DESIGN-BY-DIALOGUE:
THE ARCHITECTURAL PROGRAMMING
OF THE
ROYAL MELBOURNE HOSPITAL
1935 – 1945

Catherine Ann Tate

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of the degree of Doctor of Philosophy
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Printed on Archival Paper
In memory of my mother and father,
Winifred (Win) and John (Jack) Tate

We shall not cease from exploration.
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.

TS Eliot (1943), *Little Gidding V, Four Quartets.*
This dissertation argues that the dialogue between expert clients and expert architects is critical to the creation of a general hospital – arguably the most programmatically complex of all building types. Using the third realisation of the Royal Melbourne Hospital (RMH), the initial structure on the Parkville site, 1935-45, as an historical example, this dissertation provides significant insights into rarely recorded programming interaction between the clients, the RMH, and the architects, Stephenson Meldrum/Turner (SM/T).

The RMH was (and still is) a premier health, teaching and research facility within Australia. In 1935, the RMH’s goal for the new hospital was to create a modern teaching hospital on a par with the world’s best. This clearly was achieved as, in 1945, the hospital buildings had gained significance within the Australian hospital architectural milieu for being the first general public hospital to be completed in the vertical typology and implementing the modernist principles of functionality and the minimalist aesthetic. It was also particularly significant within the hospital oeuvre of SM/T as it was their first general hospital and one which became the exemplar for their later hospital work. These facts are well recognised by architectural historians but this is the first time the programming methodology implemented to achieve this important building complex has been explored.

Architectural Programming officially emerged as a professional discipline in the 1960s. In doing so, it replaced the traditional briefing process and, ostensibly for the first time, recognised and advocated the role of the client in the Programming process. However, documentary evidence clearly reveals that SM/T not only practiced programming, they were using the relevant terminology in the 1930s for the new RMH – 30 years prior to its formalisation.

The expertise of both the client and the architects has been established in order to examine their roles within programming process for the new RMH. In 1935, the RMH was a composite of three major institutions: a general public hospital; the University of Melbourne Faculty of Medicine and Surgery Clinical School; and the Walter and Eliza Hall Institute of Research, Pathology and Medicine. The fact that the RMH was a public hospital meant it was under the jurisdiction of the Victorian State Government and its
appointed body, the Charities Board of Victoria. Hence the client comprised of five entities.

The RMH Committee of Management was the principal authority and therefore all the decisions were ultimately their responsibility. They appointed three committees for the new building: the Organisers – to organise the requirement lists from Heads of Departments and the Medical Staff; the Special Advisory and New Building Committee (NBC) to act as their ‘working client’; and the Board of Reference to act as the quick decision making committee. The standing Honorary Medical Officers Committee (HMOs) was also to play a major role in the programming process. Most of the committee members were medical professionals whose expertise lay in the knowledge of their individual discipline, the requirements for their departments and in the general operation of the hospital.

By 1935, SM/T had ten years experience as specialist hospital architects. They operated their practice on a business-like footing with three principals, Arthur Stephenson, Percy Meldrum and Donald Turner and a staff of thirty-seven including seven qualified senior associates. However, the RMH presented a challenge to SM/T as they had not previously undertaken a project of this magnitude or complexity.

The architects implemented the methodology of Design-by-Dialogue where programming and design were interlinked. It was the client’s responsibility to furnish the architects with a detailed list of their requirements. By developing schematic sketches which were presented at meetings with the client committees, the architects were able to closely interact with them throughout the protracted and difficult process of six iterative schemes, A, B, C, D, G and J for the six buildings: the Main Block, Outpatients Department, Walter and Eliza Hall Institute, Nurses Home, Resident Medical Officers Quarters and the Service Block.

This dissertation is an empirical study of the RMH’s development 1935-45. It was possible as all the meetings between the client committees and the architects had been diligently minuted and preserved – along with correspondence, reports and architectural drawings – in archival repositories. Consequently, this work has provided new knowledge into rarely recorded programming interaction between clients and the architects. This dissertation is grounded in history and contributes significantly in the disciplines of architectural history and the history of architectural programming.
DECLARATION

This to certify that
i. the thesis comprises only my original work towards the PhD,
ii. due acknowledgement has been made in the text to all materials used, and
iii. the thesis is less than 100,000 words in length, exclusive of tables, maps, bibliographies and appendices.

Catherine Ann Tate
January 29 2016
ACKNOWLEDGEMENTS

I would like to acknowledge my friend Jane Touzeau who suggested I investigate the architecture of Stephenson & Turner. In 1999, Jane expressed to me her concern that the architecture of her grandfather, Sir Arthur Stephenson, was largely being ignored. Her concern was prompted by the illness of her father, Mr Peter Stephenson who, in 1967, had inherited his father’s role as principal architect of the firm, Stephenson & Turner. My interest in the firm resulted from the interview I undertook with Peter and his wife Ethel, also a former architect with Stephenson & Turner.

In 2000, I was admitted to the University of Melbourne, Faculty of Architecture, Building and Planning to undertake a Masters Thesis (part time) to research the contribution of the principal, Sir Arthur Stephenson, to the firm of Stephenson & Meldrum 1920–1937. I would like to thank Dr Angela Hass, my Principal Supervisor who, in 2007, encouraged me to convert to a PhD. However, my Masters topic was considered too broad for a PhD.

My interest in investigating the complexities of one building was inspired by Dr Jeffrey Turnbull and his PhD, ‘The Architecture of Newman College’. From Stephenson & Turner’s vast oeuvre, I selected the Royal Melbourne Hospital (RMH) as it was a building complex I knew well from my nursing experience in the early 1960s – when the original scheme was completed and prior to subsequent extensions. I would like to thank Dr Turnbull who, as co-supervisor, suggested I explore the architectural programming methodology implemented for the RMH. However I must admit that, during my nursing days, at no time did I ever give a single thought to the architects who designed the hospital.

I am greatly indebted to Dr Christopher Heywood without whose support and advice this dissertation would not exist. Dr Heywood assumed the role as my principal supervisor after Dr Hass’s retirement in 2010 and his previous experience as a hospital architect and his knowledge of programming methodology have been invaluable. Thank you, Chris.

I received encouragement, support and advice from many people including architects and medical practitioners and I appreciate the time they so generously gave me. They were Mr John Castles, Principal, Castles Stephenson & Turner; Mr Tony Broughton, formerly of
Stephenson & Turner, Castles Stephenson & Turner; Mr John Miller, Principal, Health Care, Hassel Architects; and Dr Noel Cass, former anaesthetist at the RMH. I also wish to express my gratitude to Mr Peter Stephenson for granting permission for me to photocopy and reproduce any documents held in the Sir Arthur Stephenson Collection at the National Library and to Mr Richard Cameron, Director, Stephenson & Turner Architects, who granted me permission to copy and reproduce material concerning Sir Arthur Stephenson, his architectural firm and any other material considered copyright.

I particularly wish to thank my friends from the Faculty of Architecture, Building and Planning whose support and encouragement never faltered especially during a very difficult period of my candidature. A special thank you to Jane Trewin and to the Faculty librarians whose cheerful encouragement keep me going. I would also like to thank the staff at the State Library Victoria and, in particular, to thank Gabriel Haveaux, the archivist of the RMH, for organising all the relevant documentation for me to explore.

I especially want to thank my wonderful long-suffering family and friends, in particular, my partner Colin Smith.
# TABLE OF CONTENTS

## 1. INTRODUCTION

<table>
<thead>
<tr>
<th>Introduction</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Goal for the new Royal Melbourne Hospital</td>
<td>2</td>
</tr>
<tr>
<td>The Site</td>
<td>3</td>
</tr>
<tr>
<td>The Royal Melbourne Hospital Client Composition</td>
<td>4</td>
</tr>
<tr>
<td>The Architects</td>
<td>5</td>
</tr>
<tr>
<td>Positioning the Problem</td>
<td>8</td>
</tr>
<tr>
<td>Research Question</td>
<td>8</td>
</tr>
<tr>
<td>Research Methods</td>
<td>9</td>
</tr>
<tr>
<td>Thesis Structure</td>
<td>13</td>
</tr>
</tbody>
</table>

## 2. PROGRAMMING, THE EVOLUTION OF MODERN HOSPITAL DESIGN AND POST– OCCUPANCY EVALUATION

<table>
<thead>
<tr>
<th>Introduction</th>
<th>19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Literature on Australian Hospitals</td>
<td>20</td>
</tr>
<tr>
<td>Programming as an Architectural Discipline</td>
<td>24</td>
</tr>
<tr>
<td>Programming Versus Briefing</td>
<td>27</td>
</tr>
<tr>
<td>Defining Programming</td>
<td>27</td>
</tr>
<tr>
<td>Programming Methodologies</td>
<td>28</td>
</tr>
<tr>
<td>The Client’s Obligation</td>
<td>32</td>
</tr>
<tr>
<td>Programming of Hospital Requirements</td>
<td>33</td>
</tr>
<tr>
<td>Data Collection</td>
<td>34</td>
</tr>
<tr>
<td>Data Analysis</td>
<td>36</td>
</tr>
<tr>
<td>The Problems of Programming</td>
<td>37</td>
</tr>
<tr>
<td>Historical Perspectives of Programming Hospitals</td>
<td>37</td>
</tr>
<tr>
<td>The Genesis for the Modern Hospital</td>
<td>39</td>
</tr>
<tr>
<td>The Pavilion Plan</td>
<td>39</td>
</tr>
<tr>
<td>Florence Nightingale</td>
<td>43</td>
</tr>
<tr>
<td>Programming the Pavilion Plan</td>
<td>46</td>
</tr>
<tr>
<td>The Disadvantages of the Pavilion Plan</td>
<td>49</td>
</tr>
<tr>
<td>The Hospital Revolution</td>
<td>49</td>
</tr>
<tr>
<td>The Profession of Nursing</td>
<td>51</td>
</tr>
<tr>
<td>Clinical Schools of Medicine</td>
<td>52</td>
</tr>
<tr>
<td>Specialisation of Hospital Architects</td>
<td>53</td>
</tr>
<tr>
<td>The American Hospital Consultant</td>
<td>55</td>
</tr>
<tr>
<td>The Block Typology</td>
<td>56</td>
</tr>
<tr>
<td>Outpatient Department</td>
<td>60</td>
</tr>
<tr>
<td>The Vertical Typology</td>
<td>62</td>
</tr>
<tr>
<td>Twentieth Century Programming of Hospitals</td>
<td>64</td>
</tr>
<tr>
<td>Post-Occupancy Evaluation</td>
<td>64</td>
</tr>
<tr>
<td>Conclusion</td>
<td>67</td>
</tr>
</tbody>
</table>
### 3. MELBOURNE: HISTORY, HEALTH AND HOSPITALS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>73</td>
</tr>
<tr>
<td>Melbourne: The Settlement</td>
<td>73</td>
</tr>
<tr>
<td>Melbourne: The Healthy City</td>
<td>75</td>
</tr>
<tr>
<td>Melbourne: The Unhealthy City</td>
<td>76</td>
</tr>
<tr>
<td>The Need for a Public Hospital</td>
<td>76</td>
</tr>
<tr>
<td>Melbourne: The ‘Charitable’ Hospital</td>
<td>77</td>
</tr>
<tr>
<td>Melbourne: The First General Hospital</td>
<td>78</td>
</tr>
<tr>
<td>The Appointment of the Hospital Committee</td>
<td>78</td>
</tr>
<tr>
<td>The Purpose of a General Hospital</td>
<td>78</td>
</tr>
<tr>
<td>The Site</td>
<td>79</td>
</tr>
<tr>
<td>The Brief</td>
<td>79</td>
</tr>
<tr>
<td>The Architect</td>
<td>80</td>
</tr>
<tr>
<td>The Expansion Program</td>
<td>82</td>
</tr>
<tr>
<td>The Nightingale Influence</td>
<td>83</td>
</tr>
<tr>
<td>Criticism and Compliments</td>
<td>83</td>
</tr>
<tr>
<td>Specialist Hospitals</td>
<td>84</td>
</tr>
<tr>
<td>Public Health</td>
<td>84</td>
</tr>
<tr>
<td>New General Hospitals</td>
<td>85</td>
</tr>
<tr>
<td>University of Melbourne Clinical School of Medicine and Surgery</td>
<td>85</td>
</tr>
<tr>
<td>School of Nursing</td>
<td>86</td>
</tr>
<tr>
<td>Outpatient Department</td>
<td>88</td>
</tr>
<tr>
<td>The Medical Revolution</td>
<td>88</td>
</tr>
<tr>
<td>Melbourne: the Second Melbourne Hospital</td>
<td>89</td>
</tr>
<tr>
<td>The Site</td>
<td>89</td>
</tr>
<tr>
<td>Appointment of Architects</td>
<td>89</td>
</tr>
<tr>
<td>The Site Plan and Buildings</td>
<td>90</td>
</tr>
<tr>
<td>The Edwardian Aesthetic</td>
<td>92</td>
</tr>
<tr>
<td>Walter and Eliza Hall Institute of Pathology and Medicine</td>
<td>92</td>
</tr>
<tr>
<td>Melbourne Hospital in Crisis (again)</td>
<td>93</td>
</tr>
<tr>
<td>Melbourne: The Centennial Celebration</td>
<td>93</td>
</tr>
<tr>
<td>Conclusion</td>
<td>95</td>
</tr>
</tbody>
</table>

### 4. THE PROGRAMMING PARTICIPANTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>99</td>
</tr>
<tr>
<td>The Client Structure</td>
<td>99</td>
</tr>
<tr>
<td>Victorian State Government</td>
<td>100</td>
</tr>
<tr>
<td>The Charities Board</td>
<td>100</td>
</tr>
<tr>
<td>The RMH Committee of Management</td>
<td>101</td>
</tr>
<tr>
<td>The Presidents of the RMH</td>
<td>101</td>
</tr>
<tr>
<td>Members of the Committee of Management</td>
<td>102</td>
</tr>
<tr>
<td>University of Melbourne Faculty of Medicine and Surgery</td>
<td>103</td>
</tr>
<tr>
<td>Walter and Eliza Hall Institute of Research</td>
<td>103</td>
</tr>
<tr>
<td>The Genesis of the New Hospital</td>
<td>103</td>
</tr>
<tr>
<td>The Organisers</td>
<td>104</td>
</tr>
<tr>
<td>Special Advisory and New Building Committee</td>
<td>105</td>
</tr>
<tr>
<td>The Board of Reference</td>
<td>105</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>The Honorary Medical Officers’ Committee</td>
<td>106</td>
</tr>
<tr>
<td>Nursing and the Preliminary Training School of Nursing</td>
<td>107</td>
</tr>
<tr>
<td>The Organisation of the RMH</td>
<td>107</td>
</tr>
<tr>
<td>The RMH Main Protagonists</td>
<td>109</td>
</tr>
<tr>
<td>The Client’s Responsibilities to the Architects</td>
<td>112</td>
</tr>
<tr>
<td>The Architects</td>
<td>112</td>
</tr>
<tr>
<td>The Appointment</td>
<td>114</td>
</tr>
<tr>
<td>The Blackett Arrangement</td>
<td>114</td>
</tr>
<tr>
<td>The Agreement</td>
<td>115</td>
</tr>
<tr>
<td>The Architect’s Goal for the RMH</td>
<td>116</td>
</tr>
<tr>
<td>The Practice</td>
<td>116</td>
</tr>
<tr>
<td>The Principals</td>
<td>116</td>
</tr>
<tr>
<td>The Practice Administration</td>
<td>116</td>
</tr>
<tr>
<td>The Partner’s Responsibilities</td>
<td>120</td>
</tr>
<tr>
<td>Hospital Specialisation</td>
<td>122</td>
</tr>
<tr>
<td>The Architect – Client Relationship</td>
<td>126</td>
</tr>
<tr>
<td>Conclusion</td>
<td>127</td>
</tr>
</tbody>
</table>

5. THE PARKVILLE SITE

Introduction

The Site: The Horse, Cow and Pig Market

History of the Site

The Site Revisited

Site Analysis

Location

The Road Network

Shape, Size and Slope

Surroundings

Possession of the Site

Site Preparation

Conclusion

6. THE PROGRAM PRECURSORS

Introduction

The 1929 Parkville Proposal

Selection of Architects

Site Organisation

The Haymarket Site

The Pig Market Site

The 1929 Proposal Suspended

Scheme A – the Priestley Plan

Commencement of Dialogue

Requirements for Scheme A

The Program Methodology

Analysis of Scheme A

Site Organisation
# 8. THE PROGRAMMING PROCESS: SCHEME G

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>203</td>
</tr>
<tr>
<td>The RMH Committees</td>
<td>203</td>
</tr>
<tr>
<td>The Architects</td>
<td>204</td>
</tr>
<tr>
<td>Instructions to the Architects</td>
<td>206</td>
</tr>
<tr>
<td>The Architects’ Response</td>
<td>207</td>
</tr>
<tr>
<td>The Development of Scheme G</td>
<td>207</td>
</tr>
<tr>
<td>Siting and Layout</td>
<td>208</td>
</tr>
<tr>
<td>Main Block</td>
<td>209</td>
</tr>
<tr>
<td>Outpatient Department and Casualty</td>
<td>210</td>
</tr>
<tr>
<td>Walter and Eliza Hall Institute</td>
<td>211</td>
</tr>
<tr>
<td>Comparison of Site Plan with International Hospitals</td>
<td>212</td>
</tr>
<tr>
<td>Architectural Character</td>
<td>218</td>
</tr>
<tr>
<td>The E-configuration</td>
<td>218</td>
</tr>
<tr>
<td>Authorisation of General Plan</td>
<td>219</td>
</tr>
<tr>
<td>Outpatient Department</td>
<td>219</td>
</tr>
<tr>
<td>Multi-storey Problem</td>
<td>222</td>
</tr>
<tr>
<td>Spatial Organisation</td>
<td>223</td>
</tr>
<tr>
<td>The Privacy Factor</td>
<td>223</td>
</tr>
<tr>
<td>Clinical School Requirements</td>
<td>223</td>
</tr>
<tr>
<td>Waiting Accommodation and Appointment System</td>
<td>223</td>
</tr>
<tr>
<td>Lift Accommodation</td>
<td>224</td>
</tr>
<tr>
<td>Ward units</td>
<td>225</td>
</tr>
<tr>
<td>Bed Capacity</td>
<td>226</td>
</tr>
<tr>
<td>Ward Organisation</td>
<td>227</td>
</tr>
<tr>
<td>Nurses Home and Service Block</td>
<td>228</td>
</tr>
<tr>
<td>The Premier and the Press</td>
<td>229</td>
</tr>
<tr>
<td>The Dilemma</td>
<td>230</td>
</tr>
<tr>
<td>Conclusion</td>
<td>232</td>
</tr>
</tbody>
</table>

# 9. THE PROGRAMMING PROGRESS: SCHEME J

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>239</td>
</tr>
<tr>
<td>The Program Participants</td>
<td>240</td>
</tr>
<tr>
<td>The RMH Committees</td>
<td>240</td>
</tr>
<tr>
<td>The Architects</td>
<td>241</td>
</tr>
<tr>
<td>The £750,000.00 Hospital</td>
<td>243</td>
</tr>
<tr>
<td>The Main Block</td>
<td>244</td>
</tr>
<tr>
<td>Nurses Home</td>
<td>244</td>
</tr>
<tr>
<td>Outpatient Department</td>
<td>244</td>
</tr>
<tr>
<td>Walter and Eliza Hall Institute</td>
<td>244</td>
</tr>
<tr>
<td>Outpatient Department</td>
<td>245</td>
</tr>
<tr>
<td>The Temporary Outpatient Department</td>
<td>246</td>
</tr>
<tr>
<td>The Architects Solution</td>
<td>246</td>
</tr>
<tr>
<td>Appointment System</td>
<td>248</td>
</tr>
<tr>
<td>Outpatient Department Layout</td>
<td>248</td>
</tr>
<tr>
<td>The Standard Clinic Plan</td>
<td>248</td>
</tr>
</tbody>
</table>
10. REFLECTIONS OF DESIGN-IN-USE  279

Introduction  279
Design-in Use  280
Purpose of Post-Occupancy Evaluation  281
Time Frame  282
The Client: Committee of Management  282
The Architects  284
The Hospital  284
The Modernistic Aesthetic  284
Hospital Proper and Departments  284
Outpatient Department  287
Appointment System  288
New Departments  288
Diagnostic and Therapeutic Departments  289
Centralisation of Services  290
Walter and Eliza Hall Institute  291
Staff Evaluations  292
Nurses Home  292
Clinical School of Medicine and Surgery  293
Post Script  293
Conclusion  294

11. CONCLUSION  295

Introduction  295
The Significance of the RMH  296
Re-statement of the Research Questions  297
Answering the Research Questions  298
The Expertise of the Client and the Architects  298
Design-by-Dialogue 299
The Functional and Aesthetic Program 300
Design-in-Use 304
The RMH Significance to the Australian Architectural Milieu 304
Summation 305
Contributions to Knowledge 305
Contributions to Contemporary Programming 307
Limitations: research and practical 308
Further Research 309

APPENDICES 311

BIBLIOGRAPHY 317
LIST OF FIGURES

Figure 1.1 The traditional role of Programming in the Design and Execution of a new building 6

Figure 2.1 Lariboisière Hospital, Paris, 1846–54, Architect: Martin Pierre Gauthier 42

Figure 2.2 The Nightingale Ward, St Thomas’ Hospital, London, 1867 46

Figure 2.3 Goldwater’s T-configuration ward 60

Figure 2.4 Professor Atkinson’s hospital orientation chart 60

Figure 2.5 Columbia Medical Complex, begun 1928, Architects: James, Gamble & Rogers 64

Figure 2.6 The Cornell–New York Medical Centre, 1933, Architects: Coolidge Shepley Bullfinch & Abbott 64

Figure 3.1 Google Map of Australia showing the six States, The two Territories and their Capital Cities 74

Figure 3.2 The City of Melbourne, colour lithograph, 1855 by Goodman Teale and Nathaniel Whittock. 75

Figure 3.3 Siting of the original Melbourne Hospital, 1846 81

Figure 3.4 The Melbourne Hospital, 1862, by N. Chevalier 82

Figure 3.5 Nurses Home, Sydney General Hospital, 1869 86

Figure 3.6 Site Plan, Melbourne Hospital, 1913 91

Figure 3.7 The Melbourne Hospital, 1910–16, Architects: J.J. & E.J. Clark 92

Figure 3.8 MacRobertson Girls High School, South Melbourne. Architect: Norman Seabrook, 1934 94

Figure 3.9 Mercy Hospital, East Melbourne, Architects: Stephenson & Meldrum 94

Figure 4.1 The Organisational Chart of the Client Composition 100

Figure 4.2 Chart of the Hospital Organisation prepared by Stephenson Meldrum/Turner 108

Figure 4.3 Diagram showing the division between the Hotel & Medical Services with Administration at the Centre 109

Figure 4.4 Bernard Zwar 109
<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5</td>
<td>Lt. Colonel R. Fanning</td>
<td>111</td>
</tr>
<tr>
<td>4.6</td>
<td>Arthur George Stephenson</td>
<td>117</td>
</tr>
<tr>
<td>4.7</td>
<td>Percy Hayman Meldrum</td>
<td>118</td>
</tr>
<tr>
<td>4.8</td>
<td>Donald Keith Turner</td>
<td>120</td>
</tr>
<tr>
<td>4.9</td>
<td>Stephenson &amp; Meldrum: Melbourne Office Staff</td>
<td>125</td>
</tr>
<tr>
<td>5.1</td>
<td>Aerial photograph of Parkville, 1920</td>
<td>129</td>
</tr>
<tr>
<td>5.2</td>
<td>Melway Map, Parkville</td>
<td>130</td>
</tr>
<tr>
<td>5.3</td>
<td>Professor H.B. Allen’s proposal for a Pavilion hospital, 1891</td>
<td>133</td>
</tr>
<tr>
<td>5.4</td>
<td>Aerial photograph of the Pig Market and Hay Market, 1929</td>
<td>138</td>
</tr>
<tr>
<td>5.5</td>
<td>Stephenson &amp; Meldrum’s Survey map of Parkville site, 1937</td>
<td>139</td>
</tr>
<tr>
<td>5.6</td>
<td>Sketch of Scheme A - the Priestley Plan, March 1936</td>
<td>143</td>
</tr>
<tr>
<td>5.7</td>
<td>Map of the Haymarket and Pig Market, 3 July 1929</td>
<td>144</td>
</tr>
<tr>
<td>6.1</td>
<td>Scheme A. Ground Floor Plan</td>
<td>155</td>
</tr>
<tr>
<td>6.2</td>
<td>Birmingham Hospital, 1933–38 Architects: Lancaster &amp; Lodge</td>
<td>156</td>
</tr>
<tr>
<td>6.3</td>
<td>Scheme A Aerial View of the Hospital and Medical School</td>
<td>161</td>
</tr>
<tr>
<td>6.4</td>
<td>Scheme A Basement of the Hospital and WEHI</td>
<td>161</td>
</tr>
<tr>
<td>6.5</td>
<td>Scheme A Ground Floor, Hospital WEHI and Medical School</td>
<td>161</td>
</tr>
<tr>
<td>6.6</td>
<td>Scheme A First and Second Floor of hospital and WEHI</td>
<td>161</td>
</tr>
<tr>
<td>6.7</td>
<td>Scheme A Third and Fourth Floors Hospital and WEHI</td>
<td>161</td>
</tr>
<tr>
<td>6.8</td>
<td>Scheme A Seventh, Eighth, Ninth and Tenth floor of Hospital</td>
<td>161</td>
</tr>
<tr>
<td>7.1</td>
<td>Sketch, Scheme D, Aerial view</td>
<td>163</td>
</tr>
<tr>
<td>7.2</td>
<td>Scheme B. Typical ward configuration</td>
<td>181</td>
</tr>
<tr>
<td>7.3</td>
<td>Solution 1. The Courtyard Plan</td>
<td>185</td>
</tr>
<tr>
<td>7.4</td>
<td>Solution 2. The Double Y Plan</td>
<td>186</td>
</tr>
<tr>
<td>7.5</td>
<td>Solution 3. Hospital Entrances</td>
<td>187</td>
</tr>
<tr>
<td>7.6</td>
<td>Solution 4a. Quadrant Plan</td>
<td>188</td>
</tr>
<tr>
<td>Figure Reference</td>
<td>Description</td>
<td>Page</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>7.7</td>
<td>Solution 4b, Quadrant Plan</td>
<td>188</td>
</tr>
<tr>
<td>7.8</td>
<td>Solution 4c, Quadrant Plan</td>
<td>189</td>
</tr>
<tr>
<td>7.9</td>
<td>Scheme B, C and D Site Plan</td>
<td>190</td>
</tr>
<tr>
<td>7.10</td>
<td>Scheme B Basement Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.11</td>
<td>Scheme B Lower Ground Floor Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.12</td>
<td>Scheme B Scheme B Ground Floor Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.13</td>
<td>Scheme B First Floor Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.14</td>
<td>Scheme B Second Floor Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.15</td>
<td>Scheme B Third Floor Plan</td>
<td>201</td>
</tr>
<tr>
<td>7.16</td>
<td>Scheme B Fourth Floor Plan</td>
<td>202</td>
</tr>
<tr>
<td>7.17</td>
<td>Scheme B Fifth Floor Plan</td>
<td>202</td>
</tr>
<tr>
<td>7.18</td>
<td>Scheme B Sixth Floor Plan</td>
<td>202</td>
</tr>
<tr>
<td>7.19</td>
<td>Scheme B Seventh Floor Plan</td>
<td>202</td>
</tr>
<tr>
<td>7.20</td>
<td>Scheme B Eighth and Ninth Floor Plan</td>
<td>202</td>
</tr>
<tr>
<td>8.1</td>
<td>Aerial view of Scheme G</td>
<td>202</td>
</tr>
<tr>
<td>8.2</td>
<td>Scheme G Site Plan</td>
<td>203</td>
</tr>
<tr>
<td>8.3</td>
<td>Sketch Proposal for Scheme G</td>
<td>212</td>
</tr>
<tr>
<td>8.4</td>
<td>Birmingham Hospital Site Plan</td>
<td>213</td>
</tr>
<tr>
<td>8.5</td>
<td>Westminster Hospital, London</td>
<td>214</td>
</tr>
<tr>
<td>8.6</td>
<td>Westminster Hospital Site Plan</td>
<td>215</td>
</tr>
<tr>
<td>8.7</td>
<td>Proposal for Cité Hospitalière, <em>De Lille.</em></td>
<td>216</td>
</tr>
<tr>
<td>8.8</td>
<td>Cité Hospitalière, <em>De Lille</em> 1953, Walter, Cassen &amp; Madelaine</td>
<td>217</td>
</tr>
<tr>
<td>8.9</td>
<td>Scheme G OPD Seventh floor</td>
<td>220</td>
</tr>
<tr>
<td>8.10</td>
<td>Floor Plan, Melbourne Hospital</td>
<td>222</td>
</tr>
<tr>
<td>8.11</td>
<td>Scheme G Legend for Drawings</td>
<td>235</td>
</tr>
<tr>
<td>8.12</td>
<td>Scheme G OPD Third Floor: Almoners and Admittance Baths</td>
<td>235</td>
</tr>
</tbody>
</table>
Figure 8.13 Scheme G OPD Seventh Floor: Surgical Clinics and Dressings 235
Figure 8.14 Scheme G OPD Medical, Surgical and Specialist Clinics 235
Figure 8.15 Scheme G OPD Third floor Two Medical Clinics 235
Figure 8.16 Scheme G Fifth Floor: Dermatological, Eye and Dental Clinic 235
Figure 8.17 Scheme G Sixth Floor: Specialist Clinics 236
Figure 8.18 Scheme G Fourth Floor: Diagnostic Clinic 236
Figure 8.19 Scheme G Fifth Floor: Radiotherapy 236
Figure 8.20 Scheme G Physiotherapy 236
Figure 8.21 Scheme G Fourth Floor Clinical Pathology 236
Figure 8.22 Scheme G First Floor: Post Mortem 236
Figure 8.23 Scheme G Third Floor: OPD and Casualty Operating Suites 237
Figure 8.24 Scheme G Eight Floor RMOs Quarters 237
Figure 8.25 Scheme G First and Second Floor Dispensary 237
Figure 8.26 Scheme G First Floor venereal Diseases Clinic 237
Figure 9.1 The Royal Melbourne Hospital, 1945. View from the Flemington Road 239
Figure 9.2 T-configuration Main Block. 244
Figure 9.3 Scheme J Standard Outpatient Department Clinic Plan 250
Figure 9.4 The Nightingale ward, Melbourne Hospital, 1928 256
Figure 9.5 St. Vincent’s Hospital ward, 1934 256
Figure 9.6 Scheme J Standard Ward Plan of the west wing. 256
Figure 9.7 Scheme J The Nurses Station 258
Figure 9.8 Proposed Sketch: Scheme J North East Elevations 264
Figure 9.9 Site plan for Scheme J. 265
Figure 9.10 The Signing of the Construction Contract. 269
Figure 9.11 Scheme J Single-sex wards 272
Figure 9.12 Scheme J Site Plan: 1939. 273
List of Figures

Figure 9.13 RMH, Aerial sketch from Sydney Road and Grattan Street, 1939. 273
Figure 9.14 Scheme J Main Block: East and West Elevation 273
Figure: 9.15 Scheme J Main Block South Elevation 273
Figure 9.16 Scheme J Main Block and OPD: Basement Plan 274
Figure 9.17 Scheme J Main Block, OPD and WEHI: Ground Floor Plan 274
Figure 9.18 Scheme J Main Block, OPD and WEHI: First Floor Plan 274
Figure 9.19 Scheme J Main Block: Second to Fourth Floors 274
Figure 9.20 Scheme J Main Block, OPD and WEHI: Floor plan 275
Figure 9.21 Scheme J Main Block, OPD and WEHI: Fourth Floor 275
Figure 9.22 Scheme J Main Block: Fifth, Sixth, Seventh and Eighth Floors 275
Figure 9.23 Scheme J Main Block: Ninth and Tenth Floors 275
Figure 9.24 Scheme J OPD Basement 276
Figure 9.25 Scheme J OPD Ground Floor 276
Figure 9.26 Scheme J OPD First and Second Floor 276
Figure 9.27 Scheme J OPD Third and Fourth Floor 276
Figure 9.28 Scheme J Nurses Home Entrance 277
Figure 9.29 Scheme J Nurses Home: Floor Plans 277
Figure 9.30 Scheme J Nurses Home: South Elevation 277
Figure 9.31 Scheme J Axiomatic Drawing of Nurse’s Bedroom 277
Figure 10.1 Royal Melbourne Hospital, 1945, View from the North-East 279
Figure 10.2 RMH 1945. 285
Figure 10.3 A Surgical Ward 287
Figure 10.4 OPD General Waiting Room 288
Figure 10.5 Outpatient Clinic. 289
Figure 10.6 Diagnostic Laboratory. 289
Figure 11.1 The Royal Melbourne Hospital, 1944. View from Elizabeth Street 290
LIST OF TABLES

Table 1.1 The Timeline for the new RMH 1935–1945 7
Table 3.1 The Block Organisation of the new hospital 91
Table 4.1 Members of the RMH Committee of Management 1935 102
Table 4.2 Committee of Management - Change of Members 1935-39 103
Table 4.3 Members of the New Building Committee 105
Table 4.4 Members of the Honorary Medical Officers Committee 9 February 1935 106
Table 5.1 Victorian State Governments, 1924–1935 134
Table 6.1 Departmental Organisation of the Haymarket and Pig Market site 147
Table 7.1 Timeline for Schemes B, C and D 164
Table 7.2 The Organisation of OPD in three American Hospitals 176
Table 7.3 Bed Schedule as per the Inpatient HMO's requirements 180
Table 7.4 Comparison of proposed RMH to five American hospitals 181
Table 7.5 Site Allocation of the Courtyard Plan 185
Table 7.6 Site Allocation for Solution 2, the double Y plan 186
Table 7.7 Solution 3. Site Allocation 187
Table 7.8 Solution 4a. Site allocation 188
Table 7.9 Solution 4b. Site Allocation 189
Table 7.10 Solution 4c. Site Allocation 189
Table 7.11 Scheme C, Proposed floor arrangement for Main Block 192
Table 7.12 Proposed floor arrangement for OPD 193
Table 7.13 Scheme C, Proposal for Administration 194
Table 7.14 Scheme C, Proposal for Nurses Home 194
Table 7.15 Scheme C, Proposal for Service Block 194
List of Tables

Table 8.1 Timeline for Scheme G. 204
Table 8.2 Scheme G, Floor arrangements as per medical discipline 227
Table 9.1 Timeline for Scheme J 240
Table 9.2 Comparison of Costs of Nurses Home 244
Table 9.3 Proposed building schedule by Mr Bernard, Assistant Supervisor 268
Table 10.1 Committee of Management Members 283
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Architectural Association</td>
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<tr>
<td>AIA</td>
<td>American Institute of Architects</td>
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<tr>
<td>BHP</td>
<td>Broken Hill Proprietary Company Limited</td>
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<tr>
<td>BS</td>
<td>Bachelor of Science</td>
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<tr>
<td>CBE</td>
<td>Commander of the British Empire</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<tr>
<td>CIAM</td>
<td>International Congresses for Modern Architecture</td>
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<tr>
<td>CRS</td>
<td>Caudill Rowlett Scott</td>
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<tr>
<td>DSO</td>
<td>Distinguished Service Order</td>
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<td>ft</td>
<td>Feet</td>
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<tr>
<td>FRACS</td>
<td>Fellow Royal Australian College of Surgeons</td>
</tr>
<tr>
<td>FRACP</td>
<td>Fellow Royal Australian College of Physicians</td>
</tr>
<tr>
<td>FRCS</td>
<td>Fellow Royal College of Surgeons</td>
</tr>
<tr>
<td>GPO</td>
<td>General Post Office</td>
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<tr>
<td>HMOs</td>
<td>Honorary Medical Officers</td>
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<tr>
<td>HRH</td>
<td>His Royal Highness</td>
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<tr>
<td>HBN</td>
<td>Hospital Building Notes</td>
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<tr>
<td>ISC</td>
<td>International School of Correspondence</td>
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<tr>
<td>JRIBA</td>
<td>Journal of the Royal British Institute of Architects</td>
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<tr>
<td>KC</td>
<td>Kings Council</td>
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<tr>
<td>kV</td>
<td>Kilovolt</td>
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<tr>
<td>m</td>
<td>Metre</td>
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<td>ha</td>
<td>Hectare</td>
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<td>Melb</td>
<td>Melbourne</td>
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<td>Abbreviation</td>
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<tr>
<td>MD</td>
<td>Doctor of Medicine</td>
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<tr>
<td>MS</td>
<td>Master of Science</td>
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<tr>
<td>NBC</td>
<td>The Special Advisory and New Building Committee</td>
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<tr>
<td>NHS</td>
<td>National Health Service (Britain)</td>
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<tr>
<td>NSW</td>
<td>New South Wales</td>
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<tr>
<td>OBE</td>
<td>Order of the British Empire</td>
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<tr>
<td>OPD</td>
<td>Outpatient Department</td>
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<tr>
<td>POE</td>
<td>Post–Occupancy Evaluation</td>
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<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
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<tr>
<td>RACS</td>
<td>Royal Australian College of Surgeons</td>
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<tr>
<td>RIBA</td>
<td>Royal Institute of British Architects</td>
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<td>RMH</td>
<td>Royal Melbourne Hospital</td>
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<td>RMIT</td>
<td>Royal Melbourne Institute of Technology</td>
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<td>RPA</td>
<td>Royal Prince Alfred Hospital</td>
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<tr>
<td>SAHANZ</td>
<td>Society Architectural Historians Australia and New Zealand</td>
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<tr>
<td>S&amp;M</td>
<td>Stephenson &amp; Meldrum</td>
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<tr>
<td>SM/T</td>
<td>Stephenson Meldrum /Turner</td>
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<td>S&amp;T</td>
<td>Stephenson &amp; Turner</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
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<tr>
<td>USA</td>
<td>United States of America</td>
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<tr>
<td>UCH</td>
<td>University College Hospital (London)</td>
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<td>VD</td>
<td>Venereal Disease</td>
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<td>WEHI</td>
<td>Walter and Eliza Hall Institute of Research, Pathology and Medicine.</td>
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<tr>
<td>WW1</td>
<td>World War 1</td>
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<td>WW2</td>
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</tr>
</tbody>
</table>
1. INTRODUCTION

The realisation, in 1945, of the Royal Melbourne Hospital (RMH) at Parkville, was to prove a triumph both medically and architecturally. This new hospital was to play a significant role within the medical history of the RMH as the new facilities allowed for the introduction of new medical disciplines, new departments and for increased efficiency in the organisation of the hospital generally. The hospital gained significance within the Australian modernist architectural milieu for being the first major general hospital to be completed in the vertical typology.\(^1\) It was also particularly significant within the hospital oeuvre of the architectural firm Stephenson & Turner (S&T) as it was their first general hospital and one which became the exemplar for their later hospital work. These last two facts are well recognised by architectural historians but the programming methodology implemented to achieve this important building complex has never been explored.

According to John Summerson, 1985, architectural historians tend to concentrate on “style, patronage and theory”.\(^2\) He advised that they should look beyond these factors and into a new field of academic inquiry.\(^3\) Heeding Summerson’s advice and, by conducting a single-case study, this dissertation has delved deeply into the factors beyond “style, patronage and theory” in order to conduct an empirical study of the actual programming methodology, Design-by-Dialogue, implemented by S&T for the new RMH Parkville, 1935-45, where the primary focus was on functionality and efficiency and, to a lesser extent, the modernist aesthetic. This dissertation has presented an interesting challenge to the author who comes from an art history background of which architectural history is, according to Otakar Máčel, 2005, “a key component”.\(^4\)

General hospitals are arguably the most complex programmatic building type and, as such, require expert clients and expert architects to achieve optimum outcomes. The

---

1. Prince Henry’s Hospital, Melbourne, can claim their new eleven-storey central block of the proposed T-configuration, 1938–40, designed by architects, Leighton Irwin & Company, was the first hospital in Australia to be completed in the modern vertical typology. However, as the project proceeded in stages due to the restricted and occupied site, the north and south wings of the hospital, the Nurses Home and the Outpatients Department were not finally completed until 1965. Source: Prince Henry’s Hospital File, Box P187, Monash Medical Centre Archives.


rationale for this dissertation has been to investigate how the dialogue between the clients, namely the medical profession, and the architects, influenced the success of the program, the ultimate design and eventually, the functionality of this hospital.

This dissertation provides rare insight into the complex programming and design process between the clients and the architects during 1935–1945. This was possible as all the documentation — minutes of meetings, correspondence, reports and drawings including the names of the participants — had been preserved in archival repositories. This is in stark contrast to the normal situation where the collaboration between the architects and the clients generated considerable documentation which, according to The Hospital Investigator, July 1993, “rarely seemed to survive and where it does, the different contributors are not identified”. Harriet Richardson concurred with this in her book, English Hospitals 1660–1948: A survey of their Architecture and Design, 1998. She remarks that, with the increasing complexity of hospitals, close association between the architectural and medical professions had become imperative but documentation of the collaboration between the two professions was relatively rare.

The Goal for the new Royal Melbourne Hospital
The goal of the RMH Committee of Management was to create a new hospital on a par with the world's best, “a thoroughly modern first class teaching hospital” in keeping with its status as one of the foremost medical, teaching and research facilities in Australasia.

The hospital’s pre-eminence was affirmed in 1934 when King George V granted Royal Patronage and, in 1935, the prefix ‘Royal’. The name of the hospital changed from the Melbourne Hospital to the Royal Melbourne Hospital on March 27 1935.

The RMH is important for being the oldest operating health facility in the State of Victoria. Since it opened as a general public hospital in 1848, the hospital buildings, on the original Lonsdale Street site, had been a living continuum of change, expansion,

6 Harriet Richardson, English Hospitals 1660–1948: A survey of their Architecture and Design, Swindon, 1998, p. 11. I support Richardson’s conclusion as my own experience of researching material relating to British Hospitals that could have influenced S&T for the RMH produced little information of the collaboration between architects and the medical profession and nothing of their programming (briefing) methodology.
7 Henry Searby, Age, May 22 1937.
8 Argus, May 22 1937, stated that the RMH was the premier teaching school in Australia.
demolition, renewal and progression as it sought to provide treatment for the injured and
care for sick poor from a rapidly expanding populace and, from 1864, to meet the
University of Melbourne’s requirements for the clinical education of its medical
students.\textsuperscript{11} Its importance was further enhanced in 1915, when the Walter and Eliza Hall
Institute for Research in Pathology and Medicine (WEHI) established an affiliation with
the hospital.\textsuperscript{12}

The Site

The nomination of the site was one of the primary requirements to be specified by the
hospital clients. The Horse, Cow and Pig Market at Parkville was first mooted as a site
for a new hospital in 1866. At this time, the hospital was overcrowded due to the city’s
“massive population increase”, pursuant to the discoveries of gold in the Victorian
hinterland in 1852.\textsuperscript{13} The wretched sanitary conditions and excessive overcrowding
spurred some members of the medical staff, some university professors and the local
newspapers to call for a new hospital on a new site. The Parkville site was the obvious
choice due to its close proximity to the University of Melbourne. These calls continued
intermittently from then on.

In 1935, there was a most urgent need for a new hospital as the existing one was in dire
straits. It was unsuitably located, the accommodation space was limited and hopelessly
overcrowded and the facilities antiquated.\textsuperscript{14} At last, there was a unanimous decision to
build on the Parkville site and, although the Committee of Management was faced with
many difficult decisions: “in part professional, in part educational and, in part
economic”\textsuperscript{15} it initiated the complicated process to build at Parkville in October 1935 –
by inviting three architectural firms specialising in hospital architecture to submit their
credentials and in December 1935, the Committee appointed SM/T.

\textsuperscript{11} The University of Melbourne was founded in 1853 and the Medical School was established in 1862.
\textsuperscript{12} The Walter and Eliza Hall Institute (WEHI) of Research, Pathology and Medicine was established within the
Hospital in 1915. The Hall Trust determined that the Institute must be compulsorily located on hospital ground:
‘the hospital for the Institute and the Institute for the hospital’. Source: MacFarlane Burnet, \textit{Walter and Eliza Hall
\textsuperscript{13} Miles Lewis, \textit{Melbourne: The City’s History and Development}, for the City of Melbourne, 1995, p. 41.
\textsuperscript{14} LE Rothstaid, Medical Superintendent, RMH Annual Report, June 30 1935, p. 30.
\textsuperscript{15} BT Zwar, ‘President’s Report’, RMH Annual Report, June 30 1937, p. 62.
The RMH Client Composition

The RMH was an amalgam of three major institutions:

- A general public hospital;\textsuperscript{16}
- The University of Melbourne Faculty of Medicine and Surgery Clinical School; and
- WEHI.

The fact that the RMH was a public hospital meant it was under the jurisdiction – and largely funded – by the Victorian State Government and its appointed body, the Charities Board of Victoria. These five entities made up the client structure.

The clients’ expertise lay in their knowledge of purpose, the organisation of their departments and the functionality of the hospital. The client was a complex body of committees representing the users of the three Institutions. The RMH Committee of Management was the principal authority and ultimately responsible for all decisions. They appointed the following committees to assist them:

- The Organisers;
- The Special Advisory and New Building Committee (NBC); and
- The Board of Reference.

Also there was significant input from the standing Honorary Medical Officers’ (HMO’s) Committee - a very powerful group.

It was the client’s responsibility to provide instructions to the architects about:

- The purpose of the hospital;
- The site;
- Their physical requirements;
- The budget; and
- The time frame.

In the words of Dr SS Goldwater, (1873–1942) America’s leading hospital consultant:

All these things must be known and understood if the rules of planning and of construction are to be intelligently applied to the making of any hospital.\textsuperscript{17}

\textsuperscript{16} The sick poor for treated free of charge with costs being met from the public purse via the State Government.

\textsuperscript{17} SS Goldwater, \textit{On Hospitals}, New York, 1947, p. 28.
The Architects

From 1920 to 1937, the architects practised under their registered name of Stephenson & Meldrum. However, when Donald Turner joined the practice in 1925, he was made a partner in the firm but his name was not then included in the name of the firm. Nevertheless, the RMH’s agreement with the architects, August 18 1936, included the names of the three principals, Arthur George Stephenson, Percy Hayman Meldrum and Donald Keith Turner and, in the RMH’s correspondence, they addressed the firm as Stephenson Meldrum / Turner. When the Sydney office opened in 1935, the firm’s name was registered in Sydney (only) as Stephenson, Meldrum & Turner. After Percy Meldrum resigned from the firm in December 1937, they became Stephenson & Turner. They used their registered name on their reports, documents and drawings – such as on the 1936–37 drawings, the firm’s name was recorded as Stephenson & Meldrum and the 1938–39 drawings as Stephenson & Turner. For the purpose of this dissertation, the architects will be referred to as SM/T from 1935 until 1938 and S&T from then on.

Hospital Specialisation

SM/T determined in 1925 to specialise in hospital architecture. Stephenson saw that this developing field not only offered “professional challenges and opportunities for public service” but also offered “continuity of work for his designers and draftsmen”. At the time of their RMH appointment, SM/T’s expertise had been developed through their ten years of experience in hospital architecture. However, the RMH was to prove a challenge, as they had not previously undertaken a project of such magnitude or complexity.

The Architects’ Programming Methodology

The architect’s intention for the RMH was to create a modern hospital that reflected “the dignity of the purpose for which it (was) built (and that) it should be beautiful and radiate comfort and good cheer, so that pride of service may be reflected in the well-being of the patient”. Programming, as an architectural discipline, was not officially introduced to the profession until the 1960s. However documentary evidence will demonstrate that programming had been in existence for 200 years and that it was the recommended

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18 Swan, Sir Arthur Stephenson: Australian Architect, p. 84.
methodology – if not in name – for the architectural development of new and very complex hospitals:

For the production of a well-conceived scheme, the closest collaboration of medical, nursing, administrative, architectural and engineering advisers will be necessary. … The combined collaboration should continue throughout all the subsequent stages.  

Figure 1.1. The traditional role of Programming in the design and execution of a new building.


SM/T were committed to the methodology of programming and referred to ‘programming or programme’ frequently in their documentation. As illustrated in the diagram, (Figure 1.1) the programming phase was the first and most essential part of the building process. Stephenson acknowledged that the architects’ first task was to:

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20 First report, The Departmental Committee on the Cost of Hospitals and Other Buildings appointed by the British Minister of Health, Architect’s Journal, April 1937, p. 45.

1. Introduction

Catherine Tate

Analyse the problem and set the programme on which to work. This should define all the requirements in detail and in space and must be prepared in conjunction with the client. The preparation of such a programme may take months of labour and numberless committee meetings; nevertheless it is the only sound basis on which to commence operations.  

SM/T therefore applied the methodology, Design-by-Dialogue, where programming and design were interlinked. By developing schematic sketches which SM/T presented at committee meetings, the architects were able to closely interact with the committee members throughout the protracted and difficult process of six iterative schemes, A, B, C, D, G and J for the six buildings: the Main Block, Outpatients Department, Walter and Eliza Hall Institute, Nurses Home, Resident Medical Officers Quarters and the Service Block.

The success of the programming and design process can only be evaluated once the hospital is operational. However, owing to the war in the Pacific and the subsequent occupation of the newly completed hospital by the 4th General Hospital of the United States Army, the timeframe for the complete process – from commencement of the programming process to the RMH’s occupation – encompassed a full ten years 1935–45 (Table 1.1).

The Timeline of the Programming Process

<table>
<thead>
<tr>
<th>23/12/1935</th>
<th>1936 - 1939</th>
<th>1940 - 1942</th>
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<td>RMH Parkville commence operations December 10.</td>
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Table 1.1 The Timeline for the new RMH 1935–1945

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22 Arthur Stephenson, ‘General Principles which an Architect needs to bear in mind in designing a Hospital’, Sir Arthur Stephenson Collection, National Library Australia.
Positioning the problem

Considering the importance of the RMH as a health, teaching and research facility within Australia and, considering the significance of the 1945 RMH buildings within the modernist architectural milieu, it is difficult to understand the existing gap in knowledge of the development of this important piece of architecture.

Because of the magnitude of this project, the dissertation has concentrated on the general layout and, in particular, on the major areas of dissension between the HMOs and the architects – mainly the Outpatient Department (OPD) and the ward units – and it explored the manner in which their differences were resolved through the iterative Schemes B, C, D, G, and J. My extensive research has failed to reveal any reference to Schemes E, F, H, or I in any documentation or in the drawings and, at this time, I can offer no explanation other than the possibility that the schemes were the architects’ in-house development schemes.

Stephenson & Turner was the largest and most prolific architectural firm in Australia between 1930 and the 1960s. In 1994, they donated their extensive archive of drawings and documentation including those relevant to the RMH, to the State Library Victoria. However, at the time of my research, these had not been thoroughly catalogued. Consequently, limitations were imposed on my study as only some of the drawings relevant to Schemes C, D and G were available.

The dissertation is unusual in so far as there is a long-standing relationship between the author and the RMH. The author is a former user of hospital. In the 1960s, I undertook a three-year nurse-training course followed by a one-year post-graduate diploma and therefore I am in the position to provide an experience-based interpretative perspective regarding the final design scheme and the Design-in-Use.

Research Questions

The Primary Question is as follows:

How did the dialogue between expert clients and expert architects influence the architectural programming of the Royal Melbourne Hospital 1935–45?

The sub-questions are as follows:
1. What were the attributes that characterised the RMH clients and the architects SM/T as expert?

2. How did the architectural programming methodology, Design-by-Dialogue, between the RMH client and the architects SM/T, influence the iterative process of the five official schemes – B, C, D, G and J?

3. Why did the functional program, which is the primary focus here, and to a lesser extent the aesthetic program, give rise to claims of SM/T’s introduction of the modernist aesthetic to Australia?

4. How did the reflections of the ‘Design-in-Use’ study – following the occupation of the Parkville Hospital, December 10 1944 – prove the success of the programming process? and

5. What was the significance of the RMH to the Australian architectural milieu – given that it was the first completed general hospital to be built in the modern style and the vertical typology.

Research Methods

The fact that my study is confined to one hospital complex, the RMH, and to a specific time frame, 1935-45, has established set boundaries. Bent Flyvbjerg argues in ‘Case Study’, Norman K Denzin & Yvonna S Lincoln, eds, The Sage Handbook of Qualitative Research, 2011, that established boundaries allow for a single-case study to be conducted, the value of which is an intensive in-depth and detailed study.23 My study is primarily descriptive which, according to Estelle Phillips and Derek Pugh, How to get a PhD, 2005, is a consequence of “carrying out empirical work that hasn’t been done before”.24 Robert Yin, in Case Study Research: Design and Methods, 1994, supports this claim stating that such empirical studies are worth conducting “because the descriptive information alone will be revelatory”.25

Otakar Máčel, ‘Historical Research’, in TM De Jong & DJM van der Voordt, eds., Ways to Study and Research: Urban, Architectural and Technical Design, University of Delft, 2005, argued that the only primary sources in architecture are the building, the design drawings and the

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models. He regarded the documentation as just ‘words’. However, all the original documentation held in archives – minutes of meetings, reports, correspondence between the architects and the clients, journal articles and lectures written by various participants – were integral to this case-study for an understanding of the schematic development of the RMH building complex. Although just ‘words’, the documentation was important as an object of study and, in that capacity, Máčel concedes it can be viewed as primary source.

In order to access this primary material, I conducted extensive research of the archives of the following Australian institutions: The Royal Melbourne Hospital; Monash Hospital (formerly Prince Henry’s Hospital, Melbourne); Royal Prince Alfred Hospital, (RPA) Sydney; State Library New South Wales (NSW); State Library Victoria; National Library Australia; and the University of Melbourne.

