



Architectural Colour

in the Professional Palette

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An intuitive palette: O'Donnell + Tuomey

O'DONNELL + TUOMEY are based in Dublin, Ireland. Although the practice, established in 1988, has fluctuated in size, there is consistency in the office's output – a gentle, thoughtful, well-considered and crafted architecture. Tod Williams and Billie Tsien make reference to a sense of sobriety, to restraint and discipline in the office's work.¹ The relationship between the practical and the poetic underpins their work, as Tuomey acknowledges, using a quotation from Seamus Heaney:

I wanted to affirm that within our individual selves we can reconcile two orders of knowledge which we might call the practical and the poetic; to affirm also that each form of knowledge redresses the other and that the frontier between them is there for the crossing.²

Both Sheila O'Donnell and John Tuomey worked in the office of James Stirling on the Staatsgalerie in Stuttgart, and were based in London for a number of years, before returning to Ireland in 1981. The office of Stirling and Wilford consistently used colour in its work, often juxtaposing strong colours in controversial fashion, although executed in a very different manner to O'Donnell + Tuomey's work.

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An Gaíláras, Cultural Centre for the Irish Language, Derry, Northern Ireland, O'Donnell + Tuomey Architects (2009)



Neue Staatsgalerie, Stuttgart, Germany, James Stirling (1984) (completed by James Stirling, Michael Wilford and Associates)

Colour in the ethos of the office

COLOUR is not an obvious theme in the work of O'Donnell + Tuomey, yet it is present, rigorously considered and confidently expressed. A consistent aspect of their approach to design, according to O'Donnell, is to 'try to unlock something about the place, the site ... the essential nature or character of it'.³ Thinking strategically about a plan, or the section of the building on the site, they will simultaneously consider the atmosphere and character of the building. The pragmatic and experiential aspects are developed in parallel. Early on in a project, therefore, there may be a conceptual idea that colour should be used in the development of the character, but without a commitment to any specific hues. Unlike some of the other architects under consideration, their use of colour is not entirely project specific. There is consistency in the way in which colour is used conceptually, which suggests a set of principles underlying the work. Although these principles ground their architecture, and their use of colour, Williams and Tsien also suggest that 'there is a unique syncopation between thought and intuition, the interplay between these two strengths – propriety and impropriety'.⁴ In their use of colour, a similar method emerges. There is an enthusiasm for a greater depth of understanding about colour, through reading and experimentation, yet this is tempered by intuitive and subjective decisions. They experimented with a colour system at Adamstown, Dublin, where masterplanners Metropolitan Workshop, based in London, had brought in Grete Smedal as a colour consultant on the project. Smedal used the Natural Colour System (NCS) rigorously at Longyearbyen, Norway, and O'Donnell + Tuomey, who were architects for part of the Adamstown project, became interested in exploring the way in which the NCS system could, in theory, provide harmonious families of shades by using codes to group or contrast.⁵ O'Donnell notes that, although they tried this, they were not convinced by the outcome and made final adjustments in the exact shade of colours, judging by eye.

Tuomey makes reference to the role of such intuition in respect of the Glucksman Gallery in Cork. It was an unusual project for them in that the site was extremely sensitive, as part of a picturesque landscape in a highly prominent position. 'The expectation was explicit, the architecture was part of the brief. ... We had to think differently and make an intuitive, comparatively unsupported first step'.⁶ This leap of faith has produced perhaps their most significant building to date, which was shortlisted for the Stirling Prize in 2005. Tuomey is, however, quick to qualify intuition as being distinct from chance, quoting from Agatha Christie's detective Hercule Poirot:

a guess can either be right or wrong. If it's right you call it intuition. If it's wrong you don't speak of it again. ... What is often called intuition is really an impression based on logical deduction or experience.⁷

O'Donnell + Tuomey's approach to colour has matured as their work has progressed, through developing an understanding of its role, and through judgement based on experience. If a colour works well, why not use it again?

