James Stirling and Architectural Colour

A thesis submitted to the University of Manchester for the degree of Doctor of Philosophy in the Faculty of Humanities

2013

Michael W Farr

School of Arts, Languages and Cultures
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abbreviations</td>
<td>3</td>
</tr>
<tr>
<td>Abstract</td>
<td>4</td>
</tr>
<tr>
<td>Declaration</td>
<td>5</td>
</tr>
<tr>
<td>Copyright Statement</td>
<td>5</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>6</td>
</tr>
<tr>
<td>Dedication</td>
<td>7</td>
</tr>
<tr>
<td>The Author</td>
<td>7</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>8</td>
</tr>
<tr>
<td>Illustrations</td>
<td>32</td>
</tr>
<tr>
<td><strong>Chapter One</strong></td>
<td></td>
</tr>
<tr>
<td>Stirling’s Four ‘Red’ Buildings</td>
<td>35</td>
</tr>
<tr>
<td>Illustrations</td>
<td>76</td>
</tr>
<tr>
<td><strong>Chapter Two</strong></td>
<td></td>
</tr>
<tr>
<td>Colour and Texture in Pre-Fabricated and Plastic Buildings</td>
<td>91</td>
</tr>
<tr>
<td>Illustrations</td>
<td>125</td>
</tr>
<tr>
<td><strong>Chapter Three</strong></td>
<td></td>
</tr>
<tr>
<td>Colour and Contextualism in the Post-Modern Era:</td>
<td></td>
</tr>
<tr>
<td>Stirling’s Work from the Late 1970s</td>
<td>133</td>
</tr>
<tr>
<td>Illustrations</td>
<td>175</td>
</tr>
<tr>
<td><strong>Chapter Four</strong></td>
<td></td>
</tr>
<tr>
<td>‘Humanistic’ Architecture and Colour:</td>
<td></td>
</tr>
<tr>
<td>Addressing the Individual in a Technological Age</td>
<td>186</td>
</tr>
<tr>
<td>Illustrations</td>
<td>219</td>
</tr>
<tr>
<td><strong>Chapter Five</strong></td>
<td></td>
</tr>
<tr>
<td>Colouring In: Stirling’s Application of Colour to His Presentation Drawings</td>
<td>228</td>
</tr>
<tr>
<td>Illustrations</td>
<td>259</td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td>270</td>
</tr>
<tr>
<td><strong>Bibliography</strong></td>
<td>275</td>
</tr>
</tbody>
</table>

Word count: 80,604
List of Abbreviations

The following abbreviations appear throughout this thesis:
CCA - Canadian Centre for Architecture; GLC - Greater London Council; GPO - General Post Office; GRP - Glass Reinforced Polyester; ICA – Institute of Contemporary Arts; IG - Independent Group; MOMA – Museum of Modern Art, New York; PVC – Polyvinyl Chloride; RIBA - Royal Institute of British Architects; WZB - Wissenschaftszentrum, Berlin.
Abstract

To see built form is to see colour. Alternatively, architecture cannot be colourless. Even glass-clad buildings reflect their surroundings while all-white structures are revealed through various shadows and shades. To what degree, then, should colour be considered an architectural element?

*James Stirling and Architectural Colour*, a PhD thesis by Michael William Farr submitted to the University of Manchester in 2013, explores how, exactly, architect James Stirling (1924-92) used colour and what it might say about the evolution of his design ethos. Going beyond what has been written so far this investigation explores the significance of colour in the eclectic array of strikingly individual buildings Stirling designed throughout his career. But while these structures are presented as often visually arresting and idiosyncratic, their varied colour schemes also reveal significant thematic consistencies across his oeuvre.

Initially discussion centres on Stirling’s rather contrary use of relatively muted colours. By simply countering expectations or clashing with established contextual characteristics, Stirling ensured his buildings visually attracted attention, courting comment and controversy. In addition it is proposed that he used colour as a means of enticing and inviting those who saw/used his buildings to explore and investigate the very fabric of his structures.

As his palette became bolder, so too did his contextual references. Acquainted with the attention-grabbing benefits of incongruous colours, Stirling also recognized the increasing importance of context. By combining sympathetic forms with ever-brighter colour schemes he paradoxically designed buildings that simultaneously fitted in while standing out. It is also argued that these much brighter colours represent a regard for those using his buildings dating back to his and James Gowan’s Preston Housing Project (1957-61). His exploration of structural candour in some projects left them less than hospitable, but the overt anthropocentricity of his later designs is not presented as entirely new. If his colour schemes, in later years, changed considerably, his motivations did not.

Focusing on specific design issues - contrariness, structural explication, contextualism and anthropocentricity – this thesis does not attempt classification. Set against Modernism’s demise and Post-Modernism’s ascendancy, Stirling’s relationship to both is explored; his propensity to draw upon any style he felt appropriate revealing the futility of labelling his work as either one or the other. If his earliest designs contain the eclecticism and metaphoric content normally associated with Post-Modern architecture, his later buildings employed a typically Modernist candour regarding materials and techniques. Throughout his career Stirling consistently sought to design buildings that were visually striking, contextually inspired and inviting to explore. His reliance upon both a multiplicity of styles and the considered use of colour was fundamental to these aims.
Declaration

No portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Copyright

I The author of this thesis (including any appendices and/or schedules to this thesis) owns certain copyright or related rights in it (the “Copyright”) and s/he has given The University of Manchester certain rights to use such Copyright, including for administrative purposes.

II Copies of this thesis, either in full or in extracts and whether in hard or electronic copy, may be made only in accordance with the Copyright, Designs and Patents Act 1988 (as amended) and regulations issued under it or, where appropriate, in accordance with licensing agreements which the University has from time to time. This page must form part of any such copies made.

III The ownership of certain Copyright, patents, designs, trade marks and other intellectual property (the “Intellectual Property”) and any reproductions of copyright works in the thesis, for example graphs and tables (“Reproductions”), which may be described in this thesis, may not be owned by the author and may be owned by third parties. Such Intellectual Property and Reproductions cannot and must not be made available for use without the prior written permission of the owner(s) of the relevant Intellectual Property and/or Reproductions.

IV Further information on the conditions under which disclosure, publication and commercialisation of this thesis, the Copyright and any Intellectual Property and/or Reproductions described in it may take place is available in the University IP Policy (see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=487), in any relevant Thesis restriction declarations deposited in the University Library, The University Library’s regulations (see http://www.manchester.ac.uk/library/aboutus/regulations) and in The University’s policy on Presentation of Theses.
Acknowledgements

First and foremost thanks must be given to my supervisor, Professor Mark Crinson, whose encyclopaedic knowledge of this subject area has been matched only by his unfaltering encouragement. His commitment and contribution to this thesis have been truly inspirational and cannot easily be overstated.

I would also like to extend my sincere gratitude to Michael Wilford, with whom I spent many hours in discussion, for his willingness to contribute to this thesis since I began my research in 2005. Thanks must also go to Stirling’s first partner, James Gowan; his associates, Lawrence Bain and Russell Bevington; and his assistant Malcolm Higgs; all of whom offered invaluable insight into the design processes of the buildings discussed. I am similarly indebted to Stirling’s widow, Mary, who offered a much needed alternative account of her late husband’s approach to colour. Thanks must also be given to Howard Shubert and all the staff at the Canadian Centre for Architecture, Montreal; Consultant Ophthalmic Surgeon Mr Arun Brahman; John Muller - Project Coordinator at Hanson UK - for his expertise on the history of brick manufacturing; former brick-layer G.T. Farr; and all the staff at the University of Leicester Archive; University of Cambridge Archive; Queen’s College Archive - University of Oxford; Waverly Borough Council Planning Office; and the Camden Borough Council Planning Office.
This thesis is dedicated to my wife Paula and our two children, Tom and Harry; their support is my foundation.

The Author

Since gaining my first degree - BA Honours Design for Communication Media - I have worked almost exclusively in television as a lighting camera man. However, throughout this period I maintained a keen interest in academia, specifically the Visual Arts and Cultures; my passion for the subject taking me first to the Open University, then to the University of Manchester, where I undertook a Masters degree in Art History and Visual Cultures in 2003.

Capitalising on the cancellation of a Renaissance Art module, I chose to explore a subject I had little previous knowledge of – Architecture and Modernity. It was here that I was introduced to my future supervisor Prof. Mark Crinson and in turn the architecture of James Stirling and James Gowan; specifically their Preston Housing Project. It was this chance encounter that awakened my desire to explore Stirling’s work further.

Subsequently I chose to focus my post-graduate thesis on The Museum Designs of James Stirling and Michael Wilford, and, on obtaining my Master’s degree in 2005, continued this exploration of Stirling’s work at PhD level.
Introduction

‘A yellow memory from the yellow eye. Fool’s yellow and yellow silence. When yellow wishes to ingratiate it becomes gold’.

Derek Jarman 1994

‘When all at once I saw a crowd, 
A host of golden daffodils’.

Wordsworth 1804

‘Let us take a colour, yellow, for instance: gold is yellow, silk is yellow, anxiety is yellow, bile is yellow, straw is yellow; with how many other threads does not this thread connect’.

Denis Diderot 1760

Why did Wordsworth describe daffodils as ‘golden’? Was it because the colour yellow had unpleasant associations for him or just that, compared to gold, it was mundane? Why did Jarman suggest gold is merely yellow attempting to ingratiate? Colour invariably affects all who can see, but to codify its use, as Diderot intimates, is fraught with ambiguities. As these authors reveal, an individual’s reaction to colour is significantly shaped by both context and personal preference, making any attempt to interpret colour’s meaning problematic. And while psychologists have conducted numerous experiments to determine how colours might affect our behaviour, their findings remain shaped by a combination of cultural and individual influences.²

---


² For an indication of the problems psychologists face when attempting to determine the effects colour has on the human senses and emotions see P. Valdez, and A. Mehrabian, ‘The Effects of
Assessing the meaning and significance of colour in architecture is just as difficult. In built form one must consider not only the intentions of the architect and those who experience his/her work, but also the preferences of the client, the availability of materials, and the influences of planning authorities. It is also impossible to consider any architecture as being without colour (even glass-clad buildings carry a tint, or reflections of their surroundings) meaning any discussion regarding its presence must establish why specific areas of a building should be scrutinized, under what conditions and with what kind of historical knowledge.

What this thesis examines are instances where architect James Stirling (1924-92) specifically chose a colour, or range of colours, and the materials and textures that carried them, and asks to what extent these choices shed light on Stirling’s architectural motivations and ambitions? Not that colour and texture are here presented as the driving force behind the creation of each building; but they do, it is argued, offer insight into his broader design ethos. Essential to such an examination is the recognition of the fundamental link between colour, and texture and materiality; a link of considerable significance when assessing Stirling’s work in relation to colour theory. The materials and textures of a building’s surface contribute to its visual presence, just as much as colour does. This, however, does not infer that Stirling’s colour schemes were necessarily secondary to material specifications. Bricks, tiles and plastics all come in different colours that were subject to the same degree of consideration as their materiality, especially so when incorporated as veneers. Rather it suggests that any analysis of a building’s surface must consider both the colour scheme and the media in which it is presented.

Stirling’s interest in colour is difficult to deny. His almost obsessive attention to its application in his later drawings is explored in Chapter Five, but his interests were evident early in his career. During a trip to Bath in 1947 Stirling felt compelled to write to friends about the ‘hot browns and buffs and the Regency light blues and

reds’ that he saw. ‘Modern architecture’, he declared ‘can learn a lot here’.

His 1949 student design for a House for the Architect (see below) confirms the importance of both colour and texture for Stirling. His handmade model displays panels and window frames of bright red, yellow or blue, and the accompanying plans specify the variety of textures and materials to be used. Years later, in his and James Gowan’s Leicester Engineering Building (1959-63), Stirling used imported Belgium glass because he objected to the faint green tint of that produced in Britain; and when discussing the interior of the St Andrew’s Halls of Residence (1964-68) with his wife Mary (commissioned to oversee the interior décor) he insisted the floors of the communal areas were a specific shade of blue. He was certainly aware of the controversy his colour choices courted, prompting him to joke, following disagreements surrounding his design for the Clore Gallery, London (1980-86), that he would make his next project colourless. These, of course, are only a few examples and while many more could be cited, it is not the intention of this investigation to merely catalogue such incidents.

What this thesis explores is whether Stirling’s use of colours and materials might reveal significant layers of continuity across an eclectic body of work. Can specific architectural concerns be seen to resonate throughout his oeuvre despite a changing team of architects, a varied clientele and the different purposes of the buildings commissioned? If they can, how have these concerns revealed themselves as the palette of materials and colours made available to Stirling changed?

From Stirling’s early work with James Gowan (b.1923), and perhaps most apparent in their Infill Housing in Preston (1957-61 Ill.0.1), identifiable design objectives can be seen to emerge. Most obviously an awareness of two seemingly contradictory concerns is revealed: contextual sympathy and visual incongruity. If the former revealed his and Gowan’s awareness of, and sensitivity towards those using their

---

5 Mary Stirling, interview with the author 18/11/2009.
buildings, their intended purpose and the existing environment in which they were built, the latter afforded the architects’ work a degree of notoriety that succeeded in raising their architectural profiles and establishing them as working outside of established architectural trends. What is also apparent in this early project is a degree of architectural reflexivity; that is, the architects’ distribution of colours and materials invites an almost tactile exploration of how the structure has been assembled. The question this thesis asks, then, is whether, following his split from Gowan, Stirling continued to explore these design concerns, and if so, did colour and texture continue to play a significant role?

Stirling’s Architectural Beginnings

Stirling’s introduction to the world of architecture came at the age of seventeen when he was given a position in the modest practice of D.A. Beveridge, but this was promptly brought to a halt when he enlisted in the Army in 1942. Following demobilisation in 1946 he joined the Liverpool School of Architecture where he came under the considerable influence of his tutor Colin Rowe (1920-99). It was here that he was introduced to the architecture of the Modern Movement and the significance of both colour and texture to its appearance, but only as part of a broad spectrum of architectural considerations. In the Beaux-Arts inspired teachings of this particular institution, eclecticism was an inevitable outcome for Stirling.

Graduating in 1950 with a distinction in his thesis he moved to London, eventually settling as assistant in the office of Lyons, Israel and Ellis. It was here that he befriended fellow Glaswegian James Gowan, with whom he established his first practice in 1956, and whose contribution to the appearance of their buildings must not be underestimated. Despite designing (amongst other projects) the now legendary Leicester Engineering Building the creative tensions between the
architects proved too much and the business was dissolved in 1963. Following his and Gowan’s split Stirling worked for a brief period in his own practice with Michael Wilford as senior assistant (a position he had held within the Stirling and Gowan partnership) and then associate partner. In 1971 Wilford became a full partner in the practice of Stirling, Wilford and Associates until Stirling’s death in June 1992.

The contribution of Stirling’s collaborators raises the question of authorship; can the buildings discussed in this thesis accurately be described as Stirling’s? The final appearance of each design, it might justifiably be argued, was also shaped by his assistants, associates and partners, as well as by clients and planning authorities. Admittedly, following his split from Gowan, and before Wilford became a full partner, Stirling would have retained the power of veto over his assistants’ contributions, establishing him, it is argued here, as architectural auteur. Combining his ideas with those of his team he was able to produce a body of work within which can be identified layers of stylistic continuity, despite his changing workforce. The end results were inevitably a team effort, but a team controlled and guided by James Stirling.

However, the creative contribution of Gowan and Wilford, when working in partnership with Stirling, has to be considered as a significant factor in determining each building’s appearance. Indeed, archive material held at Leicester University relating to the Engineering Building indicates Gowan not only made considerable contributions to the finished project, but often did so in Stirling’s absence. And although Wilford has suggested that he personally had little influence over the colour schemes of his and Stirling’s buildings, Mary Stirling has suggested

---

10 Leon Krier explains this was the way Stirling developed each design, Girouard, *Big Jim*, 188.
11 Leicester University Archive file ref. EST/BUI/ENG/13/5. Several letters within this file and relating to the building’s appearance are addressed to Gowan alone as Stirling was often teaching in the USA.
otherwise. Inevitably, then, to label the buildings discussed in this thesis as Stirling’s is to resort to a short-hand of sorts, but this does not prevent their appearance from shedding light on the evolution of his personnel architectural ambitions, from his early projects with Gowan to his last designs with Wilford.

**Stirling and Colour Theory**

Although Stirling’s use of colour is explored in this thesis as a means of identifying layers of continuity throughout his oeuvre, it is not presented as complying with or attempting to establish an identifiable colour theory in the sense of a verbally articulated approach to colour. The restrictions imposed on each project by client, budget and planning authority, coupled with Stirling’s own desire to explore different materials suggests that a strict colour theory could not have easily been used. Indeed, in many instances Stirling chose specific materials because their inherent textures and colours (over which he had no control) had established connotations that satisfied his long-term architectural ambitions. Red engineering bricks and patent glazing are a case in point. Identifying the industrial associations of the appearance of these materials he employed them in non-industrial environments to explore the effects of contrast and incongruity.

A lack of identifiable colour theory, however, does not relegate the significance of Stirling’s use of colour, nor should it preclude its presence being used to investigate his architectural intentions. That said, his interest in the architecture of the inter-war Modernists suggests that colour and texture in their work remains pertinent to his, and its influence needs some consideration. Stirling was familiar with the work of the early twentieth-century artists who had explored colour theory. Piet Mondrian, Kasimir Malevich, the Constructivists and the De Stijl movement are all discussed in the architectural journal he kept in the mid-1950s (his so-called Black Notebook). It is also the case that the work of De Stijl, particularly that of Theo van Doesburg, has been linked to Stirling and Gowan’s early house designs,

---

12 Mary Stirling, interview with the author 18/11/2009.
specifically with regard to the axonometric drawing style and the asymmetry of composition (Ills. 0.2 and 0.3).\textsuperscript{14} It might also be argued that Gerrit Rietveld’s multi-coloured house for the Schröders (completed 1924 Ill. 0.4),\textsuperscript{15} a building known to Stirling, shares similarities with aspects of some of Stirling’s work from his early student designs to his final projects.\textsuperscript{16} His 1949 design for a House for an Architect isolates primary colours in a manner reminiscent of Rietveld’s design, as do the canopy supports at Stirling and Wilford’s Wissenschaftszentrum, (Ills. 0.5 & 0.6).

The similarities between Stirling’s application of colour and these much earlier designs do not by any means make up the full scope of his exploration of colour theory. Without doubt, he understood the impact that different colour combinations might have on a viewer, his use of a Pointillist-like technique and complementary colours in his drawn work (discussed in Chapter Five) prove as much. But at no point in Stirling’s two- or three-dimensional work is there evidence that he concerned himself with the effects of pure and/or primary colour in an elemental manner comparable to either the De Stijl or Constructivist movements.\textsuperscript{17} Rather, the broad range of colours, materials and textures that both the Architect’s House project and the Wissenschaftszentrum incorporate reflect Stirling’s collagist tendencies that opened his work up to new and eclectic sources.\textsuperscript{18}

\textsuperscript{14} Peter Blundell Jones, and Eamonn Canniffe, \textit{Modern Architecture Through Case Studies, 1945-1990}, (Oxford: 2007), 78. The axonometric drawing technique did not originate with, nor was it limited to Van Doesburg. Indeed, Cornelis van Eeesteren has been suggested as being responsible for establishing the technique as a preferred instrument of modern representation. Mildred Friedman (Ed). \textit{De Stijl – 1917-1931 – Visions of Utopia}, (Oxford: 1982), 97.
\textsuperscript{15} Furniture maker Gerrit Rietveld (1888-1964) also worked as an architect, designing the hugely influential, multi-coloured Schröder House (1924). As with much of Rietveld’s furniture, in particular his Red/Blue Chair (1918), by painting separate elements different colours he ensured a visual independence of parts. Michael Wilford explained that the decision to paint each member of the canopy supports at the Wissenschaftszentrum, Berlin a different colour was taken to ensure that they retained separate identities. Michael Wilford, interview with author 15/5/2009.
\textsuperscript{16} Michael Wilford, interview with the author 19/6/2009.
\textsuperscript{17} For a detailed account of the investigations into pure colour theory conducted by the abstract painters of the early twentieth-century see John Gage, \textit{Colour and Meaning: Art Science and Symbolism}, (London: 1999), Chapter 19.
\textsuperscript{18} Michael Wilford confirms that although the colour theories of the interwar Modernists were known to Stirling, they were not, as far as he can remember, ever discussed in relation to the use of colour in any of their buildings. Michael Wilford, interview with author 15/5/2008.
What might justifiably be described as an ongoing strategy behind Stirling’s use of colour and texture is his reliance upon contrast. By employing contrasting colours and textures Stirling afforded the buildings discussed in this thesis a heightened visual presence within their immediate environment. In addition he was able to draw attention to the materiality of each structure, arousing curiosity about each building’s physical makeup and, at times, tempting a tactile relationship between building and individual. What is proposed here is that his reliance upon contrast becomes, in effect, a form of signature style for Stirling and his practice; not exactly a theory, rather a design ethos. That Stirling relied upon contrast as both a means of plastic expression and a device to create visual drama does not, however, automatically translate as an adoption of any inter-war colour theory. Parallels can certainly be drawn with the work of the Bauhaus, specifically that of Johannes Itten and Walter Gropius, and Stirling certainly knew their work, but one must not assume a direct line of influence. Stirling, with both Gowan and Wilford, employed contrasting textures and colours throughout his oeuvre to draw attention to many aspects of his architecture, but to what extent this might be a result of his knowledge of either Itten’s or Gropius’s extensive theorizing is debatable.

In terms of surface appearance, Stirling’s debt to the Modernist architecture of the inter-war period arguably lies in its use of colours and materials for symbolic and associational values, rather than any specific colour combinations. Although Stirling’s introduction to Modernism was initially through books and therefore, given its timing, through monochrome images, it should not be assumed that he was unable to recognise the importance of the apparently smooth white walls in

19 ‘Stirling Wit and Passion’ Country Life, (31 August, 2000), 50-53. Stirling was well versed in the power of setting contrasting elements together and even practiced this principle in the decoration of his own home.
20 Itten’s concept of design, learned from Adolf Hoelzel in Stuttgart, was based upon a strong emphasis on contrast and formed the basis of his teaching at the Bauhaus, as he explained in 1930, ‘The foundations of my basic design teaching was the general theory of contrast. Light and dark, material and texture studies, form and colour theory, rhythm and expressive forms were all discussed and presented in their contrasting effects… All contrasts had to be worked out singly and in combinations’. Marcel Franciscono, Walter Gropius and the Creation of the Bauhaus, (Urbana: 1971), 199.
establishing an explicitly modern architecture. The flat, evenly coloured surfaces of buildings such as Le Corbusier’s Villa Stein, Garches, 1927, and Villa Savoye, Poissy, 1928-31 (Ills. 0.7 & 0.8), buildings Stirling had visited and, in the case of the former, written about with admiration, illustrate the point. Their smooth, painted rendering draws attention to the surface of each wall rather than their volumetric qualities as structural elements, thereby establishing architecture defined by planes, and in doing so present a narrative of sorts. Representative of a new era without clutter and superficiality, these buildings symbolised cleanliness and efficiency. In reality, however, their pristine walls were an artifice, coarser structures covered with smooth cement rendering and then painted. It is, then, this process of using a building’s surface to communicate something more than tectonic relevance that bears similarities to Stirling’s own work, particularly his continued reliance upon veneers; a process that established the Leicester University Engineering Building (1959-63) as overtly industrial and Number One Poultry as traditionally formal.

Any account of Stirling’s oeuvre must also acknowledge the considerable influence of Le Corbusier’s work. Stirling’s admiration for the architect is a matter of record and his personal experience of Le Corbusier’s buildings, designs and writings suggest more than a passing acquaintance with his extensive colour theories. Admittedly, the master had, at an early stage, voiced concerns about employing colour as decoration. Stating that ‘the idea of form precedes that of colour’ and that ‘[f]orm is pre-eminent, colour is only one of its accessories’, he implied that the application of coloured materials to any given structure was an embellishment to be regarded with suspicion. Le Corbusier’s approach to colour in architecture was,

23 Stirling had described the Villa Stein as being the ‘standard by which [Corbusier’s] genius is measured against that of the other great architects of this century’. James Stirling, ‘Garches to Jaoul’, Architectural Review, Vol.118, (September 1955), 146.
24 For evidence of Stirling’s deep admiration of Le Corbusier’s work see Mark Crinson, James Stirling: Early Unpublished Writings on Architecture, (London: 2010), particularly Chapters One and Three. Crinson’s own account of Le Corbusier’s influence over Stirling (Chapter Seven) is equally insightful.
however, not without its evolution. Writing extensively on the subject, designing wallpapers and attempting his own detailed colour theories, he employed colour in his architecture at an early stage.\(^\text{26}\) The previously mentioned Villa Savoye, while predominantly white, was nevertheless significantly multi-coloured. Most of the exterior walls were smooth rendering painted white but those of the under-croft were green with bright red doors marking the entrances, and the curved walls of the elevated terrace were finished a pale pink/peach. Even the seemingly unfinished exterior of his much later Maisons Jaoul, France (1951-55 \textit{ill. 0.9}), houses that Stirling had visited and written about,\(^\text{27}\) can be viewed as a display of contrasting textures and colours: exposed concrete, coarse brickwork and unpainted wood. It is certainly the case that Stirling and Gowan’s Ham Common flats have been directly linked to the Maisons Jaoul, just as they have to De Stijl, but this does not represent an adoption of either Le Corbusier’s or De Stijl’s colour theories.\(^\text{28}\) Rather these links reflect Stirling’s (and, in this instance Gowan’s) career-long propensity to draw from a broad range of architectural styles.

\textbf{Literature Review}

This thesis departs from what has been written before on Stirling in its identification of the relationship between colour and texture and his long-term architectural ambitions. Indeed, there has not been a study of colour in Stirling’s work across his career. Of course, his buildings have been analysed and debated at length, but it has predominantly been on formal grounds, with discussions of colour conspicuously scarce. Even in those accounts that deal with his polychromatic designs, colour seemingly plays second fiddle to form, an oversight clearly illustrated with the following examples. In Tony Aldous’s early review of the brightly coloured


\(^{28}\) Stirling admitted that his and James Gowan’s Ham Common flats were ‘probably influenced by De Stijl and the Jaoul houses…’ James Stirling, ‘The Functional Tradition and Expression’, \textit{Perspecta}, No. 6 1959, 89.
Runcorn Development (1967-77) no mention of Stirling’s bold colour scheme is made at all. Colour images appear in the article immediately preceding Aldous’s, but none are included in his.29 A similar observation can be made of J. M. Dixon’s account of Olivetti’s commitment to architecture which inevitably includes Stirling’s contributions.30 Of the many illustrations accompanying this article only three are in colour, none of which are of Stirling’s design for the Training School in Haslemere (1969-72). Again, at no point in Charles Jencks’s investigation of the metaphoric qualities of the Olivetti Training School does he consider either the colours used or their distribution.31 Even in Peter Cook’s much later description of the polychromatic Neue Staatsgalerie, Stuttgart, which in part explores the populist elements of the building, there is no discussion of colour’s contribution.32

This investigation has drawn upon many publications that focus on Stirling’s work, from his time with Gowan to his last designs with Wilford, but again, few discuss colour. Stirling’s own books: Buildings and Projects: 1950-1974, and James Stirling, Michael Wilford and Associates - Buildings and Projects 1975-1992, are useful guides to the importance Stirling attached to individual projects (and to those he was willing to omit), although little mention of colour is made regarding the buildings illustrated in either of these volumes. Indeed, the former is entirely monochrome, despite an illustrated account of the multi-coloured Olivetti Training School. Peter Arnold and Ted Bickford’s James Stirling: Buildings and Projects, which covers a wide range of built and un-built designs from 1950 to 1982, many of which are illustrated in colour, similarly offers no discussion relating to the choice of colours or materials used beyond excerpts from contemporary reviews and architects’ notes.

32 P. Cook, ‘Stirling 3: Stuttgart’, Architectural Review, Vol.173, (March 1983), 31-41. While the bulk of this article was written before the completion of this building, and therefore before all the colours were applied, Cook did re-visit the gallery prior to finishing the article.
Recent publications are also found lacking. Anthony Vidler’s catalogue of the 2010-11 Stirling exhibition at the Yale Centre for British Art examines Stirling’s oeuvre primarily through an analysis of form. Here Vidler traces the evolution and continuation of several themes within Stirling’s work, but relegates the architect’s ‘life-long interest in experimenting with colour’ to a single illustration caption.\(^{33}\) Admittedly, Vidler recognises the inherent limitations of restricting his analysis to just a fraction of Stirling’s output, but it remains the case that any discussion of colour, particularly in his account of the Wissenschaftszentrum, Berlin is conspicuous by its absence.\(^{34}\)

Where Stirling’s use of colour has been discussed, it has more often than not been limited to specific buildings rather than in relation to his entire oeuvre. Peter Blundell Jones’s chapter on the Leicester University Engineering Building in his and Eamonn Canniffe’s Modern Architecture Through Case Studies, 1945-1990, not only contextualises the project, offering insight into Stirling and Gowan’s influences and contributions, but also discusses the impact that red brick and tile have on the structure’s appearance.\(^{35}\) As such it highlights the value of exploring colour and materials throughout Stirling’s oeuvre, but, as the chapter title suggests, its focus is restricted to the one project. The same can be said of John McKean’s book which presents a more detailed account of how the commission came to the Stirling and Gowan practice and how they arrived at their final design. McKean’s account is certainly informative but its narrow focus inevitably limits its value here.\(^{36}\)

\(^{33}\) Vidler, James Frazer Stirling. 56.
\(^{34}\) Ibid, 248-257. Michiel Riedijk’s account of the Wissenschaftszentrum, offers little more, describing the building as ‘colourful mediocrity’. Formally this single block of offices was designed to recall the picturesque irregularity of ancient towns, with the broad bands of pink and blue stucco that cover most of the exterior, uniting the different shapes into a corporate whole with the bright hues drawing attention to the structure in an otherwise subdued part of the city. Michiel Riedijk, ‘The Parachutist in the China Shop’, OASE Journal for Architecture, No. 79, (2009), 44-50.
The Leicester Engineering Building (1959-63), The Cambridge University History Faculty Library (1963-67), and the Florey Building, Oxford University (1966-71) have often been described as Stirling’s red buildings – a sub-group defined by colour but inaccurately so, as it excludes his Camden Council Flats in London (1963-68). These, like the other three, are also predominantly covered with matching red tiles and bricks.\(^3^7\) Notwithstanding this similarity the Twentieth Century Society’s 2009 conference titled ‘Stirling’s Red Buildings’ - held in the Engineering Building itself – failed to mention the flats at all, despite presentations from speakers as eminent as Robert Maxwell and John Tuomey.\(^3^8\) In November 2010 Alan Berman perpetuated the omission with his book *James Stirling and the Red Trilogy*, in which he presents the Engineering Building (which, it must not be forgotten, was the result of the Stirling and Gowan collaboration) as the original from which two further red university buildings derive.\(^3^9\) Kenneth Frampton, writing in 1968, also omitted the Camden project from this group (completed the same year) allowing for an interpretation based not on colour, but on the large amounts of glass used in the remaining three, prompting him to describe them as ‘an architecture of literal transparency’.\(^4^0\) For others such as John Summerson, Mark Girouard and John Jacobus (all of whom this thesis draws upon), the so-called red trilogy is discussed primarily in terms of form and functionality.\(^4^1\)

Peter Eisenman’s highly influential essay ‘Real and English: The Destruction of the Box 1’ discusses the materials used in the Leicester, Cambridge and Oxford projects, but not the relevance of the colours in relation to the rest of Stirling’s

---


\(^3^8\) The author was present at this conference which was held on 28/3/2009.

\(^3^9\) Alan Berman, (Ed.), *Jim Stirling and the Red Trilogy: Three Radical Buildings*, (London: 2010). The only suggestion in this book that there might be a fourth red building is by Robert Maxwell who mentions the ‘four red buildings’ only once, without giving any further details. 21.


work.\textsuperscript{42} Through a detailed description of the structure, he explores the reversal of expectations that Stirling and Gowan’s distribution of materials delivers in the Engineering Building. As with both Girouard’s and Jacobus’s previously mentioned accounts, Eisenman recognizes the importance of the dominant red colouring in not only unifying the different parts of this structure from a distance but also, through the distribution of tile and brick, to articulating their formal individuality at close quarters. But because he fails to discuss the significance of these colours and textures in relation to the rest of Stirling’s oeuvre, he is able to present the building as a polemical original, ‘a challenge to the conceptual heritage of the Modern movement’. By excluding the earlier Preston project (which was also built predominantly of red engineering brick) and the later Camden flats, he establishes the Engineering building as the first of a limited series, with both Cambridge and Oxford a seemingly weak or diluted homage ‘borrowing on the iconic charge [of] Leicester’.\textsuperscript{43}

This thesis does not set out to undermine Eisenman’s interpretation; rather it offers an alternative account of the relevance of the materials and colours used. His analysis remains valid and pertinent but justifies itself, in part, because Preston and Camden are ignored, leaving the remaining three an isolated group. By focusing on colour throughout Stirling’s oeuvre, the Engineering building cannot be seen as a starting point in the way it has so often been presented. Colin Rowe is typical of many writers in suggesting this building marked the maturing of Stirling as an architect,\textsuperscript{44} but it is argued here that it might also be seen as an early milestone in his on-going exploration of those themes mentioned above, one indicative of, but not quite achieving, the complex and multivalent ends to which he employed colour and texture in his later works. In this way the flamboyantly coloured surfaces of his later buildings are presented as logical progressions of the muted veneers of his earliest work.

\textsuperscript{42} Peter Eisenman, ‘Real and English: The Destruction of the Box 1’, \textit{Oppositions}, 4, (1974), 5-34.
\textsuperscript{43} Ibid, 30.
The increasingly flamboyant colour schemes of Stirling’s later projects have inevitably come under some scrutiny, but more often than not only in relation to each specific building. This is particularly so with the Clore Gallery and the Neue Staatsgalerie. In John Summerson’s account of the former, colour is largely discussed in terms of its referencing neighbouring buildings and as a means to identify individual elevations, but never as a strategy for simultaneously asserting the presence of this structure in relation to the host building, or how this might be representative of more long-term ambitions.\footnote{John Summerson, ‘Vitruvius Ridens or Laughter at the Clore’, \textit{Architectural Review,} Vol.181, (June 1987), 44-46.} Chapter Four of this thesis discusses colour as a means to attract and guide visitors around Stirling’s designs and in doing so builds upon Jencks’s account of the multi-coloured Neue Staatsgalerie.\footnote{Charles Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, \textit{Architectural Design,} Vol.54, (3/4 1984), 48-55.} His article acknowledges the importance of the multi-coloured awnings to experiencing and using the structure, but describes them as mere ‘punk additions’, demoting them to little more than ornamental eccentricities.\footnote{Ibid, 48.} At no point is the relevance of their striking visual presence to the rest of Stirling’s designs discussed. And as recently as 2009 the editorial of \textit{OASE Journal for Architecture No. 79} dismissed Stirling’s use of colour as initially ‘striking and wilfully vulgar [eventually fading] into inoffensive pastels’, declaring some difficulty in reconciling his and Gowan’s output with his much later work.\footnote{‘Editorial’, \textit{OASE Journal for Architecture,} No. 79, (2009), 5.}

That these publications do not explore Stirling’s use of colour does not prevent them from offering valuable information regarding his career. Mark Girouard’s authorised biography of the architect gives a detailed account of many aspects of Stirling’s life over and above his architecture, from his childhood until his death in 1992.\footnote{Mark Girouard, \textit{Big Jim: The Life and Works of James Stirling,} (London: 2000).} Mark Crinson’s edited collection of Stirling’s unpublished writings has proved especially valuable.\footnote{Mark Crinson, (Ed.) \textit{James Stirling – Early Unpublished Writings on Architecture,} (London and New York: 2010).} Offering insight into Stirling’s formative years as a
student and young architect, this selection of notes and writings reveals, amongst other things, the considerable impact Le Corbusier had on the young Stirling. It is also the case that much of what is included in this book gives credence to the claim that colour and texture were important to Stirling from an early age. Of similar value is Robert Maxwell’s compilation of Stirling’s writings and interviews.\footnote{Robert Maxwell, (Ed.) \textit{James Stirling - Writings on Architecture}, (Milan, Skira, 1998).} Although not quite a substitute for accessing this material in its original publications, this book offers a rich source of Stirling’s evolving design ethos and changing opinions.

Most recently, and too late to have been incorporated into this thesis is Mark Crinson’s \textit{Stirling and Gowan – Architecture from Austerity to Affluence} and Geoffry Baker’s \textit{The Architecture of James Stirling and his Partners}.\footnote{Mark Crinson, \textit{Stirling and Gowan – Architecture from Austerity to Affluence}, (New Haven and London: 2012) and Geoffrey H. Baker, \textit{The Architecture of James Stirling and his Partners James Gowan and Michael Wilford: A Study of Architectural Creativity in the Twentieth Century}, (Farnham: 2011).} Crinson’s publication, more so than Baker’s account, details the early careers of Stirling and Gowan, and highlights, even at this early stage, the importance of the materials and colours the architects’ chose. Indeed, the significance of these aspects of the architecture discussed in Crinson’s book emphasises the value of exploring colour throughout Stirling’s oeuvre. This detailed account of the collaboration between the two young architects also highlights the considerable impact Gowan had on the partnership’s designs, and, indeed the subtle influence this collaboration had on Stirling’s oeuvre.

This thesis is not a critique of the body of writing that exists relating to Stirling, rather it adds to it by exploring an as yet rarely discussed aspect of his work. By examining his use of colour and texture over the larger part of his oeuvre, layers of continuity within his work are identified, irrespective of any sub-divisions his designs might otherwise conform to. If specific colours identify one group of buildings as being visually different from another, their presence and distribution...
are presented here as a manifestation of Stirling’s developing interests, rather than as a series of decisive breaks in design ethos.

The Structure of the Investigation
The buildings discussed in Chapters One to Four are analysed in chronological order, allowing for a clear understanding of how layers of continuity within Stirling’s oeuvre evolved, and how they were made manifest with changing materials, techniques and commissions. Initially, and perhaps most obviously, discussion centres on Stirling’s use of colour and materials to court controversy, something Mark Crinson has labelled a ‘principle of contrariness’.\(^{53}\) By simply countering expectations, or clashing with established contextual characteristics, Stirling, first with Gowan and then later with Wilford, ensured his buildings were visually prominent and incited comment; establishing him, from an early stage, as an architectural maverick.

An early manifestation of Stirling’s contrariness came, paradoxically, with his and Gowan’s previously mentioned, contextually sympathetic infill housing project in Preston. Constructed when the perceived evils of industrial Victorian England were being eradicated with the demolition of countless rows of terraced brick housing, Stirling and Gowan’s new scheme was built predominantly of red-glazed, industrial engineering bricks. With expectations of contemporary housing calling for overtly modern materials and techniques, this project courted controversy precisely because it lacked an explicitly modern expression. The predominance of traditional, local brick, and its muted red colour, forged obvious visual links with the housing of the surrounding Victorian industrial city, prompting accusations of reactionary, self-indulgent nostalgia.\(^{54}\)

Chapter One discusses the four red brick buildings that followed the Preston project, starting with the Leicester University Engineering Building, which


\(^{54}\) Ibid, 217-237.
confirmed Stirling (and Gowan’s) status as post-war British Modernists. Capitalising on the industrial connotations of red engineering bricks Stirling and Gowan incorporated them in their Leicester building, alongside large amounts of patent glazing, to forge links with its intended function (a place to study engineering) and the city’s industrial past. This decision ensured their design stood out from the neighbouring university buildings, none of which incorporated these materials and colours. What this chapter argues is that the Leicester project offered Stirling opportunities to explore two aspects of design that went on to inform the rest of his work: incongruity through coloured materials and their associations, and architectural reflexivity (an inclination to invite close scrutiny of his built work through the distribution of materials, colours and textures). Recognising the industrial associations that mass-produced glass and glazed red brick and tile carried Stirling explored their impact on the non-industrial environments of Oxford and Cambridge Universities, and a north London residential street.

Stirling’s reliance upon incongruity is confirmed in this chapter by the red brick building situated in Camden, North London. This single block of council flats, intended as part of a much larger development, is, as with the other three projects discussed in this chapter, clad predominantly in red bricks and tiles. If, as Wilford argues, the incongruity of these materials and colours can be partially justified at both Cambridge and Oxford by their slightly out-of-town locations, no such defence can be offered here. Built in a heavily developed Victorian/Edwardian residential area, the incorporation of these materials and colours into a block of flats can only really be explained as Stirling’s attempt to ensure his design clashed with the existing environment.

The buildings discussed in Chapter Two illustrate Stirling’s ongoing attempts to engage those who used them with each project’s structural composition.

---

55 The History Faculty Library, Cambridge and the Florey Building, Oxford were both built on what were only partially developed sites, slightly removed from the majority of the university buildings and their respective city centres. Wilford suggested this was a consideration for continuing to use these specific materials. Michael Wilford, interview with the author 9/2/10.
Capitalizing upon opportunities to employ mass-produced, pre-fabricated building systems, Stirling, it is argued, incorporated repetitive colour schemes and textural differences to accentuate the production-line procedures involved. This does not indicate that he had lost interest in exploring how incongruity might give impact to his architecture, but rather that these developments did not offer the same opportunities as those discussed in Chapter One. However, because neither of the projects discussed here were built in isolated areas (the Southgate Housing Estate in Runcorn was the seventh estate to be built as part of a new town development in the north-west of England and the Olivetti Training School, Haslemere an extension to a nineteenth-century manor house surrounded by dense woodland), it can be argued that Stirling had some context from which to respond, as Tony Aldous’s contemporary review of the entire Runcorn development reveals.\textsuperscript{56} Recognizing the significance of the neighbouring and much older Halton village, Aldous suggests the size and colour of The Brow (one of the nine estates that made up the Runcorn New Town) was kept deliberately subdued. This is precisely why even in this location Stirling’s design might still be described as visually arresting.

In both the Runcorn and Haslemere projects Stirling took what little opportunity there was to give his buildings maximum visual impact. For the Runcorn development he was required to work to a detailed brief which called for quickly built, high-density accommodation on a restricted budget. The use of pre-fabricated building systems seemed an obvious solution, and one that allowed him to employ different colours and materials – plastic and concrete - to further raise the profile of his work by testing the parameters of traditional housing. Because the Olivetti Training School was largely hidden in a dip and surrounded by trees and bushes, he was able to use the site’s difficult access to justify the continued use of pre-fabricated plastic panelling. Inspired, in part, by Olivetti’s products he built a shiny, all-plastic building that clashed dramatically with its much older host; the repeating colour scheme once again making a feature of the production-line processes involved in its construction.

There is evidence to suggest Stirling not only courted a reputation as an architectural maverick, but perpetuated it when the opportunities arose. In a speech delivered to the Carnegie Mellon University, Pittsburgh, in 1974, he talked of the battle he had with the local planning authority for the external colour scheme of the Olivetti Training School, and how, after seventeen rejections, he was forced to accept their somewhat muted preference.\textsuperscript{57} The scale of this disagreement with the planning authorities was later referred to, unchallenged, in the Channel Five television documentary ‘Modern British Architects’, aired in 2000,\textsuperscript{58} and further enhanced by Anthony Vidler whose account suggests there were, in fact, nineteen rejections before the final colour scheme was agreed.\textsuperscript{59} In reality only five such applications were made before the sixth and final one was accepted.\textsuperscript{60} Although the essence of the exaggeration remains pertinent - Stirling’s bright colour schemes were rejected for a considerably more subdued combination - it does illustrate how his willingness to seize any opportunity to enhance his profile has subsequently shaped his reputation.

The multi-coloured projects discussed in Chapters Three and Four are visually very different from those in the earlier chapters, but they represent a continuation of themes that pre-date the Leicester project. These are a demonstrable awareness of, and sensitivity towards context, combined with a concerted effort to cater for those using each building. In addition, and perhaps paradoxically, Chapter Three’s analysis of the flamboyant colour schemes of the Wissenschaftszentrum, Berlin (1979-87); the Clore Gallery, London (1980-86); and Number One Poultry, London (1986-97), proposes that while Stirling relied on form to establish identifiable links with each building’s immediate location, he continued to exploit the benefits of visually arresting architecture through his use of colour. And, pursuing lines of enquiry opened in Chapters One and Two, it will be argued that Stirling relied on

\begin{itemize}
  \item \textsuperscript{57} CCA file no. AP140.S2.SS4.D7.P1, 18.
  \item \textsuperscript{58} ‘Modern British Architects’ Producer/Director Amanda Murphy, Uden Associates, Channel 5, 2000.
  \item \textsuperscript{59} Vidler, \textit{James Frazer Stirling}, 146.
  \item \textsuperscript{60} Waverley Borough Council file no. 83/69G.
\end{itemize}
increasingly varied combination of textures and coloured veneers to continue to invite close scrutiny of each building’s structure

Wilford confirms that the contextualism in his and Stirling’s work from the late 1970s onwards was not a new concern, but rather a response to the heavily developed areas surrounding the sites of each individual project.\footnote{Michael Wilford, interview with the author 10/06/2009. The conversation was specifically about his and Stirling’s three museum designs: the Nordrhein-Westfalen Museum, Dusseldorf, the Wallraf-Richartz Museum, Cologne (both unrealized and dating from 1975) and the Neue Staatsgalerie, Stuttgart (1977-83), but it remains relevant to Number One Poultry.} If the buildings at Runcorn and Haslemere display no obvious contextual references, it was, Wilford argues, because there was little urban development to respond to; and the Oxford and Cambridge projects were similarly situated in less developed areas, away from the majority of historic colleges. Where urban development had been dense his and Stirling’s designs, he suggests, explicitly referenced the established surroundings. Consequently contextual sympathy in Stirling’s later buildings is here presented as a re-emergence of a design concern rooted in his and Gowan’s collaborations, and not as a decisive break in working practice.

Chapter Four continues to explore the themes of visual incongruity, contextual awareness, and what has been described here as architectural reflexivity, but focuses on Stirling’s increasingly flamboyant use of colour, from the late 1970s onwards, to enhance the experience of his buildings. Linking the projects that immediately followed his and Gowan’s Preston housing scheme is a recognisable degree of what might be described as techno-centricity; that is, a domineering display of constructional techniques and modern materials that show a dwindling regard for the psychological wellbeing of those using these buildings. From the late 1970s, however, Stirling took steps to remedy the situation.

Concentrating specifically on the polychromatic Neue Staatsgalerie, Stuttgart (1977-83),\footnote{This project was the third design for a museum in Germany by Stirling, Wilford and Associates, the other two being the Nordrhein-Westfalen Museum, Dusseldorf and the Wallraf-Richartz} but also drawing on those buildings discussed in Chapter Three, this
chapter investigates Stirling’s increasing awareness of the need to cater for the individual experience in his buildings, and establishes how colour, texture, and materiality combine to deliver visually arresting buildings with a significant degree of anthropocentricity. Symbols of mechanization and industrialisation give way to combinations of colour and texture designed to deal with what Wilford describes as the ‘issue of delight’. As with many of Stirling’s buildings, both colour and texture are employed to assist circulation, but in those projects from the late 1970s onwards, these elements are also used to encourage socializing and create an interactive interest in the physicality of the immediate environment, ensuring these buildings were ‘a joy to enter and to be in’. To these ends Stirling relied increasingly on both the presence of nature (shrubbery and trees) and the effects of time. That such a discussion is largely confined to this chapter and his buildings from the late 1970s onwards does not, however, imply new territory for Stirling. If, in some instances, his concern for a building’s inhabitants is seemingly kept to a minimum, its presence is clearly evident in the housing design at Preston, reinforcing notions of continuity within his oeuvre.

The final chapter differs from the others in that it deals with the application and presence of colour in Stirling’s drawn work from the late 1970s onwards, specifically those presentation drawings made available to an audience beyond him and his team. Capitalising on advances in colour reproduction in print media, and recognising the potential that exhibitions and a growing circulation of colour publications had to reach larger audiences, Stirling, reserving the colouring process for himself, produced increasingly colourful images, giving emphasis to his personal contribution. Because he was so possessive about this aspect of his drawing, a detailed examination of his use of colour, composition, and technique, in

two dimensions will, it is argued, reinforce the propositions made in Chapters One to Four. Just as Stirling employed colour in his buildings to invite close scrutiny and direct those who used them in and through each structure, so too can its application and distribution in these drawings be seen to hold the viewer’s gaze and invite them to explore the very makeup of each image. As a result, greater consideration is given to both architecture and architect in a comparable manner to that of his realised buildings?

Drawn to scale these images remain accurate architectural compositions, however, their displays of colour and their potential to be used as promotional material establishes them as different from the many working drawings each project instigated. This, then, is not a discussion of the use of drawings in the design process of any one project. Indeed, it cannot be as many of the images discussed were drawn and/or coloured long after the projects depicted were built or rejected. Rather, it is an exploration of how Stirling’s deeply personal application of colour to drawings intended for display and/or publication, and that Stirling knew had the potential to attract a growing audience, might shed light on its presence in his built work. As such, these images might be considered a sub-genre in themselves, defined by the intricate and painstaking application of colour obsessively undertaken by Stirling alone. That such a discussion is reserved for the final chapter does not indicate a lack of relevance, or render it an appendix to the main body of this thesis.

Exploring Stirling’s motivations through his drawings has been proposed and investigated before. In Kersten Geers’s appraisal of the catalogue that accompanied Stirling’s 1974 exhibition of drawings at the Heinz Gallery, London, he argues (quoting Reyner Banham) that the sparse black and white line drawings ‘reveal the man by denying him’. Precisely because Stirling kept his personality out of these images (Geers suggests) we are able to gain greater insight into his design ethos.

---

65 Laurence Bain confirms that this was the case in a letter to the author, 27/5/2010.
Indeed, it is implied that the absence of colour in these black and white drawings avoids ‘the contamination of a confrontation with reality’. This might be true to an extent, but when one considers that Stirling refused to let anyone else colour these images, regardless of who actually drew their outlines, one can only wonder why Geers did not feel compelled to explore this element of his two-dimensional work.

Translating Stirling’s use of colour inevitably draws upon personal interpretation, but it is supported by a considerable body of primary material taken from the Stirling/Wilford fonds at the Canadian Centre for Architecture, and the archives at the Universities of Leicester, Cambridge, and Queen’s College, Oxford. A similarly valuable source of primary material has been found in the archives of the Runcorn Housing Office, Waverley Borough Council, Camden Planning Office, Westminster Council Planning Office and the Tate Gallery Archive. Analysing his buildings, drawings, sketches, letters and notes ensures any reading of colour is based as much as is possible upon the evidence he left, and by discussions held with those who worked closest to him: his business partners, James Gowan and Michael Wilford; his associates, Laurence Bain, Russell Bevington and assistant Malcolm Higgs; and, of course, his widow Mary Stirling. This thesis is also heavily reliant upon contemporary reviews of his work as they too give insight into how, in terms of colour, his buildings were received at the time of their completion.

In all but a few cases the author has visited the buildings discussed in this thesis. In those instances where a building has been demolished, or its colour scheme significantly altered, analysis has relied upon contemporaneous coloured images found in archives and publications. Limitations in the printing techniques used, however, render these images less than accurate and this has been taken into consideration.

---

67 Ibid. 118.
Ill.0.1 Stirling & Gowan, Preston Housing, 1957-61, view of four-storey flats.

Ill.0.2 Theo van Doesburg & Cornelis van Eesteren, Contra-Construction, 1923.