Research was also undertaken at the Victoria and Albert Museum, London; the Royal Institute of British Architects Archives, London; and the English Heritage Archive, Swindon, England. The purpose was to investigate British hospitals and hospital architects that influenced SM/T and subsequently the RMH.

**Royal Melbourne Hospital**

The RMH Archive holds extensive records relating to the initial structures, extensions and renovations of the hospital from inception to present day. The collection commenced in September 1844 with the minutes of the first meeting of the Committee of the Melbourne Hospital. Documentation relating to the 1848 and 1910–16 buildings on Lonsdale Street provided a context for the new hospital at Parkville, details of which are discussed in the Chapter 3.

The records relevant to the Parkville hospital commenced in 1929 and have continued to the present day. These records are an extensive compilation of reports, photographs, minutes of meetings of the Committee of Management, the Special Advisory and New Buildings Committee (NBC), the Organisers, the Board of Reference, the Chief

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27 Otakar Máčel ‘Historical Research’, p. 61.
28 The Royal Melbourne Hospital Archives did not employ a professional archivist, Gabriele Haveaux, until March 1995. Although all the records have been carefully stored, they have not been catalogue with serial or record group numbers as the State and National Libraries.
Executive Officers (CEO) files, correspondence between the architects and the hospital and the RMH committees just mentioned, and individual members of the committees. Unfortunately, the architectural plans, held in the Archives, were unavailable for examination.\(^{29}\)

**National Library Australia**

After Sir Arthur Stephenson’s death in 1967, his personal papers were donated (in fifty boxes) to the National Library Australia (Canberra). These boxes were explored in order to ascertain Stephenson’s personal perspective on his life as an architect, as the principal partner of the firm and his commitment to hospital architecture.

**State Library Victoria**

The State Library of Victoria (SLV) received the extensive holding of the Stephenson & Turner archive: 8,000 files plus plans, specifications, correspondence and photographs. All available documentation of the RMH project was studied including the sketch plans of Schemes A, B, and J. Owing to the library’s restrictions regarding photographing and, despite my camera having wide-angled lens, I found photographing the drawings to be very difficult as each sheet was very large and, being 70 years old, very fragile.

The cataloguing of the drawings was somewhat muddled. There were 1970s drawings mixed with 1936 drawings and not all the sketch plans for Schemes C, D and G were available. According to Mácel, “source material … particularly in archives … may never be found.” \(^{30}\) Fortunately, all the blueprints and the specifications of Scheme J were available as they revealed the clients’ final approval of the six buildings: the Main Block, Outpatient Department, the Walter and Eliza Hall Institute, the Nurses Home, the Resident Medical Officers Quarters and the Service Block including the Boiler House.

**University of Melbourne**

Many relevant files on SM/T’s office organization are held in these archives. These documents would have revealed the role of Stephenson and the other partners in the

\(^{29}\) The architectural drawings of the RMH were saved from destruction during building renovations by a workman and were dumped haphazardly into a building rubbish skip. The skip is housed in a room within the Royal Park complex gathering dust while awaiting attention. I have suggested to the archivist that she apply for funding to preserve them. According to her, the hospital has more important projects to pursue.

\(^{30}\) Otakar Mácel, “Historical Research”, p. 62.
design process and their relationship to the design team – who they were, how the functioned, who selected them and why. This archive also houses Stephenson & Turner’s extensive library of books, journals and building product information and catalogues. As at the SLV, the files had not been sorted and catalogued, therefore they could not be accessed for this research.

**Interstate Archives**

Research was undertaken at the State Library New South Wales (NSW) and the Royal Prince Alfred Hospital, (RPA) Sydney, NSW, to examine documentation relating to SM/T’s work in NSW: Gloucester House Immediate Hospital, 1936; and the King George V Memorial Hospital for Mothers and Babies, 1941. Both hospitals were an integral part of the RPA, and were contemporary to the RMH programming process. Documents relating to the Concord General Hospital, formerly the 113th Australian General (Military) Hospital 1942, Sydney, were also studied at the State Library NSW.

**Observational Research of Extant Hospitals**

As extant buildings are primary sources, the advantages of studying them on site allows one to obtain a sense of scale and place, the relationship to auxiliary buildings and to the urban environment that is not conveyed in plans and photographs.

The integrity of the 1944 RMH has, over the years, been completely compromised by a number of extensions and new buildings that are not sympathetic to the style and aesthetic of the original buildings. The surviving core of the hospital is hidden from view - the exception being the north wing which can only be seen from the rear. The Chapel was demolished in 1985 to make way for the new WEHI building designed by Daryl Jackson Architects, 1988. In 2012, WEHI was extended and redeveloped - doubling in size - by Denton Corker Marshall. The Nurses Home was demolished in 2005 for the new Royal Women’s Hospital designed by Design Inc/Woodhead International under a Public Private Partnership (PPP) agreement. 31

The following SM/T hospitals were inspected:

- Royal Melbourne Hospital;
- Mercy Private Hospital, 1934 East Melbourne;

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31 Infrastructure Delivery, Department of Treasury and Finance website, accessed October 10 2015.
1. Introduction

Catherine Tate

- Freemasons Hospital, 1936, East Melbourne;
- Two Victorian rural hospitals, Wangaratta, 1931 and Colac, 1933;
- Gloucester House, Royal Prince Alfred Hospital, Sydney, 1936; and
- King George V Memorial Hospital for Mothers and Babies, 1941, Royal Prince Alfred Hospital, Sydney.

These hospitals, with the exception of Wangaratta, exemplify the modernist aesthetic. The Mercy and Freemasons’ Hospitals were the immediate precursors to the RMH and were influential in SM/T’s appointment as architects for the RMH. Gloucester House was the first hospital to be executed by the newly opened Sydney office of Stephenson Meldrum & Turner.

Thesis Structure

1. Introduction

This chapter establishes the significance of the RMH and introduces the client, the architects and the programming methodology – Design-by-Dialogue and positions the problem to be addressed and resolved throughout the iterative process.

2. Programming, the Evolution of the Modern General Hospital and Post-Occupancy Evaluation

This chapter examines the literature on Australian Hospitals generally and the RMH in particular in order to establish that the programming–design process for the new Parkville hospital has not previously been studied. The literature on the three relevant disciplines is also examined: Architectural Programming, the general histories of hospitals in order to review the Evolution of the Modern General Hospital and so place Programming within context, and Post-Occupancy Evaluation (POEs). The aim of studying the literature was to:

- Position the Programming methodology implemented by SM/T for the RMH within the recognised discipline;
- Justify the reference to programming - given that this discipline was not formally recognised by the architectural profession until the mid-1960s - by examining the collaboration between the medical profession and architects during the nineteenth and early twentieth century to establish the profound influence of programming – at best de facto - throughout the evolution of the modern hospital;
• Investigate Post-Occupancy Evaluation and its purpose considering that it was introduced 30 years after the occupation of the RMH; and
• Identify a gap in knowledge and therefore justify this dissertation.

3. Melbourne: History, Health and Hospitals
The RMH at Parkville was the third realisation of the Melbourne Hospital. This chapter investigated what precipitated the need for this new hospital complex by evaluating its place within the history of the RMH, the hospital's status within the community of Melbourne, and the Victorian and Australian health system.

4. The Programming Participants
In this chapter, I investigated the qualifications and experience of the clients and the architects. The client structure was complex with the RMH Committee of Management as the principle authority. For the architectural program, the Committee of Management appointed three committees: the Special Advisory and New Building Committee (NBC); the Organisers; and the Board of Reference. As the RMH was a public hospital reliant on public finance, the Committee of Management was answerable to the Victorian State Government and their appointed body, the Charities Board of Victoria. The influence of these entities on the program has been examined.

5. The Site
This chapter describes how the Parkville site was selected on account of its proximity to the University of Melbourne, to the city, to transport facilities, the road network and the hospital's patient demographic. I also describe the physical properties of the site, the shape, the size, the contour of the land and drainage. These were important factors and influenced the schematic development of the hospital.

6. The Programming Precursors
This chapter established the basis for the following Chapters 7, 8 and 9 by examining the first genuine Parkville proposal of 1929. The architects were Blackett & Forester. The 1929 requirement lists were instrumental in SM/T’s Scheme A which was developed by March 1936 prior the signing of the Architects’ Agreement on August 18 1936. Scheme A was referred to as the ‘Priestley Plan’ for it was developed for Professor Raymond
Priestley, the Vice-Chancellor of the University of Melbourne (1935–1938), to take to New York on a mission to seek a grant from the Rockefeller Foundation specifically to pay for the University’s accommodation within the new hospital. However, the architects regarded the preparation of the Priestley Plan as part of the work should the hospital be built and they be officially appointed the architects. Scheme A evolved and became a precursor to the following five (official) schemes.

7. The Programming Process: Schemes B, C and D
This chapter examines how and why the architects developed Scheme B specifically in accordance with the requirements as specified in the programming documents namely The Report of the Organisers to the Committee of Management of the Royal Melbourne Hospital on the Requirements of the Royal Melbourne Hospital at the proposed New Medical Centre at Parkville. It had been the responsibility of the Organisers to collect the requirement lists for the new hospital from the Heads of Departments and the Medical Staff of the three institutions. Simultaneously, and at their own discretion, the architects developed Scheme C which was not authorised. The dialogue that it generated addressed the differences between the clients’ requirements and the architects’ recommendations particularly relating to OPD and the wards. Despite Scheme C being accepted, Scheme D was authorised, accepted and then abandoned. This was a strange twist of circumstance and the rationale for this has been explored.

8. The Programming Process: Scheme G
Whilst Scheme G was the fifth formalised scheme in the iterative process, it was only the third scheme to be partly developed. This chapter examines the dialogue between the clients and the architects for Scheme G and what influenced the adoption of the rectangular form, the E-configuration and the north-south orientation with the façade directly addressing Grattan Street. I also note the contributions of Donald Turner and Lt. Colonel Rupert Fanning (Manager of RMH) upon their return from their overseas study trip in August 1937, and the reason that Scheme G was aborted.

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32 The Organisers’ File, RMH Archives.
9. The Programming Process: Scheme J

Scheme J was the final scheme of the protracted programming process. The budget had been further reduced by £200,000 to £750,000 and this was a challenge to the architects to meet the clients’ requirements. The frequency of meetings between the RMH client committees and the architects increased to the point where some meetings were held a few days apart. This chapter further investigated the areas of dissension that developed between the participants during the final stages of the programming process to the point where Stephenson threatened to withdraw from the project. The areas of dissension were regarding the type of construction – steel framing as opposed to reinforced concrete, and the building program.

Construction of Scheme J commenced in 1940 and the buildings were completed during 1942. As mentioned, the hospital was occupied by the 4th General Hospital of the US Army from March 1942 to March 1944. From April to December 1944, the hospital was reinstated with minor alterations, adjustments and a complete fit-out.

10. Reflections of Design-in-Use

On Sunday, December 10 1944, a fleet of ambulances transported two hundred inpatients from the Lonsdale Street hospital to Parkville. From that day, the RMH Parkville has operated as a major general public hospital. As Post-Occupancy Evaluation was not accepted as a professional discipline until the 1960s, no formal evaluation was undertaken. This chapter then evaluates the comments from user groups published in the RMH Annual Report and Scapel, the Staff Bulletin of the RMH. Scapel was first issued in June 1945 as a monthly publication. These comments provided a picture of how the users of the building responded to it – a sort of de facto Post-Occupancy Evaluation.

11. Conclusion

By undertaking a single case study, this dissertation has examined, in depth, the intricacies of the actual programming design process for the RMH 1935-45 and, in so doing, has provided evidence of the importance of Design-by-Dialogue for a general public hospital of the complexity of the RMH. The value of dialogue between the architects and the clients was exhibited during the development of the five official schemes, B, C, D, G and J as S&T patiently, though at times very frustratingly, convinced the senior medical staff -
the HMOs - to accept the modernist principles of hospital planning instead of replicating the outmoded Pavilion concepts of the old Lonsdale Street hospital.

This dissertation has demonstrated the architects’ skill and professionalism in addressing the balance between providing the essential requirements against an ever-reducing budget – the rationale behind the production of schemes D, G, and J - and yet still managed to provide the six buildings: the Main Block, (the Hospital Proper); OPD; WEHI; the Nurses Home; the Resident Medical Officer (RMO) Quarters; and the Service Block which included the Boiler House, Engineers’ Workshop and accommodation for the domestic staff.

This chapter examines the limitations imposed upon this research, primarily the missing schematic drawings but, as Mácel, pointed out, even if the source material is held within the archives, it may never be found. This chapter also considers if and how any aspects of this study can contribute to contemporary programming as well as possible areas for future research that has emerged from this dissertation.

The contribution to knowledge of this dissertation has addressed six significant gaps that have been overlooked in the literature on Architectural Programming; the historical perspectives of programming Hospitals; the Australian literature on hospitals and, in particular, the literature of the RMH. In summary, they are:

- The RMH was the first completed Australian hospital in the vertical typology and it holds iconic status within the Australian modernist architectural milieu. Therefore the detailed programmatical study of the development of this important new hospital complex was significant. It was important work to be done in Architectural History, not just for the RMH, but for hospitals generally. This fact increases the significance of this dissertation as the literature reveals that such a study has never been done before and therefore provides new knowledge in the historical perspective of programming hospitals;

- The second contribution was facilitated through rare documentation that had been preserved in archives and subsequently provided original knowledge on the empirical practice of the programming process of a general hospital;

- The third contribution is to the merging body of work within the current field of Architectural History. By following Summerson’s advice to architectural historians
to delve beyond ‘style, patronage and theory’, I have examined, in depth, the factors that created the architecture rather than the architecture itself;

- Evidence that programming as a methodology and the term ‘programming’ was in current usage in the 1930s – 30 years prior to the formalisation of the architectural discipline;
- The recognition of the role of the client and their expertise – consequential to recognizing the existence of programming; and
- The sixth contribution relates to programming theory. In contrast to the literature on programming which is primarily devoted to normative theory (guidance), my dissertation has concentrated on examining what actually occurred.

This dissertation has addressed an area that has previously been overlooked in the fields of Architectural History and the History of Architectural Programming.
2. PROGRAMMING, 
THE EVOLUTION OF MODERN HOSPITAL DESIGN 
AND POST-OCCUPANCY EVALUATION

Introduction
This chapter examines the literature on the relevant disciplines: Architectural Programming, the history of Hospitals for the evolution of the Modern General Hospital, Australian Architectural History particularly on the RMH and Post-Occupancy Evaluation (POEs).

The literature on Australian Hospitals generally and the RMH in particular is examined in order to establish that the programming design process of the RMH has not been explored and therefore to justify this dissertation.

The literature on Architectural Programming has revealed that Programming, as a professional discipline, was not recognised until the 1960s. Consequently, the literature on the subject is post-1960s. Significantly, the important role of the client was then ostensibly recognised for the first time in the formulation of the design for a building. This literature has been studied firstly, to demonstrate the recommended practice methodologies and secondly, to position the methodology employed by SM/T for the RMH within the discipline.

The literature on the history of Hospitals revealed the evolution of Modern Hospital Design. This literature provided evidence that Programming was advocated 200 years prior to the 1960s and how the collaboration between architects and medical profession, as well as scientific discoveries, medical theories and innovations, influenced the developing hospital typologies: the Pavilion typology, the Block typology and the Vertical typology.

The literature on Post-Occupancy Evaluation (POE) also emerged post-1960, thirty years after the RMH. The purpose of POEs was to facilitate the formal examination of new facilities in order to ascertain their functional success or otherwise. This literature was explored in order to assess if the Programming process of Scheme J, as the built scheme, fulfilled the client’s requirements and to establish a basis for a Design-in-Use review.

Catherine Tate

Australian Literature on Hospitals

This section explores how SM/T, the RMH and its iconic role in the development of modern hospital architecture in Australia have been treated in Australian literature in order to establish the primary gap in the knowledge addressed by this work, and its significance. Historical architectural discourse in Australia has been grounded on three seminal texts: Robin Boyd, *Victoria Modern: One Hundred and Eleven Years of Modern Architecture in Victoria, Australia*, 1947; John Freeland, *Architecture in Australia: A History*, 1968 and Donald Johnson *Architecture in Australia: A History*, 1968. Considering the significance of hospitals to the architectural milieu, to the health of the community, to medical research and to the clinical education of medical students, the training of nurses and other ancillary professions, the contribution to an understanding of Australian hospital architecture was somewhat restrained.

Boyd credits SM/T with the introduction of the European Modern Aesthetic to Australia through their Mercy Hospital, Melbourne, 1934. Boyd ignored the planning concepts hidden behind the façade but he did acknowledge that hospital design required expert architects and a large crew “in which every man is a specialist in some branch of hospital work”.33

Freeland regarded multi-story hospitals as “huge cathedrals of the twentieth century religion, science … exercises in massing and, because the principles were sound, they were highly successful”.34 However, his only reference to the RMH was one photo (post-1949). But in *The Making of the Profession*, 1971, Freeland provides brief biographies of the Royal Australian Institute of Architects’ Gold Medal recipients. He states that Arthur Stephenson's contribution to architecture was “tremendous not only through the many buildings he designed and executed but ... the many students and young architects he helped and trained through his practice”.35

Johnson also regarded Stephenson’s hospital designs as a success as they attracted international attention and provided Australia’s only architectural export that “England was

willing to accept and acknowledge”. Freeland, Boyd and Johnson do however place considerable importance on Stephenson’s overseas study tours of 1927 to USA and, in 1932, to Russia and Europe. They particularly referred to the European tour as it changed the face of the firm’s aesthetic oeuvre from a conservative idiom to modernism.

As the Queen Victoria Hospital subsequently occupied the original Melbourne Hospital on Lonsdale Street, the following texts provided valuable background material as this extant hospital was still in operation during the programming and construction phase of the new Parkville hospital. Queen Victoria Medical Centre: Conservation Analysis and Existing Conditions Survey by Nigel Lewis and Associates 1985 and ‘Site History and Conservation Analysis’ by Prudence Sanderson, Nigel Lewis and Richard Aitken in Tony Lee, ed., Building on Tradition: Nine designs for the Victorian State Library and Museum Architectural Competition, 1986. Sanderson, Lewis and Aitkin analysed the architecture of the extant 1910–16 Pavilion hospital designed by JJ Clark and his son EJ Clark and the international influence in implementation of the Pavilion plan but they do not examine the actual program.

Stephenson & Turner was reputed, in the 1950s and 1960s, to be the largest architectural practice in Australia, employing more staff and undertaking more projects and on a larger scale than other firms. Despite this, the only two publications on the firm and its architecture have been published and then by the firm itself. The first book, Stephenson and Turner 1920–1970, 1970, is an excellent photographic collection of the firm’s architecture and was published as a celebration of the firm’s fifty years of practice. The second text, Sir Arthur Stephenson: Australian Architect, by John Shaw, is a brief biography produced in 1987 - twenty years after Stephenson’s death. It was the initiative of his grandson, architect Robert Cleland, as a memorial to Stephenson’s achievements particularly in the hospital field.

Hospitals are wont to publish their history — usually to mark a significant anniversary. Generally the buildings tend to fade into the background as stories of medical and administrative personnel occupy the pages. An example of this was Anthea Hyslop’s book, Sovereign remedies: A History of Ballarat Base Hospital, 1850 to 1980s. Hyslop makes no reference to SM/T’s role in designing the new central block in 1934 other than the building

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being ‘the modern building’. On the other hand, Susan Priestley’s *Melbourne Mercy: A History of the Mercy Hospital*, 1990, gives an account of the dialogue between Stephenson and Mother Francis of the Sisters of Mercy, two people who wanted a ‘thoroughly modern hospital’. Priestley has portrayed the mutual respect between Stephenson and Mother Francis. He encouraged her and Sister Philippa to tour the hospitals of the USA in 1930 and, in 1932, to tour SM/T’s Jessie McPherson wing at the Queen Victoria Hospital in order for her to make a decision regarding undertaking a complete programing process for the new Mercy Hospital.

Two histories on the Royal Melbourne Hospital have been written by two prominent historians, Kenneth Inglis, *Hospital and Community: A History of the Royal Melbourne Hospital*, 1958 and Alan Gregory, *The Ever Open Door: The History of the RMH 1848–1998*, 1998. These texts were valuable to this dissertation in that they provided essential background regarding the history of the RMH. Both of them discuss the protracted debate over the Parkville site and both referred to the building of the three manifestations but neither of them investigated the methodology of their design.

In 2004, the State Library Victoria staged an exhibition of photographs and drawings of the firm’s architecture. An illustrated catalogue, *Australian Modern: The Architecture of Stephenson & Turner*, was compiled by Rowan Wilken, the curator of the exhibition with contributions by Philip Goad and Julie Willis. Willis provided an overview of their hospital work: ‘The Health of Modernism: Expression and Efficiency in Hospital Architecture 1925–1967’.

Willis applied Boyd’s argument that European Modernism arrived in Australia through hospital architecture and therefore the modern hospital holds a significant place within the Australian architectural milieu. In her conference paper for the Society Architectural Historians Australia New Zealand (SAHANZ) 1998, ‘Machines for Healing: (an) aesthetics in Australian Hospital architecture 1930–1950’, Willis claims that hospitals, as a building

type, have been overlooked and, in her SAHANZ conference paper, 2006, ‘Contesting significance: the case of the modern Australian hospital 1930–1950’, she made a case for recognising the heritage value of this generation of hospitals by following Johnson’s argument that the modern hospital was the only Australian building type to receive international recognition and therefore should be preserved. She concluded that the hospitals of the 1930s, 40s and 50s are an architectural manifestation of modernity in health care and have not been adequately studied. Her argument was supported by Goad in ‘Leighton Irwin: Civility, Hospitals and Modernism’, History in Practice: Proceedings of the XXVth International Conference of the Society of Architectural Historians, Australia and New Zealand, 2008 and Cameron Logan ‘A Healthy Heritage’, Atrium, University of Melbourne Faculty of Architecture Building and Planning, October 2009.

However, the programming process for the RMH has received very limited treatment in the literature. Only two references to it have been found despite extensive research. Of those that have been found, the treatment of what is clearly a critical part of the creation of a complex facility that functions to its optimum rather than being considered as a piece of architecture, arguably is at best limited and, at worst, perfunctory.

The first reference was made by Allyson Barrip in her Bachelor of Architecture Honours thesis, ‘The Life and Works of Sir Arthur Stephenson’, 1984. Barrip provided a detailed biography of Stephenson and his associates followed by a chronological account of the firm’s architecture. However her only reference to the programming process of the RMH was:

Ellison Harvie, the job captain for the project, spent three months discussing in detail the requirements for the hospital with Dr Charles Kellaway, the Director of the Walter and Eliza Hall Institute and Professor Peter MacCallum, professor of the Faculty of Medicine at Melbourne University.

In 2001, Julie Willis and Bronwyn Hanna published Women Architects in Australia, 1900–1950. In her article on Harvie, Willis argued that, as Harvie was in charge of the Melbourne

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office, she was entirely responsible for the RMH project and that Harvie (incorrectly) developed the entire program within “a period of three months through direct negotiation with the hospital Board” 46. Basically she was reiterating Barrip. Yet Willis noted in 2004, that the design process was protracted and extensive. Beginning in 1936, the firm would “propose in excess of ten different schemes for the site” 47 and her reference to the involvement of WAM Blackett in the early SM/T schemes 48 provides evidence that little primary research was undertaken. Clearly the programming–design process behind the RMH Parkville has not been addressed.

**Programming as an Architectural Discipline**

This literature of Programming has been reviewed for the specific purpose of defining Programming, examining the methodologies and the recommended technics of data collection in order to position the methodology used by SM/T for the RMH within the discipline.

Although architects have always needed to know their client’s requirements, architectural programming was not officially recognized as a professional discipline until 1966 when the American Institute of Architects (AIA) published a booklet, *The Emerging Techniques of Architectural Practice*. The discipline was endorsed, in 1969, by a more comprehensive publication *Emerging Techniques 2: Architectural Programming*, 1968, by Benjamin H Evans & C Herbert Wheeler, Jr. These two publications are the precursors for many texts on programming - most of which were written by American authorities post-1970 such as: Wolfgang Preiser 49 1978; Donna P Duerk 50 1993; Robert R Kumlin 51 1995; Robert Hershberger 52 1999; Edith Cherry 53 1999; William Peña & Steven A Parshall 54 2001 & 2010; and other authorities such as Alastair Blyth & John Worthington 55 2000; and Theo JM van

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der Voordt & Herman BR van Wegan, 2005.\textsuperscript{56} These texts tend to the broad in scope and encompass building types in general. Whilst these authorities define Programming in different terms and espouse different methodologies, they nevertheless agree that all successful buildings, regardless of their purpose, require a successful program.\textsuperscript{57}

Most of the texts, cited above, are based on normative theory – what should be done as opposed to what was done. Wolfgang Preiser, ed., \textit{Facility Programming: Methods and Applications}, Stroudsburg, Pennsylvania, 1978, was the exception. He included several articles written by architects of their personal experience of Programming – two of which were Gerald Davis, ‘A process for Adapting Existing Buildings for New Office Use’ and Jay D. Farbstein, ‘A Juvenile Services Centre Program’. However, they were not detailed studies.

Because of their complexity, health care facilities, whatever their size, mission and requirements, are arguably the most complex programmatical building type requiring a more complex program than other buildings. General hospitals are the most complex as they are a composite of integrated medical care for inpatients and outpatients, complex diagnostic and therapeutic departments each with their own specific technical requirements, research and educational facilities. In response to this, the hospital program is extensive and intensive, time consuming, specific and, importantly, requires the active involvement of the end-user. As with all other buildings, the aim of the programming process for healthcare facilities is produce a successful functioning building. Despite the importance of programming to the design of hospitals, the literature on the subject is relatively rare. Most publications on hospitals are devoted to showcasing recently completed buildings, paying little, if any, credence to the essential programming development. The following literature specifically of hospital programming has been reviewed:


Over the last few decades, health facility planning has been universally standardised with an emphasis on functionality and efficiency. As a result, governments have developed authoritative guidelines for designers and clients to assist them to process designs quickly and confidently.\textsuperscript{58} The following are examples of those:

- \textit{Design guidelines for hospital and day procedures centres}, Victoria (Australia) Health Projects International Pty Limited (HPI) for the Department of Human Services, Victoria, (DHS), 2004.

Recent literature has placed more emphasis on the user involvement in hospital programming – the discipline now emerging as ‘Usability’. The most recent contributions are the PhDs of Johan van der Zwart (2014)\textsuperscript{59} and Aneta Fronczek Munter (2016)\textsuperscript{60}. However, Tetake Bogers, Juriaan van Meel & Theo van der Voordt in ‘Architects about briefing: Recommendations to improve communication between clients and architects’, 2008, argue that the literature of programming/usability primarily focuses on the end-users – paying very little attention to the important role of the architects.\textsuperscript{61}

\textsuperscript{58} Susan Francis, Rosemary Glanville, Ann Noble & Peter Scher, \textit{50 Years of Ideas in health care buildings}, p. 30.
\textsuperscript{59} Johan van der Zwart, Building for a better hospital: value-adding management & design of healthcare real estate PhD, DTU, 2014.
\textsuperscript{60} Aneta Fronczek Munter, ‘Useability, briefing for hospital design: Exploring user needs and experiences to improve complex buildings’, PhD, DTU, 2016.
Programming versus Briefing

Evans & Wheeler were the first to acknowledge the active involvement of the client in architectural projects\(^{62}\) thus reversing the traditional practice of briefing whereby clients simply expressed their wishes in a short and precise list of requirements and the architect responded with a building. Robert Kumlin, in *Architectural Programming: Creative Techniques for Design Professionals*, 1995,\(^{63}\) along with Peter Collins, *Changing Ideals in Modern Architecture 1750–1950*, 1965,\(^{64}\) argued that building technology changed slowly and, as the functions of buildings remained relatively simple and mostly conventional, this brevity was usually adequate regardless of whether the buildings were small or monumental. Kumlin, Hashim Sarkis et al, in ‘The Paradoxical Promise of Flexibility’, 2001,\(^{65}\) and Edith Cherry in *Programming for Design: From Theory to Practice*, 1999\(^{66}\) claim that the concept of programming replaced briefing following World War 2 (WW2) citing the complexity of post-war buildings due to the advancement of technology. However, they do not elaborate on this assumption nor provide evidence. Alastair Blyth & John Worthington\(^{67}\) in *Managing the Brief for Better Design*, 2000, argue that, in the 1970s, the British Brief was expanded along the lines of American programming as an “evolutionary process of understanding an organization’s needs and resources, and matching these to its objectives and its mission”.\(^{68}\)

Clearly the terms Brief and Briefing continued to be applied in the literature, consequently Briefing and Programming are used synonymously in this review.

Defining Programming

To Evans & Wheeler, the creation of the program requires the full participation of the client and users. Frank Duffy completely concurred with this in his first Presidential address to the Royal Institute of British Architects. He emphasised the importance of client involvement in architectural projects: “architects act in a catalytic way by bringing people together and listening to what they have to say”.\(^{69}\)

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\(^{62}\) Evans & Wheeler, Jr., *Emerging Techniques 2*.


\(^{66}\) Cherry, *Programming for Design: From Theory to Practice*, p. 5.

\(^{67}\) Worthington’s partner and co-founder of DEGW, Frank Duffy had undertaken a doctoral dissertation at Princeton. His thesis provided a “conceptual framework for an approach to briefing” which was adopted and developed by the firm. Source: A Blyth & J Worthington, *Managing the Brief for Better Design*, 2000, p. xvi.

\(^{68}\) A Blyth & J Worthington, *Managing the Brief for Better Design*, p. 3.

\(^{69}\) Frank Duffy, President’s Address, RIBA Journal, July 18 1993, p. 5.
The objective of programming is for the client to identify their aims, goals and precise physical requirements for their proposed building. Identifying the client’s requirements is the architect’s first task which William Peña & Steven Parshall, *Problem Seeking: An Architectural Programming Primer*, 2001\textsuperscript{70} regard as “the most important”.\textsuperscript{71} Robert Hershberger, in *Architectural Programming and Predesign Manager*, 1999, argues that it is impossible to provide an exact definition of Programming as it is “as diverse as the people involved in its practice”.\textsuperscript{72} He sees it as a methodology or a process of preliminary planning when the goals of the client, users and society are clearly enunciated and the exact requirements of the building are precisely identified. Evans & Wheeler regard it somewhat differently. To them, the written list of requirements is not the program, “it is a statement of the program at some particular point in time … a program is a process, which seldom, if ever, reaches an ideal state.”\textsuperscript{73} Agron & Moore agree with Evans & Wheeler. In their paper, ‘Health Care Facilities’, 1978, they regard programs for health facilities as “never absolute in themselves. Every program and design that derives from that program is to whatever degree an instrument of negotiation”.\textsuperscript{74} These remarks by Evans & Wheeler and Agron & Moore clearly reveal the on-going complexity of the programming process.

**Programming Methodologies**

Drawing on the literature, Bogers, van Meel & van der Voordt identified two distinct methodologies. One is that the programming process should be complete prior to the commencement of the design process and the other is that the programming process is interactive with design process.\textsuperscript{75}

Kumlin, Evans & Wheeler, Agron & Moore, and Peña & Parshall subscribed to the first method that programming should be completed prior to the design phase. Peña & Parshall are definite in their view that programming and design are two distinct processes, “The separation of the two is imperative … separation is central to an understanding of rational

\textsuperscript{70} William M Peña FAIA was the Founder of Caudill, Rowlett and Scott, Inc. and Steven A Parshall FAIA, was the Senior Vice President of Hellmuth, Obata + Kassabaum, Inc.

\textsuperscript{71} William Peña & Steven A Parshall, *Problem Seeking*, p. 12.


\textsuperscript{73} Evans & Wheeler, *Emerging Techniques* 2, p. 9.


architectural process”. In contrast, Blyth & Worthington subscribed to the second method, arguing that “design and briefing are integral parts of the same process with much of the brief carried through the process of design”. However they specify three distinct stages:

- **Pre-project Stage**: They refer to this as the Strategic Brief where the client’s needs are identified;
- **Project Stage**: They refer to this as the Concept Functional Brief (recognition of the client’s requirements) and Draft Functional Brief (which involves the designers) and the Functional Brief which includes the design scheme and the acceptance by the client; and
- **Post-project Stage**: (Post-Occupancy Evaluation).

Hersberger cites four methodologies – three of which subscribe to the first method and the fourth to the second method. They are: Value-based Programming; Agreement-based Programming; Knowledge-based Programming and Design-based Programming. Whilst each had its advantages and disadvantages, the two methodologies he applied to large and complex facilities such as hospitals, were Knowledge-based Programming and Design-based Programming.

- **Value-based Programming**
  Hersberger suggests this method where the budget and programming time frame is limited. He advocates that the client’s ‘values and goals’ are identified at the earliest stages of the programming process through intensive discussion sessions between client and architect. This is an important difference to the other methods as it allows all the requirements to be identified prior the commencement of the design process. This method, like that of Knowledge-based and Agreement-based programming, relies on a systematic search in order to verify that all the information collected is valid and reliable and so avoids costly errors.

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81 Hershberger, *Architectural Programming and Predesign Manager*, pp. 31–32
• Agreement-based Programming
This method relies on a client committee comprised of key individuals within the organisation who have knowledge of the organisation’s requirements: the “site, context, climate, materials, technology, landscape, and aesthetics”. Hersberger recommends this method where money and time are very limited and he advocates the use of a programmer to steer the committee through working sessions using the Matrix developed by CRS (Caudill Rowlett Scott).

• Knowledge-based Programming
This method was applicable to large complex facilities such as hospitals, prisons, research facilities and airports - especially where the architect may not be familiar with the organisational type and where the programming period is not restricted. From the 1960s, social and behavioural scientists had become involved with the built environment. By applying their research techniques, programmes employed “systematic observation, controlled interviewing, questionnaires and surveys, sampling, and statistical analysis”. The aim was to build knowledge about the built environment’s use and people’s interaction with it.

• Design-based Programming
In citing Design-based Programming, Hersberger, like Blyth & Worthington, subscribes to the second method advocating for programming being interactive with the design process. This method is the one most commonly used. The methodology is iterative and involves the client’s participation at every step of the process. This method relies on the client first providing a detailed list of requirements to the architects who transfers them into schematic sketches which are then presented by the architects to the client/users/ committees in a number of meetings. The schemes form a basis for dialogue between the clients and the architects and, if omissions arise, new drawings can be prepared until the architect and the client are satisfied.

82 Hersberger, Architectural Programming and Predesign Manager, p. 19.
83 This matrix was devised by William Pena of Caudill Rowlett Scott, an architecture and engineering firm in Houston, Texas, USA.
86 Hersberger, Architectural Programming and Predesign Manager, p. 19.
88 Hersberger, Architectural Programming and Predesign Manager, pp. 7-14.
Van der Voordt & van Wegan support this methodology as it allows the architects to clarify any contradictions specified in the program which surface in the sketches and then to offer new ideas that may improve the design.\(^{88}\)

Regardless of whatever method is implemented, the identification of the client’s requirements is arguably the most important aspect of the programming process - so important that sufficient time must be allocated for full consultation with the clients/users as these are the people who are familiar with the facility and have a particular interest in the functionality of the new building. Blyth & Worthington and van der Voordt & van Wegan, recommend that, owing to the speed of change, clients needs to consider their organisation, and the way it meets with current uses and the way it will meet their functional requirements in future.\(^{89}\)

James Woolley, ‘The Architectural Brief and Planning Information (Hospital Design 9)’, National Building Research Institute Bulletin 59, Pretoria 1970, concurred with Hersberger stating that Design-based Programming was the most suitable methodology for hospitals as it interlocks the briefing procedures with the design process “in the most advantageous way”.\(^{90}\) The schematic sketches bring the “design process out into the open where it can be seen and better understood by every-one concerned”.\(^{91}\) The NHS also advocates the interaction between the briefing and the design - citing the fact that “the sketches may reveal that the requested requirements may not be achievable within the various constraints such as site layout … and cost”.\(^{92}\) The Victorian Government Design Guidelines for Hospitals also subscribe to Design-based programming arguing that the “master plan be prepared in parallel with detailed briefing so that valuable feedback can be obtained … (so avoiding) wrong long term strategic decisions”.\(^{93}\) From these comments, Design-based Programming is clearly the accepted methodology for hospitals.

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\(^{88}\) van der Voordt & van Wegan, Architecture In Use, p. 76.
\(^{89}\) Blyth & Worthington, Managing the Brief for Better Design, pp.42-43 and pp. 13–24; and van der Voordt & van Wegan, Architecture In Use, p. 74.
\(^{91}\) Woolley, ‘The Architectural Brief and Planning Information (Hospital Design 9)’, p. 4.
Both Hersberger and Woolley emphasized that Design-based Programming is reliant on dialogue between all the parties, the architects, consultants, the client and the users. The dialogue needs to be as explicit as possible as it can lead to either constructive or destructive criticism but both can serve as a basis for the development of further schematic drawings. The aim is to:

Increase the ability of those involved in the briefing and design to communicate positively and, by removing much unnecessary muddle, to enhance intuitive design performance and the proper consideration of intangibles.94

The Client’s Obligations

The creation of the program requires the full participation of the client and users throughout the programming process as identifying the client’s requirements is the most important stage. Blyth & Worthington regard this as “empowering the users”. 95 Evans & Wheeler, van der Voordt & van Wegan, Blyth & Worthington and Peña & Parshall, argue that it is the client’s responsibility - indeed their obligation - to convey their goals, activities and parameters of the project to the architects in “simple and comprehensive terms”.96 According to van der Voordt & van Wegan, the requirements may be either qualitative or quantitative.97 All the authorities agree that the documentation for contemporary programming must specify the following:

- The client’s mission statement - what the client wants to achieve and why;
- The type and purpose of the facility;
- The site characteristics – its location, size and suitability;
- The budget;
- The parameters of the project: the time frame, the size of the building/s, the level of quality and the general directions for the design;
- The interior spatial arrangements;
- The number of employees and the requirements for the fit-out: furniture, fittings and finishes; and
- Specify any significant conditions that will affect the design of the building.98

95 Blyth & Worthington, Managing the Brief for Better Design, p. 28.
97 van der Voordt & van Wegan, Architecture In Use: 2005, p. 73.
Programming of Hospital Requirements

Although the principles and processes of programming remain the same as those cited for buildings generally, hospitals are considerably more complex. Francis et al., points out that hospitals contains many departments with highly technical requirements, “spaces with very complex and intense demands”.99 These departments operate as a series of complex inter-related systems so it is vital that these systems are understood in order to produce a functional hospital. This then raises the importance of good programing. The NHS report states that “a building can be no better or cost-effective than the brief upon which it is based … Rigorous and careful consideration of all aspects of briefing and the implications for design will pay dividends at all subsequent stages”.100 It is therefore important that the right type of brief is selected. According to Woolley: “the form of the brief should be determined by the process it has to serve. It is vital that the process of the brief will fit and support hospital service”.101 Therefore the hospital client must specify the following:

- Purpose and nature of the hospital: There are a myriad of hospital facilities each with different purposes. With the exception of Day Hospitals, all hospitals operate twenty-four hours per day;
- The operational policies and regulations relating to that particular hospital type;
- Site Characteristics: the size, location, road access and suitability for purpose;
- Size of the Hospital: The number of beds is viewed as a basis unit for describing a hospital’s size. This sets the organizational requirements to service those beds and quantifies the concepts for hospitals102 – the number of wards, operating theatres, nurses, doctors, ancillary services, catering, linen, cleaning and maintenance;103
- Spatial requirements: The hospital is an amalgam of a number of complex departments as mentioned above. The spatial requirements of each of these departments must be defined in terms of functional units, equipment and by evaluating the usage. The spatial interrelationship between these departments relies on functional affinities.104 The use of functional diagrams can help clarify the relationship;105 and

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99 Susan Francis, Rosemary Glanville, Ann Noble & Peter Scher, 50 Years of Ideas in health care buildings, p. 35.
102 Susan Francis et al, 50 Years of Ideas in health care buildings, p. 30.
103 Susan Francis et al, 50 Years of Ideas in health care buildings, p. 30.
105 Susan Francis et al, 50 Years of Ideas in health care buildings, p. 29–30.

- The component fit-out program. The fit-out requirements address the finer points of the program: equipment, furniture, furnishings, finishes, natural and artificial lighting, noise, infection control, and risk of fire.

Although discussing programming in general terms, van der Voordt & van Wegan noted that not all the information is required at the beginning, it can obtained in stages and the sketches developed accordingly “from rough to detail”. The NHS, Woolley, and the Victorian Government Design guidelines for hospital and day procedures centres, reinforce van der Voordt & van Wegan’s recommendation and advocate the use of hierarchical sequencing: moving from the general to the specific in collecting the list of requirements:

- The master plan program - the largest dimension. A simplified plan showing the site with entry and exit points for vehicles, pedestrians and goods as well as the general layout identifying the departmental boundaries and the main inter-departmental corridors of the hospital;
- The facility schematic design program; and
- The component or fit-out program.

**Data Collection Methods**

As Evans & Wheeler illustrated in the AIA publication, the techniques of data gathering vary from one architectural firm to another depending on their methodologies. Regardless the data collection must encompass all the facets related to the building and, as Woolley stipulates, these requirements must be clearly enunciated. There are advantages for the client in participating in the collection of data as this allows them to reassess their goals, activities, accommodation and especially their budget and, as van der Voordt & van Wegan argue, that this also gives the client the opportunity to consider the reuse of an existing building, expansion or a new building.

The document containing the list of requirements is an important communication tool which Blyth & Worthington state must be understood by all the people involved with the

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107 Susan Francis et al, *50 Years of Ideas in health care buildings*, p. 15.

project\textsuperscript{111} but particularly the architect as this information is the basis on which to develop the design. The following are various methods of collecting data:

- By using an experienced programmer with specialization in that particular building type;
- By appointing a client committee as the briefing authority. The members of this committee must be experienced with the facility and have knowledge of all departmental personnel;
- By appointing a number of committees with specific aims such as steering committee or policy committee;
- By issuing questionnaires to the client / users;
- By the use of flow charts and checklists;\textsuperscript{112}
- By direct dialogue between the architects and the different user groups through interactive interviewing, strategy meetings or workshops. Pena & Parshall actually include a sketch of a room planned for such a meeting.\textsuperscript{113} In the report for the Prince’s Foundation, \textit{Enquiry by Design}, there is a suggestion for intensive workshops to be conducted as a single week-long exercise, depending on the type and politics of a particular project;\textsuperscript{114}
- By using a computer and creating a project website. This simplifies the task of data collection and replaces copious amounts of paper documents;\textsuperscript{115}
- By dialogue between architects, structural and mechanical engineers and other engineering specialists in the early stages of the process to determine their requirements;
- By dialogue between architects and quantity surveyors to establish the actual capital cost;
- By the use of specific formats and charts as prescribe by the Architectural Association;

Hersberger, Peña & Parshall, advocate the use of the CRS Programming Matrix so placing four values down one side: ‘function, form, economy and time’ and across

\textsuperscript{111} Blyth & Worthington, \textit{Managing the Brief for Better Design}, p. 71.
\textsuperscript{112} Woolley, \textit{The Architectural Brief and Planning Information}, p. 24.
\textsuperscript{113} Peña & Parshall, \textit{Problem Seeking}, p. 163.
the top, five information areas: ‘goals, facts, concepts, needs and problem statement’. Peña & Parshall argued that “any relevant information in a design project can be placed in one of these categories”. In a work session with a committee, they advocate for an experienced programmer who places the matrix on an extendable board and then invites participation. The purpose is to move quickly from the general requirements to the specific.

- The Activity Data Base Methodology of the British National Health Service

This methodology was the key design and briefing tool adopted by National Health Service (NHS) and described by Susan Francis et al, *50 Years of Ideas in health care buildings*, 1999. Because of its complexity of hospital programming, this approach requires the services of both an experienced briefer and designer. It requires the NHS Hospital Building Notes plus sheets A, B and C:

  - Sheet A: records the schedule of activity and overall function of the space;
  - Sheet B: define each space in terms of a number of activities; and
  - Sheet C: combines Sheets A and B to specify the room layout. The authors claim that this method is effective in breaking down the “user requirements into component parts which can be drawn, specified, measured and costed: defining activities in terms of equipment and engineering requirements. This ensures that the right type and the amount of equipment is provided in a room”.

**Data Analysis**

The collected data must be analysed in order to obtain maximum value. Agron & Moore propose that at “each step of the programming process, the data must be developed for analysis, alternate solutions posed and evaluated and the conclusion considered for input into the next step of the process. This form of programming can apply to specific service programs such as … emergency service or acute-care nursing”.

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119 Susan Francis et al., *50 Years of Ideas in health care buildings*, p. 35.
The Problems of Programming

The possibility of problems arising between the protagonists is frequently due to the constant misunderstanding of each other’s intentions. Evans & Walker clarify these from the client’s perspective and the architects’ perspective.

From the client’s perspective, the problems that can occur are due to:

- Communication between the architects, client and the users can prove difficult due to the interpretation of the meaning of the word ‘program’ and the constant misunderstanding of the each other’s intention.
- The client and users are not familiar with what level of services to expect or with the architects/consultants practice methodology;
- The client and users are unable to clearly express their exact needs;\(^{121}\)
- The client’s lack an understanding of the hierarchy of design items – which can lead to important omissions; and
- The users have different values and ideas from each other.\(^ {122}\)

From the architects’ perspective, the problems that can occur are:

- Not identifying the problems in the early stage resulting in poor solutions; and
- Lack of effective communication of the client’s requirements to the designer.

Historical Perspectives on Programming Hospitals

As discussed, Kumlin, Cherry and Sarks argued that programming first emerged post-WW2 as a result of the increasing complexity of buildings.\(^ {123}\) However, there is documented evidence that the process of programming - in various guises - and indeed the term ‘programming’ or ‘programme’ - was in common usage long before WW2. In fact, Peter Collins in *Changing Ideals in Modern Architecture 1750-1950*, Montreal, 1965, argued that programming had been recommended for the two previous centuries\(^ {124}\) and he supported his argument by citing Louis Bruyère who, in 1823, published his *Studies Relative to the Art of Constructions*.\(^ {125}\) During the mid-nineteenth century, architects had become aware of the

difficulties in uncovering all the client’s requirements in order for them to develop their plans. Bruyère uses the term ‘programme’ as he urged architects to consult with the clients and users – the interested persons:

The architect may doubtless co-operate in drawing up a programme but in doing so he must try to forget the fact that he is a creative architect so as not to get any preconceived ideas before having mastered the problem. It is extremely difficult to determine all the needs of a building, or in other words, to establish a ‘programme’; hence this program may be the result of the most positive information provided by interested persons and discussed in their presence. It is useful to have books which contain detailed programmes and plans of well designed buildings, and for this reason I have tried to provide that latter in the present publication, where will be found the programmes and plans for markets, storage sheds, abattoirs, private houses, hospitals and so on.126

However, extant documentation of the collaboration between the hospital clients and architects is relatively rare. Harriet Richardson argued in her book, English Hospitals 1660–1948: A survey of their Architecture and Design, 1998, that, with the increasing complexity of hospitals, close association between the architectural and medical professions became imperative. However, Richardson’s research showed that documented examples of their collaboration are relatively rare.127 An anonymous article in The Hospital Investigator, 1923, argued that, from the late 18th century onwards, it appeared that the committees of governors were the most influential people in determining hospital design and that they were responsible for all the final decisions. It was, however, possible that those decisions were influenced by the medical profession, “either working for them, or serving on their committees”.128 Jeremy Taylor, in his book, The Architect and the Pavilion Hospital: Dialogue and Design Creativity in England 1850–1914, 1997, supports this claim arguing that in the latter part of the nineteenth century, the medical profession attached to individual hospitals collaborated closely with the architects on new hospitals.129 Whilst he cites some examples, he does not explore the programming process nor the depth of the collaboration which will be discussed later. Interestingly, Taylor’s evidence was largely sourced from published articles in British architectural journals and from recently published historical texts – not from primary archival records.130

128 The Hospital Investigator, No 19, July 1923, Cambridge, unpaged.
130 Taylor, The Architect and the Pavilion Hospital, Bibliography, pp. 220–224.
The Genesis for the Modern Hospital

Bruno Gaudin, ‘The Hospital and the City’, in Wagenaar, Cor, ed., The Architecture of Hospitals, 2006; John Thompson & Grace Goldin, The Hospital: A Social and Architectural History, 1975; and Richardson date the evolution of the modern hospital from 1752 when the importance of ventilation and sanitation was recognized. Dr (Sir) John Pringle, a Scottish Physician and Head of the Army Medical Service, in identifying the cause of the high mortality rate in the army field hospitals, observed that the deaths were from infection, lack of ventilation and sanitation - not from the patients’ wounds. Pringle was one of the 18th century doctors who developed the miasma theory: that bad air caused disease:

A corruption of the air, pent up and deprived of its elastic parts by the respiration of the multitude … and pestilential infection (was caused by) the poisonous effluvia of sores, mortifications, dysenteric and other putrid excrements.131

Pringle concluded that fresh air saved lives. He compared the deaths of hospitalized patients to the recovery of sick soldiers who were placed in airy and cold places such as barns or haylofts and who received inadequate care:

It is common to look out for close and warm houses, and therefore to prefer a peasant’s house to his barn; but experience has convinced us that air more than warmth is requisite.132

Pringle’s report, Observations on the Diseases of the Army, 1752, was published widely and became very influential in England and the United States of America.133 For the next one hundred and fifty years, hospital design would be dominated by the principles of sanitation, aeration and segregation of diseases and sexes.

The Pavilion Plan

The first recorded hospital program that involved a medical practitioner and an architect occurred in 1788. The architect was Bernard Poyet, (1742–1824) the physician was Jacques René Tenon (1724–1816) and the hospital was Hôtel Dieu, Paris. This collaboration was a consequence of a fire that gutted the Hôtel Dieu in 1772.

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Tenon was unique in that he was both a medical practitioner and a hospital planner. He had been studying hospitals for thirty-five years and his objective for the new Hôtel Dieu was to rebuild and modernize the hospital from a place where the patients were ‘isolated and imprisoned’ to a hospital based on the principles of hygiene, aeration and separation. Tenon and Poyet collaborated to execute architectural plans and elevations based on what became known as the Pavilion plan for the new four-storey 5,200 bed hospital. Poyet was a noted prison architect and clearly Tenon was aware that prisons and hospitals posed similar problems as the patients and the prisoners were confined 24 hours per day – requiring services and constant supervision. However, owing to the French Revolution, the new Hôtel Dieu was not built until 1878.

In his treatise, Mémoires sur Les Hôpitaux De Paris, 1788, (a compilation of five memoirs) Tenon proposes several solutions for modern hospitals including “the layout of the hospital, its place in the city and its relationship to the urban system”. In doing so, he coined the phrase ‘machine a guerir’ (machine for healing) providing evidence of his vision to produce an effective and efficient functional hospital:

The plans to this machine comprised of separate buildings to guarantee proper ventilation and to divide the patients into groups according to their illness. They were well-organized compositions of volumes and empty spaces following a scheme that allows complete control and facilitate the medical processes.

However Isadore Rosenfield, Hospital Architecture and Beyond, 1969; Thompson & Goldin; and Richardson argue that there was a precedent to Tenon and Poyet’s plan – the Royal Naval Hospital at Stonehouse near Plymouth, England, completed in 1764–5, designed by architect, Alexander Rovehead. This hospital was composed of fifteen buildings arranged around a square and linked by colonnade.
Thomson & Goldin pointed out that Rovehead’s plan had been published in 1784 and the hospital developed a reputation of being “the most up-to-date in Europe if not in the world”. It attracted many visitors including Tenon who, in 1787, was accompanied by a commissioner of the Hôtel Dieu, engineer-physicist Charles Augustin Coulomb (1736–1800). Tenon was impressed by the fact that this hospital, which had been standing for twenty-four years, embodied the very principle of his still theoretical Pavilion plan.

Although reason alone, without any experience whatever, were sufficient assurance that parallel buildings, isolated pavilions would be healthful and salubrious building arrangement, it was still very satisfactory to find this experiment already carried out, and on a grand scale.

Tenon regarded Rovehead as famous but according to Christine Stevenson in *Medicine and Magnificence, British Hospital and Asylum Architecture 1660–1815*, 2000, he “was not and is not”. Stevenson queries Rovehead as the architect of the Naval Hospital but acknowledges that he definitely acted as ‘superintendent’ of the construction. She questions the assumption that he actually devised the ‘Pavilion plan’. Plymouth was a direct replication of the East Block of St Bartholomew’s and the side wings of the London Hospital, the latter having been “planned and published but not yet built when Plymouth opened”. Stevenson cites Howard Colvin’s *Biographical Dictionary of British Architects 1600–1840*, London, 1995. Colvin had researched Rovehead and found little information available except that he possibly used several names. With so little information available, it is not surprising that Stevenson, Thompson & Goldin, Rosenfield or Richardson made no reference to any possibility of involvement of naval medical staff in the design outcome.

Nevertheless, the fact that Tenon and others visited Stonehouse provides evidence that the medical profession, hospital governors and architects were undertaking research trips in the eighteenth century. Stevenson reported that Tenon and Coulomb’s visit “would be hailed as an instance of enlightened international collaboration, showing the way in which countries might discard national jealousies to unite under the banner of medical-charitable improvement”. The principles of the Tenon and Poyet’s plan were implemented for the new Lariboisiere Hospital, Paris, 1846–54, designed by Martin Pierre Gauthier, (Figure 2.1),

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the Hôtel Dieu, 1878 and the Johns Hopkins Hospital, Baltimore, 1890 designed by John S. Billings.¹⁵⁰

There is rare documentation of programming being practiced in 1843. In an anonymous article, *Hospital Investigator* 1993, the author cites Brompton Hospital, England where the details of the medical staff requirements have been recorded. The author does not quote his source but acknowledged that these instructions to the architects (not named) influenced the design of the hospital.¹⁵¹ Further research may provide more information.