O'Donnell + Tuomey's range of colours, or palette, is comparatively restricted. O'Donnell acknowledged that key colours are taken from their observation and sketches of Italian paintings and

frescos from the Renaissance and earlier. Seeing the combination of a limited number of strong colours in the work of Fra Angelico (1395–1455) was a formative experience, from which four opaque shades of earthy red, yellow ochre, paleish green and a purply light blue had an intuitive resonance with the architects and were adopted. These have been offset by deeper browns, dark greens and greys. The fact that the original colours were natural mineral pigments was important; they had a sense of being dug from the earth and resonated with O'Donnell + Tuomey's grounded approach to architecture. O'Donnell + Tuomey's work has become symbolic of a type of critical regionalism, as part of an expression of a generation of contemporary architects who returned to Ireland to work and whose architecture is identified with, and defined by, their country.⁸ That O'Donnell + Tuomey have adopted colours sourced from Italian culture, over which they acquire authorship through use, demonstrates a confidence and anti-parochialism that is evidence of the 'subtle bursts of sensuous will' which give an emotional spark to their architecture.⁹



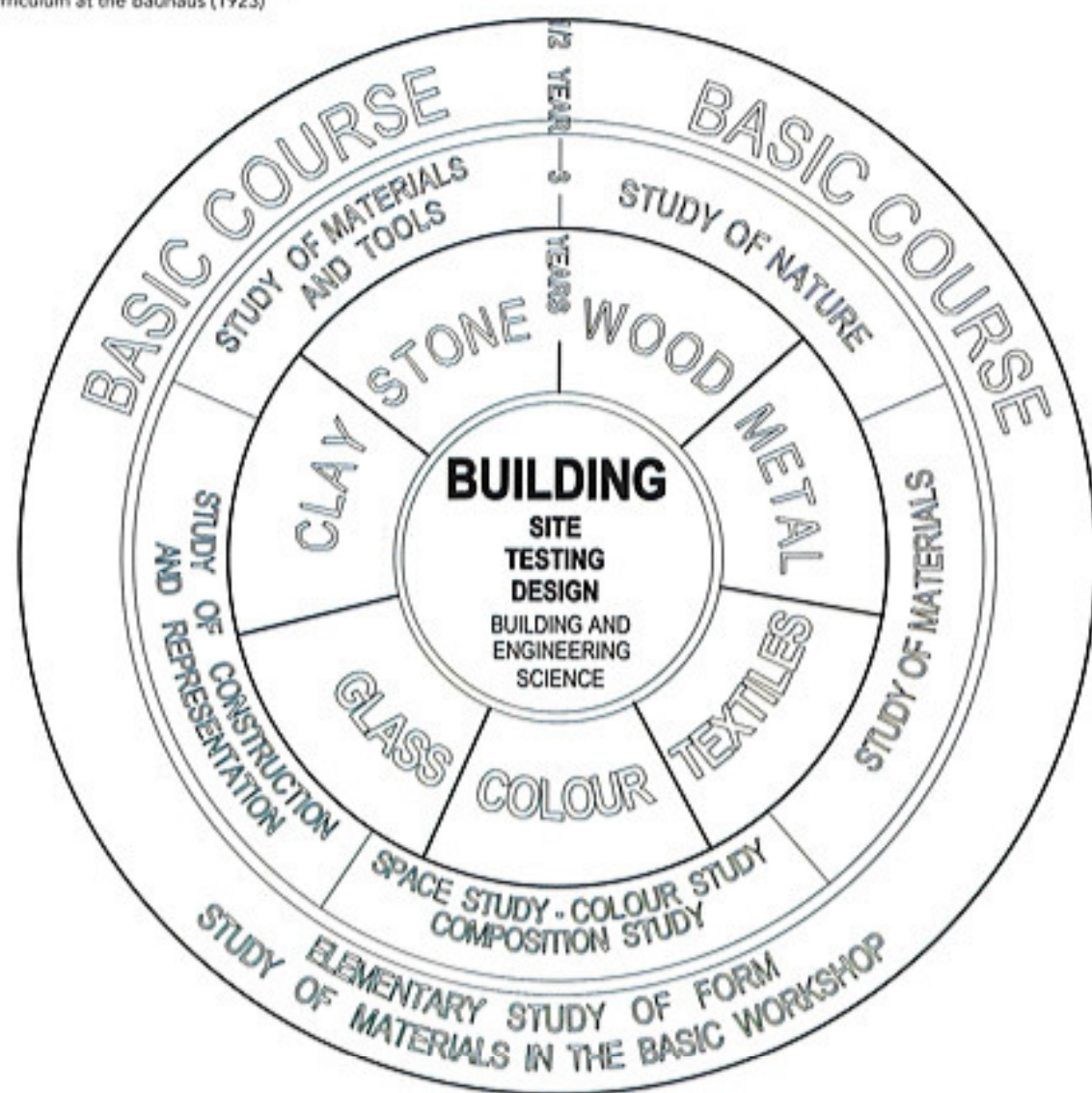
Fra Angelico, Altartafel von San Domenico in Fiesole, Szene: Thronende Madonna, detail, 1424–25