Ill.0.3 James Gowan, House Study, 1957.
Ill.0.4 Gerrit Rietveld, Schröder House, Utrecht, 1924.

Ill.0.5 James Stirling, House for an Architect, 1949, model for student project.

Ill.0.7 Le Corbusier, Villa Stein, Garches, 1927.

Ill.0.8 Le Corbusier, Villa Savoye, Poissy, 1931.

Ill.0.9 Le Corbusier, Maisons Jaoul, 1955.
Chapter One

Stirling’s Four ‘Red’ Buildings

When exploring the role of colour in Stirling’s ‘red’ architecture it is important to include, alongside the Engineering Building, Leicester University (1959-63), the History Faculty Library, Cambridge University (1963-67), and the Florey Building, Oxford University (1966-71), the rarely discussed council flats in Camden, London (1963-68), as they too incorporate large amounts of almost identical materials - namely red tiles and bricks, glass, and exposed concrete and metalwork. Much has been written about the three university buildings, describing them as a series and focusing on their similarities;¹ but these similarities are given added prominence only when the Camden flats are omitted from consideration.² The fact remains, however, that this block of flats was constructed at almost exactly the same time as the History Faculty Library and incorporated a great deal of similarly coloured materials, but to contrasting effects.

Taking his cue from his and James Gowan’s work at Leicester, which came almost ten years before the Florey building (the last in this group) was completed, this chapter suggests that Stirling used the Engineering Building simultaneously as a form of inspiration and a point of departure for his next three red brick buildings. For while these subsequent structures continued the traditional Modernist doctrine

² An example of how omitting the Camden project allows for a very different reading of this group of buildings can be found in Kenneth Frampton’s article which describes the three remaining red brick buildings as ‘an architecture of literal transparency’. One only has to walk around the Camden council flats to see how inappropriate this description would have been had this building been included. Kenneth Frampton, ‘Stirling’s Buildings’, Architectural Forum, Vol. 128-129, (Nov. 1968), 45.
of overtly incorporating new methods and materials (Stirling’s use of modern adhesives for large scale tile-cladding and the mass-produced glass-curtain walls at Cambridge and Oxford are obvious examples), and ensuring function defined form, they displayed none of the regional sympathies that contributed to the Engineering Building’s appearance.\(^3\) Freeing himself from provincial associations, but persevering with colours and materials synonymous with industry, Stirling was able to explore the relationship between a building’s outward appearance and its immediate surroundings. By drawing attention to the superficiality of veneers, and varying the proportions of glass, concrete, and brick in relation to one another, he invited a much closer, sometimes tactile scrutiny of each building’s physical makeup. The argument here establishes the Engineering Building not as an original to which the other three pay homage, but as an early manifestation of design concerns that helped shape the subsequent three red brick projects and, indeed, all the buildings discussed in this thesis.

Persevering with traditionally industrial colours and materials in the three ‘red’ projects that followed Leicester, at a time when modern materials and brighter colour-schemes were becoming commonplace in many aspects of contemporary design, ensured Stirling afforded his buildings added prominence. By 1959, the year Stirling and Gowan began work on the Leicester project, Britain was entering a new consumer-driven era.\(^4\) National production was growing constantly\(^5\) and for the ten years between 1951 and 1961 average weekly earnings almost doubled.\(^6\) Independent television, launched in 1955, fuelled the urge to spend with its catchy

---

\(^3\) Stirling and Gowan had incorporated large amounts of regional materials and colours in previous designs, the flats at Ham Common, London and the infill housing at Preston being two obvious examples. However, Stirling had been interested in this aspect of colour as early as 1952 as is evident in his design for Poole Technical College.


\(^5\) Figures for 1951-64 show that total production was up by 40%. John Hill, *Sex, Class and Realism - British Cinema 1956-63*, (London: 1986), 5.

\(^6\) This relates to the weekly wage for men over the age of twenty one. Arthur Marwick, ‘Room at the Top, Saturday Night and Sunday Morning and the Cultural Revolution in Britain’, *Journal of Contemporary History*, Vol.19 No.1, (Jan. 1984), 129.
new advertising slogans and jingles. New universities emerged and expanded at an unprecedented rate to accommodate the further education of the growing number of students, and by the time Stirling started work on the History Faculty Library (1963), Britain, and specifically London, was well on the way to becoming the ‘swinging’ Capital of the world. Intense colours and modern materials were commonplace: PVC and Crimplene clothes, courtesy of Mary Quant, were regularly advertised in full colour in the newly circulated Sunday colour supplements, while interior designers brought modernity into contemporary living with brightly coloured plastic furniture. Technological developments and modern industrial processes attracted painters, sculptors and architects alike, offering them opportunities to work with new materials and brighter colours.

Architecture too played its part in this future-minded culture. In 1962, the GPO Tower (1956-62, Ministry of Public Buildings and Works), was opened, the tallest and arguably most futuristic building in London at that time. Modern plastics were increasingly being suggested as alternative building materials (see Chapter Two), prompting a surge in designs for a more temporary, expendable architecture. This is most obvious in the designs of Archigram and their ‘Living City’ exhibition in

---

7 Ibid. 29, the impact and influence of television on the British public must not be underestimated. By 1961, 75% of all families had a TV set, 95% of which received both ITV and BBC.
8 From 1960 to 1970 the number of universities increased from 22 to 46 with the student population following suit from 100,000 to 220,000 (approximate figures). Tony Birks, Building the New Universities, (Newton Abbot: 1972), 9.
9 Culturally Britain, and particularly London, was fast gaining a strong profile during this period. Artist David Hockney sold out in New York on his opening day in 1964 (Booker, The Neophiliacs, 224), and on February 24th 1965 ‘London: The New Scene’ opened at the Walker Art Gallery, Minneapolis, internationally establishing the Capital as a centre for modernity. David Mellor, The Sixties Art Scene in London, (London: 1993), 219.
10 The first colour supplement to go on sale accompanied the Sunday Times on February 4th 1962 with the Observer’s version following a little over two years later. Booker, The Neophiliacs, 21.
11 Theo Crosby, ‘International Union of Architects Congress Buildings, South Bank, London’, Architectural Design, Vol.13, (Nov.1961), 484-506. The theme of this exhibition was the influence of new materials and techniques on architecture and attempted to bring together the work of architects, sculptors and painters alike. Exhibitors included influential figures such as Paolozzi, Turnbull, Crosby and Caro.
1963, but it also influenced the designs of other architects such as Cedric Price, whose un-realized ‘Fun Palace’ Camden (1967) allowed for ‘rapid and inexpensive alterations and additions’ to his ‘sufficiently temporary’ development. Modernity, for some, also meant expandability. Buildings, such as the Northwich Park Hospital, London (Weeks, Llewellyn-Davies, 1961-70) and the Hostel for Caius College, Cambridge (L. Martin, C. St. John-Wilson and P. Hodgkinson) were designed to be extended and enlarged without interruption.

Despite the polychromatic euphoria and technological breakthroughs that characterised the 1950s and 1960s, Stirling, working with Wilford as Senior Assistant and, from 1965 as Associate Partner, continued to employ large amounts of muted, mineral-red tiles and bricks, glass, and exposed concrete in his designs. The result was that his buildings became increasingly incongruous, further establishing both him and his work as nonconformist. Key to this proposition is the fact that in none of the four buildings discussed in this chapter were the architects requested to use either engineering bricks or red brick and tile. Indeed, their use at the Leicester site came at the architects’ suggestion and was, in part, a result of red engineering bricks having been used for their traditionally industrial associations at Stirling and Gowan’s Preston housing scheme (1957-61).

It is not that Stirling was unaware of, or unwilling to consider, contemporary developments, both in and out of the world of architecture. His involvement with

---

15 A letter dated 3/10/75 from the Bursar of All Souls College, relating to the design of the Florey building, illustrates the mixed feelings these buildings aroused. The letter states, ‘Stirling’s fundamental object was to erect a building of an eye catching and unusual design, and he had practically no interest in the extent to which his building would serve the functional needs of his clients.’ Queens College Archives, Oxford University, file no. FB 1788.
16 The only stipulation for the outward appearance of the Leicester Engineering Building was that all startling colours should be avoided to allow the greens and browns of neighbouring Victoria Park to predominate. Jack Simmons, *New University*, (Leicester: 1958), 186.
17 When James Gowan was asked by the author if this particular colour had any specific relevance to himself and Stirling, he replied ‘links with industrial buildings’. James Gowan, letter to the author, 5 March 2008. James Gowan, letter to the author, 5 March 2008.
the Independent Group in the early 1950s, and his contributions to exhibitions such as ‘Tomorrow’s Furniture’ (ICA, 1952)\(^\text{18}\) and ‘This Is Tomorrow’ (Whitechapel Gallery, 1956),\(^\text{19}\) suggest he would have been fully conversant with emerging cultural trends. When one considers his experiments with pre-fabricated, repetitive building systems that began in 1964 with his student accommodation block at Saint Andrews University (1964-68 see Chapter Two), the indication is that he was more than willing to embrace and display new ideas and technology when he felt it appropriate. What is being proposed, then, is that these four buildings mark an early stage in Stirling’s career-long exploration of the impact of employing familiar materials and colours in un-familiar places.\(^\text{20}\) They also reflect his on-going efforts to establish himself and his work as independent from contemporary architectural trends.\(^\text{21}\)

Despite the similarities in colour and texture that link the four buildings discussed in this chapter, they are not presented here as an isolated group, or series, within Stirling’s oeuvre. For while he used these projects to test the parameters of this particular colour scheme, what he learnt here will be shown to have heavily influenced many of his later projects, from the first phase of the Southgate Housing Estate in Runcorn, 1967-72 (see Chapter Two) through to his final designs discussed in Chapter Four.

Finally, attention must be drawn to the common ground uniting the buildings at Leicester, Cambridge and Oxford, namely their links with universities. While they do indeed share this association, it is an aspect that must not be overplayed; yes they are all linked to universities, but their intended functions were really quite

---

\(^\text{19}\) Ibid, 85.
\(^\text{20}\) These four buildings do not represent the full range of Stirling’s engineering-brick projects, his and Gowan’s Old People’s Home, Greenwich (1959-63) was constructed in the blue variety. It should also be made clear that the use of coloured engineering brick as a feature was not uncommon. Adverts extolled their value, commenting on their texture, durability, and the contrast they offer when combined with other materials.
\(^\text{21}\) Michael Wilford states he heard Stirling explain that having had the opportunity to use these materials at Leicester he felt ‘it was interesting to explore how the same materials could be used in other ways’. Interview with the author 15/5/08.
different. The Engineering Building and the Library were places of education, but as a residential block, the Florey had more in common with the flats in Camden. It is suggested that Stirling used these specific colours in Cambridge and Oxford to ensure his designs stood out from their surroundings, but the presence of traditionally industrial materials in such environments should not be interpreted as an attempt to give the ‘red brick’ universities of the north a presence in these historic settings. Stirling was certainly conscious of the northern industrial precedent he and Gowan had set with these materials as early as their housing scheme at Preston, but there is little evidence to suggest Stirling had any social axes to grind (even if he himself did attend a regional university).

Leicester University Engineering Building (1959-63)

Stirling and Gowan’s Engineering Building at Leicester University is a structure full of visual ambiguities and contradictions; what is seen at a distance is not always what is revealed at close quarters. To fully understand its appearance it must be contextualised historically as well as analysed as a display of visual duplicity. The rebuilding of post-war Britain should have brought about opportunities for Stirling and his peers to realize the utopian dreams of the pre-war Modernists. Le Corbusier’s early call for ‘Whitewash and Diogenes’ had signalled a desire amongst many to work towards a new clean and efficient goal, a slick architecture of technology, of a machine aesthetic, a wholly modern approach to design. However, the post-war world in which Stirling and Gowan found themselves offered little of the optimism of the inter-war years, as Stirling explained some years later:

---


24 Le Corbusier’s remarks, made in 1925 in response to the over-use of colour in architecture, should not be interpreted as a desire to reduce everything to white. His often contradictory comments concerning colour disguise the underlying intention to develop an architecture that promoted cleanliness and efficiency, not an absence of colour per se.
It seems to me that in the twenties and thirties, Corb, the Constructivists, Futurists, etc., had an intense vision of a society which was about to arrive and, now that it has come, we are all somewhat disillusioned. In the West we have the Affluent Society, and in the East, Communism. In neither case is this at all the Utopian way of life envisaged by the pioneers of the modern movement.\(^\text{25}\)

The one event that could, and should, have brought about opportunities to evolve the pioneering ideals of the modern movement into something more relevant to 1950s Britain, namely the Festival of Britain in 1951, left Stirling and many of his peers disappointed and disillusioned. Instead of resolving their loss of direction, and despite a conspicuously colourful range of attractions,\(^\text{26}\) the Festival offered up a mixture of bland ‘International Style’ designs that Stirling described as ‘…a nasty experience, finickity, decorative and inconsequential’.\(^\text{27}\) Britain’s role as a driving force in the post-war world was not asserted by any actions so much as assumed by ‘divine right’, a rosy coloured view of the future based on a blinkered interpretation of a fading past. If British Modernism was to evolve into a design ethic of social consequence then, for Stirling and Gowan at least, it needed to move away from the luxurious, private ‘white villas’ of pre-war Europe and address the real issues of limited budgets and large scale public buildings.\(^\text{28}\)

For some, this evolution, through necessity, would have to adopt stronger regional connections, taking account of local climate, materials and social requirements.\(^\text{29}\) This was not just because building materials were limited and transporting them

---

\(^\text{25}\) University of Leicester Archive, file ref. EST/BUI/ENG/13/8, taken from Stirling’s second draft of his RIBA speech which had been sent to the University’s Registrar on 22/4/1965. It also appears in the published version as an answer to a question – see Robert Maxwell, *James Stirling - Writings on Architecture*, (Milan: 1998), 106.

\(^\text{26}\) M. Banham, and B. Hillier, (Eds.) *A Tonic to the Nation, the Festival of Britain 1951*, (London: 1976). The bright colours of the festival are commented on throughout this book but were perhaps best summed up by Dylan Thomas who wrote, ‘Perhaps you’ll think I’m shovelling the colour on too thickly; that I am, as it were, speaking under the influence of strong pink. (And what a lot of pink-rose, raspberry, strawberry, peach, flesh, blush, lobster, salmon, tally-ho-there is, plastered and doodled all over this four-acre gay and soon-to-be-gone Festival City…)’, 12.

\(^\text{27}\) Maxwell, *James Stirling*, 90. This article was originally published in *RIBA Journal*, (May 1965), 31-40.

\(^\text{28}\) Ibid, 90-91.

expensive. If architects wanted to create a clearly comprehensible and monumental architecture they would have to rely upon an existing architectural idiom. Buildings would need to forge some links with their location if they were to avoid complete disparity. Stirling claims to have recognized the inappropriateness of smooth, white rendering to British architecture, both aesthetically and practically, as early as 1952, believing brick to be a more practical and economically viable material; a belief that, to a large extent, influenced the appearance of the Leicester project.

The Engineering Building was a bespoke structure intended to house the next generation of students charged with developing the cutting edge of Britain’s engineering industry. Having increased its full-time student population almost ten-fold (from just 84 in 1944-45 to 764 in 1951-52) this building was the latest development in the rapidly expanding University of Leicester. As part of the massive surge in university development that took place in Britain over the following ten years, this project afforded Stirling and Gowan the opportunity to showcase their work on a grand scale. If they had anything to say about the position of post-war British architecture, this was as good a place to say it as any.

Stirling and Gowan were initially recommended for the job in 1959 by Leslie Martin, who had been impressed by their design for the new Churchill College, Cambridge the previous year, despite it being rejected. Their response to Martin’s brief for Leicester was an efficient and logical design that answered all requirements. As a combined development it was easily read with each clearly identifiable element situated around a central circulation core. These elements: lecture theatres, entrance halls, offices, laboratories and workshops, all have their

---

30 Maxwell, *James Stirling*, 91. Stirling’s claim, relating to his 1952 design for the Poole Technical College, was made in a paper given at the RIBA on 23 February, 1965.
31 Jack Simmons, *New University*, (Leicester: 1958), 139.
32 ‘The University in the City’, *Architectural Review*, Vol.136 No.809, (July1964), 9-11. This article describes the expansion of universities in Britain as being ‘somewhat similar to, and perhaps as exciting as, the cathedral movement of the 12th century or the New Towns programme after the Second World War’. Although written a year after the completion of the Engineering Building, it does give some indication of how important such a commission would have been to any architectural firm.
own individual geometry, a combination of interlocking planes and surfaces (Ill.1.1). Their exteriors left sleek, sharp and efficiently self-cleaning in Leicester’s damp and dirty climate; and although not dazzlingly white it represented a real manifestation of the Modernist machine aesthetic. 33

The red brick and tile surfaces, and large amounts of patent glazing in the Leicester Engineering Building were, in part, employed by Stirling and Gowan for their ‘smooth and reflective’ qualities, which, especially in photographs, appeared ‘light and airy’. 34 Taking the centuries-old technology of brick the architects created a modern architecture of taut, abstract, and seemingly weightless planes that announce the formal integrity of each element. These materials and colours, however, were also chosen by Stirling and Gowan for their industrial associations. By using bricks, conventionally a structural building unit, as a veneer greater emphasis was given to their representational powers which, in combination with the matching red tiles, render the building a paradox. Fundamentally modern in design the surface colours and textures, like those at their earlier Preston project, intrinsically link the building to a local, industrial past. The formal arrangement of parts: office tower over-looking the adjoining workshop, complete with ‘saw-tooth’ roof to capture the north-light – synonymous with traditional, pre-war factory designs -confirm the connection. (Ill.1.2)

If moving forward for Stirling and Gowan meant building on the past, it did not, however, mean re-building the past. There was no mock or pastiche here but rather a reference to, or a link with, what had gone before. 35 Of course any decision to use

34 James Gowan, letter to the author, 5 March 2008.
35 Leicester University Archive file ref. EST/BUI/ENG/13/5. Unsurprisingly the final look of the building owed a certain amount to the clients themselves. In a letter, dated 16/11/1969 from E.W. Parkes to James Gowan, (contained within this file) Parkes complains that two free standing chimneys that had originally been incorporated into the design were ‘not a common feature of modern engineering works’ and that he would rather they were omitted ‘to avoid giving the rest of
regional materials could be interpreted as pragmatism driven by economic concerns.
In a period when building materials were still limited and budgets low, nailing one’s colours to the regional mast and incorporating traditional building methods could be a cost effective decision that meant the difference between a design staying on the drawing board or not. Paradoxically, however, regional references for Stirling and Gowan did not always mean sourcing materials locally. In fact the architects’ colour specifications meant a great deal of the required materials had to be imported from abroad (an expense offset by using cheaper materials in the workshop interior). In order to find suitable tiles that matched the architects’ choice of red brick, their assistant, Malcolm Higgs, was sent to Holland, while the glass for the workshop roof was imported Belgium White Glass whose uncoloured transparency was preferred to the light-green tinge of British glass.

Regionalism, however, did not mean blending in or going un-noticed. For Stirling and Gowan dialogue with a location’s past did not prohibit them from creating something visually arresting while cleverly adhering to Martin’s original brief, which, as previously mentioned, only requested that all startling colours be avoided. Pre-empting Stirling’s future reliance upon visual incongruity to afford his architecture an added presence (a theme discussed throughout this thesis), the red brick and tile exterior that referenced Leicester’s industrial past had little in common with the existing university buildings. The oldest neighbour was a former Georgian asylum whose façade comprised a local buff brick with mottled patches of the university the idea that the ‘dark satanic mills’ have come amongst them’. The implication of such discussions is that both parties were aware of references to Leicester’s industrial past and that any such references had to be made with consideration.

---

38 Letter to the author from Malcolm Higgs, dated 9/6/07. Higgs refutes the claim that the Dutch tiles were chosen only for their colour match and explains it was actually for their dove-tail ribbing on the back, a design aspect that ensured they would stay fixed to the walls. However, the fact remains that while this practical consideration was primary, the tiles had to match the brickwork.
40 See footnote 16.
pale pink with the newly developed parts of the university, completed just before Stirling and Gowan’s project, to its north. The Engineering Building was situated to the east of these recent additions, geographically removing it from the hub of the campus (Ill. 1.3). Those buildings closest to the Engineering block were late Victorian structures with pitched, slate roofs and constructed in a warm, mottled yellow brick (Ill. 1.4).

This first stage of the university’s expansion followed Martin’s original and overtly Modern plan, and comprised low-rise rectangular blocks built predominantly of brick bases and large expanses of glass walls. Arranged either side of a series of terraced piazzas that accommodate the sloping site, these newer buildings, wherever possible, incorporated a local, soft yellow-ochre brick that Stirling and Gowan’s later choice of materials would clash with, further separating this part of the development from the Engineering Building (Ill. 1.5). In comparison, their building had more in common with the old, red brick grammar school next door - an industrial looking structure with a long, low-lying workshop and a single tall brick chimney at one end - than it did with any other part of the university.

It is important to recognize that opportunities to assert the presence of the Engineering Building were offered up as much by the limitations of the client’s brief as they were by Stirling’s and Gowan’s personal ambitions. Presented with a relatively small area on which to build, hemmed in on one side by Victoria Park and another by the aforementioned grammar school, the architects had little choice other than to build upwards, despite Martin’s requests. The client’s need for a raised

---

41 Simmons, New University, gives a detailed account of the development of the University of Leicester.
42 Leicester University Archive files ref. ULA/AD/D5/11 Report on the Proposed Layout of Buildings for the University College of Leicester, Jan. 1957, by Leslie Martin. On page 4 of this report Martin is quite specific about the bricks to be used explaining ‘The question of the relationship of the new buildings to the existing buildings has been carefully considered. It is thought that a Leicester brick would give an appropriate colour and would provide a character which the new buildings would share with other buildings in the area’.
43 Ibid. 2. Martin stated that ‘a very considerable effort has been made to keep down the heights of buildings. This has been thought desirable for two reasons: first, in order to interfere as little as
water tank to create pressure for any hydraulic work supported this decision, affording Stirling and Gowan the perfect opportunity to design a building that stood out from those around it.

From a distance the building’s dynamic is emphatically vertical, a frozen moment of an upward thrust. The apparent combination of brittle red brick and glass is delicate, crystalline even, while simultaneously being dramatically energetic. Reyner Banham described the overall visual effect as the building seemingly ‘springing apart, with each volume asserting its independence’. The various parts are, indeed, easily identifiable: a laboratory tower faced in layers of red brick and glass, a taller office tower predominantly clad in transparent glass, two red tiled lecture theatres (which sit under these two towers) two slender red service towers behind (one for stairs the other for the lift, the tallest towers in the complex) and a large, low-lying workshop to the east of this grouping, with a crystalline, white glass roof.

The upward thrust of the structure begins with the relationship between the substantial brick plinth and the laboratories, offices and lecture theatres that sit on top. The angled undersides of the latter complement the sloping ramp leading up to the mezzanine entrance hall, drawing the eye upward via opposing diagonal planes (Ill.1.6). The structure’s vertical dynamic is a direct result of covering nearly all the non-glass surfaces in the same muted red, a decision that keeps the squat, protruding lecture theatres intrinsically linked to the structure as a whole. But while such a design decision avoids any disparity of parts when viewed from a distance, up close the change from red brick walls to red tiled surfaces keeps each element subtly separate and easily identifiable (the 95x200mm tiles were laid vertically with flush grouting and all joints aligned while the 213x63mm bricks were laid possible with the existing skyline formed by the fringe of trees which are seen from Victoria Park, and second, because of a desire to retain a human scale in the buildings themselves’.

horizontally with stretcher bonding and deeply recessed pointing). The result is that the red tiled lecture halls, at close quarters, are clearly differentiated from the red brick base and laboratory tower, helping to assert the functionality of the building. What appears as smooth, taut, red planes or skins from a distance becomes a series of differently patterned surfaces as one nears the building. The easy identification of parts is also the result of their recognizable geometric shapes that are, for the most part, separated by substantial areas of transparent patent glazing (deliberately different from the opaque glass roof of the workshops). The propinquity of dense, muted red surfaces, and delicate, intermittently reflective glass emphasizes the inherent differences between the materials (Ill.1.7).

Much of what is assumed at a distance becomes questionable at close quarters, a trait most notable in the architects’ use of exposed concrete in the Engineering Building, and one that becomes a re-occurring characteristic of Stirling’s later work discussed in Chapters Three and Four. The limited amount of warm, grey/buff concrete, combined with vast areas of red brick and tile, illustrates perfectly the architects’ ability to create visual deceptions through the distribution of coloured materials. Instructed to keep exposed concrete to a minimum, Stirling and Gowan confined its external use to just two areas: the pillars under the office and laboratory towers and the collar supporting the white glass roof of the workshops, both load-bearing structural elements with contrasting characteristics.  

---

45 CCA file no. 140-1533. An un-dated pencil sketch of the Engineering Building shows all brickwork as a series of horizontal lines and all tile work as vertical. Gowan has explained that separation was the intention at this early stage. Gowan, letter to the author, 5 March 2008.

46 Leicester University Archives, file ref. EST/BUI/ENG/13/6. In a letter dated 2/12/1965 from Stirling to the University Bursar he explains that all the joint work in the tiled areas has been aligned to allow for the rain to run off unrestricted. This practical reason cannot be ignored but it remains the case that the tiles are unmistakably different from the brickwork, despite the fact the architects went to so much trouble to locate and use only those that matched the colour of the bricks.

The pillars have been kept deliberately thin, too thin almost to offer any substantial support for the vast structure above (or so it appears).\textsuperscript{48} Those supporting the offices do not even connect to the base of the tower but seem to cling on to the sides as if anchoring it to the ground (Ill.1.8). Their slender dimensions are in fact essential to creating the impression that the transparent glass-covered office block above is unexpectedly light. The effect is heightened with colour. By exposing these concrete pillars their grey/buff surfaces visually stand out from the surrounding red tiles, highlighting their emaciated presence. A similar articulation of concrete ‘stalks’ is found in both the interior of the entrance lobby and just outside the opposite doors, where they support the elevated laboratory tower.

It is worth comparing this exposure of concrete to the aforementioned housing scheme at Preston, in which the opposite effect was achieved. In this earlier project the architects used the clash of exposed concrete with red and blue engineering brick to draw attention to the structural role of the over-sized lintels in the seniors’ flats (Ill.1.9). Although Stirling went on record around this time stating ‘the over articulation of columns and floors’ was nothing more than ‘structural exhibitionism’, a flamboyance ‘obsessed with the outer skin and effective in masking the volumetric dimensions of the spaces behind the façade’, his and Gowan’s treatment of exposed concrete in both the Preston project and the Engineering Building suggests that such ‘structural exhibitionism’ was not to be entirely ruled out.\textsuperscript{49}

In contrast to the Engineering Building’s slender pillars, the concrete collar of its workshops is all about weight and mass (Ill.1.10). Sitting below the white angular roof it acts as an interface between glass and brick. If, however, the glass appears delicate and crystalline from a distance (an effect further enhanced at night when it

\textsuperscript{48} Frank Newby, the structural engineer who worked with Stirling and Gowan on this project is quoted as referring to them as ‘just stalks’, J. McKean, G. Bramant and K. Powell, \textit{Pioneering British High-Tech}, (London: 1999), non-paginated.

\textsuperscript{49} James Stirling, ‘The Functional Tradition and Expression’, \textit{Perspecta}, No.6, (1959), 90. This irony is worth noting as it reveals Stirling’s willingness to use any device necessary to create the desired effect, even if it meant contradicting himself.
is lit), at close quarters the over-sized geometry of the roof renders it heavy, solid and substantial. This effect is the calculated result of the architects’ decision to make the entire roof section appear white from the outside. Conforming to the brief’s request for a north-facing roof, Stirling and Gowan disguised this restriction by sandwiching a white fibre-glass layer of diffusion between two layers of glass and ensuring the aluminium blanking panels (that keep out the direct sun from the south) were placed on the inside of the roof. The result, externally, is that the glass looses much of its reflective qualities and the roof appears to be one solid white mass. The propinquity of the spiral staircase housing, the office block and the mezzanine entrance, areas where transparent glass with its intermittent reflections has been used, only adds to this impression (Ill.1.11).

The concrete collar supporting this ‘heavy’ roof structure is, unsurprisingly, substantial; an impression reinforced by the splayed base of the squat brick walls below (Ill.1.12). From close quarters, however, it appears this entire roof structure doesn’t actually sit on these walls at all. Although in reality they do support the collar and in turn the roof, a deliberate and deep recess, at the point where brick meets concrete, creates the impression the two remain separate.

A similar reversal of expectations is repeated as one walks up the ramp to the mezzanine balcony. Viewed from afar, the larger of the two lecture theatres seems to be secured by the glass office tower above; an unlikely balancing act as the enormity of the implied weight of the protruding, red block appears far too great to be anchored by the transparent (and therefore, one assumes, light-weight), offices. What actually supports this cantilevered section is unclear. The transparent glass above suggests a degree of weightlessness and, by implication, a lack of strength, but Stirling and Gowan paradoxically assign the very same material to a seemingly load-bearing structural role below. As if to ensure this visual anomaly is registered,

---

50 A north light was required to protect the delicate machinery inside from direct sunlight. Jacobus, ‘Engineering Building, Leicester University’, 254.
51 Maxwell, James Stirling, 115. Stirling admits to this being the intended visual effect. Eisenman similarly recognizes the incongruities of this balancing act. Eisenman, ‘Real and English’, 25.
the smaller of the two lecture rooms, by contrast, fulfils all our expectations of weight and balance. Resting on the brick plinth, its cantilevered position is secured by the shorter (but apparently heavier) brick and glass laboratory tower (Ill. 1.13).

The tile-cladding that covers the protruding lecture halls means that any assumption made about their weight and mass from a distance has to be reconsidered at close quarters. How thick or thin, heavy or light these lecture theatres are, from the exterior at least, remains indeterminable. And if, from a distance, the entire structure appears to be built upon a substantial brick plinth, entering the building reveals further surprises. This brick base is, in fact, hollow, housing the entrance lobby and cloak rooms; yet to ensure the integrity of its load bearing appearance, the architects covered access doors into the base with a brick ‘skin’, heavy and impractical but visually effective (Ill.1.14).

The easily detected deceits, or illusions, within this building were never, it would seem, meant to go un-noticed, and this, it is argued, is fundamental to the architects’ relationship with those who used it. By drawing attention to each part of the structure through the use of different colours, textures, materials and patterns, Stirling and Gowan invited those who came into contact with the building to explore its physicality (a use of materials and colours continued by Stirling after the end of the partnership with Gowan - see chapters Two to Four). In this respect it is worth comparing the Engineering Building with Basil Spence’s contemporary work at Sussex University (specifically the physics building and Falmer House 1959-1962 Ill.1.15). In these structures Spence combines vast, grey concrete Catalan vaults, raised on sturdy, brick piers to create the impression of immense weight and solidity with a certain amount of tradition, despite its overtly un-regional form. The impression, however, is largely illusory; the vaults are in fact hollow (cleverly accommodating service ducts) and rest on concrete dowels concealed behind the brick face-work.52 The overall structure succeeds in retaining an element of traditional building methods that is left unquestioned. Spence does not invite

---

exploration of his design or offer any explanation of the construction processes involved in the way that Stirling and Gowan do. As a result one is left with an impression of the building rather than a greater understanding of its structure.

The revelation of the Engineering Building’s structure continues internally and is best exemplified in the interior of the tile-clad stair towers that give access to the offices and laboratories. Made up from large in-situ concrete sections, the walls and steps of these circulation routes are left exposed; the latter, through necessity, kept smooth and even, the former, crude and unfinished. Exposed, silver painted pipes, valves and heating systems line the walls, while the adjoining landings are covered with the same red tiles as the exterior, affording this part of the structure a predominantly industrial character (ills.1.16 & 1.17).

Gowan has explained the change between the gloomy, almost claustrophobic windowless stairwell and the much brighter, fenestrated red landings in practical terms, but the contrast also works to create a sense of confinement and release that aids circulation throughout the building. The natural reaction is to move quickly out on to the landings and from there into the adjoining rooms. There is no incentive to linger or relax, and by covering the entire surface of the landings in red tiles (floors, walls and ceilings); these transitional spaces are left in a state of architectural limbo, a form of inter-face between the red exterior, which can be glimpsed through the glazed walls that cover these landings, and the true interior (offices, laboratories and lecture theatres). These latter areas are noticeably different; being much brighter and with pale wood-block floors, they take on a hierarchical position in relation to the rest of the building.

53 Gowan, letter to the author, 5 March 2008. Gowan suggests the use of tiles was ‘for protection and staining reasons’ which the stairwells didn’t need, but this does not explain the colour of tiles chosen or the lack of any paintwork in the stairwells.
54 Care must be taken when analysing the differences between the internal finishes as the clients had certain specifications they expected to be met. In the CCA file no.140-0553, page 2, section E, it specifies the floor of the electrical laboratory be finished in wood block. Other areas were to be completed in dust free finishes. However, covering the landings entirely in red tiles that contrasted greatly with these specifications was the architects’ decision.
Stirling and Gowan’s use of colour and surface texture within the Engineering Building can, to some extent, be seen to draw on Modernist principles dating back to the 1920s. Employing colour ‘in a functional sense, [using] colour-values to express, with the gradation of these values, the potential relations of the spatial organism’ had been considered by many of the inter-war architects. De Stijl painter and designer, Theo Van Doesburg’s claim that ‘[i]n the final analysis it is only the exterior surface which defines architecture, since man does not live within a construction but within an atmosphere which has been established by the exterior surface’, pre-empts much of what Stirling and Gowan achieved at the Leicester site, and they were both aware of his work. But care must be taken when making such specific links as the architects were prepared to draw on a wide range of architectural sources to achieve their goals. If the surfaces of the Leicester Engineering Building call to mind Van Doesburg’s proclamations, they also draw parallels with Finish architect Alvar Aalto whose work was also known to Stirling and Gowan. The exposure of the constructional process, the tactile surfaces and the architectural ambiguities that work to invite closer scrutiny of the Engineering building, all echo much of Aalto’s work, as does the effective use of bold, contrasting colours to promote circulation in and around the structure and to create an easily identifiable hierarchy of spaces (an increasingly obvious feature of Stirling’s later designs and discussed in greater detail in Chapter Four).

Following the dissolution of his partnership with James Gowan in 1963, Stirling, it is argued, continued to explore much of what characterized the Engineering Building, namely designing visually arresting architecture that invited close scrutiny of its architectural effects. Choosing to use the same colours and materials as in the Leicester project – never a pre-requisite of these commissions - and relying

---

55 Wigley, White Walls, Designer Dresses, 320-321. This comment was written by Walter Behrendt in Der Sieg des Neueu Baustils, 1927, in relation to the coloured walls seen at the Stuttgart International Housing Exhibition, of the same year.

56 Ibid, 236 taken from ‘Space, time and Colour’ by Van Doesburg featured in De Stijl 8.

57 One example of Aalto’s use of hierarchical colour would be his Pensions Institute, Helsinki (1952-56). Here, the main entrance lobby was covered in blue and white tiles but the less public area of the staff refectory was finished in a combination of brown, white and beige.
on the industrial associations they carried, but in very different locations, he continued his investigations with the History Faculty Library at Cambridge University (1963-67) and the council flats at 41 Gloucester Avenue, Camden (1963-68).

**History Faculty Library, Cambridge University (1963-67) and Council Flats, 41 Gloucester Avenue, Camden (1963-68)**

Developed simultaneously, these two projects represent opposite extremes of how alternative distributions of the same range of materials and colours influence our understanding of a building’s structure, without diminishing its visual impact. If the library at Cambridge can be described as reducing brickwork to an almost non-structural series of abstract, geometric planes and surfaces, with patent glazing dominating the structure, the flats in Camden reverse this relationship. By incorporating larger quantities of red brick and tile in this north London public housing project, Stirling gave greater emphasis to volumetric weight and solidity. This is not to suggest his designs had become specifically anti-Modern, but rather that his investigations into the use of these colours had yet to run its course.

The use of traditionally industrial materials in non-industrial situations ensured that both the library and the flats avoided anonymity to the same degree. Unlike the Engineering Building, which incorporated colours and materials that referred to the city’s past and the building’s purpose, these two projects (and indeed the one at Oxford), were built in locations free of any industrial links. The implication is that Stirling was either simply not concerned with context or, as is argued here, intent on

---


60 Unfortunately, despite constant searching, no secondary sources of information regarding these flats have been found at all. This, combined with the fact that the local planning office has destroyed nearly all records connected to the structure means analysis of this building must rely upon the author’s interpretations and a small amount of archive material held at the CCA.
exploring colour’s potential to separate and isolate a building; a design philosophy that courted considerable controversy, especially so at Cambridge, and one that shaped much of his later work (see Chapters Three and Four).

The History Faculty Library came into the Stirling and Gowan practice following an invitation to compete for the commission in December 1962. Despite being awarded the project the following spring, the partners separated shortly after, with any remaining commissions being divided between them. Although the split from Gowan was acrimonious, Stirling, it is proposed, continued to develop aspects of his own architecture that had surfaced within the partnership.

Set apart from the majority of the older buildings of this ancient and iconic seat of learning, and to the west of the River Cam, Stirling’s library was part of Casson and Condor’s master-plan for the development of the new Sidgwick site. At the time of design it had few neighbouring buildings with which to integrate: to the east of the site lay some small and irregularly shaped pale buff brick, slate-roofed houses (dated 1875 above the entrance), while to the west, behind a tall, mottled red-brown wall, sat Sir Arthur Bloomfield’s, Tudor-Gothic style, Selwyn College (completed 1882) constructed from old red brick with heavy stone framed, small windows (ills.1.18 & 1.19). Nearest to Stirling’s library, and facing the main reading room, was Hugh Casson’s predominantly glass-walled faculty building (completed 1961) elevated on sturdy, exposed concrete legs that allowed views and access through to the lawn covered courtyard within (ill.1.20).

The design for the library was as individual as any of its neighbours, which is not in itself surprising. Universities had a tradition of employing a variety of architects, offering a mix of styles, as is evident at the Leicester site. Stirling has subsequently claimed he ‘didn’t consider the surrounding context influential’ to his design for the

---

The council flats in Camden were equally incongruous. Given the existing character of the north London street in which they were built, it is hard to accept Wilford’s claim that these materials and colours were used because the buildings in question were situated in less developed areas. The smooth red bricks and tiles used here had no precedent in this residential area which consisted predominantly of Victorian pitched roof houses constructed of a warm, buff London stock brick, and finished in parts with brightly painted white rendering. Stirling’s alternating layers of glass and brick, with a machine-like precision of line made emphatic by the deeply recessed red pointing, fights with the neighbours’ mottled panels of older exposed brick-work, textured and displaced by time and held together with a slap-dash, grey/buff mortar. Even the height of this building contributes to its refusal to integrate. Sitting above the rooftopline of the neighbouring houses just enough to be

66 This point is reinforced when one considers Girouard’s claim that Stirling, on being asked why he designed the library as he did, replied ‘to fuck Casson’. Girouard, Big Jim, 149.
67 Engineering bricks are made of dense clay and left with a smooth, non-porous surface which retards any growth of moss and lichen. The result is that the ageing process that allows new buildings to ‘blend in’ with older ones is restricted considerably. From conversations with John Muller, Project Coordinator at Hanson UK (brick manufacturers) 11/4/08.
68 Girouard, Big Jim, 148.
69 Michael Wilford, interview with the author 9/2/10. Wilford suggested this was a consideration for continuing to use these specific materials.
70 The bricks Stirling used to face these flats with were known as red tapped wire-cut facings and are not actually engineering bricks. Their smooth finish, even colour and extremely sharp edges are, however, all qualities that an engineering brick possesses and Stirling, as an architect, would have been aware of. The tiles were red Wooliscroft tiles, also manufactured in Britain. CCA 2000:0027:1183.
71 CCA 140-0621. Black and white photographs kept by Stirling of this building suggest he was fully aware of this aspect of the bricks’ appearance. In these photographs the deeply recessed joint-work creates strong, dark shadows that highlight each individual brick.
noticed, the smooth, red flats dominate this part of the street, their horizontal bands seemingly forcing their way in between the older buildings, and appearing much bigger and heavier.\textsuperscript{72}

It should be noted that the idiosyncratic appearance of Stirling’s flats in Camden was not unique, either in London or the rest of the country. Like him, many architects sought new and bold ways of approaching the need for cheaper mass housing that addressed modern concerns such as car parking, refuse collection and high density occupancy, as Lasdun’s cluster block in Claredale Street, Bethnal Green (1955-60) testifies.\textsuperscript{73} These tall buildings, partially faced with Portland stone and incorporating small amounts of black brick and mortar, made no obvious attempts to integrate with the surrounding rows of red brick houses, their appearance designed to ‘escape the bureaucratic mould of sameness’.\textsuperscript{74} Indeed, the GLC’s Department of Architecture and Civic Design stated, as part of its departmental philosophy, that their controls would always offer ‘facilities for experiment and the use of new methods and materials’, and to an extent this was born out in much of their work.\textsuperscript{75} Much closer to the Camden site, and a building Stirling would certainly have known, is Ernö Goldfinger’s Flats at Regent Park (1954 \textit{ill.2.23}). Presenting a combination of brushed exposed concrete (that accentuates the aggregate), coarse orange/red bricks, and smooth, pre-cast concrete balcony balustrades, these flats similarly avoided visual integration.\textsuperscript{76}

\textsuperscript{72} The incongruity of this structure remains acute due to its unique status within this street. Although Michael Wilford remembers this building as being a prototype for ten such blocks on either side of the road, he and Stirling were aware that the plan to build more might never be realized. This being the case, they would have recognized how visually striking its presence would be. Interview with the author 15/5/08. An undated but early sketch shows extensions were considered but only along this side of the road. CCA 2000:0027:1183. The fact that the flats in this sketch sit alternately back and forward from one another, in a form of syncopation indicates it pre-dates 24/2/65 when the façade was drawn as being flush.

\textsuperscript{73} Michael Wilford suggests that as the flats at Camden had to address these ‘mid-twentieth century challenges’ they were bound to be formally different from the existing older buildings and visually should reflect this difference. Interview with the author 15/5/08.


Modernity, however, was not considered exclusive to integration, and serious attempts were often taken to combine the two. The Warwick Estate in Westminster (completed 1967 and one of the largest re-development schemes in London at this time) took steps to integrate the five storey blocks with the surrounding re-furbished Victorian houses by covering them with painted stucco. Beyond London, in Andover, Hampshire, the 1968 RIBA Bronze Medal winning Cricketer’s Way Estate incorporated two-storey flat roofed houses constructed in coarsely textured and irregularly coloured brickwork. But visual integration was not confined to cheaper housing. Lasdun’s private flats at Saint James’s Place (1958-60) might have incorporated a plethora of coloured surface materials that had little precedence in this part of London (the cantilevered floor slabs were painted white, other parts covered in thick Baveno grey granite or blue engineering bricks, and soffits finished with white vitreous mosaic) but formally the design attempted to hold dialogue with its neighbours. On the park side of the flats the three large floor slabs were intended to give it the same monumentality as the Bridgewater House situated to the south, while the one-and-a-half storey living rooms introduced a scale comparable with the Victorian buildings to the north.

What these examples suggest is that while Stirling was not alone in creating new and very different buildings that addressed the problems of modern housing, it was his perseverance with red brick and tile that singles him out. Why did he continue to use identifiably industrial materials and colours to cover a block of council flats and a university library? Formally, the two buildings could not be more different. The library is a complex and asymmetrical arrangement of shapes and planes that prove difficult to describe, while the flats are a symmetrical and squat rectilinear block (ills.1.24 & 1.25). The answer lies in his desire to explore the relationship between a building’s outward appearance, its location and those for whom it was intended.

At its most basic level the Cambridge structure consists of an ‘L’ shaped, six-storied, glass-sided block with red brick gable ends. Contained within the internal angle of this block is a vast lean-to glass canopy that covers the main reading room,
while on the outside of the block, and connected by glass-encased landings, are two identical red service towers; one for the stairs the other for the lift. The incorporation of such large areas of mass-produced, lightweight and efficiently self-cleaning patent glazing (comparable to Paxton’s Crystal Palace and Brunel’s Paddington Station, completed 1851 and 1854 respectively) afford this structure a fundamentally Modernist status. And the reflective nature of the glass, combined with the internal silver Venetian blinds, creates a delicate and brittle appearance that constantly changes according to the weather (a characteristic further developed in the Florey Building discussed below).

The flats in Camden present the opposite extreme. Covered predominantly in brick and tile, and with an emphatically horizontal dynamic, they comprise four floors of accommodation dissected by a central stairwell. The front elevation presents deep, consecutive layers of uninterrupted red brick and glass (save for a very narrow brick-faced divide reaching from the central entrance lobby to the roof), and appears sturdy and solid. The flats also echo the smooth, white, horizontal bands of Le Corbusier’s Villa Stein at Garches (1927 Ill.0.7). This is not to suggest the Camden flats were directly influenced by, or represent homage to, the older building. Rather that they can be seen as a response, or reaction, to the more fundamental aspects of the Modernist vocabulary displayed in Le Corbusier’s Villa. The less public, rear elevation was to have a similarly strong horizontal dynamic but was later changed to incorporate extra panels of glass for each apartment. Despite this change Stirling avoided separating the front and back in terms of colour, to ensure a degree of continuity.

77 CCA 2000:0027:1183 drawing no. 3A, dated 4/7/63 suggests the final appearance of these flats altered during the design process. In this drawing one half of the block sits back from the other slightly, creating a definite vertical separation. Had such a lay out been retained and Stirling’s proposal to attach further, identical blocks to either side been granted, a syncopated rhythm to this red structure would have dominated this side of the street. The drawing was amended on 24/2/65 to keep the façade flush either side of the entrance.

78 Stirling had described the Villa Stein as being the ‘standard by which [Corbusier’s] genius is measured against that of the other great architects of this century’. James Stirling, ‘Garches to Jaoul’, Architectural Review, Vol.118, (September 1955), 146.

79 Camden Planning Office TP11899/NE drawing 6A drawing no.6A dated 25/1/1965 shows that, for a period of time at least, the fenestration on the rear of the building was to exactly match that on the front.
Visually, the suggestion in Stirling’s flats is of immense weight, with each floor appearing to press down, with considerable force, upon the one below. This effect is enhanced by the brick bands that sit forward of the windows, creating sloping soffits and sills. It is as if the sheer weight of this structure has forced these thick walls to bulge out over the windows, distancing itself from the typically Modern smooth planes of indeterminate weight that characterise the Cambridge library. Yet Stirling retains an element of ambiguity in these flats that challenges our pre-conceptions of these not uncommon materials. If the bulging layers of brick to the front and rear of the flats establishes a sense of substantial weight and mass, the absence of any load-bearing mullions in the layers of ribbon windows (whose associations with mass production further clash with the neighbouring buildings) suggest otherwise. If it is as heavy as it appears, what holds one floor up above the other?

Signalling the main point of entrance, and marking this elevation out as the principal façade (entry to the rear is by a recessed stairwell), is a substantial concrete canopy entirely covered in red tiles. As with the slab-like canopy at Villa Stein, this is explicitly an addition to the main structure, a fact that ensures the horizontal impact of the façade remains dominant. Detached from the main building it comprises a single, thick horizontal slab held aloft by just one point of contact with the protruding wall that separates the stairs to the flats from the car park ramp (Ill.1.26). The over-stated dimensions of this canopy, and association through colour with the flats themselves, contribute to the overall impression of great weight. And because, paradoxically, it sits above the entrance almost un-aided, its apparent inappropriateness is further highlighted, forcing us to re-consider the nature of the materials used and the architecture itself.

Then end elevations present a significant change of surface appearance with the brickwork changing from smooth, evenly coloured red bricks to an irregular, mottled type known as flettons (Ill.1.27). The transition from one to the other is precise and obvious; the red brick of the front and back, complete with a deep
recessed, red coloured pointing, stops shortly after turning the corners and is replaced with the paler flettons and un-dyed mortar. Stretching the full width of these end elevations are exposed concrete beams that, while clearly marking out the division between each floor level, go a long way to explaining the sloping sills and soffits, and why the bands of glazing apparently sustain the weight of the bricks above. Of course, limiting expensive bricks to the front and rear facades of buildings was not uncommon, and the cheap flettons on the end elevations can be accounted for as preparation for the intended future extensions. That this was standard practice should not negate the display of different materials that were always to have remained visible until the decision to construct more buildings was confirmed. Stirling may have used cheaper materials in these areas but that should not suggest he gave their presence any less consideration. By emphatically announcing the change of brick type and exposing the concrete beams he once again draws attention to the construction processes involved.

The ‘L’ shaped History Faculty library inverts the ratio of materials used in the Camden project. The exterior of the Cambridge building consists predominantly of transparent patent glazing set in a thin aluminium framework. What red brick and tile there is has been kept to a minimum, a combination that toys with our expectations of these materials and further invites exploration. At close quarters the deeply recessed joint-work of the gable-ends accentuates each brick’s sharp edged, brittleness, yet these six-storey walls are surprisingly thin (only two bricks wide as can be seen in Ill.1.28) and of apparently little structural importance. It seems as if it is they that are held in place by the glass rather than the conventional alternative. The same can be said of the brick face-work and paved terrace that seem to rest upon the strip of windows of the submerged reading room. (Ill.1.29). Stirling inverts conventional Modernist thinking giving the transparent glass in this building a

---

80 Close inspection by the author of this building in June 2007 revealed the red pointing was added after the bricks had been laid with un-dyed, sand and cement mortar. This was the process by which colouring joint-work was achieved in British bricklaying at this time. It was not until much later that colouring all of the mortar became common practice. It was standard practice for the colouring of any mortar to remain the decision of the architects and not the builder. Conversations with bricklayer G. T. Farr, 13/4/08.
structural quality comparable to the mezzanine walls and spiral staircase housing that sit under the larger lecture theatre of the Leicester Building. Glass is simultaneously delicate yet apparently load-bearing, seemingly supporting layers of brick that, in turn, become just a series of coloured planes and textured surfaces.

The library’s smooth, un-fenestrated towers, descendants of those at the Engineering Building, appear to perform more of a balancing act rather than offer any structural support. From a distance they seem to signal the main entrance to the library, but in reality do no such thing. The main entrance (there are several others around the complex) is situated to one side of the towers, under a canopy that bears certain similarities to that at Camden, inviting the same speculation regarding its construction. Taking the shape of an inverted ‘L’ this canopy is thick and sturdy, built of reinforced concrete, and entirely covered in red tiles (Ill.1.30). Its only visible means of support comes from a single buttress, also covered in tiles. However, as if to tempt fate and defy all expectations, this buttress does not rest on the ground but connects with the upper-side of yet another canopy covering a second, lower entrance. The considerable weight of this entire structure appears to balance, un-aided, on the edge of the raised terrace, and by covering it in tiles of the same colour as the brick walls, Stirling ensured that while unity was preserved from a distance, separation was guaranteed at close quarters.

If the Engineering Building is raised on an obvious red brick plinth, both the History Faculty Library and the flats at Camden can be seen to erode this aspect of traditional architectural presentation. The library, from some angels at least, appears to emerge from a subterranean base, the main reading room being partially submerged creating a form of dry-moat, or ditch, along its boundary. This dug-out effect is mirrored in the bicycle park that, although set at ground level, is hidden behind a ramped wall faced in concrete flags, a design decision that has considerable impact on the building’s appearance from this approach (Ill.1.31). Obscuring much of the red brickwork behind, this concrete slope prevents the base of this part the structure from establishing itself as an identifiable plinth. Instead,
red brick walls and terraces are left as planes set at various levels, and not always as structural elements. These dugouts, or ditches, remain visually linked to the building as a whole by their red brick surfaces, accentuating the library’s partially subterranean position (Ill. 1.32).