![Diagram of Lariboisière Hospital, Paris](image)

**Figure 2.1. Lariboisière Hospital, Paris, (612 beds) 1846–54, Martin Pierre Gauthier, Architect. Source: Florence Nightingale, *Notes on Hospitals*, 3rd ed. Plan No. IV, 1863.**

In the 1860s, as the new Pavilion plan was being introduced, the emphasis was placed on planning instead of the external aesthetic. As Collins pointed out that more than any other building type - with the exception of prisons — hospitals are unique and complex structures in so much as:

- Patients are confined in one place 24 hours per day;

¹⁵⁰ Rosenfield, *Hospital Architecture and Beyond*, p. 25.
• Patients require constant supervision;
• Patients require maximum ventilation;
• Patients require all their needs to be met and certain clearly defined functions be fulfilled;\(^{152}\) and
• Hospitals are essentially a growing organism as demand for health care grows and health technology advances.\(^{153}\)

**Florence Nightingale**

Florence Nightingale\(^{154}\) (1820–1910) holds a significant place in the history of hospitals as the doyen of the Pavilion plan, the Nightingale ward and for nursing reform. As a nurse and a nursing administrator, she was a hospital user and her personal experience equipped her to understand the functionality of hospitals more than most architects. Through her seminal text, *Notes on Hospitals*, 1859,\(^{155}\) she became the authoritative voice\(^{156}\) in defining and advocating hospital reform. In *Notes on Hospitals*, she credited Tenon & Poyet’s Lariboisiere Hospital as being the “finest hospital in the world”.\(^{157}\) She also cited other new hospitals embodying the Pavilion principles: Royal Victoria Hospital, Netley (Plan No.11); Herbert Hospital, Woolwich, (Plan IV); and Vincennes Military Hospital (Plan No. V).\(^{158}\) It was Nightingale’s experience at The Barracks Hospital at Scutari, Turkey, during the Crimean War (1853–56) that lay behind her determination to see the reform of hospitals.\(^{159}\) Thence her dictum “the very first requirement of a hospital is that it should do the sick no harm”.\(^{160}\)

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\(^{154}\) Nightingale, with the help of the British Press, had become a legend for her work as the Superintendent of Nurses in the Barrack Hospital at Scutari, Turkey, during the Crimea War. Her reputation elevated her to being ‘the most famous woman in Britain after the queen’ thus making her a very powerful woman.


\(^{156}\) Nightingale’s life, ambitions and opinions are well documented. She was a prolific writer of some 3,000 letters, books and many reports. The reports have been collected and edited by Lynn McDonald and published by Wilfrid Laurier University Press, Ontario, in sixteen volumes. This is fortuitous as it provides scholars throughout the world the opportunity to research original manuscripts – especially in light of the fact that, during the last decade, critics have revisited Nightingale in a most severe manner without, McDonald argues, referring to original sources. Information from Lynn McDonald, ed., *Florence Nightingale: The Crimea War*, Vol. 14, Ontario, 2010, pp. 9–18.


\(^{159}\) The Barracks hospital recorded the highest number of deaths. Soldiers died, not from their wounds, but from typhoid fever, cholera and dysentery caused by the poor sanitary conditions in the hospital. Details of Nightingale’s experience in the Crimea was recorded by her in over 300 letters written from November 4 1854 when she arrived to July 1856 when she left. These form part of the Calendar of the Letters of Florence Nightingale, held in the British Library.

\(^{160}\) Nightingale, *Notes on Hospitals*, p. iii.
With the benefit of hindsight, twentieth century authorities, Peter Barrett & Edward Finch, *Facilities Management: the dynamics of excellence*, 2010, regarded Nightingale as displaying “leadership and innovation as a planner”.\(^{161}\) Thompson & Goldin assessed the Nightingale ward as being profoundly influential in modernising hospitals.\(^{162}\) Goldwater\(^{163}\) regarded *Notes on Hospitals* as having “no equal in hospital literature”.\(^{164}\) However, two separate authorities, Taylor and Richardson take a critical position, arguing that the Pavilion plan came at a time when the fundamental principles for hospital design were already undergoing radical revision – a fact Nightingale herself acknowledged.\(^{165}\) Sue M Goldie ed., pointed out in *I have done my duty: Florence Nightingale in the Crimean War, 1854–56*, that Nightingale had been accused of “plagiarizing ideas and systems of others” regarding sanitation and nursing reform.\(^{166}\) However Nightingale justified this – claiming that her mind was one of “observing and adapting itself to wants and events”.\(^{167}\) To her “such borrowings (were) entirely justified”.\(^{168}\)

In *Notes on Hospitals*, Nightingale defined the Pavilion principles which were based on ventilation, natural light, cleanliness and improved sanity conditions. Stevenson summed up Nightingale as a ‘root and branch miasmatist’.\(^{169}\)

Despite her criticism of Nightingale, Richardson claimed that Nightingale’s plan called for more separation and segregation than earlier designs:

- To divide the sick among the pavilions according to disease;\(^{170}\)
- To have long detached rectangular single or two-storey blocks placed side by side or in a line;

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\(^{163}\) Dr SS Goldwater held the following positions: Superintendent and Director, the Mount Sinai Hospital New York; Commissioner of Health of the City of New York; Consultant in hospital Organization and Planning and Commissioner of Hospitals of the City of New York. Between 1908-1934, Goldwater planned 200 hospitals in the USA, United Kingdom, Europe and the Far East.


\(^{168}\) Goldie, *I have done my duty*, pp. 9–10.


\(^{170}\) Nightingale, *Notes on Hospitals*, p. 56.
To separate the pavilions at prescribed distances not less than double the height of the blocks in order to allow for effective circulation of air between units;\(^{171}\) and

To use covered walkways to link the blocks.

### The Nightingale Ward

Nightingale was also very precise in specifying the principles of the ward arrangement which can be summarised as a combination of the miasma theory and ergonomics, the former being the standard theory and demanding good ventilation and the separation of patients, the latter demanding an optimum ward size and sufficient working space:\(^{172}\)

- Long narrow open wards limited to two rows with sixteen beds per row – a total of thirty-two beds per ward;
- Placement of beds in proximity to windows with one bed per window, not two beds per window as in Tenon & Poyet’s plan;
- The backs of beds aligned to the walls;
- One patient per bed;
- Cross ventilation to counteract miasmas was achieved by windows being placed directly opposite each other;
- Sunlight with no overriding shadows;
- The strict separation of clean and unclean utilities areas. The sanitary facilities (baths, sinks and water closets) located at the end of the ward – maintaining a strict separation;\(^{173}\)
- Suitable nurses’ rooms and ward sculleries;\(^{174}\)
- Spatial arrangements: \(1,500\text{ft}^3\) (\(42\text{m}^3\)) per patient and \(100\text{ft}^2\) (\(9\text{m}^2\)) per bed.
  Nightingale’s recommended ceiling height was \(15\text{ft}\) (\(4\text{m}\));\(^{175}\) and
- The Nurses Station placed in the central position to ensure “ease of supervision and economy of attendance”;\(^{176}\)
- Administration to be separate from the wards.\(^{177}\)

\(^{171}\) Nightingale, Notes on Hospitals, pp. 56–57.
\(^{172}\) Anon, The Hospital Investigator, No. 19, July 1993, Cambridge, not paged.
\(^{173}\) Many of the sanitation facilities were housed in circular towers with ‘exuberant tops’ which added embellishment to the Victorian or Gothic architectural ethos of the period. Source: Taylor, The Architect and the Pavilion Hospital, pp. 22 and 26.
\(^{174}\) Nightingale, Notes of Hospitals, p. 71.
\(^{175}\) Nightingale, Notes of Hospitals, p. 66.
\(^{176}\) Nightingale, Notes on Hospitals, p. 62.
\(^{177}\) Nightingale, Notes on Hospitals, p. 91.
Nightingale also specified the materials for the ward floors, walls and ceiling.

Programming the Pavilion Plan

The fact that Nightingale frequently acted as a planning consultant at the request of architects and hospital governors provides evidence that dialogue, between architects and clients, was operating during the implementation of the Pavilion plan. Taylor cites the Leeds General Infirmary, 1862, by Gilbert Scott; and Buckinghamshire Infirmary, 1862, by David Brandon. According to Richardson, the plan for Buckinghamshire Infirmary, having won Nightingale’s approval, was readily adopted across the Britain. Taylor, on the other hand, cites The Herbert Military Hospital, Woolwich, 1861–5, by Captain Douglas Galton in association with RO Mennie, Surveyor of Works to the War Office, as the exemplar of Nightingale’s principles. Other notable British examples of the Pavilion plan were St Thomas’ Hospital London 1868–71 by Henry Currie, and Derbyshire Royal Infirmary 1891–99 by Young and Hall.

Taylor cites a number of collaborations between architects and the medical profession who, as members of the executive and building committees, undertook research trips together:

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178 Richardson, *English Hospitals*, p. 28.
• Dr Charles Chadwick, senior physician, Leeds General Infirmary, accompanied Gilbert Scott, in 1862, on an inspection tour of exemplar hospitals in Europe particularly Paris, Brussels and Bruges, with the aim for a new design; 181

• Architect William Henman encouraged the Committee of Birmingham Hospital to visit Waterhouse’s Liverpool General Infirmary. They “were greatly impressed with its external appearance”.182 In 1892, Henman visited Victoria Infirmary at Glasgow to investigate their plenum system of ventilation. Sir John Holder, Chairman of the building committee, was so impressed that he later visited Glasgow, taking three or four honorary surgeons. Birmingham General Hospital, designed by Henman, was completed in 1897;

• Dr G Vivian Poore,183 a staff physician at the University College Hospital London, (UCH) was actively involved in discussion and planning for 18 years between 1877 to 1895 with Alfred Waterhouse over the design for the reconstruction – the plans of which were displayed at the International Medical and Sanitary Exhibition 1881;184 and

• In 1870, Alfred Waterhouse and Professor John Marshall, a surgeon at UCH, collaborated on the design of the new 800-bed hospital to be built on a restricted site. Construction commenced in 1897 and was complete by 1905. Waterhouse’s implementation of a suggestion by Marshall resulted in a departure from the standard Pavilion plan to devise a “four-five story cross-plan blocks on the diagonal of the square … with a central-shaped plan”.185

Taylor and Richardson agreed that the Pavilion plan was to prove one of the great and enduring architectural typologies, with longevity and influence that stretched from the late 1850s to the 1930s.186 Whereas Tenon & Poyet and possibly Rovehead had initiated the Pavilion plan, it was Nightingale’s prescriptive texts, her fame achieved through her Crimean experience and her powerful circle of friends that established the paradigm throughout the western world for many decades on how hospitals should be planned, how

181 Taylor, The Architect and the Pavilion Hospital, p.15.
182 Taylor, The Architect and the Pavilion Hospital, p.16.
183 Dr G Vivian Poore was Honorary Secretary of the Parkes Museum of Hygiene.
186 Taylor, The Architect and the Pavilion Hospital, p. vii, and Richardson, English Hospitals, p. 9
they should function and how they should be staffed. The Pavilion plan achieved Nightingale’s goal – to reduce mortality rates in hospitals.\footnote{Richardson, English Hospitals, p. 9.}

The dissemination of the Pavilion plan was also aided by the introduction of architectural journals such as The Builder 1843 and the Journal of the Royal Institute of British Architects (JRIBA) 1893. Evidence that the Pavilion plan was widely dispersed and applied in the USA, Europe, Britain and its colonies was documented in detail through two surveys, one of which was undertaken by a medical practitioner, Federick J Mouat, in collaboration with a prolific British architect, Henry Saxon Snell – Hospital Construction and Management, 1881. In 1893, (Sir) Henry Burdett,\footnote{Henry Burdett held a number of senior positions in hospitals, some of which were: Secretary and General Superintendent of the Queens Hospital Birmingham and Register of the Medical School; Founder of the Home Hospital Association for Paying Patients, The Hospital Association and the Royal National Pension Fund for Nurses, and he was editor of 'The Hospital'. Source: Henry Burdett, 'Hospitals: History and Administration' in Hospitals and Asylums of the World: their Origin, History, Construction, Administration, Management, and Legislation; with plans of the Chief Medical Institutions Accurately Drawn to a Uniform Scale in addition to all those hospitals of London in the Jubilee Year of Queen Victoria. He included the 350-bed Royal Prince Alfred Hospital in Sydney, Australia, 1882. Keith Young and Henry Hall, British architects specializing in hospitals, provided architectural drawings for this publication. Burdett saw the Pavilion plan as: A parallelogram entirely detached on at least three sides, with windows on both its longer sides facing each other, and attached to the main block at one end only, the pavilion containing one, two or three storeys of wards, each with its own service and sanitary spaces.\footnote{Burdett, Hospitals and Asylums of the World, p. 142.} – Hospital Construction and Management, 1881. In 1893, (Sir) Henry Burdett,\footnote{Burdett, Hospitals and Asylums of the World, p. 142.} conducted another survey and published his findings in volume 4 of Hospitals and Asylums of the World: their Origin, History, Construction, Administration, Management, and Legislation; with plans of the Chief Medical Institutions Accurately Drawn to a Uniform Scale in addition to all those hospitals of London in the Jubilee Year of Queen Victoria. He included the 350-bed Royal Prince Alfred Hospital in Sydney, Australia, 1882. Keith Young and Henry Hall, British architects specializing in hospitals, provided architectural drawings for this publication. Burdett saw the Pavilion plan as: A parallelogram entirely detached on at least three sides, with windows on both its longer sides facing each other, and attached to the main block at one end only, the pavilion containing one, two or three storeys of wards, each with its own service and sanitary spaces.\footnote{Burdett, Hospitals and Asylums of the World, p. 142.}

Importantly both publications were a collaboration between architects and the medical profession and both concentrated on the planning organization of the hospitals – paying little regard to their architectural expression and nothing to the programing methodology. It is almost as if the published plans captured the implied program, thereby taking the need for programming out of the equation.
The Disadvantages of the Pavilion Plan

DR Harper, ‘Today and Tomorrow: The Architectural View’ in *The Architects’ Journal*, June 1937, and Edward Stevens, in his treatise on hospitals, *The American Hospital of the Twentieth Century*, 1928, reported the impracticality of the Pavilion plan due to the fact that:

- The sprawling pavilions required large tracts of land;
- The distance and the climatic conditions made the long connecting corridors between pavilions untenable for the movement of patients, staff and food; and
- There were heating problems in the large open wards and the plan lacks flexibility so that any additions were ad-hoc. 190

Despite the awareness that no amount of cross-ventilation would kill germs, the Pavilion plan continued well into the early twentieth century as evident by William Pite’s New Kings College Hospital, London, with stage one being completed in 1913,191 JJ & EJ Clark’s Melbourne Hospital, Melbourne, Australia, 1910–16192 and Doncaster Royal Infirmary by WA Pite, Son & Fairweather, 1926.193 In 1948, the National Health Service (NHS) of Britain determined that from then, no further Nightingale wards were to be incorporated into British hospitals.194 Paul James and William Tatton-Brown, reported in *Hospitals: Design and Development*, 1986, that many of Nightingale hospitals in Britain were still in use such as St Thomas Hospital, London 1867 and University College Hospital, London 1903.195

The Hospital Revolution

Thompson and Goldin, Richardson and Rosenfield argued that by the 1900s, the 19th century scientific discoveries had revolutionised the entire concept of general hospitals which had developed to become complex facilities for clinical care, research and teaching. The scientific discoveries were:

- Morphine in 1844;
- Anaesthetic agents: chloroform and ether in 1846;

192 Nigel Lewis, *Queen Victoria Medical Centre: Conservation Analysis and Existing Conditions Survey*, Public Works Department, Melbourne, 1985, p. 5.
• The identification of bacteria by Louis Pasteur as the causative agent of disease thus creating the germ theory and debunking the miasma theory;

• The principle of asepsis in 1865 by Joseph Lister;

• Sterilisation of surgical instruments and dressings in 1886 by Ernst Von Bergman;

• Discovery of tuberculosis bacillus by bacteriologist Robert Koch in 1882;

• Discovery of the causative agents of cholera, anthrax, dysentery, pneumonia, tetanus, meningitis and erysipelas by Koch and other bacteriologist during 1880s and 1890s;

• The discovery of X-rays or Röntgen rays by Wilhelm Conrad Röntgen in 1895;

• The discovery of radioactivity by Henri Becquerel in 1896; and

• The discovery of radium by Marie & Pierre Curie in 1898.

These discoveries facilitated a vital system of diagnostic and therapeutic medicine that required Bio-chemical and Pathology laboratories with specific location and requirements within hospitals. Thomson & Goldin credit the first hospital laboratory as being created in Paris in 1893196 and Stevens cites the Thorndike Memorial Laboratory of Boston City Hospital 1923 as the first Research Institute associated with a municipal hospital.197 In 1928, Stevens describes these exact requirements for the Röntgen Department at the Thorndike Laboratory as:

The basement and first floor was reserved for the Roentgen ray and X-ray equipment. There was a light proof maze above each window and ample ventilation. All rooms were surrounded with one-eighth inch (.4mm) sheet lead lining to the height of seven feet (2.1m) In the deep therapy room, the ceiling and walls are of one-half-inch lead (12mm). In it, no machine furnishes power to more than one room, and each room is wired separately to the main switchboard so trouble with one machine will not affect any other. All doors are sliding, not swinging.198

The new innovations in anaesthesiology, the sterilisation of instruments and dressings, facilitated rapid advances in surgical techniques thus demanding planning adjustments to hospitals to include operating theatres and more surgical wards.

197 Stevens, The American Hospital of the Twentieth Century, p. 312.
198 Stevens, The American Hospital of the Twentieth Century, p. 318.
The Profession of Nursing

From the 1880s, hospital planning became inherently linked to nursing reform. Joan Quixley of the Nightingale School of Nursing, wrote in her Introduction to the 1974 reprint of Nightingale’s *Notes on Nursing* 1860 that the text:

> Appeared at a time when the simple rules of health were only beginning to be known, when its topics were of vital importance not only for the well-being and recovery of patients, when hospitals were riddled with infection, when nurses were still mainly regarded as ignorant, uneducated persons.199

Nightingale’s experience with these ‘ignorant and uneducated’ nurses during the Crimean war influenced her to establish the first school of nursing at St Thomas’ Hospital, London, 1860. Goldie argues in ‘*I have done my duty*: Florence Nightingale in the Crimean War, 1854-56,' Manchester University Press, 2015, that Nightingale selected St Thomas’ Hospital precisely as the Matron was “already undertaking the reform of nursing before the war”.200 In *Notes on Nursing* 1898, Nightingale expressed her objective for the training of nurses by introducing a new professional status with the intent to attract young women from a higher class of society. The purpose being to improve the care of the patient:

> The very first canon of nursing, the first and the last thing upon which a nurse's attention must be fixed, the first essential (is) to the patient without which all the rest you can do for him is as nothing.201

This new status of nurses elevated them above the traditional ‘servant’ class who had been accommodated in the rooms or garrets attached to the pavilion wards.202 Nightingale and the hospital governors were concerned for the physical comfort of their nursing staff.203 As the nurses were required to live-in, Nightingale specified the Nurses residence as a detached building sited away from the hospital but within the boundary.204 Seymer noted how Nightingale insisted that the Nurses were to have separate bedrooms which were planned to reflect the hierarchical order of the profession – segregating the sisters, nurses

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200 Sue M Goldie, ed., ‘*I have done my duty*: Florence Nightingale in the Crimean War, 1854-56,’ Manchester University Press, Manchester, 2015, p. 10.
202 Richardson, *English Hospitals*, p. 34.
203 Richardson, *English Hospitals*, p. 34.
and probationers. The Nurse training school was also accommodated within the Nurses Home.

### Clinical Schools of Medicine

During the nineteenth century, the concept developed of placing general hospitals near universities or medical schools within the hospital grounds so providing a direct and ideal connection between the two. The clinical study of medicine within hospitals was viewed as the universal solution for the problems of medical training. Foucault regarded hospitals as the only place where medical students could “observe patients in their beds”. In this way, the hospital acted as a pedagogical system “in which the series of patients examined is itself a school”.

Consequently the clinical school within the hospital presented specific spatial requirements such as lecture theatres, laboratories and student accommodation and importantly spatial allocation around the patient’s bed.

Christian Zervos, in *Cité Hospitalière De Lille* by Paul Nelson, 1933, cited the Vanderbilt University Medical School and Hospital, completed in 1923 by Coolidge and Shattuck of Boston, as being the first attempt at integrating hospital and medical school in one building of four-storeys. It was followed by Colorado School of Medicine (also four-storeys) by Maurice B. Biscoe. At Colorado, the three elements were grouped: hospital, Outpatients clinic and medical school. However, the unity of organisation was first achieved at Columbia Medical Centre (seventeen-storeys) in 1930. This Centre was an amalgam of three institutions: Presbyterian Hospital, the Vanderbilt Clinic and the Columbia Medical School. However the Outpatients clinic “had no floor relationship to either the hospital or the school”. The Cornell Medical Centre, designed by Coolidge Shepley and Bulfinch, was a composite of the Cornell University Medical College and the New York Hospital. Of the 27 floors, only eleven were occupied by ward services with corresponding floor relationships to the relevant Outpatient Clinics. Zervos was critical of the exterior...

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205 Seymer, Florence Nightingale's Nurses: p. 17.
206 Stevens, The American Hospital of the Twentieth Century, p. 382.
208 Foucault, *The Birth of the Clinic*: 1989, p. 82.
appearance stating that it is more sculptural than architectural and does not conform to the interior’s functionality.\footnote{Zervos, ‘Introduction’, p. xv.}

**The Specialization of Hospital Architects**

By 1900, multifarious departments impacted on the form and the function of hospitals thus making the planning of them a very complicated exercise. Architects were challenged to accommodate the departments and, according to Rosenfield, to apply the necessary connectivity between them for their successful operation.\footnote{Rosenfield, *Hospital Architecture and Beyond*, pp. 41–47.} Typically these departments were: Administration; the Ward Units; Outpatient Department, Casualty (Emergency), Pathology, Biochemistry, X-ray, Physiotherapy, Operating theatre suites, the Medical School; the Research Institute, Nurses Residence and School and all the Service Buildings – Boiler House, Kitchen and Laundry. The specialized departments demanded precise knowledge of their specific technical requirements yet, according to Goldwater:

> Hospitals are wont to call upon architects to design hospital buildings without … previously acquiring an exact knowledge of the institution’s needs or policies, and all of the working methods which are peculiar to it.\footnote{Goldwater, *On Hospitals*, p. 248.}

During the 1920s, medical practitioners began specialising in medicine and surgery and this placed pressure on hospitals to meet the specialists’ requirements. Architects, in turn, responded by specializing in hospital architecture. Taylor points out that by 1900, a small number of architects in Britain had developed a reputation for their hospital design expertise and they subsequently evolved into firms specializing in general hospitals.\footnote{Jeremy Taylor points out the Pavilion plan was readily adapted for all hospitals including infectious diseases hospitals, military hospitals, specialized hospitals and the workhouse infirmaries, p. 5.} These architects were H. Percy Adams; Henry Currie; ET Hall; William Henman; WA Pite; A Saxon-Snell; George Gilbert Scott; Alfred Waterhouse; T Worthington & Son, Young and Hall.\footnote{Taylor, *The Architect and the Pavilion Typology*, p. 4.}

must have presented a challenge to the architects for, according to Stevens, these hospitals were private corporations with a very tight budget – the purpose being to accommodate the large number of patients for lowest cost. As a result, emphasis was placed on planning and efficiency of function, not on external expression.

The Attributes of the Hospital Architect

Rosenfield, a practising hospital architect, considered that the attributes required by a hospital architect are:

- Very good organisational and conceptual skills;
- A sense of the aesthetic; and
- The ability to see the hospital as a whole with form following function.

In fact, the more complex and sophisticated the planning, ventilation, lighting and fit-out became, the more architects sought advice from other key participants and sought inspiration from other recently completed hospitals. The latter sometimes required extensive research trips, as evident in Edward Stevens’ extensive treatise. Stevens cites hospitals from America, Canada, Europe and Britain presenting copious drawings and descriptions of the development of the block plan from a purely architectural perspective but unfortunately failed to include any dates. His treatise was directed towards architects and planners.

Although Stevens was clearly aware of the programming process, he cites only three examples of the contribution of the medical practitioner to a project. In the case of the three-storey Peter Bent Brigham Hospital, Boston, he acknowledges Dr H.B. Howard who put ‘care and thought’ into the planning and Dr Holmes’ contribution to the Cincinnati General Hospital. He also cited the participation of Goldwater, as medical consultant, in conjunction with Charles Butler and Robert Kohn for the design of the Nurses Residence at Mt Sinai Hospital, New York.

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217 Stevens Edward, *The American Hospital of the Twentieth Century: A treatise on the development of medical institutions both in Europe and in America since the beginning of the present century*, F.W. Dodge Corporation, New York, 1928, p. 64.
219 Richardson, *English Hospitals*, p. 11.
220 Stevens, *The American Hospital of the Twentieth Century*, p. 65.
221 Stevens, *The American Hospital of the Twentieth Century*, p. 66.
The American Hospital Consultant.

In 1902, Julien Guadet, in his book, *Elements and Theory of Architecture*, expressed his belief that it was the client's duty to provide the programme for the building design although, from his practical experience, Guadet was aware that clients frequently were unsure of their needs. Goldwater (1873–1942) as an Administrator of The Mount Sinai Hospital, was to take Guadet's advice a step further. In becoming the first medical hospital consultant in 1908, he developed the art of hospital planning and was very influential in development of the American skyscraper hospital. Goldwater was committed to the need for a program and that to plan a hospital adequately, the institution’s needs and goals must be articulated as “it is necessary to have a clear idea of the objective, and the strategy must be used in attaining it”. He also believed that a building committee be formed but that an experienced person, who understood hospital problems, should be in the controlling position as hospitals were becoming more complex due to the specialisation of medicine and the need of specialists requiring separate wards with appropriate equipped treatment rooms, laboratories and clinical facilities for medical students. He advocated that:

> All hospital planning must be directed and subject to the interpretation of men actually engaged in hospital administration. The combination of a hospital architect and engineer on one hand and a thoughtful and resourceful hospital administrator on the other is ideal.

Clearly there was general consensus that, as hospitals were becoming more complex, collaboration between architects and hospital personnel was strongly advised. Dr Donald Mackintosh, 1909, agreed with Goldwater and, in fact, was pre-empting Hersberger, Woolley and others by advising the methodology of Design-based programming:

> The main principles underlying the construction of a Hospital can, no doubt, be laid down and applied by any skilful architect. But in a modern Hospital there are details of construction of which the need and the conditions under which the need can be met, are known only as result of experience in Hospital administration. Hence the administrator must not only state the problem which the architect has to solve but co-operate in its solution. In other words, the architect and the practical administrator must be so associated in their labour that the former may find it possible to interpret and put into form the detailed requirements indicated by the

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224 Goldwater commenced his career as a medical practitioner graduating from New York University College of Medicine 1901. He was a member of The Mount Sinai Hospital House Staff for less than one year before applying for the position of Assistant Administrator of the hospital in 1902 and Administrator 1902-1929 of the same hospital. Goldwater was breaking new ground as a medical practiti oner electing to become an administrator. Source: Preface, *SS Goldwater, On Hospitals*, The McMillan Company, New York, 1947, p. xxiii.
Goldwater’s underlying principles on hospital planning: “unity, diversity, facility of operation, flexibility, health and economy” were widely disseminated through his articles published in the *Modern Hospital* (USA) journal. These articles have been compiled into a book, *On Hospitals*, 1947. Goldwater described hospitals as ‘a strange forbidden mixture of elevating and depressing elements’. Between 1908 and 1934, he planned 200 hospitals in the USA, Canada, United Kingdom, Europe and Asia in collaboration with local architects, always addressing the local requirements and the needs of that particular community.

### The Block Typology

Rosenfield, Harper and Stevens agreed that the Block typology revolutionised hospitals by rationalizing hospital services under one roof. It was virtually the stacking of Nightingale’s pavilions one upon the other and serviced with elevators effectively altering the circulation patterns from horizontal to vertical. The Block typology was readily accepted in USA, Europe, Britain and Australia in the 1920s and 1930s. However Annmarie Adams, ‘Modernism and Medicine’, *Journal Society Architectural Historians* /58:1 March 1999, argued that the shift from the Pavilion plan to the Block typology occurred gradually, a fact most hospital historians have overlooked. The block plan suited the newly emerging small private hospitals developed for the affluent patients seeking treatment in hospitals rather than at home. Richardson cites the Empire Hospital, Vincent Square, Westminster, 1912, as first purpose-built British private hospital by architect, WE Hazell. The private hospital represented a significant shift in public confidence in hospitals. However, no authority has provided any evidence as to who was instrumental or how the block typology actually manifested. Rosenfield, Thompson & Goldin jump directly from the Pavilion plan to the Vertical typology.

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The Block typology blended well with the new European modernist aesthetic proving to be ideal for small hospitals and particularly sanatoria where fresh air was the prescribed treatment. Colquhoun cites Alvar Aalto’s self-contained Paimio Sanatorium, Finland, 1929–33, where the horizontal emphasis of the cantilever balcony was depicted against the smooth white surfaces. Richardson refers to the two new block hospitals built in Britain in the modernist language: the Royal Masonic Hospital, London by Sir John Burnet, Tait & Lorne, 1931–34 and Westminster Hospital, London, 1933–39 by Adams Holden & Pearson. Susan Gold argues that The Royal Masonic Hospital was a complete departure from traditional forms with architect Thomas Tait delivering a hospital that was “extremely modern, novel in concept, beautiful and functional”. The architects received the RIBA Gold Medal 1933 for the best building of the year. The Royal Masonic Hospital was a private hospital catering for private patients in private rooms and where the principle of sunlight and aeration applied. In contrast, the new Westminster Hospital, a general public hospital, retained the traditional open Nightingale wards. Architectural historians have tended to concentrate on descriptions of the buildings so there is no investigation into the programming process to explain the radical shift in The Royal Masonic Hospital.

The Principles of the Block Typology

The Block typology replaced the sprawling Pavilion Plan by applying the following principles:

- Compact massing of structures;
- Greater facilities of service;
- Orientation of buildings to facilitate aeration and sunlight and, where possible, views of parks or gardens; and
- Ward re-organisation

Site Selection

Stevens regarded the selection of the site to be of paramount importance as it was one of the determining factors in the design and ultimately of the functionality of the hospital. Stevens’ principles of site selection remained the same for most hospital types:

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Away from the industrial areas and any other disturbing factors such as traffic noise;
- Sufficient land for the immediate building and for future expansion;
- Sufficient size to ensure privacy;
- Soil composition – dry neither cold nor soggy;
- Contour of land;
- Views of surrounding country;
- Accessibility for patient’s family and friends and for visiting physicians;
- Orientation in the northern hemisphere required ‘southern exposure’; and
- Lots of green trees on the site.237

**Ward Organisation**

Adams noted how affluent patients began seeking treatment in large general hospitals with the advanced diagnostic, therapeutic and surgical techniques and equipment, which the private hospitals could not afford.238 This resulted the re-organisation of the ward unit with appropriate semi-private and private rooms some with attached bathrooms. The paying patient challenged the century old Voluntary Health System.239 In the general hospitals, ward units were retained for the ‘deserving poor’ however Stevens introduced the Rigs system240 to the public wards in his hospitals in USA and Canada in order to give the public patients some degree of privacy and, through the publication of his books, the concept ‘circled the globe’ and became general accepted practice. Stevens had witnessed the Rigs system in-use at the Rigs Hospital, Copenhagen on his 1910 study tour of European hospitals and considered this to be one of the best-developed wards in Europe.241 The system introduced partitions which divided the sixteen-bed unit into sections of four. The beds were placed parallel to the windows. However, the issue between privacy and supervision was a matter of debate in literature on hospitals.

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237 Stevens, *The American Hospital of the Twentieth Century*, p. 20.
239 The ‘Voluntary Hospital’ movement was introduced in the 18th century. This movement developed from a desire to ‘rekindle the smouldering spirit of charity’ and out of deep concern for the ‘poor sick’. In his book on the Edinburgh Infirmary, 1937, Logan Turner describes the main characteristics of the movement as voluntary initiatives: subscriptions for construction and maintenance of the hospital were voluntary as was the hospital administrative management, physicians and surgeons offered their services gratuitously so the poor were treated free of charge. All the subscribers had the right to make decisions regarding the electing of members of the Committee of Management of each institution. The following prominent hospitals: Westminster (1719), Guy’s (1726), Edinburgh Infirmary (1729), St Thomas (1734), St Bartholomew’s (1734), London (1740), Middlesex (1745) thrived under this scheme. Source: Logan Turner, *A Story of a Great Hospital: the Royal Infirmary of Edinburgh 1729–1929*, Oliver and Boyd, Edinburgh, 1937.
240 Stevens, *The American Hospital of the Twentieth Century*, p. 61.
Form and Orientation

Despite the fact that the germ theory had replaced the miasma theory, the form and orientation of a hospital was largely dependent on two factors:

- The size and shape of site; and
- The accessibility of sunlight and fresh air particularly to the wards.

Stevens cited Professor Atkinson’s twenty-six shapes that displayed exposure to the sun. Shadows were to be avoided. Stevens favoured L and H plans for the buildings, which if “placed at varying angles to the north, (would) receive more or less sunlight according to the angles they face”.\(^\text{242}\)

Goldwater devised the concept of the T-configuration where:

The open ward is placed at right angles to its services permitting visitors to proceed directly from the elevator to the ward without passing through the auxiliary rooms as in the orthodox Nightingale plan'.\(^\text{243}\)

In order to maintain good lighting to all departments,\(^\text{244}\) Stevens adopted Goldwater’s T-configuration for the Mansfield General Hospital, Mansfield, Ohio; the Lawrence Memorial Hospital, Medford, Massachusetts; the Chicago Lying-in Hospital and the Everett General Hospital, Everett, Washington and possibly others.\(^\text{245}\)

The beneficial effects of fresh air and sunshine particularly to tuberculosis patients lead to the popularity of balconies, verandas and solariums, initially on sanatoriums, but had extended to most hospitals including general hospitals in the 1940s. At the Royal Victoria Hospital Montreal, Stevens provided all private rooms with their own ‘airing’ balcony.\(^\text{246}\) Richardson claimed that architects had developed an obsession with balconies.\(^\text{247}\) Views from patients’ beds were also regarded as essential and, in order to facilitate this, the height of the windows was raised. Views of parkland were particularly valued.

\(^{242}\) Stevens, The American Hospital of the Twentieth Century, p. 3.
\(^{243}\) Goldwater, On Hospitals, p. 183.
\(^{244}\) Stevens, The American Hospital of the Twentieth Century, p. 97.
\(^{245}\) This information was drawn from images throughout Stevens, The American Hospital of the Twentieth Century.
\(^{246}\) Stevens, The American Hospital of the Twentieth Century, p. 102.
\(^{247}\) Richardson, English Hospitals, p. 36.
Spatial Organisation

On average, 25% of space was required for staircases, elevators and utilities, 25% for corridors which left only 50% of the space for patients and departments. Corridor width must be sufficient to allow beds to be wheeled and turned. Doors must be a minimum 3 feet 4 inches (1.09m) wide to permit beds to enter.248 Each bed must be allowed 38 ft² (3.5m²) of bed space. The ceiling height must be 12 feet (3.6m), so that when all the doors and windows are closed, each patient will be allocated 1,000 ft³ (28.3m³) of air.249

Outpatient Department

The Nuffield Provincial Trust Investigation Report, 1955, discusses the history of the Outpatient Service in Britain. Apart from a few examples of the poor being treated as

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248 Stevens, The American Hospital of the Twentieth Century, p. 19.
249 Stevens, The American Hospital of the Twentieth Century, p. 42.
Outpatients from 1664, it was not until 1760 when the service was generally accepted. From the first quarter of the eighteenth century, the Outpatient service was integral to the English Voluntary Health System. In 1928, at the time of Stevens’ publication, Outpatient services were operating in all the major hospitals in the USA and Canada.

Outpatient Services
This department was complex with specific requirements needed to provide examination, diagnosis and treatment to the thousand or so patients attending the department daily. With such a high volume of traffic, Michael W. Davies & Andrew R. Warner, in their book, *Dispensaries*, 1918, stressed it was essential that the entrance and exit should have access to the main road but not interfere with other hospital traffic such as ambulances, cars, patients or visitors.

Form, Size and Shape
Most of the drawings illustrated in Steven’s treatise are based on the rectangular format except for a few which are L-shaped. Opinions differed regarding the form, size and shape of the Outpatients Department. MacKintosh recommended that the department should be a one-storied building and be quite separate from the hospital. On the other hand, Davies & Warner suggested rectangular buildings of two stories or if the site was restricted, then three or four-stories but no higher than 36–40 feet (9.1–12.1m). Davies & Warner recommended the upper floor have a central light court. The basement was to house the record office, the lockers and lavatories for employees, drug storeroom, general store room and the heating plant.

Stevens cites the Western Infirmary, Glasgow, as the most complete Outpatient Department. The patient does not cross his own path from entry to exit. New

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patients are treated separately. Medical students’ needs are accommodated with a teaching theatre with ‘circular benches’ in each unit. There is a separate entrance provided “with corridor above and exit passage connecting to the clinical rooms”. 254

The Appointment System

The Nuffield Provincial Trust Investigation Report explored the debate regarding the introduction of the appointment system to Outpatient services in Britain. In 1931, urgent reform was needed as “queues of patients (waited) outside hospitals for admission to the limited waiting space”. 255 The Lancet had already drawn attention to the appointment system operating at King George Hospital, Ilford. 256 The appointment times were calculated according to the rate of which the different Honorary Medical Officers took for new and for old patients. The average time was between two to fifteen patients every fifteen minutes. 257

The Appointment system was not incorporated until 1939 at the Ear, Nose and Throat Clinic, St Thomas’ Hospital, London. This system had the effect of reducing the need for very large patient waiting areas thus reducing the footprint of the hospital and reducing cost of new Outpatient Departments. 258

The Vertical Typology

By the 1920s, the miasma theory had been rejected rendering the Pavilion plan obsolete. Nevertheless, Doctor Ogilvie insisted that the need for aeration and well-lit wards was regarded as essential. 259 In 1905, the concept of the vertical multi-block hospital was devised by Chicago doctor, Dr Albert Ochsner as being more efficient in “space, heating, supervision, cleaning and energies of staff”. 260 Ochsner who, with Meyer Sturm, discovered “that air moves faster and is less polluted at higher levels than ground level”. 261 Based on

257 Studies in the Functions and Design of Hospitals, p. 32.
258 Studies in the Functions and Design of Hospitals, p. 33.
this research, Goldwater proposed the vertical multi-storey block in 1910 as a solution to the rapidly increasing land values in American Cities.262

Adams explored the hospital work of Edward Stevens noting that in 1918, the American College of Surgeons introduced the standardisation of American hospitals.263 Dr H. Selle, ‘Standardisation of Hospitals: in The United States’, The Australian Modern Hospital, 1949, credits Dr Malcolm T MacEachern with developing this standard and implementing it through inspections of all the departments.264 Selle accords MacEachern with recently producing a point system which was being circulated through hospital journals such as The Modern Hospital, inaugurated by Dr Otho Ball, as a monthly journal, first published in 1918.

The vertical (skyscraper) hospital, facilitated by steel construction and electrical powered elevators, was emulating the new 1920s skyscraper hotels, office blocks and apartment buildings. As Pevsner pointed out, it was not until 1928, that construction of the first skyscraper hospital, Columbia Presbyterian Medical Centre, New York, (Figure 2.5) was begun to the design of architects, James Gamble and Rogers. It comprised of twelve institutions with a total of 1,499 beds.265 It was followed by McKim, Mead and White’s Bellevue Hospital, New York and in 1933, the Cornell Medical Centre, New York by Coolidge, Shepley, Bullfinch and Abbot (Figure 2.6). Despite the fact that the hospitals stood as a symbol of medical and architectural modernity, their facades retained some traditional elements - still popular in the USA. But Adams noted that Stevens placed architectural expression as a secondary concern to the planning process:

While the presence of beauty, either in architectural forms of decoration or sculpture, has its psychological effect upon the patient, the arrangement of the plan is really of prime importance in meeting hospital problems.266

The American hospital had set the paradigm in planning, organisation and equipment which European hospitals were quick to emulate. In 1932–39, the Karolinska Hospital in Stockholm designed by E.C. Wesyman & Yngve Ahlbom and, in 1938–51, Hospital

262 Rosenfield, Hospital Architecture and Beyond, p. 26.
263 Adams, Medicine by Design: the architect and the modern hospital, 1893–1943, p. 120.
264 Dr H Selle, ‘Standardisation of Hospitals: In The United States’, The Australian Modern Hospital, No.1, October 1949, pp. 67–70.
Beaujon Clichy, Paris, by Walter, Plousey & Casson. Birmingham Hospital, 1933-38, by Lancaster & Lodge was the first high-rise public hospital in Britain.

Twentieth Century Programming of Hospitals

By the 1900s, general hospital had developed into a composite of three institutions: an acute hospital, a teaching facility and the research facility. The programming of these new complex facilities demanded the involvement of all parties, client committees; medical profession; user groups; architects; engineers and landscape architects. The importance of this dialogue was reinforced in the *Architect’s Journal* April 1937, in a published report from The Departmental Committee on the Cost of Hospitals and Other Buildings appointed by the British Minister of Health:

If satisfactory results are to be obtained without unnecessary expenditure, it is essential that the whole project should receive full and careful preliminary study. The particular requirements of each section must first be carefully formulated. For the production of a well-conceived scheme, the closest collaboration of medical, nursing, administrative, architectural and engineering advisers will be necessary. Their combined advice should be obtained even before
the site is selected. The combined collaboration should continue throughout all the subsequent stages. 267

This advice had been implemented for the new Birmingham Hospital 1933–38. Despite the fact that an international competition for the new hospital had been won by hospital specialist architects Lancaster & Lodge, several Board members and medical personnel from the hospital travelled together inspecting hospitals in Europe, Britain and the USA. Their objective was to build a large general hospital to accommodate 1,000 in-patients. The hospital was fortunate in that the Cadbury family had gifted 100 acres (40.4ha) at Metchley, 268 two miles (3.2km) from the city centre in order to be close to Birmingham University and, at the same time, follow the international trend of relocating new hospitals away from the noise and pollution of the city. 269 The Medical Faculty was constructed on the same site directly in the front of the hospital. Although the client committee embraced the multi-storey block form, they nevertheless retained the Nightingale ward layout with smaller wards for two or four beds interspersed with the large wards. 270

Programming from a Medical Perspective

Professor HWC Vines, a Pathologist to Charing Cross Hospital, London and Professor of Pathology, University of London, speaking from a medical perspective, lamented that fact that there is not a school of hospital architecture as he believed that architects, even hospital architects, do not know the detailed technicalities of medical treatments as they never have the chance of working for a number of months in their buildings either as a doctor or as a nurse and rarely as a patient, so they can really see where the weaknesses lie. 271 Vines’ opinion was influenced from his experience of the rebuilding of Charing Cross Hospital, an acute general hospital, with architects, Adams, Holden & Pearson. According to Vines, in the past:

Doctors and architects have worked together on their problems too little and often the governing body of the institution directed the architects to produce plans which were then submitted to the medical staff for criticism. This way of doing things has a curious psychological effect. It is only after practice that the untrained mind can appreciate the meaning of architects’ scale plans and it is only a brave man that would tear to bits a neatly executed drawing, as he might feel uncertain as to its actual meaning and unable to offer a

268 Stanley Barnes, The Birmingham Hospital Centre at Metchley, Birmingham, p. 61.
269 Donald Turner, ‘Hospital Construction: Birmingham’s New Medical Centre’, Hospital Magazine, April 1938, p. 30.
270 Barnes, The Birmingham Hospital Centre at Metchley, p. 61
suitable alternative. The tendency was, therefore, for plans to be accepted with minor
alterations and so it often came about the architect really evolved the plan of the hospital and it
is too frequently based on the plans of past buildings. This is usually quite acceptable to
doctors for when it comes to planning, they have a peculiar liability to think back to the
hospital where they had their … earlier appointment.272

It would appear that Vines’ concept for a school for hospital architects did not fall on deaf
ears. Susan Francis et al, noted in 50 Years of Ideas in health care buildings, that, in 1965, two
schools were established for architects to study hospital planning – one was the Medical
Architecture Research Unit at the Bartlett School of Architecture UCL and the other, at the
Polytechnic of North London.273

Programming from an Architectural Perspective

American architects, Charles Butler & Addison Erdman publish a book Hospital Planning,
1946,274 primarily for architects undertaking hospital projects, though it is also intended for
the hospital administrator, doctors and the non-professional members of the building
committees.275 They prefaced their treatise by stating the necessity for hospital personnel
and architect to engage in dialogue in the planning of a hospital:

No architect, however, experienced in hospital design, would think of planning a hospital
without studying with the administrative and medical staff, the local conditions and the special
medical and surgical requirements. It is less generally recognized that no doctor or group of
medical specialists, no matter how expert in their field, can wisely decide upon a plan without
consulting from its inception with an architect, the informed technician who becomes an
advisor in giving form to their ideas.276

This sort of advice, and others like it, constitutes normative statements which, Donald
Schön, in The Reflective Practitioner: how professionals think in action, 1996, regards as quite
probably based on forms of reflective practice where statements of ‘should’ rather than
empirical evidence of what is/was actually done. 277
Post-Occupancy Evaluation

The literature on Post-Occupancy Evaluation (POE) is examined for the purpose of ascertaining if the design of the built Scheme J responded to the clients’ instructions and the users’ requirements. POE was developed as an architectural discipline in the 1960s. The purpose was to evaluate new facilities in an attempt to improve the quality and functional aspects of future buildings. Van der Voordt & van Wegen argue that architects and architectural critics tend to evaluate buildings in terms of their physicality, and they cite some journals including *The Architects Journal* and *The Architectural Review* where emphasis is placed on design concepts such as size, spatial arrangements, colour and materials and the “coherence or lack of coherence between building components”.

Herbert McLaughlin, *Post-Occupancy Evaluation of Hospitals*, 1974, reported on a study of hospitals undertaken by AIA during 1974. He claimed that:

- Hospitals were particularly good subjects for evaluation because of the building tasks performed within them are measurable … hospitals are among the most ‘compulsory’ environments that architects design.

However, McLaughlin acknowledged the impact of the hospital upon the user and proceeded to analyse their response to the hospital environment. John Green, *Evaluating Hospital Ward Design in Use, 1986*, concurred that the purpose of a POE was not just to assess the functionality of the hospital but the effect of the environment on the patient and the users. Therefore, in the absence of a formal evaluation undertaken by S&T of the new RMH and prior to the introduction of POE, this dissertation has concentrated on the users’ assessment of the program.

Conclusion

In this chapter, I have reviewed the relevant literature on Australian hospitals and particularly the RMH, Architectural Programming, the history of hospitals to reveal the evolution of the Modern hospital and the role of Programming within the last 200 years and Post-Occupancy Evaluation.

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The literature on Australian Architectural History recognised hospitals as the vehicle for introducing European Modernism to Australia during the 1930s and for this reason they hold a significant place in the Australian architectural milieu. Willis makes a case for recognising the heritage value of the 1930s, 40s and 50s generation of hospitals by supporting Johnson’s argument that the modern hospital was the only Australian building type to receive international recognition and therefore should be preserved. Despite the fact the hospitals are the epitome of medical care, scientific research, medical education and are critical to a healthy community, Willis regards them only as a building type but one which certainly has been overlooked and has not been adequately studied. Furthermore, investigation of the process by which these programmatically complex buildings emerged has received little attention and the literature on the RMH reinforces this fact with only a few incorrect references to the programming process of this important hospital. This therefore identifies a gap in knowledge and justifies my dissertation.

The literature on Architectural Programming was published post–1960s following the formalisation of the Discipline. In this chapter, I have reviewed this literature for two reasons. Firstly, to identify the programming methodologies and data collection techniques as recommended by the profession and secondly, for the purpose of positioning the Architectural Programming process implemented by S&T for the RMH some thirty years previously.

Written by eminent authorities, this literature on Programming highlights the significant role of the client and their responsibility in specifying their requirements to the architects for the design of their proposed building. These requirements must include: the client’s mission statement; the type, purpose and size of the building; the site characteristics: size, location and suitability; the budget; the parameters of the project - time frame, level of quality and general directions for the design; the interior spatial arrangements; the number of employees and the requirements for the fit-out such as furniture, fittings and finishes; and any specific conditions that will effect the building.

Although the different authors espouse different methodologies and different techniques in data collecting, they were committed to the concept of successful programming in order to achieve a successful facility. I have cited examples of these methodologies as classified by Bogers, van Meel & van der Voordt. On one hand, authorities such as Kumlin, Evans &
Walker, Agron & Moore, and Peña & Parshall, subscribed to the programming process where programming is distinctly separate from design and, on the other hand, Hersberger and Blyth & Worthington regard programming and design as interactive.

Hershberger claims that Design-based Programming is the most commonly used. This methodology involves iterative schematic development and is reliant on dialogue between the clients/users, architects and consultants. Authors, such as van der Voordt & van Wegan, see advantages in this methodology as it allows the client to reassess their accommodation needs and importantly for any contradictions to surface that can be addressed until all parties are satisfied. It also allows for the implementation of hierarchical sequencing – from the largest dimension (the master plan) to the smallest detail (the fit-out plan). It is for these reasons that Hershberger, Woolley, the NHS and others regarded this methodology as ideal for the programming of complex hospital facilities.

Whilst the basic requirements (as listed above) apply to hospitals as to other buildings, the very complexity of hospitals demand a more detailed and expansive program in order for the hospital to function efficiently. It was the hospital’s responsibility to provide the architect with a list of their requirements: the purpose of the hospital; the operational policies; the site, the size of the hospital which is determined by the number of beds as that influences all the essential services; the departmental spatial requirements as each has their specific technical requirements and their interrelationship to other departments, including the circulation spaces with signposting (exterior and interior) and the complex component fit-out. The method of collecting the complex data differed from author to author but the concept of appointing a consultant to manage the program for complex buildings such as hospitals and/or the formulation of client committees was strongly recommended.

Programming was recognised as an Architectural Discipline in the 1960s, yet Peter Collins claimed that Programming - or a version of it - had been in existence for the previous 200 years. Consequently, I reviewed the literature on the histories of hospitals for evidence of this and to examine if and how collaboration between architects and the medical profession influenced the evolution of the modern hospital.

According to Gaudin, Richardson, and Thompson & Goldin the genesis of the modern hospital occurred in 1752 following Pringle’s identification of the cause of the high
mortality rate in Army hospitals as being ‘bad air’. This was to ultimately lead to the development of the miasma theory and the implementation of the principles of the Pavilion plan: separation of diseases and sexes, sanitation and aeration.

The fact that the first recorded collaboration for a hospital program was in 1788 supports Collin’s claim. The project was for the 5,200-bed replacement of the burnt-out Hôtel Dieu, Paris, by Bernard Poyet, architect, and Jacques Tenon, medical practitioner. Tenon had long been interested in hospital planning and together they devised their version of the Pavilion plan. Although Rosenfield, Richardson and Thompson & Goldin argued that Alexander Rovehead’s Naval Hospital at Stonehouse near Plymouth 1764–5, had preceded Tenon and Poyet’s plan, Stevenson doubted Rovehead’s ability as an architect, claiming that various elements had been appropriated from established London hospitals. Tenon recorded in his *Mémoires sur Les Hôpitaux De Paris* that he had travelled to Plymouth in 1787 in the company of Charles Coulomb, a commissioner of the Hôtel Dieu. This provided evidence that medical practitioners and hospital authorities were travelling together to inspect hospitals, a pattern which Taylor would record as occurring 100 years later.

In 1823, Louis Bruyère was applying the term ‘programme’ as he urged architects to consult with the clients and users as they developed their plans. There is also evidence that programming was actually being practiced in 1843 at Brompton Hospital, England where instructions to the architects (not named) influenced the design of the hospital.

The treatises of Tenon, Nightingale, Stevens and Goldwater’s articles in the American *Modern Hospital*, played a vital role in the world-wide reform of hospitals: Tenon and Nightingale for the Pavilion plan and Goldwater and Stevens for the Block typology and the Vertical typology. Although no authority has acknowledged Tenon, Nightingale and Goldwater as user-planners nevertheless their knowledge of the functionality of hospitals, based on their own experience, contributed significantly to the development and planning of new hospital typologies through their collaboration with architects and hospital committees.

From 1850s to the 1930s, hospital architects were constantly challenged by the increasing complexity of medical requirements resulting from the scientific discoveries of the eighteenth century. This led to the need for diagnostic and therapeutic departments, more
operating theatres and surgical wards as well as the integration of outpatient departments, the clinical school of medicine and the introduction of professional nurses. Despite the architects’ research, knowledge and expertise, collaboration with the medical profession and the building committees had become imperative. Just as the medical profession began to specialise in the developing disciplines so architects began to develop specialisation in hospitals.

Apart from Tenon & Poyet, and the few examples cited by Taylor of collaboration between architects and the medical profession, there appears to be little recorded documentation available. This is despite the fact that architectural authorities were recommending Programming in architectural journals. This fact supports Richardson’s claim that such documentation was relative rare.

By the 1900s, sanitation, the segregation of sexes and diseases and the principles of aeration had been fully integrated into accepted hospital practice and the shift from Pavilion plan to the Block Typology was just beginning. In the 1920s, affluent patients’ need for hospitalisation in general hospitals led to the reorganisation of wards from the infamous Nightingale ward to introduce the Rigs system providing some degree of privacy in the general wards for public patients and private rooms for the paying patient thus raising the issue of privacy over supervision. From the late 1920s onwards, the vertical typology was to revolutionise the organisation of hospitals. Within a century, hospitals had been converted from places where the sick poor went to die to places that ‘benefitted humanity’.