Colour, form and surface

THE end wall of O'Donnell + Tuomey's office in Dublin is stacked with a shelved archive of architectural models. Their models are extremely consistent – always in grey card, with a real aversion to using colour in a model:

models are strange beasts ... they are useful for examining form and space, solid and void, light and dark, but if you try to be literal about surfaces in models, ... they become like a doll's house ... and you can lose them.¹⁰

Their models are therefore dematerialized, deliberately homogenized studies. Materiality emerges through studies utilizing drawings, watercolour paintings and sketches. Although the watercolours introduce a vivid sense of colour, they generally take the form of abstract blocks of pigment. They are used to clarify the form and conceptual framework, or the essence of the site or natural landscape,



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Strongly coloured terraced houses (top)
surrounding the site of the Sean O'Casey
Community Centre, Dublin (bottom),
O'Donnell + Tuomey Architects (2009)

but are non-specific in terms of any level of detail. O'Donnell's watercolours are used in a similar way to those of the American architect Steven Holl. The colour begins to be representative of early ideas of materials, such as for their housing at Adamstown, Dublin (2008), where brick solids are depicted, with recesses carved into the form.

In their search for character in architecture, Tuomey considers the relationship between 'form, substance and appropriation by use' to be key components.¹¹ Responsibility for form is seen as being firmly in the hands of the architect. Architectural form, to them, is never abstract or solely sculptural, however, but directly related to materials, construction and use. Johannes Itten's *Vorkurs*, the basic curriculum developed for the Bauhaus, considered colour as an equal seventh of the curriculum and, critically, placed it as a material alongside stone, wood, and glass. O'Donnell, although not making any direct reference to the Bauhaus, adopts a similar position: 'a material like brick is almost like a solid pigment ... it is a colour-infused material ... we think of colour as almost being like a material'.¹²

At the Sean O'Casey Community Centre (2009), colour is applied to only one face of a towering concrete structure, which announces the centre from a distance. The clients were conscious of the rapidly developing docklands that surround the site and wanted to have a building with presence, to balance an existing church



tower nearby. The small terraced houses that surround the site are very colourful and were a direct influence. The area is known as the East Wall as it faces the harbour and the sea. The colour on the east face developed from an idea that this facade would take as its context the colours of the sea. Early design paintings showed it as blue, and this developed into a greenish colour. The colour is used in an abstract manner as a clearly expressed layer, with the thickness of the render expressed as a plane at the corner. There is no attempt to suggest solidity in the colour, it is shown for what it is – a single surface on a solid object, as illustrated in Chapter 2.