The flats in Camden take this erosion of the plinth to an extreme by reducing it to a negative. Raised above the ground to create a residents’ car park, (accessed via a red tiled ramp from the main entrance) the building rests on numerous squat, exposed concrete pillars, whose sturdy dimensions lack the elegance of Le Corbusier’s pilotis or the Engineering Building’s ‘stalks’. Unlike those at Leicester, these pillars are clearly positioned beneath the elevated apartments, announcing their structural importance. By leaving the concrete underside of the flats uncovered, Stirling replaces the red brick plinth with a monochrome void that enhances the sense of elevated weight, offering insight into the true nature of this structure.

As with the ditches at Cambridge, the retaining walls on either side of this car park are faced with the same red brick used in the rest of the building, ensuring that the largely monochrome, subterranean space remains an integral part of the overall composition. Continuing the pillars above the level of the existing pavement meant Stirling not only avoided total concealment of this part of the structure, but that he also drew attention to the modernity of its intended purpose in this Victorian street: car parking.

---

81 This building has been discussed as being raised upon a brick plinth or podium in a manner not dissimilar to the Leicester project (see Kenneth Frampton, ‘Stirling’s Buildings’, Architectural Forum, Vol. 128-129, (Nov. 1968), 44, and Banham, ‘History Faculty Cambridge’, 329), but doing so ignores the fact that it sits partially submerged, with no evidence of such a plinth when viewed from the south.

82 Michael Wilford justifies the exposure of the subterranean car park as intending to reveal this building to be a modern structure designed for modern living. Interview with author 15/05/2008.

83 Camden Planning Office TP11899/NE drawing 6A, dated 25/1/1965 shows that Stirling had intended this to be the case at design stage.
If Stirling attempted a degree of incongruity in his buildings, he did so without compromising their ability to function efficiently at a practical level, and colour can be seen to play an important role in this aspect of his work. Offering relief from the potential monotony of the large areas of brick and glass at Cambridge, Stirling threaded brilliant-white tubular steel railings that visually ‘jump out’ from their muted red background, their linear delicacy accentuated by the expanse of red brick. Drawing obvious parallels with Aalto’s TB sanatorium, Paimio (1928-33) - which incorporated bright pink handrails to the balconies and blue to the internal stairs to give visual interest to the large areas of white wall - Stirling relied on contrasting colours to simultaneously define the library’s boundaries and highlight circulation routes. This is particularly evident in Ill. 1.33 where the funnel arrangement of the splayed white hand rails invite pedestrians up and on to the red paved terrace. If Stirling chose colours and materials that enabled a separate and unique identity for this building, he also used them to establish the library as a functioning part of the larger campus (an aspect of colour use explored in greater depth in Chapters Three and Four). Thus it becomes a visual anomaly that functionally fits in; students can pass through or over, enter or exit the library without confusion or inconvenience.

A similar claim can be made of the internal colour scheme. The tower containing the stairs, as with the Engineering Building, has all service pipe work exposed. Unlike the earlier project, however, the pipes and walls of the Cambridge stair-tower were all painted white, with the steps tiled in a warm, honey coloured cork. Set against this easy-on-the-eye colour scheme were vibrant, pink tubular steel hand rails that, once again, signal the circulation route through the pale surroundings; in essence a form of practical ornamentation that becomes a regular feature in much of Stirling’s later work.84

The interior of the main reading room is warm in colour and, like the stairwell, less imposing than the brittle, reflective exterior, signalling a very different purpose to

84 These internal handrails have subsequently been painted bright ‘pillar-box’ red.
this part of the structure. Through necessity it was made acoustically absorbent and so colours were made softer too: walls were painted off-white, floor tiles were cork and all furniture veneered in beech. The metal handrails here were kept a muted oatmeal/cream colour, playing down their presence presumably to avoid distracting those who came to study (Ill. 1.34). The glass ceiling of this vast area is actually the inner layer of the double skinned roof that sits within the internal angle of the glass ‘L’ shaped block, and, being made up of the same white diffused glass used at Leicester, acts to soften the harsh glare of direct sunlight in the same way. By placing this layer of white glass on the inside of the roof (and the transparent layer on the outside), Stirling allowed the substantial engineering involved in supporting the two membranes to be readily seen, thereby retaining a visual consistency to the exterior of the building.

The evenly coloured cocoon of the reading room contrasts greatly with the brittle exterior, but the two are not left entirely unconnected. Just past the entrance desk (again, all beech veneered as per Stirling’s design) in the sunken, honey coloured, cork-floored reading room, he allowed the red tiled base of the stair tower to disrupt the visual sanctuary of the interior. The smooth, impenetrable surface of this intruding structure appears hard and uncompromising against the soft tones of this part of the library (Ill. 1.35). It acts as a constant reminder of the industrial associations of the building’s exterior, one that is dramatically reinforced on sunny days when the crisp shadows of the ceiling’s skeletal engineering spread across its white inner-layer.

Returning to an academic environment for the final project in this series, Stirling further explored, in terms of colour and materials, what he and Gowan had begun at Leicester and that he then developed at Cambridge and Camden. Continuing to

---

85 Cambridge University Archives file no.HIST.4/7. Drawings by Stirling numbered 151A & 159 dated Oct. & Nov.1965 respectively show that he intended all desks, benches and file-cards draws to be veneered with beech.

86 Michael Wilford confirms this was the intention. Interview with the author 9/2/2010.
hone his exhibitionist tendencies, he simultaneously invited speculation and investigation into the very makeup of his building.

**The Florey Building, Oxford University (1966-71)**

As with the previous two buildings, the colour scheme of this student accommodation block bears no obvious relation to either its intended purpose or its location. Developed in a period when technological advancements offered greater opportunities for inflatable, expandable and portable building systems (exemplified by the opening of Archigram’s ‘Beyond Architecture’ in February, 1967) Stirling’s steadfast exploration of materials and colours synonymous with northern industrial towns suggests he had not yet satisfied his curiosity.

To some degree, as with the Cambridge and Leicester projects, the Florey building appears overtly Modern. The relationship between the clearly defined, separate parts suggests a development of form evolved from an analysis of function, with volumes and spaces announced through the interaction of suspended surfaces and planes (Ill. 1.36). In terms of surface appearance however, Modernism was not the sole motivation. What is proposed is that this location - a shallow dip on the other side of the Magdalene Bridge to the city, bordered on one side by the tree-lined river Cherwell, and on the other, a random cluster of eighteenth and nineteenth century buildings – afforded Stirling the opportunity to pursue his interests in incongruity and reflexivity through the incorporation of red brick and tile, glass and concrete.

As with the Cambridge and Camden projects the materials and colours that Stirling chose had no precedent or contextual reference in this location. The neighbouring

---

87 Stirling’s involvement with this project actually dates back as far as 22/12/1964 when he attended a building committee meeting to discuss the benefits of the site (he had actually first met the Bursar of Queen’s College on 30/11/64 but this was only an introductory meeting). The considerable delay between these early meetings and the start of building work was caused by the uncertainty of the size of plot to be developed. Queen’s College Archive, file no. FB1778.

88 Mellor, *The Sixties Art Scene in London*, 220.
buildings were small and somewhat chaotically arranged, extended over many decades, with ‘rusty’, mottled, or warm buff coloured brickwork, distorted and displaced with time and topped off with slate pitched roofs (Ill.1.37). The warm sandstone, traditionally associated with the older university buildings, is not so common in this slightly out-of-town location.

From the public side of the building the Florey is predominately covered in smooth, evenly coloured red tiles and comprises three identifiable parts: a main accommodation block, shaped somewhat like five sides of an irregular octagon opening up to the river and fields beyond, and the now familiar twin service towers (Ill.1.38). These two towers (one containing the lift, the other the stairs) were positioned outside of the angular, crescent living quarters to avoid ‘creating an essentially institutional atmosphere in the interior of the building’. 89 Rising above the four-storey accommodation block, and connected to it (and each other) by transparent glass-encased landings, they, like their predecessors at Leicester and Cambridge, have been entirely covered in tiles.

The predominance of smooth, red tiles on this more public elevation, combined with the industrial associations this colour carries, is almost defensive, or at least un-welcoming. Its shape and position, an angular horseshoe with outer-wall to the neighbouring buildings, cloistered ‘courtyard’ to the river, suggests Stirling intended this building to assert its own identity rather than exist as an annexe to the older university, contrary to the client’s brief. 90 The absence of any obvious point of entry allows the building to be presented as a combination of red vertical and horizontal planes that compete with each other for dominance. 91 Each floor overhangs the one below, separated only by the thinnest of windows that run the

---

89 Stirling explained the positioning of these towers in a meeting of the Building Committee on 27/4/65 Queen’s College Archive file no. FB 1778.
90 The brief requested that the design should avoid anything that might allow it to compete with the main college buildings in the city centre, ‘Students Hall of Residence, Queens College, Oxford’, Architectural Review, Vol.152, (November 1972), 260.
91 James Stirling, ‘Stirling Connexions’, Architectural Review, Vol.157, (May 1975), 275. Stirling states these towers were only intended to represent the entrance gate rather than actually marking the point of entry.
full length of the block, and are faced in increasing amounts of red tiles, while the towers lack any fenestration whatsoever. The tiles bring to the surfaces the same appearance of industrial precision as the previously discussed projects, contrasting dramatically with the neighbouring buildings (this is enhanced on sunny days when these older buildings appear warmer, revealing more of their varied inherent textures while the Florey’s smooth and reflective surface seems to become even more brittle and impenetrable).

Access into the cloistered, private side of the building is not, as expected, through the two towers but, as with the library at Cambridge, via a staggered route to one side, a design decision that performs two simultaneous functions. First it allows the shapes of the various parts to be presented un-interrupted, the unifying red veneer bringing the assemblage of shapes together as an ensemble. Second, by forcing those who use the building to almost discover the entrance sequence, Stirling further invites closer investigation of his architecture. The more private side of the accommodation block comprises a glass curtain wall, behind which are situated the students’ rooms, each one fitted with identical silver-coloured roller blinds. The whole block is positioned around what appears to be a red brick ‘stage’ but is actually the roof of a partially-submerged dining room. Unsurprisingly the brittle and reflective nature of these materials clashes with the dense vegetation growing on the river bank opposite (Ill.1.39).

The dramatic change from outer-tiled surface to inner-glass represents the difference in purpose between one side of the building and the other. These are not so much a front and a back, (that would suggest a hierarchy just not present) but a private side of accommodation (all glazed with silver blinds) and a more communal side, predominantly covered in tiles, where the corridors run. Disparity, however, has been avoided by bringing significant amounts of red tiles into this glass-walled

---

92 Stirling’s separate treatment of different sides of the same building picks up on themes hinted at in his and Gowan’s un-realised design for the Selwyn College Accommodation Block at Cambridge University (1959). Here the architects similarly chose to completely cover one side of the building in glass, denoting the actual accommodation rooms, leaving the service towers and communal entrances situated in separate towers constructed on the opposite side.
area, not only on the ‘stage’ but on the end elevations of the block, the outer-wall of the dining room, and on the concrete safety barrier that runs along the edge of the raised courtyard (Ill.1.40).93

In response to the overhanging floors of the outer-wall, the all-glass inner surface reclines to create a form of amphitheatre that looks down on to the all-red enclosure. With each pane of glass (except those in the top floor) tilted back, their reflective qualities are enhanced, exaggerating the prismatic and crystalline effect of the material and ensuring this elevation retains the impenetrability of the outer, more public side. With its potential to reflect on such a large scale this private side is characterised by its permanent state of change, depending on whether or not the silver roller blinds are closed and, indeed, on the weather. On clear summer days the wall of glass panels reflects the blue skies and passing clouds, at other times it becomes a fragmented sheet of greys and whites.

In a country with relatively short periods of uninterrupted sunshine architects cannot rely on shadows to articulate form, something Stirling was aware of.94 His and Gowan’s unrealized Selwyn College project at Cambridge (1959) had addressed this issue by similarly covering the façade entirely in glass set at different angles, with the intention of creating a multi-reflective surface to bring the building to life.95 With the Florey building Stirling was able to realize these plans, leaning the windows back to reflect the sky.96

93 Stirling’s preference for a tile clad barrier, rather than the more traditional tubular steel type, is made clear in a letter dated 17/7/1969 in which the water front and safety rail are discussed. Queen’s College Archive, file no. FB 1782.

94 James Stirling, ‘Garches to Jaoul’, Architectural Review, Vol.118, (September 1955), 150. In a caption accompanying a picture of Le Corbusier’s Villa Stein, Garches, Stirling refers to the advantages ‘white architecture’ has in sunnier climates as well as recognizing how the reflective nature of ‘American glass architecture’ offers similar opportunities to break up an otherwise plane surface.


96 A connection between these two projects can be made via an early, undated sketch of the Florey building that bears striking similarities to the Cambridge design, suggesting Stirling must have at some point considered the correlation himself. CCA file no. AP140.S2.SS1.D.31.P4.2.
The unsettling effect of standing inside this glass-walled amphitheatre is that one is on permanent view from a covert audience. The need for visual relief within this hard and reflective environment is addressed by a single, tall, grey air-vent for the breakfast room situated below. Doubling as a weathervane with a large, bright green circle painted within its rotating arm, it acts as a point of focus as one enters, or looks down upon this area (Ill.1.41). Stirling’s consideration of different colour schemes for this modern day equivalent to the traditional fountain or statue, confirms its significance as a focal point.97 One undated sketch has the disc coloured purple, the top red, and the shaft orange, while in another, dated June 1967, he coloured it grey with a bright orange disc.98 No reasons are given for this alteration but it remains a fact that, in this predominantly red tiled area, green stands out much more than orange.

The commissioning of new and overtly modern buildings within the various colleges at Oxford was a relatively common occurrence at this time, but Stirling’s perseverance with red brick and tile ensured his modern design remained fundamentally different from other contemporary developments elsewhere in the university.99 This point is best illustrated if the Florey Building is compared to two projects completed around this time: Arne Jacobsen’s slightly earlier development of St. Catherine’s College (1959-64 the largest single development at Oxford of the twentieth century) and Alison and Peter Smithson’s design of St. Hilda’s College Garden Building (1967-1970).

Jacobsen’s design for an entire university college, while in every way a modern addition to Oxford, took significant steps to integrate with the older and more established parts of the university; a pre-requisite of the client’s brief.100 Jacobsen’s symmetrical arrangement creates a traditionally formal courtyard lay-out with

97 Stirling, ‘Stirling Connexions’, 275. Stirling suggested this was the inspiration behind the positioning of the weathervane.
98 CCA file no. AP140.S2.SS1.D31.P6.25 and Queen’s College Archive file no. 2W134 drawing no. 38, respectively.
100 Felix Solarguren-Beascoa De Corral, Arne Jacobsen, (Barcelona: 1989), 110.
obvious ceremonial overtones, much of which has been finished with large amounts
of warm yellow-ochre brickwork that holds dialogue with the older buildings in the
city. None of Jacobsen’s structures, save for the bell-tower rose above three stories,
ensuring the college remained hidden behind the surrounding trees. The sharp
precision of his development was also softened by the carefully planned gardens
designed by Jacobsen himself to complement the low lying architecture.\textsuperscript{101}

The Smithsons’ building, like the Florey, was an accommodation block also
constructed of glass, brick and concrete, with all rooms arranged around a central
service core. Around the structure the architects added a screen of untreated oak to
give the inhabitants a much needed sense of privacy and to encourage climbing
plants to grow, helping to blend the new building in with the old. Mullions and
spandrels were coloured to look like Cotswold stone and the bricks on the back of
the building were ‘fawny-pink’, chosen for their visual links to a restored Regency
house that had recently become part of this college.\textsuperscript{102} As with Stirling’s designs,
the Smithsons here attempted to create a building that succeeded in ‘inviting the
occupiers into the game of architecture’, but, unlike his impenetrable red brick
structures, they resorted to another ‘language of invitation, that of layers’.\textsuperscript{103}
Compared to the Smithsons’ design, Stirling’s building appears antagonistic.
Designed to contain no foliage within this private, red tile and glass area, any
softening of the hard lines and edges was avoided. This also gave greater
prominence to the weathervane and the contrast between this structure and the wall
of established trees on the other side of the river.\textsuperscript{104}

The work of the Smithsons around this time also highlights Stirling’s persistence
with red brick and tile and glass. Considered initially by some to be the ideological

\textsuperscript{101} C. Than and K. Vindum, \textit{Arne Jacobsen}, (Copenhagen: 2001), 497.
In a list that totalled 758 different varieties, Jacobsen specified which plants and trees were to be
used to achieve the desired degree of harmony between gardens and architecture.
\textsuperscript{103} Helena Webster (Ed.) \textit{Modernism Without Rhetoric - Essays on the Work of Alison and Peter
Smithson}, (London: 1977), 64.
\textsuperscript{104} Visiting the building in May 2007 the author discovered the majority of the red tiled floor of the
‘courtyard’ has been replaced with turf.
opposite of Stirling, the Smithsons began to move away from imposing a new, Brutalist architecture on to existing sites in favour of integration.\textsuperscript{105} This mellowing is evident in their Economist Building, London (1960-64). Cladding much of the structure in fossilised roach bed Portland stone\textsuperscript{106} (with the intention that it would change colour over time to resemble older buildings in the city)\textsuperscript{107} and restricting the scale of the project to that of existing buildings, suggests a sympathetic awareness of the site’s established character.

The cloistered ‘courtyard’ of the Florey marks the building out as being somewhat different from Stirling’s other ‘Red’ buildings discussed earlier. By completely covering its floor in the same coloured tiles as the outer wall and towers, Stirling created an external-interior; an open-air but intrinsically private space that, due to its colour and texture, becomes, if not part of the structure then part of the experience of the structure. In this sense it relates to the older colleges experientially even if formally, and in terms of colour, it remains separate.\textsuperscript{108}

Approaching the building from the street, one soon becomes aware that it is largely covered in a tile veneer that obscures any tectonic expression. This is most obvious in the two service towers whose smooth, uninterrupted exteriors offer no insight into their real strength and mass. Even at the point where red tile meets the black tarmac of the ground, nothing is given away. The splayed brick base running along the bottom of the workshop wall at Leicester, hinting at the weight it carries, is absent here. Instead the sleek, shiny red towers appear to balance where they sit; taking what little support they need from the transparent glass-covered landings connecting them to the main part of the building. The lack of windows and considerable height of the towers adds to the balancing act while simultaneously

\begin{footnotesize}
\begin{itemize}
  \item \textsuperscript{105} Robin Hood Gardens, London E14’, \textit{Architectural Design}, Vol.42, (September 1972), 557.
  \item \textsuperscript{106} Webster, \textit{Modernism Without Rhetoric}, 64.
  \item \textsuperscript{108} James Stirling, James, ‘Architectural Aims and Influences’, \textit{RIBA Journal}, (September 1980), 37.
\end{itemize}
\end{footnotesize}
creating a tension between their vertical and the main building’s horizontal red planes.

In contrast to the Camden flats, the Florey building is about delicacy and poise, weightlessness and balance. If the towers seemingly just sit on the tarmac, the reclining accommodation block is raised effortlessly off the ground by a series of diminutive, exposed concrete ‘A’ frames (Ill.1.42). By making the point of contact between ‘A’ frame and wall come only half way up the main block, Stirling allowed the two upper floors (the uppermost presenting the deepest band of red tiles, implying a much heavier load) to over-hang the supports and draw attention to this balancing act. Grey/buff in colour, these supporting structures clash with the mass of red tiles that cover this side of the building, gaining prominence as a result. The extent of this contrast can be judged by comparing the exposed concrete of the exterior with those parts of the ‘A’ frame that pass through interior of the communal corridors. Painted white to match the corridor walls, the concrete supports are not disguised completely but are significantly underplayed.

There is evidence to suggest painting the internal concrete was, in part, a practical decision, but it is worth comparing Stirling’s treatment of the concrete in the corridors of the Florey with that in both the entrance lobby and the stairwells of his and Gowan’s Leicester project. In these parts of the earlier building exposed concrete clashes with the warm reds of the adjacent tiles, emphasizing its presence and its structural significance. At the Florey, the concrete’s tectonic role is only announced on the outside of the building where it is further highlighted by stopping the tile veneer short of the ‘A’ frames at the points where they penetrate the wall (Ill.1.43).

As with the History Faculty Library, the interior of Florey Building reflects Stirling’s awareness of its fundamental difference to the Leicester project. Other

---

109 In a letter to the Bursar at Queen’s College, dated 2/4/1970, Stirling emphasises the need to seal the internal sections of the exposed concrete with gloss paint in order to prevent a fine powder being given off. Queen’s College Archive, file no. FB 1790.
than the red tiles applied to the stairs there are no obvious industrial references within the accommodation block; concrete and communal corridors were painted white, and all pipe-work hidden. Continuing to explore a less conservative use of colour that accounted for his choice of vibrant pink hand-rails in the Cambridge stairwells, Stirling coloured the railings and banisters in the Florey Building a vivid lime-green. As with the Cambridge library, the presence of such a colour acts not only to assist circulation but also to bring a sense of visual relief from the potential monotony of the white walled interior; a use of colour that became a recurring, and increasingly identifiable aspect of Stirling’s architecture and is discussed for that reason in Chapters Three and Four.

The red brick podium of the Leicester Engineering Building is absent at the Florey site. As with the Cambridge and Camden projects, Stirling has eroded this traditional architectural feature, reducing it to simple red brick wall that keeps the interior of the ‘amphitheatre’ private. When passing from the public to the private side of the building it becomes clear that this wall stops short of the tiled underside of the apartments and offers no support to the building whatsoever, further adding to the perceived lightness of the structure above. The gap between top of wall and underside of building also exposes the full length of the horizontal beam of the supporting ‘A’ frames. A point of detail worth noting is that, unlike those areas where ‘A’ frame meets outer wall (see above) the red tiles of the underside actually make contact with the sides of the exposed concrete beams. The result is that the accommodation block appears to rest on top of these beams, emphasizing its elevation.

The combination and distribution of exposed concrete and red tile and brick in the Florey building can, once again, be read as Stirling’s attempt to invite close examination of the architecture itself, an interpretation better explained if this project is compared with another heavily tiled university building completed shortly before – the Physics Building and Library at Warwick (Yorke, Rosenberg and Marshall, 1963-71). Here, the tight-grid pattern of white tiles and black grout that
covered the surface gave the building a dazzlingly clean presence, and emphasised the structural concrete grid that lay behind. Of course it also worked to give the structure a marked visible presence in the parkland that surrounded it. But what separates the tile cladding at Warwick from that of Stirling’s on the Florey building, is that at the former it does little more than decorate the surface; there is nothing about this particular veneer that invites one to question the nature of the structure itself.

**Conclusion**

The distribution of different combinations of bricks, tiles, glass and concrete in Stirling’s ‘red’ buildings is, it has been argued, partly the result of his desire to invite close scrutiny of his architecture. But the presence of these materials and colours in the three buildings that followed the Leicester project also suggests a deliberate exploration on Stirling’s behalf of the consequences of contextual incongruity. By introducing large amounts of materials that he knew carried recognisable industrial connotations into non-industrial situations, he afforded his designs a dramatic and un-compromising visual presence.\(^{110}\) Even at the Leicester site, where the inclusion of these materials finds some justification in the intended purpose of the structure and the city’s industrial past, they appear an anomaly, clashing with the soft yellow bricks of the adjacent low-lying university buildings. In terms of visual presence it would seem that what he and Gowan touched on in this instance was taken to an extreme in Stirling’s three later red brick projects. What becomes clear in the following chapters is that what he learnt from these four commissions had a considerable influence over the rest of his work. Incorporating increasingly flamboyant colour schemes and combinations of materials, Stirling embraced incongruity to assert the presence and independence of his architecture and invite the curious to explore each building’s physical makeup.

\(^{110}\) James Stirling, ‘An Architect’s Approach to Architecture’, *RIBA Journal*, Vol.72, (May 1965), 40. Stirling acknowledged that while he claimed these materials were chosen ‘entirely at a practical level’ they must also ‘be transformed to cohere at a level of significance’.
Stirling justified the use of mass produced glass, and glazed tile and brick on grounds of practicality (they were easily cleaned, better suited to the British climate and the glass was cheap) but what cannot be overlooked is his perseverance with this particular colour: mineral-red. In all four of the buildings discussed neither the materials nor colours used were specified by the clients. What has been argued then is that, because Stirling was aware of the industrial associations that these materials and colours carried, and because he continued to use them in non-industrial environments, he felt no compulsion to show sensitivity towards the immediate context of each building. Ultimately this interpretation is best supported by the Camden council flats; the shape, height and colour of which find absolutely no contextual justification in this residential Victorian London street.

The colours and materials used in these four building represent another important characteristic of these structures and, indeed, those discussed in the following chapter: the primacy of the industrial. Relying on colour and texture Stirling drew attention to the technologies and constructional processes involved in building these projects, at a cost to their aesthetic and sensual appeal for those using them, despite Wilford’s claims to the contrary. The fact that Stirling felt it necessary to introduce brightly coloured hand rails to the Cambridge library and the Florey residential block, as brief incidents of visual ‘delight’, intended to offer a much needed ‘bit of fun’, suggests he must have felt they were necessary. Although Stirling refrained from using large amounts of red tile and brick again, his fascination with the overt display of constructional methods and technologies, plus a disregard for context, continued to dominate much of his architecture until the late 1970s, and is discussed in detail in the following chapter.

112 Michael Wilford also suggests the inclusion of brightly coloured hand-rails in the Cambridge stair tower ensured the building was ‘a joy to enter and to be in’. Interview with the author 15/5/08.
Ill.1.1 Stirling & Gowan, Leicester Engineering Building, 1959-64, axonometric.

Ill.1.2 Stirling & Gowan, Leicester Engineering Building, 1959-64.
Ill.1.3 Stirling & Gowan, Leicester Engineering Building, 1959-64, site plan.

Ills.1.4 & 1.5 Neighbouring university buildings pre-dating Stirling & Gowan’s Engineering Building.

Ill.1.6 Stirling & Gowan, Leicester Engineering Building, 1959-64.
Ill.1.7 Stirling & Gowan, Leicester Engineering Building, 1959-64.

Ill.1.8 Stirling & Gowan, Leicester Engineering Building, 1959-64.
Ill.1.9 Stirling & Gowan, Preston Housing, 1957-61, old people’s flats.

Ill.1.10 Stirling & Gowan, Leicester Engineering Building, 1959-64, concrete collar and roof detail.

Ill.1.11 Stirling & Gowan, Leicester Engineering Building, 1959-64, mezzanine entrance.
Ill.1.12 Stirling & Gowan, Leicester Engineering Building, 1959-64, splayed brick-base detail.

Ill.1.13 Stirling & Gowan, Leicester Engineering Building, 1959-64.

Ill.1.14 Stirling & Gowan, Leicester Engineering Building, 1959-64, ‘brick’ doors to the podium (the pink paint is a later addition).
Ill.1.15 Basil Spence, Falmer House, Sussex University, 1962.

Ills.1.16 & 1.17 Stirling & Gowan, Leicester Engineering Building, 1959-64, exposed concrete stairwells and tile-covered landings.
Ill. 1.18 Mottled, yellow-brick cottages neighbour the Cambridge University History Faculty Library

Ill. 1.19 Sir Arthur Bloomfield, Selwyn College, Cambridge University, 1882.

Ill. 1.20 Sir Hugh Casson, Faculty Building, Cambridge University, 1961.
Ill.1.21 James Stirling, Cambridge University History Faculty Library, 1963-67.

Ill.1.22 James Stirling, Council Flats, Camden, 1963-68, and neighbouring building.

Ill.1.24 James Stirling, History Faculty Library, Cambridge University, 1963-67, axonometric.

Ill.1.25 James Stirling, Council Flats, Camden, 1963-68.

Ill.1.27 James Stirling, Council Flats, Camden, 1963-68, end elevation detail.

Ill.1.28 James Stirling, History Faculty Library, Cambridge University, 1963-67.

Ill.1.29 James Stirling, History Faculty Library, Cambridge University, 1963-67.
Ill.1.30 James Stirling, History Faculty Library, Cambridge University, 1963-67, entrance canopy (the cappings are a later addition).

Ill.1.31 James Stirling, History Faculty Library, Cambridge University, 1963-67, concrete flags conceal the red brick-lined bicycle park.

Ill.1.32 James Stirling, History Faculty Library, Cambridge University, 1963-67, red brick-lined ‘moat’ bordering the front of the reading room.
Ill.1.33 James Stirling, History Faculty Library, Cambridge University, 1963-67.

Ill.1.34 James Stirling, History Faculty Library, Cambridge University, 1963-67, reading room.

Ill.1.35 James Stirling, History Faculty Library, Cambridge University, 1963-67, reading-room detail.

Ill.1.37 The Florey Building’s nearest neighbours.


Chapter Two

Colour and Texture in Pre-Fabricated and Plastic Buildings

At the time when they were designed the projects discussed in this chapter - the Southgate Housing Estate, Runcorn (1967-77)\(^1\) and the Olivetti Training School, Haslemere (1969-72) - represented a new avenue of exploration for Stirling into the use of plastic panelling in pre-fabricated, repetitive building systems. Stirling’s interest in pre-fabrication arguably began with the earlier residential expansion at Saint Andrews University, Scotland (1964-68), but it is the Southgate and Haslemere projects which come under scrutiny here because of their significant amounts of multi-coloured glass-reinforced polyester panelling (herein referred to as GRP). Introducing GRP panelling as a minor ingredient in the first phase of the Southgate project (1967-72), Stirling continually increased its presence in both the training school and the estate’s second phase (1972-77). In both locations he incorporated increasingly brighter and varied colour schemes without impacting on budgets. The results were distinctive and individual buildings that make a feature of mass-production and repetition.

Although visually very different from the commissions discussed in Chapter One, the projects under scrutiny here do build on aspects of design identified within the four ‘red’ buildings. Seizing on opportunities that the Southgate and Haslemere projects offered to explore pre-fabricated, repetitive building systems, Stirling continued to use colour and texture to invite close scrutiny from those using the buildings, delivering insight into the construction processes involved, the tectonic

\(^1\) The publications referred to in this discussion state the completion date for this part of the estate as 1976, but photographs received by Stirling’s office, dated January 1977, show the buildings unfinished. CCA file no. AP146:52:551D.
relevance of individual elements and the functional significance of specific sections. What is argued here is that in these projects Stirling took architectural reflexivity to an extreme, incorporating colour, texture, and materiality to create a form of constructional colour coding ‘meant to explain how the various parts of the building operate’. And although Stirling had been adamant that the pursuit of structural candour (as indicated in his unrealised Poole Technical College design 1952) was something he had dispensed with many years earlier, the buildings discussed in this chapter, suggest this was not always the case.

The Southgate estate and the Olivetti training school share strong visual similarities, but they are in most other respects very different. The Southgate development was a large, low-cost, high-density (120 people per acre) housing estate constructed in two phases as part of the Runcorn New Town Development. Situated south of the newly constructed town centre, and built in seventy-five acres of agricultural land with very few site influences to speak of, it was part of the New Town initiative in Britain that began with Stevenage in 1946.

In stark contrast, the Olivetti Training School, a private commission by a cutting-edge electronics company, was an extension to the rear of a late-Victorian manor house (dated 1901 above the entrance) and hidden from view by dense woodland. Rather than working to a limited budget Stirling was given as much money as he

---

2 CCA file no. AP140.S2.SS4.D7.P1 from the transcript of a lecture given by Stirling in Pittsburgh, 1974. Although this refers to the coloured fans at the apex of the glass roof in the History Faculty Building, Cambridge University it confirms his awareness of colour being used in such a way.
3 CCA file no.140-0389. In a small brochure that accompanied Stirling’s drawings he explains that, for economic reasons, the building should incorporate pre-cast concrete blocks faced in brick that had not ‘been expressed as a structural wall, but rather as a “skin” clothing the façade’. Page 1.
4 James Stirling, ‘Stirling Connexions’, Architectural Review, 275, (May 1975), 275. This admission comes from a statement Stirling made in 1974 declaring ‘I ceased to believe in Frank Lloyd Wright’s philosophy of “truth to materials” when I saw for the first time a building by Palladio - where the peeling columns showed that the columns were in fact made of bricks - and not of marble and stone which I had naively assumed from books.’ No exact date is given as to when he saw these pillars but the inference is it was some considerable time earlier.
needed from a patron who had a deep respect for architecture in general and Stirling in particular.\textsuperscript{7} Olivetti had, at this time, established a reputation for employing internationally renowned designers from all aspects of the arts as a means of promotion. This being the case Stirling would certainly have recognised the kudos this commission carried. Indeed the lavish opening ceremony laid on by Olivetti – which included a concert, champagne, food from Harry’s Bar in Venice, four hundred guests and a firework display - gives some indication of this building’s high profile and the publicity it attracted.\textsuperscript{8} It is, however, precisely the difference between these two projects that allows for a greater understanding of Stirling’s continued development of colour, texture and materiality in relation to structure, location and function.

The terms ‘structure’ and ‘location’ are easily understood, but the ambiguity of the term ‘function’ requires clarification if we are to determine to what extent it might be influenced, or represented, by colour, texture and materiality. Adrian Forty suggests, among a number of definitions, that function is ‘a biological metaphor, descriptive of the purposes of the parts of the construction relative to each other and to the whole’, and this is perhaps most appropriate for this discussion.\textsuperscript{9} Certainly, it is argued that Stirling used colour and texture in these two projects to establish an easily recognisable hierarchy of parts, such as public access areas, private living quarters, assembly blocks and classrooms; but the term needs further elucidation. ‘Function’ can be understood as how the building, and its various parts are to be used \textit{physically} by the occupants, but we should also consider how the building might be used \textit{symbolically}, as representative of the client’s or the architect’s identity. That is, above its influence at a practical level, colour, texture and

\textsuperscript{8} Ibid. 163 gives a detailed description of the opening ceremony’s opulence.
\textsuperscript{9} A. Forty, \textit{Words and Buildings}, (London: 2000), 175. In this book Forty dedicates a whole chapter to the many interpretations of the word ‘function’ leaving the reader to determine which one is most appropriate in any one instance.
materiality also have the potential to shape how a structure, or part of a structure, might be perceived by an observer.\textsuperscript{10}

What is proposed in this chapter is that Stirling’s use of repetitive building systems and GRP panelling afforded him opportunities to incorporate colours and textures to give considerable visual emphasis to the functionalism with which he approached phase one of the Southgate estate and the Olivetti Training School. This display of functionalism, however, is shown to have been relegated in Southgate’s second phase in favour of an overwhelming display of the production-line processes involved in its construction. What is argued is that Stirling sacrificed the psychological needs of the inhabitants/occupiers of this part of the estate for the uncompromising industrial appearance of the buildings as the celebration of technique became an end in itself.

Such a proposition does not imply that the second phase of the estate, or indeed any of the buildings discussed in this chapter should be considered as examples of High Tech. To label them so would not only be inaccurate but would also overlook much of what they have in common with rest of Stirling’s oeuvre. They were undoubtedly considered modern but they did not represent a display of cutting edge technology in the way that Rogers’ visually similar Zip-Up-House (1968-71) might be seen to have done.\textsuperscript{11} It should also be noted that pre-fabricated building systems had, at this point, been around for decades, flourishing in the mid-1940s as a cheap and speedy option for post-war building requirements.\textsuperscript{12}

\textsuperscript{10} The Leicester University Engineering Building, discussed in Chapter One, exemplifies the point in question. The red tiles and bricks that cover much of the buildings surface carry their own connotations of engineering and, as a result, the building appears to be what it is: a place of, or connected to, industry. This type of visual association is something Klotz would later describe as ‘narrative representation’, H. Klotz, \textit{The History of Post-Modern Architecture}. (Cambridge, Massachusetts: 1988), 128 (see Chapters Three and Four for a detailed discussion of this concept).

\textsuperscript{11} Richard Rogers’s Zip-Up-House comprised insulated modular panels designed to be stuck together with neoprene joints. Unlike Stirling’s projects, Rogers’s were self-supporting structures that required no foundations. In this respect Rogers can be seen to have explored and celebrated modern technology in a way that Stirling’s pre-fabricated buildings do not. For a detailed account of Rogers’s works see Kenneth Powell, \textit{Richard Rogers: Complete Works Vol. 1} (London: 1999).

\textsuperscript{12} Pre-fabricated house building had been around since the early twentieth-century, but reached its peak in Britain after the Second World War. In October 1944 the government allocated £150 million
Similarly the use of plastic panelling in architecture was, if not common, well tested. Stirling would certainly have been aware of the experiments with GRP panelling that had taken place years before the Southgate development, the most notable of these being Lionel Schein’s ‘House of Tomorrow’, exhibited in Paris in 1956. This all-plastic home employed repeating sections of rooms that clipped together as they spiralled out from a central core, allowing families to expand or contract their homes as need dictated. In the same year, *Architectural Review* published an article advising on the use of plastics in contemporary buildings, while Alison and Peter Smithson filled their ‘House of the Future’ almost entirely with pre-formed plastic furniture, with shelving and cupboard space being moulded into plastic walls. Arthur Quarmby, a great exponent of plastic architecture, published an article in *Architectural Design* in 1961 discussing the uses and merits of various forms of plastic in building. This was accompanied with images of Schein’s light-weight, mobile library pods, or office units, and expandable plastic relay rooms designed by Quarmby and David J. Appleby for British Rail.

Quarmby, like Stirling, recognized the added advantage plastic had for incorporating colour; for him there were no limits. Designers and architects could apply any colour to any form, and at very little cost. By the second half of the 1960s, when Stirling was beginning work on the first phase of the Southgate estate, brighter, more synthetic colours were gaining in popularity in a multitude of areas. Interior designers incorporated vibrant plastic furniture into their schemes, while fashion designers used vivid PVC and other man-made products, so it was hardly surprising that architects should consider such materials and colours. By 1965 the...
Greater London Council had already clad buildings in GRP panels and in 1968 *Architectural Design* even ran an article on inflatable architecture; the ultimate in expandable and temporary plastic structures.

It is not that Stirling chose to work with such materials that is surprising, but rather that he did so for so long (the second and all-plastic phase of Southgate was not completed until 1977). By the beginning of the 1970s public disillusionment with modern building styles and techniques began to increase, with much criticism being levelled at modern architecture (particularly that of the welfare state) and its apparent lack of consideration for those who had to live in it. This dissatisfaction was fuelled by the ever growing number of high-rise apartment blocks, despite the collapse of the Ronan Point tower in 1968. The Southgate development was certainly not high-rise, but in every other way it was a manifestation of modernity; prefabricated, modular constructions, consisting of concrete and brightly coloured plastic panels, assembled on a giant production line process. Stirling’s design made no concession to the more traditional and rural appearances of the other parts of the New Town already completed. Instead, in the face of mounting mistrust and a growing sense that, as a nation, Britain was losing what remained of its architectural heritage, Stirling chose to expand his use of coloured plastic from small sections of cladding (Southgate, Phase One) to total surface covering (Southgate, Phase Two), further establishing his reputation as an architectural maverick.

In order to chart the development of Stirling’s use of colour and texture in prefabricated buildings it will prove more effective to treat these two projects as three, and to discuss them chronologically: Southgate Phase One (1967-72), Olivetti Training School (1969-72) and Southgate Phase Two (1972-77). Admittedly, the

---

19 There are numerous articles criticising the architecture of the welfare state, the more vociferous amongst them being Christopher Booker and Candida Lycett Green, *Goodbye London*, (London, 1973).
Southgate housing estate was one ongoing project, but it progressed in two distinct phases that straddled the Olivetti building; two visually very different phases that can, in part, be explained by Stirling’s work in Haslemere.

**Southgate Housing Estate, Phase One**
The master plan for the entire Runcorn New Town development, of which the Southgate estate was only a part, was drawn up by Chief Architect Arthur Ling in 1966. Southgate was the seventh of nine residential communities to be built around the New Town centre, only one of which, Beechwood, was private. These individual residential areas were given their own identities through different house styles providing ‘a sense of separate identity which can be recognised by the inhabitants’.20

The development was designed to relieve the congestion and over-population of nearby Liverpool, while offering opportunities for better living conditions and employment prospects. For Ling, this utopian vision was ‘an opportunity to advance the art and science of town planning for the purpose of creating a new environment and a new community’.21 It was intended to be modern and aspirational, offering its inhabitants the chance to develop as a community, unhindered by poor planning and unsuitable living standards. New industries were encouraged to move to the area and make full use of the large work force and open spaces; important factors that contributed considerably to Stirling’s designs.

Stirling and his team were put forward for the project by the Deputy Chief Architect-Planner for the New Town, David Gosling, and chosen, following interviews, from a short-list of three.22 The limited budget, restricted resources and pressing time-scale made available for this part of the New Town prompted the Runcorn Development Corporation to request that Stirling consider the scheme in

---

21 Ibid, the first page of the non-paginated introduction.
relation to industrialised building systems. Seizing the opportunity to experiment with cheaper and quicker modes of construction he opted for large amounts of pre-cast, ribbed concrete panelling in combination with small amounts of coloured GRP panelling.

The different textures and changing appearance of the large amounts of exposed concrete in this phase of the estate are as important as the plastic when discussing the project’s appearance. Exactly what colour the concrete was is hard to define. Concrete is often described as grey but its irregular tones (especially noticeable when compared to the consistent colouring of the GRP) suggest this is less than precise. It was also the case that, due to the angled ribbing of some surfaces in this project, the building’s appearance changed substantially according to the quality of ambient light (sunny or diffuse) more so than the flat plastic panelling would have done, and this is taken into consideration in this discussion. The accuracy of the printed image is of particular importance with regard to this project as the only surviving evidence we have of this estate’s appearance is restricted to photographic records (in most of the illustrations the concrete appears more brown than grey). What is important, however, is not that we describe the colour of this material accurately, but that we note how it was used, how its surface texture might have caused its appearance to change, and in what quantities it was present in relation to the GRP panelling.

When considering the Southgate estate one cannot help but be drawn into a comparison with Stirling’s previous foray into low-cost housing a decade earlier in Preston (1957-61) with his former partner James Gowan. Indeed, such a comparison is useful in charting his use of colour and materials as while these two projects appear very different in many obvious ways, they can both be described as equally controversial. The housing project in Preston was a small, intimate scheme built of hand-laid, load-bearing local brick that visually linked it with the town’s industrial history. As such it was presented as a modern day traditional terrace that, in many

---

23 Runcorn Housing Archive, file no. NTW 64/18, p.10.
ways, extolled the virtues of a united and identifiable working class, inciting accusations of being a somewhat reactionary and therefore maverick approach to post-war housing at that time.24

The widespread damage caused by the war gave the slum clearance schemes, in effect since the 1930s, added impetus. Through necessity Britain was offered an opportunity to rebuild itself, doing away with the unhealthy old and replacing it with all that was inherently good in modern design. Grimy brick slums were rapidly replaced with clean, efficient concrete structures, erected quickly and economically; modernity was given a visual identity.

Ten years later, when Stirling designed the Southgate estate, much had changed. After nearly two decades of post-war rebuilding, there was a growing concern that modernisation was having a damaging effect on the nation’s heritage. Complaints were made about the demolition of the last remnants of Victorian England, while books appeared extolling the virtues of preserving the past. Nicholas Taylor, in his scathing criticism of modern housing, spoke for a large number of people when he complained that:

‘…all hint of a single home is suppressed beneath a rigid uniform of 12M Jesperson window bands and pre-cast units resembling a technical college or a flatted factory. The architects seem to have been more interested in exposing their white aggregate than expressing the multi coloured individuality of the tenants…. [T]he conscious or unconscious aim [is] to prevent the tenant expressing any aesthetic opinion which might interfere with the architect’s imposition of a uniform’.25

Against such a background one can imagine that an approach to housing along the lines of Stirling and Gowan’s Preston commission would have been warmly received. There was, however, no such consideration of traditional building methods. Instead, Southgate Phase One was made up of repeating concrete

accommodation blocks laid out on a formal grid system (Ill.2.1). Required to house a much larger number of people than the earlier Preston project, this estate was always going to be much bigger, but its differences go beyond mere size.

Set in vast and largely featureless farm land Stirling’s design had little historical context to draw upon, but this is not to say that there was no context. As discussed, he was asked to consider industrialised building systems for the estate for reasons of speed and cost, but he was also requested to show a degree of sympathy for those parts of the estate already built. Southgate’s nearest and most established neighbouring development was an estate called The Brow, the second phase of the New Town to be constructed. Comprising small brick built, pitched roof houses, set along meandering roads and cul-de-sacs, this part of the development was itself influenced by the sandstone of nearby Halton Rock (Ill.2.2). With its apparently random and picturesque layout, it was a modern interpretation of an old town.

Stirling’s design dispensed with all these characteristics and asserted its own, very different identity. The long rows of concrete pre-fabricated housing, set along formal grid-lines, rejected all that was traditional in constructional methods, materials, and even life-styles; this was essentially a modern estate for a modern town. None of the nostalgic references in The Brow (or indeed Stirling and Gowan’s Preston design) were visible in this estate; asserting the identity of a traditional working class was here replaced by signs of Britain’s new found class mobility. Traditional housing was replaced with flats, apartments and maisonettes

---

26 Runcorn Housing Archive, file no. NTW 64/18, p.10.
27 Tony Adams, ‘Runcorn Report’, Architectural Design, Vol.42, (June 1972), 375, the description that accompanies the section on ‘The Brow’ is indicative of the growing trend for traditional housing at this time and is worth quoting. ‘The Brow is in total contrast to this [Southgate]. Its houses are two-story in a brown brick chosen to blend with the sand stone of castle-crowned Halton Rock. The whole thing is low-key, self-effacing, but very good visually. Shapes, colours and angles are soft. Relaxed and so is the lay out of the place.’
28 Indicative of this growing class mobility is the inclusion of resident’s parking spaces built into the blocks themselves, despite all the inhabitants being close enough to walk into the town centre. Ling, in the master plan, also suggested that further parking spaces be allowed for as car ownership increased. Ling, Runcorn New Town Master Plan, 51.
and any historical references there were had their roots firmly in the eighteenth-century bourgeois squares of London, Bath and Edinburgh.\textsuperscript{29}

Michael Wilford has explained that the overall design of the estate was a logical result of specifications put forward in the master plan. Low-rise repetitive block systems that formed easily identifiable communal squares, constructed cheaply and efficiently, were all suggestions made by Ling, as was the opportunity to expand these estates, when the time arose, in such a manner as to create a sense of continuity. Ling even went so far as to suggest that the architects involved be limited to only two or three different types of materials for the exteriors, ‘and against a quiet consistent background there [would be] room for the splash of colour…’.\textsuperscript{30} These specifications cannot be ignored, but even if Stirling was conforming to master-plan expectations and budgetary restraints, the striking difference between this design and the existing and adjacent housing at The Brow cannot be overlooked. The distribution of colours and textures within this development were the result of the architect’s decision.\textsuperscript{31} Indeed, what is argued here is that, as with the four red buildings discussed in the previous chapter, and all the buildings discussed in this thesis, Stirling seized any opportunity to give his designs a heightened visual presence.

The impact of Southgate’s first phase, at least when viewed from a distance, was of horizontal, low-rise concrete (Ill.2.3). This was mass-housing that avoided the much criticized high-rise answer to low-cost accommodation prevalent during this period.\textsuperscript{32} Structurally the emphasis was on repetition on a mass scale. Identical rows


\textsuperscript{30} Ling, \textit{Runcorn New Town Master Plan}, 110.


\textsuperscript{32} High-rise living had been increasing in Britain since construction of the first point block, a ten-story building designed by Gibberd for Harlow New Town, begun in 1949. Glendinning and
of five-storey blocks created large communal squares of open land (or rectangles where the central blocks were omitted). These blocks contained a two-storey house on the ground and first floor, with private garden, a two-storey maisonette above (accessed from the back via an open sided, brightly coloured communal walkway), and a single-storey apartment above (*Ill.2.4*).

There was no obvious front and back to these accommodation blocks, merely two very different elevations which suggests such a hierarchy was not to be dwelt upon. One side presented a diagonally-ribbed concrete façade, with each apartment sitting back from the one below (the top floor apartments becoming the roof to the coloured access decks on the reverse sides), the other comprised a mixture of smooth concrete stairwells, recessed coloured access decks and more ribbed concrete panelling. Both seem to have been equally important to the visual character of the estate. Although the blocks were perpendicular to one another, creating communal squares, they did not form continuous perimeter walls. Instead they were linked at each corner by elevated walkways. Nor did they comprise four identical sides. Instead each square, when viewed from within, consisted of only two blocks (perpendicular to one another) with smooth stairwells and coloured access decks, the other two presenting all concrete façades. The result is that each square was identifiable only by the colour of two of its sides which contrasted greatly with the all concrete surfaces of those blocks opposite (*Ill.2.5*).

With the smallest of the squares measuring 300 x 300 feet, the housing blocks must have appeared anything but tall. However, Stirling’s choice of surface texture for the concrete panels ensured that each block was covered with vertical stripes of different shades of grey that worked to counter this initial horizontal dynamic. In *Ill.2.6* it is easy to see how each stairwell is faced in smooth concrete and reaches the full height of the structure, visually interrupting the horizontal presentation of the separate floors. This effect is more pronounced when the blocks are viewed from an

---

acute angle (as shown in the left hand side of the picture). Comparing this block with the one positioned on the far right of frame in Ill.2.3 (which does not display the stairwells) reveals the extent of this effect.

The appearance of the communal stairwells was always intended to establish them as being separate from the accommodation units. Originally planned to be finished in alternating panels of horizontal and vertical ribbing, they were later changed to the smooth surface shown here. The same finish was also extended to other public areas, such as the bridges and walk-ways that connected the blocks to each other. Having signalled the more communal parts of the buildings with smooth surfaced concrete, Stirling used a textured finish to identify the private living spaces within the complex. Incorporating a 45 degrees ribbing effect in the pre-cast concrete, these sections appear, at least from a distance, a different shade of grey to the stairwells. Introducing raised ribs to the concrete panelling also served a practical function. Channelling rainwater in predictable directions ensured that the weathering of the concrete left as little staining as possible. But Stirling took this further, alternating the surface ribbing in adjacent panels to announce the ‘expression of assemblage’ and introduce an identifiable and repeating vertical stripe into an overtly horizontal structure.

The use of ribbed surfaces was not new for Stirling. He had used them in the Saint Andrews Halls of Residence project and the unrealised Dorman Long Steel Headquarters (1965 which was to have incorporated panels of ribbed steel) but at the Southgate development he employed it to much greater effect. In the Saint Andrews project the ribbing alternates in direction in adjacent panels, and was a

33 CCA Archive, file no. 036-002-001-025. Several undated drawings show this to be the case, one of which is dated ‘1967-’ suggesting it was drawn prior to the completion of the project.
34 This effect was also used in the communal areas of the accommodation building at Saint Andrews, Scotland.
36 James Stirling, ‘Two New Projects’, *Architectural Design*, Vol.36, (July 1966), 332. Stirling confirmed that alternating the direction of the ribbing on adjoining panels was ‘in order to articulate visually the entity of each structural unit’.

