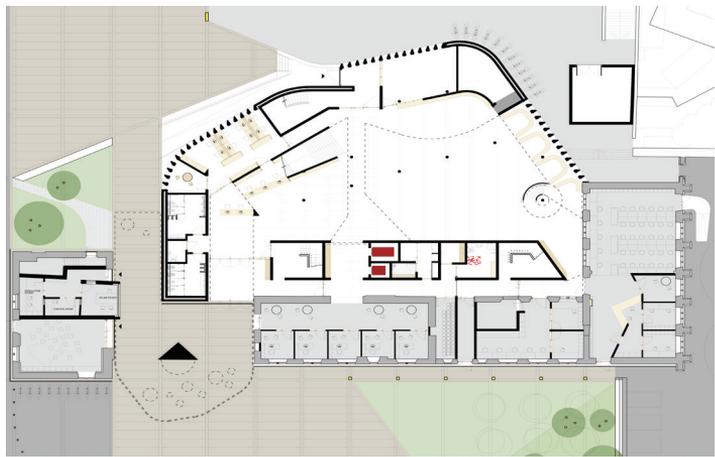


Figure 17. Ground Floor Plan of the Hub. (Drawing courtesy of O'Donnell and Tuomey.)



Figure 18. *Top.* East Elevation of Hub. (Drawing courtesy of O'Donnell and Tuomey.)



Figure 19. *Bottom.* West Elevation of Hub. (Drawing courtesy of O'Donnell and Tuomey.)

wall which encloses the open plan area of the “Market Hall” and responds to the established campus movement patterns (fig. 16); thirdly, the vertical volume of the upper three floors of the “Lantern” which protrudes up through the market hall volume; and finally, the external landscaped plinth which includes a grove of trees, a projected canopy and brick paving that extends through the ground floor of the Hub. It is clear that the scheme aligns with Ruskin’s Lamp of Power and that it has been thought about in terms of its massing, setting and in relation to its line of view which goes through the building.

Lamp of Truth

In consonance with the principles outlined in Ruskin’s Lamp of Truth, both Deane and Woodward and ODT tried to display an honesty of materials and structure. A comparison can be made in terms of the standard palette of materials used by the two firms. Tuomey suggests that their selection of brick, concrete and timber is made because of the character these materials possess to be robust and resilient to time.²⁸ Deane and Woodward generally used those materials which were endorsed by Ruskin; clay, wood and stone. A substitute for concrete instead of stone is an obvious difference. However, Tuomey offers a compelling comparison between concrete and stone in that both are monolithic materials which reveal elements of their formation: “poured-in-place concrete reveals the conditions of the construction site in the finished building, in the same way quarried stones connect a medieval tower-house to its surrounding field pattern.”²⁹ Nevertheless, it is acknowledged that a comparison of the materials used in the Hub diverts slightly from their standard pallet. It is evident that not just in terms of materiality, the historical context has influenced the contemporary. For example, the limestone around the market hall is cut to reflect the angle of the original limestone reveals and mullions in the Quadrangle and Windle building.

Internally a monumental and monolithic style of architecture is created which responds to a human scale and, which I contend, is comparable to much of Louis Kahn’s work or to Denys Lasdun’s National Theatre in London. Like these buildings, much of the concrete structure of the Hub is exposed and left bare and textured brick is also a prominent material used. Tuomey offers an insight into the reason brick is often used as a building material by their firm. Stating that “the beauty of bricks comes from its closeness to raw material - portable packs

²⁸ Tuomey, *Architecture, Craft and Culture*.

²⁹ Tuomey, *Architecture, Craft and Culture*, 41 & 42.

of clay pigment. Brickwork gives an intricate close-up scale, like a basket weave, and malleable heft when viewed from afar.”³⁰

30 Tuomey, *Architecture, Craft and Culture*, 42.

In contrast, a stark disparity in the architects’ approaches is also evident in the materiality of the building. ODT have chosen to whitewash interior sections of the Windle Building and paint the historical timber roof trusses white. We can only assume from the following quote by Ruskin that this is an approach that neither he, nor Deane and Woodward would have followed: “If the intermediate shell of a Gothic roof were made of wood instead of stone, and whitewashed to look like the rest, – this would, of course, be direct deceit, and altogether unpardonable.”³¹ The approach by ODT was intended to homogenize the building and its many modifications. The whitewash section of wall, for example, brings coherency to the inconsistent cut stone, poor quality brick and concrete infills while retaining the evidence of its many alterations.