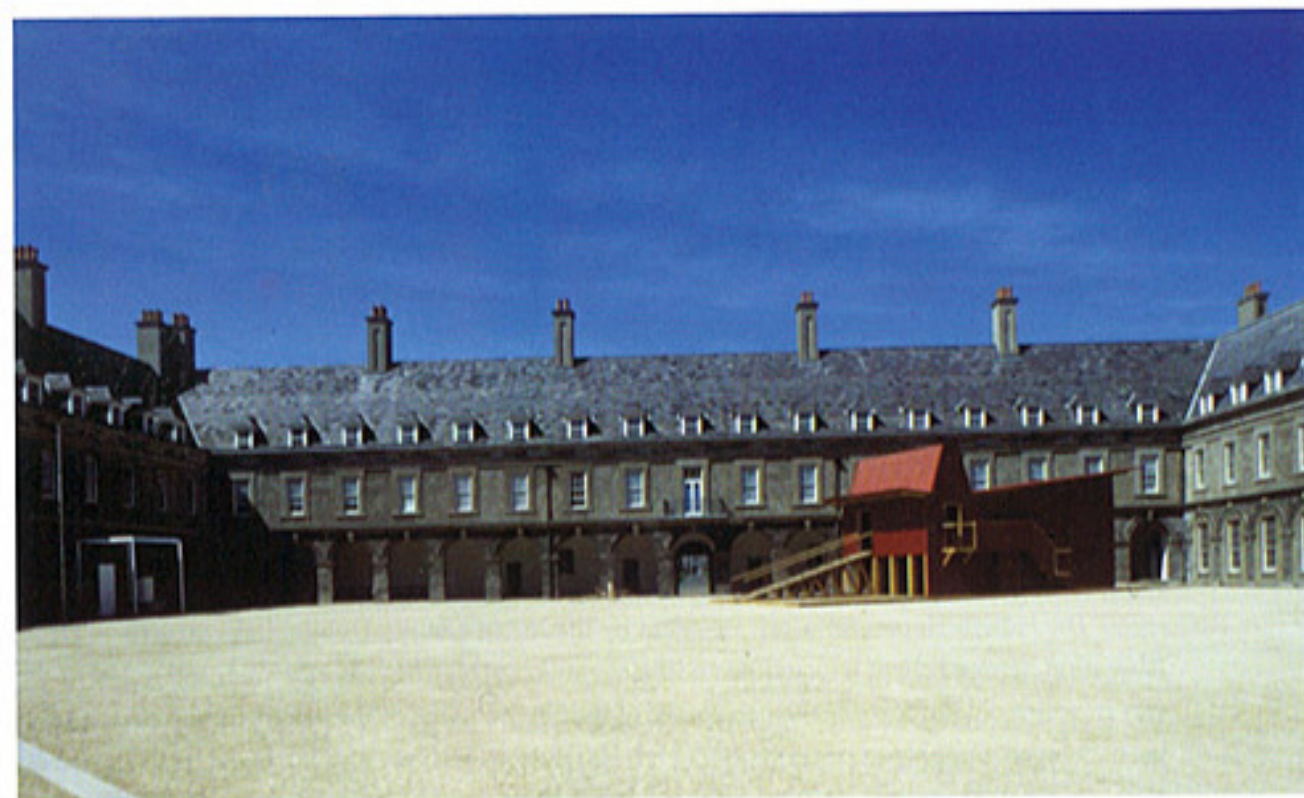
Social housing at Galbally, Co. Limerick, Ireland,
O'Donnell + Tuomey Architects (2002)

By contrast, the social housing at Galbally, County Limerick (2000–02), uses colour to enhance the form by applying colour to recesses in the elevations. O'Donnell + Tuomey tend to favour durable, natural, self-coloured materials externally. Applied colour, therefore, is more associated with the interior in their conceptual approach. At Galbally, the recesses are punched into the solid form to reveal a sense of interiority on the exterior. Recesses are a common device in their work, such as in the Ranelagh School and in the brick cubic forms of Adamstown. By adding a colour to the recess, O'Donnell notes, 'you are adding an effect on these two planes and their relationship with one another. So it's a spatial thing, to an extent.' The effect of colour to make some elements appear to recede and some to advance is consciously applied by Le Corbusier at Pessac, and at the Priest's House at Ronchamp.