103
deliberate attempt to draw attention to the structure being a kit-of-parts.\textsuperscript{37} With the front of each apartment incorporating two concrete panels, all the living units appeared identical when viewed from the outside (\textit{III.2.7}). At the first phase of the Southgate estate however, each apartment/house was only one panel wide. Here Stirling alternated the ribbing direction in adjacent panels, but kept continuity of direction within each five-storey accommodation stack. The results, when viewing the all-concrete facades from a distance, was that the repeating five-storey accommodation units that made up each long block, appeared to be alternate shades of grey (\textit{III.2.8}). This effect would have been heightened in direct sunlight by the more pronounced shadows created by the ribbing. In essence, Stirling used a basic form of colour coding, in part to hint at the internal layout but mainly, it is argued here, to emphasise the repetitive nature of the overall design.

Robert Maxwell has suggested that an explicit display of internal planning, such as that at the Southgate estate, is typically modern,\textsuperscript{38} but it has equally strong links with the functional expressionism of Victorian architecture that had been of such interest to Stirling, a point worth making if only to show the true breadth of his influences. It should also be noted that, because the concrete ribbing remained consistent within each stack of apartments, it did not actually display the true nature of the internal lay-out. The subtle changes in the surface appearance of the concrete deliver a kind of three-tone vertical striping, or, for those facades not incorporating stairwells, a two-tone effect that works to compete with the horizontal dynamic of the estate rather than give insight into internal planning. Admittedly this remains a subtle manipulation of the concrete’s surface, but it is clearly identifiable in the surviving images of this phase of the project.

Adding to the tension between vertical and horizontal in the appearance of this phase of the estate were rows of identical windows; circular in the concrete panels

\textsuperscript{37} CCA file no. AP140.S2.SS4.D7.P1 p.10 from the transcript of a lecture given by Stirling in Pittsburgh, 1974 in which Stirling explains this was his intention.

\textsuperscript{38} Elwall, \textit{Building a Better Tomorrow}, 120. Maxwell is discussing the work of Ernö Goldfinger when he uses this phrase, but it is just as applicable here.
and rectangular in the GRP clad balcony areas. Their presence, at least in the photographs that survive the building, gives weight to the impression that these blocks were made up of different layers. The size of these windows, in relation to the surrounding concrete or plastic, reminds us of Taylor’s previously mentioned complaint regarding the lack of opportunity the inhabitants in modern housing had to assert themselves over their environment. Indeed, Stirling had, some years earlier, voiced his concern regarding the occupants’ choice of curtain colour and how it impacted upon modern architecture, and he might well be accused of ensuring such interior decoration would not compromise the overall visual character of this estate. Instead, while the different shapes of fenestration were intended as ‘a language of windows’, with each one referring to a specific internal function, the impression of repetition they created worked more to assert the mass-produced, industrial nature of the housing blocks while allowing for a constant play between the horizontal and the vertical dynamic.

If, from a distance, the impression of this phase of the estate was predominantly one of concrete, closing in on these buildings would have made one more aware of the brightly coloured plastic cladding running the length of each access deck (Ills. 2.9 and 2.10). The inclusion of GRP contributes to the structure’s appearance in two important ways. First, the colouring of the plastic panels adds to the tension between horizontal and vertical by establishing a different visual rhythm to that of the textured concrete immediately above and below. Whereas the 45 degrees ribbing runs in the same direction in both upper and lower floors of each accommodation stack, the alternating coloured panels of the balconies sandwiched between them does not. Rather than marking out individual living spaces, or giving tenants any personal identity within each block by applying a single colour to each

39 Maxwell, James Stirling, 74-75. This comment was made in relation to Stirling and Gowan’s design for flats at Ham Common where the architects attempted to ‘suppress the disruptive aspect of unrelated curtaining’.
41 Ibid, 10. Stirling admitted experimenting with surface details to alter the visual character of his buildings in the Saint Andrews Halls of Residence building which, from a distance, was to ‘just appear as a white, grey mass’ but in close proximity look quite different.
accommodation unit, for instance, red followed by yellow, Stirling used three stripes per unit: red, yellow, red followed by yellow, red, yellow.\textsuperscript{42} The result, at least in photographs of the estate, was that this area visually stood out from the rest of the structure. This change of rhythm, made all the more obvious in strong sunlight, would also have further emphasised the production-line processes involved in this building’s construction, and this, it is argued, was the GRP’s second major contribution. As the shadows of the ribbed concrete darkened, giving each stack of apartments a stronger visual presence, the coloured access decks would increase in vibrancy, considerably enhancing the mass-produced repetition of the narrow coloured panels.

Wilford remembers that the decision to use GRP panelling was inspired, in part, by the ribbed bodywork of Citroen vans, and was motivated by the need to resolve the problems of trying to face the recessed apartments with heavy concrete.\textsuperscript{43} As these parts of the structure were not load-bearing, the opportunity was taken to experiment with new, light-weight materials (namely plastic), and that the size of each panel was dictated by the fact that it had to be man-handled without the aid of machinery; hence three panels to each apartment. The move to use bright colours came as a result of the desire to visually liven up the potentially dark walkways and to make full use of synthetic materials that could be pigmented with a variety of colours at little or no extra expense.\textsuperscript{44} These facts, however, do not explain why the colours of each deck do not correspond to the layout of the accommodation, above and below, as the ribbed concrete did.

\textsuperscript{42} Charles Jencks, Modern Movements in Architecture, (Harmondsworth: 1973), 377-8. It is worth comparing Ralph Erskine’s almost contemporary Byker Wall project in Newcastle, 1972-74 with the Southgate estate. Erskine consulted with the occupants of his predominantly concrete estate in an attempted to break up the uniformity of the massive structure and give the inhabitants a sense of identity and individuality. The result was an ad hoc mixture of different materials including green stained wood, corrugated metal and asbestos.

\textsuperscript{43} It was the ribbed sides of these vans that appealed to Stirling and led to a similar reinforcing effect in the GRP panelling of Southgate. Michael Wilford, interview with the author 23/3/2007.

\textsuperscript{44} Ibid.
Restricting the coloured panels to the raised access decks marked these areas out as serving an alternative purpose within the complex. Whereas the smooth, concrete surface of the stairwells signified communal access routes, the stripy, non-structural façades of these broad balconies implies something slightly different, less transient; an area reserved for social interaction of a more leisurely nature, something comparable to what Joseph Rykwert described as ‘linear public against cellular private space’.\(^{45}\) One must also consider the contrast between the muted concrete and the synthetic hues of the GRP panelling. The bright colours of the access decks would have emphasised their presence and drawn attention to the activities contained within, an emphasis that might be read as the remnants of Stirling’s and Gowan’s intentions for their earlier Preston Housing project.\(^{46}\)

It is difficult to determine exactly what shades of colour were used in the GRP panelling of the first phase of this estate, but their combinations are apparent: blue and yellow, green and yellow, and orange and yellow. Unlike concrete, there is nothing in their nature to explain each panel’s composition. They appear as smooth and, judging from the photos, shiny panels of bright, non-structural colours that tempt a tactile, as well as visual, comparison with the coarser, structural parts of the building; an appeal to the senses that Stirling would later develop and that is discussed in detail in Chapter Four.\(^{47}\) The colours of these panels differed from one balcony to another, giving each square its own visual identity, but they also offered a degree of continuity to this phase of the estate in that each combination involved yellow.

\(^{45}\) Joseph Rykwert, ‘Stirling in Scozia’, \textit{Domus}, Number 491, (October 10, 1970), 15. Rykwert was referring to Stirling’s Halls of Residence at Saint Andrews when he made this comment but it is equally applicable here.  
\(^{46}\) James Stirling and James Gowan, ‘Re-Housing Avenham, Preston’, \textit{The Architect and Building News}, Vol.221, (March 14, 1962), 381. Stirling and Gowan wrote of their Preston design that ‘Architecturally...strong emphasis is placed on the public ways, paths, ramps and galleries, making them open and visible to all, so that the movement and meeting of people can be seen and enjoyed by everyone’.  
\(^{47}\) Stirling, ‘The Work of Stirling Featuring: Housing, Runcorn New Town and Stirling in Germany’, 288. Stirling justified the use of smooth plastic partially on grounds of safety, suggesting bare concrete could have been hazardous had people brushed up against it.
It is not possible to determine exactly what type of yellow was used from the pictures alone, however what is important is that, in contrast to the other, more obvious constant of grey/brown concrete, the yellow was positively bright. Combined with the light orange, navy blue or emerald green, it would have acted, as Wilford has suggested, to ‘open up’ the partially enclosed spaces of the walkways. This is more noticeable in those photographs taken in strong sunlight; the light bouncing off the yellow and orange significantly livening up a potentially gloomy space. One can only speculate what the effect might have been had all the surfaces of these balconies remained concrete, but it is fair to say that the inclusion of such bright colours here went some way toward preventing the structure from becoming too oppressive for those who used it.

If this predominantly concrete first phase of the Southgate Estate can be seen as introducing GRP panelling into Stirling’s work, then his next commission, the Olivetti Training School in Haslemere, Surrey, took it a stage further, employing it on a much greater scale.

Olivetti Training School, Haslemere, Surrey

This commission came to Stirling’s practice through a recommendation from the Japanese architect Kenzo Tange, who had previously worked for Olivetti. As mentioned, Olivetti, a leading international electronics company, had a long reputation for promoting links between art and technology and believed Stirling, ‘as one of the outstanding international architects’, would deliver a building that satisfied their practical, as well as aesthetic demands. The training school - an extension to the rear of a late-Victorian manor house - was located, in a considerable dip and in the heart of dense woodland, and unlike the Southgate estate was not open to the public. Despite these obvious differences to the Southgate estate, and with an increased use of non-structural GRP panelling,

48 Girouard, *Big Jim*, 144.
49 Waverley Borough Council Planning Office, file no. 83/69C. This was a phrase used by C. Alhadeff of Olivetti in a letter to the Planning Committee dated 12th February, 1971. The letter is in regard to the colour schemes.
Stirling continued to confront issues of structure, location and function in relation to colour, texture and materiality, while simultaneously giving emphasis to the repetitive nature of the building’s construction.

The host building is a turn of the century rambling two-storey structure, surrounded by large, manicured lawns, with its colours presented principally in three horizontal bands (Ill.2.11). The walls of the ground floor are built of pale, local stone, the first floor of red brick and black timber frames (sometimes covered in red roof tiles) and the pitched roof, which is regularly broken with dormer windows, is covered in grey/brown stone tiles. The majority of these materials are seemingly structural and allow one to locate different floors and rooms relatively easily, while the irregularity of the different elevations, combined with the well defined, vertical panels of black timber framework, prevent any sense of horizontal banding from predominating. Judging by the similarly aged buildings surrounding the site, this manor house comprises locally produced materials with naturally occurring colours that are neither pure, nor constant. The stone and red brick have subtle gradations to their appearance and the grey/brown roof is tinged with moss and other affects of time.

In marked contrast, Stirling’s extension is almost hidden away. Giant conifers and deciduous trees dwarf the new wing, while dense shrubbery prevents any views of it from a distance (as they did at the time of construction Ill.2.12). These established gardens and woodlands surrounding the Training School’s site have, to some extent, dictated its layout and, according to Wilford, its very structure. Due to the narrow and winding access road that led to the site, lightweight panelling was deemed the only practical option for the extension, the original choice of heavy, prefabricated concrete sections being too problematic.\(^{50}\) Taking advantage of this somewhat concealed location Stirling countered the traditional appearance of the host building by confronting its rough stone and brick with smooth, shiny eight-foot wide panels.

---

\(^{50}\) Michael Wilford, interview with the author 23/3/2007.
of glass-reinforced polyester, set in vertical bands of alternate colours (at least in the classroom blocks) (III.2.13).

Unlike the aforementioned Southgate estate, which took its inspiration from the repetitive façades of the Georgian square, the Training School extension is made up of easily identifiable shapes suggesting a return to Greco/Roman principles. In plan these appear as a funnelled glass corridor connecting the old to the new, a square assembly point with cruciform roof, and two rectangular classrooms leading off (III.2.14). Stirling’s distribution of colours and materials across this structure assists this easy identification of parts and how each one has been assembled.

The glass covered walkway is heated by floor to ceiling, vibrant yellow/lime radiators that pre-empt the stripy exterior of the classroom wings, visible as one moves through this section (III.2.15). Wilford describes this all-glass tunnel as a ‘separator’ that ensures the new building’s identity is kept distinct from the manor house.51 Being easily seen from the adjacent gardens, these tall radiators help bring together interior and exterior, an effect that would have been further exaggerated had Stirling’s choice of more vibrant colours been permitted outside (see below).

As the ‘separator’ meets the main assembly/presentation hall the structure changes to GRP, save for a few panes of glass in the top of the cruciform roof. This section of the extension is encased in the same two colours of GRP as the classroom wings, although not in an obviously alternating pattern. Instead, the lighter colour merely articulates the raised cross of the roof structure that accommodates internal rising panels used to break up the assembly hall into smaller rooms. It is only as the classroom wings appear that the walls pick up a regular, ABAB rhythm of colour distribution. From the centre of III.2.16, where the stripy classroom wing faces back to the house, it is possible to see that these stripes were finished in a smooth gloss that complimented the glass tunnel and counteracted the rough textures of the

51 Ibid.
house.\textsuperscript{52} (This is evident from the reflections of the assembly block that appear above the ground floor windows of the classroom wing). The result is that each element of the overall complex: linking separator, assembly room and classrooms, has a separate and identifiable colour scheme as well as shape, indicating different internal functions.

Internally the alternating coloured bands have been dispensed with. Instead, the yellow/lime colour of the radiators is picked up in the conical pillars of the assembly area (Ill. 2.17) and again in some of the corridors on the ground floor. Corridors on the first floor are either green or peach/orange. Although the walls of the corridors are left as one colour, with no stripes at all, they would have helped link interior and exterior had the local planning office not intervened to ensure the building’s outer walls remained subdued.\textsuperscript{53} Stirling’s, and indeed the client’s preferred schemes included much brighter, vibrant colours such as orange, lavender and lime, which would have been more in keeping with the arresting synthetic colours that Olivetti used in their own moulded plastic products. We can only speculate how these might have looked had they been used on the outside of the Training School, but some indication of their impact can be drawn from the colours of radiators, pillars and corridors that remain today.

As it stands, the external colour scheme agreed upon, and still present today, is a combination of ‘Cotswold Stone’ and ‘Parchment’ (a kind of pale oatmeal and dull mustard, respectively). Had Stirling been granted his wish then the dark greens and browns of the dense and closely growing foliage would have been visually kept at bay. In a manner not dissimilar to the raised decks of Southgate’s first phase discussed above, an inherently shady and gloomy area would have been dramatically brought to life, giving the building a much stronger presence despite

\textsuperscript{52} Unfortunately the building’s surface has subsequently been painted in an attempt to preserve it and while the colours remain close to the original, the surface finish is now matt.

\textsuperscript{53} The planning office records, held by Waverley Borough Council, reveal that the original colour was to have been pale beige with a light grey fleck (file no. 83/69A). Between May 1970 and June 1971 six new colour schemes were suggested by the architects, the first five of which were rejected. The sixth and present one was finally approved on 9\textsuperscript{th} June (file no. 83/69G).
its hidden location. Notwithstanding this bureaucratic interference the visual contrast between host and extension is still substantial enough to allow Stirling’s design to emphatically assert itself as a separate building in its own right.

The materiality of Stirling’s design - shiny, smooth GRP - is as relevant here as his intended colour scheme, as it too holds dialogue with the corporate identity of the client and their intended use of the extension. 54 Olivetti required this development as a new teaching block for their existing training school, a school intended to nurture future generations of technicians and representatives of the suppliers and designers of cutting edge electrical equipment. 55 This being the case, the use of pre-formed plastic panels that clip together as a means of construction can be seen as referencing the modernity of Olivetti’s product range (images of which Stirling had collected). 56 Indeed, Stirling later admitted the association. 57

It is important, however, not to overstate the visual link between building and client. For while the appearance of this extension does reference Olivetti’s products, its colour distribution is also a development of themes explored in the first phase of the Southgate estate. The alternating stripes of the classroom wings were a design decision made in the very early stages of the building’s evolution 58 and were symptomatic of Stirling’s commitment to advertising the repetitive nature of Training School’s construction. Indeed, unlike the client, Stirling was not willing to

\footnotesize{54 The same claim might be made of Stirling’s intended colour scheme. Olivetti products often came in bright vibrant colours, similar, but not identical, to those Stirling had originally planned to use. 55 Waverley Borough Council Planning Office, file no. 83/69C. This file makes it quite clear that this building was custom built as a learning facility. 56 CCA file No. 039-005-001-007. 57 Waverley Borough Council Planning Office, file no. 83/69A, taken from a statement made by the architects. Outlining their intentions behind the design Stirling explained that ‘This modern type of building and its unique appearance is in line with Olivetti’s high standard of product design throughout the world and for which they are famous’. He also linked Olivetti’s products as a source of inspiration for the appearance of this extension in a speech he gave in 1974, in which he presented images of the new wing alongside an Olivetti product, stating: ‘Not that the first illustration…has in any way influenced the building which follows. Nevertheless there is, I hope, a connection, be it in material, constructional method, or association’. James Stirling, ‘Stirling Connexions’, Architectural Review, (May 1975), 276. 58 CCA Archive file, no. 039:003:001-009. A drawing dated 1969 shows that a striped finish was considered at an early stage. There are, however, no references to which colours were to be used as it is drawn in red/brown ink.}
sacrifice this aspect of the building’s appearance.\textsuperscript{59} If the intended colour scheme of bright-orange, lavender or lime held some similarities to Olivetti’s product range, in as much as they were clearly synthetic, industrial colours, it was also the result of his persistent desire to create structures of striking individuality.

The traditional elements of a building, four walls and a roof, have here been replaced by an alternative design (at least in the classroom wings) of bands of wall/roof sections that appear to clip on to each other until the desired length of building has been reached.\textsuperscript{60} This is hinted at in the cruciform assembly/presentation hall, where lighter stripes with a dark infill reach from one side of the block to the other, but is most effectively employed in the aforementioned wings. Here, the repetitive use of identical panels suggests a cellular, mass-produced approach to construction articulated with alternating vertical bands of colour separated by thin lines of almost black joint sealant, a production line process that implies (but does not actually embody) a form of

\textsuperscript{59} In a letter, dated 25-2-1971, from B.E.V. Giuffredi of Olivetti to L.D. Nicholls of the Planning Department it was suggested that the classroom wings, separated by the glass tunnel might be limited to just one colour, lavender or orange, but the planning authority felt this predominance of colour would be too overwhelming. That Olivetti were willing to consider sacrificing the stripes while Stirling was not implies his preferred colour distribution had significance for him beyond the client’s reputation. The letter, held by the Waverly Borough Council Planning Office, has no file number attached. Wilford suggests this option was perhaps an attempt by an inpatient Olivetti as a compromise, in order to complete the building, and that as far as he and Stirling were concerned, the classroom wings were always intended to be striped. Michael Wilford, interview with the author 23/3/2007.

\textsuperscript{60} Quarmby, ‘The Design of Structures in Plastic’, 518-522. This was not a new technique by any means. Lionel Schein had dispensed with the separation between roof and wall sections in his mobile GRP library pods as had Quarmby with his plastic relay rooms design for British Rail, both in the late 1950s.
‘endless architecture’. Indeed, Olivetti requested a building that could be expanded easily as demand grew, and the striped result implies just that.

When viewed from above (Ill.2.18) the notion of expanding the Training School becomes much clearer. The glass-encased link breaks out of the house, broadening as it does, and seemingly sprouting the square assembly/presentation hall from which junction the two classroom blocks emerge at slightly different angles. Deyan Sudjic has described this arrangement of parts as a collision (a description based on the angle between the classrooms) but his comments overlook the cohesive presence of the coloured stripes. Emerging as they do from the single coloured walls of the assembly area, these classrooms might just as easily be seen as representing growth, each wing expanding, cell by cell, governed only by the client’s requirements and the giant trees that surround it (the different alignment of the classroom wings was the result of established trees present on the site and the architects’ reluctance to destroy them). As the coloured panels are merely a skin attached to a supporting structure consisting of two-storey, reinforced concrete ribs, set into a foundation/base that levels the site, expansion may well have been possible (although it was never actually carried out).

---

61 Richard Llewellyn-Davies, ‘Endless Architecture’, Architectural Association Journal, (November 1951), 106-113. The phrase ‘endless architecture’ relates to this article but it is not strictly what Llewellyn-Davies meant. In his article he uses the expression to describe Mies van der Rohe’s Alumni Memorial Hall which he feels presents itself as a structure that could theoretically expand in any direction, along any plane, without losing its identity as a single unit. Stirling’s extension for Olivetti implies an ability to expand in the classroom wings only, and even then it is restricted to their length. In this regard, his building is more akin to ‘organic architecture’ a phrase Llewellyn-Davies uses to describe Frank Lloyd Wright’s work and its ability to ‘grow’. Stirling’s building also comprises four identifiable sections rather than Mies van der Rohe’s one expandable unit.

62 CCA Archives file no. 039:02:001-022. Two un-numbered drawings by the architects show that expansion was always a consideration, a point confirmed by Olivetti themselves in Design Process Olivetti 1908-1978, (Italy, 1979), 198, and by Michael Wilford in an interview with the author 23/3/2007.

63 Deyan Sudjic, New Directions in British Architecture: Norman Foster, Richard Rogers, James Stirling, (London: 1986), 90. In a similar example, on page 89, Sudjic describes the different elements as disparate, a description that again overlooks the unifying effect of the colour scheme.

64 Waverley Borough Council Planning Office, file no. 83/69A. This is taken from a statement made by the architects outlining their intentions behind the design.
If expandability is possible then so too is expendability, or so it would seem, and here lies a crucial development in Stirling’s work. This building, unlike the previously discussed Southgate estate, has something inherently temporary about its appearance. The predominance of plastic, and the use of colour to emphasise the cellular composition combine to suggest the Training School, in its present form, might be dismantled without too much trouble (although there is no evidence to suggest this was the case, and something Wilford denies ever being discussed).\(^65\)

The red engineering-brick base on which the Training School sits is, in fact, a deceit. Built of concrete it is actually faced in a veneer of thick, brick-shaped tiles, best described as bricks that have been split lengthways down the middle, a form of thick, brick-tile (ill.2.19). But if the bulk of this overtly modern building is made up of mass produced plastic panels, why disguise the concrete base? Stirling justified this concealment as an attempt to hold dialogue with the Victorian host building which, like many of the surrounding structures, incorporated large amounts of a rust-red brick.\(^66\) Such validation, however, is questionable when one considers the uneven appearance of these much older and coarser materials. Their irregular and less uniform positioning recall a centuries-old tradition of hand-laid bricks, something Stirling was keen to display where and when he felt justified.\(^67\) Yet the smooth, evenly coloured brick-tiles incorporated here represent no such tradition. Their sharp, angular edges and identical dimensions, made all the more emphatic with deeply recessed black grouting, reinforce the theme of repetition. What these mock-engineering bricks assert is mass-production over tradition and industrialisation rather than individuality, while further adding to the incongruity of the building as a whole.

\(^66\) Waverley Borough Council Planning Office, file no. 83/69A.
\(^67\) Stirling, ‘Stirling Connexions’, 275. While Stirling suggested that ‘It is desirable not to eliminate the traces of the human hand in carpentry or bricklaying’ he also went on to say ‘by the same token it is necessary to express the assemblage process of most prefabricated systems; similarly with the colour pigmentation in plastics to delineate the separate parts’.
What the presence of the brick-tiles does contribute, or at least appears to, is a gratifying degree of permanence to the apparently temporary structure above. By spanning the length of each classroom wing, the ‘bricks’ create a satisfying element of solidity and weight that fulfils long-established architectural expectations. Although merely a pretence, they do bring visual stability to the striped plastic panelling; an architectural underlining of the statement above. The horizontal dynamic of the base’s dimensions, and indeed the brick-tiles themselves, contrasts with the vertical nature of the alternating coloured panels. The contribution this base makes to the overall visual impact of the structure is perhaps best understood when the Training School is compared to the second phase of the Southgate Estate which has no visible base.

Southgate Housing Estate, Phase Two
If Southgate’s first phase, and Olivetti’s Training School, both used colour to draw attention to the repetitive nature of their pre-fabricated constructions, then this all-plastic second development of the estate took this form of architectural explication to an extreme; a third and final step in Stirling’s use of coloured GRP panelling. Indeed, the fact that this second phase was clad entirely in GRP panelling owes something to the visit made by the Runcorn Development Corporation to the Olivetti site before they agreed to the idea, initially expressing concerns about the appearance of such a design decision. Situated to the south of phase one, the second phase was similarly set out on a grid system that comprised three long accommodation rows of two and three storey houses running north to south, that were intersected by three perpendicular rows aligned east to west (Ill. 2.20). Unlike the earlier phase, which had each block situated around the perimeter of a large communal square, the houses of the second phase were placed in close proximity

---

68 That a building should display a degree of stability dates back to Vitruvius who suggested architecture must fulfil three basic functions: utilitas, venustas and firmitas. Sir Henry Wolton later translated this in 1624 as commoditee, delight and firmenes (structural integrity). J. Lang, *Creating Architectural Theory* (New York, 1987), 22.

69 Runcorn Housing Archive, file no. NTW 231/4. The Runcorn Development Corporation finally agreed to the all plastic exterior on 10th October 1973.
and parallel to one another, forming long rows of plastic coated, terraced housing, with little open space between them (Ill.2.21).

Originally planned as a continuation of the first phase of development, circumstances dictated that this part of the estate would have to be quite different.\(^70\) A reduced timetable and budget, requiring a more rapid response to the call for further accommodation, combined with an updated brief that requested houses, not flats, were all factors that offered Stirling and his team the opportunity to re-think their original intentions.\(^71\) Wilford recalls how this sequence of events led Stirling and himself to approach their design as a series of streets rather than squares, the principle reason being one of height. The blocks around the squares were five stories high whereas the new houses were to be limited to just two and three. Wilford also explains that site limitations meant that building with large concrete panels would have proved both time consuming and expensive in comparison to the more easily manoeuvrable GRP panelling.\(^72\)

From surviving photographs the most obvious difference between the two phases is the complete absence of a visible concrete structure. Gone are the stairwells and walkways of phase one, instead the accommodation here consisted of multiple rows of houses set in rectilinear blocks, differentiated only by their colour schemes and height. Each flat-roofed block was covered entirely in horizontally ribbed GRP panels of vertically striped colours. Displayed in combinations of grey/blue, grey/orange, grey/green or grey/peach, these colours were used to identify one block from another. The orange, blue and green appear to have been the same shades as those used in the earlier phase, with the peach being a new addition. The

\(^70\) CCA file no. 036.004, 045-003. Photographs of the model of the second phase confirm this.

\(^71\) CCA file no. AP146.S2.SS10. Photographs dated 1973 show the construction of phase two just beginning, revealing the considerable speed at which it was completed.

\(^72\) Michael Wilford, interview with the author 23/3/2007. There are also numerous sketches by Stirling relating to this phase showing fork lift trucks manoeuvring piles of plastic panels about the site. One can only surmise that transporting materials around this site was an issue for Stirling. CCA Archive, file no. 045:001:001:-007.
grey panelling was an alternative constant to the yellow of the first phase which, according to Wilford, had problems with its reaction to sunlight.73

The complete absence of any visible substantial or weighty material in these modern terraced houses leaves images of them somewhat disconcerting. Houses, or more specifically homes, are synonymous with permanence and stability, a quality established in Southgate’s first phase by the abundance of concrete in its various textured forms. Its presence gave the structures an element of immovability, even monumentality, something Stirling was keen to associate with the project judging by the various sketches he made depicting the stairwells along side ancient pillars and cornices, or giant trees.74 In stark contrast, phase two had no obvious elements of any permanent structure. Even the ‘brick’ covered base that emphatically anchored the Olivetti building was here hidden underground, covered with low lying shrubs (Ill.2.22). The result, from the photographs at least, is that these houses appear light-weight, sleek and seemingly temporary; Stirling here had reduced the notion of home to one of colour-coded container living, storage units for the modern family.

Horizontal bands of colour would have at least given the impression of some structural stability, and perhaps established internal floor separation in a more conventional manner (as is the case with the Wissenschaftszentrum, Berlin, 1979-87, discussed in Chapter Three). However, as with the Olivetti Training School, it was the cell by cell clip-on process of construction that Stirling seems to have been intent on displaying here. These alternating coloured stripes, again three to each two-storey house (ABA, BAB) and two to each three-storey house (AB, AB), and not always identical in width, draw attention to the constructional processes involved. They also emphasize the vertical dynamic of each house and mark them out as something quite different from the flats and maisonettes of the earlier phase.

74 A number of these un-dated and un-signed drawings can be found in the archive at the CCA (file no. 036:004,045-003) in which the project’s monumentality is expressed in both the scenes and their titles, e.g. ‘The Viaduct’, ‘The Royal Mint’, ‘The Ruins of Southgate’ and ‘Runcorn: Domestic and Monumental’.
As with phase one the inhabitant’s presence in these later houses seems to have been kept at bay. Garage doors and bedroom walls were covered in the same colours, making identification and separation difficult, and it is never very clear where one house ended and another began. Comparisons with Lubetkin’s unrealized Peterlee project, which attempted to give each house an easily identifiable façade within each row of terraces, reveals the extent to which Stirling suppressed the individuality of the occupants.75

The large-scale use of modern materials and construction methods was arguably appropriate for the Olivetti commission because of the intended purpose of the building and, indeed, the history of the client as a cutting-edge electronics company. The presence of these materials and colours, however, appears incongruous in terraced housing. The backs of the houses that faced onto the paved alleyways were featureless, smooth and visually unwelcoming (Ill. 2.23). In other parts of the estate fronts of houses (recognized only by the adjoining exposed concrete-block garden walls) looked out over small paved squares and the backs of neighbouring terraces. Any concession to the horizontal, such as the repeating windows and doors, was dominated by the coloured stripes, creating a general sensation of height and enclosure. The intention behind the colour schemes was undoubtedly to give each block, or row, its own identity, but the distribution of colours left the terraces inhospitable.

The unsuitability of the materials and colour scheme used in this part of the estate is clearly illustrated in those photographs that include people (Ills. 2.21, 22 & 23). Children in particular appear small and isolated, and look vulnerable in between the seemingly endless rows of cuboid terraces towering over them. The impact of these images is heightened when one views them alongside the photographs Stirling and

---

75 John Allen, _Berthold Lubetkin: Architecture and the Tradition of Progress_, (London: 1992), Chapter Ten. Lubetkin’s unrealized design for Peterlee, drawn up in the late 1940s, was aimed at building terraced houses for a mining community in the North East of England. Each occupant was to have been given the opportunity to choose the style of the front of their house from a limited range supplied by the architect.
Gowan chose to illustrate their housing project in Preston.\textsuperscript{76} In those much earlier images groups of children interact with the brick structures, climbing on, or walking through them. Even in those pictures used to illustrate the first phase of the Southgate estate, the inhabitants, although dominated by the architecture, were shown chatting or going somewhere, and rarely on their own.\textsuperscript{77} In images of the Southgate’s second phase the emphasis seems to have been placed on the endless repetition of identical units, rather than people integrating with their environment. When one considers Stirling’s earlier praise of ‘the alleys and pavements [of the Victorian city which] were crowded and vital places, in contrast to the oversized roads, pavements and building set-backs in the New Towns’, it would seem his priorities had, at this point, undergone a distinct change.\textsuperscript{78}

Further evidence of Stirling’s lack of consideration for the estate’s occupants is revealed when one considers the inspiration for these houses. The first phase of the estate recalled the bourgeois squares of eighteenth-century London and Bath, but the second phase was more akin to the endless terraces of the Victorian industrial north. Stirling’s long running interest in Victorian architecture had prompted him, a decade earlier, to comment on how the repetitive nature of the terrace’s facades actually concealed the presence of the individual.\textsuperscript{79} These remarks, while not derogatory, were certainly not positive and suggest he felt no great affection toward such camouflage. Instead Stirling noted how it was only the rears of these terraces that offered any functional expression or any real indication of the hand-laid method of construction, thereby implying this elevation had a greater affinity with the occupants. In his modern plastic terraces, however, he used the regularity of the repeating stripes to conceal any individuality. When considered alongside his previous statements suggesting ‘the house is the embodiment of its owner’s

\textsuperscript{76} See Crinson, ‘The Uses of Nostalgia’, 217-237 for a detailed analysis of the photos that accompanied contemporary reports of the Preston project.


\textsuperscript{78} Stirling and Gowan, ‘Re-Housing Avenham, Preston’, 381-382.

individuality’, and that ‘the influence of the client’ (which we should take as being the inhabitants, although they did not actually commission it) was being regrettably ‘replaced by that of a system’, one can see just how preoccupied he had become with the display of constructional technique.

Stirling’s interest in repetitive building systems is hinted at in several sketches and drawings of the second phase of the project. The small communal squares that some of the houses looked out on are depicted as being heavily planted with trees and shrubs. This planting, however, is not presented in way that might suggest it could contribute to the health and well-being of the inhabitants of this utopian vision. Nor are the trees large enough to offer relief from the repetitive coloured stripes; or in any other way add to the overall architectural experience in the way that Stirling would later incorporate planting (see Chapter Four). Admittedly, he had described the trees in this part of the estate as growing over the next century to ‘look like the trees in Bradford [Bedford?] Square or places in Edinburgh’, but their representation here as identical and repeating ‘lolly-pop’ symbols planted on a strict grid system and dominated by the architecture, cannot be ignored. In one particular drawing, framed and mounted for display purposes, these cloned motifs are highlighted in lime green with the rest of the composition left as black and white (ill.2.24), but no such emphasis on the foliage appears in the publicity photographs, which kept any such hints of large scale planting to a minimum.

---

80 Maxwell, *James Stirling - Writings on Architecture*, 69-70. This is part of an article by Stirling first published in *Design Magazine* in March 1959.
81 James Stirling, ‘Young Architects: A Personal View of the Present Situation’, *Architectural Design*, Vol. 28, (June 1958), 233. Mark Crinson rightly points out that this is not indicative of any ambivalence toward prefabricated building structures but it does illustrate that Stirling was well aware of the client’s vulnerability in such building systems, and further raises the question why, ten years later, he asserted the method of construction over the presence of the individual. Crinson, ‘The Uses of Nostalgia; Stirling & Gowan’s Preston Housing’, 235.
83 CCA file nos. 045:002:011/014/015. The point is worth mentioning as trees in drawings for other projects were much more random. In a booklet of drawings for the Florey Building in Oxford, dated 1967, Stirling contrasts the prismatic appearance of the accommodation block with irregularly sized and ‘shabby’ outlines of the existing trees. (Oxford University Archive, file no. ZW 134, booklet no.38 drawing no.27B.
84 CCA file nos. 036:004,045-003. Although only a limited selection of images of this phase were published, a considerable number were not, many of which incorporated large amounts of foliage.
The opposite can be observed at the Haslemere site where the surrounding trees were allowed to partially dictate the layout of the building. Stirling’s final decision at Southgate seems to have favoured less cluttered images where the regularity and repetition of the sleek, brightly coloured boxes predominated, creating, it would seem, a distinct lack of opportunity for the individual to assert him/herself over their environment, or to interact with it very much at all. So bold are the coloured stripes in these pictures, so unrelenting their assertion of the constructional method, that much of the familiarity regarding the function of these terraces is lost in favour of a distinctly institutional formality.

**Conclusion**

What has been argued in this chapter is that although Stirling’s exploration of pre-fabricated building systems produced buildings unlike any he had designed before, the projects do reveal the continuation of design concerns emergent in his earlier works. Specifically, his use of colour and texture invites close scrutiny from those using the buildings and offers insight into the construction processes involved, as well as highlighting the functional significance of specific sections. This being the case it can be argued that within these projects Stirling took the architectural reflexivity present in his ‘red buildings’ to an extreme. Capitalising on limiting budgets, restrictive timescales and difficult locations, he afforded himself legitimate reason to pursue these themes while broadening his field of inspiration to include whatever materials and building systems he felt pertinent.\(^85\)

By turning to cheap methods of mass-production and alternative materials Stirling indulged his fascination for the ad hoc and created buildings (particularly the Olivetti Training School and the second phase of the Southgate estate) that appeared as ephemeral as they did modern; container living for the transient populations of the modern consumer age. His willingness to consider unconventional sources of inspiration, combined with a seemingly ‘aggressive

---

\(^85\) Stirling had voiced his concerns about the logistical and economical implications of this project and how they might influence its development. Runcorn Development Corporation, file no. NTW 189/1. Michael Wilford, in an interview with the author 23/3/2007, confirms this point.
commitment to the present’, draws obvious parallels with Pop architecture and the work of Archigram, which cannot be ignored, and which shed further light on the true extent of his evolving eclecticism. These buildings however, particularly the Southgate Housing Estate, also appeared both repetitive and monotonous, with the celebration of mass-production and pre-fabrication seemingly ridding the structures of any personal sentiment on behalf of the architect. Indeed, it would be difficult to imagine how such a bold display of production-line processes might have avoided this deficiency. Taken to an extreme, Stirling’s reduction of all detailing in favour of a display of technique in these buildings left them distinctly inhospitable, suggesting a disregard for the psychological needs of those inhabiting these structures that can be seen to have begun with his council flats in Camden (see Chapter One) and culminated in the smooth and shiny repetition of Southgate’s second phase.

Although Stirling seems to have had little regard for the effects of mass-production on those who used these buildings, he did not allow his own individuality as an architect to be compromised, and this manifests itself in the tension between form and colour. The air of rationality about the structure, form and lay-out of these buildings, that hints at, or aspires to, an objectivity that (according to Rowe) arguably has its roots in classical design ethos, is countered by the colours and textures that Stirling incorporated to create visually arresting and idiosyncratic buildings. As if to test his own ability to create architectural objects of distinction whatever the situation, he immersed himself in the world of mass-produced pre-

---


87 Wilford denies any influence from the work of Archigram (and in particular their 1963 ‘Living City exhibition held at the ICA) but the similarities should not be ignored. Michael Wilford, interview with the author 23/3/2007. Stirling’s appreciation of Pop art and culture was long standing and can be traced back to his involvement with the Independent Group. He owned works by Paolozzi and hung Lichtenstein’s Pistolet in the hallway of his house to greet all who walked through the door, Mary Stirling, interview with the author 18/11/2009.

88 Colin Rowe, The Mathematics of the Idea Villa and Other Essays, (Cambridge, Massachusetts: 1982), 125. As early as 1956 Rowe stated that “Objectivity” meant limits. It implied an impersonal, a generalized and an abstract form…the conception of such a form, purged of individual sentiment and rising above personal emotion, is, at the bottom, a classical one...’.
fabrication, relying on modern materials and the array of bright, synthetic colours they carried, to assert his presence.

Southgate Phase Two was not Stirling’s final foray into the use of bright, synthetic colours, but it was the last of his buildings to use GRP, with subsequent projects returning to more traditional materials. The reasons behind the sudden halt are unclear, with Wilford putting it down to there just not being appropriate opportunities to continue. It might also be said that its use had reached a logical conclusion. Each building, starting with Southgate Phase One, can be seen to have advanced his use of plastic panelling, incorporating colour schemes to make explicit the repetitive nature of the production-line process to a degree that, in the end, appears to have taken priority over the building’s intended purpose.

Stirling’s departure from using GRP also signals his move away from pre-fabricated repetitive building systems. Continuing to incorporate a broad range of non-structural materials that brought their own points of reference, he now chose to expand his palette to include a combination of synthetic and natural finishes that avoided any sense of repetition or mass-production. In the projects discussed in the next chapter, and that follow the last phase of the Southgate estate, Stirling returned to issues of context; an architectural concern dating back to his earliest designs. Without compromising his desire to produce visually striking structures and, wherever possible, continuing to employ bright colours and a variety of textures, he paradoxically displayed an awareness of each site’s individual characteristics.

---

Ill.2.1 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72.

Ill.2.2 The Brow Estate, Runcorn.

Ill.2.3 James Stirling, Southgate Housing Estate, Phase One, 1967-72.
Ill.2.4 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72.

Ill.2.5 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72.

Ill.2.6 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72.
Ill.2.7 James Stirling, Halls of Residence, St. Andrews University, 1964-68.

Ill.2.8 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72.

Ills.2.9 & 2.10 James Stirling, Southgate Housing Estate, Phase One, Plan, 1967-72, access decks detail.
Ill.2.11 Manor House, Haslemere, 1901.

Ill.2.12 James Stirling, Olivetti Training School, Haslemere, 1969-72.

Ill.2.13 James Stirling, Olivetti Training School, Haslemere, 1969-72, detail of stonework and plastic panelling.
Ill.2.14 James Stirling, Olivetti Training School, Haslemere, 1969-72, plan.

Ill.2.15 James Stirling, Olivetti Training School, Haslemere, 1969-72, detail of lime-green/yellow radiators.

Ill.2.16 James Stirling, Olivetti Training School, Haslemere, 1969-72, and the older manor house (far-left).
Ill. 2.17 James Stirling, Olivetti Training School, Haslemere, 1969-72, interior assembly area.

Ill. 2.18 James Stirling, Olivetti Training School, Haslemere, 1969-72, axonometric.

Ill. 2.20 James Stirling, Southgate Housing Estate, Phase Two, 1972-77, plan of estate situated below Phase One.

Ills. 2.21 & 2.22 James Stirling, Southgate Housing Estate, Phase Two, 1972-77.
Ill. 2.23 James Stirling, Southgate Housing Estate, Phase Two, 1972-77.

Ill. 2.24 James Stirling, Southgate Housing Estate, Phase Two, 1972-77, axonometric presentation drawing.
Chapter Three

Colour and Contextualism in the Post-Modern Era: Stirling’s Work from the Late 1970s

Whereas each of the previous two chapters dealt with easily identifiable groups of buildings (‘red brick’ and ‘plastic’) this chapter concentrates on three visually very different structures dating from the late 1970s onwards: the Wissenschaftszentrum, Berlin 1979-87; the Clore Gallery, London 1980-86; and Number One Poultry, London 1986-97. What is argued here is that although these buildings differ from Stirling’s earlier work and each other, they contain significant layers of stylistic continuity, the most obvious being Stirling’s continued use of colour, texture and materiality as a means of giving his designs a dramatic visual presence. Paradoxically, however, what these buildings also represent is an identifiable response to context, a quality that dates back to his work in the 1950s.

In what, at first, seemed like a move away from the Modernist legacy of creating isolated architectural objects, and his reluctance to ‘consider the surrounding context [of the History Faculty Library] influential’;¹ Stirling now insisted that ‘the building in isolation, free-standing, with little reference to urban context’ was ‘the basis of a Fascist architecture’.² Stating that ‘architecture cannot exist in a void’,³

---

² James Stirling, ‘Beaux-Arts Reflections’, Architectural Design, Vol.48 (November/December 1978), 88. Stirling made this comment in reference to Beaux-Arts architecture in particular, and likened its extreme position as being equal, but opposite, to the Bauhaus, both of which he described as ‘equally unfortunate’.
he spoke openly of the need for contextual compromise. This compromise has been linked with Leon Krier (who worked in Stirling’s practice from 1968-70) and his work on the Derby Civic Centre project. What is argued here, however, is that taking inspiration from context was not new to Stirling, and can, in terms of colour and materiality, be seen as early as 1956 with his and James Gowan’s design for the flats at Ham Common, London (1955-56) and more explicitly in their housing scheme in Preston (1957-61), both of which incorporated an abundance of coloured brickwork common to their respective locations. The same can also be said of the red tiles and bricks of the Leicester University Engineering Building (1959-63), although while they refer to the building’s purpose and Leicester’s industrial heritage, the colour of these materials does clash with the warm yellow brickwork of the other university buildings (see Chapter One).

The Clore Gallery references its location via the materials it employs in a similar manner to the Ham Common and Preston projects, while the other two buildings discussed in this chapter achieve integration predominantly through form. In all three instances, however, Stirling delivered a recognizable degree of contextual referencing while relying on increasingly flamboyant colour schemes to assert each building’s individuality.

If the buildings-as-objects discussed in chapters one and two reveal little by way of contextual sympathy, they should not be read as stylistic aberrations within Stirling’s oeuvre. On the contrary, these earlier contextual incongruities are here presented as an integral part of his career-long exploration into how colour could dramatically contribute to a building’s visual presence. Combining the architectural

---

from the adjacency and the context of the site of what is nearby, round about, or across the street. What is the character of the area? What is the sort of ambience? The atmosphere of the place? All these sort of things could give you clues that might be primary considerations in producing a design for that situation.

4 Several sources suggest that Krier was responsible for the contextualism that Stirling’s work displayed around this time; these include Mark Girouard, Big Jim: The Life and Works of James Stirling, (London: 2000), 189-90; and Peter Blundell Jones, and Eamonn Canniffe, Modern Architecture Through Case Studies, 1945-1990, (Oxford: 2007) 84. Michael Wilford disagrees that contextualism was new to Stirling at this point. Michael Wilford, interview with the author 19/6/09.
antagonism displayed in the red brick buildings at Cambridge, Camden and Oxford (Chapter One), with an inclination for colourful flamboyance developed at Runcorn and Haslemere (Chapter Two), Stirling, from the late 1970s onwards, continued to create visually arresting architecture. The argument this chapter expounds, therefore, is that contextual referencing was not new for Stirling and neither was it intended to reduce the impact of his architecture on any given location. Rather, it represents a conscious effort to relate his increasingly idiosyncratic designs to their specific surroundings. Via a constantly changing cocktail of mnemonic allusions and twentieth century materials, the buildings discussed here illustrate three alternative ways in which Stirling used recognizable contextual references alongside an ever more exhibitionist approach to colour.

The chronology of the buildings discussed in this chapter is particularly important as it raises a second line of investigation. Coinciding with the rise of Post-Modernism, Stirling’s work at this time is necessarily discussed in relation to the term as it was understood then, with emphasis on why he refused the association. What this chapter establishes is that, although the buildings discussed here are more flamboyant, more overtly historicist and eclectic than his earlier work, they do not represent a break from his early history. Analysis indicates that much of what can be labelled as Post-Modern in these later projects co-exists with quintessentially Modernist principles, and can in fact be found in his early designs. This being the case it could be argued that Stirling and Gowan’s projects at Preston and Leicester – see Chapter One - pre-empted Post-Modernism; but categorisation is not the issue. What is relevant here is that the considerable stylistic differences, and increasingly adventurous use of colour in these later projects, actually have their foundations in themes begun in the 1950s.

It should be noted, however, that not all of Stirling’s buildings were so visually striking. By his own admission his design ethic was constantly ‘oscillating… between the formal and the informal, between the restrained and the exuberant’ and
there is evidence to support this.\(^5\) One need only look to the extension to the School of Architecture at Rice University (1979-81), or the bookshop in Biennale Gardens, Venice (1989-91) to find examples of his ability to use colour to play a building’s presence down when he felt it appropriate. At Rice, Stirling’s deference to the visual character of Ralph Adams Cram’s 1910 design resulted in some of the older building’s features, such as string courses on the façade, and matching facing brickwork, continuing into his addition. So compliant was his and Wilford’s design that it was actually criticized for its anonymity.\(^6\) The bookshop in Venice carries a similar air of restraint. Despite its nautically inspired shape\(^7\) the low walls, overhung by such a large area of pale, powdery-green, verdigris covered roof, allow this small building to blend in easily with the heavy foliage of the gardens, which he took pains to preserve (Ills. 3.1 & 3.2).\(^8\)

Initially then, it is Stirling’s return to contextualism that requires investigation. Context, of course, has many interpretations and needs defining if we are to understand more clearly how it might have influenced his work in the three examples discussed here. What, during this period, specifically established a building as being contextually inspired? Was such a building required to display mimicry and pastiche (as championed at this time by HRH Prince of Wales) or merely a degree of colour co-ordination with its neighbours?\(^9\) Should the materials used share obvious similarities in terms of texture and application, and did the overall shape of the structure need to hold dialogue with existing buildings? Or was contextual referencing simply a case of respecting established street lines?

\(^6\) M. Sorkin, 'The Big Man on Campus', \textit{Architectural Review}, Vol.175 (March 1984), 25.
\(^9\) The protesters of modernity gained the support of a high-profile champion when HRH Prince of Wales proposed a deliberate and considered return to older styles. Having declared, in 1984, that Ahrends, Burton and Koralek’s design for the extension of the National Gallery was ‘a monstrous carbuncle’ he suggested, in the BBC documentary, \textit{Visions of Britain} (broadcast 28/10/88) that ‘There’s nothing “fake” about building in an established tradition, or in trying to revive one’.
For Colin Rowe contextual sensitivity meant not ignoring the ‘un-built void’. Criticising Modernism for producing isolated structures, with little or no concern for the impact they had on the open-areas surrounding them, he felt, in 1979, ‘the pressing question [to be] how to make a city if all the buildings proclaim themselves as objects’. But Rowe, whose influence on Stirling was considerable, was not warning against architectural individuality. He had, in fact, raised the importance of distinctive architecture within the urban context in his essay ‘The Present Urban Predicament’, using the rich variety of buildings in Rome as exemplar. Rather, what it seems he was advocating was much greater consideration for the relationship between a building and its adjacent space, in an attempt to retain cohesion in the modern urban environment and ensure sympathy for those that dwelt there; something Stirling seems to have considered in all three of the projects discussed in this chapter.

Context might also relate to a building’s purpose, or the context of type. To what extent should a building’s appearance conform to conventional expectations regarding its intended function? Do museums, banks or theatres have traditional, or archetypal forms with which to comply, and if so, when building new versions is it necessary to incorporate recognizable references to the old? Such questions might suggest that Stirling’s Florey building, discussed in Chapter Two, is itself formally

---

10 Colin Rowe, As I Was Saying: Recollections and Miscellaneous Essays, Vol. 3 (Cambridge, Massachusetts: 1996), 169-71, from a lecture delivered to RIBA. While Rowe did not describe this aspect of urbanization specifically as contextualism, it is relevant as it concerns the relationship between new buildings and the existing city, and in particular the need for the former not to compromise the latter.

11 Rowe’s influence over Stirling and, indeed the architectural community at this time was substantial and has often been commented on. Robert Maxwell, (Ed.) James Stirling - Writings on Architecture, (Milan: 1998), 8-10.

12 Rowe, As I Was Saying, Vol.3, 165-220. This essay originates from a lecture delivered in London on June 18, 1979. It was subsequently published in the Architectural Association Quarterly in 1980 and again in The Cornell Journal of Architecture No.1 in the autumn of 1981. In it Rowe suggests both the modern and the traditional can bring something to the contemporary city, and that architects should recognize this. p.194. Taking Rome as an example he describes how from a distance it might appear neutral in texture but at close quarters, at street level, there exist buildings of distinct individuality that contribute considerably to the character of the city as a whole. Stirling’s work in this chapter can be seen to follow just such an approach, creating buildings with identifiable contextual links that boldly display their modernity and individuality. Stirling does not suggest this essay directly influenced these designs, but his admiration for Rowe’s teachings is a matter of record.
contextual even if the colours are antagonistic. Built, on all but one side, around a private court-yard, Stirling claimed this accommodation block referenced the quadrangles of the older Oxford colleges.\textsuperscript{13} The lack of any functional indicators in the plethora of curtain-wall developments being built at this time, whether they were galleries, schools or office blocks, was certainly a bone of contention, and for Stirling it had been a consideration since the 1950s.\textsuperscript{14}

Alternatively, as Alan Colquhoun suggests, type can be merely a ‘connotation of a de facto form which…. can be reinterpreted again and again in different historic circumstances’.\textsuperscript{15} In this instance a given building might incorporate a more subtle set of references that may, or may not, be easily identified. These two definitions are not necessarily mutually exclusive, and while Colquhoun suggested it is a trait of Post-Modern architecture to work within these ‘two interpretive poles’, they can be seen to co-exist in Stirling’s work as early as the Leicester Engineering Building.\textsuperscript{16} Formally the structure resembles the traditional factory lay out: office tower to the front and workshop behind; but even without this nod to industry, the red glazed tiles and bricks declare the building’s associations with engineering. Ironically it is not a factory but a place of education, its form and colour merely referencing the subjects taught within (which invites further speculation regarding Stirling’s relationship with Post-Modernism).