31 Ruskin, *The Seven Lamps of Architecture*, 30.

Lamp of Life

In cognisance with Ruskin’s Lamp of Life, the two firms tried to use local materials and indigenous skills. Much of the work of Deane and Woodward took place after the devastation of the Irish famine and used local materials and craftsmanship to boost the local economy. It is thought that like the Quadrangle, local stone quarried to the North of the site would have been used for the Clarendon. Tuomey has discussed his motive for using local material and craftsmanship, stating: “We are looking for a way of thinking which could provide an integration between construction and site, are recasting of the redundant craft condition which, by tradition, would exploit local materials and harness indigenous skills.”³² For the Hub, the design team went to great efforts to use local materials. Roscommon limestone was used for the wall surrounding the Market Hall, but due to the scarcity of skill and facility in cutting stone in Ireland it was deemed more feasible in terms of scale and economy to send the stone to Portugal for cutting before being delivered to site.

32 O’Donnell + Tuomey Architects in: *Situ*, 43.

A Change in Pedagogy and in Function

Today, UCC is a research-intensive and student-centred university. The current Strategic Plan and Academic Strategy outline an ambition to create a connected university by enhancing and strengthening its long-standing connections and providing opportunities for innovation and creativity.³³ The Hub will provide a space to promote collaboration, innovation

33 University College Cork, “The Connected University: UCC Academic Strategy 2018-2022,” 2018, <https://www.ucc.ie/en/media/support/regsa/dpr/academicstrategy/AcademicStrategy2018-2022.pdf>; University College Cork, “Strategic Plan 2017-2022: Independent Thinking Shared Ambition,” 2017, <https://www.ucc.ie/en/media/support/strategicplanning/UCCStrategicPlan2017-2022.pdf>.

and new ways of learning at the centre of UCC's campus. The building contains a significant number of integrated student services, learning spaces, as well as a new home for the campus radio station and is intended to be flexible and adaptable to current and future learning needs.

Today, the consequences of connection with nature and the outside world for well-being and learning is acknowledged and affirmed. Visual connections of this scheme, in the form of views into, out of, and through the building, help to create a sense of connection with the campus, city and with other spaces within the building. This also helps to express university life in a transparent manner. The Hub offers views out over the city's skyline through the "Lantern" of the upper floors. Furthermore, the broadcasting windows proposed for UCC 98.3fm, positioned on the ground floor, allows views into and through the working radio station which ensures links are developed and maintained between students and the community of Cork. I envisage that the visibility and new location of the station, overlooking the entrance to the Hub, will help to create a sense of connection between UCC and the wider community.

Lecture-Based Learning

As I have discussed, the accommodation provided for in the original Clarendon Building as well as its first extensions, illustrate the emphasis on the lecture theatre as a primary space of learning during that time. The origin of lecture theatres can be traced back to about 500 BCE with the Theatre of Dionysus in Athens and to the auditoria of ancient Rome. Such a space was first used for education purposes by Pope Gregory VII to educate the clergy around 1079. These auditoria were filled with monks copying the words read by the reader (lecturer). The first universities in Bologna and Paris perpetuated this model and so too did the universities that followed. Despite the fact that the lecture theatre has remained the most common type of learning space in universities, there will be no formal lecture theatre in the Hub. The provision of a large multipurpose auditorium for the university was explored at the feasibility stage but was later discarded. This represents a move away from the traditional lecture room with emphasis placed on the more social aspects of learning. It should be noted however that the Irish economy had by then entered into a recession and economic depression and therefore the ability to finance a large auditorium may have proved difficult to accommodate. The facilities provided for in the Hub are reflective of the change in pedagogical practice and

theory whereby learning is more recognised as a social activity that takes place as a result of interactions between people. In any case, the design of the building responds to this and aligns with Edwards proposals for “an island of reflection” in a central atrium or an internal “street” like space to promote social interaction.³⁴ A welcoming open-plan space, coined the “Market Hall,” is positioned on the ground floor of the Hub is intended to be a flexible space which is crisscrossed and flanked from above by bridges and balconies which provide additional informal space. The student-centred nature of the Hub is in stark contrast to the hierarchy evident in the architecture of the Quadrangle and the original Clarendon, which prioritised professors and presidency residencies over medical teaching facilities. The student-focused nature of the project is also apparent in the provision of an informal tiered seating area that was not entirely explicit in the initial project brief. This learning space emerged in part due to requests received by the Students Union representatives and by the Teaching and Learning Steering Group at the preliminary design stage. It is intended to be used both formally and informally and, like many other spaces in the Hub, to be bookable by students and staff of UCC.