The coloured recesses at Galbally suggest a blurring of the threshold of inside to outside to make the transition into the low-budget dwelling richer and more complex. O'Donnell notes that they are intrigued by the broken patches of colour used by Le Corbusier in projects such as the Unité in Berlin (1959), in what she describes as 'almost like a Cubist abstraction of the pattern', although O'Donnell + Tuomey have not used colour as surface patterning in that way.



Unité in Berlin,
Le Corbusier (1959)



Irish pavilion in the courtyard of the
Irish Museum of Modern Art, Dublin,
O'Donnell + Tuomey Architects (1991)

Meaning and association

It is often the case that the traveller returning to his or her own country sees the familiar with new eyes. Tuomey uses the term 'strangely familiar' to describe an aspiration for their work, but equally it could be used to refer to their own rediscovery of the traditions of architecture.¹³ 'We would hope that our buildings would feel strangely familiar in the places where they are sited, and to the people who live with them. They have a compressed quality that comes from concentrated thought.'

The stark forms of Irish tower houses and farmhouses are more basic and unadorned compared to the poetic idyll of the rose-covered cottages of the English countryside. The 'little red shed', as the Irish Pavilion (1991) was known, derived its colour from the typical corrugated iron agricultural buildings of the Irish countryside. Seeing them again after a period of years away had a profound influence on O'Donnell + Tuomey. Such simple buildings are common in many societies and evoke strong associations. The red iron colour is 'naturalized through tradition of use and meaning', and was used in the pavilion celebrating the work of the painter Brian McGuire.¹⁴ The spatial configuration of the small pavilion was crafted in response to psychological themes of isolation and of love, addressed by the artist in a series of paintings of prisoners. The small building had a sense of familiarity and memory, taken from the rural landscape, yet transplanted to

the courtyard of the Irish Museum of Modern Art it was a shocking alien. McGuire was initially against the red colour and its connotation of the farm shed.¹⁵ For him, the corrugated iron was more evocative of a border control post and should have been a dirtier, darker colour. They finally reached agreement using a secondary association – that of a Trojan horse, a container of unexpected, powerful paintings, set within a seemingly innocent shell. Although some visitors found it too much of a contrast, in the context of the formal courtyard of the museum, many mourned its loss when it was dismantled.

The red colour reappeared in the competition paintings for the first significant building in the landscape – the Blackwood Golf Centre (1994). Here, the intent was to subvert the normal associations of 'golf club' as this was to be an open public facility rather than a closed gentleman's club. The red-pigmented render used for the main segments of the Centre is used to make a visual connection to memories of farm buildings in Ireland, but it also resonates with the architects' love of Italy. The actual material used is a through-coloured pigmented render, which was imported from Italy, thus making both a symbolic and actual link.

The Howth House, for a private client by the sea in County Dublin, has emerged as a collaboration between client and architects. The client, a psychiatrist, was extremely interested in the way in which colour changes the perception of the spaces. Some of the original colours have since been changed, but only in consultation with the architects, who are also intrigued by the powerful effects of small changes.



Watercolour study for the Blackwood Golf Centre,
O'Donnell + Tuomey Architects (1994)

The Howth House acts like a form of telescope, the plan form being conceived to heighten external views and frame the sunlit landscape to the north. Externally, the brickwork is coated with a grey-pigmented limewash, giving a neutral, subdued appearance. Internally, colour is used to emphasise the continuity of the free-flowing spaces, with an earthy aubergine colour used to give unity to the main walls, but with strong colours highlighting the exposed edges of openings cutting across the walls. Instead of painting individual rooms blue, or yellow, the colour is intended to reinforce the free plan and the spatial nature of the walls. The client has already repainted the walls several times, changing the colours to experiment with the reading of the space, in what O'Donnell describes as 'an ongoing conversation'. Unusually, the client wanted some spaces to be deliberately dark, and to have contrast with the more conventionally lighter spaces. Balancing functionality with psychological satisfaction seems to be an aim of both client and architects. The client completely understood the conceptual idea of the central hall as representing an outdoor space, even though it is entirely internal. The oscillation in the meaning of interior and exterior space is a thread which runs through a number of O'Donnell + Tuomey's projects, and is supported by their use of colour and materials.