One must also consider the broader contexts of time and national identity, especially in the case of public buildings and/or those that aspire to monumental significance. Stirling’s design for the Neue Staatsgalerie in Stuttgart (1977-83 see

\textsuperscript{13} Stirling, ‘Architectural Aims and Influences’, 37.
\textsuperscript{14} James Stirling, ‘Young Architects: A Personal View of the Present Situation’, \textit{Architectural Design}, Vol. 28, (June 1958), 233. Stirling suggested limited budgets had forced architects to resort to an ‘easy acceptance of pre-solutions’ resulting in buildings of ‘no personality’ where ‘the influence of the client [was] replaced by that of the system’. He also recognized the detrimental effects of the inhabitants in buildings where vast amounts of glass had replaced the traditional wall, claiming in 1959 that ‘the finer aspects of architecture [were] lost’ behind ‘a complicated façade of curtaining’. Maxwell, \textit{James Stirling - Writings on Architecture}, 73.
\textsuperscript{16} Ibid.
Chapter Four) holds little obvious dialogue with its immediate surroundings (or the old gallery, of which it is an extension) but its overt references to Schinkel and, by implication, to German architectural history, cannot be ignored.

It is, therefore, fair to suggest that for a building to be considered as responding to context it must display, to a *recognizable* degree, some, if not all, of the above qualities, and for the purposes of this chapter this is how contextualism will be defined.\(^{17}\) But it is not a case of drawing up a check-list and ticking boxes. In the projects discussed here, contextualism works on a variety of levels rather than adhering to a specific formula. And the fact that the characteristics of any given site not only differ from other locations, but change themselves over time suggests architecture can present contextual considerations in a multitude of ways.

The importance of contextualism within Modern architecture was not a recent issue. As early as 1954 the editor of *Casabella*, Ernesto Rogers, criticised the early Modernists stating ‘No work is truly modern which is not genuinely rooted in tradition, while no ancient work has significance today unless it can resonate through our voice’,\(^ {18}\) condemning their reluctance to consider any dialogue between their work and its immediate surroundings or ‘preesistenze ambiente’.\(^ {19}\) Rogers suggested that while such sympathy was not necessarily established through colour, form or specific historical reference, it required an *identifiable* relationship between a new building and the established surrounding fabric. He claimed that not only was it a fundamental requirement of modernity to develop a foundation in tradition, but that without it history would become meaningless to contemporary life. The

---

\(^{17}\) This is precisely why the Florey Building cannot be considered contextual. Although Stirling suggested its form was influenced by the cloistered quadrangles of the more historic colleges, being ‘crescent’ shaped and open on one side, this structure bears a stronger resemblance to an ancient amphitheatre.


\(^{19}\) Ibid. 132. Although this does not translate directly as ‘contextualism’ but rather the pre-existing ambience, it refers to similar concerns: an awareness of a locations established characteristics.
warning was echoed by Joseph Rykwert two years later\(^\text{20}\) and again at the 1959 Congres International d’Architecture Moderne in Otterlo, by Giancarlo de Carlo, who voiced his own concerns with a call for ‘pliant and adjustable plans’ based on a ‘detailed knowledge of [a site’s] historical data’.\(^\text{21}\)

What these calls advocated was a symbiotic relationship between old and new. Prompted by an extant fabric and a modern purpose, new buildings were to simultaneously respond and contribute to their surroundings. It was not just a question of fitting in, but also of changing what was already there, creating a new environment that develops from what already exists. Despite these concerns Modernism, by the 1960s, was perceived by many to have failed to respond to such contextual influences.\(^\text{22}\) The often inhuman scale and impenetrable, repetitive facades invoked new calls to curb future developments, triggering a wave of reactionary nostalgia.

In Britain disillusionment with welfare state housing projects and the mediocrity of the New Towns policy (areas of architecture which Stirling had contributed to with his Southgate estate project, see Chapter Two), continued to gain momentum. The ambitions and aspirations of the early twentieth century masters of Modernism had, it seems, ‘shrunk to a calculated strategy of creating “circuses of bread and spectacle”’.\(^\text{23}\) Synonymous with large scale, incongruous and unfamiliar structures, void of any obvious or comprehensible identity, the replacement of the old with the totally new was commonly perceived as the needless destruction of an already dwindling, precious heritage. Pressure groups such as SAVE, established in 1975

\(^{20}\) J. Rykwert, \textit{The Necessity of Artifice}, (London: 1982), 16. Rykwert warned that ‘if memory and association are starved visually by architects, then the result must be malaise and a rejection of the environment which they created’.

\(^{21}\) H. Klotz, \textit{The History of Post-Modern Architecture}, (Cambridge, Massachusetts: 1988), 83. This statement was probably inspired by De Carlo’s own experience of how inappropriate Modern architecture could be. Observing how the inhabitants utilized a block of flats he designed in Sesto San Giovanni (1952) he realized that what he thought was a rational design did little to uphold existing community life-styles. Rykwert, \textit{The Necessity of Artifice}, 22.

\(^{22}\) Numerous examples of discontent can be given but a good indication of the growing dissatisfaction with Modern architecture can be found in Nicholas Taylor, ‘The Failure of Housing’, \textit{Architectural Review}, Vol.142 No. 849, (Nov. 1967), 341-359.

\(^{23}\) D. Porphyrigos, ‘Classicism is not a Style’, \textit{Architectural Design}, Vol. 52 (5/6 1982), 51.
by like-minded journalists, historians, planners and architects, warned against the resulting loss to our communities, while exhibitions entitled ‘The Destruction of the English Country House’ (1974) and ‘Change and Decay - The Future of our Churches’ (1977) added to the pessimism. Admittedly, much of the criticism regarding modern British architecture in the 60s and 70s had been levelled at the larger, high-rise property developments (A. and P. Smithson’s Robin Hood Lane, 1964-72 and Lynn, Smith and Nicklin’s Park Lane, Sheffield, completed 1961), but Stirling’s own works had not escaped similar accusations of contextual insensitivity.

The combination of Modernism’s unpopular legacy, and the ensuing reactionary back-lash raised fears within the industry of a crisis for modern architecture. According to architectural theorists and practitioners alike, modern architecture had been denied the chance to communicate; its taut blank, planar exteriors revealing little more than a subservience to function. If the heroic white architecture of the inter-war years made manifest the fervour of the early machine age, its descendants, by the late 1960s, had too often become semantically mute and contextually indifferent; elitist and incomprehensible it was unable to reference any aspect of historic development, leaving it stranded in what Frederic Jameson described as ‘radical solitude’.

---

26 Taylor, ‘The Failure of Housing’, 341-359; Christopher Booker and Candida Lycett Green, Goodbye London, (London: 1973); and Brent C. Brolin, The Failure of Modern Architecture, (London: 1976) all exemplify the growing criticism that modern architecture was attracting, the first of which actually cites Stirling and Gowan’s infill housing at Preston as an example of inconsiderate modern housing.
27 See Chapter One, specifically the discussion concerning the Cambridge University History Faculty Library and the Florey Halls of Residence at Oxford University.
28 Rykwert, The Necessity of Artifice, 9-10. Rykwert had written of the ‘pre-occupation of designers and architects with rational criteria’ since 1957, warning that it would devalue architect’s ‘achievements and cut them off from a mass public….loosing the power of touching emotion’. Similar counsel was still being offered nearly twenty years later when, in 1976, Norberg-Schulz stated ‘Man can not gain a foothold through scientific understanding alone. He needs symbols, that is, works of art which ‘represent life situations’. C. Norberg-Schulz, Genius Loci - Spirit of Place: Toward a Phenomenology of Architecture, (New York: 1980), 5.
As with most crises, the problem lay not just in the collapse of an old order but in the confusion regarding the establishment of another. Architecture, it was widely agreed, had to break its affinities with the mass-produced/production-line process and once again ‘learn how to dramatize, emphasize; in short to build on the nature of experience’. But if communication of something more than just internal planning was to be encouraged in Post-Modern architecture, what should be conveyed and how could this be achieved? For architecture to once again connect at a human level, must all references to modernity and modernization be, if not ignored then convincingly underplayed? Should buildings resort to explicit historicism, or could accelerating technological developments continue to play a part in contemporary architecture?

Richard Rogers suggested the root of the crisis facing architecture at this time was precisely its *inability* to ‘meet the…technical challenges of [the] time’. For others, however, it was overt references to mnemonic themes and/or a site’s idiosyncrasies that were to establish more open lines of communication between new buildings and those experiencing them. Both approaches raised concerns: if High Tech architecture retained the potential for the same alienation that afflicted Modernism, then the alternative brought fears of fetishistic, reactionary agendas resulting in indiscriminate displays of kitsch and pastiche.

It was not the search for a new unilateral style that was the cause for concern, but what such a debate implied for the role of the architect him/herself. If the purity of tectonic logic and functionally dominated forms of Modern architecture were to give way to, what for many was believed to be, superfluous and superficial symbolic motifs, modern architecture, it was feared, was in danger of becoming a shallow medium that pandered to public demand and developers’ desires. Should the social commitment that lay behind the architecture of the inter-war years be compromised, in favour of more lucrative commissions, this might then stifle any

---

30 Ibid. 99.
experimentation or self-expression by the architect. Stirling himself felt the root of many urban problems lay in the fact that the ‘art’ of architecture had become overshadowed by the economic value of buildings as commodities. A thought that reflected a growing scepticism within the industry that the ‘overriding concern of architects and designers seemed to be how best to ingratiate themselves with private and corporate developers’. The fear was that the passing of Modernism would at best lead to a malaise, or confusion, but at worst would inspire a reactionary backlash or a sell-out to the whims of developers.

If this time of turmoil was seen as potentially problematic by some, there were those, including Stirling, who took it as a much welcomed and liberating period, offering opportunities to incorporate bold contextual and historical references. Just how welcome this change was, within some quarters of the industry, is perhaps best illustrated by the architectural section of the 1980 Venice Biennale exhibition ‘The Presence of the Past: the End of Prohibition’. Displaying a series of façades from twenty invited architects that led into individual exhibition rooms, the unambiguous title of this show indicates just how refreshing historicism and eclecticism was for some. Rather than representing a crisis, the return of symbolism and the re-instatement of the façade as a conveyor of meaning, an agent for communication, confirmed the need for a semantically richer and more easily comprehensible architecture.

Stirling did not actually contribute to the exhibition, but it remains pertinent. Representative of the growing acceptance of decorative devices intended to draw the attention of the architecturally un-enlightened, the display echoed his own earlier assertions that architecture needed to communicate to a greater audience. This increasing tolerance towards both historicism and eclecticism meant that Stirling was now in a position to create a comprehensible and contextual

---

33 Thackara, Design After Modernism, 46.
34 James Stirling, ‘Stirling Connexions’ Architectural Review, Vol.157 (May 1975), 275. This article was actually given as a statement by Stirling at the 2nd Iran International Congress of Architecture in September of 1974.
architecture of dramatic appearance, wherever and however he felt appropriate. Modernism’s slide from unilateral design ethos to just another chapter in architectural history played fortuitously into his collagist hands, allowing him to use colour and form in a much less restricted, much more ad hoc and metaphorical manner. This in turn raises the question of Post-Modernism and Stirling’s position in relation to the term as it was understood at that time. Despite incorporating many of its more obvious characteristics into his architecture, he refused the association. But if this rejection is to be taken as something more than simply a self-publicising exercise, it is first necessary to establish what Post-Modernism meant during this period and how Stirling’s own work might have fundamentally differed.

Stirling and Post-Modernism

Post-Modern architecture’s very reliance upon a plurality of styles prevents it, as Klotz pointed out at the time, from being defined as a style in itself. Rather, it was an acceptance of the need to create an architecture that could easily communicate with those who experienced it via any architectural references thought necessary, that identified it as being fundamentally different from Modernism; something Klotz referred to as ‘the insistence of the fictional character of architecture’. Where Modernism concerned itself with displaying the tectonic relevance of different architectural elements, and rendering form subservient to function, Post-Modernism countered this with a ‘narrative representation’; a recognition that the very appearance of the building had the potential for multivalency, and accepted any means felt appropriate to communicate with an audience beyond the architecturally enlightened. The fundamental requirements of architecture; shelter, protection and purpose (a structure’s intended function) no longer defined a building’s appearance. Instead its intended purpose, typology, tradition and location combined with the client’s and public’s opinion, all could, and did, shape its final design.

37 Ibid.
38 Ibid, 128.
At face value these elements might all be recognised as existing in Stirling’s work from the late 1970s onwards, explaining why writers and critics label his designs as exemplifying Post-Modernism. Through eclecticism, historicism and the use of any textures and colours thought effective, Post-Modern architecture in general, and Stirling in particular, simultaneously worked from the premise that referencing the past was an essential part of creating contemporary buildings that, as Jencks explained, would ‘re-establish a relationship between architecture, client and society’. It is, however, the criticism Post-Modernism attracted at this time that sheds light on why Stirling might have resisted the association. Overt historical references, while easily recognized by a broader public, were translated by some within the industry as ‘a complacent play of historical allusion and stylistic pastiche’ that served little more than to satisfy irrelevant personal tastes or fleeting fashionable trends. According to Bruno Zevi, Post-Modernism’s dominant visual characteristics represented two incompatible trends. The first he labelled ‘neo-academic’ and criticised for its continuous and gratuitous referencing of classical canons; the second he called ‘anti-thetical’ describing it as a ‘do anything you like’ approach to architecture, born of a conviction that, in the name of pluralism, all tastes were acceptable, whether from high or low culture.

Zevi’s accusations suggest that the injudicious plurality of Post-Modernism was, as Michael Sorkin describes, ‘really just an excuse to be weak-willed and unprincipled. [Confronting] architecture opportunistically, as a developer confronts the city’. Modernism’s purity of style and purpose, as Porphyrios explained in 1984, had been replaced by an ‘indulgence in superfluous meaning [that] has led to

---


a travesty of architecture’. The broad acceptance of referencing any and all styles might have represented, for some, a degree of democratic freedom and toleration, but for others it was indicative of a lack of substantial common conviction, a lack that Stirling was keen to be disassociated from. If the outward appearance of his buildings had dramatically altered, he was adamant that the sincerity of his architecture had not. ‘Humanistic considerations’, as he himself explained, ‘must remain the primary logic from which a design evolves; they help bring about work that is in harmony with its surroundings’. And if the incorporation of mnemonic references had become more easily identifiable in his work, it was not as a result of either arbitrary historicising or a compromised temporal perspective.

What differentiated Stirling’s historicism and eclecticism from the mainstream of Post-Modern architecture was his insistence on context as a design concern, and this lies at the heart of his rejection of the term. The ‘narrative representation’ that he now made explicit was neither self-indulgent nor unprincipled, and has more in common with the influential works of Colin Rowe, particularly his and Fred Koetter’s 1978 publication Collage City, than it does with Post-Modernism’s stylistic plurality. Emphasising the need for modern architecture to connect ‘to the known, perhaps the mundane and, necessarily memory-laden context from which it emerges’, Rowe and Koetter criticised Modernism’s failure to communicate and its reluctance to build on the past. That such influential authors should elevate contextual sympathy to this degree gives a credible insight into the magnitude of this issue at this time (particularly in regard to Rowe, whom Jencks has suggested introduced Stirling’s generation to using historic references and metaphors ‘as a viable generator of present form’). However, the fact that Rowe and Koetter wrote, as Stirling built, at the time of Modernism’s decline, does not automatically indicate that they subscribed to Post-Modern thinking.

46 Rowe, As I Was Saying, Vol. 3, 49.
The term Post-Modern also suggests a definitive break from Modernism. Whether the acceptance of plurality and ambiguity marked an ‘end to prohibition’ or, alternatively, a ‘pre-occupation…with the periods the Modernists hated most’, Post-Modernism was presented as being fundamentally distanced from Modernism, and this schism also lay at the heart of Stirling’s discomfort with the term. While he welcomed the broader acceptance of a plurality of styles, he did not underestimate the value of Modernist principles in his architecture. His historicism and eclecticism was neither reactionary nor nostalgic and did not point toward an outright rejection of Modernism, but rather a willingness to use any stylistic references he felt necessary. Indeed, as late as 1990 he still maintained that ‘functionalism’, a fundamental Modernist concern, remained ‘the guiding principle and….the basis of [his and Michael Wilford’s] concepts’. Modernism’s passing from dominant design ethos to just another historic trend merely enabled Stirling to use its characteristics as any other style, without, it is argued, compromising the contemporary relevance of his buildings. Glass walls and ancient capitals could, and did, co-exist with surprising ease, each referring to an earlier style but performing equally important roles in what were fundamentally late-twentieth century buildings.

What the buildings in this chapter reveal - and this is central to our understanding of Stirling’s work at this time - is that while the re-emergence of contextual sympathies in his later designs can be labelled as typically Post-Modern in principle, it was a development of, rather than a break from, his buildings of the

49 Klotz, The History of Post-Modern Architecture, 49. Klotz suggests there is a fundamental difference between these two terms. Historicism, he argues, refers to when an historical model has been used in such a way that it is accepted and acknowledged. Eclecticism, however, uses history as a point of departure while simultaneously paying tribute to the modern. It is testament to Stirling’s dexterity that he could, and did, incorporate both into his architecture.
51 Richard Rogers argued that ‘the irony is that the expressionless fancy fake facades of today’s two-dimensional architecture, whether elegant classical Modern, or whimsical Post-Modern, depend on taste and fail to grapple with real values. Problem and process are drowned in superficial responses’. Rogers did not level this accusation at Stirling but it does indicate the concern some architects had for the increased use of historical references. Quoted in B. C. Cole, and R. E. Rogers (Eds.) Richard Rogers and Architects, (London: 1985), 19.
The implication, therefore, is that despite the absence of bright colour schemes and bold displays of collage, some of Stirling’s earliest designs could similarly be classified as Post-Modern. Most notably, starting with his and Gowan’s housing scheme at Preston (1957-61), he made recognizable attempts to communicate some of those contextual themes discussed above to a broader audience, and via any means he felt appropriate.

The same claim can be made of the Engineering Building at Leicester University. Despite displaying obvious and identifiable Modernist characteristics (see Chapter One) it simultaneously possesses those fictional qualities that Klotz ascribed to Post-Modernism. The red, glazed tiles that cover much of the building’s structure are not so dissimilar from the stone cladding that covers many of Stirling’s later works. As non-structural materials their colours and textures work to connote specific information in an attempt to create for the building an identity easily recognised by a broad audience. In the Leicester project this identity was associated with industry and engineering, precisely why these colours and materials were anachronistic in the other buildings discussed in Chapter One. Decades later, and at the heart of the City of London, Stirling attempted a similar form of visual association with Number One Poultry (referred to by Maxwell as a Post-Modern building ‘thirteen years out of date’). In this instance Stirling responded to the unshakeable permanence of an historic financial institution and ‘the more familiar appearance of public buildings’ with stone.

The rise of Post–Modernism, as discussed by Jencks, Klotz and Portoghesi, merely paved the way for Stirling’s inclination to flamboyance and polychromy to be more readily accepted by planners, the public, and the architectural industry; but it did not

---

52 P. Portoghesi, *After Modern Architecture*, 29. Portoghesi’s description of Post-Modernism’s advocacy of ‘the necessity of interaction between historical memories and new traditions’ can easily be related to Stirling’s work.
53 Robert Maxwell, ‘Tour of No.1 Poultry’, *The Twentieth Century Society*, (5 June 1999), non-paginated. Maxwell was not criticizing Stirling’s building, but merely suggesting it carried all the hallmarks of Post-Modern Architecture long after it had passed out of fashion, which further implies that Stirling remained fundamentally distanced from the term.
fundamentally alter his architectural principles. Stirling’s designs may have become more overtly historicist, brighter and more colourful, but he remained resolute that his work was not part of a broader trend that seemed to so enthusiastically reject the achievements of Modernism. His architecture, as he claimed, might well have progressed via a constant swing from one style to another, resulting in visually very different buildings, but his desire to communicate through his built work remained a constant from his earliest designs.

The following three, visually very different buildings illustrate the considerable lengths to which Stirling went to forge recognizable links with their immediate and broader contexts, while simultaneously using incongruous colour schemes to afford each building an emphatic visual presence. All three have been labelled Post-Modern, and, indeed, display many of its characteristics, but the presence of a ‘fictional character’ or ‘narrative’, tailored specifically to each individual site, also contributes to the proposition that across Stirling’s oeuvre there exists significant layers of continuity.

**The Clore Gallery, London and the Wissenschaftszentrum, Berlin**

Of the three buildings discussed in this chapter (the third being Number One Poultry, London), these two are worthy of direct comparison as they reveal how Stirling’s awareness of context delivered two completely different results. The Wissenschaftszentrum (herein referred to as the WZB) is a commentary on the broader history of Berlin as a city, and the fragmented collage it had become after the war, and the Clore creates its own fictional narrative of a subservient ‘garden building’ to the Tate’s dominant ‘manor house’, and exhibits a more overt sensitivity towards its immediate neighbours.

Pre-dating the Clore Gallery by just one year, the opportunity to design the WZB came to Stirling and Wilford following a limited competition in 1979. In this project the architects were asked to produce a building for the Institute of Social

---

Research in Berlin, a department funded by the Bonn Government. The brief requested over three hundred offices, a library, and a canteen area, all to be built adjacent to the remains of an old Beaux Arts Law Courts building (by August Busse, 1894) that had survived the war.

The re-building of Berlin, following the severity of the war-time bombing and the ensuing fragmentation of the city by the Allies (made manifest by the building of the Berlin Wall in 1961), produced, by the time of the commission, an established collage of diverse styles that Stirling likened to a ‘distinguished architectural zoo’. In addition to Busse’s rather grandiose façade (Ill.3.3), which itself looked out over the canal onto a variety of frontages, Stirling’s nearest neighbours to this site included Mies van der Rohe’s monochrome glass and steel Neue Nationalgalerie (1968 Ill.3.4), Emil Fahrenkamp’s all white Modernist Shell House (1932 Ill.3.5) and F.A. Stüler’s Italianate church, complete with decorative brickwork and verdigris roof (1846 Ill.3.6).

Stirling’s design for the WZB, and its contribution to Berlin’s renaissance, can be seen as a manifestation of his approach to the 1977 redesign of the Nolli plan of Rome and, indeed, indicative of Rowe’s enduring influence. An important distinction, however, should be made here between Stirling’s revision of the eternal city and the appearance of the Berlin building. Inserting so many of his previous works (both built and un-built) into the plan of Rome did quite emphatically create a collage of architectural styles that recall Rowe and Koetter’s Collage City, but they were not originally intended to be built in this location, and therefore not the

57 Undated, preliminary sketches suggest these were the only buildings close to the proposed site on this side of the canal. If they were not then Stirling’s omission of any others that might have existed is even more telling. CCA file no. AP140.S2.SS1.D57.P4.9.
58 In 1977 the Mayor of Rome invited a group of twelve architectural practices, including Stirling’s to revise individual sections of Giambattista Nolli’s 1748 plan of the city as part of a publicity exercise. Girouard, Big Jim, 202.
result of the same approach to context as the WZB.\textsuperscript{60} This is not a point of pedantry but one that serves to emphasise the extent to which Stirling used form as a means of integration and colour as an element to afford his architecture greater visual presence. His collection of identical offices were designed to suggest an ensemble of ad hoc buildings gathered in a broader architectural assembly; a collage within a collage (\textit{Ill. 3.7}).

The limited colours of the buildings neighbouring the WZB give Stirling’s vibrant surfaces a provocative presence in this part of Berlin. Fahrenkamp’s all white structure, just a road’s width away, is repetitively perforated with small, identical windows, creating the overall effect, from a distance, of a tight grid-like pattern. As well as accentuating the planar qualities of each individual wall, its repetition offers a degree of continuity to the stepped down elevation that faces Stirling’s building. On the opposite side, slightly further away, and built on a large, granite paved plinth/terrace, is Mies’s Neue Nationalgalerie. In stark contrast to Fahrenkamp’s asymmetrical, dazzlingly white design, Mies’s 166 foot square, glass and steel structure appears devoid of colour in the opposite extreme. Glass walled with an over-hanging steel roof supported by eight cruciform steel columns (two to each side), this structure is monochromatic and subdued. As dark as this building appears, its ability to relate to its surroundings is considerable. The black painted steel-work combined with floor to ceiling glass walls offer veiled reflections of both the surrounding city and the changing light; the steel ranging from murky brown to slate-blue in response to the weather, and the walls of transparent glass becoming momentarily impenetrable depending on the angle of view. From underneath the extended canopy, views of the surrounding city are constantly balanced, or framed by the black steel columns, ensuring Mies’s structure remains firmly linked to the rest of Berlin.

\textsuperscript{60} Ibid. Stirling suggested the buildings he chose to insert were picked for a variety of reasons (context, association, topography amongst them) all of which indicate an awareness of the need to integrate. However, because the WZB was designed specifically for its site inevitably means its links with that particular location will be much stronger.
Further away, but still in view of Stirling’s WZB, is Stüler’s church. The outer walls of this much earlier building are constructed of a mottled light brown brick, repeatedly separated every six courses by thin bands of a darker, rust-red brick. This same dark brick also forms more decorative shapes nearer the verdigris covered roofs. Despite the intricacy of the polychromatic brick-work, the irregular colours of these considerably older materials afford the walls a relatively muted appearance. Its patterned walls mark this church out as fundamentally different from the aforementioned Mies and Fahrenkamp buildings, compounding Berlin’s collage-like character, but like them it appears subdued in comparison to the WZB.

As with the History Faculty Library site in Cambridge (see Chapter One), the variety of styles presented by the buildings surrounding the WZB’s location offered no obvious visual characteristic for Stirling to develop in terms of colour. Physically and formally his proposed structure was designed to contribute to the concept of the city as a developing collage in an almost restorative manner; but his flamboyant colour scheme appears as much an anomaly here as red brick and tiles were in the university environment.61 However, unlike his approach to the Cambridge design (and the ‘Fuck Casson’ attitude to its neighbours), Stirling now sought to address the fractured identity of the WZB location in a less confrontational manner. His distribution of colour at the WZB emphatically announces the building’s presence, but it also paradoxically responds to the fragmented city as it existed then; a quality best explained if the design is first analysed formally.

Rather than consider this project as being one large office block (an option he dismissed at an early stage)62 Stirling designed what looks like a series of smaller

61 Stirling explained that the brief for this building required that it should ‘be beneficial, even remedial, to [its] immediate neighbourhood. From ‘Lecture ‘81’ in Denys Lasdun, Architecture in an Age of Scepticism - A Practitioner’s Anthology. (London: 1986), 200.
62 ‘Stirling Gold, An Architectural Design Profile’, Architectural Design, 50th Anniversary Edition (7/8, 1980), 40. Stirling’s opinion of post-war high-rise building was made clear when he wrote ‘...much of what is wrong with post-war urban development lies in the uniformity of the rationally produced office blocks and they may be the biggest single factor contributing to the visual destruction of our cities in the post-war reconstruction period’. 
structures that, in reality, are all interconnected (and at one time conceived as being grouped behind an encircling wall). As a combination of apparently heterogeneous developments, they were intended as ‘a microcosm - “the fragments of a city”’, and serve as a metaphor for Berlin’s disparate remains and its need to establish a sense of unity. Resembling a collection of easily recognizable, historic buildings (described by Gerald Blomeyer as stoa, basilica, arena, bastion and campanile Ill.3.8) these random shapes were intended to reference the collage development of post-war Berlin. Fitting this ensemble of ‘historic’ forms on to this relatively small site, Klotz’s ‘fictional character’ emerges in Stirling’s overriding evocation of much older cities. The irregular nooks and crannies between different elements combined with odd windows positioned uncomfortably close to others, (compromising any sense of privacy for the inhabitants Ill.3.9) suggest an accretional evolution drawn out over an indeterminate amount of time. This is perpetuated by the coarsely applied stucco and ‘patchy’ paintwork (reminiscent of the mottled walls of old Italian buildings) that Stirling insisted upon, despite earlier comments rejecting such artifice.

Countering the seemingly ad hoc ensemble of buildings is the striking colour scheme of broad, alternate bands of pink and light-blue stucco above a base of sandstone tiles. By covering nearly all the walls in the same repeating colours, and ensuring that the level of each band continued from one building to another, Stirling created a sense of unity in this otherwise random collection of shapes; a unity

64 Lasdun, Architecture in an Age of Scepticism, 200. These were Stirling’s words at a lecture given at Yale on 3/11/81 describing his intentions for the WZB prior to it being built.
66 Early, undated sketches show that Stirling had at one time considered creating buildings that looked like Egyptian and Greek temples as well as one that resembled a lighthouse. CCA file. No. AP140.S2.SS1.D57.P6.15.
67 Stirling, Wilford, and Associates, ‘Berlin Science Centre’, 71. Stirling was so insistent that the stucco surfaces were left with a coarse and irregular finish he employed two older, restoration workers to instruct the younger builders in how to best create this effect. The ‘patchy’ paint effect used consists of an irregular top coat of colour that reveals varying amounts of the white undercoat. Ten years earlier Stirling had criticized such affectations as ‘kitsch and not very interesting’, insisting he was ‘not the slightest bit interested in ornament that requires the expertise of…old-time craftsmen’. His change of heart reflects a willingness to consider each situation on its own merits rather than a lack of conviction. J. M. McKean, and J. Boys, ‘The Family Reunion’ Architectural Design, Vol.48 (11/12 1978), 581.
absent from the war-torn surrounding city. Although the intensity of these colours allow the building to visually stand out in an otherwise chromatically subdued part of Berlin (Stirling claimed to have taken inspiration for his colour scheme from Helsinki and St. Petersburg), painted stucco, albeit not as bright, was not uncommon in Berlin.\(^{68}\) Indeed, the marble effect stucco panels behind the colonnade of Schinkel’s Altes Museum (1828), also in Berlin, cannot be ignored in this respect (along with its sand-stone base Ill.3.10 a & b).

The decision to apply colour in horizontal bands, rather than vertical stripes (as with the Olivetti Training School, 1969-72 and the second phase of the Southgate Housing Estate, 1972-77) has a profound impact on one’s impression of the structural composition. While these broad ‘layers’ of pink and blue (each colour representing an entire floor) ‘tie’ the separate parts together in a way vertical stripes would not, they also bestow upon the complex an almost tangible sense of solidity that eludes Stirling’s aforementioned striped buildings. Each coloured band, at the WZB, suggests an immoveable stratum bearing down on the one below.\(^{69}\)

The bands of alternating colours can be seen to reference the brickwork of Stüler’s nearby church, but it is the rear of Busse’s building, the fifth wall of the internal garden that Stirling’s structures help to establish, that seems a more likely source of inspiration. Finished in varying thicknesses of glazed red and pale ochre brick courses, this much older building visually connects with Stirling’s own colour distribution (Ill.3.11). Referencing the traditional rusticated base, he applied sandstone tiles at ground level to all of the elements of his structure, above which he covered most of the walls with the previously mentioned layers of pink and light-blue stucco.

The switch from stone-clad base to coarsely applied stucco might itself be read as a

\(^{68}\) Stirling, ‘Design Philosophy and Recent Work’, 10.

\(^{69}\) One account of the WZB described it as ‘thick, sturdy, massive, robust, decisive, large scale and public’ a description that would seem inappropriate had Stirling applied colour in either much narrower bands or vertical stripes. David Mackay, ‘Fitting in Berlin’, Architectural Review, Vol. 185, (March 1989), 37.
metaphor of the re-building of this German city. The clipped-on stone tiles, initially conceived of as covering the first 2.6 meters of the external walls, rise to various levels around the garden, and in two locations incorporate mock-Gothic archways.\(^{70}\) The finished effect is a form of theatrical, or modern-day, ruin from which the new complex emerges; an architectural phoenix rising from the remains of a destroyed city. The change from stone to stucco, made all the more dramatic by the clash between the stone’s natural sandy-browns and the synthetic hue of the adjacent blue stucco, achieves symbolic status, further adding to the impression of rejuvenation.

The painted stucco also refers to the interior of this official complex; the undeniable sense of repetition that these bands deliver being representative of the three hundred or so identical offices within. In addition, the broad, alternating bands of pink and blue, separated by deep recesses, recall the repetitive building systems that Stirling employed for the Olivetti Training School, and similarly suggest the potential for adding more layers should they be required.\(^{71}\) This stacking effect is accentuated by the duplication of the protruding stone window-frames that reference the older neighbouring brick arches. The vertical alignment of these frames, used even in areas where there are no windows, compounds the overall sense of repetition, bringing an identifiably modern dimension to the complex (Ill.3.12).\(^{72}\) Constructed from projecting slabs of warm, brown sand-stone these frames visually and physically stand out from their blue or pink surroundings. If, however, repetition carries modern, industrial connotations, then the aforementioned mottled paint and un-even stucco, representative of much older techniques, prevents it from dominating.

\(^{70}\) Stirling, James, Wilford, Michael and Associates, ‘Science Centre’, Architectural Design, Vol.53 (1/2 1983), 63. The description of the height of the stone cladding was given prior to the building being completed.

\(^{71}\) Stirling, ‘Design Philosophy and Recent Work’, 10. Although the cafeteria was intended to be one floor higher, and despite Stirling’s wish to see it so, the coloured bands on this building do not in reality indicate the use of a pre-fabricated, repetitive building system. Any similarity between this and the Haslemere project is purely visual.

\(^{72}\) These window surrounds were originally conceived as being exposed concrete but were later changed to sandstone. Stirling, Wilford, and Associates, ‘Science Centre’, 63.
Any potential the broad bands might possess to visually overwhelm within the confines of the inner-garden area has been eliminated by two large panels of pale cream coloured stucco; one on the inner-curve of the crescent block, and the other along the length of the stoa (Ills.3.13 a & b). These panels offer visual relief from the vibrant pink and light-blue, diluting any sense of confinement, but they also act to show-case the multi-coloured, steel-framed canopies that are attached. Bolted to the pale walls on one side, and bracketed to slender prismatic columns of exposed concrete on the other, these metal frames were, at one time, conceived as being mainly yellow. By changing the main A frames to green, however, each element of these engineered structures is clearly identifiable, a ‘Meccano’ descendant of the Rietveld joint. If, formally, the WZB hints at an earlier history, then these brightly coloured, metal additions set against the plain cream background announce a more recent technology, a combination that further references Berlin’s ad hoc rejuvenation (Ill.3.14).

The cream coloured walls of the inner garden also act as blank ‘screens’ for the canopies’ web of shadows to move across as the sun travels from east to west, offering points of visual interest while simultaneously drawing attention to the collage of materials and colours on display. These shadows are particularly dramatic within the crescent, where their change in size is accentuated by the building’s curvature. The brightly coloured bands of the end elevations that frame this chamber, and the raised terrace within, combine to create within the garden a sense of whimsical theatricality; nothing is what it seems (Ill.3.13a). Gothic ruins are stage-set thin, while the weight of the banded floors is mere artifice; a visual contrast to the serious workings of the government think-tank housed within.

At the points where Stirling’s extension connects to the older building, large areas

73 No Author Cited, ‘Science Centre’, Architectural Review, Vol.181, (April 1987), 78, an early but undated sketch shows this to be the case.
74 Cabinet maker and designer, Gerrit Rietveld (1888-1964) painted elements within his structures different colours, to ensure their individual contribution to the structural whole was not over-looked. This was most concisely displayed in what became known as the Rietveld Joint, or Cartesian Node; three pieces of wood, each painted a different colour, fixed together in three orthogonal directions.
of exposed internal brickwork have been left visible, some of which still bear the remains of previous internal staircases. (Ill.3.15) This structural revelation justifies the superficiality of Stirling’s veneers; nothing on this site is as it seems. The imposing stone Beaux Arts façade and the glazed brick rear are themselves shown to be little more than additions to a brick carcass, not so dissimilar in principle to the surface finishes of Stirling’s later addition, despite any structural implications they might convey. A similar ambiguity masks the demarcation between old and new structures. Exposed brick walls mark the join between Stirling’s and Busse’s structures, but it is by no means a defining boundary; a degree of cross-fertilization, in terms of colour, ties the two together. Part of the banded brick wall of the older building has been removed to create a loggia, with internal walls finished in a mottled rust-brown. The lintels for these new openings are ‘I’ beams painted the same bright yellow as the brackets on top of the prismatic pillars (as can be seen on the right-hand side of Ill.3.11). Allowing his addition to infiltrate the older building Stirling returned the compliment by incorporating the old balustrades into his design (Ill.3.16).

Despite the diluting effect of the external bands’ patchy paintwork, their colours remain a dominant feature in this chromatically mute part of Berlin. Compared to Mies’s skeletal and reductive descendant of the Altes Museum, Fahrenkamp’s crisp, white grid and even Stüler’s polychromatic brick church, Stirling’s office-block is positively flamboyant. This is not to suggest any irreverence on Stirling’s behalf (he described Mies’s design as ‘marvellous’) but rather that he seized upon this opportunity to announce the presence of his architecture through colour. Yet this colourful audaciousness does not obscure the formal Germanic characteristics that emphatically link Stirling’s design to this location. The outer wall of what Stirling described as the stoa, (the long building on the opposite side of the site to the Beaux Arts building), possesses a formality that recalls much of Berlin’s older architecture; the broad bands bringing to it what the Architectural Review termed

75 Maxwell, James Stirling - Writings on Architecture, 192.
76 Girouard, Big Jim, 224.
‘Prussian heaviness’.

Referencing the traditional tri-partite composition (stone tiles/piano rustica, painted stucco/piano nobile and cornice/corona) the orderliness and symmetry of this repetitive and un-complicated façade (fifteen identical windows either side of a central entrance) implies an authority of almost civic proportions (Ill. 3.17). The theatrical ‘narrative’ of the inner sanctum has been replaced here by one of institutionalised sobriety synonymous with governmental bodies; the un-altered colour scheme paradoxically enhancing both.

The Clore Gallery presents a very different use of colour in relation to context. Incorporating colours and materials that make explicit reference to neighbouring buildings (something that has been well documented and needs only a brief re-cap here) this project exemplifies how, through careful and considered application and distribution, Stirling employed them in such a way as to draw attention towards his own building and away from the older museum, despite claims to the contrary.

Stirling and Wilford’s extension to Sidney Smith’s 1897 Tate Gallery museum was finally approved in March 1981, following an initial interview at the end of 1979. It is an L shaped building with its longest section emerging from the north-east flank of the older museum, and the shorter return pointing toward the river Thames (Ill. 3.18). The five individually defined sides (all visible to varying degrees) appear muted in comparison to the WZB, and reflect Stirling’s sensitivity toward building

---

77 No Author Cited, ‘Science Centre’, 77.
78 Mackay, ‘Fitting in Berlin’, 37. Mackay suggests the relationship between the individual and society as a whole in Germany was ‘balanced in favour of the public realm’, something Stirling and Wilford understood. By incorporating broad bands of colour rather than intricate detailing, they afforded this building a sense of typically Germanic civic importance, something Mackay believed was ‘the only important key to Berlin architecture’.
79 There are numerous accounts of how the materials and colours used on the Clore work to mediate between Tate and the neighbouring red brick lodge, two of the more detailed being David Jenkins, Clore Gallery, Tate Gallery, Liverpool - James Stirling, Michael Wilford and Associates - Architecture in Detail, (London: 1992) and Charles Jencks, ‘Interview: The Clore Gallery’, Architecture and Urbanism, No.204, (September 1987), 38-46.
80 Stirling stated on many occasions that he did not want this building to compete with the older, host museum and explained that the positioning of the entrance was a result of this. James Stirling, Michael Wilford, and Associates, ‘The Clore Gallery for the Turner Collection, Tate Gallery, London’, Architectural Design Profile 39, Vol.52, (1/2 1982), 106. This point was reiterated by Russell Bevington who worked extensively on the project. Letter to the author 4/5/09.
in this conservation area. By keeping the Clore lower than the host building, with its entrance facing into the Tate’s side (rather than out over the river), Stirling satisfied the request for a degree of formal subservience, but his unpredictable distribution of colours and materials affords the structure an assertive presence.

It is not the actual colours that compete with the older museum; their deference to the existing surroundings is plain to see. The white Portland stone of the Tate is picked up in the cornice of the newer building and in the grid that covers much of its surface. The square panels created by this grid were painted a pale cream on the two walls connected to the host building (similar to the older pale stone, although not identical Ill.3.19) but become increasingly in-filled with red brick to match the lodge situated at the far end (Ill.3.20). As the L shaped extension turns through 90 degrees toward the river Thames, the white stone grid disappears into a solid panel of Portland stone that frames the inverted pediment-like entrance.

The key to Stirling’s subtle insubordination lies in his decision to retain the old red-brick lodge (never a pre-requisite of the original brief). By keeping the lodge on the edge of the site and building from the Tate to it, he afforded himself the opportunity to work toward two incompatible ‘book-ends’; the monumental white stone, neoclassical museum at one end, and the less assertive, Neo-Georgian red brick structure at the other. These visually contrasting neighbours ensured that displaying an obvious visual deference to both would require bold and idiosyncratic

81 The local planning department were quite specific about what future developments to the Tate should comprise, stating as early as 1972 that any extension ‘should be complimentary to the existing building and be subordinate rather than dominant. The overall height should not exceed the height of the lowest portion of the existing river façade and it should be set back…from the existing façade, sufficient for [it] to be a separate entity…In addition it is suggested that the materials be complimentary to the existing building’. From a letter dated 7/7/72 in the Westminster Council Planning Archive file no.TP1893. The client’s brief for the Clore was similarly prescriptive stating on page 6 ‘We expect a building which is very fine in its design, handsome in its proportions and, at the same time, reserved and reticent in the features, surfaces colours and detail of its galleries…’. Tate Gallery Archive file no.55.6, 7. Bevington, however, has explained that the original colour scheme was decided upon at an early stage and in anticipation of such opinions, not as a result of planning objections. Letter to the author 4/5/2009.

82 It would be inaccurate to suggest this was the only reason for retaining the red brick lodge. Stirling also realised its presence afforded a degree of symmetry to Smith’s original façade, balancing the brick Medical College situated to the south west of the Tate. Lasdun, Architecture in an Age of Scepticism, 203.
transformations across the surfaces of the building in-between.

Rather than reading the ‘river-side’ of the Clore as a series of events from left to right, moving away from the host building, the pale Portland stone panel surrounding the entrance serves to present the walls on either side as two extremes, meeting somewhere in the middle. At one end the white stone frame with pale cream stucco panels emerges from the Tate, while at the other the same grid, filled with red bricks, moves away from the lodge; contrasting neighbours that allowed Stirling to play a duplicitous game. If the size of his extension suggests a deference and subservience, then it does so only to the older museum. In turning his building in the direction of the lodge and increasing its height, the Clore physically dominates the older brick building which, in turn, offered Stirling a colour scheme to compete with the Tate’s white stone.

The process of drawing attention away from the older host building begins with the pale stone grid and the cream coloured panels on the wall that emerges from the Tate’s flank. The square frames and panels perform two important functions. Initially they serve to neutralize this elevation; as squares they prevent either a vertical or horizontal dynamic from dominating. Secondly, as Rowe observed in relation to Renaissance architecture, the framing process, by definition, encourages expectations of significance for what is contained. However, by filling these frames with blank panels of pale-cream stucco, any expectations we might subconsciously harbour when seeing this wall are left unfulfilled, and the presence of this longer elevation is subdued.

At the point where the building turns through ninety degrees the neutrality of the longer wall is emphatically halted by the substantial stone panel surrounding the entrance. The seemingly solid wall of stone carries a formal monumentality, synonymous with traditional museums and galleries, that is enhanced by the depth

---

of the triangular recessed entrance (Ill.3.21) and the tiny lunette window directly above it (an inversion of the pediment and lunette that appears on the wall of the Tate opposite). The reflective nature of the rectangular, ornamental pond, situated directly in front of the entrance, compounds this formality while reinforcing the theme of the Clore as a garden building.\textsuperscript{84} When viewed down its length - it was built parallel to the panelled wall - the dramatic impact of the Clore’s entrance is doubled. Despite his almost frivolous use of coloured materials, Stirling ensured that the status of this museum was not over-looked.

To approach the Clore’s dedicated entrance one must turn one’s back on the host building, and the variety of colours displayed on this shorter façade (and the end elevation that faces on to the brick lodge) work to draw the eye. The bright green of the doors and surrounding window frame is highlighted by the paleness of the adjacent stone. To the right of this Stirling re-introduced the stone grid, but replaced the stucco with increasing amounts of red brick to match the neighbouring lodge. These in turn continue around the corner only to be halted unexpectedly part way along the end, or third elevation where a glazed, industrial yellow brick covers the remainder of this, and the fourth wall from top to bottom. Compared to the neutrality of the pale cream panelled wall, the colour changes displayed on these two shorter elevations leave them visually busier; a contributory factor in drawing attention away from the older building.

The effectiveness of these design decisions is more easily explained if Stirling’s design is compared to Gunnar Asplund’s extension to the Göteborg Law Courts (1934-7 Ill.3.22). Being similarly built on to a largely neo-classical, nineteenth-century building, Asplund’s design reveals a recognisable degree of contextual sympathy. By simulating the tri-partite composition of the Law Courts through his fenestration and the rhythm of pilasters, his exposed grid, and a suitably deferential colour for the painted stucco, Asplund attempted to establish a hierarchical relationship between his addition and the older building. This is further enhanced by

\textsuperscript{84} A visit by the author to the Clore on 12/2/09 revealed this pond had been paved over.
placing the windows in each of the framed panels to the left, rather than centrally, creating a right-to-left dynamic in favour of the host. However, despite being no higher than the old Law Courts, and being set slightly back from the line of its façade, his extension dominates. The absence of a new and separate entrance implicates his addition as inherently part of the older structure, severely compromising the latter building’s symmetry and balance.

The Clore, however, avoids similarly affecting its host building, yet asserts itself just as effectively. As has been explained, Stirling’s extension, being lower than the Tate, implies a subordination that does not compromise Smith’s façade. But by situating the Clore’s entrance in the wall that returns to the lodge, he prevented the two entrances from being squarely viewed at the same time. The result is that when accessing the Clore through its dedicated, multi-coloured entrance, its status as an extension is all but forgotten.

The remaining two walls, of what is essentially a five sided extension, are used to similar effect. Stirling justified using glazed, yellow bricks on the less public, fourth side with the presence of the service entrance, but his introduction of these industrial materials into the colour scheme of the more easily viewed third wall facing the red brick lodge, create a visual anomaly hard to miss. Dispensing with the white stone grid altogether, these smooth bricks, with deeply recessed joints that emphasise their sharp brittle surface, are both utilitarian and un-inviting; contrasting significantly with the more textured and irregular red alternative (as can be seen in the centre of Ill.3.20). Stirling only returned to the redbrick and stucco on the fifth elevation that reconnected with the Tate (which was to have been open to the public in the event of further planned developments being carried out).

---

86 The Clore Gallery was intended to be the first stage of a much larger development of the Tate Gallery and, had it been completed, would have contained more gallery rooms and an open air sculpture court. For a detailed account of the overall proposal see Jenkins, Clore Gallery, Tate Gallery, Liverpool.
Treating the walls of the Clore ‘as a painter treats a canvas’, Stirling manipulated colours and textures (some contextually inspired, some not) as he saw fit, to lead the eye and hold the gaze. Interrupting any obvious visual rhythms established by the grid, he highlighted the change from one traditional material to another, drawing attention not only to the polychromatic surface as a whole, but to the superficiality of the materials themselves. Continuing these layers of colour around corners and past the stone entrance panel ensures that the modernity of the building’s composition becomes instantly recognisable, establishing it as being fundamentally different from Smith’s.

The first of these ‘interruptions’ (working from the Tate toward the lodge) occurs as the building turns through ninety degrees. Although the entrance panel begins precisely at the corner, the grid itself is left incomplete by the turn. This abrupt halting of surface detail is mirrored on the other side of the entrance section where similarly stunted stucco panels appear. A comparable displacing of contextual reference takes place with the introduction of the red brick in-fill. Introduced along a left to right, upward diagonal it reaches its highest point just prior to turning the corner of the wall that faces directly on to the lodge (a corner that once again occurs part way through a panel rather than on the frame itself). As mentioned, this red brick is then halted to make way for the more functionally appropriate, industrial yellow brick of the service area.

Continuing these coloured materials beyond the corners also avoids reducing the extension to a series of five disparate elevations, which would have compromised the presentation of the building as a single entity. This is important for the three elevations visible as one approaches the entrance. The contrast between the neutrality of the longer, cream panelled wall, and the busy-ness of the two shorter

---

87 This comment was made in a letter from the Royal Fine Arts Commission to Ian Lacey of Westminster City Planning Office dated 18/3/81. While this approach was not itself thought disagreeable, concern was raised regarding the use of yellow brick on the service area elevation. Westminster Council Planning Archive, file no.TP1893.

88 An undated preliminary sketch shows the brick in-fills beginning immediately after the stone surrounding the entrance with no brick/stucco introduction panels. The effect is that their presence as a veneer is much less obvious. CCA file no. AP140.S2.SS1.D60.SD1.P4.2.
sides (that display in quick succession bright-green door panel, white stone, cream stucco and red followed by yellow brickwork) has been prevented from fragmenting the structure by ensuring that colours from either side of the entrance panel infiltrate the wall opposite (in much the same way as in the internal garden of the WZB). Thus the pale stone cornice and grid continue past the entrance, dwindling away in a series of perforations as it turns on to the side of the building opposite the lodge, while the red of the brick work has been picked up in the stained wood pergolas and seats on the longer, panelled wall. The importance to Stirling of uniting these different elevations was revealed by his anger at being prevented from painting all the window frames the same bright green as the revolving entrance doors. Due to complaints from the paper restorers that his choice of colour interfered with their work, Stirling was forced to paint the mullions to their windows black.\textsuperscript{89}

The shade of green used for the doors and window frames warrants further discussion, as its eye-catching vibrancy, and abundance on the entrance elevation, contributes significantly to the building’s allure. Green had been chosen for the frames to reinforce the Clore’s ‘garden building’ character,\textsuperscript{90} yet Stirling’s initial attraction to this particular shade was for its ‘plastic’ appearance, deeming it ideal for the rubber floor of the Neue Staatsgalerie’s entrance foyer.\textsuperscript{91} The effect of using this, rather than a more natural or muted green (as in the framework of the WZB glass canopies) is to give the entrance section to the Clore added visual prominence.\textsuperscript{92} Overall the colour scheme might appear less flamboyant than the WZB but it is, in its own way, just as idiosyncratic and visually arresting.

\textsuperscript{89} Girouard, \textit{Big Jim}, 221.

\textsuperscript{90} Bevington explains this to be the case. Interview with the author 4/5/09.