34 Brian Edwards, *University Architecture* (London: Taylor & Francis, 2000), 100.

Practical Learning

Despite the emphasis placed on the lecture theatre as a place of learning, practical learning spaces began to be commonly used by academics, in the science disciplines, internationally in the 1800s. These types of spaces are represented in the original Clarendon Building and early extensions with its dissecting rooms. Bologna was the first university in Europe to undertake dissection for anatomy teaching in 1156 while officially approving human dissection in 1406. The dissecting room at Bologna was designed so that a professor could sit at a height and oversee the proceedings while a lectern was provided for a reader below who provided instructions from the texts. While the design of this and the hierarchy represented in it are said to have had a significant impact on universities still today, the first dissecting room in the Clarendon is simpler in design with little resemblance. The 1870s addition, however, has more in common and perhaps represents the emphasis placed on active learning and practical instruction by the president of UCC during this time.

Today active learning is integral to learning across all disciplines and students are encouraged to engage with the material, participate in the class, and collaborate with each other. The

Hub responds to this change in practice while prioritising group work and open-plan spaces that encourage interaction. Flexible and active learning spaces such as the Makersspace and university radio station, positioned on the ground floor, are also given priority to encourage students to learn while doing.

Object-Based Learning

The presence of a medical museum at QCC in 1850 highlights the importance placed on the museum in Ireland. During this time, the museum was perceived to be acting as a contributor to new knowledge and research and was reflective of a gradual shift away from a perception that education was solely for the elite.³⁵ In the museological context, object-based learning outlines learners' active engagement with museum collections within a student-centred framework. While the history of anatomical museums in Europe can be traced back to 1699 when the anatomical museum at the Barber Surgeons of Edinburgh was opened, the oldest university in Europe (Bologna) did not create a medical museum until 1788. It wasn't until the nineteenth and early twentieth centuries that the museum widely became an integral part of the student experience and this is manifested in the design of the original Clarendon and its extensions of the 1800s. The emphasis changed in the intervening years and is reflected in the Clarendon's alterations of the early 1900's when the double-height museum space was floored over. The 1980s is said to have brought back "a revolution in academic understandings of objects" which Paine proposed gave "back to museums and their collections an academic importance they had lost."³⁶ The renewed interest in the museum as a place of learning is reflected at UCC today through the Glucksman Gallery. Through the Gallery's curatorial and educational programmes, UCC embodies, again, a culture of innovation and endeavours to welcome and engage with the public while learning from its artefacts.

35 Marie Bourke, *The Story of Irish Museums, 1790-2000: Culture, Identity and Education* (Cork: Cork University Press, 2011).

36 Crispin Paine, *Religious Objects in Museums: Private Lives and Public Duties* (London: A&C Black, 2012), 05.

Conclusion

The Clarendon, designed by Sir Thomas Deane in 1850, has since undergone many alterations and additions. The phases of work conducted on the building in the 1800s illustrate the emphasis on traditional teaching in lecture rooms while also reflecting the new importance placed on the museum and practical teaching. The ad hoc extensions of the 1900s together with the development plans of the 1970s and 1990s, however,

reflect a lack of respect and regard for the architectural heritage of the historic building. These items also reveal a fundamentally pragmatic approach to the burden of supplying teaching space for rapidly increasing student numbers. Today, a new scheme designed by ODT incorporates adaptive reuse of this building and a contemporary extension to form UCC's Hub. This scheme demonstrates consideration and value for the original structure and materiality of the historic building while reflecting the importance of connectivity, flexibility and social spaces for learning. The historic building is used as an organising element in the overall design of the Hub. Other influences of the Clarendon and the Quadrangle on the new scheme is apparent in terms of its scale, form, sightlines, rooflines, route through and the materiality employed. Although it is easier to differentiate between their style of architecture this paper draws upon the many similarities between the work of Deane and Woodward and ODT, including the importance placed on truthful construction and the use of indigenous materials and craftsmanship. This paper has charted the history and evolution of the Clarendon through a linear progression while focused on architecture's temporality. This process reveals a building which directly reflects social, pedagogical, economic and institutional mores in any given period. Due to its survival as well as its comparatively austere and less precious nature, the changes, additions and extensions of the Clarendon offer a strong perspective of pedagogical change through its lifespan.