Conceptually, O'Donnell + Tuomey consider the Howth House and the Glucksman Gallery in Cork to have an affinity for each other. Both play with curving walls, views and flowing space. The Glucksman Gallery uses predominately natural materials and white-painted walls to provide an appropriate setting for the art, with colour being considered temporal, applied by the use of chromatic light.

Seriality in the palette

O'DONNELL + TUOMEY have a tight palette of relatively few colours which are repeated in a series of works. Repeating colours from project to project supports the cohesion of their body of work. There is no sense from this practice that they plan to change their ethos or principal approach to making architecture. Although each individual project is, of course, unique, O'Donnell + Tuomey's approach to design mirrors their approach to colour, in that they hone their work as they progress, rather than feeling the need for constant invention in their methodology of design. The rigour of the architecture is upheld in the carefully considered limitation of the palette.

In this respect, they can be compared to Le Corbusier, whose restricted palette of 43 shades was, he considered, quite sufficient. Although O'Donnell + Tuomey have a copy of the Le Corbusier colour palette, and will refer to it from time to time, they have not found the specific shades to be of use, nor the prescribed combinations suggested by the use of the cardboard viewing frame provided with Le Corbusier's *Salubra* wallpaper range. They are, however, more interested in how Le Corbusier made use of the spatial effects of colour, such as his experimentation with achieving depth by the use of colours that appear to recede, and others that punch forward.

O'Donnell + Tuomey choose their colours to align with their aspiration to ground their work in the earth, site and construction. It is an architecture that shies away from artifice towards nature, and their choice of pigments and colours enhances and supports this. The appeal of the colours in the early Italian paintings was partly that the pigments were dug out of the earth, not squeezed from a tube, as would have been the case with artworks from later periods. It was this essentially natural quality that seems to have been particularly engaging to them, even if it was derived at the time from an impulsive affinity with particular compositions and colour combinations in Italian paintings.

The Irish Film Centre in Dublin was O'Donnell + Tuomey's first major project. Conceived as a courtyard, the key atrium space is clearly intended to be read as external, even though it is carved out of the centre of the urban block. Colour and materials are essential devices in the success of this inversion of inside space to outside atmosphere. This project exemplifies their first steps in defining the practice's use of colour. Instinctively, they sought to use natural pigment, which was sourced from L. Cornelissen & Son, an artist's supply company in London. The pigment arrived in great sacks of pure powder, reminiscent of the heaps of intense colour arranged on the floors of art galleries by the artist Anish Kapoor. The render was mixed on site as a simple sand/cement mix, incorporating the pigment, and applied to the interior atrium elevation in a single day. The air was yellow with the ochre.

Opposite the ochre wall, a small cubic form protrudes into the courtyard. Originally, this was finished in a strong cobalt blue applied in the same way as the ochre, although, in this case, unsuccessfully. Surprisingly, the blue pigment migrated from the surface into the substrate overnight, and the render had to be reapplied. Although the architects felt it was beautiful, the client was not as convinced by the uneven blue appearance. The adhesive from posters further damaged the wall, and the natural pigment has recently been coated with a clear red gloss, which is shockingly out of character with the original, gentle hues.