\textsuperscript{91} Letter from Laurence Bain to author 11/5/09. Bain recounts that when Stirling was asked why he chose this colour for the rubber matting ‘he explained that it was a plastic material and therefore should have a plastic colour’.

\textsuperscript{92} An early sketch, dated 16/7/81 of the entrance elevation shows the doors and all the window frames coloured red, leaving their presence within the composition considerably subdued. CCA file no. AP140.S2.SS1.D60.SD1.P11.2.
Number One Poultry, London

In contrast to the previous two buildings, this project was to be developed in the densely built up area of London’s financial centre. Situated almost directly opposite Sir William Tite’s Royal Exchange (1844), Stirling’s building was to count amongst its nearest neighbours Sir Herbert Baker’s Bank of England (1939) Lutyens’s Midland Bank (1939) and George Dance the Elder’s Mansion House (1758), all of which presented overtly neo-classical facades of monumental presence, finished in white Portland stone. The only building not to follow suit around the bank intersection was the City of London Magistrates’ Courts (situated opposite Stirling’s site on the Queen Victoria Street side), which was finished in a honey-coloured sandstone (Ill.3.23).

The history of the site’s development is important as it offers a possible explanation for Stirling’s contextually sensitive response to the brief. Originally it was given to Mies Van der Rohe in 1962, by property developer Peter Palumbo, the initial intention being to build a tall, glass-covered cuboid block facing out over a new square to be formed by closing down the east end of Queen Victoria Street. Despite winning planning approval, Mies’s design sparked such widespread controversy (both in and out of the architectural world) regarding the apparent absence of any contextual regard that the decision was reversed in May 1985, by the Secretary of State, Patrick Jenkin. Forced to find another architect, and already a great admirer of Stirling’s work, Palumbo approached Stirling, Wilford and Associates the following July.

Stirling had publicly voiced his support for Mies’s design, but it is not unreasonable to suggest that the strength of opposition to that scheme (and Stirling’s own

---

93 The first of Palumbo’s four main requirements of this project stated that ‘the building should be in harmony with its surroundings and enhance the character of the place’. James Stirling, Michael Wilford and Associates, ‘No.1 Poultry, London EC4’, Architectural Design, Vol.56, (May 1986), 29.
94 Such was the objection to Mies’s design that architectural pressure group SAVE commissioned conservationist sympathiser Terry Farrell to design an alternative. Frank Russell (Ed.) Architectural Monographs: Terry Farrell, (London: 1984), 92.
comments regarding the destructive nature of such architecture - see footnote no. 62) exerted some influence during the design process. This is not to suggest he pandered to conservationist agendas, but rather that, as with the Clore, Stirling recognized that to develop a site requiring the demolition of eight listed facades, adjacent to such an historic grouping of buildings, would call for a considerable degree of contextual sympathy to pass the planning process.96 This he achieved in 1989 when the then Secretary of State, Nicholas Ridley, gave his design the green light (despite further opposition from SAVE).97

Dispensing with Mies’s suggestion of a new public square, Stirling worked to existing street lines (save for the narrow road of Bucklersbury which was to be built over)98 confining him to a triangular, or wedge-shaped plot. The two longer sides were formed by the meeting of Poultry and Queen Victoria Street, the apex looking out over the intersection of roads directly in front of the Bank of England and the Royal Exchange. The shorter side of the ‘wedge’, the back of the building, was to be defined by the less public Sise Lane and faced a former church yard (Ill.3.24).

Inverting Jencks’s account of this building, which describes it as primarily Post-Modern but only inadvertently contextual, it is here presented as first and foremost contextually inspired on both a formal and historical level, fundamentally integrating it into the location.99 Picking up classical themes established by the neighbouring institutions, Number One Poultry presents identical facades on the two longest sides, displaying a formal symmetry centred on the apex of the wedge. These sides are divided into what Stirling called ‘portions’ (that themselves can be seen to reference the variety of Victorian facades this building replaced)

97 Editorial page, ‘The Story So Far’, 5. Following Stirling’s design being authorized SAVE suggested they may continue to fight against the decision.
99 Charles Jencks in ‘Post-Modern Triumphs in London’, Architectural Design, Profile 91, (London: 1991), 9. Jencks described this building as ‘a well scaled Post-Modern Classicist building, with V-windows, banded courses and many other hallmarks of the style which happen, also, to be contextual to this part of the City of London’.
establishing an identifiable vertical rhythm. Each side consists of two sets of colonnades (holding dialogue with Mansion House and the Royal Exchange) situated below curved walls which, in turn, sit under projecting panels of fenestration (Ill.3.25). Separating these two portions is a monumental trapezoid arch that allows the public to access the subterranean facilities (including tube station), or just to pass through the building as a short cut from one street to another. In counterpoint to the walls above the colonnades, the arch sits under a panel of projecting glass, which in turn is set below the curved wall of the central drum (Ill.3.26).

A consideration from the earliest stages of design, the classical references offered by Stirling linger in the building’s emphatic presence rather than its detailing. The associations of great strength and mass that the columns and drums bring allow this building to hold dialogue with its monumental, white stone neighbours. The rustication, obvious in Lutyens’s Bank but also present in much of the surrounding architecture, is picked up in the recessed bands of stone cladding covering Stirling’s columns, and the grand arched entrance at the apex of his building echoes that of the Magistrates’ Courts on Queen Victoria Street (another triangular building).

Stirling also drew on mnemonic themes in order to integrate. Recognizing that the demolition of the Victorian-Gothic Mappin and Webb building (John Belcher, 1870) and its prominent clock-tower would rob this location of a popular landmark/meeting point, he offered his own, twentieth century replacement, with the shop-lined colonnades and easy public access to lower levels. These features suggest sensitivity on behalf of the architect for how this part of London had traditionally been used on a day-to-day basis, and a desire to leave it undisturbed, drawing significant parallels with Rowe’s work and further implicating his

100 Letter from Laurence Bain to the author 22/5/09.
101 Stirling, Wilford, and Associates, ‘No.1 Poultry, London EC4’, 28-35. Early sketches and drawings, dating from 1986, suggest the classical references in this project were to have been more immediately recognizable. An un-dated ink-drawing also shows Roman arches to have been considered prior to the Egyptian ones being chosen. CCA file no. AP140.S2.SS1.D72.P28.5.
influence over Stirling.\textsuperscript{102}

If Stirling sought integration with both form and function, his use of colour succeeds to the contrary. Cladding the two identical facades in alternating bands of coloured stone, he ensured that Number One Poultry became a visual spectacle to rival its monochrome neighbours. Although the incorporation of bands was intended to unite the separate parts, in much the same way as they do at the \textit{WZB},\textsuperscript{103} their much narrower dimensions dilute, rather than emphasise, any sense of formal mass, and this is the key to understanding the degree to which Stirling’s design counteracts its immediate environment. What affinities he created through form were visually compromised, not only by the colours themselves, but also as a result of their distribution.

The traditional rusticated base that so often appears to anchor buildings to the ground is conspicuous by its absence at Number One Poultry. In its place there is a barely noticeable, thin layer of polished grey granite tiles between pavement and walls \textit{(Ill.3.27)}.\textsuperscript{104} The remaining, un-fenestrated areas of the building are almost entirely clad in thin bands (six to a floor) of sandstone tiles, alternating between a light, honey-brown, but heavily veined ‘Helidon’, and a much more consistently coloured, dull maroon ‘Wilderness Red’.\textsuperscript{105} Of course, the effect of removing these coloured bands can only be speculated upon, but had the walls been left as one colour the impression of substantial mass would have been considerably enhanced.

The choice of the stone’s colouring is worth closer scrutiny, as horizontal banding

\textsuperscript{102} While Colin Rowe’s and Fred Koetter’s \textit{Collage City}, (Cambridge, Massachusetts, 1978) cannot be ignored in this instance, it is Rowe’s essay ‘The Present Urban Predicament’, particularly p165-220, that displays more obvious parallels. Originally delivered as a lecture to RIBA in June 1979, Rowe’s essay suggests that while it could be argued the principle victim of Modern architecture was the city, its first victim was ‘the garden’. The implication is that, to our detriment, open spaces around the building were not considered essential to experiencing architecture. p. 171 Rowe, \textit{As I Was Saying, Vol.3}.

\textsuperscript{103} Letter from Laurence Bain to author 22/5/09.

\textsuperscript{104} Ibid. Bain explains the choice of granite at ground level was purely a practical one: being a very hard stone it is easier to clean than sandstone, an important consideration in such a dirty environment.

\textsuperscript{105} Ibid.
had been a common feature in much of Stirling’s work up to this point, most notably in the WZB discussed above and the Sackler Museum, Harvard (1979-84), which display much thicker bands (one floor deep), and at the Cornell Centre for Performing Arts (1983-88) and the Neue Staatsgalerie (1977-83), both of which use a similar form of clip-on-tile stone cladding (*Ills.3.28 & 29*). Comparisons with the latter pair suggest that the starkly contrasting bands of colour on the Poultry project ensured their presence, and that of the building’s, was emphatic. Bain suggests that these narrow, contrasting bands were primarily intended to ensure ‘that stone should look like stone [with] every individual stone [having] a “personality”’, but the impact this colour scheme would have on this part of London must have been considered.

As with the London building, both the Cornell and Stuttgart projects are covered with alternating bands of different coloured stone tiles, but there is a fundamental difference; in both cases the change in stone is also signified by a change in thickness of band. This ensures that it is possible to recognize the different materials used despite the strong similarities in colour (the Performing Arts Centre alternating between two grey marbles and the Neue Staatsgalerie between two similar shades of brown, veined stone). The effect is that, from a distance, the two earlier projects retain a sense of mass and solidity that is only brought into question under much closer inspection. The changing bands at Poultry, however, can be seen immediately, signalling it out as something intrinsically different from its much older neighbours. It is not that the banded façade had no precedent in this

106 Ibid. 34. Initially the building was conceived as being faced in visually much less dramatic materials. Granite, slate and even Portland stone (presumably to match the neighbours) were all considered. It is not unreasonable to assume, therefore, that when opting for this much bolder colour scheme Stirling must have considered the effect it would have on both his building and its immediate surroundings.

107 Letter from Laurence Bain to author 22/5/09

108 Girouard, *Big Jim*, 228. The final colour scheme of the Harvard project was not Stirling’s chosen one. Originally he planned to cover the greater part of his design with alternate stripes of red brick and grey stone but was forced into a compromise as President Rhodes of Cornell disliked both the brick and the colour contrast and insisted they be replaced by more similar types of marble from Vermont. Alternating the depth of the different marbles ensures they remain easily detectable despite the reduced contrast. An un-dated, coloured drawing of the Neue Staatsgalerie shows the banding as a pronounced combination of narrow brown layers between broader green/brown tiles. CCA file no. AP140.S2.SS1.D52.P11.1.
area – it did - the expanse of rustication on Lutyens’s building and the alternating rough and smooth stone work to the ground floor of the adjacent Number One Cornhill, create their own versions of monochrome layering \(^{109}\) (Ills. 3.30 & 31). However, the result in these much older buildings is presented as a show of strength; whereas in Stirling’s design it is delicate.

Within the predominantly brown and maroon banded façades, Stirling incorporated additional materials that, as with all the buildings discussed in this thesis, invite closer scrutiny of the composition and, in turn, draw attention away from other buildings in the vicinity. Above the tall entrance arch at the building’s apex, the alternating colours are interrupted by a layer of grey granite tiles, two bands deep. This layer continues along each façade, where it emerges as a curved or bulging entablature at the point where it meets the top of the squared columns, emphasising their tectonic significance; the shift from thin brown and maroon bands to double thickness polished grey granite giving added prominence (Ill.3.32). Compromising this sense of mass are seven large areas of glazing; three to each façade, and one above the apex entrance, which perforate the stone clad-walls. Situated either directly above or below a curved wall, drum, or tower, the projecting panels of glass, by their reflective nature, offer viewers on the pavements below constantly changing images of the sky and neighbouring buildings (Ill.3.26).

There is a third side to this building whose appearance invites further speculation about Stirling’s approach to both this project and its location. In terms of colour, this end wall is conspicuously dull but, it must be noted, not untreated.\(^{110}\) Presented as identifiably subordinate to the two longer facades, it suggests that Stirling intended the building to be experienced and assessed primarily in relation to the

\(^{109}\) Stirling, Wilford, and Associates, ‘No.1 Poultry, London EC4’, 28. Stirling may also have taken his cue to face this building in bands of colour from the existing Mappin and Webb building. Initially he offered two alternative proposals for the development of this site; one which retained the Victorian building and another that did not. Sketches of the former, dating from 1986, suggest horizontal layering, originating in the much older façade, was a consideration while those of the latter from the same year do not.

\(^{110}\) That the cement rendering on this part of the building was left un-painted does not mean it was un-treated or un-coloured. One would have to re-visit the exposed flettons of the end elevations to the council flats in Camden to view un-treated walls (see Chapter One).
more monumental institutions gathered around the Bank intersection. It does not, however, necessarily imply that this ‘rear’ elevation was subject to any less consideration. If Stirling chose not to treat this partially hidden side in the same manner as the other two, then it surely follows that he felt it could be put to better use.

Unlike the two longer facades, the short, rear elevation displays no bands of colour but is instead covered in grey granite tiles (laid vertically rather than in layers or bands) and unpainted cement rendering. The combination of these surface finishes reminds the inquisitive that this building’s appearance is largely the result of applied veneers. Conspicuous in its contrast to the uniformity and repetition of the rest of the building, this elevation contains an almost ad hoc assemblage of what had become recognizably ‘Stirling-esque’ elements: blue or bright-yellow square and circular window-frames, projecting sandstone window surrounds, bright-pink air-vents and, perhaps most recognizable as a Stirling calling-card, a single, bright-yellow, displaced conical pillar (Ills.3.3 & 34). Each vividly coloured element is given added emphasis by the dull grey of the surrounding wall.

Being partially concealed, this elevation seems to have offered the architects and public alike relief from the formality of the other two sides, an impression upheld as one passes through the trapezoid arches and into the central, open rotunda.111 Here only limited sections of the drum’s banded interior are visible, with most of it hidden behind the blue tiled walls of the offices it contains (a design decision inspired by the tiled interiors of many internal courtyards found in this part of London, see Ill.4.8).112 Perforating these walls are more, bright blue, pink and yellow window-frames, a discreet inclusion of flamboyant colour to offer relief from the façade’s official, and rather grandiose architectural wrapping. Capitalising on the less visible areas of this site, Stirling relied upon polychromy to prevent the sobriety of this location, and his necessarily sympathetic response to it, from becoming too

111 Letter from Bain to author 22/5/09, Bain confirms this was the case.
112 Ibid.
oppressive.

Conclusion
What the three buildings in this chapter illustrate is that while Stirling made concerted efforts to link each project to its specific context through form, it was not at a cost to the building’s individuality. Yet paradoxically, despite his obvious contextual referencing, his use of colour in these designs significantly contributes to establishing them as different from their surroundings. Such a proposition is perhaps best explained if we consider what these structures might have looked like had they incorporated more subdued colour schemes.

As mentioned above, the banding on the WZB and Number One Poultry works to unite the different parts of each building under a common theme, and as such is important to the architectural concept as a whole. However, had the bands of the WZB been painted with muted colours, more in keeping with the Berlin stucco which Stirling commented upon (see page 176, footnote 68), then the building’s impact on the surrounding area would have been considerably reduced (while still achieving the same sense of unity and implied mass). Similarly, had the Poultry project been surfaced with alternating bands of textured Portland stone, its contextual reference would have been obvious but its presence significantly underplayed. The Clore Gallery is slightly different in that it takes some of its colour scheme (white stone and red brick) directly from its neighbours. Here it was Stirling’s unpredictable use of these materials and colours that give this comparatively small building an emphatic presence. Hence the red brick and white stone appearing and disappearing when least expected.

Comparing all three projects with the façade of Robert Venturi and Denise Scott Brown’s contemporary Sainsbury Wing of the National Gallery, London

---

113 Stirling, ‘Design Philosophy and Recent Work’, 10. In this respect it is worth considering the Olivetti project in Haslemere (Chapter Two). Being forced by planning officials to use muted browns instead of Stirling’s preferred bright orange, lavender and lime the finished building retains the sense of repetition and expandability but with a considerably reduced visual presence.
(completed 1991 ill.3.36) illustrates just how effective Stirling’s use of colour was in establishing an independent identity for his designs.\textsuperscript{114} Incorporating recognisable and deferential architectural references to William Wilkins’s host building; Venturi’s design has a subdued impact on this part of London. Finishing his façade in the same pale stone as Wilkins’s, and reducing the older, monumental colonnade to a series of diminishing pilasters, the new wing ‘blends in’ to this part of Trafalgar Square almost un-noticed. Any eminence it might achieve is through association rather than design.\textsuperscript{115} In marked contrast, Stirling’s buildings discussed in this chapter remain emphatically independent despite their contextual links, a status achieved almost entirely through colour.

Of course, speculating what Stirling’s designs might have looked like had he incorporated muted colour schemes is only ever of limited value, but it does help to illustrate the importance of colour in establishing a building’s individuality. In this respect it could be argued that the three projects discussed here represent an evolution of the Modernist tradition of creating structures as independent objects, despite their contextual links, and this goes some way to explaining why attempts to categorize Stirling’s work as either Modern or Post-Modern are largely futile. As has been shown, the archetypal Post-Modern characteristics of using narrative and metaphor to communicate to a broader audience were present in his earliest works, while the essentially Modernist concern of functionalism persisted in his later designs.

What this chapter has also shown is that while these buildings represent a dramatic change in the appearance of Stirling’s architecture, they are not indicative of a quantum break from his previous work. Rather they propose an evolution of a design ethic established much earlier, an evolution given added impetus by the

\begin{itemize}
  \item \textsuperscript{114} Stirling, Wilford and Associates also submitted an entry for the Sainsbury Wing competition, but without success (see Chapter Five).
  \item \textsuperscript{115} One criticism of Venturi’s design described it as ‘oddly ineffectual, and…acutely disappointing; a nervous, fumbling small-spirited creature, plain but not ugly’. Although a somewhat pejorative description, it does highlight the lack of impact this addition to the old museum had. E. M. Farrelly, ‘The Venturi Effect’, \textit{Architectural review}, Vol.181, (June 1987), 36.
\end{itemize}
emancipatory emergence of Post-Modernism. As has been pointed out, context had been a concern of Stirling’s since the 1950s, as had the use of colour, texture and materials to afford his designs an emphatic presence in their respective locations. As with those buildings discussed in previous chapters, Stirling continued to employ colour, texture and materials to draw attention to the physicality of the buildings themselves, something described here as architectural reflexivity. Through increasingly contrasting combinations of different colours and textures Stirling invited close scrutiny of his structures, not necessarily to offer insight into each building’s structural make-up, but to promote a greater interaction between the broader public and his built work. In this regard the buildings discussed in this chapter have much in common with Stirling’s early work with Gowan, specifically their Preston project, as do those discussed in the following chapter, which focuses on Stirling’s consideration for those using his buildings.
Ill.3.1 James Stirling, Michael Wilford, & Associates, School of Architecture, Rice University, Texas, 1979-82.

Ill.3.2 James Stirling, Michael Wilford, & Associates, Bookshop in Biennale Gardens, Venice, 1989-91.

Ill.3.3 August Busse, Law Courts, Berlin, 1894.
Ill.3.4 Mies van der Rohe, Neue Nationalgalerie, Berlin, 1968.

Ill.3.5 Emil Fahrenkamp, Shell House, Berlin, 1932.

Ill.3.6 F.A. Stüler, Italianate Church, Berlin, 1846.
Ill.3.7 James Stirling, Michael Wilford, & Associates, Wissenschaftszentrum, Berlin, 1979-87, plan.


Ills.3.10 a & b Karl Friedrich Schinkel, Altes Museum, 1828, stucco panels detail.

Ill.3.11 James Stirling, Michael Wilford, & Associates, Wissenschaftszentrum, Berlin, 1979-87, internal garden.


Ill.3.22 Gunnar Asplund, Göteborg Law Courts Extension, 1937.

Ill.3.23 City of London Magistrates’ Courts.
Ill. 3.24 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97, site plan.

Ill. 3.25 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97.

Ill. 3.26 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97, window detail.
Ill. 3.27 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97, detail of stone cladding.


Ills. 3.30 Banded facades of Lutyens’s Midland Bank (left) & 3.31 No 1 Cornhill (far right-hand side).
Ill.3.32 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97.

Ill.3.33 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97, coloured window frames and air-vents to the rear of the building.
Ill.3.34 James Stirling, Michael Wilford, & Associates, Number 1 Poultry, 1986-97, rear elevation detail.

Chapter Four

‘Humanistic’ Architecture and Colour: Addressing the Individual in a Technological Age

What this chapter argues is that the brighter colours and wider variety of textures found in the work of James Stirling, Michael Wilford, and Associates, from the late 1970s onwards, are the means by which Stirling encourages individuals to react to his architecture at a sensorial level. In marked contrast to the techno-centricity of the buildings discussed in Chapters One and Two, the appearances of which precluded any reconciliation between man and his modern industrial environment, the projects scrutinized here suggest a more sensuous and, at times, anthropocentric use of colour and texture. It will, however, be stressed that in terms of his oeuvre these are not uncharted waters for Stirling. Rather they are a re-emergence of a design concern that dates back to his earliest work. Even as a student Stirling showed signs of considering the psychological benefits of contrasting colours and textures. As has been mentioned, his fourth year design project for an architect’s house incorporates stone, tile and wood in combination with brightly painted window frames to offer a tactile and visually stimulating environment (Ill.1.4). It is also the case that his and Gowan’s in-fill housing in Preston (1957-61) took bold steps not only to forge links between the materials used and those who occupied the premises, ‘[bringing] back into the city scenes the scale of human beings…’¹ but also to actively promote this relationship. In one article featuring the scheme the

¹ ‘Lessons from a Slum’, Architectural Forum, Vol.16 (March 1962), 92-94. Stirling and Gowan’s infill housing was called ‘radical’ in its ‘rethinking in sociology and architecture’ due to its attempts to perpetuate the traditional life styles of those it was designed to house. It can be claimed the use of London stock brick in their earlier Ham Common flats represents a similar acknowledgement of traditional materials and craft skills, but Stirling’s comments regarding his and Gowan’s attempts to ‘suppress the disruptive aspect of unrelated curtaining’ (see Maxwell, James Stirling - Writings on Architecture, 74-75) suggest he was less than willing to offer concessions to individuality.
architects explained that the openness of the project’s access areas was designed ‘so that the movement and meeting of people can be seen and enjoyed by everyone’. Although at the time of its construction this housing project was interpreted as further entrenching industry’s domination of the working classes, it remains the case that Stirling, working with Gowan, had considered the role of the inhabitants when choosing the building’s colours and materials.

Some years later, in 1969, Stirling stated that ‘humanistic considerations should remain the primary logic on which the design evolves’, implying that, over and above any outward expression of its structural make-up, a building must first and foremost be a pleasant and efficient environment for its inhabitants to use. Elaborating on this statement years later he explained that what he was actually warning against was the gratuitous celebration of industry in architecture, as exemplified by High Tech. What was needed, he felt, was a practical design approach concerned with ‘major spaces, how they relate to each other, the way people enter a building and how they use a building’.

What is argued here is that, whereas in those buildings discussed in Chapters One and Two Stirling employed colour, texture and materials to assert an identifiable industrial theme or narrative, their colour schemes were not, in the main, intended to connect at a sensual level over and above their thematic relevance. In his later buildings, however, ‘humanistic considerations’ played a much greater part in

---

2 James Stirling and James Gowan, ‘Re-Housing Avenham, Preston’, The Architect and Building News, Vol.221 (March 14th 1962), 381. Although Stirling’s choice of materials in this project invited accusations of nostalgia from some quarters, there were those who interpreted the plethora of engineering bricks as perpetuating industrialisation’s subjugation of the working classes. In this respect it might justifiably be claimed that, despite Stirling’s preferred photographs, this project embodies a strictly anti-humanist appearance. See Mark Crinson, ‘The Uses of Nostalgia’ JSAH 65:2 (June 2006), 231.

3 Architectural Design, Vol.31 (July 1961), 285. The News Page of this edition criticized the overt industrial appearance of this project as being ‘so forbidding’, suggesting that, for the working people who would be living there, it ‘seems like grinding them in’.


5 Ibid, Stirling offered this explanation during an interview given in 1989.

6 Ibid, 226. Michael Wilford has confirmed this had indeed been a long-term pre-occupation for Stirling and himself stating they had ‘always emphasized the functionality and the importance of function, and the way people enter, move through and up buildings has been absolutely critical to their organization’. Michael Wilford, interview with author, 15/5/08.
dictating each structure’s appearance. What the buildings in this chapter reveal is that Stirling now employed colours and textures to affect visitors on a phenomenological and, at times, even metaphysical level. In a move that seemed to signal his alignment with Post-Modern architectural discourse, upholding Eisenman’s claim that, as a direct consequence of orthodox Modernism, there was a ‘displacement of man away from the centre of his world’, Stirling now acknowledged, and catered for, the experiences of the individual visitor/viewer, rather than conceiving of man ‘as an abstract entity for whom a universal pan-cultural language of forms could be developed’.  

Concentrating specifically on the polychromatic Neue Staatsgalerie, Stuttgart (1977-83) but also drawing on those buildings discussed in Chapter Three where relevant, this chapter asserts that while Stirling continued to produce modern buildings of striking visual individuality, he became increasingly focused on the primacy of the individual in experiencing architecture. Where he once insisted, with almost authoritarian overtones, that it was ‘the unique responsibility of the architect to raise the human spirit by the quality of the environment which he creates’, he now turned his attentions toward the more individual aspects of human needs,

---

7 P. Eisenman, *Eisenman Inside Out: Selected Writings 1963-83*, (New Haven: 2004), 86. Eisenman’s typically Post-Modern stance accused Modernism of ‘no longer view[ing] man as originating agent’. A factor he later claimed ‘fundamentally changed the relationship between man and object away from an object whose primary purpose was to speak about man to one which was concerned with its own objecthood’. 107.


answering Jencks’s call for a ‘psychologically nourishing’ architecture.\textsuperscript{11} This divergence of design ethos goes a long way to explaining the difference between the utopian overtones of the Southgate estate and the intimacy and informality of the Stuttgart project. By his own admission, what Stirling now sought to create was an architecture that was both ‘abstract’ and ‘representational’, where the former related to ‘design solely to do with the modern movement’ and the latter ‘to tradition, vernacular, history [and] recognition of the familiar’.\textsuperscript{12}

This admission is significant as it highlights the multivalency of Stirling’s colour schemes. Interpreting his return to a more sensorial, or anthropocentric use of colour in his buildings from the late 1970s onwards as an attempt to reconcile man with his modern, industrial environment, implies a move away from exclusivity, and is perhaps best illustrated with the steel girder awnings over the entrances into the Neue Staatsgalerie (Ill.4:1). At one level they are representative of industrialisation and/or Constructivist or De Stijl design, but it is not essential that these associations are made. Their presence can be justified at a purely functional level and therefore retain a degree of familiarity for a broader audience. As canopies they provide shelter, and their identical colour schemes, but differing sizes, act to inform visitors of the location and hierarchy of entrances. The eye-catching hues of these girders also, at a very basic level, offer visual stimulation, brightening up the potentially gloomy main entrance area.

The introduction of sensual elements did not affect the pragmatism of Stirling’s designs, and this highlights the complex nature of Modernism’s entrenched hold over his work. Still relying heavily on a functionalist approach to building, his later projects often display the same logic of form and lay-out as his earlier designs. The difference, however, was that his use of colour and texture from the late 1970s onwards implies that sensory satisfaction and an acknowledgement of the

\textsuperscript{11} K. M. Hays, (Ed.) \textit{Architectural Theory since 1968}, (Cambridge, Massachusetts: 1998), 314. Jencks opined this should indeed be ‘the pre-eminent role of the architect’.

\textsuperscript{12} Quoted in Denys Lasdun, \textit{Architecture in an Age of Scepticism - A Practitioner’s Anthology}, (London: 1986), 192.
individuality of human experience had once again become as important to Stirling as the ultimate purpose of a building. In essence what this chapter proposes is that the colour schemes in his later work represent an attempt by Stirling to reconcile the aesthetic with the technological and the individual with the industrial.\textsuperscript{13} What is central to this proposition, however, is that while the dramatic change in the appearance of Stirling’s designs in this period marks his shift from avant-garde architect to architectural showman, often displaying identifiable signature elements, it does not signal a break with his early work. Rather, the buildings discussed here represent a flamboyant re-emergence of concerns dating back to the 1950s.

Stirling’s attempts to address the sensory and even the metaphysical aspects of his architecture manifested themselves in several different ways, increasing in prominence over time. Initially discussion focuses on the use of colour as a practical aid to circulation and segregation, while simultaneously introducing what Michael Wilford describes as ‘the element of delight’; an aspect of architecture that can be traced back to Vitruvius,\textsuperscript{14} and something Wilford suggests was just as important as ‘functionality’ and ‘clarity’ to Stirling and himself.\textsuperscript{15} Stirling had publicly denounced the growing monotony of modern architecture, and while his early colour schemes have here been interpreted as reinforcing a techno-centric stance, they do reveal that, even before he had exhausted his work with red brick, tiles and plastic, he introduced small, but significant amounts of colour to offer those who used his buildings some element of visual stimulation.\textsuperscript{16}

\textsuperscript{13} For a concise summary of how aesthetics and technology evolved as two mutually exclusive fields of study see Dalibor Vesely, \textit{Architecture in the Age of Divided Representation}, (Cambridge Massachusetts: 2004) Chapter Five.

\textsuperscript{14} J. Lang, \textit{Creating Architectural Theory}, (New York: 1987), 22. Vitruvius suggested a successful building should fulfil three basic purposes: utilitas, venustas and firmitas. In 1624 Sir Henry Wolton translated these as commoditee, firmenes and delight. Essentially this implies aesthetic satisfaction should be considered as much a function of architecture as its intended purpose.

\textsuperscript{15} Michael Wilford, interview with author 15/5/08.

\textsuperscript{16} L.S. Zelenko, ‘Forum: An Interview with James Stirling’, \textit{American Artist}, Vol.45 (July 1981), 87. When discussing modern office blocks in London, Stirling described them as ‘banal shoe-box type of affair[s]. Nothing could be bleaker or more uninteresting to the public’.

190
Secondly, and in many ways intrinsically linked to Wilford’s term, Stirling’s use of colour combined with identifiable motifs of technology and modernity will be presented as a re-evaluation of man’s relationship with his industrial environment; a shift from a techno- to an anthropocentric approach to a building’s finished appearance. If, however, such a move represents a deliberate distancing of his work from associations with High Tech architecture (of which he would be at one time considered representative) it should not be seen as regressive.\footnote{Stirling, along with Richard Rogers and Norman Foster, was presented as epitomizing this term in J. McKean, G. Bramant, and K. Powell, 	extit{Pioneering British High-Tech}, (London: 1999). While Stirling accepted the association, he did so for his much earlier work on the History Faculty Library, Cambridge University and the Olivetti Training School, Haslemere, discussed in Chapters One and Two respectively. James Stirling, ‘Design Philosophy and Recent Work’, \textit{Architectural Design Special Issue}, Vol.160, (1990), 7.} What must be clarified here is that Stirling’s elevation to primacy of the human experience of architecture was not a rejection of either technology or modernity, but rather a re-assessment of man’s relationship to them and, by implication, the modern world.\footnote{In this respect Stirling’s later work has much in common with Viollet-le-Duc’s as he too attempted reconciliation between two apparent opposites: technology and tradition. By juxtaposing elements of each he attempted a symbiotic amalgamation.} Stirling’s combinations of bright paintwork and coloured materials are here interpreted as an attempt to address mass-production’s tendency to subjugate the individual, countering Jencks’s interpretation that this flamboyant use of colour signified ‘the continued relevance and beauty of steel technology’; but they will not be presented in any way as a resurrection of pre-Enlightenment thinking.\footnote{Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, 51.}

Finally Stirling’s reliance upon nature and the effects of the elements will be examined and presented as being in direct opposition to modern materials that were, by design, thought to have been un-changing and un-ageing (some of which he incorporated in his earlier projects for these reasons).\footnote{It was believed that the red bricks and plastics used in the buildings discussed in Chapters One and Two would retain their colours, but time has proved otherwise. Although it has taken many years for the bricks and tiles to discolor, the coloured plastics degraded much sooner; in the case of the yellow panels used in phase one of the Southgate estate, soon enough for them to be replaced with grey ones in the second. Michael Wilford, interview with the author 15/5/08.} In contrast to the red brick and plastic buildings of Chapters One and Two, Stirling, from the late 1970s onwards, incorporated increasing amounts of materials chosen for their natural
inclination to change colour with age. Relying on plants, trees, and the impact of weathering, he now seemed intent on displaying the effects of the passing of time on his structures; the ultimate criterion by which human existence and experience is measured.

Of course, Stirling was not alone in acknowledging the necessity for architecture to communicate more broadly during this period. As has been discussed, the need to humanize modern architecture in Britain had been debated since the end of the Second World War, with fears that the population was being treated as ‘physiological automata with brains attached, [rather than] complex beings moved by irrational urges’. This line of thought had been explored by theorists such as Perez-Gomez who, under the influence of Dalibor Vesely’s teaching at the University of Essex (and the literary influence of Merleau-Ponty) from the late 1960s onwards, argued for a more phenomenological approach to architectural theory.

Reintroducing an element of communication into post-war architecture, however, instigated a somewhat polarized debate in architectural circles. Should modern architecture be obligated to continue the traditions of modernism, displaying the cutting edge techniques available to twentieth century architects by ‘exaggerating the structure and technological image of the building’? Something Jencks labelled

21 There were many architects expressing such concerns, two of which, Edward Cullinan and Ralph Erskine, have already been mentioned in Chapter Two. Cullinan, taught by Stirling, and later recommended by him to renovate the manor house at the Olivetti Training School in Haslemere, remembers being instructed that post-war Modernism was ‘not about utilitarianism, neatness or simple reductive-ism, but as an art… to make spaces and places to suite a human spirit that is assumed to have no further desire for rigid and separate enclosures’. Lasdun, *Architecture in an Age of Scepticism*, 29. Erskine suggested ‘the role of a creative architect is…truly to satisfy human needs’ Ibid, 73.


24 This polarization of ‘two opposing camps’ is explained is discussed further in Robert Maxwell, *The Two Way Stretch: Modernism, Tradition and Innovation*, (London: 1996).
‘Late-Modern’. Or would a return to historic references and mnemonic themes better satisfy an increasingly disgruntled public? If the unfamiliarity of the former raised fears of semantically mute and overbearingly industrial structures, the eclecticism of the latter was criticised for ‘[losing] sight of tectonics; architecture’s distinguishing feature…. [its] indulgence in superfluous meaning [leading] to a travesty of architecture’. If, for some, technological advances promised ‘an affluent society in which nobody will have to waste his forces’, others were much more circumspect about the supposed benefits of large scale industrialization.

Such anxieties echoed the concerns of the influential Finnish architect Alvar Aalto (1898-1976) who had consistently warned against the dangers of ignoring what he described, as early as 1935, as ‘human objectives’. Expounding the need ‘for architects to humanize the machine age’ Aalto spent his career from the early 1920s to his death in 1976, attending to man’s plight in the face of industrialization, claiming, as late as 1974, that ‘standardisation means violence against individual taste’. These increasingly voiced concerns, when compared to Stirling’s pronounced change in choice of colours and textures toward the end of the 1970s, raise important questions. Why did he make the shift from technocentricity to anthropocentricity at this particular time? Robert Maxwell, supported by Banham’s assessment of the History Faculty Library, has argued that ‘in the tradition of modernity…it was technological innovation that identified the new spirit in its most British beginnings’ and that Stirling identified himself with that spirit. However, Maxwell has also recognized that at some time in the 1970s ‘new tendencies began

32 A. Riusuvuori, (Ed.) *Alvar Aalto 1898-1976*, (Helsinki: 1978), 156. This was taken from a lecture Aalto gave to the Architect’s Association of Vienna in 1955 titled *Between Humanism and Materialism*.
to appear in [Stirling’s] work’.\textsuperscript{34} Did popular consensus have any effect, or can his re-centering of man as ‘originating agent’ be seen as the next logical step in the pursuit of a more complex, multivalent architecture?

Wilford suggests that a more overt sensitivity toward those who used their buildings was prompted by the designs for the German museums. Intending to attract a broader audience to what were traditionally very formal institutions, he and Stirling took steps to offer an array of visual and tactile stimuli. But to explain this trend as merely a response to a client’s brief simplifies the evolutionary nature of Stirling’s oeuvre. Assembling a collage of easily identifiable references in combination with jarring textures and colours recalls the seemingly random montages of the Independent Group and Pop art, in general, and the collages of Richard Hamilton (b.1922) and John McHale (1922–78) in particular.\textsuperscript{35} Any link between the buildings discussed in this chapter and Stirling’s much earlier affiliations with the Independent Group must not be overstated, but that said, the aspirations to popularity that his later projects represent should not be viewed in isolation. If the analysis of the projects discussed in this chapter reveals that Stirling continued to draw upon aspects of Modernism, while rejecting its homogeneity in favour of more humanistic needs, it also suggests that he remained open to inspiration from whatever source he felt pertinent to achieve these ends.

**Practicality and Pleasure**

‘A building can by its appearance (aspect) take away, move and so to speak raise the soul of the spectator, carrying it to a contemplative admiration which he himself would not be able to explain at first sight (coup d’oeil) even though he were sufficiently instructed in the profound knowledge of art’.\textsuperscript{36}


\textsuperscript{35} Although Stirling has claimed his association with the Independent Group was largely social, he has commented on how impressed he was with the images in the imported American magazines the group shared and the collages of John McHale. D. Rubins, Ed. *The Independent Group: Post-War Britain and the Aesthetics of Plenty*, (California: 1990), 195.

For colour to ‘raise the soul of the spectator’, as this eighteenth-century commentator suggests that a building’s appearance might do, it must surely appeal to an individual’s aesthetic sensibilities. Defining aesthetics and determining what aesthetic values might be, however, is a complex issue, often resulting in contradictory and, at times, vague definitions.\(^{37}\) What is, or is not, aesthetically pleasing is invariably judged according to individual tastes, which are themselves formed by a whole range of personal and collective experiences, making it impossible to consider incorporating colour as a means of satisfying personal preferences in a building experienced by thousands. But whether or not a particular colour scheme is pleasing at an individual level is not the issue here; rather, it is the use of colour to alleviate monotony while simultaneously serving a recognizable and practical purpose.

When considering how people might react to different colours and textures within the built environment it is, however, reasonable to make certain assumptions, something behavioural psychologists call environmental probabilism.\(^{38}\) Dark, hard-surfaced confines, for example, are generally considered less conducive to relaxation than their opposites, and within such surroundings we are naturally drawn to light as a potential exit. Similarly, while the interpretation of any given colour is simultaneously personally, culturally, and contextually shaped (a red light means stop only in relation to green and amber, and only if one is aware of the rules of driving), a variety of colours and textures is generally considered more interesting and stimulating than large scale repetition, a factor that explains the appeal of the picturesque.\(^{39}\) Indulging his liking for conflicts and tensions, contrasts and oppositions, Stirling’s expanding use of colours and textures in his buildings

---

\(^{37}\) For a detailed account of the difficulties involved in establishing a working definition for aesthetics see Lang, *Creating Architectural Theory*, in particular chapters 17, 18 & 19.

\(^{38}\) P. Bell, T. Greene, J. Fisher, and A. Baum, (Eds.) *Environmental Psychology*, (London: 1978), 416. This line of thought suggests designers cannot predict exactly how people will react to a given environment but that certain assumptions might reasonably be made.

\(^{39}\) As early as 1794 Uvedale Price recognized ‘the two opposite qualities of roughness and sudden variation, joined to that of irregularity [were] the most efficient cause of the picturesque’; as quoted in Demetri Porphyrios, *Sources of Modern Eclecticism: Studies on Alvar Aalto*, (London: 1982), 62.
from the late 1970s onwards catered, it is argued, for our most primitive desires, prompting our instinctive urge to explore through ‘novelty, surprise, conflict [and] uncertainty’. By introducing what Wilford labelled as colours ‘that convey a sense of delight’, Stirling brought, to his later projects, a dimension designed to enhance the architectural experience on an aesthetic, sensual and phenomenal level, comparable to Kahn’s definition of ‘desire’.

The manifestation of a more humanist use of colour is most readily recognised in Stirling’s designs dating from the late 1970s, but it is possible to detect significant traces of it in previous projects. The buildings discussed in Chapters One and Two, for example, have been shown to incorporate colour principally as a means of structural and/or functional expression, but there is evidence, albeit minimal, that Stirling was already aware of the need to offer visual stimulation for the satisfaction of those who used his buildings. This is perhaps best exemplified if Stirling’s ‘red brick’ buildings at Oxford and Cambridge Universities, discussed in Chapter One, are compared with his and Gowan’s Engineering Building at Leicester. In terms of colour the Leicester project shows little evidence of any humanist, or anthropocentric, consideration. As discussed, this building, at the time of its completion, was both overtly industrial and modern, as the interior of the stair towers demonstrate. Each communal landing in these towers is entirely covered in tiles of the same colour and texture as the engineering bricks used on the exterior, while the stairwells reveal the giant concrete sections that make up the walls. Down the length of these stairwells runs a series of silver coloured pipes, servicing the

---

40 Psychologists believe that, of the different systems that comprise the human brain, the limbic is the most primitive and that evidence suggests it ‘has a strong preference for the exotic, and stimuli which demonstrate a high figure to ground contrast…things that glitter or display a rich variety of colour’. Peter F. Smith, *The Dynamics of Urbanism*, (London: 1974), 181.  
41 George Millar, quoted in Smith, *The Dynamics of Urbanism*, 17. Millar suggests it is within human nature to seek out variety and new stimulations to occupy our intrinsic mental needs.  
42 J. W. Cook, and H. Klotz, *Conversations with Architects*, (London: 1973), 181-204. Louis Kahn suggested that successful architecture satisfied both a need and a desire; the former referring to the basic requirements of shelter and protection, while the latter relates to ‘the character of the space’.  
43 Maxwell, *Sweet Disorder and the Carefully Careless*, 220. As Maxwell has pointed out ‘the use of adhesive red tiles’ and large areas of ‘cheap greenhouse glazing’ was at the time considered as ‘evidence of technological innovation’, despite any references to an industrial past these colours might also have made. This goes some way to explaining the inclusion of this building in McKean, Bramant, and Powell, *Pioneering British High-Tech*.  

196
hydraulic requirements of the laboratories, complete with large valves and pressure
dials. This explicitly industrial environment of what Banham described as ‘hard
faced…natural machine-age architecture’ only subsides in the private offices
leading off these landings.44

Beyond the obvious industrial ‘theme’, the colours and textures in these stairwells
work to promote constant and efficient circulation, via a process of containment and
release; an effect environmental psychologists label ‘inductive space’.45 The dark,
dingy stairwells offer no opportunity to pause or socialize, and the brighter, but
equally hard surfaced landings that provide welcome relief from the gloom, do so
only for a transient population. The industrial nature of these colours and textures
create an environment that is ‘hard, hard in its precision of profile and its ability to
define taut abstract planes’, making little obvious concession for interaction at a
human level.46

If these earlier stairwells are compared with those at the History Faculty Library,
Cambridge (1963-67), and the Florey Accommodation Building, Oxford (1966-71),
small but significant differences can be seen. In the former, walls were plastered
and painted white, steps covered in a honey coloured cork tile and the handrails,
unlike Leicester’s muted, dull pink, were painted a vibrant red.47 Externally,
threaded over and around the brittle surfaces of the red brick and glass library,
Stirling placed brilliant white handrails to guide visitors in or over the structure (it
is possible, and indeed common, for students to cut across the roof of the sunken
reading room, rather than walk around).48 To similar effect the handrails inside the

44 Reyner, Banham, ‘The Style for the Job’, New Statesman, (14/6/64), 261. Stirling kept a copy of
45 Smith, The Dynamics of Urbanism, 148. ‘Inductive space’ is a phrase used by psychologists to
describe an area that impels movement through it.
46 Maxwell, Sweet Disorder and the Carefully Careless, 223.
47 Michael Wilford, interview with author 15/5/08. Wilford describes them as being ‘a florescent
pink’ but all photographic evidence suggests they were more readily described as red. The actual hue
is not the issue here but rather the fact that bright colours were incorporated to highlight the rails and
brighten up the environment.
48 A recent visit to this building by the author revealed these railings have been left to rust and
discolour.
Florey Building were painted a bright lime-green (identical to the circular disc of the wind vane). These alternative textures and colours work to articulate circulation routes and identify individual areas as much as those at Leicester. They also act as a form of utilitarian decoration and contribute on an aesthetic level; they are considerably more comfortable to spend time in.\footnote{Michael Wilford, interview with author 15/5/08. Wilford suggests that increasing emphasis was being placed upon the ‘issue of delight’ and colour’s importance in ensuring ‘that the buildings [were] a joy to enter and to be in’.} The different materials and colours offer a degree of visual relief and/or stimulation lacking in the stairwells of the Engineering building, without detracting from the overall impact of the brittle and reflective materials that cover the majority of each building’s surface.\footnote{This, of course, is a matter of opinion, and there are those who hold contrary views. James S. Russell, in his introduction described Stirling and Gowan’s Leicester project as taking ‘visitors for a very rich and varied journey’. McKean, Bramant, and Powell, \textit{Pioneering British High-Tech}, non-paginated.}

A similar claim might be made of the three giant, primary coloured extractor fans situated in the ceiling of the History Faculty Library. Raised above what has been likened to a modern-day Victorian reading room, the conspicuous articulation of these machines might be described as typically High Tech; but to do so significantly underestimates the use of colour in this instance.\footnote{James Stirling, ‘Acceptance of the Royal Medal in Architecture 1980’, \textit{Architectural Design Profile, 50\textdegree Anniversary Edition, (7/8 1980)}, 7. Stirling himself likened this building to a ‘nineteenth century public reading room’.} That Stirling chose to have these fans painted in three \textit{different} colours - red, blue and yellow - suggests visual variety was at least as important as high-lighting their presence (which could, after all, have been achieved with just one colour). As they stand, they simultaneously emphasize the presence of technology while offering a visual point of interest for those below. Banham expounded this theory, suggesting that intense concentration (as takes place in such a library) requires intermittent changes in focus in order for it to be sustained over long periods of time. As views out of this partially sunken study area are restricted, the bright colours of the extractor fans provide a welcome alternative.\footnote{Reyner Banham, ‘History Faculty Cambridge’, \textit{Architectural Review}, Vol.144, (Nov. 1968), 331. In this article Banham wrights at length on the necessity for those who study to be able to look away from their books and out towards other, distant points of interest. Experiments by psychologists} Whether or not such breaks in concentration do actually aid the
learning process is not for debate here. However, what can be confirmed is that such applications of colour do create specific areas of visual interest, and it is these areas of interest that suggest Stirling’s concerns for the individuals who used his buildings were growing.

A comparable use of colour can be attributed to the raised access decks of the first phase of the Southgate Housing Estate (1967-72, Chapter Two). Although the GRP (glass reinforced polyester) panels in both phases accentuated the repetitive building systems Stirling employed, there was a deliberate attempt to address the more psychological concerns of the inhabitants in the earlier phase. By varying the colour combinations of these access decks from block to block, rows of identical structures were given easily identifiable characteristics that helped differentiate one from another (the same was true of the second phase). As previously mentioned, Wilford remembers the decision to use such bright combinations of colours was made to ‘open up’ the potentially gloomy decks situated under the protruding top floor of each block.

The inference here is that, while the GRP panelling worked for pragmatic reasons (it was inexpensive, light-weight and easy to handle), the actual choice of colours was based, in part, on how they might benefit those interacting with the architecture. An interpretation supported by Stirling’s own concern regarding the ‘banal and arrogant…..technocratic solutions’ which, he feared, if applied to urban environments would ‘only subvert the richness and variety of life’. Admittedly, these colours were only minor inclusions, but when compared to the estate’s domineering celebration of industrial mass-production, they can, nonetheless, be interpreted as hinting at concerns for the occupants as individuals.

Wollin and Montague in 1981 suggest creating an environment of visual variety in terms of colours and textures was equally important. Tony Cassidy, Environmental Psychology: Behaviour and Experience in Context, (Hove, 1997), 186.

For a detailed account of why psychologists generally agree that, in terms of visual stimulation, an environment of variety is more pleasant to be in see Lang, Creating Architectural Theory, in particular Chapter 18, 188-201.


Perhaps the most flamboyant example of Stirling’s chromatic versatility is his and Wilford’s New State Gallery and Theatre complex in Stuttgart, Germany (Ill.4.2). Here Stirling’s use of colour as an aid to circulation is both difficult to miss and well documented, but it is his choice of colours that warrants closer scrutiny. The bold juxtaposition of synthetic paints and natural materials succeeds in creating, what Stirling hoped would be, an ‘informal and populist’ building, delivering an ‘aesthetic excitement of the senses’ comparable to that of the picturesque. Most noticeably this is achieved with the substantial, heavily-glossed, light-blue and pink metal tubes that, threaded throughout the complex, signal to visitors the ramps and stairs that lead from the pavement to the entrance and beyond (Ill.4:3). The brief insisted upon a public footpath passing through the museum for non-visitors, meaning clearly defined circulation routes were essential. These were signalled with the over-sized, explicitly synthetic, bright tubing which contrasts with the naturally irregular swirls of the fawn and coffee coloured sandstone and travertine tiles to which it is attached. Capitalizing on this association between colour and route, Stirling relied upon these enlarged rails to invite exploration of the entire structure, enticing visitors around the central drum and into secluded balconies and alleyways (Ill.4.4). To avoid compromising the impact of the tubing’s presence with visible lamp-posts, Stirling hid the requisite night-lights within their actual structure.

Aiding circulation might just as easily have been achieved with clear and instructive signage, but the coloured tubes offer more in terms of experiencing the architecture at a sensorial and corporeal level. On an aesthetic level their strong visual presence

58 Porphyrios, Sources of Modern Eclecticism, 62. Porphyrios suggests this was one of the aims of picturesque composition along with ‘the commodious arrangement of uses and the imaginative utilization of the site’s peculiarities’.
59 Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, 49.
60 Michael Wilford, interview with author 9/2/10. To similar effect strip lighting was hidden in the recesses of the I beams of the entrance canopy. CCA file no.AP140.OS1.041.140.0897.
and incongruous dimensions unite the potentially disparate collage of geometric forms that make up the complex, in much the same way as the coloured bands of the Wissenschaftszentrum (or WZB, 1979-87, Chapter Three). But more than this they offer a sense of fun (‘they look like “giant ribbon” or “toothpaste”’)\textsuperscript{61} and their lacquered surfaces, in comparison to the surrounding stone work, are irresistibly tactile. As well as aiding circulation they have been elevated to exhibit status, their presence enjoyed and examined as much as questioned and relied upon. A comparison with the identically designed, but much smaller bronze rail at Number One Poultry, London illustrates this point perfectly (\textit{Ill.4.5}).