It is in this context that SM/T determined in 1925 to specialise in hospital architecture. By then, Design-by-Dialogue or Design-based programming was an accepted methodology for the programming of hospitals and this dissertation examines in-depth the programming design process implemented for the RMH 1935-45

Like Architectural Programming, Post-Occupancy Evaluation was accepted as an Architectural Discipline in the 1960s and the literature is also post 1960s. As a result, S&T did not conduct a formal evaluation of the RMH.
This literature reviewed in this chapter examined not just the functionality of hospitals but the effect of the environment on the patient and the staff. Whilst the purpose of POEs is to primarily to identify the design faults and make recommendations for the improvement for future hospitals, this dissertation has applied Green’s Design-in-Use\textsuperscript{281} policy of investigating the users’ response to the new RMH by using archival material in order to ascertain if the built design of Scheme J responded to the clients’ instructions and the user requirements.

\textsuperscript{281} J Green, *Evaluating Hospital Ward Design in Use*. 
3. MELBOURNE: HISTORY, HEALTH AND HOSPITALS

Introduction
This chapter examines the history of the RMH from 1839 to 1935 in order to place the hospital into an historical context of metropolitan Melbourne, the State of Victoria and Australia and to establish its significance as a medical, teaching and research facility. This review includes the two manifestations of the hospital on the Lonsdale Street site: the 1846–48 and the 1910–16 buildings. As the history of Melbourne and the general histories of the RMH have been well documented by eminent historians, this chapter will draw largely on secondary sources.

1935 was an important year for the RMH as it had finally received permission from the Victorian State Government to procure the Horse, Cow and Pig Market (commonly called the Pig Market) at Parkville as the site for a new hospital. What prompted the Government to approve the site in 1935 when Melbourne, like the rest of the world, was still in the grip of the aftermath of the 1929 depression? Under these circumstances, the new hospital would put the government under financial stress. But 1935 was a significant year for Melbournians as they were celebrating the centenary of the city’s foundation. In one hundred years, the city had developed out of the antipodean wilderness into a thriving metropolis with a population of 1,018,200. This anniversary was a confluence of influence which resulted in a suite of significant civic buildings that were important to the social and cultural life of the city.

Melbourne: The Settlement
The modern nation of Australia traces its origins to the British penal settlement established at Port Jackson (Sydney), New South Wales (NSW) in 1788. This was the first of the four British penal colonies established around the coast of the island continent over the next 47 years.
Melbourne – the capital of the Colony/State of Victoria\textsuperscript{284} – was one of the last of the six settlements. It was not settled as a penal colony. Instead pastoralists, John Batman\textsuperscript{285} and John Pascoe Fawkner,\textsuperscript{286} both from Van Diemen’s Land (later Tasmania) lead separate expeditions in 1835 to the Port Philip District, of what was then southern New South Wales, seeking fertile land for their livestock. Both were to play significant roles in the establishment of what became a rapidly developing town. On August 12 1842, Melbourne was officially declared a municipality by the passing of \textit{The Melbourne Municipal Corporation Act} in Sydney.\textsuperscript{287}

However Melbourne remained under the jurisdiction of the Colonial Government of NSW until Victoria separated from NSW in 1851. Meanwhile, Melbourne was reliant upon NSW for approval and funding for the hospital.

\textsuperscript{284} In 1901, the separate British colonies on the Australian continent federated into the Commonwealth of Australia converting the colonies into states within the Federation.

\textsuperscript{285} John Batman (1801–1839) represented the Port Philip Association which comprised of free settlers, squatters and businessmen, from Van Diemen’s Land who wanted land grants on the mainland. Batman arrived on his schooner, ‘Rebecca’ on May 29 1835 and, after exploring the area, settled on Merri Creek, Northcote. He ‘purchased’ six hundred thousand acres of land from the aborigines. Source: Garryowen (Edward Finn) \textit{The Chronicles of Early Melbourne 1835–1852}, Ferguson and Mitchell, Melbourne, 1888, p. 2.

\textsuperscript{286} John Pascoe Fawkner, (1792–1869) arrived in the Port Philip District on his schooner, the ‘Enterprise’ on October 10 1835. His party had preceded him and, following his instructions to look for a place with ‘green grass and plenty of fresh water’, they had settled at the basin of the Yarra River. This eventually became the site of Melbourne. Source: Garryowen, \textit{The Chronicles of Early Melbourne}, p. 3.

\textsuperscript{287} Miles Lewis, \textit{Melbourne, the City’s History and Development}, City of Melbourne, 2\textsuperscript{nd} ed., 1995 pp. 24–25.
Melbourne: The Healthy City

During the 1830s and 40s, the NSW Colonial Government regarded Melbourne with its healthy Mediterranean climate as not requiring a hospital of any kind. The town was located on the northern bank of the Yarra River – seven miles from the river’s mouth on Port Philip Bay. The city was planned according to the Darling regulations in order to create a beautiful healthy city. Robert Hoddle’s rectangular grid (Figure 3.2), with its elegant boulevards – ninety-nine feet wide – were intended to be “advantageous on the score of health and convenience for the future city of Victoria”. Furthermore, tracts of land were reserved for public gardens around the perimeter of the city grid in adjoining subdivisions.

Figure 3.2. *The City of Melbourne*, by Goodman Teale and Nathaniel Whittock, colour lithograph, 1855. Source: Picture Collection, State Library of Victoria. This lithograph shows the Yarra River with the turning basin and Princes Bridge on the right. Hoddle’s city grid is in the background.

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290 Garryowen, *The Chronicles of Early Melbourne 1835–1852*, Melbourne, 1888, Centennial Edition, p. 14. Garryowen was the pen name for journalist Edmund Finn, (1819–98). Irish-born Finn arrived in the Port Philip District in July 1841. He was a well-known personality in the Irish-Catholic community, an enthusiastic journalist and an original member of the St Patrick’s Society. Encouraged by Sir Charles Gavan Duffy, Finn began recording an anecdotal history of early Melbourne and this was published in serial form in the papers prior to being compiled into *The Chronicles of Early Melbourne*.

291 The following parks were proclaimed between 1851 and 1854: Royal Park; Princes Park, Fitzroy Gardens, the Carlton Gardens, and the Botanical Gardens, Fawkner Park and the Alexander Gardens south of the Yarra river. Source: Miles Lewis, *Melbourne, the City’s History and Development*, p. 30.
Melbourne: The Unhealthy City

The dream of a healthy city was undermined however, on the insistence of Governor Richard Bourke (Governor of NSW) and, against Hoddle’s better judgement, he interspersed narrow lanes, thirty-three feet wide, between the streets “as mews or approaches to the stabilities and outhouses of the main streets of buildings”.292

The lanes were quickly snared for development thus creating narrow streets which, in the world’s major cities, were notorious for disease, dirt and crime. Added to this, the Yarra River, the source of the town’s drinking water,293 was quickly becoming polluted as carcasses of putrefying horses and dogs lay about the streets, piles of rotting compost mounted up in the town’s streets and sewers were clogging up with stagnant water at the end of Collins Street. Dysentery, cholera, typhus fever and other diseases became prevalent.294

The Need for General Public Hospital

In 1839, immigrants of all classes of society began arriving from Britain, Ireland and NSW.295 Among them were a high percentage of poor and destitute people who had been cramped into small filthy ships and poorly fed during their three-month sea voyage. Many died and, of those who survived the journey, many arrived ill only to be subjected to further poor living conditions in a government tent or shanty and later in crowded weatherboard barracks. Garryowen reported in his Chronicles of Early Melbourne that “the absence of any recognised mode of affording medical and surgical relief to the destitute was much felt”.296

Despite the healthy city proving unhealthy, Sir George Gipps, the Colonial Governor of NSW, (1838–1846), refused to provide government hospital accommodation for the immigrant destitute stating:

I cannot consider it the business of Government to provide for the District of Port Philip or even the town of Melbourne. Such institutions are properly the objects of private charity.297

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293 It was not until December 31 1857, that clean drinking water was supplied to the city from the Yan Yean reservoir and by 1852, all suburbs had been connected. Source: Miles Lewis, Melbourne, pp. 47–48.
294 Miles Lewis, Melbourne: the City’s History and Development, p. 32.
295 KS Inglis, Hospital and Community: A History of The Royal Melbourne Hospital, University of Melbourne Press, Melbourne, 1958, p. 3.
297 Letter, Governor Gipps to La Trobe (no date) cited in Inglis, Hospital and Community, p. 4.
And indeed this was the accepted view as hospitals were the domain of charities particularly the monasteries until their dissolution in England between 1536–1541, and from the eighteenth century, the ‘Voluntary Hospital’ movement. These hospitals acquired a somewhat odious reputation as places where the poor and destitute went to die. In contrast, wealthy and middle class patients could afford to be treated by visiting physicians in their own home and cared for by servants or family members.

By 1841, agitation mounted for a government financed hospital for the free settlers. The impetus for this campaign was the arrival of a shipload of passengers struck by fever. Charles La Trobe, Superintendent of the Port Phillip District, reported that the migrants were suffering “from previous hardship and insufficient nourishment”, and therefore “much less able to bear up against disease than others and much more likely to sink, even after the fever had been subdued”. On March 5 1841, La Trobe chaired a public meeting which brought together fourteen prominent citizens from religious, medical, pastoral and business backgrounds. They passed a resolution demanding the “immediate establishment of a Public Hospital” for the purpose of attending to those suffering from “sickness, accident and distress” with “clean, comfortable accommodation, regular medical attendance and the means of attention to diet and regimen”. This resolution was to establish the principles of the future Melbourne Hospital. Negotiations commenced between Gipps and La Trobe over the hospital, particularly regarding finance. La Trobe requested a site and financial assistance whereby the public were to match the government grant - half and half. Gipps agreed and the local community were set the difficult task of raising £800. This decision aligned the Melbourne Hospital with the British ‘Voluntary Hospital’ system whereby subscribers would contribute towards construction.

**Melbourne: The ‘Charitable’ Hospitals**

Whilst all the negotiations and the eventual building of the new hospital were occurring a temporary makeshift ‘Charitable’ Hospital was set up in 1841 in a small brick cottage...
located in Little Collins Street. Garryowen reported that this emergency housing was provided to meet the “more pressing cases of misfortune”.302 Later that year, the hospital relocated to another temporary premises in Bourke Street. The large two-story building – rented from John Fawkner – had 20 beds. Outpatient Services were also made available.303 The Hospital Committee insisted that the four doctors who attended the patients on an honorary basis were medically qualified in keeping with the requirements by the NSW Medical Board.304

Melbourne: The First General Hospital

The Appointment of the Hospital Committees
Gipps insisted that the hospital should be administered on a ‘proper footing’.305 Subsequently a public meeting was held at the Royal Hotel on Collins Street on February 15 1845. Fifteen members of a Provisional Hospital Committee were elected.306 On July 7 1845, the Building Committee was officially appointed and met regularly until the end of June 1849 when it considered its duties completed.

The Purpose of a General Hospital
From its conception, the purpose of the Melbourne Hospital was to provide medical services to the injured and the sick poor only. It operated on similar principles to those established in Britain in the eighteenth and early nineteenth century. This is evident by the fact that the Melbourne Hospital rules of February 1848 replicated those of the Liverpool Infirmary.307

No pregnant female for the purpose of confinement; no child under five years of age, no insane person, or having a contagious or infectious disorder or subjected to epilepsy; nor any-one, who in the opinion of the examining Physician or Surgeon might receive equal benefit as an out-patient, be admitted into the house.308

303 Royal Melbourne Hospital, Annual Report, June 1939, p. 6.
304 Melbourne Hospital Committee of Management minutes, June 1847, RMH Archives.
306 The members of the Melbourne Hospital Committee were Drs Palmer, Payne and Thomson; Reverend Adam C. Thompson, Messrs GS Brodie, A. Cunninghame, Edward Curr, John Duerdin, GA Gilbert, JW Howey, W Lonsdale, JR Murphy, RW Pohlman, James Simpson, & E Westbury. Source: Gregory, The Ever Open Door, p. 9.
308 Committee of Management Minutes, February 1848, RMH Archives.
The Site
The site selection for the hospital was contentious. Proposals presented were the Western Market, at the Collins Street and William Street corner, the Carlton Gardens and the northwest corner of Queen and Lonsdale Streets. Some members favoured Block 27 – the Hay and Corn Market on the corner of Flinders and Swanston Street. However, this was rejected in favour of a more elevated but restricted site on the outskirts of the township – north of Lonsdale Street. Initially the size of the site was only one-fourth of the east-west block between Swanston and Russell Streets. The Committee of Management acted promptly in applying to the City Council to extend the site to Russell Street so that the site was ultimately bordered by Lonsdale Street to the south, Swanston Street to west, Little Lonsdale Street to the north and Russell Street to the east (Figure 3.3).

The Brief
The Building Committee determined the size of the ‘house’ as the ‘smallest extent’ possible and advertised for plans. In keeping with traditional practice, the brief was simple. Architects were advised to “apply to the Secretary at his chambers for information with respect to the extent of the building and the amount of funds available”.

Four architects: Jackson, Gill, Laing and Burns, and Wharton submitted their designs.

There is no recorded evidence that the use of architects for the Sydney General Hospital had any direct influence regarding the use of architects for the Melbourne Hospital. The Sydney General Hospital, 1810–1816, on Macquarie Street, (famously known as the Rum Hospital) was the first Australian hospital to employ the services of an architect, John O’Hearen, for the original (shoddily built) hospital and Francis Greenway, Australia’s famous convict architect, for the reconstruction 1826–1843.

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309 Garryowen, Chronicles of Early Melbourne, p. 239.
310 Committee of Management minutes, July 30 1845, RMH Archives.
311 Melbourne Hospital, Committee of Management minutes, September 1 1845, RMH Archives.
312 Melbourne Hospital, Committee of Management minutes, November 3 1845, RMH Archives.
The Architect

The Committee selected Samuel Jackson\(^{314}\) and within three months he had made the requested modifications to his original plans and specifications. This clearly indicates the collaboration between the Committee and the architect. As the tenders exceeded the budget, Jackson was requested to make ‘retrenchments’ and further modifications. The Building Committee instructed him:

Not to use stucco on the outside, not to finish the inside walls of the reception rooms, to substitute brown stone instead of bluestone, to add partitions to the kitchen department and supply two cisterns to contain 1200 gallons (5,455l).\(^{315}\)

George Beaver\(^{316}\) was awarded the building contract and Jackson, thereafter, oversaw the works certifying to the Building Committee on a regular basis that he had approved Beaver’s work and that Beaver was therefore entitled to payment.\(^{317}\)

The construction of the hospital was completed by January 1848 for a total cost of £2,506.6s.1d \(^{318}\) and, after minor adjustments, opened on 15 March 1848 without any fanfare. An *Act of Incorporation* by the NSW Government, 1848,\(^{319}\) established the legal status of the Melbourne Hospital and also all the hospitals in NSW: Bathurst, Maitland, Newcastle, Parramatta, Windsor, Brisbane, Yass and Goulburn.\(^{320}\) The separation of the Colony of Victoria from NSW in November 1851 gave the State of Victoria “political autonomy under the British Crown, local control of finances, and the elevation of La Trobe from Superintendent to Lieutenant Governor”.\(^{321}\)

\(^{314}\) Samuel Jackson, 1807–76, British born, arrived in Hobart in 1829 before shifting to Launceston. He arrived in Melbourne with Fawkner’s party in 1836. He was Melbourne’s first architect although he had no formal training. He was a founding member of the Victorian Architect’s Association 1851. He designed St Francis Church on the corner of Lonsdale and Elizabeth Streets 1841-45; Scots Church, Collins Street and, in 1849, St Paul’s Church, Coburg. Jackson’s churches were produced in a naïve Regency influenced Gothic style. He returned to London in 1862. Sources: Freeland, Architecture in Australia: A History, pp. 81, 101 and 125. George Tibbitts, ‘1835–1851 ‘Early Melbourne is a ghostly presence within the city’ in Philip Goad, Melbourne Architecture, The Watermark Press, Sydney, 1999, pp. 15–16 and 49.

\(^{315}\) Melbourne Hospital, Committee of Management minutes, January 23 1845, RMH Archives.

\(^{316}\) George Beaver had successfully undertaken several public buildings including the erection of La Trobe’s prefabricated cottage, the Queenscliff Lighthouse (1843) and a wharf on the Yarra river in front of the Customs House. Unfortunately the building of the hospital was to bankrupt him. Source: Gregory, *The Ever Open Door*, p. 9.

\(^{317}\) Melbourne Hospital, Committee of Management minutes, January 23 1845, RMH Archives.


\(^{320}\) Gregory, *The Ever Open Door*, p. 28.

\(^{321}\) Miles Lewis, *Melbourne, the City’s History and Development*, p. 20.
Jackson’s design for the Melbourne Hospital was a collegiate Tudor styled three-storey red brick building facing Swanston Street (Figure 3.3). Due to a lack of a fence, Garryowen saw the building as “red-rookery perched in the centre of a waste of bush”.322 He noted that the structure was “capped with a curious sort of cupola formed in lead-covered wood to which Mr Samuel Jackson, the architect of several of the … buildings around town, was partial”.323 The requirements were in keeping with the standards of the day. The accommodation was defined only in terms of outpatients or inpatients and the wards in terms of sex: male and female.

There was no operation room, no bath, no laundry and no morgue. The Committee of Management324 insisted on a high standard of cleanliness. The interior walls were whitewashed and appropriate space between beds was required. Cesspools were emptied daily. The external water closets received water pumped through one pipe from a well. Candles and oil lamps lit the interior. A room was included for the Matron opposite the Board Room with windows that overlooked the approach from the back and front entrance.325
As Garryowen pointed out, the hospital lacked a fence. Consequently inpatients disappeared only to reappear drunk and other local drunks were drawn to the shelter of the hospital.\textsuperscript{326} Within weeks of opening, the decision to build a strong fence around the hospital – visible in the foreground of Figure 3.4 – was determined at a meeting of the Building Committee.\textsuperscript{327}

**The Expansion Program**

From the day that it opened, the Melbourne Hospital had a continual accommodation crisis which escalated from August 1851 when alluvial gold was discovered in the Victorian hinterland. The influx of gold diggers increased the population of Victoria from 76,000 in 1848 to 238,000 in 1854. In the ensuing years, there were frequent calls for a new hospital. Some members of the Committee of Management were in favour of a ‘fresh start’ on the Pig Market site at Parkville whilst others elected to remain on the existing site. The history of the site will be discussed in Chapter 5.

Whilst controversy about the site continued, continual extensions occurred increasing the hospital bed capacity from twenty beds in 1848, fifty-four beds in 1850 and by 1853, one hundred and four beds. By 1859, the hospital had a three hundred and thirty-five bed capacity spread over eighteen wards. The yearly number of inpatients in 1848 was eighty-

\textsuperscript{326} Garryowen, Chronicles of Early Melbourne, p. 239.
\textsuperscript{327} Melbourne Hospital Building Committee minutes, January 1848, RMH Archives.
nine, in 1850 there were one hundred and eighty-nine. As a result of the Victorian gold rush, the inpatient numbers increased to one thousand, four hundred and twenty three in 1853 and peaked in 1861, with three thousand, nine hundred and seventy.\(^{328}\) Patients were admitted on Tuesday and Fridays and the Committee of Management met those afternoons to ratify those admissions.\(^{329}\)

**The Nightingale Influence**

Francis Maloney White (1819–88) was the hospital architect responsible for the additions made between 1860–80. The fact that, in 1867, White added two detached pavilions to the eastern end of the site demonstrated that the hospital committees and the architect were in tune with the Pavilion precepts. The pavilions allowed for the separation of medical and surgical wards as well as the sexes.\(^{330}\)

The pavilions were long and narrow, 70 x 20 feet (21.3 x 6.0m), with a high ceiling. There were twelve large windows – six to a side and with sliding ventilators giving fresh air. There were 10 - 12 beds on each side about five feet (1.5m) apart.\(^{331}\)

**Criticism and Compliments**

In January 1883, the hospital was accused of being unfit as a metropolitan hospital. A report in the *Age* January 1883 stated:

> The Melbourne Hospital stands charged with inadequacy in the matter of accommodation, incompleteness in scope of operation, insanitariness and general unfitness for the ordinary purposes of a metropolitan hospital.\(^{332}\)

This hospital that, from its inception, had operated on the policy of the ‘Door that Never Closes’ was turning patients away\(^{333}\) and patients with infectious diseases were reduced to being nursed in tents. The reason for the malaise has been attributed to political instability and dissension among members of the medical community.\(^{334}\)

In 1891, an article in the *Age* looked beyond the hospital’s physical incapacities to the culture of care provided:

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\(^{326}\) Melbourne Hospital, *Annual Report*, 1885.

\(^{328}\) Susan Sherson, *being there: Nursing at The Melbourne Hospital, Victoria’s First Hospital*, Melbourne, 2005, p. 32.

\(^{330}\) Nigel Lewis, *Queen Victoria Medical Centre Conservation Analysis and Existing Conditions Survey*, p. 27.

\(^{331}\) *Herald*, September 28 1895

\(^{332}\) *Age*, January 1883.

\(^{333}\) Inglis, *Hospital and Community*, p. 65.

\(^{334}\) Inglis, *Hospital and Community*, p. 35.
In size and antiquity, it stands pre-eminent ... Its character is universal; there is no restriction of either religion or medical belief governing the admission of patients; relief is given within its walls to sickness and accidents of every kind, alike to the dying man of consumption and a small boy who has cut his finger.

**Specialist Hospitals**

Over a period of five decades following the 1848 opening of the first Melbourne Hospital, specialist hospitals in Melbourne were developed to accommodate patients rejected by the Melbourne Hospital: the Women’s Hospital 1856, the Eye and Ear Hospital 1867, the Hospital for Sick Children 1870 and the Queen Victoria Memorial Hospital for Women and Children 1899. The ‘incurable’ patients with chronic diseases such as cancer and tuberculosis were accommodated – sometimes for years – at the new Austin Hospital for Incurables, Heidelberg 1882. In 1904, the Queen’s Memorial Infectious Diseases Hospital, Fairfield was opened. However, the Melbourne Hospital elected to treat a small number of infectious patients for clinical purposes.

**Public Health**

Public health was a major community concern in nineteenth century Melbourne and periodic epidemics of infectious diseases such as hydatids, diphtheria and typhoid fever placed considerable stress on the hospital. Every summer, January to March, typhoid fever epidemics spread through the city. This was caused by the insanitary condition of Melbourne’s cesspits. As discussed in Chapter 2, the identification of micro–organisms, as the causative agent for many fatal diseases was to have a major impact on public health. Many of these diseases were controllable by public health measures. Under the auspices of the Department of Sewerage and Water Supply, established in 1860, construction of a metropolitan wide sewerage system began in 1889. As the system progressed through the suburbs, so the incidence of the typhoid fever decreased.

335 *Age*, April 18, 1891.
337 Inglis, *Hospital and Community*, p. 43.
340 Inglis, *Hospital and Community*, p. 65. Mrs Thomas Austin donated £6,000 for this hospital.
341 Inglis, *Hospital and Community*, p. 66.
342 Inglis, *Hospital and Community*, p. 66.
343 The Department of Sewerage and Water Supply became the Melbourne and Metropolitan Board of Works in 1889.
344 Nigel Lewis, *Queen Victoria Medical Centre Conservation Analysis*, pp. 48 – 49.
New General Hospitals

With the rapid increase in Melbourne’s population, the demand for medical treatment saw two new general hospitals open in the city. The Alfred Hospital was established in Prahran ‘south of the Yarra’ in 1871. The hospital was named in honour of HRH Prince Alfred, the Duke of Edinburgh, the second son of Queen Victoria. In 1868, Prince Alfred was on a goodwill visit to Sydney when he survived an assassination attempt. Prior to this, a second general hospital in Melbourne was a matter of contentious debate but Prince Alfred’s survival spurred the grateful Melbournians to establish a fund to build a hospital in his name.345 In 1893, the Catholic Church established St Vincent’s Hospital in Fitzroy.346 Prince Henry’s Hospital was established as a Homeopathic Hospital in 1869 and converted to a general hospital in 1934.347

University of Melbourne Faculty of Medicine and Surgery Clinical School

In March 1862, the hospital was to expand its activities following the establishment of the first medical school in Australia at the University of Melbourne348 This amalgamation was influenced by the radical advances occurring in medical training in Britain. Dr Anthony Colling Brownless (1817–1897) was appointed to the University Council in 1855 and immediately began campaigning for a Medical School.349 Brownless350 subscribed to the philosophy that medical education required “the integration of theory and practice”351 and clinical training allowed students to observe first hand diseases that manifested in the patients. Consequently he anticipated closer links with the hospital based on a “strong clinical component”.352 Brownless was, no doubt, aware of a precedent established in 1835 by the University of London which built its own hospital, North London Hospital (later University College Hospital) on a site next to the University College.353

In 1864, the Melbourne Hospital accepted its first three medical students (in their third year) but no teaching facilities were made available at this time. Ken Russell claimed that

347 Prince Henry’s Hospital File, Box P1887, held at the Monash Hospital Archives, Clayton.
348 The University of Melbourne was established in 1853 when it enrolled its first students.
349 Dr Anthony Brownless was the chairman of the Medical School Committee and is recognized as the ‘true founder of the Medical School’. The Brownless Biomedical Library, University of Melbourne, was named in his honour.
350 Brownless was appointed Vice-Chancellor in May 1858, a position he held for twenty-nine years. In April 1887, he was elevated to the position of Chancellor, retaining the post until his death. Source: KF Russell, Australian Dictionary of Biography, on line edition.
the students “were met with hostility from the staff and received very little clinical teaching”.354 By 1876, however, the hospital could boast that its resident medical officers had qualified at the University of Melbourne, “at the present time, the members of the resident staff are gentlemen who have received their medical education in the colony”.355

The only other hospital in Australia with affiliations to a university was the Royal Prince Alfred Hospital in Sydney. This hospital, founded in 1883, was also named in honour of HRH Prince Alfred. It was in a unique position:

Not only in Australia, but in the British Empire, because it was founded as a University Hospital, built on University grounds, and because all the honorary appointments on the medical staff (were) made by the University Senate and the Board of Management in conjunction.356

The School of Nursing

There was considerable controversy regarding the establishment of the School of Nursing at the Melbourne Hospital. As discussed in Chapter 2, Florence Nightingale had published her book *Notes on Nursing*, 1859 in which she established the ‘Nightingale system’357 for the Nightingale School and other nursing schools. Nightingale’s reforms attracted the attention of Henry Parkes, the Colonial Secretary of NSW. In 1866, appalled at conditions at the Sydney General Hospital, Parkes directly arranged with Nightingale for six nurses,358 trained in her methods, to come to NSW to implement the Nightingale practice of nursing at the hospital and to teach others.359

To accommodate the nurses, a four-storey wing designed by architect, Thomas Rowe, in a gothic revival style of polychromic brick was constructed between 1868–69 (Figure 3.5)

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355 Melbourne Hospital Annual Report, 1876, p. 6.
358 Miss Nightingale showed personal interest in these nurses, arranging for them to observe at King’s College Hospital in October and November 1867. The nurses were Miss Lucy Osburn, 1835–91, Bessie Chant, Mary Barker, Haldene Turriff, Annie Miller and Eliza Blundell. Nightingale regarded this time as extremely valuable. Source: Lucy Seymour, *Florence Nightingale’s Nurses*, p. 54.
359 Lucy Seymour, *Florence Nightingale’s Nurses*, p. 53.
and approved by Florence Nightingale. However the nurses experienced considerable hostility:360

The entrenched board, seemingly keen to return to its previous way of doing things, tried to move against them and facilitate their leaving, not only the hospital but also Australia.361

Fortunately the nurses prevailed. Susan Sherson, in her book, *being there: Nursing at The Melbourne*, *Victoria’s First Hospital*, 2005, presents evidence that in 1870, the Melbourne Hospital Committee of Management considered following in the footsteps of Sydney Hospital and engaging Nightingale nurses.362 A select sub-committee was appointed on June 7 1870 to conduct a full enquiry into “having the Nurses properly and efficiently trained for their multifarious duties”.363 However when the committee assessed the cost of employing trained nurses, the proposal was abandoned on the grounds that “the present financial condition … has prevented their being carried into effect”.364 Sherson suggests that the Melbourne Hospital’s decision to investigate this matter may have been influenced by the new Alfred Hospital and their decision to appoint one of the Sydney Nightingale nurses, Miss Haldene Turriff, to the position of Matron.365

It was not until January 1890 that the Melbourne Hospital finally acknowledged that “a trained nurse is better than an untrained one”.366 They appointed Miss Isabella Rathie to the position of Matron367 – later referred to as the Lady Superintendent.368 Miss Rathie was a Nightingale nurse - having trained at the Royal Infirmary of Edinburgh from 1872 to 1879.369 In April 1890, the Committee of Management commenced discussion for the inauguration of a training school for nurses. By 1895, the first Preliminary Training School (PTS) for probationers was established based on the London Hospital model.370 Following this, a two-year general training course was developed.

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360 Letter dated October 7 1870, from Miss Lucy Osburn to Miss Nightingale in *Lucy Seymer, Florence Nightingale’s Nurses*, p. 53.  
361 Susan Sherson, *being there: Nursing at The Melbourne Hospital, Victoria’s First Hospital*, The Royal Melbourne Hospital Graduate Nurses’ Association, Melbourne, 2005, p. 59.  
363 Committee of Management Minutes, June 7 1870, RMH Archives.  
368 Sherson, *being there: Nursing at The Melbourne* ‘Victoria’s First Hospital’, p. 121.  
Nurses Home
In 1887, the Committee of Management considered the trained nurses’ accommodation as an ‘imperative necessity’. However, instead of building a new ‘Nurses House’, the committee determined to refurbish an existing old building at the east end of the site and add additions as necessary. Garryowen claimed that the “Nurses House was an important feature of the establishment”.371

Outpatients Department
Whilst the inpatient area was limited to a certain number of beds, there was no limit to the number of patients seen at the Outpatients Clinic each day. In 1887, the accommodation was dingy and bleak and said to be “faulty in structure and inadequate in size”.372 Patients queued outside sitting on a hard bench for up to six hours in order for a brief consultation with a physician or surgeon. Many of these patients required regular treatment for their illness or injuries. In 1848, the patients attending the Clinic were 64 per day of which 39 were admitted. By 1900, 16,000 outpatients were treated annually. The Committee of Management was aware of these conditions but nothing was done as a new building was constantly under consideration.373

The Medical Revolution
In 1891, Professor Harry Brooks Allen, former Dean of the Faculty of Medicine,374 returned from an overseas study tour as an advocate of the Listerian principles375 and helped to implement the antiseptic revolution at the hospital. As discussed in Chapter 2, Lister’s principles had been published in The Lancet in 1865 yet there was much scepticism about them amongst the medical profession at the Melbourne Hospital.376 By 1891, as a result of further research, new techniques had been created: steam sterilisation was introduced in 1886 and surgeons wore rubber gloves, masks and gowns during operations. Aided by the administration of anaesthetics in the form of ether or chloroform, surgeons

372 Inglis, Hospital and Community, p. 69.
373 Inglis, Hospital and Community, pp. 69 –71.
374 Professor Sir Harry Brooks Allen (1854–1926) graduated from The University of Melbourne Medical School in 1878 with an M.D. and a year later with a B.S. He lectured in anatomy and pathology and in 1882, was appointed Professor in descriptive and surgical anatomy and pathology. He held the position of Dean from 1886-90 and 1896–1924. KF Russell, Australian Dictionary of Biography, on line edition, 2006.
375 Joseph Lister was Regius Professor of Surgery at Glasgow University. He advocated the use of carbolic acid, strict hand washing, meticulous post-operative care, attention to wounds and regular re-bandaging. This practice was slow to be adopted as it was viewed as “extremely complicated, expensive, irksome and laborious”. Source: Dr GW Callender, quoted in FB Smith, Florence Nightingale: reputation and power, London, 1982, pp. 273–275.
376 Inglis, Hospital and Community, p. 49.
were able to venture into new areas: surgery of the brain, abdomen, spinal cord, lungs, heart blood vessels and other areas. The *Australian Medical Gazette*, reported in 1901, that "surgery as an art has approached as nearly as possible the precincts of an exact science".  
By the beginning of the twentieth century, electricity, thermometers, serum and Röentgen rays were in common use in Europe and USA. A new hospital was urgently needed in Melbourne to meet the requirements for 20th century medicine.

**Melbourne: The Second Hospital**

**The Site**

From 1890, arguments about the site for the second realisation of the hospital went back and forth between medical people and politicians. Whilst some were in favour of the Pig Market at Parkville, others preferred the idea of rebuilding on the Lonsdale Street site. The matter was finally settled in 1908 by the trustees of the estate of Edward Wilson, who had bequeathed one hundred thousand pounds to the hospital on condition that it was to be built on the original site.

**Appointment of the Architects**

The architects, James John Clark, (known as JJ) 1836–1915 and his son Edward James Clark, 1868–1950, were the second place winners in a competition for the hospital’s design. AB Koch and Son produced the winning entry. However JJ Clark challenged Koch’s design claiming that it did not allow for the building to proceed in stages. The decision in Clark’s favour was finally made by the Trustees of the Wilson Estate based on the firm’s “exceptionally large experience acquired by the firm in hospital construction”. The four major hospitals to their credit were the Melbourne’s Women’s Hospital, Newcastle Hospital, Perth Children’s Hospital, and the Maitland Hospital. However, at a meeting with

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378 Edward Wilson, 1813–1878, was the proprietor of the *Argus* newspaper and an ardent reformer. He left the bulk of his estate to the Edward Wilson Trust to “alleviate the sufferings and promote the welfare of the sick, through the medium of the charitable institutions of Victoria, with a caution against encouraging in any way the spirit of pauperism”. Source: Geoffrey Searle, Australian Dictionary of Biography, National Centre of Biography, Australian National, University, accessed on-line, January 10 2009.
379 Inglis, *Hospital and Community*, p. 77.
380 JJ & EJ Clark came second in the competition for the rebuilding of the Melbourne Hospital in 1905. The matter was contentious as Koch had held the position of hospital architect since the 1890s. However, the plans were put on hold until 1908 when the trustees of the Edward Wilson Estate called for application from Melbourne architects. The trustees insisted on the appointment of the Clarks.
381 Nigel Lewis and Associates, *Queen Victoria Medical Centre Conservation Analysis*, p. 12.
the Committee of Management, in May 1908, Clark argued that his previous competition plans were outmoded and therefore he must undertake an overseas study tour of America and Europe to investigate the most recent technical advances in hospital architecture as “Colonial experience does not extend in the direction of three-storey and four-storey hospitals”. The research tour was approved in July 1908.

From July 1908 to January 1909, in the company of John Grice, President of the Hospital Committee of Management, JJ Clark visited thirty hospitals in Great Britain, nine in Europe and twenty-two in America. He interviewed medical officers, architects, superintendents as well as celebrated authors and experts on different phases on hospital construction. His major conclusion was that multi-storied hospitals were best for effective general supervision and economical service.

Nigel Lewis and Richard Aitken argue that Clark was particularly influenced by Waterhouse’s design for 800-bed University College Hospital, London. Like Waterhouse, Clark was faced with a restricted site. However Clark demonstrated that he was also influenced by the multi-storey hospitals in American cities that had implemented the stale air theory of Albert Ochsner and Meyer Sturm:

> When in America, I was much struck with the city hospital being built upon sites which did not allow for the usually recognized distance apart of the buildings. Dr Ochsner and Mr Sturm, Architect of Chicago pointed out the advantage of making the buildings several stories in height in preference to spreading them over large areas in two-storey buildings.

### The Site Plan and Buildings

The site plan from 1910–16 (Figure 3.6) shows the structures laid out with eight separate blocks connected by a central corridor thus implementing the Pavilion plan. The blocks are not positioned symmetrically on the site instead they are located towards the western end.

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382 Melbourne Hospital special sub-committee were appointed to interview JJ & EJ Clark regarding the terms in which they are prepared to accept the position of architects for the New Hospital, Source: Nigel Lewis & Associates, Queen Victoria Medical Centre Conservation Analysis, p. 33.
384 Nigel Lewis, Queen Victoria Medical Centre Conservation Analysis, p. 22.
385 Lewis & Aitken, ‘Site History and Conservation Analysis of the Queen Victoria Medical Centre’, p. 22.
The front facade of five blocks, B, C, D, E and F addressed Lonsdale Street and, with the exception of E block, were setback fifty feet (15.2m) from the street.  

The blocks were narrow and tall, 4–6 stories in height, designed to make optimal use of the restricted land space. The ward blocks, D, F and I, (Table 3.1) reached 6 storeys in height but, in order to maintain east–west aeration, the connecting corridors were placed on the first two floors only. The long wards were positioned north–south and the beds were placed against the walls between the windows. The wards were single-sexed due to their openness. Electric lifts were installed in the ward blocks for vertical accessibility.

<table>
<thead>
<tr>
<th>Block A</th>
<th>Outpatients Department, Dispensary and Nurses Home.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block E</td>
<td>Administration.</td>
</tr>
<tr>
<td>Blocks B and C</td>
<td>Casualty, operating suites and surgical wards.</td>
</tr>
<tr>
<td></td>
<td>An operating theatre was essential on each of four floors to accommodate for the demand for specialist surgery. One operating suite on the ground floor for casualty was placed on the north side and top lit.</td>
</tr>
<tr>
<td>Blocks D, F and I</td>
<td>Main wards.</td>
</tr>
<tr>
<td>Block J</td>
<td>Accommodation wing with storage space.</td>
</tr>
<tr>
<td></td>
<td>Kitchen was located on the top floor to access ventilation and light.</td>
</tr>
<tr>
<td>Pathology</td>
<td>A separate two-story L-shaped building located on Russell Street.</td>
</tr>
</tbody>
</table>

Table 3.1. The Block Organisation of the new hospital. Source: Nigel Lewis and Associates, Queen Victoria Medical Centre Conservation Analysis, September 1985, pp. 88–173

387 Lewis & Aitken, ‘Site History and Conservation Analysis of the Queen Victoria Medical Centre’, p. 25.
388 Lewis & Aitken, ‘Site History and Conservation Analysis of the Queen Victoria Medical Centre’, p. 23.
The Edwardian Aesthetic

Photographs, such as Figure 3.7, show how Clark maintained his unique style of the Edwardian Aesthetic.

![Figure 3.7. The Melbourne Hospital 1916, J.J. & E.J. Clark Architects. Source: RMH Archives.](image)

Clark created uniformity throughout the complex by using red brick with tuck pointing and projecting horizontal bands and cornices of white render. Dome turrets typically sat atop the projecting end of the wards. These turrets housed the tank rooms supplying the water to the bathrooms and toilets below. The west elevations of the wards were fitted with balconies to replace the former lawns where convalescent patients could enjoy sunlight and fresh air. However, the balconies also served the purpose of shading the wards.\(^{389}\) Nigel Lewis described this Edwardian building as being “the most advanced hospital in Australia at the time of its construction”.\(^{390}\) The completed sections of the hospital began receiving inpatients in 1913 just prior to the outbreak of World War 1.

Walter and Eliza Hall Institute of Pathology and Medicine

The Walter and Eliza Hall Institute\(^ {391}\) for Research in Pathology and Medicine (WEHI) was established within the hospital in 1915. The Walter and Eliza Hall Trustees required that

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\(^{389}\) Nigel Lewis and Associates, *Queen Victoria Medical Centre Conservation Analysis*, p. 41.

\(^{390}\) Nigel Lewis, *Queen Victoria Medical Centre Conservation Analysis*, p. 5.

\(^{391}\) Walter and Eliza Hall Institute was named after Walter Russel Hall (1846–1911) who accumulated considerable wealth from his investment in the Mount Morgan Mine in Queensland. Upon his death, his widow, Eliza was pressed into developing the one million pound Walter and Eliza Trust, the provisions of which were to be spent on ‘the relief of poverty, the advancement of education, the advancement of religion in accordance with the tenets of the Church
the Institute remain an individual entity wholly separate from the Melbourne Hospital but closely associated with it and the university. The Hall Trust determined that the Institute must be compulsorily located on hospital grounds: “the hospital for the Institute and the Institute for the hospital”.\textsuperscript{392} The Institute’s Governing Board should have as chairman – the President of the Hospital with the Vice-Chancellor of the University and Professor of Pathology representing the university, one representative of the medical staff of the hospital and one representative of the Hall Trust.\textsuperscript{393} Its area of research was in immunology and influenza vaccine. WEHI occupied a three-story building constructed in 1916.

**Melbourne Hospital In Crisis (Again)**

World War 1 saw the emergence of specialisation in surgery, particularly plastic surgery and trauma surgery. By 1922, the Melbourne hospital was again under pressure with one in ten patients requiring trauma surgery for injuries resulting from motorcar accidents. Waiting lists grew until the situation reached crisis point. In 1929, the proposal to shift the hospital to Parkville in stages was unanimously supported. Blackett & Forester, the hospital’s Honorary Architects, prepared preliminary plans but a change of government halted these ambitions. This proposal is further discussed in Chapter 6.

By 1934, the Lonsdale Street hospital was under extreme stress. It was overcrowded, outmoded and located in the city where dirt and noise from the trams were a constant aggravation. The population was expanding rapidly and the hospital was failing to meet their medical needs. Dr JL Frew, the Medical Superintendent reported: “medical work of the hospital has been hindered greatly by overcrowding of the wards and limited accommodation”.\textsuperscript{394} A new hospital was urgently needed.

**Melbourne: The Centennial Celebration**

To mark the centenary of European Settlement in 1834-35 and, at the same time, alleviate some of the unemployment problem caused by the Depression, a suite of significant civic buildings were constructed. These buildings were important to the social and cultural life of the city. Two buildings, MacRobertson Girls High School, South Melbourne 1934 and the

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393 MacFarlane Burnet, *Walter and Eliza Hall Institute*, p. 11.
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\end{flushright}
Mercy Hospital, East Melbourne 1934, both designed in the European modernist idiom, signalled to Melbournians that the architecture of their city was abreast with international architecture.

MacRobertson Girls High School, 1934, (Figure 3.8) was a philanthropic gift and named after its donor, MacPherson Robertson. It highlighted the fact the girls were increasingly provided with the same scholastic rights as boys, illustrating the value placed on education by the public and the government. The architect, Norman H Seabrook (1905-1979) was strongly influenced by William Marinus Dudok’s Hilversum Town Hall (1927–31). The school building was characterized by elements of the *de Stijl* movement through the juxtaposition of horizontal and vertical forms, all in cream brick, with contrasting bands of blue-glazed brick and vermilion-painted steel windows.

The Mercy Hospital (Figure 3.9) presented as a symbol of modernity in terms of architectural aesthetics, technology, internal planning, medical science and social attitudes. Located in Grey Street, East Melbourne, the hospital was designed by SM/T. The client was the Sisters of Charity, a singular entity of

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395 MacPherson Robertson donated one hundred thousand pounds to the State Government to mark the centenary but also to provide work for the many unemployed due to the Depression. Thirty seven thousand pounds of this money was allocated to provide a permanent home for Melbourne Girls High School — the sister school to Melbourne Boys High School. Source: Ambrose Pratt, *The Century of Victoria*, Melbourne, 1934, p. 14.


397 Seabrook worked in the architectural office of Sir John Burnett, Tait & Lorne in Birmingham in 1930 and 1931. Whilst there, he would have been involved in the documentation for the Curzon Cinema, London 1933. The architecture for this cinema was strongly influenced by the work of Dudok.

398 Dudok had successfully synthesized the architectural principles of *De-Stijl* with those of the Amsterdam School. *De-Stijl* rejected any complexities and applied the vertical-horizontal formula with the use of primary colours (red, blue and yellow) for details. The Amsterdam School employed the traditional brickwork of the Netherlands whereby allowing the inherent character to be exposed but, at the same time, developing it to the limits of its plasticity. The results were an uncomplicated and very functional building – stripped down – almost severe. Source: Alan Colquhoun, *Modern Architecture*, Oxford University Press, Oxford, 2002, pp. 109–118.
the Catholic Order of Nuns.

The nuns’ willingness to accept the modernist idiom revealed their desire to have the most modern health-care facility. The design of the Mercy was influenced by Stephenson’s 1932 study tour of Europe and Scandinavia. He was particularly impressed by the European block sanatoriums; such as Bijvoet & Duiker’s Zonnestraal Sanatorium, Holland, 1928, and Alvar Aalto’s Paimo Sanatorium Finland, 1928–33 which Stephenson described as “the most modern of all Finnish Sanatoria”. SM/T replicated many of those elements in the Mercy Hospital such as the accent on horizontality expressed with the flat roof and the balconies on the northern façade. The vertical counter balance was projected through the stairwell at the rear. The purpose of the balconies was to give patients access to fresh air and sunshine that was regarded as having health giving properties. The patients were able to reach the balconies directly from the wards through the triple hung windows. The sheerness of the white external walls was broken by the orange-vermillion colour of the balcony trim and the green glazed tiles the latter defining the main entrance. Robin Boyd, a prominent Melbourne architect and noted author, regarded the hospital as joining “the popular movement of the 1934 revolution”. It was the first hospital which SM/T had built in its entirety and it set a benchmark for others such as the Freemasons Intermediate Hospital, East Melbourne, 1936 and Bethesda Private Hospital, Richmond, 1936. These were the direct precursors to the Royal Melbourne Hospital, Parkville.

**Conclusion**

The original Melbourne hospital was a consequence of protracted and difficult negotiations between the Melbourne proponents for the hospital and the Colonial Government of NSW who held jurisdiction over the embryonic town. The Melbourne Hospital was

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400 Stephenson’s 1932 study tour followed the signing of the contract for St Vincent’s Hospital, ‘one of the largest hospital projects undertaken in Melbourne in recent years’. *Argus*, April 2 1932, p. 6. Source: Priestley, *Melbourne’s Mercy*, p. 56. Priestley notes that St Vincent’s Mother Rectress and her Superior General from Sydney joined Stephenson for part of his trip in order to make joint inspections of hospitals, p. 56.
403 Other Stephenson Meldrum/Turner’s hospitals designed in the modern idiom and completed in 1936 were Wilson House and the Eldon Block at Ballarat Base Hospital in Victoria and Gloucester House, the new intermediate wing of the Royal Prince Alfred Hospital, Sydney.
opened in 1848 for the specific purpose of caring to the sick poor. This small building was designed by architect Samuel Jackson – in keeping with the Brief provided by the hospital’s Building Committee. Throughout the later part of the nineteenth century, the hospital struggled with continuing extensions and new buildings in order to meet new medical innovations, new hospital planning principles, and the overcrowding issue due the rapid increase of population in what became a thriving city. In 1864, the University of Melbourne Faculty of Medicine and Surgery created a clinical school within the hospital, and in 1895, a School of Nursing was established.

From as early as 1866, there were continuing calls for a new hospital on a new site. The Pig Market at Parkville was the preferred site due to its close proximity to the University. In 1908, the hospital held a competition for a new hospital. Although the Pig Market site was favoured, the new hospital was constructed on the Lonsdale Street site in order to meet the conditions of a large grant from the Wilson Trustees. The 1910–16 hospital, designed by JJ & EJ Clark, was constructed in stages according to the principles of the Pavilion plan. The hospital would again expand its activities to become a research facility with the integration of the Walter & Eliza Hall Institute of Research, Pathology and Medicine, in 1915. However, by 1929 the hospital’s facilities were again inadequate due to new medical disciplines developed during WW1 and, with the introduction of the motorcar - the high rate of motor accidents. Also, the noise and pollution of the city rendered the location increasingly unsuitable. A new hospital on the Parkville site was unanimously agreed but it was not until 1935 that the RMH finally received permission from the Victorian State Government to procure the Pig Market as the site for a new hospital.

This chapter has explored the history of the RMH from 1839 to 1935 in order to place the hospital into an historical context of metropolitan Melbourne, the State of Victoria and Australia and to establish its significance as a medical, teaching and research facility and its important role in the health of Melbournians.

1935 was a momentous year for the Melbourne Hospital as the Dunstan Government passed the Royal Melbourne Hospital Act authorising the Committee of Management to procure the Pig Market Site at Parkville for the new hospital. The Parkville building would be the third realisation of the hospital.
The 1910–16 Melbourne Hospital is particularly important to this dissertation in so far as it was still operational during the time of the programming phase for the Parkville Hospital. The extent to which the environment at Lonsdale Street influenced the hospital committees and the staff in specifying their requirements to SM/T will be explored in future chapters.
4. THE PROGRAMMING PARTICIPANTS

Introduction
This chapter assesses the expertise of the programming participants and their role within the programming process. The client was a complex structure of five significant entities: the Victorian Government, the Charities Board, the Royal Melbourne Hospital, the University of Melbourne Faculty of Medicine and Surgery and WEHI. The RMH Committee of Management was the principal authority and appointed three committees specifically for the new building, the Organisers, the Special Advisory and New Building Committee (NBC) and later, the Board of Reference. The standing Honorary Medical Officers Committee was also to be very influential in the schematic development. This chapter will identify and examine principal participants, who they represented and what expertise they contributed to the programming process. This chapter also introduces the architects, Stephenson Meldrum/Turner (SM/T) and the reason for their selection as architects for this major project. This chapter will examine the structure of their practice, their hospital expertise, their programming methodology and who represented them throughout the programming process.

The Client Composition
The composition of the client structure was complex (Figure 4.1). The five entities were: the Victorian Government, the Charities Board, the Royal Melbourne Hospital, the University of Melbourne Faculty of Medicine and Surgery, and Walter and Eliza Hall Institute.

The Victorian State Government
The State Government was responsible for providing health care for the sick poor and the injured in the State of Victoria. As discussed in Chapter 3, the RMH was founded on the principles of the British Voluntary Hospital Movement whereby it was partly funded by private contributions and partly funded by public funds - the latter being administered by the government which was answerable to the people of Victoria. However the frequent election of different political parties to Government during this time created instability and posed considerable difficulties for the RMH.
The Charities Board of Victoria

The Charities Board was established as a government body in 1922 with the specific responsibility of overseeing public hospitals and their consent was required for all major decisions. While it had approved, in principle, the rebuilding of the RMH, the Board required all plans to be approved by them before any contracts were let. It was also the funding body on behalf of the Government and therefore responsible for authorizing all payments. Mr James Love was the Director of the Board and Mr Cecil McVilly was Inspector of Charities during the programming process 1935 -1945.

Figure 4.1. Organisational Chart of the Client Composition.

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404 NBC, July 1936, RMH Archives.
The architects accepted the responsibility of keeping the Board fully informed. However it was not till 1941 – when construction of the new hospital was well underway – that a member of the Charities Board, (Sir) Arthur Smithers, was appointed to the RMH Committee of Management, in accordance with the provisions of the *Hospitals and Charities Act* 1939. An earlier appointment would have facilitated easier communication between the Board, the hospital and the architects.

**The RMH Committee of Management**

The Committee of Management was the principal entity for the entire rebuilding of the RMH at Parkville. They had the authority and responsibility for all final decisions and the signing of contracts within the auspices of the Charities Board. They were clearly aware of the magnitude of this project and appointed a number of client committees to manage the programming process. The principal committee, the NBC was responsible directly to the Committee of Management for the ‘New Hospital at Parkville’. (The term ‘Pig Market’ was regarded as derogatory). The two other major committees were the Organisers and the Board of Reference. The standing Honorary Medical Officers (HMO) Committee played a major role whilst the RMH Standing Committees of Finance and Law played minor but important roles. There were also a number of user committees. The committees’ roles within the programming process were highly significant and are discussed fully in later chapters.

**The Presidents of the Royal Melbourne Hospital**

The President of the RMH was also the President of the Committee of Management. For the period related to the building of the new hospital the Presidents were James A Levey, (1931–35), Arthur Baillieu (1935–37) and Bernard Zwar (1937–45). Between 1935 and 1937, there was dissension between Baillieu and Zwar. Zwar, a senior practising surgeon, was anxious for the new building to proceed regardless of the financial difficulties but Baillieu, the current President and also Chairman of the Finance Committee, was determined to ensure financial security:

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407 The Royal Melbourne Hospital *Annual Report*, 1942, p. 3.
409 Arthur S Baillieu OBE (1872–1943) was a Director of a number of family companies including Allard Baillieu Real Estate. He was also a Director of the Commercial Bank. Source: Gregory, *The Ever Open Door*, p. 215.
Not only with the capital costs of the hospital and the repayments of any loans but the maintenance cost of the new and large structure … and that the building should have the full support of the government with regard to both.  

Despite the fact that the Government was unwilling to give any assurances, the Committee of Management decided to proceed with plans for the new hospital whilst Baillieu was overseas. Baillieu, who was regarded as a shrewd businessman, considered this decision risky and resigned from the Presidency in protest in May 1937. Zwar took his place as President.

**Members of the Committee of Management**

Members of this committee were elected by ballot in accordance with the *Hospital and Charities Act*. Of the twenty-two members on the Committee during the programming phase, two were women. Most of the members were prominent Melbourne businessmen (Appendix A) and three were medical practitioners (Table 4.1). Members contributed within their own areas of expertise.

<table>
<thead>
<tr>
<th><strong>President:</strong> Arthur Baillieu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miss Jessie Bage</td>
</tr>
<tr>
<td>(Sir) Harold Clapp</td>
</tr>
<tr>
<td>Cecil B. Hearn</td>
</tr>
<tr>
<td>Joseph Levi</td>
</tr>
<tr>
<td>Clive McPherson</td>
</tr>
</tbody>
</table>

**Medical Officers:**

| Bernard Zwar, Surgeon | Victor Hurley, Surgeon | Konrad Hillier, Physician |

*Table 4.1. Members of the RMH Committee of Management 1935*  
*Source: RMH Annual Report, 1935.*

Over the programming period, seventeen members continuously served on the Committee and only five members resigned and were replaced by others (Table 4.2). This provided stability to the committee and consistency in their decision-making.

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411 RMH Committee of Management minutes, p. 309, RMH Archives.
Table 4.2. Committee of Management, Change of Members 1935–39.