In their Ranelagh Primary School (1997, extended 2007), simple painted blockwork walls order the space, and different coloured doors imply a codification of use, which helps to make the building easily navigable. At the time of the design, O'Donnell + Tuomey looked at the work of Eileen Gray (1878–1976), the Irish furniture and interior designer who used blue, red, black and, occasionally, yellow in her work. Referring to the work of the South American architect Luis Baragán (1902–88), O'Donnell notes that they tend to test colour as he would, by painting samples onto large cards. The cards represent the office's tight palette, and have been taken out and reused on subsequent projects. The blue from the Ranelagh School, for instance, was subsequently used in their An Gacláras Cultural Centre for Irish language, arts and culture in Derry (2009).¹⁶ In both cases, the predominant building materials are unfinished; brick, concrete and zinc at Ranelagh and high-quality in-situ concrete in Derry. Colour is therefore used sparingly, and to give significance.

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Irish Film Institute, Temple Bar, Dublin,
O'Donnell + Tuomey Architects
(1992)





Ranelagh Multi-denominational School, Dublin,
O'Donnell + Tuomey Architects (1997)

New primary schools in Ireland were not, at the time, permitted to have plastered walls, in order to be both robust and economical. Most use simple materials, such as fair-faced concrete blockwork. O'Donnell + Tuomey complied, but used paint to give character to the blockwork walls and resin to give a feeling of depth to the floor. Ranelagh adopts the Fra Angelico palette of earthy red, yellow ochre, paleish green and a purply light blue. Although the light in Italy is entirely different, the original paintings, O'Donnell notes, were seen in dark interiors. In addition, classroom walls are painted white to allow the colour of the children's artwork to enliven the space. Where colours have been used, they are deliberately not strong primaries (which some will associate with primary schools), but have a more muted, milky quality.

Classrooms use the earthy red for key elements, such as built-in furniture in the classrooms, against the white walls and mustard yellow doors. The doors in the corridors are blue, whereas doors to the staff rooms are green. The colours have an underlying rationale, but are also placed by instinct, for example, using red adjacent to green. The use of contrasting colours gives a sense of harmony, which is directly influenced by the balance of similar pigments observed in the composition of the Italian paintings, 'They have a real sort of zing, but the opacity neuters them'. Part of O'Donnell + Tuomey's aim is to establish a character that is warm, yet has variety and a degree of complexity.

The dark grey 'RAL' colour,¹⁷ which was used on the steelwork of their very first building, the Irish Film Centre, has been reused in Derry alongside their deep terracotta red from the Sean O'Casey Community Centre; as O'Donnell notes:

maybe it's just the modern equivalent of Ford saying his cars could be any colour as long as they are black. You just get colours, and then they represent the concept of that colour ... When you say blue, you obviously mean that colour, that's what blue is.

O'Donnell + Tuomey are concerned with the social and political meanings of art and architecture, colour is present to serve a purpose, to support conceptual associations. That O'Donnell + Tuomey's colour palette originated in the earthy natural pigments of Italian paintings should not therefore be seen as surprising. They aim to ground their buildings so firmly into the earth that they seem always to have been there. They dig into the site literally, and aim to do so metaphorically also. Their use of natural pigmented renders, limewash and a limited number of colours is consistent and deliberately timeless.

How do architects use colour? Do they adopt a different strategy or starting point for every project? Do they gradually cultivate individual colour palettes, which develop alongside their body of built work? Do they utilize, or are they aware of, the body of theoretical work that underpins the use of colour in the past, and forms the basis of most of the colour systems commercially available today?

Informed by the author's thirty years in architectural practice and academia, this book investigates, documents and analyses the work of a number of contemporary architects in order to respond to these questions and provide a clear reference of contemporary colour use. The book suggests a holistic approach to the integration of colour in architecture; through a series of thematic essays, the text explores and reveals underlying principles in colour design and application. Case studies include:

- AHMM
- Caruso St John
- Erich Wiesner and Otto Steidle
- Gigon/Guyer
- O'Donnell + Tuomey
- Sauerbruch Hutton
- Steven Holl
- UN Studio.

The book provides clear insights into how particular contemporary architects use colour confidently and intelligently as an integral part of their design philosophy, in conjunction with their choices of materials and finishes. Offering a stimulating view of the history of colour theory, and pragmatic advice to practising architects, this book will be inspiring to both design professionals and students.

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