A similarly pragmatic use of colour has been adopted for the three steel-girder entrance canopies. Diminishing in size according to the hierarchy of the entrances they shelter, these skeletal frames are all painted the same blue as the steel uprights of the entrance tower on Konrad-Adenauerstrasse, offering easy identification of all the access points from a distance.\textsuperscript{62} Pragmatism alone, however, does not explain the choice of colour. Set against the potentially monotonous stone clad walls, this particular blue (although darker than that of the ‘giant rails’) is visually pronounced, livening up otherwise dull areas.\textsuperscript{63} This effect has been enhanced around the main entrance to the gallery by painting the undulating foyer window a bright, lime-green and the revolving doors and over-sized triangular bracket that suspends the canopy, a vibrant red (\textit{Ill.4:1}). In a corner that is sheltered from the sun for most of the day the architects have employed an eye-catching colour combination to perpetuate an atmosphere of informality, while directing attention toward an area of fundamental importance: the entrance.

Jencks describes these canopies and railings as ‘High-Tech jewellery’, and argues that their success or failure relies upon an understanding of their ‘symbolic or

\textsuperscript{61}Cook, ‘Stirling 3: Stuttgart’, 34.
\textsuperscript{62}An undated, coloured drawing on tracing paper shows the entrance tower was at one time considered as being all red. CCA file no. AP140.S2.SS1.D52.P16.1-4.
\textsuperscript{63}Several undated, coloured sketches reveal that Stirling considered other colour combinations for these canopies before deciding on the final one of blue, black, and red CCA file no. 11-002-140-0884.
linguistic role’. It is, however, the flamboyance of Stirling’s populist colour schemes that ensures this is not the case. It is not essential to recognise the blue entrance tower as referencing Laugier’s primitive hut, or the metal canopies a form of Constructivist design. To the initiated, these connections may well be obvious, but the sensory benefits of bright colours that direct visitors in and around the building are not reliant upon architectural enlightenment.

Colour’s potential to create ‘inductive space’ has also been capitalized upon internally, most noticeably in the gallery sequence. The display rooms in Stirling’s extension are traditional in layout and understated in appearance. Set in enfilade and forming three sides of a square around the central rotunda, the exhibition spaces are rectangular, white, lit from above, and connected to one another by broad openings. As a result, passing from one to another is relatively easy and uneventful (Ill.4.6). The one room that connects to the older museum, however, is dramatically different. Its two longest walls converge toward the boundary with the older building, creating a funnel-shaped chamber that prompts movement through it, an effect compounded by the dark red/plum coloured walls (Ill.4.7). By leaving all the exhibition rooms rectangular and white, with only the funnel-shaped space heavily coloured, Stirling created a sense of occasion, prompting further circulation and geographically locating the space in relation to both the old and new museums. If this functional use of colour has parallels with the stair towers of the Leicester project, it has none of their inhospitable claustrophobia. Of course, the

---

64 Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, 51.
65 Ibid, 50. Jencks makes the connection between Laugier’s hut and Stirling’s entrance tower while it was Stirling who described the three entrance canopies as ‘Constructivist’. Stirling, ‘Design Philosophy and Recent Work’, 8.
66 The ceiling lights and white walls of the gallery rooms remain the norm in terms of décor, but they are subject to exhibition requirements. On visiting the gallery for this thesis the author discovered that, due to the nature of one display, a single room had been temporarily painted black and all external light blocked out.
67 It is worth comparing this ‘linking’ or ‘bridging’ chamber with a similar situation inside the Clore, if only to highlight the sense of occasion Stirling’s choice of colour creates. In their extension to the Tate Gallery, Stirling and Wilford deliberately underplayed the moment one passes from the old Tate to the new Clore. Designing doors the same dark brown as those in the rest of the museum, but incorporating much bigger panels of glass, visitors were attracted by the brighter light of the Turner exhibition rooms. The intended result was that visitors unwittingly found themselves crossing from one building to another. Michael Wilford, interview with author 5/9/2004.
difference between these two building’s interiors is also the result of very different budgets and requirements, but this should not detract from Stirling’s use of colours within the museum. If the dark red/plum walls afford this room a separate identity, then the retention of a pale floor and ceiling, and two circular skylights, ensure that this colour’s potential to oppress is kept in check, allowing visitors to linger without hindrance.

With considerable success, a similar use of colour occurs in the staircase of the Sackler Gallery (1979-84). Taking its cue from the building’s banded exterior, the walls of the narrow staircase have been finished in alternate layers of lilac and creamy-yellow stucco (ill.4.8). As with the bands found on the exterior of the WZB in Berlin, the clashing colours, separated by deep recesses, emphasise the presence of the broad horizontal layers. The effect of this heavy horizontality, cut into by the incline of the narrow stair, all set under a glass atrium, exaggerates the rise of the steps and the elevated position of the artwork, and in doing so successfully draws visitors past the reception desk and up to the exhibition rooms above.

What elevates the staircase from a functional area in which to move through, to one of social interaction, is the choice of colours and the inclusion of carved artefacts set into the walls. Without compromising the efficiency of the staircase as a means to access the offices and exhibition rooms that lead off, Stirling has given this space its own identity; a busy and visually vibrant area that visitors can enjoy as they either pass through, or stop and linger. Describing this space as ‘a steeply inclined bazaar with overlooking windows, [with] people talking and flanking activities [where] there will be the traffic of students…and the flow of the public’ Stirling revealed his ambitions to create an environment that would actively encourage human interaction.69

68 A coloured drawing, dated 1979, suggests the bands to both the interior and the exterior were at one time considered as being green and yellow. CCA file no. AP140.S2.SS1.D.58.
Employing colour for practical purposes – aiding and assisting circulation – was not Stirling’s only motivation. As the interior of the drum at Number One Poultry suggests, he would also introduce bright colours purely as a form of attraction; a device to bring pleasure that was conspicuously lacking in some of his earlier work (Ill.4.9). Inspired by the numerous glazed tile courtyards found in this part of London, Stirling and Wilford finished the majority of the drum’s interior with dark-blue tiles, leaving only limited amounts of sandstone visible. The claustrophobic combination of dark tiles, set under a narrow opening to the sky above, has been alleviated by the inclusion of vibrantl...
mass-produced, industrial elements (strips of metal-framed, ribbon windows and large air-conditioning ventilation pipes) might well have required painting. By highlighting them, however, with bright, almost primary colours, Stirling was able to afford them, visually at least, the status of ornament or exhibit, something to be enjoyed rather than endured.

Confronting Technology
How, then, can Stirling’s use of colour be read as an attempt to reconcile the individual with the industrial? The answer lies not just in the hues used but where, exactly, and in what quantities they have been applied. By incorporating contrasting colours and textures in his and Wilford’s later designs, those using their buildings are invited to examine the very materiality of what they see. This is a significant factor in instances where metal has been painted, and is perhaps best illustrated by comparing the fenestration of the rear elevation of Number One Poultry (Chapter Three) to that of the flats in Camden and the History faculty Library, Cambridge University (both discussed in Chapter One). All three of these buildings incorporate mass-produced, metal window-frames, but it is only in the later Poultry project that the galvanised metallic finish was painted (blue or yellow depending on the shape and size). This simple act of varying the colours alleviates the sense of industrial repetition that dominates the other two buildings, inviting response rather than implying control. The same is true of the rows of identically sized, pink, blue, and yellow windows situated inside the drum.

Masking mass-production in such a manner has been characterised as a typically Post-Modern trait, but interpreting this building as merely emblematic of this style underestimates the effects of such a design decision. It should also be remembered that Le Corbusier, whose influence over Stirling was both considerable and well

---

71 A visit to the Camden flats by the author in October 2009 revealed all the metal work has now been painted white.
72 Eisenman, Eisenman Inside Out, 235.
73 Robert Maxwell described No. One Poultry as a Post-Modern building ‘thirteen years out of date’, Robert Maxwell, ‘Tour of No.1 Poultry’, The Twentieth Century Society, (5 June 1999) non-paginated. Maxwell was not criticizing Stirling’s building, merely suggesting it carried all the hallmarks of Post-Modern Architecture long after it had passed out of fashion.
documented, had similarly discussed how paint’s ability to disguise and obscure can be used to great advantage.\textsuperscript{74} By taking elements that are in themselves representative of mechanical mass-production, and highlighting them with a variety of colours not normally associated with such objects, Stirling takes them from the subliminal to the conscious, paradoxically playing down their industrial associations. For paint, although an applied surface coating, carries its own associations depending on its colour, and has the potential to obscure, to varying degrees, the connotations of the object, or material, it covers.

Paint’s impact on material structure is noticeable throughout the Stuttgart complex. Inside the entrance foyer to the art gallery Stirling designed an elevator, largely composed of an exposed steel frame (Ill.4.10). The tactile qualities of this industrial sized structure are, however, concealed beneath bright, glossy red and blue paint which, while we know it to be steel, reduces the entire structure to something almost ‘toy-like…designed to appeal to the man in the street’.\textsuperscript{75} Precisely because the simultaneous connotations of, and associations with, industry and childhood remain vague and ambiguous, longevity is assured. As no specific meaning is implied, no symbolic relevance need be maintained or identified to avoid redundancy. As emblems of industrialization/mechanization they have been compromised, forced to reference something else; what this might be is dependant upon each individual’s reaction to the bold colours that cover them. The same is true of the giant air-vents situated to the rear of the museum (Ill.4.11). Bulbous and seemingly over-sized, the purpose of these objects is ambiguous. Are they really functioning vents, or does their almost day-glo colouring (one blue, the other green)

\textsuperscript{74} Jan de Heer, \textit{The Architectonic Colour – The Polycromy in the Purist Architecture of Le Corbusier,} (Rotterdam: 2009), 231. Le Corbusier was describing how by simply painting a chimney in a house it can be turned from an architectural element into something more akin to a piece of furniture. There is no evidence to suggest Stirling was directly influenced by these comments, but his knowledge and personal experience of Le Corbusier’s writings and buildings means they should not be overlooked.

\textsuperscript{75} Kenneth Frampton, \textit{Modern Architecture: A Critical History,} (London, 1985), 308-9. Frampton used this phrase to describe the Neue Staatsgalerie, criticizing Stirling’s use of colour for disguising its tectonic qualities.
imply they are actually sculptural exhibits? They are even placed upon their own plinth.

If colour is central to Stirling’s success in focusing our attention on a given object or objects, then ambiguity is what holds it. These brightly coloured elements might be mere artefacts, but he took care to ensure that their practical relevance could never be completely dismissed. A comparison with Venturi’s over-sized wooden column in the Museum of Art, Oberlin, Ohio (1973-76) illustrates the point (Ill.4.12). The combination of wooden planking and Brobdingnagian dimensions deliver an absurdity that masks any architectural relevance this column might potentially have, rendering it apparently nothing more than ornamentation. Stirling avoids such flippancy by employing colours not to eradicate technology, but rather to make it more palatable, less threatening. He invites audience participation with the very fabric of the museum itself which in turn becomes part-exhibit/part institution.76

How, then, does Stirling’s colouring of industrial elements differ from that found in much of the High Tech he warned against?77 Comparisons with typically High Tech contemporaries of the Neue Staatsgalerie, such as Richard Rogers’s Laboratories for PA Technology, New Jersey (completed 1984 Ill.4.13) or Norman Foster’s Renault Warehouse, Swindon (completed 1983 Ill.4.14) suggest that all three share a commonality: they all use bright, primary colours to articulate individual elements. But if we consider what it is that Foster and Rogers are highlighting within their structures, and what the effect of such an emphasis is, the disparity between their work and Stirling’s is pronounced. In both instances Foster and Rogers have chosen not only to draw attention to the structural significance of specific elements (yellow

---

76 This ambiguity is perhaps best illustrated through the various descriptions the steel canopies have attracted. Stirling described them as ‘Constructivist’ (Stirling, ‘Design Philosophy and Recent Work’, 8) and later as De Stijl (Lasdun, Architecture in an Age of Scepticism, 198) while Peter Cook felt they were more akin to the work of Caro or Paolozzi. Cook, ‘Stirling 3: Stuttgart’, 40. The reality is that they are shelters for visitors.

77 Quoted in Maxwell, James Stirling - Writings on Architecture, 225. Stirling’s warning ‘beware of high tech’ was made in 1987 when he was speaking retrospectively about his concerns for the over-expression of technology that dated as far back as 1969.
or red masts and suspension cables), but also to affirm the repetitive, production-line process of the building’s construction. This is perhaps more easily explained if Rogers’s New Jersey project is compared to his Inmos Microprocessor Factory, Newport (completed 1982 Ill.4.15). In this earlier building the tall masts and slender, steel suspension cables were painted a royal blue which, although emphasising the repetitive nature of their positioning, diminishes their visual impact. By simply painting the equivalent parts in his later design bright red, Rogers boldly announces both repetition and tectonic significance, celebrating the advanced technology behind the building’s construction.

In this respect the Renault Warehouse and the PA Technology Laboratories have more in common with Stirling’s Olivetti Training School and the Southgate Estate in Runcorn (Chapter Two) than they do with the Neue Staatsgalerie. In the German museum Stirling avoided the repetitive and, to a large extent, obscured the structural. Admittedly, the colours themselves may have been described by some as High Tech, but their use cannot easily be seen as a celebration of modern technology; much of what he articulated in this way was, if anything, old-tech. The prominent iron-work of the awnings and entrance tower carries with it an air of familiarity; a multicoloured descendent of Victorian engineering. The bulky dimensions recalling the riveted steel structures found in and around the Liverpool docks that Stirling knew well. If technology’s inclination to supersede itself through constant evolution logically implies expendability, then Stirling’s decision to highlight these references to much older building techniques creates an air of permanence for this overtly modern building. And by simultaneously referencing modernity and tradition, but refusing to allow either to dominate, he ensures that the individual experience retains primacy rather than the display of cutting-edge technologies.

77. This description is made by architect Eva Jiricna.

If brightly colouring the non-structural canopies, parapets, and air-vents of the Neue Staatsgalerie renders them almost ornamental additions, an ad hoc assemblage of shapes and textures that combine to create an environment designed to engage the individual at a sensory level, then the Bookshop at the Biennale Gardens, Venice (1989-91 Ill.4.16), underplays tectonic significance with the opposite approach. In this small building, the exposed steel frame that supports the entire structure was painted a dull grey/brown, leaving it subservient to the vast amount of exposed, honey-coloured wood that covers most of the interior. Despite their number, physical prominence, and tectonic relevance, these metal pillars and beams are easily overlooked. In addition, the non-mechanical contribution to this building was further implicated by Stirling’s request that (according to Thomas Muirhead who worked extensively on this project) the interior was not made ‘too perfect’, something Muirhead translated as ‘a simultaneously sophisticated and handmade effect’.79 When the metal framework of the bookshop is compared to the brightly coloured ‘punk additions’ of ‘High Tech Jewellery’ at the Stuttgart project, Stirling’s success in underplaying the industrial becomes apparent.80

The interior of this relatively small bookshop underscores the importance of the materials and colours Stirling juxtaposed with the industrial elements. In both this project and the earlier Stuttgart complex he employed naturally produced colours as the back-drop to the metal-work. In the bookshop it is wood, while at the German site he insisted the concrete structure of the museum be almost entirely clad in alternating layers of travertine and sandstone, whose naturally irregular veins of variegated browns clash dramatically with the glossy paintwork of the metal. The stone veneer brings to the museum an indeterminate but substantial age, further emphasising the seemingly superficial nature of the attached coloured metal-work. This is not quite the case with the blue and red elevator, but the surrounding white walls and vivid lime-green rubber floor isolate it in its location in much the same way as any other exhibit. A similar claim can be made of the metal framed canopies

80 Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, 49.
attached to the walls of the Wissenschaftszentrum’s internal garden in Berlin (Chapter Three). Although the need for shelter justifies their presence, the multicoloured framework stands out against the neighbouring bands of coloured stucco. As mentioned in the previous chapter, Stirling went to considerable lengths to ensure that the stucco was left coarse and irregular; an overtly non-mechanical finish to contrast with the metal canopies that is further enhanced by the deliberately patchy paintwork intended to ‘bring life to the surface’ (Ill.3.9 & 3.11).

The success of these effects can be measured against the ‘red brick base’ of the Olivetti Training School, Haslemere (1969-72, Chapter Two). Any philosophical problems the suggestion of bricklaying might have raised for Stirling in this much earlier building (namely the reliance upon slow, traditional building methods in twentieth century construction) must have been dispelled by the sharp edges and precise placement of each, identical brick-tile. Their smooth, evenly coloured surfaces and deeply recessed joints hint more at industry and industrial environments than they do of brick-laying craftsmen. Admittedly, the brick-tiles give some visual stability to the plastic, modular structure they support, but they do nothing to detract from the building’s celebration of pre-fabricated, repetitive building systems. However, by allowing a recognizable degree of irregularity into the finished surfaces of the WZB and, indeed, the aforementioned Sackler Museum stairwell, Stirling ensured that, in these later buildings at least, the human contribution was not dominated by the industrial or the mechanical.

81 Michael Wilford, interview with author, 9/2/10. The blue and pink top-coat of paint in each alternate band seems to have been applied quickly and carelessly with a small roller, leaving much of the white undercoat to show through. The effect is that from a distance these coloured bands appear deep and substantial, but up-close any implied authority is undermined by the unmistakable traces of the decorator, enhancing the visual and tactile experience. The same is true of the bands of painted stucco on the walls of the staircase in the Sackler Gallery, albeit to a less obvious degree.

82 While the base appeared to be constructed of red, engineering type bricks, it was in fact built of concrete and clad in brick-tiles (see Chapter Two).


84 Ibid, 128. It is worth noting that in 1974 Stirling was extolling the virtues of a more ‘irregular’ and less ‘mechanical or machine made’ approach to brick laying that involved variable widths of joints between bricks in order to emphasise the contribution of the ‘hand-laying process’.

210
The Significance of Natural Colours

From the late 1970s Stirling allowed the presence and effects of nature to play an increasingly important part in experiencing his architecture. This is of relevance because by giving deliberately planted foliage a greater presence, emphasis is given to its constant growth and ever-changing colours. As a result visitors are not only made aware of the passing of time (a concept by which we measure all our experiences) due to the changes in seasons, but are also presented with a sensorial experience that is always potentially different from the last.

That nature was afforded such a profile is best illustrated if the interior garden of the WZB (Ill. 4.17) is compared to the courtyard of the Florey Accommodation Building, Oxford (1966-71, Chapter One, Ill. 1.34). In the earlier building Stirling created a nature free zone. Covering the entire inner-area with the same coloured, glazed red tiles as those on the building’s exterior, he kept all evidence of growth or decay at bay, ensuring that, in terms of colour at least, nothing changed. Instead, nature and the elements were held at a distance; the changing skies reflected in the glass panels of the inner wall, and the trees and fields beyond the adjacent river framed by each end of the accommodation block. Within this sheltered enclosure the focal point for any inhabitants looking down from their rooms was a giant weathervane/air-vent. In stark contrast, the interior garden of the later WZB was not only covered with grass but, at its centre, Stirling insisted on preserving an existing established tree (and when this became impossible, had another one planted).85

That the explicit display of the ageing process, and the change of colours it brought about, were becoming an important element in Stirling’s architecture is most dramatically illustrated in the central rotunda of the Neue Staatsgalerie (Ills. 4.18 a, b & c). By planting small shrubs around the rim, and deciduous vines at its base, Stirling created a sense of indeterminate but substantial age, compounding the

85 Gerald Blomeyer, ‘Learning and Stirling’, Architectural Review, Vol.185, (March 1989), 31. The damage the older tree suffered during the building’s construction meant its replacement was unavoidable. Michael Wilford confirms this in an interview with the author 19/6/09. Early, un-dated sketches of the Berlin project indicate that Stirling had considered planting a large number of trees around the new offices. CCA file no. AP140.S2.SS1.D57.P6.189.
impression that this complex is more akin to an excavation than a modern, built structure.\(^{86}\) This is particularly the case with the shrubbery along the rotunda’s rim, which further draws attention to the lack of a covering dome. Despite the structure’s obvious modernity there is a subtle sense of dereliction to this area, a kind of futuristic ruin.\(^{87}\)

The association of substantial age that this planting delivers also satisfies on a more metaphysical level; the suggestion of time passing implying a degree of permanence and stability that counters the ephemeral nature of change and the unfamiliarity of modernity. However different these new structures might appear, they somehow remain fundamentally part of an existing and established environment. It is not unreasonable to assume Stirling was aware of such associations, as early sketches of the first phase of the Southgate Housing Estate, Runcorn (1967-72) reveal. As has been discussed in Chapter Two, indicative of a desire to attribute a degree of permanence and monumentality to the first phase of this project, Stirling produced a series of sketches of the estate surrounded by what appear to be ancient ruins and giant established trees, with equally evocative titles such as ‘The Ruins of Southgate’ and ‘Runcorn: Domestic and Monumental’.\(^{88}\)

Recalling the presentation drawings Stirling produced for the second phase of the Southgate Estate development, it is clear that he had considered the impact of large scale planting before (Ill.2.24).\(^{89}\) However, the repetitive, clone-like images of trees in this earlier drawing suggest any planting was to remain subservient to the architecture and its repetitive colour schemes. It is worth comparing the trees in this image with those depicted in the plan of the Neue Staatsgalerie as presented on the

---

\(^{86}\) Architectural Monographs No. 32: James Stirling and Michael Wilford, 20. It was at Stirling’s suggestion that creeping vines be allowed to cover the walls of the rotunda, something he hoped could be repeated on the walls of the State Theatre building. It had also been a consideration for a similar, open rotunda in the centre of the unrealized Nordrhein-Westfalen Museum, Dusseldorf. James Stirling and Partner, ‘Stirling in Germany’ Architectural Review, Vol.160, (November 1976), 295.

\(^{87}\) Jencks likened the finished effect to ‘the ruined domes of Hadrian’s Villa…or the secret garden of the Villa Rizzardi’. Jencks, ‘The Casual, the Shocking and the Well Ordered Acropolis’, 54.

\(^{88}\) CCA file no. 036:004:045-003.

\(^{89}\) CCA file nos. 045:002:011/014/015.
promotional posters (Ill.4.19). Compositionally the outline of the building is easily matched by the irregular and seemingly uncontrollable mass of green that sits below. If planting at the Southgate estate was presented as contributing to the beneficial aspects of this utopian design, it was not allowed to compromise, or even contribute to, the visual impact of the architecture; and in the realization of this project such planting was considerably reduced. In Stirling’s later buildings however, organic life has been allowed, at times, to dominate, accentuating the contrast between the precision of man-made structures and nature’s persistent irregularity.

If the presence of vines and shrubs within the Neue Staatsgalerie contribute to a sense of age and permanence, their evolving colours, and the effect these have on the architectural environment, paradoxically heighten the impression of change. Depending upon climate and season, the constantly altering plant-life transforms this part of the museum on a sensorial level. During the winter months the leafless vine stems cover the precision cut stone tiles in a maze of spidery threads, but in mid-summer the walls are swamped with dense, dark-green leaves which, in autumn, turn pale yellow and bright crimson. Similar effects can be seen in the Clore Gallery, London and the Biennale Bookshop, Venice, albeit to a lesser degree (ills.4.20 & 21). As part of its intended ‘garden building narrative’ Stirling commissioned the design of a small park in front of the Clore, retaining several large, established trees and effectively separating the new gallery from the adjacent road. This dense veil of foliage that visitors are required to walk through to access the building’s dedicated entrance, once again delivers a degree of ambiguity to the

---

90 It is worth noting that in one design for the Roma Interrota (1977) Stirling removed two housing blocks from each of the squares in the Southgate Estate and replaced them with double rows of trees. CCA file no. AP140.S2.SS1.D6.9.
91 Letter from Russ Bevington to author 4/5/09.
92 Stirling commissioned his friend, Janet Kaye, to design the garden, Girouard, Big Jim, 218, but he had stated his intentions to keep the existing trees (and to plant shrubbery in the pergolas along the museum’s base) long before the building’s completion. J. Stirling, M. Wilford, and Associates, ‘The Clore Gallery for the Turner Collection, Tate Gallery, London’, Architectural Design Profile 39, Vol.52, (1/2 1982), 106. An undated, coloured sketch of the entrance elevation shows that fixing trellis on the roof of this section had been considered, over which vines were depicted as growing. CCA file no. AP410.S2.SS1.D56.P4.2.
structure’s age.\textsuperscript{93} We know it to be modern in its construction but its adjoining garden seems old. And although the trees are kept at a distance from the building, their presence affects its appearance in a constantly changing manner. In summer, when they are heavy with leaves, the colourful walls of the Clore are periodically subdued with shade, while in the winter the bare branches cover them in a spindly network of shadows (Ill.3.21). These irregular, vein-like patterns counteract the modernity and precision of the stone grid and stucco in-fills, in much the same way as the bare vines in the Neue Staatsgalerie’s rotunda do the machined tiles.

Comparing these spindly, irregular shadows with the more angular ones cast by the metal framed awnings at the WZB (Chapter Three) and the roof structure of the History Faculty Library’s reading room, (Chapter One) highlights the impact of nature in Stirling’s later work. As discussed, the large areas of evenly painted, cream coloured stucco applied to the Berlin project accentuate the sharp forms produced by the awning’s frames, the slowly shifting shadows presenting an image of angular precision and mechanical construction. The same is true of the shadows cast on to the internal glass roof of the library in Cambridge. Because Stirling diffused only the inner layer of glass in this double-skinned structure, sunlight is allowed to shine through the outer layer un-interrupted and cast focused shadows of the metal work that separates the two on to the inner, translucent layer. The result, for those inside, is that when the sun comes out, the all-white ceiling presents a mass of angular, dark shadows.

The bookshop in the Biennale Gardens, Venice, also displays the changes brought about over time, albeit in a different manner. Stirling, at the suggestion of Italian architect G. B. Cuman who worked on this project, covered the substantial roof of this relatively small building in copper, a metal that quickly turns a powdery green in damp climates.\textsuperscript{94} The white rendered walls and ribbon windows of this structure might recall the Modern buildings of the inter-war years, but it is the colour of the

\textsuperscript{93} Ambiguity regarding the building’s age was Stirling’s intention, presenting the building as being ‘neither modern not historical’. Progressive Architecture, (Nov. 1981), 26.

\textsuperscript{94} Girouard, Big Jim, 283.
substantial overhanging roof, by far the largest surface area of any one material, which dominates this bookshop’s visual presence. This is made apparent if the bookshop is compared to the Olivetti Training School, Haslemere (1969-72), another relatively low, long, and narrow building designed to slot in between existing trees with as little disruption as possible. Despite these similarities, the appearance of these two buildings could not be more different (save, perhaps, for the incorporation of Stirling’s intended colour scheme at the Haslemere site). The distribution of colours at the training school was, as has been discussed, intended to accentuate the repetitive, pre-fabricated nature of its construction, and designed to visually compete with its established surroundings. With its shiny plastic panels of alternating colours, set on what appeared to be a base of red engineering bricks, this building was not intended to make any concessions to time and location; in terms of colour change was not on the agenda.

The experience of viewing these three later buildings (the Neue Staatsgalerie, the Clore and the Venetian Bookshop) from a distance is also heavily influenced by the proximity of the ever-changing trees which act as a veiled tease. This is more apparent for the last two where the distribution of colour is difficult to see without interruption except at close quarters (ills.4.21 & 22). In the Biennale gardens the random clusters of slender trunks surrounding the bookshop counteract the horizontal dynamic of the verdigris covered roof. The same is true of the trees in front of the Clore (and to a lesser degree those that Stirling had planted in front of the Neue Staatsgalerie). From the adjacent road a clear view of the Tate’s annexe is denied, with only glimpses of its coloured walls available through the branches and trunks; a stark contrast to the domineering, temple-like façade of the host building. Along the front of the Neue Staatsgalerie Stirling had trees planted at regular intervals to partially obscure the site and alleviate the presence of speeding traffic along the adjacent Konrad-Adenauerstrasse.95 The irregular, vertical nature of these

95 Early, undated drawings suggest Stirling wanted two parallel rows of closely planted trees which would have further obscured the site, with planting of a substantial garden to be included in the Music School developments CCA file no. AP140.S2.SS1.D61.P5. Other drawings suggest further
trees interrupts the slick, horizontal dynamic of the pink and light-blue parapet rails; a use of contrast that heightens our awareness of both.\textsuperscript{96}

In those instances where the foliage is most dense it further promotes interaction between visitor and architecture. Because, from a distance, these buildings are partially obscured, visitors are teased into exploring the structure at much closer quarters. By denying us a clear view from afar, Stirling arguably uses nature to prompt a much closer look, once again revealing his architecture via a process of discovery. This clearly represents a substantial shift of opinion when compared to the dissatisfaction displayed in his earlier commentary regarding trees blocking the view of buildings, in particular his not being able to see Le Corbusier’s Maison Jaoul without visual interruption.\textsuperscript{97}

**Conclusion**

What has been argued here is that, while human interaction with, and experience of, the built environment had always been concerns for Stirling, they had, in these later buildings, become increasingly so, and that colour and texture played a fundamental role in meeting these ends. Continuing to offer architecture with the potential to connect on an intellectual level, Stirling’s later buildings also delivered physical, sensorial and tactile stimulation. In short the ‘humanistic considerations’ he spoke of can be interpreted as affording his buildings a more populist appeal without dumbing-down. Rather than employing colours and textures to shepherd inhabitants around his structures in a controlled and predictable manner, he used them here to invite exploration, discovery, and speculation about the very surroundings visitors found themselves in. What this chapter has suggested is that in these buildings Stirling gave as much consideration to the primacy of the individual in experiencing his architecture, as he did to the display of structure or modern constructional methods.

---

\textsuperscript{96} Annotations to an early, undated sketch stating ‘lay off gap in trees’ suggest their ability to obscure was considered by Stirling CCA file no. AP140.S2.SS1.D52.P122.25.

Initially these overtly populist buildings do suggest, for Stirling, a move away from his position within the avant-garde, but their appearances mask the layers of continuity that link them to his earlier designs. Although the buildings discussed here are much more colourful than previous projects, in terms of Stirling’s concern for those who use them they reveal a resurfacing of themes dating back to the 1950s. As shown in Crinson’s insightful and detailed analysis of the photographs chosen by Stirling and Gowan to promote their Preston infill housing project, the architects were keen to display the tactile relationship that the architecturally un-enlightened could have with a building.\textsuperscript{98} That Stirling achieved similar results in these later projects, but with increasingly flamboyant colours and a much wider range of textures, actually supports the claim that his architecture was based on a series of fluctuating design ambitions that establish a consistency to his oeuvre, despite the increased individuality of his buildings.

It is not the case, however, that Stirling merely relied on polychromy to satisfy at a sensorial level. Multi-coloured surfaces do attract attention, but they are not necessarily synonymous with ‘psychologically nourishing’ architecture,\textsuperscript{99} just as a more muted environment is not always uncomfortable or unwelcoming, as the interior of the Biennale Bookshop in Venice proves. What Stirling increasingly relied upon are the tensions created through ever-bolder contrasts, both in terms of colour and materials. By placing shiny, lacquered metals next to irregular coloured stones, or precision cut tiles covered in rambling dense foliage, he offered a collage of materials and colours that invite tactile exploration. The heightened tensions, inherent with such juxtapositions, give emphasis to each individual element, drawing attention to the different materials in particular, over and above their accumulative effect. The result is that these buildings are laid open for inspection and investigation by the visitors, inhabitants, and individuals who are drawn to their surfaces, and it is precisely this attribute that ensures, however contemporary these


structures appear, that their modernity and their displays of advanced technology are never allowed to dominate.

The importance of these collages of colour and materials for Stirling is best measured when he was forced to speculate on their absence in the Neue Staatsgalerie. When, at the topping-out ceremony of this building, it was hinted that some people might prefer its concrete substructure to be left un-tiled and painted white, Stirling was emphatic (albeit good-humouredly) that this was not even to be considered. The implication is not only that Stirling could picture the building minus its colourful additions, but that he understood just how important they were to establishing a much deeper relationship between visitor and structure.

100 Girouard, *Big Jim*, 208. Herbert Fecker, the Chief Architect of the Finance Ministry of the Land in Stuttgart, made the suggestion to which Stirling threatened never to return to Stuttgart again if his colourful finishes were not completed.

101 Maxwell, *James Stirling - Writings on Architecture*, 156. Stirling intended these ‘colourful elements’ to contribute to what he called the ‘monumentally informal’ nature of this museum, denying it the imposing presence of ‘a monumental stone quarry’ it might otherwise have had.

Ill. 4.2 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83.

Ill. 4.3 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83.

Ill.4.6 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83, plan.

Ill.4.7 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83, gallery room linking the old and new museums.

Ill.4.8 James Stirling, Michael Wilford, & Associates, Sackler Museum, Harvard University, 1979-84, staircase detail.

Ill.4.11 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83, air-vents to the rear of the building.

Ill.4.12 Robert Venturi, Museum of Art, Oberlin, Ohio, 1976, column detail.
Ill.4.13 Richard Rogers, PA Technology Laboratories, New Jersey, 1984.

Ill.4.14 Norman Foster, Renault Warehouse, Swindon, 1983.

Ill.4.15 Richard Rodgers, Inmos Microprocessor Factory, Newport, 1982.

Ills.4.18 a,b,c James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, 1977-83, detail of foliage.


Chapter Five

Colouring In: Stirling’s Application of Colour to His Presentation Drawings

In describing his architectural influences Stirling stated that one of the first he remembered was his father’s ‘beautiful blue and pink wash sectional drawings of machine parts’, a description that surely highlights an early appreciation of the impact of colour.\(^1\) Similarly, when describing his ‘latter-day Beaux-Arts training’ in Liverpool he recalled, amongst the many demands made of him, having to complete ‘full colour compositions of the classical orders’. Such recollections necessitate that any investigation into the significance of colour in Stirling’s architecture should also explore its presence in his two-dimensional work.\(^2\)

What follows, however, is not a discussion of the many hundreds of technical drawings and preparatory sketches that he and his team produced, but rather a detailed analysis of a selection of coloured drawings that had the potential to access an audience beyond builders and architects. These drawings include competition drawings (that by definition are not the finalised design), presentation drawings for the client (that represent a much later stage of the design process), and drawings created and/or coloured for publication purposes only. When necessary, preliminary versions of these display items will also be analysed. Although these images served quite different functions in the design process, they are all nevertheless categorized

---


\(^2\) James Stirling, ‘Beaux-Arts Reflections’, *Architectural Design*, Vol.48, (November/December 1978), 88. This aspect of his early education is not the only element Stirling recalled in this article, but the fact that he did suggests colour had a significant impact upon him at this stage.
as presentation drawings. If such an exploration establishes this chapter as somewhat different to those it follows, it does not signal a departure. Its findings are as relevant to this thesis as those of the earlier chapters. The images under discussion here all refer to the architecture of Stirling and his team, and as such are a fundamental part of his oeuvre. Indeed, Stirling considered the process of drawing and colouring as being an intrinsic part of architecture for him and his contemporaries, and not as a separate means of self expression.

There is little doubt that Stirling’s application of colour to this aspect of his two-dimensional work was deeply personal, with no one else permitted to carry it out. This is precisely why the images discussed here have the potential to shed light on his broader architectural ambitions. Laurence Bain explains that Stirling’s addition of colour was mostly done in his private ‘thinking time’ which allowed him ‘to explore in his own mind the design in more detail’. It acted, he suggests as ‘a sort of therapy’. Such a proposition implies that the colouring process for Stirling was almost liberating, affording him opportunities to connect with colour in a manner that building did not allow. Meticulously applying colour by hand, working and re-working drawings day after day, at weekends and on holidays, Stirling would leave notes and colour codes in margins to remind himself of exactly what it was he wanted. The extent of his almost obsessive meticulousness is evident in the early versions of drawings depicting the Cornell Centre for Performing Arts, Ithaca, USA (1983–88 Ill.5.1). In these he tested a variety of coloured pencils (with colour codes given) and left critical annotations in the margins regarding the amount of shading required, the type of blue he preferred for the sky and even a warning against applying too many dots to the roof.

---

3 That these three types of drawing were all classed as ‘presentation drawings’ is confirmed by Michael Wilford. Interview with author 7/7/2010.
4 Letter from Laurence Bain to Author 27/5/2010.
5 Ibid.
6 Michael Wilford suggests Stirling found the whole process relaxing and gave up whole weekends to complete it. Michael Wilford, interview with author 7/6/2010. Such was Stirling’s obsession with the application of colour in these presentation drawings that he would take them away on family holidays to spend many hours working them up to a state of completion. Mary Stirling, interview with the author 18/11/2009.
7 CCA file no. AP140 S2.SS1.D63.
What this chapter does not focus on are those preparatory drawings that chart the chronology of any design evolution regarding the use of colour in specific buildings. Indeed it cannot, as many of the drawings discussed depict buildings that were never actually completed, and the appearance of those that were would inevitably have been influenced by both client and planning requirements. Instead, this chapter attempts to establish parallels between Stirling’s application and distribution of colour within his built work and its presence in a range of images developed, with one or two exceptions (most notably those of the Florey Building), from the late 1970s onwards. In short, it is not about how Stirling came to the final decision regarding which colour paint, or what type of stone would be used, but rather how his application of different colours in two dimensions might shed light on his relationship with those who viewed his work and experienced his buildings.

By applying the same analytical approaches to his presentation drawings as to his built work, this chapter supports and confirms the assertions and propositions made in the preceding sections. Just as Stirling has been shown to use contrasting colours and textures in his buildings to announce each structure’s presence and invite close scrutiny of their composition - something referred to here as architectural reflexivity - so too does he achieve similar ends in his drawings. If, as has been argued, his idiosyncratic use of colours became a signature element in his buildings, catering for the architecturally informed and un-informed alike, a similar conclusion, it is proposed, can be drawn from his two-dimensional work. Analysing Stirling’s drawings is not, however, intended to isolate, or even elevate, his approach to design as being fundamentally different from that of other architects. It should come as little surprise to discover that many of Stirling’s contemporaries (Aldo Rossi, Massimo Scolari and Robert Krier for example) felt equally compelled to express much of their creativity in two dimensions. 8 Rather this chapter confirms, through detailed examination, a consistency of approach, and a continuity of ambition, common to both his two- and three-dimensional work.

8 Rossi was particularly prolific, turning to oil painting, woodcuts and ink-drawings for self-expression. For an indication of how interest in drawings (and paintings) by architects was growing during this period see H. Klotz, (Ed.) *Postmodern Visions*, (New York: 1985).
It should be noted that the order in which these coloured drawings are discussed does not necessarily correlate with the chronology of either their production, or the building projects they depict; indeed it cannot, as only a few of them display a completion date, which in some cases came about long after the realized schemes were (if at all) actually built. Instead, these drawings are analysed along thematic lines. Initially it is suggested that while his mimetic use of colour does assist the metaphoric content of these images, something akin to Klotz’s ‘narrative representation’ (the recognizable depiction of stones, bricks, walls and foliage), it is constantly compromised by the assertion of the picture plane and the exposure of colouring techniques used. Just as the large stone blocks of the Neue Staatsgalerie that contribute to its monumental presence are revealed, on closer inspection, to be thin tiles clipped to a sub-structure, or the floating brick panels of the Clore’s entrance exposed as decorative veneers, so too do Stirling’s presentation drawings make a feature of the technical processes involved in their creation.

Of course the disclosure of structure in Stirling’s buildings is assisted by the fact that they are experienced first from a distance and then at increasingly closer quarters, a factor not obviously comparable with the process of viewing two-dimensional images. What the following investigation argues, however, is that Stirling offered an equivalent invitation to scrutinise these drawings through the juxtaposition of intricate mimetic detail with un-rendered, or even blank areas of the picture’s surface. This, in turn, emphasises the contribution of the artist, a technique more easily described as breaking the suspension of disbelief. What Stirling succeeded in achieving in these drawings is a visual tension that pulls the viewer into the image to look beyond the pictorial content; a delicate balance of Post-Modern narrative and Modernist truth to materials that exists in much of his built work, underlining his own complexity as an artist.

---

9 In those instances where the dates of the drawings remain unknown, those of the projects depicted will be given.
10 H. Klotz, The History of Post-Modern Architecture, (Cambridge, Massachusetts: 1988), 128. This term relates to a building’s ability to represent something more than the structure itself. That is, its potential to act as a metaphor, something Klotz also described as ‘aesthetic fiction’. Ibid, 130.
This tension raises a second line of enquiry that examines the duality present within his drawings from the late 1970s onwards which, as with his built projects, allows them to cater for the architecturally informed and un-informed alike; a duality only made possible by the careful and considered application of colour. In addition to the detailed information these drawings offer about the buildings they depict, the presence and distribution of colour works to stimulate an individual experience that requires no prior knowledge of the project in question. Stirling was aware of how boring certain architectural drawings could appear, in particular the large scale Beaux-Arts examples he saw at the MOMA exhibition of 1975,\textsuperscript{11} and it is the contention of this chapter that his choice and application of colours, in the images discussed, ensured a broader appeal. At its most extreme - his drawings of The Florey Building, The Neue Staatsgalerie, The Clore Gallery and The Los Angeles Philharmonic Building – Stirling’s catering for a broader audience is shown to have resulted in images that border on the abstract. With references to architecture needing to be deciphered, these drawings were presented as visual spectacles in their own right, their cryptic qualities enhancing Stirling’s status as artist.

Aspiring to populism with elaborately coloured architectural drawings did, however, raise concerns of a “‘New Post-Modern” kind of aesthetics [that] were losing themselves in the prettiness of drawings’,\textsuperscript{12} potentially leaving images ‘less concerned with their relation to what they represent than with their own constitution’.\textsuperscript{13} Wilford and Bain dismiss such claims, arguing that Stirling’s application of colour to his two dimensional work was not a device to spruce up otherwise dry images.\textsuperscript{14} But the growing interest in coloured architectural drawings,

\textsuperscript{11} Stirling, ‘Beaux-Arts Reflections’, 88.
\textsuperscript{13} Robin Evans, \textit{Translation from Drawing to Building and Other Essays}, (London: 2011), 160. This is taken from an essay originally published in 1986 in which Evans discusses the rise in popularity of architectural drawings over the previous fifteen years. Evans’s text itself is indicative of the growing interest in different forms of representation around this time.
\textsuperscript{14} Michael Wilford insists that the practice did not indulge in ‘paper architecture’. Michael Wilford, interview with author 7/6/2010. Laurence Bain similarly explains that the office was not interested in producing, what he describes as ‘pretty illustrations’. Letter from Laurence Bain to Author 27/5/2010.
prompted and catered for by improvements in colour reproduction techniques, is hard to contend. Indeed, Stirling must surely have been aware of the opportunities that such a trend offered to raise the profile of the practice’s designs and, by association, his personal contribution; and the drawings discussed here should, in part, be seen as a response to this. Not only were some of them copied and distributed as limited prints, but more importantly, publications and journals displayed more and more coloured images, increasing amounts of which were reproductions of architects’ drawings; this was certainly the case with the *Architectural Design*. In the early 1970s it, along with the *Architectural Review* and the *Architects’ Journal*, rarely included colour images, but by 1977 much had changed. Every cover of the *Architectural Design* for that year was in colour, with more than half of them reproductions of coloured drawings (the September/October edition carried Stirling’s sketch of the Neue Staatsgalerie III.419).\(^{16}\)

The focus of attention here, however, is not why Stirling’s drawings became more colourful but rather how he capitalized on opportunities to employ colour, and what his response reveals about his broader architectural ambitions. What is being argued is that because Stirling had the opportunity to use colour more flamboyantly in his drawn work, he did so in a manner comparable to his built work. Specifically, his application and distribution of colour invited a close scrutiny, from a much broader audience, of both content and technique in such a way as to compel the viewer to acknowledge the contribution of the artist/architect; namely Stirling. In short, the increasing quality of coloured reproductions in popular journals afforded Stirling further opportunities to assert his signature style.

---

\(^{15}\) A copy of the Los Angeles Philharmonic Building above the Tokyo Forum is numbered 127/500 suggesting it is one of five hundred copies to be made. CCA file no. 11-002-140-0883.

\(^{16}\) That Stirling recognised the power of colour reproductions to promote his work is difficult to deny. As early as February 1964, two of only three coloured images to appear in the whole of that year’s publication of the *Architectural Design* were of his and Gowan’s Leicester Engineering Building (this excludes adverts and covers, which were often in colour). James Stirling and James Gowan, ‘Leicester University Engineering Laboratory: Architect’s Notes’, *Architectural Design*, Vol.34 (Feb.1964), 68; and Frank Newby, ‘Leicester University Engineering Laboratory: Notes on Structure’, *Architectural Design*, Vol.34, (Feb.1964), 71.
Finally, it is also argued that colour, as much as line and composition, was employed by Stirling to influence the viewer’s gaze, ensuring that his designs gained the same prominence within the pictures discussed here that his built works achieved in their respective environments. Even in drawings where his architecture was kept to a minimum (those of the Palazzo Citterio, Italy, 1987 Ills.5.25 & 5.26), it is suggested he succeeded in attracting the viewer’s attention via a considered and sometimes unconventional use of colour.

It is important to note that, as with all the buildings discussed thus far, the following drawings were the result of creative contributions from many hands. However, Stirling was aware of the pitfalls of architects distancing themselves from the design process by delegating the production of drawings and models to others, and, as with his buildings, it must be remembered he always retained the power of veto, something Leon Krier acknowledged. Krier describes how Stirling would take what he wanted from his assistants, and discarded what he did not. The contribution of his staff to these drawings, then, was significant, but in terms of colour the responsibility lay entirely with Stirling, an element of these compositions he was obsessively controlling about. Indeed, it was Stirling’s colours that so often dramatically enhanced the image, as exemplified by Krier’s up-axonometric of the Florey Building, drawn shortly after the building’s completion in 1971 (Ill.5.2). Girouard complains that the addition of colour to this image ‘destroyed the particular spare quality of the original drawing’, but it is also the case that Stirling’s decision to place the salmon/terracotta pink walls against a gently mottled, pastel aquamarine background gives the image of the building a presence within the

---

18 Mark Girouard, *Big Jim: The Life and Works of James Stirling*, (London: 2000), 188. Krier also acknowledges the relationship was symbiotic and that Stirling helped shape their work with his own ideas.
19 Ibid, 251-2.
20 Bain remembers that although many of these images were drawn by other members of the team, they were always done so ‘under tight supervision from Jim’. Letter from Laurence Bain to author 27/5/2010.
21 Krier’s original black and white, line-only version appeared on the cover of the November issue of the *Architectural Review*, 1972. Laurence Bain believes it was at some point in the 1980s that Stirling chose to add colour. Letter from Laurence Bain to the author 27/5/2010.
composition that the monochrome original just does not possess. Despite Girouard’s criticisms, the ethereal quality of this floating structure, delivered through these complementary colours, does nothing to diminish its iconic power.

The propositions and interpretations made in this chapter are supported by an analysis of drawings that considers, among other things, the importance of the frame line (or picture’s edge), the artist’s/viewer’s view-point, and the application and distribution of colour within the composition. Where necessary, and in order to illustrate specific points, Stirling’s drawings are compared to those of other architects. This, however, is not done to infer a source of inspiration or direct line of influence, but rather to highlight specific aspects of his colour use and drawing technique.

**Challenging the Third Dimension**

What strikes us initially about those coloured drawings of Stirling’s that contain a high degree of mimesis is that the illusion of three dimensions is constantly compromised by the revelation of technique. The combination of detail and incomplete or un-finished outlines remind the viewer of the process of drawing and, in turn, of the artist (Stirling and his team); we as viewers cannot suspend our disbelief in these scenes entirely. Despite his painstaking attention to detail, he exposed the mechanics of the illusion to create a visual tension between the coloured buildings depicted and the blank, two-dimensional surface on which they appear. This is evident in the drawings of the extension to the National Gallery, London (all dated 1986) and the Stuttgart Music School and Theatre Academy, Stuttgart (project date 1987), both un-realized. In these sets of drawings Stirling’s attention to detail in some areas of the composition is only matched by its complete absence in others.

---

22 Girouard, *Big Jim*, 252.
23 Ibid, 195.
The effect of combining extremes of detailing is best illustrated in the upaxonometric depiction of the Music School tower (Ill.5.3). The apparent flatness of the long wall accentuates the rotund nature of the tower, which appears to almost bulge out of the picture plane. The illusion of depth is further enhanced by the foreshortening of the tower’s windows on its left hand edge. Closer inspection (Ill.5.3a) reveals that Stirling has hand-coloured every drawn stone individually with a combination of green, brown and orange pencil, making each one unique and affording them an emphatic presence over the delicately mottled cream of the plain walls above. To further enhance the illusion of three dimensions, Stirling even included the reflection of the tower in the adjacent glass panelling, albeit in monochrome. An alternative view of the same tower (Ill.5.4) contains a similar degree of detail. Once again, each stone has been individually coloured, and each window foreshortened, to leave the viewer with a real sense of the physical shape of the proposed building. Even the underside of the tower’s cornice has been carefully shaded to enhance the illusion of its projecting curvature.

It is the areas of the paper left uncoloured, however, particularly those immediately below the images of the building, which create a visual tension. The meticulous detail and colouring of the walls and tower work to establish the illusion of a third dimension, but the adjacent blank surfaces constantly suggest that the scene is incomplete, asserting the two-dimensionality of the picture’s surface. As a result any perceived notion of mass and stability within the image of the wall and tower is at once dispersed. This allusion to the act of drawing is further underscored by the continuation of the adjacent building’s ink-only outline at the bottom centre and top right of the frame (Ill.5.4a). By leaving this tiny section of the structure completely un-rendered, emphasis is given to the act of detailing itself, which, in turn, suggests the image is un-finished, drawing attention to the techniques used and the architect’s contribution as artist.

24 Although no date appears on the coloured drawings of the New State Theatre, there is a line-only version dated 24/9/90. It is, therefore, assumed they were all completed in and around this period. CCA file no. AP140.S2.SS.D79.P17.
Of course, it is also the case that Stirling employed colour to assist architectural clarification within his two-dimensional work, as the floor plans of the proposed extension to the National Gallery, London (ills. 5.5, 5.6 & 5.7 all dated 1986) reveal. The block shading of the structural walls clearly outlines the dimensions and configurations of the various rooms and corridors. Yet even here one cannot overlook the choice of colours used. Soft pastel pinks set against a delicate magnolia-washed background do not in any way detract from the architectural significance of the structural elements, but they do allow the entire composition to present itself as a geometric pattern to be appreciated quite apart from its architectural references. This is also true of the pink internal walls and ochre floors which combine to draw the viewer’s gaze away from the uncoloured line drawings of specific details (stairs and seating). Speculation cannot be offered as analytical evidence, but it is not difficult to imagine the aesthetic impact of colouring all the walls black or grey; an act that would not compromise the architectural clarity of the drawings but would significantly alter their appeal to the architecturally un-enlightened, as can be judged from the monochrome version of the basement plan (ill.5.5a). What Stirling offered in this instance, entirely because of the incorporation of these specific colours, is architectural information and pictorial stimulation, with neither one necessarily reliant upon the other.

By definition, the up-axonometric, or worm’s-eye view, necessitates that large areas of the picture plane are left blank. Were Stirling to have applied the same degree of detailing to just some of the ground level, much of the architecture above would be completely obscured. A semblance of mass might have been achieved, however, if he had placed greater emphasis on the building’s footprint. If the two up-axonometric drawings mentioned are compared with his illustrations of the rotundas in both the Nordrhein-Westfalen Museum, Dusseldorf (project date 1975 ill.5.8) or the Neue Staatsgalerie, Stuttgart (1977-83 ill.5.9), both from a similar view-point, the effect of omitting a bold footprint is at once obvious. The solid black line

25 These two images are not classed as presentation drawings but instead were executed as part of the design exploration. Michael Wilford, interview with author 7/6/2010.
denoting the point at which the rotundas meet the ground affords a recognisable impression of mass to the images. In the picture of the Neue Staatsgalerie this impression is reinforced by the heavy shading of the drum’s interior. The drawings of the Music School and Theatre Academy, however, terminate the wall’s lower edges with nothing more than a thin line, despite the fact that all soffits, window recesses and undersides of balconies are heavily shaded (grey and blue respectively), suggesting depth and solidity. The result is an image of a paper-thin façade that appears to ‘float’ on the page. The tension created by the footprint’s absence, however, does not detract from the image as a representation of a building, rather its omission works to ensure that the image’s two-dimensional reality is not completely forgotten.