<table>
<thead>
<tr>
<th>Year</th>
<th>Change to Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>1935</td>
<td>Allan Spowers resigned July 1935.</td>
</tr>
<tr>
<td>1936</td>
<td>Sir William Brunton resigned November 1936.</td>
</tr>
<tr>
<td>1937</td>
<td>Arthur Baillieu resigned as President in May 1937 and from the Committee in September 1938.</td>
</tr>
<tr>
<td>1938</td>
<td>George Nicholas resigned and was replaced by Morris Nicholas in February 1938. J.D. Gates resigned. H.D. Giddy and (Sir) L.J. McConnan filled the vacancies in November 1938.</td>
</tr>
<tr>
<td>1939</td>
<td>L.F. Miller resigned and Henry Allen eventually filled the vacancy in April 1940.</td>
</tr>
</tbody>
</table>

University of Melbourne Faculty of Medicine and Surgery
The RMH and the University of Melbourne Faculty of Medicine and Surgery were closely affiliated in order to provide clinical training to fourth, fifth and sixth year undergraduate students in medicine. As specific teaching facilities were required within the hospital, Professor Peter MacCallum represented the University on the Organisers’ Committee.

Walter and Eliza Hall Institute of Research
The Trust Deed of the Walter and Eliza Hall Institute (WEHI) stipulated that the Institute must be located on hospital grounds in the spirit of the motto: ‘the hospital for the Institute and the Institute for the hospital’.412 As a research institute, it had highly specialised requirements: research laboratories, patient accommodation, teaching facilities and an animal house. Dr Charles Kellaway was Director of the Institute between 1923 and 1944 and he represented the Institute as one of the three members of the Organisers’ Committee to ensure the best outcome for WEHI. The research work undertaken at WEHI, in conjunction with the Royal Melbourne Hospital and the University of Melbourne was considered of ‘outstanding value’, so much so, that, during this period, it attracted funding grants from the Rockefeller Foundation and the Carnegie Corporation of New York.413

The Genesis of the New Hospital
By 1935, the Committee of Management recognized that the need for the new hospital had become urgent. Despite many obstacles involving complex negotiations, they resolved to

set the wheels in motion to commence investigations into obtaining the Parkville site. The Standing Committees of Law and Finance assisted the Committee of Management to overcome various difficulties such as lack of a Crown Grant for the Parkville site, the continuance of the Pig Market despite designation of the land being for the hospital and the need to get permission from the Melbourne City Council to commence building prior to the expiration of twelve months notice for the Pig Market to vacate the site. In an attempt to resolve stalemates, the Committee of Management sent a deputation to the Premier to obtain a “transfer of title to the Lonsdale Street site so that a Fee Simple be given”.\textsuperscript{415}

In August 1935, The Committee of Management appointed the Organisers and, in October 1935, invited three architectural firms specializing in hospitals to submit their credentials. On December 1935, they appointed SM/T as architects and established the NBC.

The Organisers

The Committee of Management appointed the Organisers on August 5 1935 for the purpose of gathering requirements lists from the Medical Staff and the Heads of Departments. It consisted of three men: Professor Peter MacCallum, Dr Charles Kellaway, and Dr Douglas Thomas representing the University of Melbourne School of Clinical Medicine and Surgery, WEHI and the RMH Medical Staff respectively.\textsuperscript{416} In December, Stephenson offered to assist the Organisers in preparing the report for the proposed new hospital and to do so on a voluntary basis.\textsuperscript{417} However, there is no record of the Organisers accepting this offer.

The Organisers devoted six months to collecting and collating all the requirements for the architects.\textsuperscript{418} The dates on the requirement lists revealed that they were recorded between November 1935 and April 1936.\textsuperscript{419} These lists were complied into a programming document: The Report of the Organisers to the Committee of Management of the Royal Melbourne Hospital on the Requirements of the Royal Melbourne Hospital at the

\textsuperscript{414} Fee Simple title is the basis of freehold ownership under Victorian property law.
\textsuperscript{415} Committee of Management minutes, 1937, RMH Archives.
\textsuperscript{416} Committee of Management minutes, August 6 1935, RMH Archives
\textsuperscript{417} NBC minutes, December 17 1935, RMH Archives.
\textsuperscript{418} Burnet, \textit{Walter and Eliza Hall Institute 1915–1965}, p. 35.
\textsuperscript{419} Organisers' file, RMH Archives.
proposed New Medical Centre at Parkville.\textsuperscript{420} This report was most important as the entire hospital would be planned on the requirements as listed. Between May and October 1936, Mr Henry Searby replaced Dr Thomas whilst he was on leave as it was considered important that continuing liaison with the medical staff was maintained.\textsuperscript{421}

**Special Advisory and New Building Executive Committee (NBC)**

With the exception of Professor Peter MacCallum, (University of Melbourne) all the members of this Committee were members of the Committee of Management (Table 4.3). The NBC was established on December 10 1935\textsuperscript{422} to effectively acting as the ‘working client’ but the Committee of Management retained the right to make the final decisions. The NBC met regularly with the architects to discuss the schematic development throughout the programming process, 1935 to 1939.

<table>
<thead>
<tr>
<th>Chairman: Cecil Hearn.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allan Spowers Arthur Baillieu Sir William Brunton</td>
</tr>
<tr>
<td>Norman MacKintosh James Gates H. Bremner Lewis</td>
</tr>
<tr>
<td>Peter MacCallum Victor Hurley Bernard Zwar</td>
</tr>
</tbody>
</table>

Table 4.3. Members of the NBC.  
Source: NBC minutes, December 10 1935, RMH Archives

**The Board of Reference**

On October 19 1937, in response to a request by the architects, the Committee of Management appointed a subcommittee, the Board of Reference “with authority to make necessary decisions in all matters of detail during the preparation of the working drawings and the development of the plan”.\textsuperscript{423}

The Committee of Management appointed three of its members to this sub-committee: Hearn (Chairman), Clapp and Bremner Lewis. The appointment of this Board indicated a willingness to follow the advice of the architects and facilitate progress. It was also a practical way to manage the project. The duties of the Board were specified as:

\textsuperscript{420} Report of the Organisers to the Committee of Management of the Royal Melbourne Hospital on the Requirements of the Royal Melbourne Hospital for the proposed New Medical Centre at Parkville, Organisers’ File, RMH Archives.  
\textsuperscript{421} NBC minutes, May 8 1936, RMH Archives.  
\textsuperscript{422} NBC minutes December 10 1935, RMH archives.  
\textsuperscript{423} The request came in the letter from Stephenson & Meldrum, September 29 1937.
To see that the principles laid down by the Committee of Management in regard to the plans and specifications as laid down in the resolution of the Committee of Management and the Organisers’ report are carried out. The Board of Reference shall be given discretionary powers to deal with all matters which may be submitted to it affecting the development of the scheme, the interrelationships with the various departments, the co-ordination of various sections of the hospital with the medical school and the co-ordination of the aspects with representatives of the university. For this purpose the Board of Reference shall have the right from time to time to co-opt such authorities as it may deem advisable in order to inform itself of any phase of the problem in the process of its undertaking.424

The Honorary Medical Officers’ Committee
The HMOs’ Committee was a standing hospital committee and a powerful body within the hospital (Table 4.5). The HMOs were highly qualified and therefore regarded themselves (with some degree of arrogance) as experts in medical science and technology with control over all matters relating to healthcare in their own specific disciplines.425 The HMOs were divided into two distinct groups: Outpatient Physicians and Outpatient Surgeons and Inpatient Physicians and Inpatient Surgeons.

<table>
<thead>
<tr>
<th>Chairman</th>
<th>Mr Basil Kilvington M.D., M.S. (Melb) F.R.A.C.S. Consulting Surgeon.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Superintendent</td>
<td>Dr L.E. Rothstadt, M.D., B.S., (Melb)</td>
</tr>
<tr>
<td>Honorary Secretary</td>
<td>Mr Hughes-Jones, M.D., M.S., (Melb), F.R.C.S.</td>
</tr>
<tr>
<td>Members</td>
<td>Dr Konrad Hillier, M.D., B.S., (Melb.), F.R.A.C.P. Consulting Physician</td>
</tr>
<tr>
<td></td>
<td>Dr H. H. Turnbull, M.D., B.S., (Melb.), F.R.A.C.P. Consulting Physician</td>
</tr>
<tr>
<td></td>
<td>Mr F. Blois Lawton, O.B.E., M.B., B.S., (Melb), F.R.C.P.</td>
</tr>
<tr>
<td>In-patient Surgeons:</td>
<td>Sir Alan Newton, Messrs Zwar, Coates, Hurley, Upjohn, Hailes and Searby.</td>
</tr>
<tr>
<td>Outpatients Physicians</td>
<td>Drs Johnston, Thomas, Maxwell, Fairley, Penington, and Robertson.</td>
</tr>
<tr>
<td>Outpatients Surgeons</td>
<td>Messrs Coates, Ormond-Smith, King, Hughes-Jones, Syme and Turner.</td>
</tr>
<tr>
<td>The Sub-Dean of the Clinical School:</td>
<td>Mr G.R.A. Syme, M.B., B.S. (Melb) F.R.C.S. (Eng), F.R.A.C.S.</td>
</tr>
</tbody>
</table>

Table 4.4. Members of the Honorary Medical Officers Committee: February 9 1935. Source: Honorary Medical Officers Committee minutes, February 9 1935, RMH Archives.

424 The duties of the Board of Reference were enunciated in the minutes of the New Building Executive.
Their representatives on the HMOs’ Committee are detailed in Table 4.4. The HMOs were highly respected for their professional expertise and for the very nature of being ‘honorary’ and giving their time gratuitously. Although the HMOs’ duties were primarily concerned with the organisation of the hospital medical staff and students, the Committee of Management frequently referred matters to them such as those that required the cooperation of the medical staff, and their advice was invariably accepted.

According to the RMH Annual Report, 1935, there were six Honorary Physicians and seven Honorary Surgeons attending Inpatients and six Honorary Physicians and six Honorary Surgeons attending Outpatients plus twelve Specialists and their twelve Assistant Specialists plus sixty-two Clinical Assistants. In June 1935, there were one hundred and sixty-eight medical officers practicing at the RMH – not all were honorary. This number included Heads of Departments such as X-Ray, Bio-chemistry and Pathology. The following chapters explore the influence of the HMOs particularly in relation to the wards and OPD.

Nursing and the Preliminary Training School for Nurses.

Miss Helene Dorothy Grey was Lady Superintendent (often referred to as Matron) of Nurses from 1934 to 1957. She attended meetings with the architects as the representative of the nursing staff. The nurses staffed all patient areas: the wards, Outpatients Department, Casualty and Operating Theatres. At the time, it was compulsory for trainee nurses to ‘live-in’, therefore a Nurses Home with facilities for a training school was an essential building.

The Organisation of the RMH

The architects produced two charts in which to identify the hierarchical nature of the RMH organisation. The purpose of the first chart (Figure 4.2) was twofold. Firstly, it emphasised that the role of the Board (sic) of Management as the head of the RMH organisation and that, through the Executive Committees and the Hospital Management, the Board was responsible for the entire operations of the hospital. Secondly, the chart identified all the departments by naming the profession of the people such as the physiotherapist, the

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pathologist, or by job description, such as the typist or the cook. This clearly indicated that the architects saw the organisation in terms of people.

Figure 4.2. The Chart of the Hospital Organisation prepared by SM/T, Source: Stephenson and Turner Collection, State Library Victoria.

In the second chart, (Figure 4.3), the architects again highlighted the complexity of the RMH organisation. It could be presumed that the architects developed this chart in response to the Organisers’ Requirement Report to identify the relevant areas within the plan according to principles of separation and connectivity. For operational purposes, each department required to be separate from the other yet retain an interrelationship with the remainder of the hospital for effective functionality. This chart highlights the division of the services into two distinct components with Management (Administration) at the centre of control of all departments. These areas are:
**Hotel Services.**
The patients and the residential staff required food, linen, hot water, heating/cooling and lighting. Therefore the hotel services were integral to the functionality of the hospital and were defined in areas of food service & dining, laundry and linen, stores, engineering workshop and boiler house (service block).

**Medical Services.**
The areas specified are Wards, Inpatients Medical, OPD, Teaching and Students, Laboratories, Research, Pharmacy, Physiotherapy, Electrical Medical and Utility.

![Figure 4.3. Diagram showing the division between the Hotel and Medical Services with Administration at the Centre. Source: Stephenson and Turner Collection, State Library Victoria](image)

**The RMH’s Main Protagonists**
The three leading figures representing the RMH during the period 1936-45 were Bernard Zwar, (Figure 4.4) the President of the hospital and President of the Committee of Management, Cecil Hearn, Chairman of the NBC and the Board of Reference, and Colonel Rupert Fanning, the Manager. Colonel Fanning (Figure 4.5) attended most of
the project meetings and documented - through minutes and letters to the architects - all decisions made.

Bernard Traugott Zwar (1876–1947) knew the RMH intimately as he spent most his professional years practising surgery at the Lonsdale Street building. He graduated from the University of Melbourne with a Bachelor of Medicine in 1899, Bachelor of Surgery in 1900, Doctor of Medicine in 1902 and Master Surgery in 1908. He was a Resident Medical Officer at the RMH, 1900–01 and, in 1901, acted as Medical Superintendent. After a ten-year sojourn overseas, he returned to the RMH in 1911 as a surgeon in the Outpatient Department. During World War 1, he served with the Australian Army Medical Corps in the Dardanelles and Egypt.427 In 1919, he returned to the RMH as an In-patient surgeon, a position he held until his retirement in 1935, when he became a consulting surgeon.428

Zwar served as President on the Committee of Management of the RMH from 1935 until 1945 and was also President of the RMH. He was clearly a man who readily assumed authority as he held several positions including: Chairman of the Nurses Board of Victoria (1924–27); one of the forty ‘founders’ of the Royal Australasian College of Surgeons in 1927; Chairman of the Walter and Elisa Hall Institute (1937–44); and Deputy Vice Chancellor of the University of Melbourne (1943–47).429

Whilst practising surgery and coping with the frustrations of the overcrowded and outmoded Lonsdale Street building, Zwar was determined to see the new building completed. It was largely to his persistence that this was achieved.

Cecil Barrington Hearn CBE, (1892–1960), held the position of Chairman of the NBC for the entire programming phase. He also sat on the Board of Reference. Hearn’s role on these committees carried considerable authority and responsibility. His administrative experience as General Manager and Chief Executive Officer of the Colonial Mutual Life Insurance Company equipped him well for this position.430 He was awarded the CBE (Commander of the Most Excellent Order of the British Empire) for his services to the hospital.431

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431 RMH, Annual Report, 1942, Melbourne, p. 4.
Colonel Rupert Fanning\(^{432}\) (1890–1954) served in WW1 was decorated with the DSO (Distinguished Service Order). Fanning became a professional soldier and held a number of positions in the Army, two of which were as an instructor in Gunnery at the Royal Military College Duntroon 1924–1925 and in 1926–1929 at the Staff College at Quetta in India\(^{433}\) where he was regarded as an `an able organiser and a sound and tactful administrator'.\(^{434}\) He was 41 years old when he was appointed in 1931 to the role of Secretary of the RMH.\(^{435}\) However, after an evaluation of the position, Fanning’s position was elevated to that of Manager. He proved to be “meticulous not only in organization but also in ethical matters”\(^{436}\)

At Stephenson’s suggestion, and with the support of the Committee of Management, Fanning undertook a seven-month study tour of Europe and America in 1937 visiting one hundred and fourteen hospitals in the company of Donald Turner of SM/T.\(^{437}\) His objective in undertaking this trip was primarily to study hospital administration\(^{438}\) but on arriving in the USA, he discovered that no courses on the subject were being held during his stay, so he concentrated on visiting hospitals and talking with their administrators.\(^{439}\)

In New York, Fanning met with Goldwater, then Chief Commissioner, Department of Health, New York City, who must have been pleased to see someone observing his principal rule that:

> All hospital planning must be directed and subject to the interpretation of men actually engaged in hospital administration.\(^{440}\)

Fanning also met with hospital architects, H Shepley of Coolidge, Shepley, Bulfinch & Abbott, architects of The Cornell-New York Medical Centre, 1933, and Stevens, of Stevens

\(^{432}\) Rupert Fanning was the son of Edward Fanning, one the trustees of the Edward Wilson Estate. All the trustees were made Life Governors in recognition of their beneficence to the hospital. Source: Gregory, p. 138. Although Fanning’s full title was Lt. Colonel Fanning, he is referred to in most of the documentation as Colonel Fanning so for the purpose of this dissertation, he will be referred to as Colonel Fanning.

\(^{433}\) Gregory, The Ever Open Door, p. 239.

\(^{434}\) Gregory, The Ever Open Door, p. 239.

\(^{435}\) Gregory, The Ever Open Door, p. 299.

\(^{436}\) Gregory, The Ever Open Door, p. 239.


\(^{440}\) Goldwater, On Hospitals, p. 229.
and Lee, hospital specialist architects responsible for over 100 major institutions between 1912 and 1933.  

There was historical precedence for RMH hospital personal undertaking study tours with architects. As mentioned in Chapter 3, John Grice, then President of the Melbourne Hospital, had undertaken a research trip with JJ Clark in 1908.

The comprehensive report of Fanning’s survey abroad proved to be “of great value in the planning of the new hospital and its future management.” However, because of World War 2 and the shift to Parkville, his proposals were not implemented until the 1950s. He was on war service leave from the hospital from 1941 to 1944. In his absence, Mr AF Tweedie, was acting manager.

**The Client’s Responsibility to the Architects**

As discussed in Chapter 2, the programming of a hospital placed obligations on the client. They had precise responsibilities to ensure their instructions to the architect were clearly enunciated. These instructions were to include their mission statement, their objectives, their functional requirements, their priorities, their budget, their time–frame and who will be their representatives responsible for the management of the project and the decision-making. The RMH’s instructions to SM/T will be examined in detail as the programming process is reviewed.

**The Architects**

Three firms were asked, in 1935, to submit their credentials as possible architects for the new RMH. They were A&K Henderson and Company, SM/T, and Leighton Irwin and Company. At that time, SM/T and Leighton Irwin and Company were the two

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441 Fanning, ‘Report on Hospital Administration and Organization Abroad’, p. 4.
444 A&K Henderson were the architects for St Andrews Intermediate Hospital, East Melbourne. It was being constructed at the same time as SM/T’s Mercy Hospital. Whilst incorporating the influence of American planning, the façade projected the conservatism of the 1920s. *Source: Age*, April 14 1933.
Australian firms specializing in hospital architecture, both firms were established in 1920 and both were Melbourne based. Both Stephenson and Irwin had toured America and Europe to study hospitals in the 1920s and 1930s prior to receiving this request and both had considerable experience in the planning of hospitals.

Irwin’s experience concentrated on small Victorian country hospitals such as St. Arnaud, Ouyen and Mildura. However, in September 1934, Irwin had been engaged to design Prince Henry’s Hospital, St Kilda Road, South Melbourne. Prince Henry’s Hospital had functioned as a Homeopathic Hospital since 1876. In 1934, the Australian College of Surgeons instigated the rebuilding program for the hospital to become a general public hospital specifically for the purpose of it becoming The School of Post-Graduate Surgery.446

SM/T also had a number of small rural Victorian hospitals to their credit – some of which were the Wangaratta Base Hospital 1931–34; Colac District Hospital 1933; Echuca District Hospital 1933–37; and Stawell District Hospital 1933–54.447 However SM/T had also done city hospital work – remodelling, extensions and new hospitals – both private and public hospitals such as the Children’s Hospital at Hampton 1925 and Carlton, the new Children’s Orthopaedic Hospital, Frankston, 1928; the new Block A and the Laundry Block, Austin Hospital for Incurables, Heidelberg, 1929–30; the new Jessie McPherson Community Block, 1931 and the Mabel Brooks Wing 1933 for the Queen Victoria Memorial Hospital, Melbourne; St Vincent’s Hospital, Fitzroy 1933; and the Mercy (Private) Hospital, East Melbourne 1934.

In 1935, SM/T had the following new hospitals under construction: the Freemasons Hospital, East Melbourne; Bethesda Hospital, Richmond; Gloucester House, (intermediate block) Royal Prince Alfred Hospital, Sydney; and the Central Block at Ballarat Base Hospital, all completed 1935.448

446 As the Australian College of Surgeons failed in its bid to have the hospital become The School of Post-Graduate Surgery, the hospital was inaugurated as a general hospital becoming Melbourne’s fourth general hospital. Source: Prince Henry’s Hospital File, Box P1887, Monash Medical Centre Archives.
447 Letter, October 22 1935, SM/T to the RMH Committee of Management detailing their expertise in hospital architecture, Correspondence file, RMH Archives.
448 SM/T designed and executed new public wards, Operating rooms, Maternity Section, Intermediate Section and X-ray Department for the Ballarat District Hospital in country Victoria. Source: Letter, October 22 1935, SM/T to the RMH Committee of Management, RMH Archives.
The following working drawings were on the drawing board for Newcastle Hospital: Intermediate, Maternity, Nurses Home, Kitchen, Stores, and Mechanical Services; St Vincent’s Hospital, Melbourne: Intermediate Hospital, Nurses Home, Pathology, Convent; St Vincent’s Hospital, Sydney: very large Outpatient’s Department, Nurses Home, Wards, Pathology, Kitchens, Stores and Mechanical Services; King’s Jubilee Maternity Hospital, Camperdown NSW; King’s Jubilee Memorial Building, Women’s Hospital, Melbourne; Eye and Ear Hospital Melbourne: New Intermediate Wards; Queen Victoria Hospital Melbourne: Pathology Laboratory; Broken Hill & District Hospital, NSW; St Faith’s Hospital, Narrandera NSW; Mater Misericordiae Hospital, Brisbane: design only - no supervision; Launceston Public Hospital, Tasmania; and Geelong District Hospital: Intermediate Block and other works.449

The Appointment

The appointment of SM/T in 1935 as architects to the Royal Prince Alfred Hospital Sydney convinced the Committee of Management to appoint them as architects for the RMH. They were impressed by the fact the firm had three principals: Arthur Stephenson, Percy Meldrum and Donald Turner – who were all Fellows of the Royal Institute of British Architects.450 The Committee were also impressed by the number of personnel employed by the firm – a total of thirty seven which included seven senior fully qualified architects each of whom were “responsible for particular phases of hospital work”451 and each of whom might be required to take full charge of the construction of one of SM/T’s hospitals in any centre. The Committee’s appointment of a large specialist firm provided evidence that they were very aware of the magnitude of their project.

The Blackett Arrangement

William Arthur Blackett (1873–1962) had been the hospital’s official ‘Honorary Consulting Architect’ (also known as an Advising architect) since 1922.452 In 1935, as a prelude to the appointment of SM/T, the Committee of Management wanted to replace his firm, Blackett & Forster, as they did not compare to SM/T in size or experience. The Committee were aware that “to plan a modern hospital, special training and experience was necessary and

449 Letter, October 22 1935, SM/T to the RMH Committee of Management, RMH Archives.
450 Letter, October 22 1935, SM/T to the RMH Committee of Management, RMH Archives.
451 Letter, SM/T to the RMH Committee of Management, October 22 1935, RMH Archives.
452 The position of ‘Honorary Consulting Architect’ implied that no fees were paid for work under two hundred pounds and for any work over that amount, the two hundred pounds was paid plus a small commission.
that the committee should select the best man for the work”.453

In order to resolve the legalities, the Committee of Management engaged solicitor, WK Fullagar, KC (King’s Council), who concluded that the hospital was:

Within its rights to employ another architect for the large undertaking of the great new hospital and it (was) not obliged to terminate the appointment of Mr Blackett as Honorary Advising Architect if it so desired to appoint another architect.454

The RMH proposed the two firms work jointly on the project but Stephenson dismissed any association with Blackett.455 However, they had to agree to an arrangement whereby Blackett would act as Associate Architect. Although Blackett’s name was recorded in the RMH Annual Reports as Honorary Consulting Architect and his name was included on the SM/T drawings as Associate Architect, he had no discernible role in designing the new hospital.

The Agreement

SM/T were officially appointed in December 1935. Stephenson saw the RMH appointment as recognition of the firm’s accomplishments. His biographer, John Swan, wrote that the appointment was:

The greatest moment in Stephenson’s professional life and the opportunity of a lifetime. As well as being a reward and accolade for his foresight in pioneering and continuing extensive studies of the subject, the selection of the Stephenson’s teams to plan the largest and costliest hospital of the century to that date was recognition of their pre-eminence.456

The Architects’ Agreement however, was not signed until August 18 1936. The agreement stated that no work was to be undertaken without written authority from the Committee of Management thus signifying that the RMH had total control of the project and the agreement would be terminated if either Mr Stephenson or Mr Meldrum “ceased to be in partnership”.457 However this clause was not invoked when Meldrum resigned from the firm in 1937. This decision was possibly because the RMH had invested too much time and effort into the arrangement to rescind two year’s work.

453 Committee of Management minutes, July 23 1935, RMH Archives.
455 The Stephenson & Turner Collection, State Library of Victoria, MS 2072, B4 V210, October 2 1935.
457 NBC Minutes, December 17 1935, RMH Archives.
The Architect’s Goal for the RMH
SM/T’s goal was to create a modern hospital that reflected “the dignity of the purpose for which it (was) built (and that) it should be beautiful and radiate comfort and good cheer, so that pride of service may be reflected in the well-being of the patient”. They believed that the development of the new hospital announced to the public “that in the establishment about to be built their ills will be studied, their lives protected, their suffering relieved and their sicknesses cured”.

The Practice
Arthur Stephenson and Percy Meldrum commenced practice in Melbourne in December 1920 under their registered name of Stephenson & Meldrum Architects. Donald Turner joined the practice as a partner in 1925 but his name was not officially included in the firm’s name at that time. Like many other Australian and New Zealand architects who had served in WW1, Stephenson and Turner had enrolled in the Architectural Association (AA) in London in 1919. They met Meldrum who was an instructor at the AA. Stephenson and Turner completed their studies in two years and were eligible for registration as Associates of the Royal Institute of British Architects. After Meldrum’s resignation from the practice in 1937, the firm’s name changed to Stephenson & Turner. From 1922 to 1965, the firm operated from Collins Court, 374 Little Collins Street, Melbourne.

The Principals
Arthur George Stephenson, 1890–1967, (Figure 4.6) affectionately called ‘The Boss’, was the founder and principal partner of the firm. He was a large, handsome, athletic man whose features projected his strength of character. According to Dr John Lindell, Medical Superintendent of the RMH, 1942–1954, Stephenson was a man to “whom life itself in all
of its manifestations was a challenge, a challenge to be met and overcome”.  

His “conspicuous gallantry and devotion to duty” during the WWI earned him the Military Cross in December 1917.

He was born on April 5 1890, in Box Hill, a developing suburb in outer eastern Melbourne. He was one of 5 children and commenced school at New College Box Hill which his father, Arthur Robert Stephenson had founded in 1890. His mother, Mrs Sarah Stephenson cared for the boarding students. Stephenson senior’s brother, Stuart, emigrated from Britain to assist with the teaching and all three worked closely as a team. Thus the concept of teamwork was instilled in Stephenson junior from a very early age. He also inherited his elders’ entrepreneurial talents and his uncle’s love of sport, particularly cricket and yachting. By his twenty-first birthday, he had completed a three-year course in Construction at the Working Men’s College, now the Royal Melbourne Institute of Technology (RMIT) University.

Two major events in his life brought him in touch with men who would profoundly influence the success of his architectural practice. The first was his school and the second was WWI. Stephenson was fortunate to be admitted to the Church of England Grammar School in Melbourne, the city’s most prestigious private school. Whilst enrolled in the Senior School from 1905 to 1907, he befriended the sons of some of Melbourne's most powerful families, developing lasting friendships with Tom and Harold Luxton of the McEwan’s hardware empire, Clive Baillieu (later Lord Baillieu of Sefton), Richard Gardiner Casey (later Lord Casey, politician, diplomat and Governor-General of Australia) and

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463 Dr John Lindell, 'Eulogy' at Stephenson’s funeral, Melbourne, 1967.
465 Later known as Kingswood College.
466 Sarah Stephenson, formerly Sarah Chewings, was the daughter of a prominent Adelaide family. She was the first woman member of the Royal Australian Geographical Society.
468 Stephenson’s enrolment at Melbourne Grammar School was facilitated by his father’s new position as Reverend Stephenson of Congregational Church in the pastorate of East St Kilda. He had been ordained after completing a degree in theology at Melbourne University. At the time, Melbourne Grammar admitted sons of the clergy for half the normal fees.
Robert Gordon Menzies (later Sir Robert Menzies, the Prime Minister of Australia). Menzies regarded Stephenson as “a man of high character and notable wisdom, with a great faculty of making friends and keeping them”.

Whilst serving as Captain with the 3rd Pioneer Battalion of the 1st Australian Imperial Force in France, he befriended Walter Bassett, a member of the Australian Flying Corps and Clive Steele, a Major in the Engineers. In the 1920s, he encouraged both Bassett and Steele to launch their own engineering practices – Bassett specialized in mechanical and electrical engineering and Steele in reinforced concrete. Until this time, all engineers were employed by directly by building companies. Stephenson broke with tradition by contracting them directly as consultants of the firm. Stephenson, Steele and Basset were all later knighted for their services to their professions. Stephenson was still active in the practice when he died in 1967.

**Percy Meldrum**

Percy Hayman Meldrum, 1887–1968 (Figure 4.7) and Arthur Stephenson were like chalk and cheese but their differences complimented each other. Meldrum was a slim man of medium height whose lean face reflected his gentle sensitive nature.

He was born in Casterton, a small picturesque country town on the Glenelg River in south-western Victoria. He was educated at the local State Primary School and later at the Ballarat College where he met and formed lasting friendships with artists Harold B Herbert and the Lindsay Brothers from nearby Creswick. Lionel, Norman and Daryl Lindsay were to become famous artists and writers. Meldrum himself was an excellent water colourist. Between 1907 and 1913, Meldrum studied architecture at the International School of Correspondence (ISC). His Diploma required him to do an indenture with two Melbourne architectural practices: Desbrowe Annear and AA Fritsch. During this time, Meldrum was awarded the Victorian Institute of Architects’ Medal for Drawing. In 1914,

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469 Recording of conversation with Peter Stephenson, Bendigo, Victoria, January 1999.
471 In January 2002, Percy Meldrum’s son Richard declined to be interviewed for this research but was happy to answer questions by letter.
Meldrum’s enthusiasm for Frank Lloyd Wright and Wright’s houses at Oak Park led him to travel to Chicago. With the outbreak of the war, he arrived in England to enlist but, due to defective eyesight, was seconded to design aircraft hangers. After the armistice in 1919, Meldrum was employed as an instructor at the AA, London.

Meldrum’s considerable artistic talents were well recognised. In 1912, whilst taking his articles with Fritsch, he was awarded the Royal Institute of Victorian Architects Silver Medal for painting and, in 1920, when at the A.A he received the prestigious Royal Institute of British Architects Tite prize, also for painting. The Tite prize money enabled Meldrum to visit Italy. He was so impressed with Italian architecture that it was to influence all his future designs.

On his return to Melbourne in 1920, Meldrum resumed socialising with his artistic friends, Daryl and Lionel Lindsay, Napier Waller, Leslie Bowles, Ian Fairweather, and his cousin, Max Meldrum. Percy Meldrum’s Friday night soirees were popular among the young designers of the firm for it gave them the opportunity to mingle with young Melbourne artists. Meldrum commissioned some of these artists for the firm’s projects such as Napier Wallace whose murals still adorn the walls of the Melbourne Town Hall after SM/T had reinstated the building pursuant to a fire in 1927.

The partnership of Stephenson & Meldrum was dissolved in December 1937 due to irresolvable differences. Arthur Noad, also an architect, resigned from the firm at that time and he and Meldrum formed a partnership, Meldrum and Noad. Although Meldrum spent only two years on the RMH project, he was present during the early programming phase.

**Donald Turner**

Donald Keith Turner, 1895–1964, (Figure 4.8), affectionately called Skipper, was born in Maitland, New South Wales and attended the Fort Street High School in Sydney. He began his articles with Ross and Rowe in 1912 but later that year transferred to the practice of

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474 The title of the painting was ‘A Library in an Italian Garden’.
Hardy Wilson (1881–1955) in George Street, Sydney. Wilson records that Turner assisted him with some measured drawings for his book, *Old Colonial Architecture in New South Wales and Tasmania, 1924*.477 With the outbreak of the WWI, Turner enlisted and served in France and Egypt where he achieved the rank of Captain. After completing his studies at the AA, Turner remained in London, working in the office of Sir John Burnet who had been appointed Principal Architect by the Imperial War Graves Commission for the design and supervision of memorials in the Aegean and at Gallipoli.

Turner returned to Australia in 1923 and Stephenson offered him the use of their office whilst he prepared the final design for his competition entry for the Shrine of Remembrance, Melbourne’s War Memorial in 1923.

Turner was regarded as “a swift, clean and beautiful draftsman … whose influence can still be traced in the office drawings”.478 Evidence of Turner’s ability in drafting and design is revealed in the drawings for Scheme B.

**The Practice Administration**

Stephenson regarded architecture as a business so the firm embraced the American model of practice developed by the two leading Chicago practices: Burnham & Root (1873–91) and Adler & Sullivan (1881–95). Andrew Saint claimed that these practices were “the original from which the great architectural conglomerates of today directly descend”.479 These firms placed the business component on a par with design.480 Meldrum, the consummate designer, “was never happy away from the drawing board”.481 He stepped into the designer role of John Wellborn Root, (1850–1891) and Louis Sullivan (1856–1924) respectively in their practices. Stephenson assumed the role of Daniel Burnham (1846–1912) and Dankman Adler (1944–1900) as the businessman architect. Stephenson’s admiration of Burnham is evident by the fact that he adopted Burnham’s credo, “Make no

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478 Ellison Harvie, unpublished manuscript, Stephenson & Turner Collection, University of Melbourne Archives, p. 5.


little plans – they have no magic to stir men’s blood”.482 In Meldrum’s opinion, Stephenson was a “sound driving business man” who, blessed with his own innate ambitions, his relentless drive, his willingness to think big and his rejection of the architectural traditional practice, contributed much to the success of the firm.483

Stephenson accepted executive control and the administration of the firm. He procured the projects. He liaised with the clients:

The drawing of plans should lead only to one end, and that is the building of buildings. Drawings in themselves are of little importance, but it takes a number of trained men to carry out the client’s wishes in their preparation. Only one man, however, can be responsible and he is the executive head of this group which prepares the work. For granting that the work is skilfully designed and wisely specified, its proper execution depends largely – and at this present juncture to an increasing extent – on the architect’s ability as an administrator.484

Nevertheless it was Stephenson’s blue pencil that had final control on the design.485

The Partners’ Responsibilities

The partners assumed the responsibility for developing policy, directing the work, consultant liaison and all interviews with the client committees and user groups. 486 Two senior members of the firm attended all outside meetings with the hospital committees in order that “at least two people will be fully advised” 487

Early Projects of the Firm

During the 1920s, the firm undertook diverse projects from very small residential work to major projects. Their major projects included new buildings: the Melbourne Cricket Club Members Stand, 1927 and State Savings Bank Head Office in Elizabeth St, Melbourne, 1930. In 1927, they reinstated and extended the Melbourne Town Hall following a fire. By 1930, the firm employed a staff of ten making them Melbourne’s largest architectural firm.

486 Stephenson & Turner’s office manual, from the Sir Arthur Stephenson’s Collection, MS 2235, Box 4, Series 5, National Library Australia, p. 19.
487 Stephenson & Turner Collection, State Library Victoria, File No MS 2072, Box 4, V210.
Hospital Specialisation

By the time SM/T decided to adopt hospitals as the firm’s specialisation, the Pavilion plan had been consigned to history and was replaced by the Block typology. SM/T were influenced by the Victorian and NSW governments’ decision to address the conditions in their hospitals by:

- Modernising the extant hospitals;
- Building new hospitals and therefore increase the bed numbers in order to accommodate an expanding population; and
- Providing unemployment relief during the 1930s depression.

Stephenson saw that this developing field not only offered “professional challenges and opportunities for public service” but also offered “continuity of work for his designers and draftsmen”.488 In November 1924, the firm received its first hospital project. The Children’s Hospital at Hampton required an experimental twenty-bed heliotherapy ward for the sun-therapy of patients with Tuberculous bones and joints. SM/T replaced William Shields, the hospital architect since 1900. Shield’s plans for the experimental ward were considered ‘overly elaborate’ for the cost conscious committee.489 After the Hampton project, the Children’s Hospital became a valued client for many years: designing a Laundry at the main Carlton campus; an Orthopaedic Hospital at Frankston; and later in 1950s, a complete new Children’s Hospital at Parkville.

Study Tours

As discussed in Chapter 2, study tours had become a vital part of the hospital architect’s practice. Stephenson recognized that on-going medical innovations occurring in Europe and America placed new demands upon hospital organization and thus on the architects to remain conversant with these international models. He believed that:

No architectural problem involves such close study, not only in detail but of organization and administration, as does the problem of hospital design. Good planning is impossible unless it is

488 Swan, Sir Arthur Stephenson: Australian Architect, p. 84.
As a consequence, Stephenson and other members of his firm embarked on extensive research tours to America, Britain, Russia, and other parts of Europe. He also encouraged hospital administrators and medical staff to do likewise telling them that the “whole world is open to us to study the facilities they provide for the services in their institutions”. The firm collected data of every kind, making copious notes on equipment, practice methods, and spatial arrangements. They brought back copies of drawings and specifications of the hospitals they visited and were the first architectural firm in Australia to set up a library and employ a full-time librarian to acquire international publications and journals. Two of Stephenson’s study tours were to impact significantly on their hospital work. The first was Stephenson’s 1927 tour of fifty-eight North American hospitals which introduced him to efficient hospital organisation and management, and the second tour to Europe in 1932 introduced him to the modernist aesthetic. Donald Turner’s tour to USA in 1937 was to influence the planning of the RMH.

America’s first skyscraper hospital was only on the drawing board in 1927. However, Stephenson obtained first hand knowledge of the plans for the new Columbia Presbyterian Medical Complex, New York (begun 1928 and built up to twenty two and twenty six storeys). He spent two and one half days with Dr Burlingame, the Executive Secretary, and with the architect, Mr Gamble of the architectural firm, James, Gamble & Rogers. Stephenson told Mr James Love, Secretary to the Charities Board of Victoria that he “was trying to get the best possible grip of their reasoning in connection with this development”.

During his 1927 American tour, Stephenson met Goldwater, enjoyed several conversations with him and also attended a convention in Atlantic City where Goldwater addressed the audience. Stephenson visited some of Goldwater’s hospitals: the Denver Children’s
Hospital, Colorado and Mt Sinai Hospital, New York. Interestingly, the American concept of the Hospital Consultant was regarded as not necessary in Australia because of the small population and the lower demand for new hospitals. Thus these duties were still regarded to be the architect’s domain.

As a result of his study tours, in 1927 and 1932, Stephenson clearly saw the importance of the architect having “a clear view of the precise problems he faced”. He also introduced revolutionary and economical concepts into Australian hospital design which resulted in substantial savings in building costs, equipment, staff and power usage.

The Team of Specialist Architects

As previously mentioned, the concept of teamwork had been instilled in Stephenson since his childhood when he had witnessed the benefit of bringing together people with diverse qualities of experience and skill for mutual benefit. Hospitals are comprised of highly specialised departments and as such, these areas required architects with specialist knowledge. The architectural staff was organised into teams with specific tasks. Meldrum, and later Turner, along with the design committee directed all the design work. The design team implemented the initial planning and design studies. The job captains, with the assistance of the job secretaries and drafting teams were “responsible for the production of working drawings and specifications, control of special jobs, correspondence, and contact with the contractors”. The senior architects, originally articled pupils to the firm between 1921 and 1930 were Ellison Harvie (articled 1921), Arthur Wise (articled 1922), Kingston Sedgefield (articled 1927), Geoffrey Moline (articled 1928), and Mary Turner Shaw (articled 1930). Other qualified architects were John Fisher, Arthur Noad, George Tribe and Tom O’Mahoney. The firm’s external consulting engineers were Clive Steel, Structural Engineer; Walter Basset, Mechanical Engineer; and Messrs Julius Poole and Gibson, Electrical and Lift Engineers.

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Office Administration

The firm’s policies and procedures were clearly defined in the office’s Routine Book\(^{498}\) which was based on the American Institute of Architect’s Handbook of Architectural Practice and The Information Book from the British office of Sir John Burnett, Tait and Lorne. The office secretary, Miss Jean Turnbull, coordinated all record keeping, accounting and secretarial activities. Staff were employed to organise drawing files, correspondence files and drafting room supplies, switchboard operations, and a pay clerk to manage time sheets and pay.\(^{499}\)

The Sydney – Melbourne Offices

In 1935, Donald Turner was appointed Director of the Sydney office. In December 1937, Meldrum and Noad resigned to establish Meldrum & Noad and also in 1937, Bob Demaine resigned as manager from the Melbourne office to establish his own practice.\(^{500}\) With Stephenson’s frequent absences – as he moved between offices overseeing contemporary projects and touring overseas, Ellison Harvie, (1902–1984) was placed in charge of the Melbourne Office. Harvie was appointed the first Associate in 1938 as Stephenson held the view – well ahead of prejudices of his time - that “there is nothing in architecture a man can do that a woman can’t do”.\(^{501}\)

Harvie was very enthusiastic about her work believing that a practical mind was needed to be an architect. She saw her role as that of ‘job captain’. Her interest was more in administration and planning than in design. She was firmly committed to the fact that “architecture was a co-operative profession and that no one could truthfully say that any big building was the work of one man or woman”.\(^{502}\) Harvie played a major role in the RMH programming process and this will emerge in later chapters. Her hospital credentials were well proven through her involvement with the Jessie McPherson Hospital, part of Queen Victoria Memorial Hospital, William Street Melbourne, 1928–31; St Vincent’s

\(^{498}\) All material relating to the office administration is held at the University of Melbourne Archives however it has not been sorted and attempts to find an intact Routine Book have been unsuccessful. Partial copies however have been found.

\(^{499}\) Stephenson & Turner’s Routine Book, p. 20, Melbourne University Archives.

\(^{500}\) John Freeland, The Making of the Profession, a history of growth and work of the architectural institutes in Australia, Angus and Robertson, Sydney, 1971, p. 265.


Hospital, Fitzroy, 1930–1934; the Mercy Hospital, 1934; the Freemasons Hospital, 1936, at East Melbourne;\textsuperscript{503} and Betheseda Hospital, 1936, Richmond.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure4_9.jpg}
\caption{Stephenson & Meldrum: Staff of the Melbourne Office, 1936. \textit{Source: Stephenson & Turner Collection, State Library Victoria.}}
\end{figure}

\textbf{The Architect – Client Relationship}

Apart from contractual obligations, SM/T’s philosophy on the working relationship between the client and the architect was based on ‘Good Faith’ and that the architect must be “worthy of the complete trust and confidence of the client”.\textsuperscript{504} As the programming was design-based, it was essential for the architects and the hospital representatives including all the user groups to have a good working relationship. In their report, November 30 1936, Stephenson advised the hospital: “to put its house in order before launching out on any development scheme whatsoever”.\textsuperscript{505} Just as Stephenson regarded architecture as a business, he saw hospitals also as a business: “a very large business but it is one which is very involved, highly specialised and expensive in operation”.\textsuperscript{506} He recommended to the RMH Committee of Management that a Chief Executive Officer or General Manager be appointed as their representative of and advisor to that Committee:

If this position is accepted then it would be possible to keep a check on all costs and the general efficiency of the whole Institution. He also recommended that monthly budgets of

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\textsuperscript{503} Julie Willis and Bronwyn Hanna, \textit{Women Architects in Australia: 1900–1950}, p. 42.
\textsuperscript{504} Arthur Stephenson, ‘Professional Relations’, Sir Arthur Stephenson Collection, National Library Australia, p. 3.
\textsuperscript{505} SM/T, Report to the RMH Committee of Management, November 30 1936, RMH Archives.
\textsuperscript{506} SM/T, Report to the RMH Committee of Management, November 30 1936, RMH Archives.
\end{flushleft}
outgoing costs be maintained and suggested “an adequate and well trained administrative staff”. 507

The Effect of World War 2
With the outbreak of WW2 and the enlistment of most of the young men in the office, S&T was constantly plagued by lack of skilled drafting staff during the preparation of the blueprints and the construction phase. 508 With the hospital projects deemed of national importance, Stephenson and Turner were prevented from enlisting but not their staff.

Conclusion
This chapter has demonstrated the programming participants’ credentials as experts in their respective fields so qualifying them to participate in the programming process for the RMH. It has been suggested that clients rely considerably on the architects for the program development and, in this case, it was true. As a result of their international research trips they were au fait with the very latest in hospital planning. The HMOs were to present a challenge to them as this powerful body of medical specialists stubbornly refuse to accept new innovations in planning. How the architects resolved this situation is revealed in the development of Schemes C, D, G and J.

507 SM/T, ‘Report for Scheme C’, p. 34, RMH Archives.
508 Hospital projects on the drawing board contemporaneous with the RMH were; the King George V Memorial Hospital Camperdown NSW 1940; Wellington Hospital 1938–39 and Newcastle Hospital 1942. Other projects were the English Scottish and Australian Bank completed in 1942; the Darwin Hotel 1939–41; the Australian Consolidated Industries Ltd Sydney 1938–41.
5. THE PARKVILLE SITE

Figure 5.1. Aerial photograph of Parkville 1920. The University of Melbourne (foreground), the Haymarket (triangle), the Horse, Cow and Pig Market directly to the right of the Haymarket. Source: Aerial Photography Resource, University of Melbourne.

Introduction

This chapter examines the protracted debate regarding the Parkville site from 1866 – when it was first proposed for the hospital – until 1935 when the Victorian Government finally gave its consent for the RMH to commence negotiations to engage architects for the new hospital at Parkville. In 1945, Bernard Zwar, the President of the RMH, applauded the men “of vision and foresight who realised the great advantage of having the main teaching hospital close to the University”. The Pig Market site had other major advantages but resistance was stiff and its eventual selection for the third realisation of the RMH required great persistence and authoritative advocacy over nearly 70 years.

The physical properties of the site: size, shape, contour of the land, character of the soil and drainage are analysed to identify the site’s suitability for the purpose of a general hospital. The location is also be analysed in relation to the University (Figure 5.2) the city, the patient demographic and the accessibility to transport.

509 BT Zwar, President’s Report, RMH Annual Report, 1945, p. 4.
Figure 5.2. Melway Map no. 43, 1966, Source: Melway Publishing P/L, First Edition, showing: Royal Melbourne Hospital on the Parkville site F3; University of Melbourne G3; University of Melbourne Veterinary School F3; Royal Park, Parkville C-F 0-2; Princes Park Parkville G1; Queen Victoria Hospital (formerly the RMH on Lonsdale Street) H7; Original Hospital for Sick Children J4; present Royal Children’s Hospital, Parkville (1963) E2; Royal Women’s Hospital H4; Prince Henry’s Hospital J11; Melbourne’s city grid, E–K 7-10.

The Horse, Cow and Pig Market

The Horse, Cow and Pig Market was established on the Parkville site in 1856. The triangular block immediately to the south was designated for the Haymarket (Figure 5.1). The Melbourne City Council (MCC) operated all the markets. From 1866, the Pig Market at Parkville was repeatedly proposed as a site for the hospital – the reasons being that it was:

- Close to the University of Melbourne;
- Outside the city centre and away from increasing traffic noise;
- Larger than the Lonsdale Street site;

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511 HB Allen, Final General Report on Hospital Construction and Management, VPP, Melbourne, 1891, p. 28.
• Close to parkland; and
• Close to the hospital’s patient demographic.

**History of the Site**

Eighteen years after the Melbourne Hospital opened on Lonsdale Street, 1848, there was a public call for a new hospital on a new site. Despite continuous alterations and extensions, the hospital was constantly overcrowded, the accommodation was ‘wretched’ and the sanitary problems were acute. The members of the Committee of Management had been caught out by the gold rush and the consequent rapid increase in population and demand for hospital beds.

In 1862, a new building for Outpatients and a Dispensary was erected to ease pressure on the main building. This also included a ward for women suffering from Venereal Diseases. During 1863, renovation work was undertaken on the existing hospital. In 1865, a Treasury grant of £3,000 was made available for a new building. Plans were developed to improve the existing building by ventilating the wards and for a new building plus two modern detached pavilions. Arguably, the ventilation of the wards and the two detached pavilions provides evidence that the hospital architect, Francis White, was responding to the newly introduced European precepts in hospital planning. Nevertheless, in the opinion of several hospital personnel, “why build a new building on a site with problems when funds could be better employed in building a new hospital on a new site”.

Dr Anthony Brownless was Vice-Chancellor of the University of Melbourne, 1858–1887, founder of the Faculty of Medicine in 1862 and Chairman of the Hospital’s Medical Committee. Brownless regarded the integration of theory and practice as essential and envisioned the hospital becoming a teaching hospital. As discussed in Chapter 3, the University’s third year medical students had commenced their clinical training at the

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516 Dr Anthony Colling Brownless, (1817–1897), was born in Kent, England and by the time he immigrated to Melbourne in 1852, he was a well-qualified physician and surgeon. Brownless was appointed as Physician to the Melbourne Hospital in 1854. Strongly committed to education, he was recognised for his ‘iron-willed determination’ and the founding the Medical School. The University of Melbourne’s Bio-medical Library was named after him. Source: KF Russell, ‘Brownless, Sir Anthony Colling’, *Australian Dictionary of Biography* – online edition, 2008.
hospital in 1864. As a result, Brownless was keen for the hospital to be located in close proximity to the University and nominated the Pig Market which was sited directly opposite the University on the western side of Sydney Road (Figure 5.1.)

In a letter published in the *Age* newspaper, on October 5 1866, Thomas Dickson, a member of the hospital committee, whilst stating that the hospital was “the noblest and most catholic of all institutions” stressed the overcrowding issue, the poor sanitation and the “wretched accommodation in the underground cellars”. Dr David J Thomas went further. In a letter, also to the *Age*, on October 9 1866, Thomas called for a new hospital on a new site describing the existing locality as “hopelessly offensive and contaminated”. Also in October 1866, Doctors Frederick Bird, John Blair, Tharpe Girdlestone and James Neild supported by James Service MP visited the Chief Secretary to argue for a new hospital rather than an additional new wing. Gregory argued that the campaign for the new hospital became more strident and the debate more acrimonious. The Committee of Management set about investigating the matter and, after some debate and meetings with interested persons, their proposal was rejected and a new wing was built at Lonsdale Street.

There was another call for relocation to the Parkville site in 1887. Professor Harry Brooks Allen (1854–1926) Dean of the University School of Medicine and Surgery, officially proposed this site and continued to argue for the removal of the Pig Market: “Let the pigs

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519 Thomas Dickson, letter to *The Age*, October 5 1866.
520 Dr David J. Thomas, letter to the *Age*, October 9 1866.
521 Tharpe Mountain Girdlestone (1823–1899) served on the Melbourne Hospital Committee from 1866–71 and 1879–82. He was the health officer for the Melbourne City Council and an advocate for sanitary reform. He was an assistant surgeon at the Melbourne Hospital and, from 1883-1894, he was an honorary surgeon. Girdlestone was one of the few surgeons to implemented the Listerian tenets and followed strict antiseptic practices. He was regarded a ‘capable, slow and safe’ but not brilliant. Source: Gregory, *The Ever Open Door*, p. 56.
522 At the time, the medical staff were elected but in 1865, Bird, Blair, Girdlestone and Neild missed out. Their call to relocate the hospital to the Parkville site was regarded as a reaction to failing the election. Source: Gregory, *The Ever Open Door*, p. 47.
523 James Service (1823–1899) was instrumental in the founding of the Alfred Hospital in 1868–70 and held the position as Chairman of the Board of the Alfred Hospital until 1876.
524 *Age*, October 5, 1866.
525 Professor Harry Brooks Allen graduated with an M.D. from The University of Melbourne in 1878. He lectured in Anatomy, Physiology and Pathology from 1880 and was appointed Professor of Descriptive and Surgical Anatomy in 1884. He was Dean of the Faculty of Medicine in 1886–90 and 1896–1914. Known as an able administrator, he served on several bodies, one of which was the Royal Commission on the sanitary state of Melbourne. This group generated three reports which eventually led to the *Public Health Act* 1889. He was active in the establishment of Walter and Eliza Hall Institute. In 1890, he toured Britain and Europe studying advances in pathology and in bacteriology - a relatively new science. On his return, he presented reports to the Victorian government. The main report was on hospital construction and management, the isolation of infectious diseases and the establishment of institute of preventative medicine. Allen was elected to the Council of the University of Melbourne in 1898. Source: KF Russell, Allen, Sir Harry Brooks (1854–1926), *Australian Dictionary of Biography*, Vol. 7, Melbourne University Press, 1979, pp. 42–43.
move on and make way for the patients”.\textsuperscript{526} The requirement for a new hospital on a suitable site had become urgent as a result of three deaths from Erysipelas and the existing hospital was severely condemned by all parties. The \textit{Argus}, July 27, 1886 called it “the worst place to which a wounded person could be taken … in an insanitary state, a constant menace and injury to the sick poor”.\textsuperscript{527} The government was impotent or unwilling to resolve the critical situation and sidetracked the issue by setting up a select council of inquiry.\textsuperscript{528}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure5.3.png}
\end{figure}

In 1890, at the request of the Victorian Government, Allen undertook a research trip to Britain and Europe in order to make recommendations for the reform of Victoria’s metropolitan hospitals. He again nominated the Parkville site\textsuperscript{529} in his third and final report, 1891, highlighting its desirable attributes: closeness to parkland, one mile (1.6km) from Melbourne’s General Post Office, four times the size of the Lonsdale Street site and with good drainage. He included in his report a sketch for a hospital depicting the Pavilion Plan (Figure 5.3) with accommodation for student lectures and a nurses home.\textsuperscript{530} His recommendations were not adopted.

There was more debate about the site in 1910, as the building of the second Melbourne Hospital was being negotiated. As discussed in Chapter 3, the Executors of the Wilson

\textsuperscript{526} Gregory, \textit{The Ever Open Door}, p. 75.
\textsuperscript{527} Argus, July 27, 1886.
\textsuperscript{528} Gregory, \textit{The Ever Open Door}, p. 75.
\textsuperscript{530} Allen, Plan XVI for the Horse, Cow and Pig Market, ‘Final General Report on Hospital Construction and Management’, p. 28.
Estate insisted that the hospital remain at Lonsdale Street. And they went ahead with this despite some British exemplars of relocating hospitals to more spacious sites outside city centres. The following British hospitals were relocated between 1899 and 1905: the Royal Infirmary of Newcastle (400 beds), the Manchester Royal Infirmary (504 beds) and Kings College Hospital London (600 beds).

Finally in 1923, the newly established Charities Board approved in principle the relocation of the hospital to Parkville. However, in order for the hospital to gain possession of the site, an Act of Parliament was required, and the situation was further complicated by changes of policy due to frequent changes in government of the State Parliament – as per Table 5.1. Also there was reluctance to replace the 1910–1916 Lonsdale Street hospital, which was barely a decade old.\(^{531}\)

<table>
<thead>
<tr>
<th>Name of Premier</th>
<th>Political Party</th>
<th>Term of Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Allen</td>
<td>Country/National</td>
<td>Nov. 18 1924 – May 20 1927</td>
</tr>
<tr>
<td>Edmond Hogan</td>
<td>Labour</td>
<td>May 20 1927 – November 22 1928</td>
</tr>
<tr>
<td>William McPherson</td>
<td>National</td>
<td>November 22 1928 – December 12 1929</td>
</tr>
<tr>
<td>Edmond Hogan</td>
<td>Labour</td>
<td>Dec. 12 1929 – May 19 1932</td>
</tr>
<tr>
<td>(Sir) Stanley Argyle</td>
<td>United Australia</td>
<td>May 19 1932 – April 2 1935</td>
</tr>
<tr>
<td>Albert Dunstan</td>
<td>Country</td>
<td>April 2 1935 – September 14 1943</td>
</tr>
<tr>
<td>John Cain Senior,</td>
<td>Labour</td>
<td>September 14 1943 – September 18 1943</td>
</tr>
<tr>
<td>Albert Dunstan</td>
<td>Country</td>
<td>September 18 1943 – October 2 1945</td>
</tr>
</tbody>
</table>

Source: Victorian State Government website

The Site Revisited

Interest in the Parkville site was revitalised in the mid-1920s as part of a push to address hospital reform. All extant Melbourne hospitals were overcrowded and outmoded and the issue gained prominence during the 1924 visit to Australia of five prominent American surgeons led by Dr William J. Mayo,\(^{532}\) from the famous Mayo Clinic, Minnesota and the


subsequent visit, in 1925–6, by Dr Malcolm T MacEachern, a Canadian and the Assistant Director of the American College of Surgeons and its Director of Hospital Activities. Having inspected the Victorian public hospitals, MacEachern advised the government:

That whenever possible and practicable entirely new institutions be erected rather than remodelling existing institutions. The removal of the Melbourne Hospital to the site near the university is one proposal of wide interest. This is most desirable not only from the stand point of the location, but from that of Medical Education, it will be a step on the right direction and falling in line with the trend of modern development elsewhere. Through this arrangement, a fine medical education and public health centre can be built up which will be a great advantage to the State of Victoria.533

MacEachern’s reiteration of Allen’s report inspired Dr Stanley Argyle, a physician and the then Victorian Minister of Health, to undertake a research trip in 1927 to Canada and the United States of America to investigate hospitals and the correlation between the medical schools and research facilities. Professor RJ Berry, University of Melbourne Medical School, and Mr RJ Love, Secretary of the Charities Board, accompanied Argyle. On his return, Berry and the newly formed Royal Australasian College of Surgeons pushed the Charities Board of Victoria to address the conditions of the state’s public hospitals. In 1929, with a Nationalist government again in power and, with Argyle on side as its Minister of Health, an Order-in-Council provided the first move in activating the relocation. The Charities Board designated two acres (0.8ha) of the Haymarket and seven acres (2.8ha) of the Pig Market534 for the new hospital and initial planning commenced.

The 1929 plans are discussed in Chapter 6 as it can be argued that they were the precursors for the 1936 scheme. However, when the Hogan (Labour) government returned to power in late 1929 (Table 5.1) and proposed to build additional wards on the existing site, the Melbourne Hospital Committee of Management refused to co-operate.535

On July 29 1932, the Argus called for a new hospital on the Pig Market site to celebrate the city’s centenary: “No more a fitting gift … in keeping with the importance and dignity of the occasion”. This move was supported in the Age on August 16 1932, when Leighton Irwin, President of the Royal Victorian Institute of Architects, expressed his approval for

533 Letter, Dr MT MacEachern to the Victorian State Government, 1926, CEO file, RMH Archives.
534 Letter, Mr AH Teece, the RMH Secretary and Medical Superintendent to Sir Richard Stawell, former President of the Melbourne Hospital, July 1929, RMH Archives.
535 The Melbourne Hospital, Annual Report, June 1930, p. 30, RMH Archives
the relocation of the RMH. Between 1929 and 1932, there were two more changes of
government, (Table 5.1) two years of negotiations and some persuasive press. The matter
was finally settled in 1934. The Haymarket was designated for the Dental Hospital and the
RMH was allocated a further three acres on the Pig Market site, bringing the total to 11.5
acres (4.6ha). Bates, Smart & McCutcheon had been appointed architects for the
Dental Hospital and Stephenson was keen to collaborate with them in order for the two
buildings to bend together in form and character.537

However, the hospital’s possession of the site proved problematic. An Act of Parliament
was required designating the land for the hospital, the Pig Market needed to be relocated,
and the Charities Board refused permission for the hospital to have possession of the site
until funding was in place:

The Charities Board while approving of the principle of the rebuilding of the hospital
required all plans to be approved by them before any contracts were let and also to approve
the financial scheme.538

So it was not until August 1935 that the Royal Melbourne Hospital Act was finally passed.
The act reserved the Parkville site for:

A hospital only and no provision made for buildings for the University or Research work but
the Crown Draftsman could make the necessary provision when drafting the Grant. The
government had stated that the new general hospital must include provision for the
University and Research requirements so that when the title to the Parkville land was issued
by the government, it would include conditions providing for sale, lease or transfer of any
part of the site. 539

**Site Analysis**

The site analysis examines the boundaries, size, shape, gradients, access points, orientation
and views, site landscape, local character and suburban setting. In 1935, SM/T were
presented with the site as a fait accompli. The President of the RMH, Bernard Zwar
summarized the site attributes in 1937 referring to:

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536 Committee of Management minutes, October 19, 1937, RMH Archives.
537 Committee of Management minutes, October 19, 1937, RMH Archives.
538 NBC minutes, July 1936, RMH Archives.
539 Bremner Lewis, NBC minutes, September 1936, RMH Archives.
The healthiness of the site, its roominess and accessibility of sunlight to all parts of the ground, as well as absence of nerve racking noises ... the accessibility of the site to necessitous patients and ... its proximity to the Medical school in order to secure the co-operation of university professors to the advantage of patients, students and medical science.\textsuperscript{540}

**Location**

The Parkville site occupied a prominent position. It was situated north of the central city grid – within a mile (1.6Km) from the General Post Office and therefore free of city noise and pollution. Sited at the end of Elizabeth Street, the hospital would stand at the gateway to Melbourne’s northern and western suburbs and beyond to northern and western Victoria. Importantly, it was in close proximity to the University of Melbourne and the Medical School and facilitated easy access for university personnel and students.

The government’s agreement for the Parkville site stipulated that one and a half acres (.6ha) of land fronting Sydney Road from the northern boundary of the car park be designated for the University Departments of Medicine and Surgery and WEHI. The hospital had “permissive occupancy of the space at present allocated to roadways and park until such time as it is required by the University”.\textsuperscript{541}

**The Road Network and Access**

The roads bordering the site (Figure 5.4) strongly influenced the organisation of the buildings and the movement of traffic. The roads were:

- Flemington Road to the south-west;
- Sydney Road to the east;
- Grattan Street to the south;
- Story Street to the north: and
- Park Street to the west.

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\textsuperscript{541} Instructions to Stephenson & Meldrum in a letter from Colonel Fanning, Manager of Hospital, Stephenson and Turner Collection, Box 12, Series C, State Library Victoria.
Another vital factor of this location was the accessibility for patients. The RMH, being a public hospital, the patient demographic was the poor and the working class adults of the northern and western suburbs plus city workers and residents. By this time, Melbourne was serviced by electric trams which ran past the hospital. Two routes ran from Flinders Street railway station via Elizabeth Street, one continuing along Sydney Road to North Coburg and the other along Flemington Road to West Coburg, Essendon and Moonee Ponds. And the site was one block from Swanston Street where tram route ran from the railway station to the University and beyond to the north-eastern suburbs.

The network of roads, not congested by traffic, was a key factor in vehicle access, particularly for ambulances carrying emergency cases to the Casualty Department. These roads were also vital for the constant stream of vehicles carrying supplies particularly food. The surrounding road network allowed entrances to the many departments to be separated - thus avoiding congestion of the many visitors, staff and patients.

542 Patients under fourteen years of age were the responsibility of the Royal Children’s Hospital in Carlton.
Shape, Size and Slope

As discussed in Chapter 2, the size and shape of the site was one of the determining factors in the design, placement and orientation of all the buildings. The site was pentagonal with three street frontages: approximately 831ft. (253.2 m) to Sydney Road, 630ft. (192m) to Grattan Street and 1,095 ft. (333.7m) to Flemington Road. The area was 11.5 acres (4.6ha) with a landfall of approximately 24 ft. (7.3m) north to south and approximately 26 t. (7.9m) east to west. (Figure. 5.4.) The site rose northwards from Grattan Street.

Surroundings

The institutions on adjoining sites were the University of Melbourne Veterinary School on the corner of Park Street and Flemington Road and University High School on the northern boundary. Neither of these buildings posed any threat of overshadowing of the hospital. However a preliminary survey of the site in November 1936 revealed that the Education Department had encroached on the northern boundary in order to provide tennis courts at University High School. Thus reducing the RMH site. At a meeting between the architects and the Committee of Management on November 24 1936, the Committee appointed Messrs Gate, Lewis and Zwar to see the RMH Honorary Solicitor and instruct him to give notice to the Education Department.543

543 Committee of Management Minutes, November 1936, p. 314, RMH Archives.
The site was situated approximately one mile (1.6 km) from both Royal Park and Princes Park. It abutted the open playing grounds of University High School and was on the opposite side of Sydney Road to the then open space of the University. It thus met the newly established European requirement to place hospitals outside the city centre and close to parkland. Melbournes other hospitals had been consciously sited close to parkland as depicted in Figure. 5.2: St Vincent’s Hospital opposite Carlton Gardens and Prince Henry’s Hospital opposite the King’s Domain. Apart from providing therapeutic fresh air, the extensive parkland also made for pleasant vistas for patients and staff alike - implementing Goldwater’s prescription of “sky, trees, grass and flowers (as) sources of pleasure, inspiration, mental and bodily health (which) were deemed worthy of a place in a hospital program”.

### Possession of the Site

The *RMH Act* (1935) designated the Parkville site for a hospital. However the Pig Market and an asphalting plant, both owned by the Melbourne City Council (MCC), still occupied the site. This was an obstacle to the programming process and delayed work considerably. The hospital was anxious for the site to be vacated in order to commence the preliminary work. Stephenson guaranteed that the firm could prepare the sketch plans within ten weeks of being instructed to do so but first the site had to be surveyed. The architects sought permission to at least begin sinking bores and testing the soil. In an effort to facilitate this, three members of the Committee of Management, Sir William Brunton and Messrs. Gates and Zwar formed a deputation to the State Premier in September 1936. The Premier stated he “would endeavour to speed up the evacuation of the Parkville site but that he still preferred no preliminary work on the site to proceed until it had been vacated by the MCC”.

In fact, the MCC’s reluctance to evacuate until 1938 helped to ensure the integrity of the hospital building design by preventing staged development. In November 1936, the Committee of Management was keen to see some building work commence at the earliest possible date and, as the architects were confident that the siting of the Nurses Home and

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544 In his report, 1891, Allen cited the New Hospital at Hamburg which was erected on a site chosen for its location one mile outside the city centre and on the margin of the garden suburbs.  
547 NBC Minutes, September 1936.
the Service Block was fixed on the vacant land on the western section of the site, they suggested that one of these be commenced first. However the Charities Board refused permission – stating that they required the complete plans of the complex before any building took place. And as Scheme C was the proposal at that time, it can be argued that had a single building proceeded prior to the final Scheme J being developed, the ultimate design may have been compromised as the Nurses Home and Service Block changed size and location between Schemes C and J.

Site Preparation

It was not until August 1938 that the architects received permission from the Committee of Management to proceed with excavations, by which time, the general plans for the hospital complex had been completed and accepted by the Committee of Management and the Charities Board of Victoria.

In order to make the site good, remnants of the markets had to be excavated and cleared from the site. This involved:

- The removal of all old concrete and brick foundations, old roads, concrete ramps and ashlalt pavings. All underground services: sewers, pits and drains … cleared away and earth, sand, clay, shale and rock excavated to the areas grades and levels according to the drawings. All the spoil … dumped on site to the north of the Walter and Eliza Hall Institute and any excess … carted from the site. In preparation for construction the areas as marked on the drawings … filled with good clean hard material and laid onto the level of six inches then well watered and consolidated in layers with a foot power mower.\(^548\)

Finally, all excavations were levelled, any water pumped from the site and everything made ready for operations. The City Engineer and architects were satisfied roads, channels, paths and kerbs had been ‘made good’.\(^549\) The Premier, Mr AA Dunstan officially commenced the excavations in a well-attended ceremony at the site in March 16 1939.\(^550\)

\(^548\) Excavation Contract. Stephenson and Turner Collection, Box 12 Series C, State Library Victoria.
\(^549\) Excavation Contract.
Conclusion

This chapter has examined the history of the RMH’s attempts to gain possession of the Pig Market for the building of the new hospital. It has also examined the suitability of the site for the RMH. As mentioned earlier, Stephenson regarded the selection of the site to be of primary importance and the Parkville site clearly meet all his stated requirements. The Parkville site was primarily selected for its proximity to Melbourne University but its many other attributes made it an ideal location. Being outside the city grid considerably decreased traffic noise yet it was still just one mile (1.6km) north of the Melbourne’s General Post Office. The site’s close location to the hospital’s demographic with public transport provided easy accessibility. The park surroundings provided both pleasant vistas and therapeutic fresh air. The physical properties of the site: size, slope, shape and surrounding road network offered the architects’ scope for delivering the RMH’s requirements.

The Melbourne City Council’s recalcitrance about evacuating the markets from the site caused significant delays. However, this dissertation will argue that this was to prove oddly advantageous as it prevented the hospital from being erected in stages before the final scheme was developed.
6. THE PROGRAM PRECURSORS

Introduction

This chapter examines two proposals for the RMH on the Parkville site – both of which preceded the actual commencement of SM/T’s official programming process in August 1936. As mentioned in Chapter 5, the first proposal was in 1929 when the RMH Committee of Management, with the agreement with the Premier, William McPherson of the Nationalist Government, commenced plans for a staged move to the Parkville site. The architects were Blackett & Forster, the hospital’s Honorary Architects. This proposal was aborted for several reasons which are examined in this chapter. However the 1929 requirement lists, prepared by the medical staff and the Heads of Departments, were to provide a vital user perspective for the second proposal, SM/T’s first design, Scheme A, March 1936. Scheme A was prepared specifically for Professor Raymond Priestley of the University of Melbourne to take to the New York on a fund raising mission and was subsequently dubbed the ‘Priestly Plan’. The 1929 requirement lists were significant as the Organisers also referred to them and included some of these requirements in their Report of Requirements for the new RMH in April 1936. This chapter establishes the significance of the 1929 proposal and SM/T’s 1936 proposal for Scheme A as important precursors to the RMH programming process.

551 The National Party was in government from November 22 1928 – December 12 1929. Source: Victorian Government website.
The 1929 Parkville Proposal

![Figure 6.2. The Haymarket (left) and the Pig Market (right) illustrating how the State Ministry proposed to use the Markets' site. Source: Argus, July 3 1929.](image)

The Parkville site was finally enthusiastically endorsed by all the RMH committees and staff in early 1929: “It is the settled policy of the Committee and staff to move the hospital to Parkville and plan for the sectional transfer to take place over ten years”.552 A subcommittee comprised of the HMOs was formed to plan the transfer553 thus indicating the medical staff’s commitment to the move. The aim was to provide 700 beds with the buildings being constructed in stages over a ten-year period.554 As mentioned, the proposal, by Mr Love of the Charities Board, comprised of seven acres (2.8ha) of the Pig Market and two acres (0.8ha) of the Haymarket for the hospital (Figure 6.2). This however, necessitated bridges and underground tunnels to link the two sites under and over Grattan Street.555

Selection of Architects

SM/T were recommended in 1929 by the Charities Board “as architects most fitted to be approached” along with AK Henderson; DV Healy; Keogh & Evert; and Blackett & Forster.556 However, at that time, SM/T had only four years experience in hospital work and only one new complete hospital, the relatively small Childrens’ Orthopaedic Hospital

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552 Honorary Medical Staff Committee minutes, March 9 1934, RMH Archives.
553 Honorary Medical Staff Committee minutes, March 9 1934, RMH Archives.
554 File containing Reports and Appendices 1929–1936, RMH Archives.
555 Letter, Mr AH Teece, RMH Secretary and Medical Superintendent to Sir Richard Stawell, former President of the Melbourne Hospital, July 1929, RMH Archives.
556 Letter, the Charities Board to The Committee of Management, 1929, CEO’s file, RMH Archives.
at Frankston, 1928. The remainder of their work was limited to extensions, renovations and small projects. It is not surprising therefore, that the Committee of Management selected architects known to them. Blackett & Forster\textsuperscript{557} had been Honorary Architects to the Melbourne Hospital since 1922 and, over that seven-year period, had undertaken considerable work for the hospital and, whilst they received payment for some of the work, much of it was gratuitous.\textsuperscript{558}

**The Requirement Lists**

The HMOs’ subcommittee requested the users of the hospital, the medical staff and Heads of Departments, to report firstly on the defects of their departments in their current circumstances and secondly, on the requirements of their departments for the new hospital. These reports have been preserved in a file, Reports and Appendices to Reports, 1929–1936 and held in the RMH Archives. Unfortunately there is no evidence that Blackett & Forster actually requested the HMOs’ sub-committee for these lists as it would provide evidence of their programming methodology. The lists were very comprehensive, particularly those for Casualty and OPD to the point where a spatial layout of these departments was prepared conjointly by the Officer-in-Charge of Casualty and the Medical Superintendent, Doctor Eric Cooper.\textsuperscript{559}

Although their drawings remained the property of the hospital, they were unavailable for use in this research.\textsuperscript{560} The following material regarding the proposals for the site organisation came from three sources: A memorandum dealing with details of removal to the Hay and Pig Market sites prepared by the medical sub-committee; a letter from Blackett and Forster to Doctor Cooper, Medical Superintendent, September 6 1930 and, as mentioned, the ‘Reports & Appendices to Reports, 1929–1936’.

\textsuperscript{557} The firm was originally registered as Blackett, Forster & Craig. Craig retired from the firm sometime between 1922 -1929.

\textsuperscript{558} The terms of the appointment were published after consultation with the Royal Victorian Institute of Architects (RVIA). The Honorary Architect shall not receive remuneration if the work – alterations or repairs are under £200 but if the additions, alterations or repairs are over £200, the recognised architect’s commission shall be paid. Source:

\textsuperscript{559} Reports and Appendices to Reports, 1929–1935, RMH Archives.

\textsuperscript{560} At the time of my research, many of the RMH’s architectural drawings had been dumped in a large demolition bin and was housed in a separate room at the RMH Archives. My suggestion for the RMH Archives to seek a grant to sort and preserve them was rejected on the grounds that there were more important matters in a hospital.
Site Organisation
The two sites, the Pig Market and the Haymarket, allowed the architects to separate the departments of the hospital according to their time of operation.

The Haymarket Site
The Haymarket site was to accommodate the departments that operated on a 9–5 weekday basis such as Administration, OPD, Pathology, Radium Clinic, Massage and Electrical Department, Clinical Stores and Wards for specialists cases. Casualty, Diagnostic X-ray and the Venereal Diseases Department were the exception (Table 6.1). They operated twenty-four hours seven days per week.

Casualty:
A vital component for the operation of the Casualty Department was road access. The department was sited strategically so as to provide an ambulance entrance and exit from Sydney Rd and Flemington Road respectively.  The objective of providing approximately 5,000 ft² (464.5 m²) of space was to enable patients to be examined with less delay and, if necessary, be detained for observation for up to 24 hours. The Diagnostic X-ray unit was located adjacent to Casualty in order to facilitate immediate investigation of patients. Small operating rooms were incorporated within Casualty for minor surgical procedures. Staff rooms were available for on-duty nurses and Resident Medical Officers (RMOs). A tunnel would connect Casualty to the Main Block on the Pig Market site for the transfer of patients for admission.

Outpatient Department
Floor space in the new OPD was to be at least 50,000 ft² (4,645 m²) over four storeys in order to treat over 1,100 patients per day. The large area was to meet the needs of 1929 and, at the same time to provide for the anticipated increase of patients in the future. The patient entrance would be in the sub-ground floor and would provide adequate waiting area for patients and include space for the Almoner, Admitting Officer, Dispensary, Records, and Admissions Desk. The Surgical and Medical Outpatient departments would be

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561 Reports & Appendices to Reports, 1929–36, RMH Archives.
562 Reports & Appendices to Reports, 1929–36, RMH Archives.
563 Letter, Blackett & Forster to Dr. Eric Copper, Medical Superintendent, September 6 1930, RMH Archives.
564 Letter, Blackett & Forster to Dr. Eric Copper, September 6 1930, RMH Archives.
placed on the ground floor and the Specialist Outpatients Department on the upper levels. Subsidiary pathology would be placed in OPD, along with the Specialist wards and the Venereal Diseases Clinic. Most of the buildings on the Pig Market site would accommodate the 24-hour operations of the hospital as depicted in Table 6.1. The Kitchen and Laundry were the exception but their proximity to the wards and residential quarters was essential.

<table>
<thead>
<tr>
<th>Haymarket Site</th>
<th>Pig Market Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>Wards: medical and surgical</td>
</tr>
<tr>
<td>Casualty</td>
<td>Operating theatres</td>
</tr>
<tr>
<td>Outpatients Department: Almoner; Admitting Officer; Dispensary; Records; Admission Desk</td>
<td>Bacteriology and Biochemical Laboratories</td>
</tr>
<tr>
<td>Diagnostic X-ray</td>
<td>Diagnostic Inpatient X-Ray</td>
</tr>
<tr>
<td>Pathology</td>
<td>Pathology</td>
</tr>
<tr>
<td>Radium Clinic</td>
<td>Nurses and Maids Home</td>
</tr>
<tr>
<td>Massage and Electrical Department</td>
<td>Resident Medical Officers quarters</td>
</tr>
<tr>
<td>Wards for special cases</td>
<td>Kitchen and Laundry</td>
</tr>
<tr>
<td>Venereal Disease</td>
<td>Mortuary</td>
</tr>
<tr>
<td>Clinical Stores</td>
<td>WEHI</td>
</tr>
</tbody>
</table>


The Pig Market Site
This site would accommodate:

- The Main Block, in the shape of a rectangle was to be placed diagonally across the site in order to obtain even sunlight to every ward;

- Medical and Surgical wards;

- Inpatient X-ray – routine and research – to be placed in close relation to the dividing line between the hospital and the general medical purposes site;

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565 Reports & Appendices to Reports, 1929–36, RMH Archives.
566 Reports & Appendices to Reports, 1929–1936, RMH Archives.
• Pathology – routine and research – to be placed in close relation to the dividing line between the hospital and the general medical purposes site;
• Operating theatres and diagnostic X-ray – to be concentrated in a separate block at the southern end of the main ward block;
• Diagnostic Departments: Bacteriology & Biochemical laboratories; and
• Mortuary; and
• Walter and Eliza Hall Institute. (WEHI)

**Bed Capacity**

The subcommittee, in estimating requirements for their departments, produced a total bed capacity of approximately 750 beds – 372 beds more than at the existing Lonsdale Street hospital.\(^{567}\) This increase in bed numbers resulted from the following requests for additional accommodation:

• Psychiatric and Neurology Branch to be increased to 20 beds with a new OPD Clinic – to provide the nucleus of a very important clinic for the treatment of early mental disorders;
• Specialist beds to be increased from 62 to 162;
• General surgical wards to include beds catering for orthopaedic patients suffering from fractures of lower limbs resulting from car accidents; and
• Staff accommodation, because the increase in the hospital bed accommodation required an increase in staff which, in turn, required an increase in staff accommodation. The RMOs would be increased from 27 to 50; Nurses from 221 to 400 and maids to 200. The technical assistants in special departments were also to be increased.\(^{568}\)

**New Medical Specialisations**

The new specialisations to be introduced to the Parkville Hospital\(^{569}\) were:

• Obstetrics Clinic;
• Orthopaedic Clinic with beds;

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\(^{567}\) Reports & Appendices to Reports, 1929–36, RMH Archives.
\(^{568}\) Reports & Appendices to Reports, 1929–36, RMH Archives.
\(^{569}\) Reports & Appendices to Reports, 1929–36, RMH Archives.
- Radium Clinic for the treatment of cancer, with wards for 26 patients, a theatre and special Outpatient Department; and
- Childrens’ ward.\(^{570}\)

**The 1929 proposal suspended**

The proposal was never executed mainly because of a change of government. In December 1929, the State Labour Government regained power and the Premier, Mr Edmond Hogan\(^{571}\) was insistent that the hospital must remain at Lonsdale Street.\(^{572}\)

However, there also was opposition to the siting of the hospital on opposite sides of Grattan Street. Mr AH Teece, the Secretary and Medical Superintendent, expressed in a letter to the immediate past President of the hospital, Sir Richard Stawell, his concerns over the increase in capital and the increase in operating costs.\(^{573}\) He was particularly concerned over the congestion in the tunnels and on the bridges, stating that, “the use of lifts were more efficient than horizontal corridors especially tunnels and bridges”.\(^{574}\) Clearly Teece’s comment regarding lifts suggests that he was aware of the new American multi-storey hospitals.

**The Proposal for a Temporary OPD at Parkville**

The accommodation crisis was clearly weighing heavily on the Committee of Management. In 1932, they proposed erecting a temporary OPD on the Parkville site.\(^{575}\) This could then facilitate the necessary extension to Casualty at Lonsdale Street in order to meet the expected increase in patients as a result of people converging on Melbourne for the Centenary Celebrations in 1934. Although (Sir) Stanley Argyle, the new Premier, (May 1932–April 1935), supported this solution, the Melbourne City Council opposed it as it

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\(^{570}\) The Melbourne Hospital was a general hospital for adults and, since the establishment of the Children’s Hospital, did not admit children. However the implementation of the *Nurses Registration Bill* allowed trained nurses to gain professional status. The General Nursing Council (GNC) for England and Wales did not recognise this qualification as the nurses lacked experience of nursing children. The inclusion of a children’s ward was the hospital’s solution for the trained nurses who wished to nurse in Britain. In 1929, the Melbourne Hospital considered admitting a few children but, as Colonel Fanning found when meeting the GNC on his 1937 trip, the numbers were insufficient. Eventually a reciprocal arrangement with the Children’s Hospital was established whereby the RMH nurses would spend three months at the Children’s Hospital in a similar manner to the Women’s Hospital where Melbourne nurses obtained experience in midwifery. Source: Alan Gregory, *The Ever Open Door*, pp. 199–204 & 242–245.

\(^{571}\) Edmond Hogan was Premier of the Labor Government from December 12 1929 to May 19 1932. Source: Victorian Government website.

\(^{572}\) Committee of Management minutes, 1929, RMH Archives.

\(^{573}\) Letter, Teece to Sir Richard Stawell, July 1929.

\(^{574}\) Letter, Teece to Sir Richard Stawell, July 1929.

\(^{575}\) Reports & Appendices to Reports, 1929–36, RMH Archives.
required them to relocate their asphalt plant on the Pig Market site as the fine dust from the plant would have penetrated the hospital windows and public opinion would not have permitted this.\footnote{Reports & Appendices to Reports, 1929–36, RMH Archives.}

The Medical Staff, in a combined meeting with the standing Building Committee and the standing House Committee, declared on February 2 1934, that they would not support the proposal for the temporary OPD unless the whole hospital could be constructed within a reasonable time.\footnote{Reports & Appendices to Reports, 1929–36, RMH Archives.} The Committee of Management requested the Medical Staff to devise a scheme for the building of the entire hospital transferring activities to Parkville in sections. The Medical Staff submitted an outline of their plans on April 4 1934.\footnote{Reports & Appendices to Reports, 1929–36, RMH Archives.} However, by 1935, the Haymarket had been designated for the Dental Hospital and an extra two acres (0.8ha) of the Pig Market site was allocated to the RMH in lieu.\footnote{Committee of Management minutes, October 19, 1937, RMH Archives.}

**Scheme A: The Priestley Plan**

Without having a binding agreement in place, the Committee of Management authorised SM/T, on December 23 1935, to prepare plans for Professor Raymond Priestley, the Vice-Chancellor of Melbourne University (1935–1938) to take to New York\footnote{Committee of Management minutes, November 26 1935, RMH Archives.} to present to Dr Alan Gregg of the Rockefeller Foundation at a planned meeting in May 1936 in the hope of convincing the Foundation to fund the University’s unit within the new RMH complex.\footnote{Raymond Priestley, *The Diary of a Vice-Chancellor University of Melbourne 1935–38*, Ronald Ridley, ed., Melbourne, 2002.} Thus the plan became known as the ‘Priestley Plan’.

As the architects had already prepared preliminary locality plans, they agreed to prepare the plans for £50 which they would waive if they were appointed architects to the RMH.\footnote{Committee of Management minutes, November 26 1935, RMH Archives.} As Priestley required ‘ground plans’ only, the Committee of Management requested the architects to:
Draw up a ground plan showing their recommendations for the utilisation of the space available to wards, Outpatients Department, Walter and Eliza Hall Institute and the proposed university requirements.  

Nevertheless SM/T regarded the preparation of the Priestley Plan as part of the work should the hospital be built. Scheme A evolved and became a precursor to the main programming process.

**Commencement of the Dialogue**

As discussed in Chapter 4, Stephenson’s art of creating good relationships with his clients was one of the keys to the firm’s success. Priestley recorded in his diary that, on January 29 1936, Stephenson invited him, along with other leading stakeholders, Dr Charles Kellaway and (Sir) Harold Clapp, to dinner at the Hotel Australia. The dinner was followed by a discussion of the plans for the new hospital. As Priestley began organising his overseas tour two days later, it could be presumed that part of that discussion involved how Priestley would receive the plans in the USA.

The 1929 lists were to be influential in SM/T's Scheme A. This was evident by firstly, the dates 1929–1936 written on the reports and secondly, by the firm’s red stamp ‘Stephenson & Meldrum’ appearing on several of the 1929 documents. The list of references was also recorded in the Organiser’s Report of Requirements, March 1936, as they had revisited them for the requirements for ward accommodation, OPD, the Nurses Home and Training School, Operating Theatres and Dispensary.

Despite the fact that SM/T had been requested to proceed with the Priestley Plan, the Organisers met on February 14 1936 to examine Blackett’s 1929 large block plan and plans for each floor with a summary of the main points. Their purpose was to see if Blackett had accommodated the university’s requirements for medical and surgical beds within the hospital block. It is highly probable that the Organisers were anxious to supply Priestley with plans prior to his departure on February 19 1936 although this is not stated.

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584 Committee of Management minutes, December 17 1935, RMH archives.
588 The ‘stamped’ lists are held in the Organisers File, 1936–9, RMH Archives.
589 CEO files, RMH Archives.
590 List of Reports and Appendices to Reports 1929–1936, RMH Archives.
Stephenson considered it was the architect’s responsibility to guide the client and, in January 1936, he offered to assist the Organisers in collecting the data from the user groups. Stephenson’s offer reveals the importance he placed on receiving a thorough and detailed list of requirements. He also suggested that the Lady Superintendent, Miss Grey; the Secretary, Colonel Fanning, and the Medical Superintendent, Dr JH Bolton, accompany him to Sydney to inspect the firm’s recent work, Gloucester House, at the Royal Prince Alfred Hospital (RPA). Gloucester House, the first intermediate wing\footnote{Gloucester House was specifically for paying patients. By locating this wing within a general hospital, these patients were able to receive diagnostic and therapeutic care not available in small private hospitals due to the cost of equipment.} incorporated within a public hospital in Australia, was described as “reflect(ing) the progress and development of science”\footnote{Constructional Review, September 1936, p. 9.}. Encapsulating the modernist aesthetic, Gloucester House was a five storey L-shaped configuration. The patients’ rooms were located on eastern and northern elevations so orientated to catch the sunlight.\footnote{Constructional Review, September 1936, p. 9.} The ten-feet (3.0m) wide continuous balconies were placed on the north and east aspects of the first to fifth floors. Fanning visited the RPA\footnote{Stephenson & Turner Collection, Box 12, Collection C, State Library Victoria.} in August 1936 but there is no evidence that either the Miss Grey or Dr Bolton accompanied him.

**Requirements for Scheme A**

There was insufficient time for Stephenson to produce detailed sketch plans before Priestley’s departure, as the firm had not been informed of the specific requirements. Stephenson wrote to the Committee of Management on March 2 1936, “setting out the points on which he required to be informed to enable him to prepare the plans”.\footnote{List of Reports and Appendices, 1929–1936, RMH Archives.} Dr Kellaway replied on March 10 pleading a lack of time to provide all the details as requested but advising that the NBC had approved the following:\footnote{Letter, SM/T to the RMH, March 2 1936, RMH Archives. Letter, Dr Kellaway to SM/T, March 10 1936, RMH Archives.}

- Bed numbers: 520 beds divided into wards according to the various medical specialisations. The reason for the reduction in bed numbers from the 1929 plan of 750 beds was not specified but Kellaway stressed that the hospital must be so laid out as ‘to provide within 20 years for an increase in the public beds up to 750, and in intermediate (private) and sub-intermediate (semi-private) beds to 150’;\footnote{Letter, SM/T to the RMH, March 2 1936, RMH Archives. Letter, Dr Kellaway to SM/T, March 10 1936, RMH Archives.}
• Outpatients: accommodation for 1,000 patients per day with provision for increase to 1,500 patients per day excluding Casualty;\textsuperscript{598}

• Casualty: daily attendance 80 with provision for 120 patients;

• Nurses Home: 350 Sisters and nurses + 30 students;

• Preliminary Training School for nurses to be accommodated within the Nurses Home;

• RMOs: quarters for 38 with sitting rooms available for every 2 bedrooms;

• Medical Students’ accommodation for 20 residents;

• Dietetians’ accommodation included in the Nurses’ Home;

• Accommodation for 90 Maids;

• Requirements for laundry, steam and hot water service; and

• Physiotherapy Department: The existing one occupied 5,000 ft\textsuperscript{2} (464.5m\textsuperscript{2}) and provided only for surgical patients. Additional space would permit medical physiotherapy, and if hydro-therapy was added, a further 7,000 ft\textsuperscript{2} (650.3m\textsuperscript{2}) must be provided. They had no intention of using voltages beyond 400 KV. (Kilo Volts) for new Deep X-Ray therapy.

• \textbf{Medical School}: Dr Kellaway pointed out that ‘no moneys are yet available for the building of the medical school’\textsuperscript{599} but that the Royal Melbourne Hospital and the University Medical School were to be planned as a single unit and that they required the following:

  • An entrance from Grattan Street would be ‘most useful’;

  • 15,000 ft\textsuperscript{2} (4,572m\textsuperscript{2}) to 16,000 ft\textsuperscript{2} (4,876.8m\textsuperscript{2}) for each department of medicine, surgery, pathology and bacteriology;

  • 2 lecture theatres with seating for 250 each;

  • 4,000 ft\textsuperscript{2} (1,219.2m\textsuperscript{2}) to 5,000 ft\textsuperscript{2} (1,524m\textsuperscript{2}) on each floor for teaching purposes;\textsuperscript{600} and

  • The Medical School adjoin Casualty for the purpose of training students in emergency medicine.

\textsuperscript{598} Letter, Kellaway to SM/T, March 10 1936.

\textsuperscript{599} Letter, Kellaway to SM/T, March 10 1936

\textsuperscript{600} Letter, Kellaway to SM/T, March 10 1936.
• WEHI's requirements were additional to the Medical School. It required 3,000 ft² (914.4 m²) on each of the four floors if planned in a block continuous with the medical school; and

• A separate Animal House accessible to the Institute and Medical School via an open bridge with floor space of 2,000 ft² (609.6 m²) to serve the needs of both the Institute and Medical School.  

The Programming Methodology
Stephenson believed that one of the greatest factors influencing the design of hospitals was the restraining influence of the requirements therefore implementing the modernist philosophy of ‘form following function’. With such a short time frame to prepare the design, the methodology of ‘design-by-dialogue’ was somewhat compromised as data collection from all user groups would have been impossible. As mentioned, the architects had to rely on some of the 1929 requirement lists for detailed information over and above what Kellaway provided. They had also to rely on their previous experience even though the RMH project was to dwarf their previous and contemporary hospitals in size and complexity.

Analysis of Scheme A
Site Organisation
As illustrated in Figure 6.3, the hospital would occupy the eastern portion of the pentangular site. The façade of the main block faced east thus addressing Sydney Road – Australia’s most important road linking two state capital cities, Sydney and Melbourne. The siting and orientation emphasized the status of the hospital as Australia’s pre-eminent medical centre and as a university hospital.

The organisation of the site was planned to take advantage of the surrounding road network. A semi-circular drive from Sydney Road defined the main entrance of the hospital in a traditional formal manner. As requested by Kellaway, WEHI was contiguous with the Medical School and Casualty at the western end of the southern wing. The plan met the

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601 Letter, Kellaway to SM/T, March 10 1936.
requirements to provide separate entrances from Grattan Street to WEHI, the Medical school, Casualty and the Outpatient Department.

The Nurses Home was a detached building on the north-west corner of the site with its façade and main entrance facing north. This allowed the architects to take advantage of the northern boundary by building an access road entering from Sydney Road.

The Service Block (the Boiler House on the plan) was located to the west in the narrow section of the site and was accessible from Flemington Road. The site for the Service Block reiterated the 1929 plan and was influenced by concerns to place as much distance as possible between the Main Block and the University of Melbourne Veterinary School located to the west of the site.

**Composition and Form**

As Priestley planned to present the sketches to the Rockefeller Foundation, it was useful that the proposed RMH aspired to the modern American planning standards of vertical massing. As depicted in Figure 6.1, the main hospital was based on an H-shaped plan orientated north-south with projecting wings. The tall central block (the cross-over)
provided contrast to the lower horizontal massing. The H-configuration had similarities to the Birmingham Hospital Centre 1933–38, designed by Lancaster and Lodge (Figure 6.4).603

Birmingham Hospital, like the RMH, had relocated to a vacant site two miles (3.2km) from the city centre to be close to Birmingham University and to escape the city’s noise and pollution. SM/T would have been aware of Birmingham hospital as an international architectural competition was held in 1928604 and it was the subject of many articles in British architectural journals which SM/T would have been receiving.

As the RMH had failed to provide specific requirements for the size of the Main Block, SM/T were reliant on the general hospital principle of allowing “300 ft² (27.8m²) building space to house one patient and … actual ward accommodation representing only 24% of the whole area”.605 Based on this principle, 650,000 ft² (60,386.9m²) of building space would be required.

**Architectural Character**

By 1936, SM/T had become proficient at designing the functionalist hospital. They recognized that modern architecture was “trending towards simple massing … (with) an

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entire absence of architectural details”. This projected the message of monetary
efficiency and medical confidence. For the Priestley Plan, they proposed multi-storey block
with façades projecting the clean and organised aesthetic – devoid of ornament.

**Internal Spatial Organisation**
The architects organised the internal arrangement in accord with the Organisers’ spatial
requirements. The lower floors housed essential services such as the Kitchen,
Administration and Laboratories; the intermediate floors were for patient care; the top
floor for Operating Theatres; and the roof space was for the residents’ quarters. The
north wings were reserved for the wards in order to maximise sunlight and avoid any
possibility of overshadowing by the other wings. The Medical Sub-committee determined
the floor arrangement for the wards.

The two incorporated bodies, the University Medical School and WEHI acted as individual
components and required separate but adjoining accommodation. This was organised over
a number of floors thus creating individual buildings within the hospital footprint.

**The Architects’ Presentation**
On March 23 1936, Stephenson presented the sketch plans to the NBC. The final plans
were complete on March 30 1936. The plans were:

- A site plan of the Medical Centre, Nurses Home and Service Block in relation to
  the surrounding streets (Figure 6.3);
- An aerial view of the proposed hospital and medical school (Figure 6.1); and
- Series of plans in book form of the floors of the proposed hospital (Figures 6.5–6.10).

**Priestley and the Rockefeller Foundation**
Priestley’s extensive survey tour of twenty universities in the United States of America and
Canada took over four and half months between February and June. He had scheduled a
meeting with Dr Gregg whilst at Columbia University, New York encouraged by the fact
that the Rockefeller Foundation had previously provided grants for viral research at WEHI. Kellaway had provided him with a letter of introduction.\textsuperscript{609}\footnote{Letter, Dr Kellaway to Professor Priestley, February 26 1936, CEO files, RMH Archives.} Priestley recorded in his diary on May 14 1936 that Gregg found it impossible at that time for the Rockefeller Foundation “to help Melbourne at all”.\textsuperscript{610}\footnote{Priestley quotes Gregg’s explanation of the Rockefeller Trusts’ reorganisation in 1928. They had increased their scope and responsibilities and had coordinated all their bodies under one general direction. The depression had halved their income leaving them with a wider programme and only half the resources, Priestley, The Diary of a Vice-Chancellor University of Melbourne 1935–38, Ronald Ridley, (ed.), Melbourne, 2002, p. 210.} Nevertheless, Gregg requested that the plans and papers of the Priestley Plan be left with him. The fact that Priestley arranged a meeting for Geoffrey Moline of SM/T to hand the RMH plans to Gregg, indicates that Priestley did not receive the plans in time for this important meeting. Gregg offered to give Moline a series of monographs the Rockefeller Foundation had prepared on hospital and medical school plans, buildings and equipment.\textsuperscript{611}\footnote{Raymond Priestley, ‘Rockefeller Foundation and the Melbourne Medical School’, American Journals, May 1936, unpublished, University of Melbourne Archives, p. 1.}

Moline had previously been despatched by Stephenson to the USA for approximately three months\textsuperscript{612}\footnote{Letter, Stephenson in Sydney to Meldrum in Melbourne, December 5 1935, Sir Arthur Stephenson Collection, National Library Australia.} to join dental professionals, Sir Harry Moxham and Professor Arnott to investigate dental hospital development in preparation for the new United Dental Hospital, Sydney, 1936–1940.\textsuperscript{613}\footnote{Letter, Stephenson to Meldrum, December 5 1935.} However, as there appears to be no record of the Rockefeller Foundation monographs in the Stephenson & Turner Collection, it is possible that the meeting between Moline and Gregg did not take place.\textsuperscript{614}\footnote{The Stephenson & Turner Collections are scattered through several repositories are very large and have not undergone sufficient processing to make them readily retrievable.}

Conclusion

Although the 1929 proposal for the RMH on both the Haymarket and the Pig Market sites did not eventuate, the reports formulated from all the Department Heads specifying their requirements for the new building were to have considerable influence in the 1936 SM/T Scheme A. Blackett’s 1929 large block plans were also examined by the Organisers on February 14 1936 and some of the 1929 requirements lists were included in the Organisers’ Report of Requirements in April 1936.

Scheme A was prepared quickly upon the appointment of SM/T as architects for the new hospital in December 1935. The purpose was to provide Professor Priestley with plans to
convince the Rockefeller Foundation to fund the University’s component within the RMH. Priestley apparently did not have the plans when he met Gregg but regardless of this, the Foundation was unable to financially assist the University. Further research of Stephenson & Turner archive may discover the Rockefeller Foundation’s series of monographs on hospital and medical school plans, buildings and equipment which Gregg offered to give to Moline if and when they met.

Scheme A was important in the overall programming process because it provided SM/T with insight into the complex requirements and the subsequent spatial organisation required for the RMH. However, it was only after the signing of the Architect’s Agreement in August 1936 that the actual programming process began in earnest. This is investigated in the following chapters.
Scheme A Drawings
Source: Stephenson & Turner Collection, State Library Victoria

Figure 6.5. Aerial View of the Hospital and Medical School
Figure 6.6. Basement of the Hospital and WEHI.
Figure 6.7. Ground Floor Plan of the Hospital, WEHI, Medical School and OPD
Figure 6.8. First and Second Floors of Hospital and WEHI
Figure 6.9. Third and Fourth Floors of Hospital and WEHI
Figure 6.10. Seventh, Eighth, Ninth and Tenth Floors of Hospital
Introduction

As discussed in the preceding chapter, Scheme A (the Priestley Plan) was a hastily prepared scheme with the sole aim of securing funding from the Rockefeller Foundation specifically to fund the accommodation required by the University of Melbourne for their Clinical School in the new hospital. As Scheme A was undertaken by the architects prior to the signing of the Architect’s Agreement on August 18 1936, Scheme B was the first officially authorised scheme and, it was with this scheme, that the dialogue between the architects and the clients commenced in earnest. This chapter examines how and why the architects developed Scheme B specifically in accord with the requirements specified by the Organisers and simultaneously, and at their own discretion, developed Scheme C which was not authorised. The architects presented the two schemes conjointly to the Committee of Management on November 29 1936 at the office of SM/T. The Committee of Management accepted Scheme C as their preferred scheme on December 12 1936 and it was approved by the Charities Board of Victoria in February 1937. Despite Scheme C being accepted, Scheme D was developed later in 1937 and subsequently accepted. This
was a strange twist of circumstance and the rationale behind it has been explored. In summary, this chapter explores:

- The reason for the simultaneous development of Schemes B and C;
- The subsequent dialogue to negotiate the differences between the client’s requirements and the architects’ ideas regarding spatial organization; and
- The consequential impact of the architecture on hospital practice.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>18/8/1936</td>
<td>Architects’ Agreement signed.</td>
</tr>
<tr>
<td>11/9/1936</td>
<td>Architects authorised to commence Scheme B.</td>
</tr>
<tr>
<td>12/12/1936</td>
<td>Scheme C approved by RMH Committee of Management.</td>
</tr>
<tr>
<td>25/5/1937</td>
<td>Scheme D authorised to proceed.</td>
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Table 7.1. Timeline for Schemes B, C and D.

The Genesis of Scheme B

Despite the fact that there was consensus for the new hospital to be constructed at Parkville and that SM/T had officially been appointed architects (although the agreement was still to be signed), the RMH were placed in the position of having to send a deputation from the NBC, Messrs Gates, Zwar and Hurley,\(^{615}\) to meet with the Premier, Mr Albert Dunstan, (Table 5.1) in July 1936, to convince him of the need for new plans.\(^{616}\) They argued that the previous plans,\(^{617}\) Blackett’s 1929 plans nor SM/T’s Scheme A, did not comply with the RMH Committee of Management’s agreement with the Victorian Government to provide for the University of Melbourne’s Departments of Medicine, Surgery and Research, as well as for departments associated with the School of Clinical Teaching.\(^{618}\) The fact that the RMH needed to formally request new plans at this stage reveals the overt complexity of the client entities in particular with the frequent changing of the State Government.

\(^{615}\) NBC minutes, July 1936, RMH Archives.

\(^{616}\) NBC minutes, July 1936, RMH Archives.

\(^{617}\) The date of the agreement between the RMH Committee of Management and the Victorian Government to provide for the University of Melbourne’s Departments of Medicine, Surgery and Research seems uncertain. An examination of Blackett’s 1929 Scheme and SM/T’s Scheme A show that no such accommodation was indeed provided.

\(^{618}\) NBC minutes, July 1936, RMH Archives.
The Architects’ Agreement

The Architects’ Agreement was signed on August 18 1936 thus legalising the project between the architects, the RMH, the Charities Board of Victoria and the State Government. The agreement specified the aim of the project:

The erection of a general hospital and clinical school and associated teaching and research departments … in keeping with the Fourth Schedule to The Royal Melbourne Hospital Act 1935.619

The agreement clarified two vital points:

- Funds were limited; and
- Construction would proceed in stages over ten years.620

The architects thus knew from the outset that the project would be a lengthy proposition.

The Commencement of the Programming Process

Prior to the signing of the Architects’ Agreement, the Organisers spent six months, from November 1935 to April 1936, preparing a new and very comprehensive report of requirements621 which was amended by the Medical Staff and then presented to the NBC on July 14 1936.622 The Organisers emphasised that this report represented ‘ideal planning’ but ‘without detailed consideration of cost’.623 The Organisers were acutely aware that the Heads of Departments and the Medical Staff were preparing their lists whilst operating in an outmoded, overcrowded environment of the Lonsdale Street hospital, and that their aspirations for the new hospital possibly reached beyond the economic capabilities of the budget. The client’s ambitious expectations and their ignorance of costs were to form the basis for the subsequent tensions between them and the architects throughout the programming process.

As already stated in Chapter 4, the Committee of Management had authorised the NBC to act as a ‘working client’ with the architects. All final decisions would be the responsibility of the Committee of Management. Therefore, at a meeting with Stephenson on September

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619 Architects’ Agreement, August 18 1936, RMH Archives.
620 Architects’ Agreement.
621 The Organisers’ Report on the Requirements for the Royal Melbourne Hospital at the Proposed New Medical Centre at Parkville, July 14 1936, p. 1, Organisers’ File, RMH Archives.
622 NBC Report, July 14 1936, NBC file, RMH Archives.
623 NBC Report.
11 1936, the NBC directly authorised the architects to begin the preliminary sketch plans, a scheme of successive stages of development of the hospital complex and an estimate of the cost, all to be submitted within ten weeks of receipt of instructions. The sketch plans were defined “as the conception of a new general hospital including all the requirements of a medical centre and a teaching school”. Scheme B was the response to this instruction.

The Architects’ Methodology

As already discussed in Chapter 4, Stephenson’s prime concern throughout the programming process was to design the hospital in the soundest and most economical manner. He recognised the users’ requirements as being the very basis on which to establish the parameters of the program and that it was necessary to define them “in detail and in space”. On this premise, the firm applied the modernist principle of form following function. An analysis of the requirements determined the gross floor area which, in turn, established the parameters for the footprint of the entire hospital complex. The key to all requirements was the number of hospital beds because they determined:

- The footprint of the Main Block;
- The number of nurses and size of the Nurses Home;
- The number of RMOs and the size of their quarters;
- The size of departments and their function; and
- The equipment and the number of personnel in the Service Block.

The dialogue commenced in earnest between the architects and the clients in September 1936. As mentioned, SM/T employed the methodology of Design-by-Dialogue which involved the users throughout the entire iterative process. At meetings with the committees, the architects presented sketch plans of their proposals explaining their method of interpreting the requirements into physical form. The purpose of this was to allow the users to respond by questioning the plans and either accepting or dismissing the proposals. However, as Vines pointed out, it was difficult for the untrained mind to understand the meaning of architects’ scale plans. SM/T were aware of this and applied the methodology of hierarchical sequencing: the essential progression from the general

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624 NBC minutes, September 11 1936, RMH Archives.
625 NBC minutes, September 11 1936, RMH Archives.
(master plan) to the specific (fit out). James Woolley regarded this as an appropriate method as it allowed all participants “to balance the whole problem in their minds” and not be overwhelmed with detail at the outset.

The documentation reveals that the dialogue between architects and the clients took several forms:

- Direct dialogue at meetings;
- Phone conversations;
- Correspondence; and
- Carefully minuted records were circulated to the architects and the relevant committees thus keeping all participants fully informed.

**The Client’s Requirements**

A summary of the requirements specified the following buildings:

- The Main Block (also referred to as the Hospital Proper): to be sited on the section at the corner of Grattan Street and Sydney Road;

- OPD: to be separate from the Main Block with an entrance from Grattan Street;

- WEHI: to be planned as a separate entity but connected to the hospital;

- Administration: to be planned as a separate annex but connected to the hospital. The main entrance to the hospital to be via Administration;

- The Nurses Home and the Preliminary School of Nursing: to be located on the highest ground on the north-west corner of the site with the bedrooms orientated to the north and east aspects. The main entrance to be from Grattan Street;

- The Chapel: to be interdenominational and built as an independent unit seating 250 people with accessibility from Sydney Road;

- The Service Block: to include the Boiler House, Laundry, Engineers’ Workshop and Maids’ Quarters and to be sited at the south-west corner.

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628 Requirements of the New Royal Melbourne Hospital at the Proposed New Medical Centre at Parkville in the NBC Report, July 14 1936, RMH Archives, Introduction, p. 6.
629 Requirements of the New RMH, Introduction, p. 6.
630 Requirements of the New RMH, Introduction, p. 4.
632 Requirements of the New RMH, Summary, p. 5.
633 Requirements of the New RMH, Summary, p. 6.
• Recreational facilities: 4 tennis courts, squash court, swimming pool, gymnasium for nurses, ballroom and garden;\textsuperscript{634}
• A connecting roadway between Sydney Road and Grattan Street;\textsuperscript{635} and
• A tunnel connecting the Main Block with the Nurses Home and Service Block.\textsuperscript{636}

**The Main Block**

The following institutions were to be integral to the Main Block:

• The Hospital Proper;
• The University of Melbourne School of Clinical Medicine and Surgery; and\textsuperscript{637}
• The University of Melbourne Departments of Medicine and Surgery incorporated with the School of Clinical Medicine and Surgery – in a similar manner to the equivalent departments of Sydney University sited in the grounds of and attached to Royal Prince Alfred Hospital.\textsuperscript{638}

**Bed Numbers**

The bed numbers were to prove problematic. In a letter from Kellaway to Stephenson, March 10 1936, the bed numbers were specified as being 570 of which 50 were for Intermediate (paying) patients. Then, in the Organisers’ Requirement Report, April 1936, the Organisers asked for 554 public beds including 50 beds for intermediate patients.\textsuperscript{639}

After the Organisers had calculated the ward units on the basis of 24 beds per unit in the general medical and surgical units and specialist units plus 32 beds in the Children’s unit,\textsuperscript{640} the requested bed numbers totalled 756 beds.\textsuperscript{641} And in SM/T’s Preliminary Report,\textsuperscript{642} November 30 1936, the bed requirements are stated as being 636 including 50 Intermediate beds.