The effects of altering the footprint are further illustrated in the presentation drawings of the Trafalgar Square view of the National Gallery Extension, London (1986) and the entrance area of the Neue Staatsgalerie, Stuttgart (date unknown Ills. 5.10 & 5.11). In both of these up-views the footprint has been re-instated to differing degrees: relatively thin in the National Gallery image and much wider in the Stuttgart project. What is of interest, however, is that they have been coloured pink; solid in the former and graduated in the latter, darkening at the outer edges. While this does indeed accentuate the buildings’ lower edges, it does so without creating the illusion of weight or mass that a darker hue would give; and although, in terms of colour, it correlates to the pink outline of the walls in the plan drawings mentioned above, it is not immediately recognizable as the building’s footprint.

The impact of colouring the footprint pink is perhaps most obvious in the entrance area of the National Gallery. Here the recessed doorway is situated under the overhanging upper floor, seemingly supported by a single pillar. The presence of the upper part of the building is emphasised by the dense charcoal grey shading of its underside, the same as that above the windows on the left of the image,

26 Stirling was certainly aware that these pictures of buildings were left as ‘elements “floating in space”’, a quality he specifically requested in his notes written on early versions of the National Gallery Extension presentation drawings dated 15/8/86. CCA file no. AP140.S2.SS1.D71.P9.
reinforcing the notion of elevated mass. The pink footprint, however, seems little more than a decorative outline, a departure from reality that Stirling’s annotations to this early version suggest he was intent on making. The contrast between the detail of the stonework (he even included the lichen and moss expected to grow at the base of the clock-face Ill.5.10a), and the cosmetic colour of the footprint is a constant reminder of the two-dimensional reality of the image.

A similar tension exists in the drawing of the Neue Staatsgalerie entrance. The morphology of the curved cornice and the window soffit to the left are represented by graduated grey shading, but the pink of the footprint does little to imply any architectural relevance. Instead it appears more as a decorative device to border the image. That it might relate to the building is only deduced because of the stonework depicted above it on the vertical rise, coupled with the adjacent blank surface of the paper to the right of the revolving doors, and the continuation of the blue sky to the picture’s edge. As discussed, the nature of the up-axonometric viewpoint forces one to accept the image’s distortion of reality. With the right amount of visual information, however, an audience can still be persuaded to suspend their disbelief regardless of how unorthodox an image might be. Yet this is precisely what Stirling seems to avoid in these pictures which constantly remind us we are engaged in the viewing experience, witnessing the effects of pencil, crayon and ink on paper.

The presence of the footprint is only relevant to the up-axonometric drawings, but Stirling was able to achieve similar goals using other viewpoints. His elevation drawings of the National Gallery and Music School projects offer little in the way of three-dimensional illusion by virtue of their tradition, yet they still manage to present an unsettling mixture of imagery and technique, a point best illustrated in the Music School elevation (date unknown Ill.5.12). Where the tower’s curvature was so prominent in the up-axonometric of this part of the building, here convention dictates that it is barely noticeable save for some light shading to its left and the

27 Ibid. On an early version of this drawing, dated 15/8/86, Stirling wrote ‘Don’t be realistic about junction of building to ground’, with an arrow pointing to lower edge of his design.
foreshortening of the windows down either side. Yet the detailing to the stonework seems strangely at odds with the two-dimensionality of the composition; and the fact that it seems to float on an otherwise blank surface merely adds to this incongruity. The same is true of the Pall Mall East elevation of the Nation Gallery Extension (1986 Ill.5.13). The nature of this viewpoint allows little room for the expression of the third dimension (in the way the axonometric might be seen to offer), yet Stirling’s attention to detail in the stone tiles, particularly those at ground level, a quality normally synonymous with three-dimensional illusionism, is remarkable and similarly at odds with the rest of the scene. Not only has each stone once again been coloured by hand, but different types are identified with varying degrees of coloured veining.

A comparable interpretation can be made of Stirling’s application of colour, in particular the blue he used above the buildings. In up-views 5.14 and 5.15 of the Clore (the view from Millbank and the rear of the building respectively) and the previously mentioned entrance to the Neue Staatsgalerie (Ill.5.11), Stirling has coloured the picture surface above the architecture a graduated blue; sometimes barely noticeable at the building’s edge but darkening toward the frame line. The implication, unsurprisingly, is that this represents the sky. Yet in all three cases (and there are further examples that follow suit)\(^{28}\) this colouring fails to meet the picture’s edge as indicated by a drawn frame line. In these illustrations the blue ‘sky’ is brought to an abrupt halt along a defined horizontal, short of, but parallel to, the upper-frame line (the rear view of the Clore taking this effect a step further by stopping it short of the left hand edge as well). The result once again reminds the viewer that it is a drawn scene, the result of colour applied, by hand, to paper, a fact further emphasised by the continuation of the architecture just above the edge of the blue in the upper left corner of the view from Millbank.

\(^{28}\) CCA file no. AP140.S2.SS7.D1.P16. A series of photographs of the interior of Stirling’s office show that, amongst the framed drawings hanging on the walls, there are more of the Clore Gallery in which the blue of the sky has been terminated before reaching the frame’s edge.
Relying on the ‘sky’ in these pictures to draw attention to technique has been taken to an extreme in the previously mentioned Trafalgar Square view of the National Gallery Extension (Ill.5.10). Here the blue is halted at its upper-edge along a steep diagonal. Whereas with the other three examples our instinctive inclination is to suspend our disbelief by applying an imagined frame line, or horizon, at the point where the darkening blue stops, the emphatic diagonal in this composition compels us, as viewers, to question its presence and, in turn, the decision of the artist/Stirling. The scene depicted and the techniques employed are, as a result, much harder to separate. Wilford has suggested this sloping edge might have been due to either a lack of time, or Stirling’s dwindling interest, but one still has to consider it was the result of a deliberate decision to end the blue dots in this way.\(^{29}\)

There is no doubt that Stirling was acutely aware of how important it was for these, and any other drawings not to confuse or distract, and when necessary he would omit detail to achieve this goal. But this only reinforces the assertion that if any aspect of the drawings analysed does, by virtue of its appearance, draw attention to itself, then it must have been intentional; an assertion that explains the complexity of this version of the Trafalgar Square view of the National Gallery. The sloping sky draws attention to technique but it also contributes considerably to the composition of the picture. Displaying the proposed extension along a similar incline, Stirling even included three flying birds to establish what, in motion picture terms, is referred to as ‘screen direction’. Their position and direction of travel prompts the viewer’s gaze to move from bottom left to upper right, encouraging a similar examination of the depicted structure. The fact that Stirling’s building towers over these birds affords it a greater sense of scale and monumentality. The importance of the diagonal dynamic in this picture is further indicated by Stirling’s accompanying notes and sketches (Ill.5.16).\(^{30}\) Comparing a rough outline of this presentation drawing with one of the Pall Mall East view of the same building, we see that Stirling emphasised their opposing diagonal characteristics, seemingly

\(^{29}\) Michael Wilford, interview with author 7/6/2010.
\(^{30}\) CCA file no. AP140.S2.SS1. D17.P9
intent on establishing strong compositional differences. The obvious interpretation of these rough sketches is that he was considering them as part of a series of related drawings, but they also hint at a desire to ensure an identifiable compositional feature within each frame.

It is not that Stirling excels in the art of mimesis in some drawings and not others, but that in those images where the blue meets the picture’s edge, a version of projected reality is proposed and the narrative content more easily believed. In such instances the viewer’s attention is allowed to linger on the architectural content rather than on the technique responsible for its manifestation. Emphatically stopping the blue short of the frame interferes with this process.

The method of application of blue colouring also highlights the drawing process. The gradual change from light- to dark-blue that is seen from a distance is, on closer inspection, an effect achieved by mixing short dashes and tiny dots of light- and dark-blue, purple and a reddish brown in varying densities. This technique recalls the pointillist work of Neo-Impressionists such as Seurat, but it is perhaps more appropriate to compare the tension Stirling created between the two-dimensional picture plane and the three-dimensional image through this effect with the work of Jasper Johns and Roy Lichtenstein.\(^3\) Johns’s depiction of two-dimensional images in ‘Flag’ (1954-55) or ‘Target’ (1974), in coarsely applied media (oils, encaustic, collage), creates a visual conflict precisely because these images are simultaneously identifiable as representative of the subjects they depict and, divorced from context, commentaries on technique. Their sculpted, textured surfaces draw the viewer’s attention beyond the pictorial content to investigate the unfamiliarity of their physical make-up. Johns succeeds in highlighting not only the subject matter as cultural symbol, but the process of the painting’s creation and, in turn, the contribution of the artist himself.

\(^3\) Although no direct influence is being suggested here, Stirling’s appreciation of Pop art and culture was long standing and can be traced back to his involvement with the Independent Group. He owned works by Paolozzi and hung Lichtenstein’s ‘Pistolet’ in the hallway of his house to greet all who walked through the door, Mary Stirling, interview with the author 18/11/2009
Lichtenstein achieves a similar effect, albeit with very different methods. Painting scenes that comprise thousands of giant dots, all too big to miss unless viewed from a considerable distance; he too draws the viewers past the subject matter to consider the method of its construction. The mass of dots recall the mechanical processes employed in producing the comic books to which Lichenstein’s images refer. Taking this celebration of technique to its extreme, and thereby inviting speculation regarding the role of the artist, was his series of ‘Brushstroke’ paintings (1965), each of which raised the act of applying paint to canvas to an iconic level.

Mixed in with Stirling’s thousands of meticulously applied dots and dashes are broader, less discriminate zigzag lines, only visible under closer scrutiny. By offering an almost microscopic attention to detail in the individually coloured stone tiles, he ensured this level of examination took place and that the dots, dashes and zigzags would not go unnoticed. Paralleling both Johns’s and Lichtenstein’s technique, Stirling’s considered and laborious application of colour draws the viewer past the subject matter and onto the picture’s surface. This, in turn, reveals the processes by which each image was created, accentuating their two-dimensionality and Stirling’s personal involvement in their creation. Comparison with the competition drawing of a much earlier unrealized project from 1958 highlights the effect of his dot/dash technique (Ill.5.17). This axonometric drawing for the Churchill College, Cambridge University, by Stirling and Gowan, has been coloured using the smooth and even block colouring of Zip-a-Tone, a technique where layers of plastic film were cut to shape and stuck on to the picture’s surface. The result is an evenly coloured, graphic image with an almost mechanically printed appearance.

It is precisely the duality of Stirling’s later Pointillist-like effect that draws parallels with viewing and exploring his built works; these images are presented as one thing from a distance, yet something else, something much more complicated, close too. In much the same way as the image on a television screen comprises thousands of

32 Zip-a-Tone is a trade name for this technique. Michael Wilford, interview with the author 7/6/10.
tiny pixels only visible if one moves within the optimum viewing distance, so too does Stirling’s work reveal its make-up at closer quarters. The difference here, however, is that unlike the television screen Stirling deliberately lures viewers into a closer proximity to ensure his methods are exposed. The dots and dashes of the blue sky are never so small as to be beyond most people’s visual acuity and blend completely in to one another, but neither are they so big as to overshadow the architectural content of the picture. Unlike the impersonal Zip-a-Tone colouring of his and Gowan’s earlier drawings, Stirling offers just enough information to invite investigation into the actual composition of his work, but in small enough quantities to ensure it does not dominate.

The combination of compromised mimesis and technical candour in Stirling’s later presentation drawings allows them to be presented as separate from specific architectural references; that is, they can be appreciated as independent images in their own right, offering visual stimulation at an individual level to an architecturally uninformed audience. To these ends several presentation drawings reach levels of visual abstraction that make architectural associations, to the lay-viewer at least, conspicuously difficult; something Stirling was clearly willing to consider. Compositionally these more abstract images appear as groups of flattened, or unravelled, elevations that allow multiple viewpoints to be seen simultaneously. By juxtaposing different perspectives Stirling avoids establishing a hierarchy of elevations that a single viewpoint would normally offer, leaving the viewer with an overtly two-dimensional, multi-coloured pattern.

33 The ability of the human eye to clearly identify dots at a distance (visual acuity) varies from person to person depending upon the number of photo-receptors per millimetre their eyes have. This frequency is charted on a spectrum suggesting there is no perfect, or ideal, number, just different levels of ability. Mr Arun Brahma, Consultant Ophthalmic Surgeon, Manchester Royal Eye Hospital, interview with author 19/10/2010.
34 Stirling’s fondness for Zip-a-Tone led Reyner Banham to suggest he might well have deserved the title of ‘the man who introduced “zip-a-tone” to Britain’ James Stirling, RIBA Drawings Collection, (London: 1974), 5.
35 CCA file no. AP140.S2.SS1.D70.P10. In notes and sketches applied to an early version of a National Gallery drawing Stirling suggests the composition should comprise ‘3 pieces - maybe more abstract than realistic’. The difficulty for non-architects to visualize the up-axonometric drawings as three dimensional forms was frequently discussed with Stirling, whose preference for this potentially confusing viewpoint was even blamed for failing to win some commissions. Letter from Laurence Bain to author 27/5/2010.
If, initially, these flattened images recall the Cubist tradition, they also have an architectural provenance, upholding Wilford’s claim that, as appealing as these drawings might be to the architecturally un-enlightened, they do not constitute ‘paper architecture’. The axonometric drawing that Stirling so often relied upon is itself without a fixed viewpoint or identifiable perspective. His later, more abstract images can, then, be interpreted as an evolution of this technique. It is also the case that drawings from multiple viewpoints have a history in the eighteenth-century technique of the ‘Developed Surface’. This method was commonly used to simultaneously represent the floor and all four walls of a given interior, resulting in a two-dimensional flattened pattern that might easily be cut out and assembled (ill.5.18). A comparable use of multiple viewpoints can also be found much closer to Stirling in Aldo Rossi’s New Cemetery for Cataldo, Modena (1971-78, ill.5.19). Here Rossi simultaneously shows the plan of the cemetery surrounded by elevations of individual buildings. Although not presented as a direct line of influence, these examples do serve to illustrate a shared compositional advantage that Stirling, it is argued, capitalised upon. In each case it is difficult to include any context, and as a result the viewer’s attention is focused entirely on the building in question; the more cryptic the image, the longer the viewer will linger. It is unlikely that Stirling would not have understood the ramifications of employing multiple view-points, or recognised how this technique might focus attention on his designs and, by implication, himself as artist.

The drawing of the entrance to the Neue Staatsgalerie demonstrates how abstract some of these flattened images became (ill.5.20). In this up-view neither the metal revolving doors, stone-clad walls nor metal canopy are easily identifiable, unless one is familiar with the building. Instead Stirling has reduced this view of the building to a multi-coloured, right-angled triangular composition set within a pastel-pink border. If the pink edging refers to the footprint of this part of the building, it does so only to the architecturally enlightened. Even the blue colouring to the right

---

36 See footnote no. 14.
of the triangular shape can be accounted for as simply a contrasting foil for the pink, rather than as a representation of the sky, for once again it fails to meet the picture’s edge. Only the un-coloured revolving doors offer any indication that this image might represent a three-dimensional building.

The pink border is conspicuously set within the actual drawn frame edge of this image, and as such performs two important functions. Compositionally it offers support for the multi-coloured triangular pattern, but by doing so inside the picture’s edge it isolates this part of the picture; the coloured components do not touch the frame line so cannot be imagined as extending beyond. In short, Stirling creates a double frame to give prominence to the subject matter. This is also true of Ill. 5.14 which, by cradling the image of the Millbank elevation of the Clore in a similar, but less regular, pink border, gives added emphasis to the wall. Secondly, as with the blue ‘sky’ discussed above, the very presence of unmarked paper between colour and the outer drawn frame line implies that the work has yet to be completed. Made all the more apparent by the pink border’s clearly defined form, the empty band of picture plane in turn invites speculation regarding Stirling’s motives, thereby giving him prominence within the viewing process.

The ambiguity of Stirling’s more abstract images holds the viewer’s attention and invites examination in much the same way as it does in his built work. The combination of a strong diagonal dynamic and arrangement of multi-coloured parts in Ill.5.20 are not immediately recognizable as the entrance to a building. The stonework is easily identified, and the red, green and blue bars might be structural elements, but their overall relation to one another is left unclear. Were it possible to view this part of the building from directly below, we might see the edge of the wall that forms the footprint (although in reality it is unlikely to be pink) and the underside of the blue metal canopy. We would not, however, see the triangular shape of the red supporting bracket as it would be almost completely obscured, as would the stone-work of the wall surrounding the revolving doors. As viewers we are enticed and intrigued, tempted to solve what appears to be a visual puzzle.
By presenting different viewpoints simultaneously, Stirling further interferes with the audience’s suspension of disbelief, a point made clear if Ill.5.20 is compared with either Robert Krier’s Circus in Karlsruhe (1979 Ill.5.21) or even Aldo Rossi’s Il Palazzo Hotel, Fukuoka, Japan (1987 Ill.5.22). In both examples the buildings depicted have been contextualised by the incorporation of surrounding structures (in the case of Rossi’s drawing they are entirely imaginary, a prediction of what future development might bring), and incorporate an identifiable perspective. The result is that they appear to be viewed from a single viewpoint, and as such represent a convincing proposed reality; we can easily imagine their existence. The same cannot be said of Stirling’s scenes. The fact that we, as viewers, have to consider which part of the image might or might not relate to a corresponding part of a building draws our attention to his decision making and, in turn, the process of drawing itself. It is not that one image is more appealing to look at than another, but rather that Stirling’s compositions invite exploration of the picture’s surface in a way that the other two do not.

Compositionally these images also offer insight into each architects’ approach to late twentieth century urban development. Both Rossi’s and Krier’s depictions are prognostic visions of architectural integration; propositions of how Modern architecture’s legacy of ‘alienation for the sake of originality’ might successfully be avoided.38 To these ends the images are predominantly externally referencing; that is, they offer commentary primarily on something beyond the design of a single building; in this instance a proposed urban environment. Stirling’s images, however, can be explained as internally facing, they reveal little or no context, and neither confirm nor criticise any pictured reality. Rather, through colour, composition, and technique, they ensure that attention is focused almost entirely on his designs. This is not to say that context was not important to Stirling; it was (see Chapter Three). But the double framing, isolation and, at times, alluring composition of his coloured drawings give weight to the claim that however

---

contextually responsive his designs might be, Stirling ensured that his work remained the focus of attention. As such these images hint at a strong collagist approach to urban evolution, one that favours a built environment of contextually inspired, but nonetheless strikingly individual, buildings.

The abstract nature of Stirling’s presentation drawings reaches an extreme (albeit in very different ways) in two specific drawings: one of the Florey Building (1988) (5.23) and the other of the Los Angeles Philharmonic Building above the Tokyo Forum (1989, Ill.5.24). The former, a plan of the student accommodation block discussed in Chapter One, is barely recognizable as such without prior knowledge of the building. The black rectangular footprints and pale violet outlines of the supporting A-frames seem to float on the unmarked picture surface, their seemingly irregular distribution presenting an invitingly cryptic image. But what holds the viewer’s gaze is the diagonal orange line and the circle it passes through. Given added prominence because of its colour in an otherwise largely monochrome composition, the significance of this motif cannot easily go unquestioned. Of course, knowledge of the project reveals the connection with the Florey’s wind vane (the orange circle) and the axis it forms with the distant Magdalene Tower around which the building was designed; but such insight is not necessary. The combination of lines, shapes, and colours creates a visually intriguing abstract image worthy of appreciation beyond its architectural value.

The Los Angeles Philharmonic/Tokyo Forum drawing is similarly removed from three-dimensional built form, albeit in quite a different manner. Set against a delicately mottled, sky-blue background, Stirling’s crisp white shapes are set off by heavy, black shading that does, at least, suggest a potential third dimension. However, any notion that this might represent a conventional environment is compromised by the shapes’ lack of colour, the blue of the background, and the fact that the shadows (if that is what the black shapes are) fall in opposing directions (to

---

39 Michael Wilford interview with author 7/6/2010. That Stirling coloured this drawing seventeen years after the building it depicts was completed further emphasises the near-autonomous nature of this and the other images discussed in this chapter.
the left in the upper half of the composition and to the right in the lower). Are we looking down from above or up from below? Because the subject matter is significantly obscure and presented without any attempt at contextualisation, we are left unsure. What the forms might actually represent seems not to be the issue beyond the recognition of geometric shapes. In this drawing the combination of black, white and blue implies cylinders, crescents, cubes and cuboids, but not obviously a building.

Comparison with the previously mentioned competition drawing for Churchill College, Cambridge University, highlights the point. The earlier axonometric is an equally simplified rendition of a proposed reality. Black and white shapes are set against a coloured background (in this case solid green), which doesn’t meet the picture’s edge but is enclosed by a series of parallel lines. But even this degree of simplification can, and does, offer an element of context. The presence of green, in combination with the recognisable elevated viewpoint, automatically suggests grass, or at least the ground, in a way that the blue of the later drawing cannot, and at once the connection between this image and built form is made; indeed it is difficult to avoid. Despite incorporating the same number of colours as the Los Angeles Philharmonic/Tokyo Forum drawing, the two images remain significantly different. One appears to look down upon a simplified rendition of a quadrangle of buildings, set in parkland and surrounded by roads, while the other is a pattern of shapes that might be viewed as representing three-dimensional form floating on a bluish background. As with the drawing of the Florey Building, it is not that Stirling abandoned all architectural correlation in this image of the two buildings (it, like all the drawings discussed here, remains fundamentally linked to the architectural projects it depicts) but rather that he chose to make the connection optional.

Within the abstract images of projects that were realized, there exist suggestive elements that relate more to the essence of the buildings they depict, than they do to any physical reality. As informative as these drawings might be on an architectural level, they also offer an impression of each building’s unique character, a point
more readily explained if the Florey Building is considered alongside illustrations 5.2 & 5.23. As discussed in Chapter One, the contradictory visual impact of the Florey Building itself is, in part, a result of the combination of colour and physical elevation. Clad in red/brown glazed tiles above an encasing wall of what appear to be identically coloured red engineering bricks, the building presents an almost fortified and industrial elevation on its public side. Yet any notion of weight and mass is compromised by the fact that the whole, reclining structure is elevated on a series of slender concrete A-frames. The overriding impact is that, despite its size, it appears almost fragile, delicate; effortlessly lifted and left precariously balanced on what has been described as ‘a flurry of spidery legs’. 40

In Leon Krier’s aforementioned up-axonometric of the Florey (Ill.5.2) that, of course omits any representation of the ground, Stirling applied colour without compromising the impression of weightlessness. This he achieved by shading the background to Krier’s outline a mottled light aquamarine, and the walls of the building a complementary warm terracotta, separating one from the other and accentuating the notion that the building is floating. Illustration 5.23 perpetuates the theme; its apparent delicacy enhanced by colouring not normally associated with engineering bricks (and by the reduction of the dividing wall’s heavy, black footprint, present in the axonometric, to a faint outline).

Stirling’s application of colour to the drawing of the main entrance to the Neue Staatsgalerie similarly reflects the built environment it depicts (Ill.5.20). The combination of stonework, awning bars and revolving doors, all presented as a multi-coloured ensemble, bordered by a pastel-pink margin and blue dotted sky, emphasise the collage make-up of Stirling’s finished building. The absence of any obvious pictorial narrative draws our attention to the multiplicity of colours and their utilization; a two-dimensional metaphor for the eclectic combination of Constructivist steel girder awnings, Romanesque pillars, Egyptian cornices and ocean liner air-vents, all seemingly scattered around the structure. This is also the

case with the aforementioned Pall Mall East and Trafalgar Square view of the National Gallery extension (Ills.5.13 & 5.10). Annotations to early sketches indicate that Stirling considered placing a plan of the circular steps under the right-hand side of his building in the latter, and removing some of the supporting pillars visible in the former, for purely compositional reasons. ⁴¹

It is not that Stirling was unique in this regard; he was not. We need only consider Rossi’s previously mentioned cemetery in Modena to find a comparable interpretation of the essence of the experience of a building. The skeletal depiction of this cemetery brings its own associations with death and mortality that are further enhanced by the sombre colour scheme that affords it ‘an undertone of disquiet and threat’. ⁴² What is argued here is that, like Rossi’s image, the architectural origins of Stirling’s drawings were never lost sight of; his use of composition and colour highlighting those aspects of each building that he felt fundamentally important to establishing their individuality. Specifically, what is being proposed is that these images relate ‘to how we “understand” each building as distinct from the way it might in reality look’. ⁴³

Colour and the Viewer’s Gaze
What the analysis of Stirling’s later presentation drawings reveals, it has been argued, is his innate understanding of how an image might be read by those beyond the architecturally informed. This being the case, it is also proposed that these images were shaped, in part, by his attempts to manipulate the viewer’s gaze to his advantage. Such a proposition is supported through the analysis of three images: the previously discussed Pall Mall view of the National Gallery Extension (Ill.5.13) and

⁴³ Stirling, *RIBA Drawings Collection*, 16. Stirling’s ability to create images that were ‘powerful expressions of himself and of the intended character of the buildings they represented’ was a quality Banham identified as early as his Sheffield University Teaching Block (1953). Ibid, 5. Indeed it is not the intention of this chapter to suggest this quality was limited to his later designs, merely to highlight his increasing reliance upon colour to achieve these ends.
two almost identical drawings of the garden courtyard of the Palazzo Citterio, Italy (project date 1987 *Ills. 5.25 & 5.26*), both unrealized projects.

Perhaps the most obvious characteristic of the National Gallery Extension drawing is the complete absence of colour applied to the host building situated to its right. When compared to the polychromy of Stirling’s extension, the older museum seems visually subservient. Even the shaded areas are reductive, lacking the subtlety of application that gives the curve of the cornice in Stirling’s design a recognizably three-dimensional appearance. Of course, it is a fact that, in comparison with Stirling’s design, the National Gallery is, if not colourless, then virtually monochrome, and that his drawing is representative of their relative visual appearances; but this is precisely the point. In a part of London largely surrounded by light-grey Portland stone, he proposed constructing a multi-coloured and visually arresting building (in much the same way as he did at the Poultry site). The intention (as with the buildings discussed in Chapter Three) was to afford his extension to the gallery added impact through colour while attempting a degree of contextual sympathy through form. What is being proposed, therefore, is that Stirling’s intention to elevate the presence of his building from its monumental neighbours is paralleled in the distribution of colour in these drawings. Reducing the monochrome host building to a series of lines affords Stirling the opportunity to draw attention away from one part of the scene and focus it on another. This is neither surprising nor without precedent. His drawing of the redevelopment of the Albert Dock for the Tate North in Liverpool (1984-88 *Ill.5.27*) draws attention to itself precisely because Stirling’s proposed contribution to the site is also the only part of the picture with any colour.

Reinforcing the hierarchy established by his use of colour in *Ill.5.13*, is the relative positions of the depicted buildings, Stirling’s being noticeably higher. Attracted initially to the bright colours of the elevated extension on the left, and then to the black and white line-only image resting on the bottom frame line, we as viewers succumb to the strong diagonal composition of this image and constantly shift our
gaze from upper-left to lower-right. It is not that we ignore the black and white line drawing, but rather that its lack of detail enhances our awareness of Stirling’s brightly coloured addition. Left deliberately ‘floating in space’ above a blank part of the picture surface, Stirling’s polychromatic design subtly dominates the older building in both appearance and position.

What is being proposed is that Stirling deliberately composed these pictures, compromising accuracy and scale, altering details where necessary, to ensure viewers would pay greater attention to his designs. Early versions of this drawing indicate that he was concerned quite specifically, not only with the positioning of the two buildings but also with their individual sizes. One accompanying pencil sketch reveals that at one time both buildings were to have been placed level with one another. However, red ink changes made later indicate that the older building was lowered to its present position. Compounding the effect of this alteration is the apparent change in each building’s size. In the early sketch, Stirling advises each building be drawn the same size in terms of their width (both 28 cm), but in the finished article the line-only host building is significantly reduced to 24 cm (with his design remaining 28 cm).

In the following two examples Stirling employs the opposite technique to similarly focus the viewer’s attention onto his architecture. Both images of the Palazzo Citterio development in Milan (Ills. 5.25 & 5.26) represent the same courtyard from exactly the same viewpoint, yet on first viewing they appear significantly different from one another, due entirely to the colouring of the sky. The importance of the colour discrepancy (pale blue in one and a mottled yellow in the other) is assured by the overwhelming amount of surface area each picture gives over to this part of the scene; a result of Stirling’s decision to use a portrait, rather than landscape orientation of the framing. So large is the amount of sky in each composition that

---

44 In the notes made alongside the early versions of this picture Stirling suggested altering the position of the three pole flag structure so that it sits better with the drawn building. CCA file no. AP140.S2.SS1.D71.P9.
45 Ibid.
46 Ibid, these measurements were taken by the author on 19/2/09.
the architectural content, situated along the bottom of each picture is almost overlooked; almost, but significantly not quite.

In order to make sense of the unexplained colour change, we as viewers are forced, counter-intuitively, to scrutinise the un-coloured and seemingly un-finished, elements depicted below each sky. Viewing the drawings as a pair, the inclination is to become involuntarily involved in a form of spot-the-difference, searching out any significant discrepancies in the diminutive, but apparently identical, line drawings that might explain each sky’s colouring. As a pair, or individually, what is being suggested is that the mass of colour in each composition forces the viewer to unwittingly examine the architectural content of each scene despite its complete lack of colour; a reversal of the technique employed in both the National Gallery and Tate North images discussed above.

Closer inspection of the Palazzo Citterio drawings reveals that the different skies refer to different seasons: the blue representing late spring/summer and the yellow, autumn/winter. In the former the soffits and undersides of the balconies are heavily shaded (although the shadows they would have cast across the adjoining walls in reality are conspicuous by their absence), and the building to the left displays a large awning. Within the courtyard people are depicted milling around with chairs and tables under shading umbrellas, presumably for al-fresco dining, and the trees in the distance are heavy with leaves. The winter scene has none of this detail. The awning has been removed with just its framework exposed, chairs and tables are absent, and the trees completely leafless. Even the aforementioned soffits and balconies are un-shaded, suggestive of a more diffuse light common on overcast days. In addition, most of the people seem to have vanished.

47 There is no evidence to suggest that these drawings were intended to be exhibited side by side but the point remains valid. Michael Wilford cannot remember if they were intended to be exhibited as a pair (interview with the author 7/6/2/2010) but they are presented as such in at least one publication: Architectural Monographs No. 32: James Stirling and Michael Wilford, (London: 1993), 4.
The process of investigating these seemingly identical scenes, and discovering their differences, invites the viewer to consider the experiential aspects of the architecture depicted, and the environment it might have created, its susceptibility to changes in weather, temperature, and density of population. Despite the lack of detail we can still relate to the cold emptiness of the courtyard in one scene and the vibrant warmth of the other. The combination of matching compositions under different coloured skies achieves the same degree of viewer manipulation as the coloured drawing of the National Gallery discussed above, albeit in the opposite way.

The attention we give to the courtyards depicted, and our subsequent understanding of them as proposed environments, particularly in relation to their reduced visual presence, can be illustrated by comparing them to two similar, but fundamentally different drawings by Robert Krier: The Circus and The Market Place in Karlsruhe (1979) Ills. 5.21 & 5.28 respectively). Both Krier’s and Stirling’s drawings depict an area (courtyard or market place) surrounded by buildings and populated to varying degrees. Although the subject matters depicted bear obvious differences, it is the effect of colour that is of interest. In both of Krier’s scenes he has applied colour, albeit rather sketchily, to most of the surface area (and significantly up to each of the pictures’ edges) presenting textures and shadows with a considerable degree of conviction. In the view toward the obelisk, the position of the unseen sun is evident from the long shadows which stretch across the ground, and the rustication and rendering of the sunlit structure on the lower left of the composition are clearly detailed. The warm tones of the stonework, and the clear blue sky, complete this summer scene. The second of Krier’s illustrations, like Stirling’s, represents more inclement weather. The grey sky, heavy with cloud, sheds a slightly more diffuse light over the lightly populated market square. But even here the detail in the paving, rustication, and rendering is all easily detectable, and in both instances the proportion of sky to architecture is more balanced than in Stirling’s works.
What Krier achieves with these images is considerable success in suspending the audience’s disbelief. From a distance we recognize these scenes as representing a comprehensible environment; one we might never have seen but, nevertheless, feel no need to question, and no inclination to investigate further. Their narrative content, or at least one aspect of it, is clearly distinguishable. The same cannot be said of Stirling’s two pictures. Precisely because of the disparity between subject matter and sky (both in terms of colour and surface area) and the subsequent tension this creates, we as viewers cannot easily register the scene without scrutinizing its different parts. It is precisely this aspect of Stirling’s colour use that suggests he was capable of influencing those who viewed his drawn work as much as he could those who used his buildings.

**Conclusion**

It should come as no surprise that, despite their sometimes abstract appearance, there remains some correlation between these images and the projects they depict; they are, after all, architectural drawings capable of informing on an architectural level; that is they are accurate and can be scaled.\(^{48}\) It is also the case that they depicted buildings that either existed or were intended to be built, and as such, varieties of stone, or the colours of painted steel girders, can, in some cases, be easily recognised; but this aspect of colour use has not been the issue here. Nor has it been the focus of this chapter to chart the processes by which the final colour schemes of buildings, built or not, was decided upon. Indeed, it could not have been as many of the drawings discussed in this chapter were coloured long after the buildings had either been built or their designs rejected. It has also been the case that much of the discussion regarding colour in this chapter has focused on pink footprints, prematurely halted pointillist blue skies and intermittent areas of uncoloured surface, none of which refer to the architecture’s finished appearance.

What this chapter has argued is that colour’s presence in Stirling’s two-dimensional work offers insight into his design ambitions as much as its presence in his built

\(^{48}\) Letter from Laurence Bain to Author .27/5/2010.
projects does. Just as Stirling incorporated colour in his buildings to announce their presence and invite close scrutiny of their composition, so too does he achieve similar ends in the hand-coloured presentation drawings discussed here. What has also been proposed is that Stirling capitalised on advances in colour reproduction to reach broader audiences with his work, appealing to the architecturally informed and uninformed alike. Recognizing the opportunities that an increased interest in architectural drawings offered for self-promotion, his increasingly colourful and sometimes invitingly cryptic compositions drew attention to both architecture and architect alike. Underpinning the proposition that these presentation drawings say so much about Stirling’s design ethos is the obsessive and controlling approach he took to applying colour. The fact that he not only reserved this aspect of drawing for himself, but that he did so as a means of relaxation or even therapy, carrying out multiple tests on early drafts to ensure the finished image was exactly as he intended, suggests that this process was deeply personal.\textsuperscript{49}

Initially, and perhaps most obviously, catering for a broader audience manifests itself almost as a form of decoration, something Wilford has termed, in relation to their realised projects, as ‘the element of delight’.\textsuperscript{50} The images discussed here are both appealing and interesting to look at without prior knowledge of the architecture they represent, and this, it has been argued, is largely the result of Stirling’s choice and distribution of colours. What has also been proposed is that Stirling used both composition and technique to create a tension between the two-dimensional picture surface and the three-dimensional image depicted. Through the use of unfamiliar perspectives, intermittent detailing, and a meticulous and laborious Stirling-esque version of Pointillism, viewers are drawn past the narrative content of each image and onto the technical processes by which they have been constructed; a form of reflexivity similar to that found in his built work.

\textsuperscript{49} Letter from Laurence Bain to author 27/5/2010.
\textsuperscript{50} Michael Wilford, interview with author 15/5/08.
Composition and colour have also been employed to direct the viewer’s gaze around these drawings in a manner comparable to Stirling’s use of colour and texture to invite exploration of his buildings. Through a considered distribution of colour and detail that leaves some areas of the picture’s surface blank and others heavily detailed, Stirling guides the viewer to those parts of the image he wishes to give prominence. The result is that viewers are un-wittingly prompted to focus on Stirling’s architecture and, through the emphasis on technique, Stirling ‘the artist’. The combination of composition, contrast, and his adroit use of colour becomes, it has been suggested, an identifiable and recurring element of Stirling’s two dimensional works, representing a form of compositional calling card in a manner not dissimilar to the yellow conical pillars or multi-coloured metal canopies of his buildings.
Ill.5.1 James Stirling, Michael Wilford, & Associates, Cornell Institute for Performing Arts, (date unknown), drawing with colour notes and instructions.

Ill.5.2 James Stirling, Michael Wilford, & Associates, The Florey Building, Oxford University, up-axonometric, (date unknown).
Ill. 5.3 James Stirling, Michael Wilford, & Associates, Music School and Theatre Academy, Stuttgart, 1987, up-axonometric.

Ill. 5.3a Detail of 5.3


Ill. 5.5a


Ill.s.5.8 & 5.9 James Stirling, Michael Wilford, & Associates, Nordrhein-Westfalen Museum, Dusseldorf, project date 1975, and Neue Staatsgalerie, Stuttgart, 1977-83.

Ill. 5.10a Detail of clock face in 5.9

Ill. 5.11 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, (date unknown), up-axonometric of entrance.
Ill.5.12 James Stirling, Michael Wilford, & Associates, Music School and Theatre Academy, Stuttgart, (date unknown), elevation.


III.5.16 James Stirling, early working sketches of the National Gallery Extension, London (date unknown).

III.5.17 Stirling & Gowan, Churchill College, Cambridge University, 1958, axonometric.
III.5.18 Thomas Lightoler, section of a stair-hall, 1757

III.5.19 Aldo Rossi, New Cemetery for Cataldo, Modena, 1971-78.
Ill.5.20 James Stirling, Michael Wilford, & Associates, Neue Staatsgalerie, Stuttgart, (date unknown), up-axonometric of entrance.

Ill.5.21 Robert Krier, the Circus in Karlsruhe, 1979.

Ill.5.22 Aldo Rossi, Il Palazzo Hotel, Fukuoka, Japan, 1987.
Ill. 5.23 James Stirling, Florey Building, Oxford University, 1988, plan.


Ill. 5.27 James Stirling, Michael Wilford, & Associates, Tate North, Liverpool, 1984-88, elevation.

Ill. 5.28 Robert Krier, Market Place in Karlsruhe, 1979.
Conclusion

What has this investigation of Stirling’s use of colour revealed about his architectural intentions and ambitions that a conventional analysis of form and its relation to function does not? By examining the larger part of his oeuvre for the colours used, their distribution and the materials in which they were presented, it has been possible to identify and chart the evolution of specific design concerns; concerns that emerged in Stirling’s earliest projects and continued to evolve and fluctuate, in varying degrees, throughout the course of his career, despite the very different appearances of his buildings. The first four chapters have focused on specific design issues – reflexivity, contrast and contrariness, contextual sensitivity, and anthropocentricity - but not as a means of breaking his work up into independent series. It is the case that Stirling described his work as ‘oscillating’ between extremes, but while his use of coloured materials does work to establish individual groups of buildings (red brick or plastic for example) it has paradoxically revealed layers of continuity throughout his oeuvre.\(^{51}\)

Initially, in Chapter One, Stirling’s inclination for visual incongruity was discussed, a feature of his architecture heavily reliant upon colour, and of considerable importance to his and James Gowan’s Engineering Building at Leicester University (1959-63). Recognising the potential for incongruous architecture to assert its presence and incite comment, Stirling, following his split from Gowan, continued to use colours and textures synonymous with industrialisation, in three non-industrial

---

locations: the History Faculty Library, Cambridge University (1963-67), the Florey Building, Oxford University (1966-71), and the council flats in Camden, London (1963-68). In addition to his exploration of incongruity, Stirling’s use of contrasting textures and colours to invite close scrutiny of his structures was investigated - something labelled here as architectural reflexivity. By drawing attention to veneers, structural elements and construction techniques, all within a muted colour scheme – mineral red, exposed concrete, glass and aluminium – Stirling tempted those who saw or used any of his four red brick buildings to consider their very fabric. The fact that this chapter focuses on these two themes does not, however, imply their absence in the rest of his architecture. On the contrary, what this thesis has established is that he continued to explore such issues throughout his career, with varying degrees of subtlety depending on each individual project’s circumstances.

The circumstances surrounding the plastic buildings discussed in Chapter Two - the Southgate Housing Estate in Runcorn (1967-76) and the Olivetti Training School, Haslemere (1969-72) - suggest fewer opportunities for Stirling to explore incongruity, but the repetitive building systems he employed offered greater prospects for reflexivity. Responding to limitations imposed by site and budget restrictions, he explored the practicalities of pre-fabrication and the variety of materials that this method of building made possible. Capitalizing on the wide range of colours that GRP (glass reinforced polyester) could incorporate at little or no extra cost, Stirling was able to give greater emphasis to the constructional processes involved in these commissions. Although the visible impact these buildings had on their existing surroundings attracted little of the controversy of his last three redbrick structures, it was not the result of a change of heart. Indeed Stirling was still working on the Cambridge, Camden and Oxford projects while building the first phase of the Southgate estate and the Olivetti Training School. If the appearance of his plastic buildings avoided the notoriety associated with those discussed in Chapter One, it was as a result of there being less occasion to nurture it.
The seemingly contradictory themes of contextual sensitivity and visual incongruity were further explored in the buildings discussed in Chapter Three. As Michael Wilford argues, responding to context, an identifiable aspect of the Stirling Wilford Partnership from the late 1970s onwards, was not new for Stirling.\(^\text{52}\) In both the Preston In-fill Housing Scheme and the Leicester Engineering Building (both discussed in Chapter One) colour and materials were chosen to hold dialogue with each location’s industrial heritage. That such obvious contextual references are missing in the other buildings discussed in the first two chapters has not been presented as an abandonment of such considerations. Rather, it is argued that in these instances Stirling seized what opportunities he could to explore and evolve both incongruity and architectural reflexivity. Wilford confirms the proposition, explaining that because the projects discussed in Chapter Three were built within established urban environments, Stirling was more than willing to display the same recognizable contextual sympathy that he and Gowan had employed years earlier.\(^\text{53}\)

What this chapter has argued, however, is that while the Wissenschaftszentrum, Berlin (1979-87), the Clore Gallery, London (1980-86), and Number One Poultry, London (1986-97) all displayed identifiable contextual references, their colour schemes ensured an emphatic presence.

Chapter Four identifies a shift in Stirling’s status from avant-garde architect to what might be described as architectural showman, his increasing reliance on flamboyant colour schemes becoming a form of signature style. This shift, however, has not been presented as a complete break from earlier design intentions. Indeed, the buildings discussed in this chapter – all designed from the late 1970s onwards - represent an inevitable evolution of his earlier work. Continuing to rely on idiosyncrasy to produce visually arresting building’s, Stirling’s use of colour, at this stage of his career, also reveals an increasingly explicit regard for those using his buildings.

\(^{52}\) Michael Wilford, interview with the author 19/6/2009.  
^{53}\) Ibid.
If identifying earlier examples of such an overt anthropocentricity requires us to re-visit the flats in Preston, it would be inaccurate to assume he had ignored his buildings’ inhabitants in the interim period. Even in those instances where structural explication seems to have been the primary function of his chosen colour schemes – the pre-fabricated buildings discussed in Chapter Two being the most obvious examples - evidence has been presented to suggest that, at some level, he revealed a consideration for those experiencing his architecture. The brightly coloured panels of the Haslemere and Southgate projects were intended to liven up otherwise dull areas, as were the bright pink and green handrails of his Cambridge and Oxford red brick buildings. Although there are instances where techno-centricity has completely dominated (the second phase of the Southgate estate being a case in point) his subsequent contextual and anthropocentric concerns have not been presented as a new direction for Stirling. In terms of colour, Stirling’s buildings certainly became more flamboyant over time, but these changes, it has been argued, demonstrate a greater versatility in dealing with the same concerns that motivated his earliest designs.

The final chapter has built on Chapters One to Four by exploring parallels between Stirling’s application of colour in his built work and its presence in his presentation drawings. This has not been an examination of the many design drawings that precede the completion of any given project but rather an analysis of the use of colour in drawings intended for display and/or publication; drawings that Stirling knew had the potential to attract a growing audience. As such, these images have been discussed as a sub-genre in themselves defined by Stirling’s intricate and almost obsessive application of colour, sometimes undertaken long after the project depicted was completed or rejected. What this chapter has argued is that if Stirling employed colour in his buildings to announce their presence, invite close scrutiny and direct those who used them in and through each structure, then its presence in these drawings can be seen to achieve similar goals. Through the careful and considered application and distribution of colour Stirling holds the viewer’s gaze,
invites them to explore the very makeup of each image, and, as a result, encourages greater consideration of both architecture and architect.

The analysis of buildings from across Stirling’s oeuvre has also revealed his propensity to draw upon whatever style he felt necessary to achieve his architectural ambitions. Subsequently, any attempt to classify his work as either Modern or Post-Modern becomes problematic. Even his earliest designs contained evidence of the eclecticism and narrative, or metaphoric content normally associated with Post-Modern architecture, while simultaneously embracing new materials and techniques in a manner synonymous with Modernism. Indeed, the layers of continuity that an analysis of colour and texture reveals, renders classification irrelevant. Stirling, it has been argued, sought throughout his career to design buildings that were visually striking, contextually responsive, and that invited both spatial and tactile exploration. His reliance upon both a multiplicity of styles and the considered use of colour and texture was fundamental to these aims.
Bibliography

Agrest, Diane I. *Architecture from Without: Theoretical Framings for a Critical Practice*, (Cambridge, Massachusetts, MIT Press, 1991)


Banham, M. and Hillier, B. (Eds.) *A Tonic to the Nation, the Festival of Britain 1951*, (London, Thames & Hudson, 1976)


Birren, Faber, *Color Psychology and Colour Therapy*, (New Jersey, Citadel, 1961)

Birren, Faber, *Color*, (New Jersey, Citadel Press, 1963)


Blake, P. *Form Follows Fiasco - Why Modern Architecture Hasn’t Worked*, (Boston, Little, Brown and Co. 1977)


Burch, Brian, *The University of Leicester-A History 1921-1996* (Leicester, University of Leicester, 1996)

Calas, N. and E. *Icons and Images of the Sixties*, (New York, E. P. Dutton and Co. 1971)

Caldenby, C. and Hultin, O. *Asplund*, (Stockholm, Gingko Press, 1997)


Colquhoun, A. *Essays in Architectural Criticism: Modern Architecture and Historical Change* (Cambridge, Massachusetts, MIT Press, 1985)


Eisenstein, Sergi, *The Film Sense*, (London, Faber and Faber, 1986)


Elwall, Robert, *Building a Better Tomorrow-Architecture in Britain in the 1950’s* (Chichester, Wiley Academy, 2000)


Foster, H. *Recodings: Art, Spectacle, Cultural Politics*, (Seattle, Bay Press, 1985)


Franciseno, Marcel, *Walter Gropius and the Creation of the Bauhaus*, (Urbana, University of Illinois Press, 1971)


Hicks, David, *David Hicks on Living with Taste*, (London, Leslie Frewin Publishers Ltd. 1968)


Laslett, Peter, *The World We Have Lost*, (London, Methuen and Co. Ltd. 1965)


Pearce, Martin, *University Builders*, (Chichester, Wiley-Academy, 2001)

Pevsner, N. *The Englishness of English Art*, (Middlesex, Penguin, 1964)


Portoghesi, P. *After Modern Architecture*, (New York, Rizzoli, 1982)


Rowe, Colin, *As I Was Saying: Recollections and Miscellaneous Essays, Vols. 1, 2 and 3*, (Cambridge, Massachusetts, MIT Press, 1996)

Rowe, Colin and Koetter, Fred, *Collage City*, (Cambridge, Massachusetts, MIT Press, 1978)


Ruegg, Arthur, (Ed.) *Polychromie Architecturale*, (Berlin, Birkhauser Verlag, 1997)


Sandbrook, Dominic *Never Had it So Good; A History of Britain from Suez to the Beatles*, (London, Abacus, 2005)

Saxl, F. and Wittkower, R. *British Art and the Mediterranean*, (Oxford University Press, 1948)

Schildt, Goran, *Alvar Aalto in His Own Words* (Oxford, Rizzoli, 1977)


Short, John R. *Housing in Britain – The Post-War Experience*, (London, Methuen, 1982)

Simmons, Jack, *New University*, (Leicester University Press, 1958)

Smith, Peter F. *The Dynamics of Urbanism*, (London, Hutchinson Educational, 1974)


Tafuri, M. *The Sphere and the Labyrinth*, (Cambridge, Massachusetts, MIT Press, 1987)

Thackara, J. *Design After Modernism*, (London, Thames and Hudson, 1988)

Than, C and Vindum, K. *Arne Jacobsen*, (Copenhagen, Danish Architectural Press, 2001)


Trigueiros, L. and Barata, P.M. (Eds.) *Mies Van der Rohe*, (Lisboa, Blau, 2000)

Troy, Nancy J. *The De Stijl Environment*, (Cambridge, Massachusetts, MIT Press, 1983)


Vidler, Anthony, *James Frazer Stirling, Notes from the Archive*, (New Haven, Yale, 2010)

Warncke, Carsten-Peter, *De Stijl*, (Köln, Taschen, 1990)


No Author Cited, Design Process Olivetti 1908-1978, (Italy, Ivrea, 1979)

No Author Cited, Post-Modernism on Trial, (London, Academy Group, 1990)


No Author or Editor Cited, Architectural Monographs No. 32: James Stirling and Michael Wilford, (London, Academy Editions/Ernst and Sohn, 1993)


Articles in Periodicals and Journals


Eisenman, Peter, ‘Real and English: The Destruction of the Box 1’, *Oppositions*, 4, (1974), pp.5-34


Geers, Kersten, ‘Portrait of an Artist (David Hockney)’, *OASE Journal for Architecture*, No. 79, (2009), pp.114-120


290


Maxwell, Robert, ‘Tour of No.1 Poultry’, *The Twentieth Century Society*, (5 June 1999), non-paginated


Stern, Robert, No Title, *Oppositions*, No.8, (Spring 1977), pp.169-171


295


Stirling, James, ‘Three Recent Projects’, *Architecture and Urbanism*, No.67, (July 1976), pp.21-56


Stirling, James, ‘Architectural Aims and Influences’, *RIBA Journal*, (September 1980), pp.36-38


No Author Cited, ‘The University in the City’, *Architectural Review*, Vol.136 No.809, (July 1964)


No Author Cited, ‘Cook’s Chefs-d’Oeuvre’, *Architectural Review*, Vol.175, (March 1984), pp.35-39


No Author Cited, ‘Stirling Wit and Passion’, *Country Life*, (31 August 2000), pp.50-53

**Web Sites**

www.cca.qc.ca  
www.modcolor.com  
www.moma.org  
www.museumoflondon.org.uk  
www.vam.ac.uk  
www.leonardo.info  
www.savebritainsheritage.org  

**Audio-Visual Programmes**

*Modern British Architects* Producer/Director Amanda Murphy, Uden Associates, Channel 5, 2000

*Visions of Britain* Produced by Christopher Martin, Directed by Nicholas Rossiter, BBC 1988