\textsuperscript{634} Requirements of the New RMH, Summary, p. 7.
\textsuperscript{635} Requirements of the New RMH, Summary, p. 6.
\textsuperscript{636} Requirements of the New RMH, Summary, p. 5.
\textsuperscript{637} Stephenson & Meldrum, Preliminary Report on the Principles of Development Recommended for the Proposed Royal Melbourne Hospital and Medical Centre at Parkville Victoria, November 30 1936, RMH Archives, p. 6.
\textsuperscript{638} Stephenson & Meldrum, Preliminary Report, p. 4.
\textsuperscript{639} Stephenson & Meldrum, Preliminary Report, p. 1. The inclusion of intermediate beds for paying patients within the public system had become a necessity. As the RMH was a teaching and research facility, it was essential for the hospital to provide the most up to date equipment and expertise that were not available in private hospitals. Thence the public hospitals were obliged to admit paying patients in order for them to receive treatment.
\textsuperscript{640} The Organisers referred to the 1929 requirement reports for the Septic ward and the Childrens’ unit – the latter compiled by Mr Searby with notes by Dr. E Cooper.
\textsuperscript{641} Requirements of the New Royal Melbourne Hospital, Appendix ‘A’, p. 5.
\textsuperscript{642} Stephenson & Meldrum, RMH Preliminary Report.
Outpatient Department
The original requirement was for accommodation for 1,000 patients per day excluding Casualty. An amendment requested an increase to 1,500 patients per day. Specific requirements were requested for the specialist suites.643

Separation of Entrances
The Organisers emphasised the necessity for all patient entrances to be separated from staff and visitors in order to avert a circulation jam within the hospital. The entrances to the Department of Medicine and Surgery and WEHI were to be accessed from Grattan Street.644 Two discrete entrances to the street were requested: one for the Mortuary645 and the other for the Venereal Diseases Clinic.646

Admission and Casualty
Daily attendance was estimated as 80 but provision was to be made for 120 attendances.647 It is necessary that these two separate departments must be contiguous with an entrance from the intersection of Sydney Road and Grattan Street.

Operating theatres
10 operating theatres and 5 operating rooms were to be organised as follows:

- 7 theatres for inpatients located on the 8th floor facing south. The theatres to be grouped in three with one theatre for Intermediate patients;
- 1 theatre with an adjacent plaster room sited near the Orthopaedic and Fractures Unit;
- 2 smaller theatres, one each in the Diagnostic X-ray and Radium Departments;
- 1 large operating room in Casualty with an adjoining small operating room;
- 1 operating room in the Sepsis ward;
- 1 operating room for Dental Service; and
- 2 operating rooms in the OPD.648
Pathological Diagnostic Services:
These services cover routine clinical Bacteriology, Pathology, Biochemistry, Basal Metabolism and Electrocardiography. They needed to be located close to the wards and Outpatient Department but separated from the WEHI research departments.\(^{649}\)

Radium and Deep X-ray Therapy:
It was specified that this should be a self-contained unit, located to service both Outpatients and Inpatients – the location being important in order to reduce the travel of radium between the hospital and OPD. It needed to be close to the operating rooms and easily accessible from the general wards but as far as possible away from the Medical School. The request was “to house the whole department in the lower part of the wing of the hospital with separate entry and exit”.\(^{650}\) It had also to be “ventilated to remove ionised air”.\(^{651}\)

Physiotherapy Department:
The existing department occupied 5,000 ft\(^2\) (464.5m\(^2\)) but only the hospitalised surgical patients received physiotherapy. As the aim in the new hospital was to also treat medical patients, additional space would be required and, if hydro-therapy was added, a further 7,000 ft\(^2\) (650.3m\(^2\)) was to be provided. The physiotherapists had no intention of using voltages beyond 400 K.V. for new Deep X-Ray therapy.\(^{652}\)

University of Melbourne Clinical School
The maximum number of students would be 150 of which only 15 were female. A library, reading room, common room lockers and lavatory for both sexes were to be provided.\(^{653}\)

Accommodation
The following residential accommodation\(^{654}\) was required:
- Nurses Home: 350 Sisters and nurses + 30 students;
- Preliminary Training School for nurses within the Nurses Home;

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\(^{649}\) Requirements of the New RMH, Summary, pp. 2–3 & Appendix I, p. 1.
\(^{654}\) Requirements of the New RMH, Summary, pp. 1–2.
RMO’s Quarters: 38 bedrooms with sitting rooms for every 2 bedrooms; 
Medical Students: accommodation for 10 residents; 
Dietitians: accommodation to be included in the Nurses Home; and 
Accommodation for 90 maids and 3 engineers.

Dispensary
One large dispensary was to be provided and located near the Medical OPD. It was to be spread over at least 2 floors with the lower floor providing a manufacturing room with cleaning facilities and locked storage for drugs and dressings. 655

Essential Services
The requirements for the Service Block, Lifts, Kitchen and Food Services, Diet Kitchen and Staff Canteen were specified in the Report but detailed consideration in the programming of these areas are beyond the scope of this dissertation.

Contemplated Expansion
The following statement indicated the understanding by the Organisers and Medical staff of the flow-on effect extra beds would impose upon the hospital complex:

The hospital should be so laid out as to provide, within twenty years, for an increase in the public beds to 750 and intermediate and sub-intermediate beds to 150. The Outpatient Department will need to enlarge to cope with 1,500 daily attendances. This enlargement will require the provision for additional residential accommodation for Medical Staff, for Sisters and Nurses, for student nurses in the preliminary school and for maids. 656

Road Access
All the buildings required road access and parking spaces. 657

Scheme B Preparation
The ability of SM/T to prepare sketch plans for this complex institution within ten weeks clearly illustrated the size, efficiency and commitment of the firm. During the preparation of the sketch plans, the architects identified design problems and directly addressed the

656 Requirements of the New RMH, Summary, p. 2.
657 Requirements of the New RMH, Summary, p. 5.
clients seeking clarification. In the Organisers’ Report of Requirements, the University specified that the Department of Medicine and Surgery should face Sydney Road (directly opposite the University). On October 6, Stephenson challenged this request, explaining that if the University conditions were met, the wards would have to be constructed with a disadvantageous aspect. He therefore requested instructions from the NBC as to which was to have precedence – consideration of patients or the University preference for Sydney Road. He also wanted to know if the University would agree to have the Department of Medicine and Surgery located above WEHI and for certain wards to be included in that block as a temporary measure until the University was prepared to complete and take over the whole block at which time these hospital beds would have to be transferred elsewhere in the hospital.658

A conference between the architects, representatives from the University Faculty of Medicine and Surgery and the RMH Committee of Management was convened on October 7 to discuss these questions. To assist their decision, diagrams were displayed showing the relationship of the Departments of Medicine and Surgery to the hospital wards.659 On October 13, the Committee of Management approved the location of the departments.660

As instructed, SM/T prepared sketch plans based on a scheme of successive stages of development of the building of the hospital and an estimate of the cost of the buildings. In order to support their position, the architects prepared an accompanying report: ‘Preliminary Report of the Principles of Development Recommended for the Proposed Royal Melbourne Hospital and Medical Centre at Parkville’ and dated November 30 1936. It was copied to members of the committees.

The report commenced by clarifying that Scheme B followed the Organisers’ recommendations made “without detailed consideration of cost but representing ideal planning if financial provision can be made”.661 The purpose of preparing the sketch drawings of Scheme B was to demonstrate to the clients that the scheme was financial unviable.

658 NBC minutes, October 6 1936, RMH Archives.
659 NBC minutes, October 6 1936, RMH Archives.
660 Committee of Management minutes, October 13 1936, RMH Archives.
661 Stephenson & Meldrum, Preliminary Report on the Principles of Development Recommended for the proposed Royal Melbourne Hospital and Medical Centre at Parkville, Victoria, November 30 1936, p 1.
In preparing Scheme B, the architects challenged two aspects of the Organisers’ requirements which influenced the size of the building, the grouping of the parts of the hospital and the organization. To reinforce their position, the architects proceeded to simultaneously develop Scheme C taking “the liberty of departing in our recommendations from the recommendations outlined” in the Organisers’ report. The architects had been engaged by the RMH because of their “deep sense of understanding and detailed knowledge” of hospital design and in developing Scheme C they were “quietly asserting their obligation to advise (their) client as to what (they) believe(d) to be the right interpretation” of the problem.

Presentation of Schemes B & C

The purpose of preparing Scheme C was to illustrate to the client how to improve the functionality of the hospital by providing an efficient usage of space and, at the same time, reduce the footprint of the hospital and OPD and so reduce capital costs.

As part of the programming process, meetings between the client committees and the architects were arranged in order for Stephenson, Meldrum, Harvie and Arthur Noad to explain the various plans and proposed schemes of development. The architects presented the two schemes conjointly to the Committee of Management on November 29 1936 at the office of SM/T, a meeting described by Harvie as ‘wretched’. Further presentations took place at the hospital to the NBC on December 12 1936, to the Nursing staff and Heads of Departments on December 21 1936 and on December 22 1936 to the Outpatient HMOs.

Stephenson advised the Committees that “after exhaustive consideration” they have determined that Scheme C had advantages over the previous schemes and although there are disadvantages, Scheme C should be adopted. It should be considered:

As a whole rather than ... considered in detail. There are a number of deficiencies which can only be readjusted after full consideration by all parties concerned.

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664 Stephenson & Turner, ‘Hospital Seminar’, p. 2.
Demonstration of Differences between Schemes B and C

The underlying problem of Scheme B lay in the HMOs’ requirements for the ward units and the OPD. As already stated, there were two distinct divisions of the HMOs: Outpatient HMOs and Inpatient HMOs.

The Outpatient HMOs did consult with other Outpatient Specialists as the need arose but they refused to share clinics with each other and the Inpatient HMOs refused to share wards with their fellow HMOs. They all demanded their own exclusive clinics and wards. A similar situation had arisen at the Royal Prince Alfred Hospital (RPA) in Sydney where the Medical Board had been forced, in 1933, to reject plans for a new OPD on the grounds “that each department must have its accommodation and equipment, not to be shared by any other department”. To resolve this dilemma, the RPA’s Building Subcommittee proposed that they consult ‘Stephenson, Architect of Melbourne’, whose special qualifications were emphasised by Dr HH Schlink, the Medical Superintendent. Stephenson meet with the RPA Board and requested the project to be handed to him. However, the Minister of Health, NSW Government, determined that the project for the OPD remain with the government architect, Mr Smith.

Outpatients Department

On November 29 1936, SM/T were instructed to provide accommodation for 1,500 Outpatients per day. However, if the architects followed the requirements as specified in the Organisers’ Report, they would be obliged to provide fourteen clinics including the Venereal Diseases Clinic, X-ray, Radium and Deep Therapy requiring 112,000 ft² (10,405 m²) of building space. Of these clinics, there would be three separate surgical clinics and three separate medical clinics which would be used by six senior surgeons and six senior physicians and their teams a total of two half days per week leaving them empty on the remaining days. This, the architects argued, was financially unviable.

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668 NBC Report, October 15 1937, RMH Archives.
669 Stephenson & Meldrum, Preliminary Report, p. 10.
670 Medical Board of Directors minutes, Royal Prince Alfred Hospital (RPA), Sydney, November 28 1933, RPA archives.
671 Medical Board of Directors minutes, Royal Prince Alfred Hospital (RPA), Sydney, November 28 1933, RPA archives.
672 Medical Board of Directors minutes, Royal Prince Alfred Hospital (RPA), Sydney, November 28 1933, RPA archives.
Stephenson advised the Outpatient HMOs to limit the numbers to 1,000 attendances per day as this figure was more realistic. Stephenson also regarded the attendance of the OPD HMOs as being inefficiently organised for the clinics:

In the present conditions 12 Honorary Doctors attended in the morning and 26 in the afternoon. In the proposed plans for the new hospital, the staff had asked for three medical clinics occupying 1,800 ft² (167 m²). These were designed to accommodate a maximum of 1,500 attendances daily. At present, the daily attendances are 800–900. If we estimate that accommodation for 1,500 will be enough, are we certain we can limit the number to this figure? If we do eventually take 1,500 we must:

- Approximately halve the time spent on each patient; or
- Approximately double the number of doctors; or
- Approximately double the hours of the doctors.675

The architects pointed out in their report to the hospital committees that if the HMOs continued their routine practice, it would be difficult to reduce the number of clinics and therefore the footprint of OPD. They advised the OPD HMOs that they should revise their times of attendances:

The problem in respect to times of attendances is of such importance that it should be approached with an open mind on all sides and with the facts clearly set before you.676

Stephenson’s advice was influenced by his observations on his international study tours in 1927 and 1932. He had witnessed efficiently organised Outpatient Departments where the clinics were in constant use and the patients were seen by appointment thus reducing the number of patients waiting in the Department. He sought to introduce the same efficiency at the RMH:

The days of attendance of the Outpatient men were dependent to a large extent upon the days of attendance of the Inpatient men. The problem therefore was how to deal in the same amount of time with approximately twice as many patients. As regards building costs, if we wish to provide for 1,500 patients in the most economical manner compatible with efficiency we must reduce the area; we can’t reduce the area unless we use each clinic for five hours a day or six hours a day continuously instead of, as proposed using each Clinic only on four half days a week. We are thus limited by time. We suggest that we should adopt the system which prevails in certain American hospitals where each clinic was in continuous use by different

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675 Special Meeting of Medical Staff Minutes, December 22 1936, RMH archives.
676 Stephenson & Meldrum, Preliminary Report, p. 12.
Doctors on different days, and where all patients came by appointment. In this way, so many units of time could be allowed for each patient. \(^677\)

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Attendances</th>
<th>Total Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ann Arbour, University of Michigan Hospital.</td>
<td>750 to 1,200 per day</td>
<td>53,000 ft(^2). (4,923 m(^2))</td>
</tr>
<tr>
<td>Columbia Medical Centre, New York.</td>
<td>1,600 to 2,000 per day</td>
<td>130,000 ft(^2). (12,077 m(^2))</td>
</tr>
<tr>
<td>Massachusetts General Hospital, Boston.</td>
<td>1,000 to 1,200 per day</td>
<td>65,000 ft(^2). (6,038 m(^2))</td>
</tr>
</tbody>
</table>


To support his argument, Stephenson cited the three large American hospitals: Ann Arbour, University Hospital, Detroit; Columbia Medical Centre, New York; and Massachusetts General Hospital, Boston. In comparison to the RMH, the hospitals cited in Table 7.2, had only one Medical Clinic and one surgical clinic. In order to save 18,000 ft\(^2\) (1,672 m\(^2\)) at the RMH, the architects recommend to the Committees that the overlap system be applied whereby the clinics could be reduced to three and a common clinic be used for both medical and surgical clinics. \(^678\)

Stephenson provided an example: Neurology and Tuberculosis (TB) would share one clinic, Psychiatry and Diabetes share another \(^679\) as each of these clinics operated on two half days per week. A precedent for the overlapping system had already been established at the Lonsdale Street hospital where the Ear, Nose and Throat (ENT) Clinic and the Dental clinic shared one clinical space which they each occupied for two half days per week. Thus the overlapping system would result in a saving of 5,500 ft\(^2\) (510 m\(^2\)) of clinical space. \(^680\)

The overlap of the TB, Psychiatry, Diabetic and Neurology Departments would mean a shift from two clinics to one. The Dermatology Clinic would operate on four half days and the Orthopaedic clinic on two half days. \(^681\)
**Specialized Departments**

The architects advised against any overlap of the highly specialized departments: Diagnostic X-ray, Deep Ray Therapy and Radium; Physiotherapy; the Venereal Diseases Clinic; Outpatients’ Pathology, and Inpatients’ Pathology. They advocated instead the sharing of operating rooms in OPD, especially where “special ventilation and equipment (was) provided and particularly where anaesthetics, compressed air and suction (were) piped”. SM/T calculated that if these recommendations were adopted, the area of the OPD would be approximately 78,000ft² (7,246 m²).

**Patients’ Waiting Area**

The Organisers’ Report called for waiting space for 1,500 patients which would require 13,000 ft² (1,207 m²). This spatial requirement was necessary due to the disorganization of patients, many of whom had to wait all day. The architects recommended the reorganisation of patient waiting time by proportioning the numbers into morning and afternoon. This would reduce the patient numbers to 800 people and thus reduce waiting space by approximately 5,000 ft² (464 m²) if working on the ratio of 8 ft² (0.74 m²) per person would be reduced.

**The Appointment System**

With the sole objective of space and cost saving, the architects produced a strong argument to the Committees in support of the introduction of an Appointment System that would reduce the existing congestion in the waiting areas. Stephenson had seen the appointment system in operation in hospitals such as Cornell University Hospital, New York, and Ann Arbor University Hospital, Detroit. The advantage of such a system was that the patient was given an appointment to the clinic appropriate to their diagnosis. Furthermore, the architects recommended limiting patient numbers to 1,000 per day. The Appointment System would achieve:

- Considerable space saving;
- A lower cost of the OPD building;
- Less congestion in the waiting areas;

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682 Stephenson & Meldrum, Preliminary Report, p. 23.
• Benefit for the patient;
• Less 'wear and tear' on medical and nursing staff; and
• The system would offer the Doctor “a reasonable time in which to examine and treat the patient”.  

However the architects acknowledged the hospital’s argument against the system – that it would slow the ‘through-put’ of patients resulting in some patients not being seen that day.

In and Out Register

Having made the recommendation that the OPD HMOs reorganise their availability in order to optimise the Outpatient clinical area, the architects suggested that a electrically controlled In and Out Board be installed to enable the OPD HMOs to register their presence in the hospital by a light signal.

Special meeting between the Architects and the Medical Staff

At a specially convened meeting on December 22 1936, Stephenson entered into serious dialogue with the HMOs regarding the recommendations made in the architects’ report for Scheme C. The following Outpatient and Inpatient HMOs were present: Sir Alan Newton, Messrs Zwar, Searby, Hurley, Coates, Smith, King, Syme, Turner and Wright plus Doctors Maudsley, Wettenhall, Thomas and Pennington.  

Stephenson’s rational argument in support of Scheme C was an entirely new concept to the HMOs. The dialogue was conducted on an informal basis with the medical staff recognising the existence of the problem and agreed in principle. However there were many reservations, the teaching of students being one of their main concerns.  

They argued that if the Outpatient HMOs attended more clinics and overlapped with each other and also overlapped with the attendance of the Inpatient HMOs, the students would be unable to attend all the sessions.

687 Special Meeting of the Medical Staff minutes, December 22 1936, RMH Archives.
688 The three members of SM/T accompanying Stephenson were not named in the minutes of the Special Meeting of the Medical Staff, December 22 1936, RMH Archives.
689 Special Meeting of the Medical Staff minutes, December 22 1936, RMH Archives.
In order to reduce patient numbers, the HMOs volunteered suggestions. Dr Thomas proposed that the Charities Board create Suburban Clinics. Mr Hurley suggested that, in order to maintain full use of the clinics, paid junior staff could fill in for absence of the HMOs. The meeting concluded with Stephenson reassuring the Doctors that the plans were not final and referring the matter for discussion among “the University and Hospital representatives”.

**Ward Units**

Each Inpatient HMO demanded his required number of beds be in a ‘self contained’ unit to avoid sharing his ward with another Inpatient HMO. This was in contrast to the Organisers’ Report, where the concept of the HMOs sharing wards was considered a necessity if a 24-bed ward unit was applied.

The sharing of wards was determined by the HMOs’ bed allocation such as Neurology requiring 4 beds for male and 4 beds for female patients. This meant that the Neurologist would share the ward unit with other specialists such as Gynaecologist and Urologist (16 beds). The Organisers clearly stated that the “hospital can be built only in units and not in terms of any pre-arranged allotment of beds”.

The architects agreed to comply with the HMOs’ request but stated that it “necessitated certain departures from general planning which, although less economical, are very much in HMOs’ favour”. Extant documents for Scheme C reveal that the layout of the entire nine floors of the hospital proper had been prepared despite the planning being only preliminary. Table 7.3 illustrates the bed schedule in accordance with the Inpatient HMOs requirements making the total bed numbers 557.
Table 7.3. Scheme C, Bed Schedule as per the Inpatient HMOs’ requirements.

<table>
<thead>
<tr>
<th>Floors</th>
<th>Beds Nos</th>
</tr>
</thead>
<tbody>
<tr>
<td>First floor</td>
<td>20 beds</td>
</tr>
<tr>
<td>Second floor</td>
<td>112 beds</td>
</tr>
<tr>
<td>Third floor</td>
<td>84 beds</td>
</tr>
<tr>
<td>Fourth floor</td>
<td>90 beds</td>
</tr>
<tr>
<td>Fifth floor</td>
<td>60 beds</td>
</tr>
<tr>
<td>Sixth floor</td>
<td>83 beds</td>
</tr>
<tr>
<td>Seventh floor</td>
<td>56 beds</td>
</tr>
<tr>
<td>Eighth floor</td>
<td>52 beds</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>557 beds</strong></td>
</tr>
</tbody>
</table>

In order to convince the Committees that the area allowed in Scheme C was “within reasonable limits for such a hospital” the architects compared the RMH with five major American Hospitals.698

The space per bed actually covered the portion of usable space in the Hospital Proper. The usable space includes the actual ward areas including solaria but excluding balconies, administration, kitchens, dining rooms, stores, RMOs’ Quarters and unusable space: stairways, corridor and lifts.699 The figures do not include Outpatient Department or the medical technology spaces such as Radium, Deep Therapy or Pathology which were common to both Outpatients and Inpatients.700

**Disposition of Wards**

The Organisers instructed the architects to plan the wards in units and not “in terms of any pre-arranged allotment of beds”.701 Observing the Organisers’ request, the architects planned the wards in units of 24 beds – the exception being the 18 bed ward units for Sick Nurses, and the Relief Ward (Figure 7.2).702
### Table 7.4. Comparison of proposed RMH to five American hospitals regarding the spatial allocation per bed numbers.

**Source:** Stephenson & Meldrum, Preliminary Report, p. 32.

<table>
<thead>
<tr>
<th>Hospital</th>
<th>No of beds</th>
<th>Floor Space Per bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegheny Hospital, Pittsburg</td>
<td>600</td>
<td>616 ft² (57 m²)</td>
</tr>
<tr>
<td>Ann Arbour University of Michigan Hospital.</td>
<td>650</td>
<td>465 ft² (43 m²)</td>
</tr>
<tr>
<td>Cornell University Hospital, New York.</td>
<td>1000</td>
<td>382 ft² (35 m²)</td>
</tr>
<tr>
<td>King’s County Hospital, New York.</td>
<td>1500</td>
<td>517 ft² (48 m²)</td>
</tr>
<tr>
<td>Presbyterian Medical Centre, New York.</td>
<td>1000</td>
<td>520 ft² (48 m²)</td>
</tr>
<tr>
<td>RMH Scheme C.</td>
<td>654</td>
<td>520 ft² (48 m²)</td>
</tr>
</tbody>
</table>

The principles applied to the development of the ward plan were:

- Grouping the nursing units as required by the medical services;
- Obtaining the best aspects for the greatest number of patients; and
- Maximum flexibility for overlap of male and female patients. \(^{703}\)

\(^{703}\) Stephenson & Meldrum, Preliminary Report, p. 25.
Nurses Home
The architects proposed the ‘Public School House System’ whereby each ‘house’ would have its own premises within the Home. The nurses would live in the same quarters throughout the period of their training. Each ‘house’ would be supervised by one Sister. The architects had witnessed this kind of accommodation in America and in Europe and thought it stimulated ‘initiative’.704 This building would comprise a basement and 10 floors but the report does not specify the number of bedrooms.705

Innovations
The architects proposed that a tunnel and the centralising of services would improve the efficiency of the hospital.706

Tunnel
A continuous tunnel would lead from the basement of the Main Block past OPD and Nurses Home to the Service Block. The tunnel would take the whole of the service traffic in the hospital and foot traffic between the different buildings. It would also carry electrical and steam mains and facilitate both the linen service and the removal of rubbish. The architects argued that the tunnel was of paramount importance to the functioning of the hospital and, whilst it would be an expensive method of connecting the various services, it would reduce interference with the gardens and surface treatments and provide “weather proof corridors for the protection of hospital traffic”.707 This was in stark contrast to the covered walkways of the existing Lonsdale Street pavilion hospital.

Centralisation of Services
The introduction of centralised services would create a level of efficiency not experienced at Lonsdale Street. These were the Centralised Record System, the Centralised Sterilisation Department, Centralised Food Services, and Centralised Linen Services.

- Centralised Record System: The architects proposed that this system be implemented as it would combine the Outpatient and the Inpatient records together so that a complete history of any patient, together with X-ray and

704 Stephenson & Meldrum, Preliminary Report, p. 44.
706 Stephenson & Meldrum, Preliminary Report, p. 25.
707 Stephenson & Meldrum, Preliminary Report, p. 44.
pathology reports were available without cross referencing. They recommended that a qualified librarian be placed in charge of patient records, which could be indexed and cross-indexed and followed up for completion in order to supply doctors for study purposes. The department would be located in a central position within the hospital.  

- Centralised Sterilization Department: The architects urgently recommended that this system be instituted for service in the hospital. The purpose of this department, planned on the 8th floor, was to produce sterile trays containing bowls and instruments for dressings or various medical procedures. They argued that “the immediate result would be the greatest possible economy in the use of equipment, the certainty of standard procedure being adopted, unified method of training, localized responsibility and increased efficiency”.

- Centralised Food Service: The architects provided no details at this stage.

- Centralised Laundry Service: This concept was proposed but no details were available at this stage.

**Architectural Character**

As discussed in Chapter 2, by the 1930s, the vertical typology was the prescribed form in keeping with the most advanced American models and one where ornament was reduced to a minimum. In their report, the architects advised that:

> The plan be functional and the design simple, the effect being gained by proportion and mass … the simplicity of form and the directness of treatment will give the dignity and grandness to the building which cannot be achieved in any other manner.

The architects were clearly conscious of the public image the hospital must project. The building must convey confidence to the public that here their illnesses would be cured and that public money had been wisely spent.
Balconies
The architects advocated the inclusion of cantilevered balconies but the type that could not be used to accommodate patients’ beds as at the Lonsdale Street hospital. These balconies, they argued, at an approximate cost of £20,000 would be ‘a valuable asset’. They would be located in the most favourable aspects and would provide access to the wards through triple-hung windows thus enabling patient use when weather permitted.

Construction
The architects specified that steel framing and concrete were to be used in the construction of the building making it essentially fireproof. Face bricks, in a light colour, were proposed however colour samples were yet to be obtained.

Essential Services.
The architects also specified the essential mechanical services such as the Service Block containing the Boiler House, heating, ventilation, refrigeration, hot water service, sterile water, incineration and other mechanical services. The engineering requirements however, are beyond the scope of this dissertation.

Site Organisation
In their Preliminary Report, the architects included four separate solutions 1–3, with 3 sub-solutions for number 4, for the organisation of the site (Figures 7.5– 7.10). These plans demonstrated the architects’ pragmatism in seeking the best possible planning outcome and their inclusion in the Report was to clearly reassure the clients that every option had been considered. All six plans could be adapted to ‘fulfil this programme’ as the advantages of each outweighed the inevitable disadvantages. In developing the site plans for Scheme C, the architects explored various arrangements for the essential buildings with the objective of achieving the prescribed connectivity while providing separate entrances. Dividing the area of the site, 469,350ft² (43,604m²) with the footprint of the essential

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713 At the Lonsdale Street hospital, because of the overcrowding problem, the balconies had been converted as extensions of the wards in order to accommodate patient beds. Because of this, external canvas blinds had been installed over the balconies. Nevertheless the balconies were extremely cold in the winter.
714 Stephenson & Meldrum, Preliminary Report, p. 33.
buildings and gardens, had proven difficult. The Scheme C site plans allowed for Main Block, OPD, WEHI, Nurses Home, Chapel and the Service Block containing the Boiler House, Laundry and Maids’ Quarters. All the buildings required road access and parking spaces.

**Solution 1. Courtyard Plan.**

![Figure 7.3. Solution 1. The Courtyard Plan](source)

<table>
<thead>
<tr>
<th>Land area:</th>
<th>469,350 ft² (43,604 m²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building area of the hospital proper:</td>
<td>94,900 ft² (8,816 m²)</td>
</tr>
<tr>
<td>Nurses Home and Service Buildings:</td>
<td>60,000 ft² (5,574 m²)</td>
</tr>
<tr>
<td>Free land:</td>
<td>314,450 ft² (29,213 m²)</td>
</tr>
</tbody>
</table>

*Table 7.5. Site Allocation of the Courtyard Plan*

The architects acknowledged that the Courtyard plan (Figure 7.3) had been influenced by four American models but unfortunately they did not cite them. However, this plan has similarities to that of Scheme A. The main entrance addressed Sydney Road and thus created an imposing impression to Sydney Road and the University. The Medical School and OPD addressed Grattan Street as requested in the Organisers Report. The

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720 Stephenson & Meldrum, Preliminary Report, p. 5.
721 Stephenson & Meldrum, Preliminary Report, p. 15.
disadvantages were that this solution placed restrictions on the ward aspects and was therefore rejected.\textsuperscript{722}

\textbf{Solution 2. The Double Y Plan}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{solution2_diagram.png}
\caption{Solution 2. The Double Y Plan}
\label{fig:solution2}
\end{figure}

The hospital’s entrance would be from Grattan Street and the Medical School and WEHI would address Flemington Road (Figure 7.4). The disadvantages of this plan were the lack of civic view from all directions especially when coming from the city.\textsuperscript{723}

\begin{table}[h]
\centering
\begin{tabular}{|l|l|}
\hline
Land area & 469,350 \text{ ft}^2 \ (43,604 \text{ m}^2) \\
\hline
Building area: & 121,850 \text{ ft}^2 \ (11,320 \text{ m}^2) \\
\hline
Free land: & 347,500 \text{ ft}^2 \ (32,283 \text{ m}^2) \\
\hline
\end{tabular}
\caption{Site allocation for Solution 2.}
\label{tab:solution2}
\end{table}

\textbf{Solution 3. Hospital Entrances.}

The essential requirement of the programme was that OPD and WEHI be contiguous with the Medical School - the entrances of which would be from Flemington Road. The hospital’s entrance would be sited off Grattan Street. The Service Block would be located in the south-west corner and, in this solution, the Nurses Home would adjoin it. The

\textsuperscript{722} Stephenson & Meldrum, Preliminary Report, p.16.
\textsuperscript{723} Stephenson & Meldrum, Preliminary Report, p. 16.
Chapel would be sited on the northern boundary.\textsuperscript{724} The disadvantages of this plan were the poor civic view and traffic problems, and the east façade was ‘uninspiring’.\textsuperscript{725}

Solution 4. The Quadrant Plan

This solution was favoured by the architects as the axis of the hospital was on “the line bisecting the junction of Grattan Street and Sydney Road”.\textsuperscript{726} As the hospital frontage addressed the junction, the best civic view could be obtained. This angle would permit, if planned judiciously, “soundest conditions of aspect for the wards”.\textsuperscript{727}

Solution 4a. The Quadrant Plan

This plan sited the Outpatient Department and Medical School on Sydney Road. The disadvantages of this solution was that the axis was not diagonal consequently the east to north-east aspects were not desirable for the ward placement.

\textsuperscript{724} Stephenson & Meldrum, Preliminary Report, p. 16.
\textsuperscript{725} Stephenson & Meldrum, Preliminary Report, p. 17.
\textsuperscript{726} Stephenson & Meldrum, Preliminary Report, p. 17.
\textsuperscript{727} Stephenson & Meldrum, Preliminary Report, p. 17.
Solution 4b. Quadrant Plan

This plan developed the Medical School and OPD in accordance with the requirements specified in the Organiser’s Report. The service block occupied the south-west corner and the Nurses Home stood independently facing north. This scheme was ‘thrown too far to the North’\(^{728}\) thus becoming too extended and was therefore rejected.

\[^{728}\text{Stephenson & Meldrum, Preliminary Report, p. 18.}\]
Solution 4c.

This solution was regarded as the best of the solutions. By setting the hospital back from the street, the noise factor would be considerably reduced. This scheme offers better vistas for the patients than the previous solutions.

Gardens and Herbage: the free area will provide ample space for the planting of trees, lawns and gardens around the new hospital as they offer “delightful relief from the severity of hospital conditions”.

Table 7.9. Solution 4b, Site Allocation
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936, p. 17.

<table>
<thead>
<tr>
<th></th>
<th>Land area:</th>
<th>Building area:</th>
<th>Free land:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>469,350 ft²</td>
<td>(43,604.04 m²)</td>
<td>372,100 ft²</td>
</tr>
</tbody>
</table>

Table 7.10. Solution 4c, Site Allocation.
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936.

<table>
<thead>
<tr>
<th></th>
<th>Land area:</th>
<th>Building area:</th>
<th>Free area:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>469,350 ft²</td>
<td>(43,604 m²)</td>
<td>325,700 ft²</td>
</tr>
</tbody>
</table>

Figure 7.8. Solution 4c, The Quadrant Plan.
Source: Stephenson & Meldrum, Proposed RMH, Parkville, November 30 1936.

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729 Stephenson & Meldrum, Preliminary Report, p. 18.
Site Plan

There were two specific areas that influenced the footprint of the hospital and consequently the cost – the organisation of the wards and the organisation of the OPD. And both came down to the economy of space. In their report, the architects stated that the ward plan had, by necessity, been the ‘governing factor’ in determining the size and shape of the hospital; the second factor has been the ‘conservation of space on the grounds of economy’. Proposed extensions would add another 234 beds.

The Main block was sited on the east portion of the pentangular site and had been rotated 45° from that of Scheme A. This orientated the hospital on a south–east axis thus approximately bisecting Grattan Street and Sydney Road junction. The protruding wards were placed on a north-west axis in keeping with the principals of sunlight and aeration.

WEHI, Outpatients and Casualty were placed on the southern portion of the site and directly addressed Grattan Street from where separate external entrances were provided for each entity thus maintaining the critical separation of patients and staff. In keeping with the Organisers’ instructions the departments were connected, one department to the other,

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through interconnecting doorways on each floor. The purpose of this was to facilitate easy access by the medical staff. However, the Clinical School did not appear on this site plan as the hospital and the University Medical School were to be treated as a single unit for the purpose of the plan.\footnote{732}{Stephenson & Meldrum, Preliminary Report, p.16.}

As illustrated in Figure 7.9, the Hospital Road connected Sydney Road and Flemington Road. The Nurses Home and the Service Block were sited on the western portion of the site and were accessible via the Hospital Road. The Nurses Homes was deliberately planned with a north-western aspect in order for the semicircular shaped building to obtain northern sunlight to the nurses’ rooms.

Laundry: The Charities Board suggested that the RMH consider having their laundry done at the Women’s Hospital in order to save on the large capital expenditure.\footnote{733}{NBC minutes, December 4 1936, RMH Archives.} At the Laundry Subcommittee Meeting on January 18 1937, no costs were available so the decision was made not to convey the Charities Board’s suggestion to the architects.\footnote{734}{NBC minutes, December 4 1936 and January 18 1937, RMH Archives.}

**Scheme C. Floor Arrangement**

In their Preliminary Report, the architects stated that the sketch plan for the floor arrangement of the following buildings had been devised as a general scheme of development and were not to be regarded as the final decision for the allocation of departments.\footnote{735}{Stephenson & Meldrum, Preliminary Report, p. 26.} The five buildings were Administration, Main Block, OPD, Nurses Home and the Service Block.

**The Main Block**

The height of building was to be 132 ft. (40.2m) to the parapet line above the 9th floor and approximately 160 ft. (48.7m) to the top of the water tower. The ward units were located in the four north projecting wings. The centre two were planned be built to the height limit with the outer wings being several storeys lower with allowance on the lower wings for
future vertical expansion to the full height. The objective of placing the ward units in separate wings was in keeping with principals of sunlight and aeration.\textsuperscript{736}

<table>
<thead>
<tr>
<th>Floor</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basement</td>
<td>Calorifier Room; General Storage; Tunnel; Clearing station for soiled linen and refuse.</td>
</tr>
<tr>
<td>Lower Ground</td>
<td>Kitchen; Diet Kitchen; Staff Cafeterias; Lockers and Common Rooms.</td>
</tr>
<tr>
<td>Ground Floor</td>
<td>Nurses and Visitors Entrance (via road access from Sydney Road); Shop; Creeche; Students' Common Room; Cafeteria; Lockers and Lecture Room; OHM's Lounge and Locker Room; RMOs Common Room; Nurses and Sisters' Dining Room; Barbers' Shop.</td>
</tr>
<tr>
<td>First Floor</td>
<td>24 Refractory beds; 30 Medical beds; 20 Radium and Deep Therapy beds.</td>
</tr>
<tr>
<td>Second floor</td>
<td>60 Medical beds; 24 Relief beds.</td>
</tr>
<tr>
<td>Third Floor</td>
<td>60 Medical beds; 24 Sick Nurses beds.</td>
</tr>
<tr>
<td>Fourth Floor</td>
<td>30 Surgical beds; 30 medical beds; 24 orthopaedic beds;</td>
</tr>
<tr>
<td>Fifth Floor</td>
<td>60 Surgical beds; 24 Neurological and Diabetic beds.</td>
</tr>
<tr>
<td>Sixth Floor</td>
<td>60 Surgical beds; 24 Gynaecological and Urological beds.</td>
</tr>
<tr>
<td>Seventh Floor</td>
<td>30 Surgical beds, 30 Eye, Ear, Nose and Throat beds, 24 Intermediate beds.</td>
</tr>
<tr>
<td>Eighth Floor</td>
<td>24 Intermediate beds.</td>
</tr>
<tr>
<td>Ninth Floor</td>
<td>48 Sepsis beds.</td>
</tr>
<tr>
<td>Roof</td>
<td>To hold shelters suitable for recreation and convalescence.</td>
</tr>
</tbody>
</table>

Table 7.11. Scheme C. Proposed Floor arrangement for Main Block
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936.

Wards

In contrast to the open Nightingale ward at the Lonsdale Street hospital, the drawings show that the architects had implemented the Rigs System whereby the ward units were divided into sections each containing four beds but with some two bed units. Single rooms were provided for the infectious or the very ill and/or dying patients. Thirty bed wards were regarded as appropriate for one Ward Sister to adequately supervise. Each of the nine floors were to be connected to OPD and, where possible, inpatient wards had been planned at the level of the corresponding Outpatient Clinic. This arrangement replicated that of Westminster Hospital London, 1933–39.

\textsuperscript{736} Stephenson, writing in 1961, commented that the ‘Florence Nightingale conception of a hospital dominates our thinking in this country right up to present day’. Source: Arthur Stephenson, Pre-design Analysis of Requirements for a General Hospital, \emph{The Hospital}, January 1961, p. 16.
Outpatient Department, Casualty and WEHI.

Table 7.12 itemises the floor arrangement of ten floors (including basement) for OPD, Casualty and WEHI. These floors were contiguous with those of the Main Block.

<table>
<thead>
<tr>
<th>Floor</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Ground Floor</td>
<td>Entrance to WEHI from Grattan Street; WEHI Offices and Laboratory; Animal Accommodation; Admission Department; Ambulance Entrance; Outpatients' Office; Clearing Station for First Aid.</td>
</tr>
<tr>
<td>Ground Floor</td>
<td>WEHI Laboratories; Animal Accommodation; Dispensary*; Records; Library; Admission Office; Almoners Department; Deep Therapy and Radium Department; VD Clinic and 6 VD beds. (Access to the VD Clinic is by stairway or lift from the Courtyard)</td>
</tr>
<tr>
<td>First Floor</td>
<td>WEHI Laboratories; Department of Clinical Pathology; One Medical Clinic.</td>
</tr>
<tr>
<td>Second Floor</td>
<td>Casualty and Outpatients Theatre; Recovery Wards.</td>
</tr>
<tr>
<td>Third Floor</td>
<td>1 Surgical Clinic; 1 Clinic for Medical and Surgical use.</td>
</tr>
<tr>
<td>Fourth Floor</td>
<td>Orthopaedic Clinic; Physiotherapy Department.</td>
</tr>
<tr>
<td>Fifth Floor</td>
<td>Eye, Ear, Nose and Throat Clinic; Dental Clinic; Psychiatric; Diabetic; Neurological and T.B. Clinics.</td>
</tr>
<tr>
<td>Sixth Floor</td>
<td>Gynaecology and Urological Clinics; Dermatological Clinic.</td>
</tr>
<tr>
<td>Seventh Floor</td>
<td>Diagnostic X-ray.</td>
</tr>
<tr>
<td>Eighth Floor</td>
<td>Main Operating Suite: 7 Theatres and Services.</td>
</tr>
<tr>
<td>Roof</td>
<td>To hold shelters suitable for recreation and convalescence.</td>
</tr>
</tbody>
</table>

Table 7.12. Floor Arrangement for OPD, Casualty and WEHI
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936

Nurses Home

The Floor Arrangement for the Nurses Home included the basement plus 10 floors with the height extending to 132 ft. (40.2m) from ground level at the front of the building.
Floor | Purpose
--- | ---
Base Basement | Calorifier Rooms; Collecting Rooms for Laundry and Refuse; Entrance to Lifts; Tunnel.
Ground Floor | Entrance Hall and offices; Reception Room; Smoke Rooms; Preliminary Training School; Gymnasium; Concert Hall and Lecture Theatre
First to Tenth Floor Inclusive | Bedrooms
Included on some floors are: Sitting Rooms; Hand Laundry; Tea Room.
Lavatory Basin in each room.
Hairdressing facilities in special room off lavatory blocks.

Table 7.13. Floor Arrangement for Nurses Home.
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936

Administration

Floor | Purpose
--- | ---
Lower Ground Floor | Kitchen Stores.
Ground Floor | Main Entrance; Administrative Offices.
First Floor | Administrative offices.
Second, Third & Fourth Floors | RMOs’ Quarters.

Table 7.14. Floor Arrangement for Administration
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936

Service Block:
The seven-floor arrangement included 5 floors for the Maids Quarters.

Floor | Purpose
--- | ---
Lower Ground Floor | Steam Raising plant; Coal and Ash Handling Equipment; Incinerator.
Ground Floor to Second floor | Laundry.
Three to Seven Floor Inclusive | Maids Quarters.

Table 7.15. Floor arrangement for Service Block
Source: Stephenson & Meldrum, Preliminary Report, November 30 1936

Recreation Facilities
3 - 4 tennis courts laid on en-tout-cas, Open Air Swimming pool, Gymnasium for nurses, 2 Squash Courts on top of the RMOs’ Quarters.
Scheme C Approved

Scheme C was approved by the Committee of Management on December 12, 1936; by the University Council on December 19, 1936; by the NBC on January 19, 1937 and by the Charities Board on February 20, 1937. The estimated capital cost for Scheme C was £1,250,000.

However, prior to Scheme C being accepted, Colonel Fanning and the NBC were keen to see some building work commence at the earliest possible date. The concept of building in stages had been clearly stated in the Architects’ Agreement so SM/T suggested that either the Nurses Home or the Service Block or both be commenced first before the plans for the rest of the hospital were finalised. The Committee of Management was more cautious – aware that all the responsibility rested with them. A letter from Fanning on behalf of the Committee of Management informed the architects on December 2, 1936 that before:

The Committee of Management could give instruction to proceed with any portion of the building, it would be necessary to approve the general scheme of development as outlined in sketch plans and report and that further drawings and documents would be required in connection with the development of the Nurses Home and Service Block.737

The members of NBC, on the other hand, were determined to commence building as soon as possible and resolved to:

Recommend to the Committee of Management that they approve the geographical location of the ground plan for the new hospital as laid out in Scheme C of the architects’ report and that they instruct the architects to proceed with the development of the Nurses Home and the Service Block, the general location of which is indicated in this report with relation to other departments of the Hospital provided that this approval is subject to and conditional upon approval of the University and Charities Board.738

Consequently, the architects were instructed by the Committee of Management on December 15, 1936 to proceed in accordance with their report subject to approval of the Charities Board.739 In a letter, March 3, 1937, the Charities Board agreed to proceed forthwith with the work of building the new hospital.740

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737 Letter, Colonel Fanning to Stephenson & Meldrum, December 2, 1936, CEO files, RMH Archives.
738 NBC minutes, December 4, 1936, RMH Archives.
739 Committee of Management minutes, December 15, 1936, RMH Archives.
740 NBC minutes, March 3, 1937, RMH Archives.
In the meantime, it was proposed, on January 29 1937, that RMH increase their holding to 654 beds with the possibility for 900 with an annual cost of maintenance in the new hospital of £235,535. On March 16 and March 20 1937, the architects were instructed to prepare detailed plans for the Service Block and Nurses Home respectively.\textsuperscript{741} However, the architects required urgent decisions as this number of beds was in excess of that specified in the Organisers’ Report.

In order to proceed with the plans for the Service Block, the architects required urgent decisions as to whether the hospital would generate its own electricity. They requested an urgent meeting with Messrs Zwar, Clapp, Hurley and Lewis in order to meet the mechanical engineer, Walter Basset, on April 20 1937. Four members of the firm: Stephenson, Meldrum, Harvie and Noad also attended. Basset’s role was to explain the process of generating electricity through turbo generators and their importance to the hospital. However the hospital representatives did not think the matter was ‘of vital importance’. Stephenson was forced to request the matter be referred urgently to the Committee of Management as the decision affected the planning of the Service Block.

The architects also required clarification regarding the Nurses Home in regard to the number of nurses as a consequence of the increase in bed numbers to 654 and later 900 as well as the possible introduction of the eight-hour day. Stephenson clarified the ratio of nurses to patients as 480 nurses to 654 beds and 680 nurses to 900 beds plus 30 trainees. As each nurse would have her own room, this increase in numbers would strongly influence the footprint of the Home. Stephenson invited some committee members to visit the Freemasons Hospital to inspect the Nurses Home.

The problem was not resolved until May 25 when another meeting was convened with the NBC with Messrs Zwar, Searby and Hurley questioning Stephenson and Harvie. The Lady Superintendent attended as the Nurses Home came under her jurisdiction. The number of patient beds, the nurse-bed ratio and the possible introduction of the eight-hour day for the nurses continued to be debated. If the number of beds were reduced, the number of nurses required would also be reduced but with the eight-hour day, a further 59-60 nurses would be needed.

\textsuperscript{741} Committee of Management minutes, March 16 1937, RMH Archives.
The capital cost of the Nurses Home was the central issue with Mr Zwar concerned that “the whole thing may collapse unless we cut down to what we are likely to get financially.” The only solution to reduce costs was in Stephenson’s expert opinion, to reduce the accommodation. The NBC acknowledged that:

The first instructions to the architects were based on an ideal building scheme apart from considerations of finance; and that the first duty of the Buildings Committee would be to reconsider the plan if the cost estimates proved too great for the means at the disposal of the Hospital Committee. The architects’ estimates have substantially exceeded expectations this duty of reconsideration of the plan or building scheme devolved on the Sub-Committee but unfortunately obstacles and cause of delay have prevented it from getting on with this work.

The Program for Scheme D

After consultation with two members from the Organisers’ Committee, Kellaway and Searby, the architects were instructed to develop Scheme D in order to reduce to the capital cost. The bed numbers requested were 548 beds – a reduction of 106 beds from the revised Scheme C. The architects advised that “no further economies of space can occur without jeopardizing the efficiency of the Institution.”

Within twenty-one days, the architects had prepared a set of drawings which were forwarded to the Chairman of the NBC on June 15 1937. The NBC referred Scheme D to the Committee of Management on June 16 1937. On June 29 1937, Scheme D was adopted subject to further review and report to Organisers.

Site Organisation

The documentation for Scheme D showed that the essential buildings retained the siting as in Scheme C.

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742 NBC minutes, May 25 1937, RMH Archives.
743 NBC minutes, May 25 1937, RMH Archives.
744 NBC minutes, May 25 1937, RMH Archives.
745 Letter, SM/T to the NBC, June 15 1937, RMH Archives.
746 Letter, SM/T to the NBC, June 15 1937, RMH Archives.
747 Committee of Management minutes, June 29 1937, RMH Archives.
The Main Block
With the omission of 106 beds, the ‘cubic content’ was reduced by 24%. The ward plan was designed for the ‘greatest possible economies’.748 The plans allowed for the immediate construction of the hospital with 548 beds with an expansion capability to 850 beds of which 150 beds would be for Private and Intermediate patients. The latter implied extra services, nurses and maids accommodation when those additional beds were constructed.749

Outpatients Department
Despite the HMOs request for the Outpatient Department with the capacity for 1,500 patients daily, the architects submitted plans with the capability of 1,000 per day. This implied the rearrangement of the timetable and the overlapping of the clinics as the architects had advised in Scheme C. The cubic content reduction would be 17%.750

Walter and Eliza Hall Institute
The footprint of the WEHI was reduced with “corridors, lifts and stairs to occupy 25% of the floor space whereas under Scheme C they occupied 30% of the total floor space”. It was, in the architect’s view, the maximum reduction of space “without jeopardising the efficiencies of the Institution”.751

Nurses Home
The Wages Board had regulated for the reduction in nurses’ hours to an eight-hour day. This ruling meant more nurses would be required to cover the twenty-four hour day–night duty roster. Based on this, the Lady Superintendent estimated the number of nurses required would be 430 nurses.752 The estimates for the increase in building size of the Nurses Home would add an additional £27,300 over that for Scheme C.

Service Block
The size of the Boiler House was to be sufficiently large to accommodate an extra boiler when more ward units were added at a later stage.

748 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
749 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
750 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
751 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
752 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
The Cost of Scheme D

The architects’ estimated cost for Scheme D was £1,093,600.753 To reduce the capital cost from Scheme C, the Chapel, swimming pool, air conditioning and turbo generators were omitted. However spatial allowance would be made for the future installation of the generators.754 In order to present the Committee of Management with a comparison between the estimates for Scheme C with Scheme D, the same building rates had been assumed. However the estimates were “subject to change when the working drawings (were) prepared in accordance with the ruling rates”.755 The estimates also did not include furniture or architect’s fees. The architects offered to discuss Scheme D in further detail with the RMH committees at any time.

Conclusion

Over a period of six months, November 1935 to April 1936, the Organisers diligently compiled a list of requirements for the Main Block, OPD, the Melbourne University School of Clinical Medicine and Surgery, WEHI and all the ancillary buildings. The Organisers were acutely aware that the Heads of Departments were preparing their lists from an outmoded and overcrowded environment so that their aspirations for the new hospital reached beyond economic capabilities. As a result, the Organisers clarified the lists as being “ideal planning but without detailed consideration of costs”. In an odd twist, the Outpatient HMOs wanted to simply replicate their existing practice and the ground floor accommodation in the new hospital. This would prove financially unviable so in order to demonstrate this fact to the client committees and particularly the Outpatients HMOs, the architects partially developed Scheme B and, on their own initiative, developed Scheme C. It is unfortunate that Scheme C drawings were unavailable for this research as they would have clarified the architects’ argument.

Through intense dialogue, the architects persuaded the clients to approve Scheme C and the Nurses Home and Service Block were approved as the first stage of construction based on Scheme C. However, an unexpected increase in bed numbers to 654 and later 900 complicated matters. Eventually both the bed numbers and the capital cost were revised down, forming the basis for Scheme D.

753 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
754 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
755 Letter, SM/T to the NBC, June 15 1937, CEO files, RMH Archives.
Scheme B Drawings
Source: Stephenson & Turner, State Library Victoria

Figure 7.10. Basement Plan
Figure 7.11. Lower Ground Floor Plan
Figure 7.12. Ground Floor Plan
Figure 7.13. First Floor Plan
Figure 7.14. Second Floor Plan
Figure 7.15. Third Floor Plan
8. THE PROGRAMMING PROCESS: SCHEME G

Introduction

Scheme G was the fourth official scheme in the iterative process. There are no drawings evident for Schemes E and F and there is no reference to them in any of the documents. The plans of Scheme G, commenced in July 1937, represent a major shift in the form and orientation from the previous schemes. Scheme D’s development finished effectively in June 1937. In Schemes B, C and D, the Main Block was orientated south-east with the façade addressing the junction of Grattan Street and Sydney Roads. In Scheme G, the Main Block had been rotated 45°. This chapter examines the dialogue between the clients and the architects for Scheme G and its four variations and what influenced the adoption of the rectangular form, the E configuration and the north-south orientation with the façade focused to directly address Grattan Street and overlook the City of Melbourne. Donald Turner and Colonel Fanning returned from their overseas study trip in August 1937. The extent of Turner’s influence on Scheme G and its schematic development is examined.

Footnote:

756 It is quite possible the Schemes E and F were the architects in-house development schemes however no explanation is offered in any of the documentation.
Schemes G1 and G2, two of the four variations, were specifically prepared for discussion regarding the organisation of the ward units. The reason for the differences and why G1 was approved instead of G2 is evaluated. Unfortunately, there are no available sketches to illustrate the difference. OPD continued to be problematic. The OPD HMOs challenged all the architects’ proposals thus generating considerable dialogue between them. Although various sections were approved, in principle, by the Committee of Management and by the NBC, Scheme G was aborted in November, four months after being authorised.

<table>
<thead>
<tr>
<th>22/7/1937</th>
<th>14/9/1937</th>
<th>19/10/1937</th>
<th>11/11/1937</th>
<th>7/12/1937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architects commence sketch plans on the rectangular form of Scheme G.757</td>
<td>Revised plan of G adopted by the NBC.758</td>
<td>G1 system of ward units approved by the Committee of Management.759</td>
<td>NBC’s recommendation that the architects recast plans for £950,000.760</td>
<td>Stephenson notifies RMH that Meldrum as retired from the partnership.761</td>
</tr>
</tbody>
</table>

Table 8.1. Timeline for Scheme G.

The RMH Committees

Despite the many difficulties, mainly site availability, funding and the frequent changes of government, the members of the Committee of Management and the NBC remained staunchly committed to fulfilling their responsibility by challenging the plans and questioning in detail the architects’ proposals. With Mr MacKintosh as acting chairman, due to Mr Hearn’s absence, the members of the NBC, at this time, were Messrs Zwar, Hurley, Hillier, Lewis, Searby and Kiddle. The Organisers’ remained the same: Professor MacCallum representing the University of Melbourne, Dr Kellaway representing WEHI, and Dr Thomas, representing the medical staff. On August 16, Colonel Fanning returned from his overseas study tour and requested to be relieved from his managerial duties in order to concentrate on the new building.762

The Board of Reference was established at the Committee of Management meeting on October 19 1937 in response to a request from the architects, September 15 1937, to appoint a special sub-committee “with authority to make necessary decisions in all matters

757 Correspondence file, July 22 1937, RMH Archives.
758 NBC minutes, September 14 1937, RMH Archives.
759 Committee of Management minutes, October 19 1937, RMH Archives.
760 NBC minutes, November 11 1937, RMH Archives.
761 Letter, December 7 1937, Stephenson to RMH, CEO file, RMH Archives.
762 Committee of Management minutes, October 15 1937, RMH Archives.
of detail during the preparation of working drawings and the development of the plan.”  

The fact that the architects were requesting prompt decisions in order to develop the working drawings reveals their confidence in Scheme G.

The Duties and Powers of the Board of Reference was to ensure that:

- The principles laid down by the Committee of Management in regards to the plans and specifications laid down in the resolution of the Committee of Management and the Organisers be carried out.
- The Board of Reference shall be given discretionary powers to deal with all matters which may be submitted to it affecting the development of the scheme, the interrelationships with the various departments, the co-ordination of the various sections of the hospital with the medical school and the co-ordination of the aspects of the scheme, with representatives of the university. For this purpose, the Board of Reference shall have the right from time to time to co-opt such authorities as it may deemed advisable in order to inform itself of any phase of the problem in the process of its undertaking.

This authority made the Board of Reference a de-facto client with the power to co-opt additional members as it saw fit. The members appointed were Cecil Hearn (Chairman), Bremner Lewis and Harold Clapp - three very senior and experienced members of the Committee of Management. Mr Hearn’s position on this Board increased his already considerable authority being that he was also the Chairman of the NBC. Colonel Fanning was to attend all meetings.

In November 1937, the NBC were continually discussing SM/T in closed meetings. They questioned the architects’ performance: “Was the hospital satisfied with the architects … (Did) their record go far enough”? Mackintosh co-opted Sir Alan Newton, a highly regarded RMH surgeon, to attend the NBC meeting on November 11 1937. In his role as Secretary to the Australasian College of Surgeons, Newton was instrumental in the

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763 Committee of Management minutes, October 19 1937, RMH Archives.
764 Committee of Management minutes, October 19 1937, RMH Archives.
765 Committee of Management minutes, October 19 1937, RMH Archives.
766 The architects fees were 3% of total cost thus the RMH was committed for £37,000 in payment.
767 Committee of Management minutes, October 15 1937, RMH Archives.
769 NBC minutes, November 11 1937, RMH Archives.
rebuilding of Prince Henry’s Hospital, 1934–40,\textsuperscript{770} with the objective for it to become the School of Post-Graduate Surgery. The NBC were interested in Newton’s experience with Leighton Irwin, the architect for Prince Henry’s Hospital.

\section*{The Architects}

There were two significant changes in the composition of SM/T during the development of Scheme G. One principal returned to the firm from a lengthy absence whilst another left permanently. On August 16 1937, Donald Turner returned from his overseas study trip to the United States of America, Canada, England and the Continent, excluding Russia.\textsuperscript{771}

During this time, he had investigated 162 hospitals over an eight and a half month period and was therefore fully informed of the current trends. In December 1937, Percy Meldrum resigned\textsuperscript{772} from the firm thus breaching the Architects’ Agreement with the RMH. After some consideration by the Law Committee, the RMH decided that, as Stephenson & Turner represented the old firm of Stephenson Meldrum/Turner, no alteration in the contract was required.\textsuperscript{773}

The meeting of the NBC on the August 2 1937 was significant in that both Stephenson and Turner were present. Whenever possible, Stephenson had attended most meetings where the architects’ presence was required. Donald Turner’s name appeared on all of Scheme B drawings thus providing evidence of his involvement in the RMH project from an early stage yet the records show that this was the first time he had accompanied Stephenson to a meeting. Turner’s involvement in Scheme G was to have considerable impact particularly as he was able to compare the RMH sketch plans to recent hospital work overseas. Although he visited many hospitals, he reported that:

\begin{quote}
It was not always possible to make a detailed inspection of every section but if the hospital was of outstanding merit or had special departments that were recognized as standards for such layouts, then these were inspected with considerable care and careful notes were made.\textsuperscript{774}
\end{quote}

\begin{itemize}
\item \textsuperscript{770} By 1937, only the three-storey Pathology Block at the rear of the site was complete. Source: Prince Henry’s Hospital File, Box 187, Monash Hospital Centre Archives.
\item \textsuperscript{771} DK Turner, ‘Trend of Modern Hospitals: Elimination or Amalgamation of Special Hospitals and Treatment of All Types of disease in One Centre, in \textit{The Hospital Magazine}, November 1937, p. 13.
\item \textsuperscript{772} In December 1937, Percy Meldrum left the firm to form a partnership with Arthur Noad, an architect formerly with SM/T. Other SM/T staff and some clients also elected to join Meldrum and Noad.
\item \textsuperscript{773} Committee of Management minutes, January 11 1938, RMH Archives.
\item \textsuperscript{774} DK Turner, ‘Trend of Modern Hospitals: Elimination or Amalgamation of Special Hospitals and Treatment of All Types of disease in One Centre, in \textit{The Hospital Magazine}, November 1937, p. 13.
\end{itemize}
The Client’s Instructions to the Architects

Generally speaking, the clients’ requirements, as specified by the Organisers, remained unchanged but the Committee of Management instructions to the architects for Scheme G were brief – reduce the capital cost. The estimate cost for Scheme G was £1,171,000 (£997,000 in November 1936 plus 20% increase in building costs over the course of construction).

The Architects were instructed to supply estimates for:

- 548 beds with no expansion; and
- 548 with provision for additional 100 intermediate beds.\(^\text{775}\)

The Architects’ Response

The bed capacity was the key determinant in the footprint of the hospital.\(^\text{776}\) The response of the architects to these instructions was to suspend work. The reason being that the ultimate capacity of 648 beds would “involve material alteration in the Service Block, Laundry and Nurses Quarters”.\(^\text{777}\) In order to achieve instructions for precise bed numbers, Harvie informed the clients by letter, that the architects would await a definite decision as to their bed requirements.\(^\text{778}\) It was a strange twist in requirements as the bed number of 648 had proved problematic during Scheme C and, in order to reduce capital costs, the number was reduced to 548 beds with a future expansion capability to 850 beds. Scheme D had been devised accordingly.

The Development of Scheme G

The NBC subsequently reduced the bed capacity to 450 beds. On August 2 1937, the architects informed the clients by letter that they would prepare sketch plans on the rectangle form of Scheme G. On the August 16 1937, the architects presented the general layout of Scheme G with four variations to the RMH Committees for discussion. Members were assured that these sketch plans were subject to revision according to their requirements. Regrettably, only some of the sketch plans were available but the documentation revealed that the following sketch plans were prepared and consisted of:

- Siting and Layout: (Figure 8.2);

\(^{775}\) Committee of Management minutes, July 29 1937, RMH Archives.

\(^{776}\) The London County Council specified the minimum space per bed was 80ft\(^2\) (7.4m\(^2\)).

\(^{777}\) Letter, Harvie to the RMH clients, July 21 1937, CEO files, RMH Archives.

\(^{778}\) Letter, Harvie to the RMH clients, July 21 1937, CEO files, RMH Archives.
• G1 and G2 Ward plans only: (unavailable);
• G3 Outpatient Department: (Figures. 8.8–8.23);
• G4 Complete Hospital: (Figure 8.1); and
• Perspectives and Façade sketches (Figure. 8.3).

Siting and Layout

Site Availability
The site inspection undertaken by the architects on October 15 1937 revealed that the horse stables had been removed but the Pig Market still operated at the south-east corner of the site. 779 A more immediate problem preventing the construction of the Nurses Home and the Service Block related to the University High School tennis courts which encroached on hospital land. The matter was referred to the RMH solicitors to negotiate their removal. 780

Site Layout
The organisation of the site was a major shift from previous schemes. It was the architects’ response to the Organisers’ requirements to:

• Site the future Department of Medicine and Surgery close to the University;
• Maximize the connectivity of departments specially OPD and Casualty; and
• Separate the external entrances.

In order to comply with the University’s repeated request for the future Department of Medicine and Surgery to be aligned to Sydney Road and therefore located directly opposite the University, the architects rotated the Main Block 45° from Schemes C and D thus vacating the north-east corner of the site for the future Department of Medicine and Surgery as illustrated in Figure 8.2.

779 NBC minutes, December 6 1937, RMH Archives.
780 Stephenson, NBC minutes, October 15 1937, RMH Archives.
The architects sited the buildings in order to take full advantage of the surrounding road network whereby complying with the Organisers’ request for separate entrances to all the departments - thus minimizing the volume of people traffic.781 The buildings were:

- The Main Block;
- OPD;
- Nurses Home and School of Nursing;
- WEHI and animal house;
- Departments of Medicine and Surgery;
- Intermediate wing; and
- Service Block: Boiler House, Laundry, Engineers workshop, Maids quarters.

**The Main Block**

As with the previous schemes, the Main Block occupied the quadrilateral section of the site. In Scheme G, the Main Block was sited on a direct north-south axis with the front façade directly addressing Grattan Street and, significantly, the distant City of Melbourne.

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781 Turner addressing the NBC on August 2 1937, NBC Minutes, RMH Archives.
Importantly, the Main Block is well set back from the surrounding streets so rectifying the noise problem that beset the Lonsdale Street hospital.

The rectangular form of the Main Block was an E-configuration with two ward wings and one OPD wing projecting to the north (Figure 8.1). The introduction of the E-configuration was unusual in that it does not conform to Atkinson’s recommendations regarding exposure to sunlight for the ward units, as noted in Chapter 2.

The small curved structure in the front of the Main Block marked as the Main Entrance was probably designated for Administration. This arrangement acknowledged the Organisers’ request for Administration to be planned in a separate building but connected to the Main Block with the main entrance to the hospital to be via Administration.\(^{782}\) Significantly, the Main Entrance addressed Grattan Street.

**Outpatients Department and Casualty**

The relocation of these departments represented a significant shift from the previous schemes by basically relocating them from the west of the Main Block to the east. OPD is clearly marked on the site plan and is located in the south and south-east wing of the Main Block.

Casualty is not identified on the site plan. However the Ambulance Entrance is clearly marked suggesting that Casualty was also located in the eastern wing of the Main Block. There is however some confusion, as at the NBC meeting, August 16 1937, Stephenson discussed with the members that the ambulance and Casualty entrances were separate.\(^{783}\) This raised questions of functional inefficiency. Clearly, the architects were aware of this for they advised the NBC that – for the ambulance to have direct access to Casualty – it would cost £5,000 - £6,000 more.\(^{784}\) The architects were also aware that they had provided only one parking space for the Almoner’s\(^{785}\) ambulance and not two as requested. However, a second space could be also accommodated if the ambulances’ direct accessibility to Casualty was achieved.

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\(^{782}\) *The Organisers’ Requirements for the New Royal Melbourne Hospital*, Introduction, p. 6.

\(^{783}\) NBC minutes, August 16 1937, RMH Archives.

\(^{784}\) NBC minutes, August 16 1937, RMH Archives.

\(^{785}\) The role of the Almoner was similar to that of the contemporary qualified social worker. The Almoner was attached to a hospital and their duty was to check on the after-care of patients.
The patients’ access to OPD and Casualty was separate and accessible from Sydney Road, however all new cases presenting themselves for the first time were to be directed to Casualty.\(^{786}\)

The Visitors’ Entrance was separate from other entrances and also directly accessible from Sydney Road.

**Walter and Eliza Hall Institute**

The research unit had been placed in a separate building on the north-east portion of the site with access from Sydney Road. WEHI was strategically positioned in this manner in order to comply with their requirements for maximum south light for its research departments.\(^{787}\) According to Stephenson, the facilities (were) much improved.\(^{788}\) By shifting WEHI to its new location, Diagnostic X-ray (could) be incorporated as an integral part of the main building.\(^{789}\) The architects were “of the opinion that these areas (were) the minimum having reasonable regard for the requirements of teaching (with) the maximum allowance is allowed”.\(^{790}\)

**Future Intermediate Wards**

The proposed Intermediate Wards were sited between the Nurses Home and the west wing of wards. The intended siting of the Nurses Home adjacent to the wards was in breach of the current practice as discussed in the next paragraph.

**Nurses Home**

The Nurses Home retained its position on the western portion of the site. However the architects had relocated it southwards with the façade and main entrance directly addressing Flemington Road thus providing direct access from Flemington Road.

However, as mentioned above, the Nurses Home would become a continuum of the future Intermediate wards. The established practice of separating the Nurses Home from the hospital proper was universally practiced in hospital planning. This concept was introduced after Nightingale successfully attracted the ‘genteele’ woman into her training programs as

\(^{786}\) NBC minutes, August 16 1937, RMH Archives.
\(^{787}\) NBC minutes, August 16 1937, RMH Archives.
\(^{788}\) NBC minutes, August 16 1937, RMH Archives.
\(^{789}\) NBC minutes, August 16 1937, RMH Archives.
\(^{790}\) NBC minutes, August 16 1937, RMH Archives.
discussed in Chapter 2. Edward Stevens also deliberately separated the Nurses Home from the hospital believing that the nurses needed to have a complete break away from the stresses of patient care.\textsuperscript{791}

**RMO Quarters**

The RMO quarters are not shown on the site plan. As illustrated in Figure 8.20, they were located on the eighth floor above OPD.

**Service Block**

The Service Block had retained the original position at the western end of the site and was accessible directly from Flemington Road and also from Sydney Road via the Hospital Road.

![Figure 8.3. Sketch Proposal for Scheme G. Main Block (right), Intermediate Section (centre), Nurses Home (left) and Service Block (far left). Stephenson & Turner, W.A.M. Blackett, Associate Architects. Source: Stephenson & Turner Collection, State Library Victoria.](image)

**Comparison of Site Plan with International Hospitals**

At a meeting with the NBC on August 16 1937 and, in order to convince the members that the site plan for Scheme G compared favourably with “the high standard of work going on

overseas. Turner compared it with the different site plans of three hospitals: Birmingham Hospital by Lancaster & Lodge (1933–38), Westminster Hospital by Adams Holden & Pearson, (1933–39) and Lille Hospital, France, by Walter Cassan & Madelaine, (1934–58).

**Birmingham Hospital**

Turner cited Birmingham Hospital (Figure 6.4) as the newest university hospital to be built in recent years.

When Turner visited in April 1937, the hospital was nearing completion. Turner explained to the NBC that the Hospital Proper had 4 wings: 2 medical wings and 2 surgical wings forming an H-configuration (Figure 8.4.) because OPD was planned to be 700 ft (213m) away from the Main Block. At that point in time, Birmingham OPD was still operating in the city centre. The total cost of the hospital, without OPD, was £1,400,000. The site layout (Figure 8.4) showed the buildings:

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792 Turner addressing the NBC on August 2 1937, NBC minutes, RMH Archives.
793 DK Turner, ‘Hospital Construction: Birmingham’s New Medical Centre’, *Hospital Magazine*, April 1938, p. 30.
794 DK Turner, NBC minutes, August 16 1937, RMH Archives.
795 In 1940, Stephenson visited Birmingham Hospital. In a letter to Harvie, January 7 1940, he considered it ‘far grander that we would dare to build in architectural terms but, as a hospital, it is dreadful in planning and most extravagantly planned. The governor says that it is fine architecture but a rotten hospital. They have maintenance problems and it has not been occupied one year’. Source: Sir Arthur Stephenson Collection, National Library Australia.
Grouped in an orderly and logical manner upon the site. The main hospital road traverses the site from west to east following the contours. On the northern side are the residential blocks for nurses and staff, and on the southern side the hospital proper, its main axis running parallel to the road, the main corridor forming this axis … The medical school is south of the hospital proper and arranged symmetrically on the north-south axis of the plan. The Administration block is in the centre with … dispensary and the future Outpatients Department to the east. 796

Westminster Hospital, London.

Westminster Hospital was sited at St John’s Gardens, Westminster. It was divided into two distinct blocks separated by St John’s Gardens (Figure 8.5). The Medical School and the Nurses Home were sited on the west side of St John’s Gardens and, on the east side, an eight-storey hospital with projecting wings for the wards. 797 An underground tunnel linked the two buildings. The surrounding roads were Horseferry Road on the north, Page Street on the south and Marsham Street on the west. 798

The nature of this site posed many problems regarding the movement of traffic. The architect’s solution was to create a road running through the centre of the hospital building with a 6 ft., (1.8m) wide pathway for all pedestrians and to direct all motorised traffic one

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796 Turner, ‘Hospital Construction: Birmingham’s New Medical Centre’, p. 30.
797 Turner addressing the NBC on August 2 1937, NBC minutes, RMH Archives.
way in a north-south direction as depicted in Figure 8.6. All entrances to the Hospital Proper were accessible from this road.\textsuperscript{799}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure8.6.png}
\caption{Westminster Hospital. Plan showing the roadway at ground level. \textit{Source: The Architects’ Journal, June 24 1937, London.}}
\end{figure}

There was no separate Outpatients Block, instead each floor of the hospital proper contained one service – the Outpatient consulting rooms were accommodated on the same floor as the relevant Inpatient units with the lift-shaft separating the two sections. The purpose was to link the Outpatients and Inpatients treatment as much as possible.\textsuperscript{800} This floor relationship between ward and Outpatient Clinic had been initiated at the Cornell Medical Centre, New York, designed by Coolidge Shepley Bulfinch & Abbot of Boston.\textsuperscript{801} Detailed consideration of Westminster Hospital is outside the scope of this dissertation although further research would clarify if the architects or the clients were influenced by the Cornell arrangement.

\textbf{Lille Hospital, France.}

Following the trend to relocate hospitals outside the city centre, the Lille Medical Centre was sited south of the city – initially on 60 hectares. In 1929, Roger Salengro (1890–1936) the mayor of Lille, embarked on an ambitious plan to unify all the city’s medical facilities, including the School of Medicine and Research Facilities, onto the one site thus creating a \textit{Cité Hospitalière} in the manner of the Columbia Medical Centre, New York, 1930, by

James Gamble Rogers.\textsuperscript{802} Columbia Medical Centre was a composite of three institutions: the Columbia School of Medicine, the Presbyterian Hospital and the Vanderbilt Clinic.\textsuperscript{803}

In Stephenson’s report of his 1932 study tour, he noted that there were plans to create a ‘great Medical Centre’ at Lille which would also serve two neighboring cities: Roubaux and Tourquoin. The plan comprised of a 5,000 bed Medical Centre with the public section housed in 26 storeys. Stephenson met the American architect, Paul Nelson and doubted his ability to handle a project of this magnitude especially as he had not previously built any hospitals.\textsuperscript{804}

In 1933, Nelson published his plans detailing his vision:

To plan a city consecrated to the progress of medical sciences, teaching and research. To plan a city of production and economy by rationalizing all the movements and needs in a minimum space … to plan a durable city, to construct not only for the present but also for the future by assuring the flexibility of the interior and the ease of adaption in all new needs and scientific discoveries … construction in height, brightness - large open spaces: parks, air light - above the tenth floor no more humidity, dust, flies - increase in light, pure air.\textsuperscript{805}

However there was considerable opposition to Nelson’s plan. It was viewed as radical and, the fact that Nelson was American, generated considerable hostility among the French.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure87.png}
\caption{Paul Nelson’s Proposal for Cité Hospitalière, De Lille. Source: Paul Nelson Proposal for Cité Hospitalière De Lille, 1933.}
\end{figure}

\textsuperscript{802} Zervos, Introduction, \textit{Cité Hospitalière De Lille}, p. XV.
\textsuperscript{803} Zervos, Introduction, \textit{Cité Hospitalière De Lille}, p. XV.
\textsuperscript{804} Arthur Stephenson, 1932 European tour, General Hospitals, Book 111, p. 83, Sir Arthur Stephenson Collection, MS No 2235, National Library Australia.
\textsuperscript{805} Paul Nelson, \textit{Cité Hospitalière De Lille}, text not paged.
8. The Programming Process: Scheme G

community. Consequently his plan was not executed. Instead, a competition was held in 1934 and won by French architects, Jean Walter, Urbain Cassan & Leon Madelaine, the architects of the new Beaujon Hospital at Clichy. Walter retained Nelson’s concept of two identical and separate nine-storey hospital towers but, instead of spacing them at some distance, he elected to link them with the Faculty of Medicine in the south and the operating theatres in the north whereby creating a semi-hexagonal courtyard. Each of the hospital towers were organised in a five-pointed star arrangement for the wards with a bed capacity of 1,700.

The Medical School building was commenced in 1934 and the hospital building in 1936. However WW2 intervened so that the eastern tower was not completed until 1953 and the western tower in 1958. Clearly the hospital was under construction when Turner visited Lille in 1937. Presumably he saw the plans as he concluded that on this style, “you become lost. The surgical group (was) separated from the medical group. The floor separation was the method of separating departments”. Detailed consideration of the Lille Hospital is outside the scope of this dissertation although further research and an inspection of the Lille plans would help to clarify Turner’s assessment.

Figure 8.8. Cité Hospitalière de Lille 1953, Walter, Cassen & Madelaine
Source: Gérard Bizerte, History of the Joint Medical and Pharmacy Faculty of Lille, 1975, via Google.

806 Pie in the Sky? Paul Nelson’s Design for the Cité Hospitalière De Lille, Health History@Hudderfield University, 1932, via Google.
807 Gérard Bizerte, History of the Joint Medical and Pharmacy Faculty of Lille, 1975, p. 169.
808 Bizerte, History of the Joint Medical and Pharmacy Faculty of Lille, 1975, p. 169.
809 Turner addressing the NBC on August 2 1937, NBC Minutes, RMH Archives.
Architectural Character of the RMH

The new RMH was the first Australian hospital to be designed in the vertical typology and it was required to project two important messages to the public:

- The hospital was the most up-to-date medical facility; and
- The economical use of public money.

Therefore SM/T encapsulated the essence of European modernism by presenting facades devoid of ornament as depicted in their previous Mercy Hospital, Freemasons Hospital, Colac Hospital and at Eildon House, Ballarat Hospital. According to Jean Pendergast, one of Stephenson’s colleagues, Stephenson was a great admirer of German architecture but, on the whole, he was “more inclined to let the needs of the hospital influence the buildings rather than exterior architectural influences”.

The E-Configuration

By implementing the rectangular shape, the main block was a stark shift from previous schemes, A, B, C, and D and encapsulated a modern functionalist form. The E-configuration was the architects’ solution to:

- Accommodate all the required departments within a limited envelope as per the Organisers’ report; and
- Position the wards on the northern projections in keeping with prevailing principle of sunlight and cross-ventilation.

The form of the nine-storey building was designed to balance the horizontality of the mass against the tall central service tower, as illustrated in Figure 8.1. SM/T had implemented these contrasting elements in their small private East Melbourne hospitals: Mercy Hospital (1934) and Freemasons Hospital (1936).

However the height restrictions posed a problem so Stephenson approached the Building Surveyors’ Department at the ‘Town Hall’ requesting the building height limit be raised to 150ft (45.7m) or possibly 200ft (60.9m) This, he argued, would allow the Radium and X-ray Department to be housed in the Main Block.

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811 Stephenson used the idiom of the day when referring to the ‘Town Hall’. The City of Melbourne or Melbourne City Council would have been more correct.
Authorisation of General Plans
At the NBC meeting, September 14 1937, the architects were authorised to proceed with
the general plans for Scheme G.\textsuperscript{812} However, the NBC members had witnessed the
previous predicament of Scheme C which was accepted by all except the HMOs and was
subsequently abandoned. In order to prevent a repeat occurrence, two meetings were
specially convened by the NBC between Outpatient HMOs, architects and representatives
of the NBC on October 12 1937 and the Inpatient HMOs, architects and representatives
of the NBC on the October 15 1937 for the purpose of providing the HMOs and
architects an opportunity to discuss matters prior to the architects proceeding with Scheme
G. Basically, the conversation was a continuation of Schemes B and C. In order to generate
discussion at the meetings with the HMOs, the architects specifically produced sketch
plans as specified.

Outpatient Department
The Organisers’ instructions to the Architects were to provide accommodation for 1,000
patients per day. As discussed in Chapter 7, the long established system of attendance by
Outpatient HMOs at the Lonsdale Street hospital meant that several suites were not in use
for two days each week. At the combined committee meeting on October 12 between the
architects, NBC and the Outpatient HMOs, Stephenson supported his argument by
presenting schematic plans of G3 – a general layout of OPD. These sketch plans (Figures
8.9 - 8.21) showed the accommodation according to the Organisers’ requirements plus the
architects’ recommendation for accommodation to be omitted and accommodation to be
added. They are confusing especially as SM/T’s numbering did not follow a normal floor
level sequence. As a consequence of this arrangement, OPD would be accommodated
above Casualty and occupy the four upper floors with the surgical and medical clinics
placed on the seventh floor. Alternately the architects proposed a separate OPD: three
story plus basement adjoining Casualty.\textsuperscript{813}

\textsuperscript{812} NBC minutes, September 14 1937, RMH Archives.
\textsuperscript{813} Combined Committee meeting minutes, October 12 1937, RMH Archives.
The HMOs were unhappy with these plans and remained adamant they would not share the suites. The architects continued to argue that this was an impractical waste of space and therefore uneconomical. The HMOs constantly compared their existing accommodation at the Lonsdale Street OPD to the architects’ proposals.

The HMOs were concerned over matters of the multi-storey arrangement, patient privacy, clinic space, teaching space and the lifts. Searby, on behalf of the OPD HMOs, expressed their unhappiness that the (spatial) accommodation for the proposed OPD was no better than that of the existing Lonsdale Street Outpatients. In fact, in some cases, the space was even reduced. The radiographers, Drs Kay Scott and Julian Smith Jr., thought the footprint of the X-ray Department was reduced in the new building. The HMOs’ general dissatisfaction with the architects’ proposals was clearly expressed by Dr Sewell:

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814 Combined Committee meeting minutes, October 12 1937, RMH Archives.
815 Combined Committee meeting minutes, October 12 1937, RMH Archives.
816 Combined Committee meeting minutes, October 12 1937, RMH Archives.
We honestly felt and I think I am stating the opinion of the whole staff that we prefer to work in a tin shed for a period of years until the Hospital could afford to build an Outpatients Department to all requirements.817

**The Multi-Storey Problem**

The HMOs main concern was the three-storey arrangement and there were a number of reasons for this. At the Lonsdale Street hospital, the Outpatients Department was located on the ground level in Block A with its main entrance from Swanston Street as illustrated in Figure 8.10. Block A was a multi-storey building with several functions: Outpatients and Dispensary on the Ground Floor and the Nurses Home occupying the upper four stories.818

The Lonsdale Street Outpatient Department was organised around a large hall with central skylight over the patient waiting area. The Outpatient Department included a Dispensary, Laboratory and two teaching rooms. The clinics were arranged around the perimeter of the hall – two medical clinics on one side, two surgical clinics on the other side and one special clinic amounting to 5 clinics in total plus 10 examination rooms.819

This arrangement allowed for the consultative process between the Medical and Surgical HMOs to take place with minimal time and effort. They simply walked across the hall. In a three-storied department, they argued, that they would be required to travel up or travel down several stories. On this basis, they requested the architects to produce a scheme based on a single story OPD.820

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817 Combined Committee meeting minutes, October 12 1937, RMH Archives.
819 Lewis & Associates, *Queen Victoria Medical Centre Conservation Analysis*, p. 36.
820 Combined Committee meeting minutes, October 12 1937, RMH Archives.
The Architects’ Response

At the meeting, Stephenson explained that there were spatial difficulties:

If all floors of the Outpatient’s Department of the new RMH were placed on the ground, (they) could not be fitted into any of the vacant positions on the site without:

- Executing large excavations;
- Constructing a great number of steps which would have to be traversed by patients; and
- Eliminating the possibility of future provision of an intermediate wing.821

The architects’ international study trips again proved to be valuable for supporting their argument. Stephenson acknowledged that there were some recently built overseas hospitals with single storey OPD such as at Hospital Boujon, Clichy, France; Ann Arbour Hospital in Detroit, USA, designed by Albert Kahn & Assoc., 1926, (no X-ray nor Physiotherapy); and Birmingham Hospital (no X-ray). However, he explained that due to the size of the Parkville site and within the funds available, the RMH had to build vertically and “not out

821 Combined Committee meeting minutes, October 12 1937, RMH Archives.
Spatial Organisation

Privacy Factor

The HMOs argued that privacy in the consulting room was vital to their patients, particularly during the taking of their history without being overheard by other patients. The HMOs also required an examination room in each clinic placed at both ends, one for male and the other for female patients. These rooms were again to ensure patient privacy but also not to delay the normal functioning of the clinic. The architects responded by stating that four separate cubicles had been provided – plus three examining rooms with six change rooms.

Clinical School Requirements

The HMOs insisted on a teaching room in each of the nine clinics in order to prevent delay during the operation of the clinic. The room was to be of sufficient size to accommodate a patient, students and the HMO.

Waiting Accommodation and the Appointment System

As illustrated in Scheme C, SM/T considered the problem of waiting to be a very serious one as the Waiting Room, the Appointment System and the lift accommodation were interlinked. They again argued for the Block Appointment System as:

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822 Combined Committee meeting minutes, October 12 1937, RMH Archives.
823 Combined Committee meeting minutes, October 12 1937, RMH Archives.
824 Combined Committee meeting minutes, October 12 1937, RMH Archives.
825 Combined Committee meeting minutes, October 12 1937, RMH Archives.
826 Combined Committee meeting minutes, October 12 1937, RMH Archives.
827 Combined Committee meeting minutes, October 12 1937, RMH Archives.
828 Combined Committee meeting minutes, October 12 1937, RMH Archives.
The number of patients distributed over the number of hours the clinics are open is 100 more than at present. The biggest number waiting at any time is 53, 11% are visitors. As the visitors totalled 37 when the clinic is full, that is 388 patients.829

Stephenson’s seating accommodation on each of the 3 clinics on three floors totalled 180 patients – 30 patients per clinic at any one time.830

**Lift Accommodation**

The combined committee meeting was, in part, convened in order for Mr Julius, a lift engineer from Sydney, to respond and allay the many ‘grave doubts’ of the HMOs regarding the lift accommodation. The major concern here, according to Dr Searby, was lift breakdowns and the peak usage of the lifts: “a lot of up and then, at the end, a lot of down”.831 Mr Julius responded to their concerns about the load capacity reassuring the doctors that one lift could cope with 500 to 600 patients per hour but recommend two lifts. A second lift was necessary for breakdowns and overflow of traffic. He also recommend a driver with a driver’s certificate for one lift only with a second driver being brought in for peak periods.832

The meeting concluded with Searby demanding teaching rooms and, speaking on behalf of the OPD HMOs stated that “we are all unhappy that the Department is not all on one floor. A single floor would perhaps be increased to over 12,000 \( \text{ft}^2 \) (1,114.8 \( \text{m}^2 \)) and allow for teaching”.833 Stephenson was requested to redesign the plans implementing their requirements. He assured the meeting that he would address all the concerns regarding the general layout of OPD in one concentrated month. However, he requested the staff to be ready to state exactly their needs for each department.

In an unexpected twist, Searby and Sewell finally acknowledged the architects’ rationale behind the multi-storey building. Searby saw the possibility of extending by adding additional storeys and Dr Sewell’s concern regarding the lifts had been reassured so that he

829 Combined Committee meeting minutes, October 12 1937, RMH Archives.
830 Combined Committee meeting minutes, October 12 1937, RMH Archives.
831 Combined Committee meeting minutes, October 12 1937, RMH Archives.
832 Combined Committee meeting minutes, October 12 1937, RMH Archives.
833 Combined Committee meeting minutes, October 12 1937, RMH Archives.
had come to the conclusion that the “multi-storey plan will be so evolved as to satisfy all of us” 834

The Charities Board Review

The problems of the OPD was causing concern and delaying the development of Scheme G. As a consequence, Mr McVilly and the Charities Board requested to see the plans of Scheme G. Because there was so much detail in the plans, Stephenson considered it would be difficult for the Charities Board to assimilate them as “the specifications alone will be 300 to 400 pages”. The size of the specifications indicated the size and complexity of the OPD. To assist the Committee of Management and the Charities Board to understand the plans, Stephenson proposed to have them to their office to explain in detail and to give them time to familiarise themselves with the OPD problems. There is no record of this meeting taking place.

Ward Units

The ward plans were the topic of the combined meeting with the NBC, the Inpatient HMOs and the architects on the October 15 1937. As the location of the ward units in the western, centre and adjoining wings of the E-configuration of the Hospital Proper was not challenged, it can be assumed that they were acceptable to all members of the Committee. However, as the minutes of the meeting revealed protracted and complex dialogue between the clients and the architects ensued around the number of beds, the size of the wards, and whether the wards would be single sex only or both sexes.

In order to assist the discussion on the wards, the architects had produced two large-scale ward sketch plans which, at the time of my research, were unavailable:

- G1 accommodated single sex only in each ward unit; and
- G2 accommodated both sexes in each ward unit.

Stephenson explained that G2 required duplication of bathrooms, lavatories and utilities therefore the planning of a ward for both sexes and the placing of bed units on the sunny

\[834\] Combined Committee meeting minutes, October 15 1937, RMH Archives.
side of the ward increased the corridor length and that, in turn, increased the footprint of the ward, the footprint of the hospital and the capital cost by an extra £70,000.835

Because of the extra cost, G2 was abandoned in favor of G1. Single sex wards were deemed the only solution.836 Hurley moved the adoption of single sex wards and the motion was carried.837 According to Stephenson, the advantage of single sex wards was that the percentage of the ward space to the whole was decreased from 25% to 20%.838 He also saw another advantage in single sex wards: the “male wards cannot overlook the female wards … There is an economical plan for males only but not for male and females”.839 Nevertheless the meeting decided to refer G1 to the medical staff for their consideration.840

The Inpatient HMOs still refused to share wards.841 The Organisers supported the Inpatient HMOs with Kellaway stating that, “it was not possible to consider a ward unit for the university beds in which the Honorary Doctors shared wards”.842

Bed Capacity
The inconsistency in the specifying the number of beds for the hospital presented a constant problem for the architects. In July 1937, the number was specified as 450, then in October, at the government’s request, the bed requirement was raised to 500 beds.843

Searby commented that although a 20-bed unit had been shown in the centre of the Scheme G plan:

No allotment of the specialist beds had been made since the Organisers’ Report of March 1937 and 24-bed wards for specialists recommended in the Organisers’ Report were based on a different number of beds than those which will be available in the 500 bed hospital. The specialists’ wards were to contain 24 beds. Since then, there had been no re-allotment of Specialist beds. However 24-bed wards were based on a different number of beds than those available in a 500-bed hospital.844
This again generated debate among the members with Searby arguing that, “no physician was to have 30 male and 30 female patients, he can have 30 altogether”. In response, Hurley suggested that:

The middle bed ward should be increased to take 30 beds (instead of 24) in order to use facilities to the full and questioned the advisability of adding beds to the south side of the ward.

Hurley considered there were too many single rooms as shown on the plan.

### Ward Organisation

The architects had prepared the drawings basically for discussion of the ward units particularly in regarding the placement of the general Medical and Surgical wards on the lower floors with Specialists’ wards above them. Stephenson supported this explaining that this would make “more economical use of the services”. However Hurley considered the “utilities area to be extravagant” to which Stephenson responded by stating that the utilities area would be studied and “all possible savings made”. Hurley’s comment however indicated how adept he had become at deciphering the sketch plans.

<table>
<thead>
<tr>
<th>Floor</th>
<th>Medical Discipline</th>
<th>Bed numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Third floor:</td>
<td>Dermatology and Sepsis Venereal Disease.</td>
<td>52 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 58 beds</td>
</tr>
<tr>
<td>Fourth, Fifth, Sixth</td>
<td>90 beds per floor</td>
<td>360 beds</td>
</tr>
<tr>
<td>and Seventh floors</td>
<td>Medical and Surgical</td>
<td>Total 360 beds</td>
</tr>
<tr>
<td>Eighth floor</td>
<td>Refractory, Psychiatry, Eye, Ear, Nose &amp; Throat, Neurology &amp; Diabetes</td>
<td>20 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>24 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 64 beds</td>
</tr>
<tr>
<td>Ninth floor</td>
<td>Radiotherapy, Urology &amp; Gynaecology</td>
<td>20 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 36 beds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total 564 beds</td>
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</tbody>
</table>

Table 8.2. Floor Arrangement showing allocation of beds per medical discipline.  
Source: Organisers’ Report of Requirements

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845 Combined committee meeting minutes, October 15 1937, RMH Archives.  
846 Combined Committee meeting minutes, October 15 1937, RMH Archives.  
847 Combined Committee meeting minutes, October 15 1937, RMH Archives.  
848 Combined Committee meeting minutes, October 15 1937, RMH Archives.  
849 Combined Committee meeting minutes, October 15 1937, RMH Archives.  
850 Organisers’ Report, October 27, 1937, Organisers’ file, RMH Archives.
On October 27, the Organisers, Searby, Kellaway and Thomas met to revise the bed numbers. They formulated the following bed allotment but in doing so, the bed numbers increased to 564 (Table 8.1) with a possible addition of 6 beds for WEHI and 4 beds for TB patients totalling 574. Although the Organisers had reduced the number of specialists’ beds, they still exceeded the specified 500 beds.

**Day Rooms**

General agreement was reached between Hurley, Searby and Kellaway that day rooms were not necessary as the RMH was an acute hospital and not intended for convalescent patients.

**Nurses Home and Service Block**

At the NBC meeting on December 6 1937, the architects were instructed to proceed with detailed plans for the Nurses Home and Service Block as Stephenson had assured them that the site for the Nurses Home and Service Block were fixed and Stephenson was anxious to commence excavations. However, Clapp argued against building in stages as the Nurses Home and the Service Block were of little use without the hospital. The committee agreed with this and discussed having the plans drawn as a whole rather than in sections. This was a significant programming change as the Architects’ Agreement had stated the hospital would be constructed in stages and Colonel Fanning and members of the NBC had been keen to commence construction of the Nurses Home and Service Block as soon as possible.

**Nurses Home**

Dialogue between the architects and the user groups had proven to be a very effective technique. Apart from the architects showing respect to the users and the users’ knowledge of the functionality of the hospital, their contribution had the benefit of achieving sensible outcomes. A case-in-point was when the Lady Superintendent attended the meeting on December 6 1937. Stephenson placed considerable significance on balconies and felt that the nurses would appreciate the opportunity for sun and fresh air in their off-duty time. However, the Lady Superintendent recommended against them. She considered balconies

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851 Organisers’ minutes, October 27, 1937, Organisers’ file, RMH Archives
852 Combined Committee meeting minutes, October 15 1937, RMH Archives.
853 NBC minutes, December 6 1937, RMH Archives.
on the lower floors would create problems of petty theft and also discipline in the Nurses Home. The Committee then decided to eliminate them so saving £7,000.854 Stephenson was very cost conscious and so proposed to have a ‘first class’ finish on the ground floor and a ‘second-class’ finish in the bedrooms as an economising measure.855 And, acting on his own initiative, he had again approached the Building Surveyors’ Department at the ‘Town Hall’ and had received tentative permission to use 11-inch hallow brick walls for the external construction of the Nurses Home in order to reduce costs.856

A Sample Room
In order for the Committee of Management and the nursing staff to make suggestions and approve the Nurses’ bedrooms, Stephenson requested £200 in order to prepare a sample room which would include door locks and proposed furniture.857 In the interim, he had made arrangements for the Committee members and the Lady Superintendent to visit the Nurses Homes of the Freemasons and the Mercy hospitals on December 9 1937.858

Stephenson suggested two tenders: one for the construction of 450 bedrooms and one for 396 bedrooms. He advised that materials would have to be ordered a year ahead and that wages and hours of work were the chief things in estimating costs: for example, brick layers, at that time were wanting shorter hours and increased wages.859

Maids’ Quarters
The Maids quarters are to accommodate 26 to 30 maids per floor with one floor to be made fire resistant.

Laundry
The laundry was still presenting as a problem.

The Premier and the Press
The meeting of the NBC, November 11 1937, was to ultimately sow the seeds for Scheme J. This meeting was convened at the request of the Victorian Premier, in response to

\[^{854}\text{NBC minutes, December 6 1937, RMH Archives.}\]
\[^{855}\text{NBC minutes, December 6 1937, RMH Archives.}\]
\[^{856}\text{NBC minutes, December 6 1937, RMH Archives.}\]
\[^{857}\text{NBC minutes, December 6 1937, RMH Archives.}\]
\[^{858}\text{NBC minutes, December 6 1937, RMH Archives.}\]
\[^{859}\text{NBC minutes, December 6 1937, RMH Archives.}\]
acccusations of extravagance by the press on November 10. The present estimated capital cost for the new hospital was £1,250,000. The *Age* newspaper accused the Government of extravagance arguing that the new RMH would only increase the accommodation by a few beds.\(^{860}\) The *Age* believed that “this (was) wasteful and impractical … and the wisest policy (was) one of expansion”\(^{861}\) to the existing hospital in Lonsdale Street.

The Premier agreed with the press that the capital cost of £1,200,000 to £1,500,000 was ‘too great’\(^{862}\) The task for the NBC was to examine the estimate costs of the new hospital for the purpose of reducing them. The first part of this meeting was conducted without the architects. This enabled frank discussion among members of the committee and with Sir Alan Newton about the RMH:

- The capital cost;
- What they receiving for that money; and
- SM/T.

There was considerable apprehension on the NBC members’ part regarding what the architects told them they required and the costing. Their problem was how then to convince the government authorities in order to achieve a grant especially as the RMH authorities had given a commitment to the government to build economically.\(^{863}\) Mr McVilly (Charities Board) had advised the RMH “to act quickly because there were other people who were anxious to obtain the money which had been allocated to the RMH by the government”.\(^{864}\)

**The Dilemma**

In the past, Stephenson had consistently compared costs with Birmingham Hospital but Zwar considered this now irrelevant.\(^{865}\) Comparing costs with Prince Henry’s Hospital was more realistic as the first stage of their building programming process, the Pathology Block, had just been completed for a cost of £55,162.00. According to Sir Alan, the proposed Prince Henry’s Hospital was smaller than the RMH: 340 beds, a Pathology and Research

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\(^{860}\) *Age*, November 10 1937, p. 12.  
\(^{861}\) *Age*, November 10 1937, p. 12.  
\(^{862}\) NBC minutes, November 11 1937, RMH Archives.  
\(^{863}\) NBC minutes, November 11 1937, RMH Archives.  
\(^{864}\) NBC minutes, November 11 1937, RMH Archives.  
\(^{865}\) NBC minutes, November 11 1937, RMH Archives.
Block, Outpatient and X-ray Department, Nurses Home, Maids quarters, Lecture room for 100 people and a Service Block. The cost per bed was £1,200. In Sir Alan’s opinion, SM/T were ‘very good architects’ but ‘very expensive ones’. His advice to the Committee was to say to the architects: “You build that hospital for £1,700 per bed and say to the staff, you fight the architects all the way”. Sir Alan suggested that SM/T be asked to do the work at a lower cost such as £1,500 to £1,700 per bed otherwise the RMH should engage other architects.

The responsibility for the new building, the protracted programming process plus the recent accusations of extravagance caused some anxiety among NBC members:

Were they right to ask the staff for their requirements? … Have we been right to adopt a plan such as G1? … should they try a different type of plan even if it involves us in payment of another fee to the Architects? … We prune but we do not know anything about costs, we have to take the Architects’ word.

Stephenson and Harvie joined the meeting with Stephenson trying, rather unsuccessfully, to reassure the committee. MacKintosh expressed their concerns: “I feel it means we will lose the hospital we desire. Victoria cannot afford to lose it and I don’t want to retreat from our purpose”. In contrast to his earlier remarks, Sir Alan was keen for the new hospital: “We would rather be in a poor hospital than stay here.”

The committee’s lack of confidence in SM/T was expressed with a proposal that:

The Government be approached to investigate through their own experts the accommodation to be provided in the new hospital, the manner in which it is being put into building form and the cost thereof.

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866 Leighton Irwin and Company’s plans for the rebuilding program were approved in 1936. At no time was the hospital authorised to finish the whole project as the existing hospital monopolised the entire site and therefore it was imperative to rebuild in stages. The Pathology Block was the first stage of the building program. It was started in 1936 and completed in 1937 for a cost of £55,162.00. As discussed, the Central Block, employing the vertical typology and depicting the modernist aesthetic, was commenced in 1938 and completed in 1940. The height of the building (11 floors) was one hundred and fifty six feet (46.54m) and, as Melbourne’s tallest building, it was regarded as a landmark. As mentioned, the complex was not completed until twenty-five years later. Source: Prince Henry’s Hospital file, Box P187, Monash Hospital Archives.

867 NBC minutes, November 11 1937, RMH Archives.

868 NBC minutes, November 11 1937, RMH Archives.

869 NBC minutes, November 11 1937, RMH Archives.

870 NBC minutes, November 11 1937, RMH Archives.

871 NBC minutes, November 11 1937, RMH Archives.

872 NBC minutes, November 11 1937, RMH Archives.
The meeting determined that this matter be put before the Committee of Management at an early date. Yet despite all the concerns about the architects’ professionalism and costs, SM/T were asked to:

Recast the plans and specifications on the basis that bed accommodation remain the same but the OPD be reduced to 750 patients per day and to report what further eliminations would be necessary and to what extent inferior equipment would have to be introduced in order to bring the estimate of cost of the whole scheme down to £950,000.873

Conclusion

The dramatic shift in the orientation of the main block demonstrated the manner in which the architects acknowledged and responded to the client requirements. As a result of the University of Melbourne’s request for the Departments of Medicine and Surgery to be sited directly opposite the university, the architects rotated the main block 45° from Schemes B - D. This resulted in the rectangular form and the E-configuration with the building being placed on a north-south axis and the façade addressing Grattan Street. The road network played a vital role in the planning of departments in order to facilitate efficient separation of entrances.

Although Scheme G was aborted within four months of being authorized, it nevertheless generated considerable dialogue between the architects, the NBC and the HMOs. As illustrated, this dialogue proved difficult and contentious especially in regard to the OPD and the ward units and it clearly demonstrated the power and the influence of the medical profession and their obstinacy in refusing to acknowledge the expertise of the architects.

Consequently the problems with the OPD remained unresolved as the Outpatients HMOs strongly opposed the multi-storey construct, the concept of sharing clinics, the appointment system, the design of the clinics and took objection to the lifts. Only Searby and Sewell seemed to realise the architects’ rationale behind the multi-storey concept.

The Inpatient HMOs reached a decision regarding single-sex wards purely on the basis of cost. Because dual sex wards would require two bathrooms and lavatories thus extending

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873 NBC minutes, November 11 1937, RMH Archives.
the footprint of the ward and incurring additional costs, G1 the plan for the single-sex wards, was approved.

Stephenson was keen to commence construction of the Nurses Home and the Service Block for two reasons

- In response to the wishes of the Committee of Management and the NBC to commence construction as soon as possible to demonstrate to the government and the public that the hospital was materialising; and
- A professional interest of maintaining work for his staff.

Despite the architects’ efforts to fulfil their obligations to their client, accusations of extravagance by the press were felt by the members of the NBC and they generated deep concern about the proposed accommodation, the cost and, in fact, the architects’ expertise. Nevertheless the architects received instructions to reduce the capital cost thus generating Scheme J.
Scheme G: Sketch plans for OPD
Source: Stephenson & Turner, State Library Victoria.

Figure 8.11. Legend:

Figure 8.12. Third Floor: Almoners and Admittance Baths

Figure 8.13. Seventh Floor: Surgical Clinics & Dressings

Figure 8.14. Seventh Floor: Medical, Surgical, Neurological, Psychiatric & Diabetic Clinics

Figure 8.15. Third Floor: Two Medical Clinics

Figure 8.16. Fifth Floor: Dermatological, Eye and Dental Clinics
Figure 8.17. Sixth floor: Gynaecology, Urological, Orthopaedic & TB. Clinics

Figure 8.18. Fourth Floor: Diagnostic X-Ray

Figure 8.19. Fifth floor: Radiotherapy

Figure 8.20. Sixth Floor: Physiotherapy

Figure 8.21. Fourth Floor: Clinical Pathology

Figure 8.22. First Floor: Post Mortem
Figure 8.23. Third Floor: OPD & Casualty Operating Suites

Figure 8.24. Eight Floor: RMOs Quarters

Figure 8.25. First & Second Floors: Dispensary

Figure 8.26. First Floor: Venereal Diseases Clinic
9. THE PROGRAMMING PROCESS: SCHEME J

Introduction

Scheme J was the final scheme of a protracted programming process. There was no record of Schemes H or I. On July 12 1938, the Committee of Management informed the architects that the Royal Melbourne Hospital Act had been signed by the Governor-in-Council and gazetted. The passing of the Act authorised the Committee of Management to instruct the architects to proceed with the detailed drawings for the Main Block and OPD. Scheme J had been requested in December 1937. The determining factor in the final design was the budget which had been further reduced from £950,000 to £750,000 and this was to present a challenge to the architects to fulfil the client’s requirements within the financial frame. Stephenson later reported that the plans for the RMH had “always been largely governed by the available finance, rather than the needs of the problem as a whole”. The RMH programming-design process for the general layout had taken 4 full years, January 1936 to November 1940 (signing of construction contract). During 1940,

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874 Extensive research of the Stephenson & Turner Collection revealed that there were no records of Schemes H or I, and like Schemes E, F, they were possibly architects in-house Schemes.
875 Letter, Colonel Fanning to Stephenson & Turner, August 5 1938, CEO files, RMH Archives.
876 CEO files, July 1938, RMH Archives.
The frequency of meetings between the RMH client committees and the architects increased with some meetings with the architects and the various committees being held days apart. The involvement of the HMOs, particularly in regard to their departments, was articulated to the point of passion, revealing their intense interest in the development of the hospital. As the pressure mounted, tensions and accusations developed during the dialogue between the participants resulting in Stephenson threatening to abort the entire project. This chapter reports the examination of the dialogue for Scheme J, specifically the OPD and the ward units, areas of which were of particular importance to the medical profession and to the core operations of the hospital.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>21/12/1937</td>
<td>Manager verbally instructs architects to prepare sketch plans for £750,000 - Scheme J.</td>
</tr>
<tr>
<td>28/2/1938</td>
<td>Architects present Block Plan.</td>
</tr>
<tr>
<td>1/3/1938</td>
<td>Detailed plans and specifications of Nurses Home &amp; Service Block presented to Committee of Management.</td>
</tr>
<tr>
<td>12/7/1938</td>
<td>The Royal Melbourne Hospital Act signed by the Governor-in-Council and gazetted. The Architects instructed to proceed with detailed plans.</td>
</tr>
<tr>
<td>22/11/1939</td>
<td>Contract signed for the building of the new RMH.</td>
</tr>
</tbody>
</table>

Table 9.1. Timeline for Scheme J.

The Program Participants

The RMH Committees

The RMH committee members remained unchanged. On November 2 1938, the HMOs Committee appointed an Executive Medical Committee. The members were: Messrs Zwar, Hearn, Hurley and Hillier. In Harvie’s opinion, the members did not look very efficient. She confessed to Fanning that the only really useful medical man was not included. She most probably meant Searby, but the person is not named. The HMO Executive Medical committee, representing the Outpatient HMOs and the Inpatient HMOs, continued to

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878 NBC minutes, August 17 1940, RMH archives.
significantly influence the programming process of Scheme J, particularly their respective areas.

In May 1938, Colonel Fanning sought and achieved the title of ‘Supervisor, New Buildings’, a title he would use in regard to the new buildings but in administrative matters, he would continue to sign as ‘Manager of RMH’.880

There were two significant appointments coinciding with Scheme J: Mr Afton Morcom and Mr VD Bernard. In March 1938, Morcom was appointed as a permanent, full time, publicity officer and it was his role to raise money for the new building.881 In May 1938, Bernard was engaged as a full-time Assistant New Buildings’ Supervisor – the hospital’s representative for building operations.882 Stephenson was annoyed with Bernard’s appointment, believing that he had been placed there to spy on the architects as the RMH President considered them to be extravagant.883

**The Committee of Management’s Goal for Scheme J**

The goal for the RMH had not deviated from the original aim: to create a hospital on a par with the world’s best. However the reduction in funding increased pressure on the architects to provide the essential services as economically as possible.

**The Architects**

The architects were now practising under their new registered name of Stephenson & Turner. With Turner managing the Sydney office and, with the resignation of Robert Demaine,884 the manager of the Melbourne office in 1937, Ellison Harvie was appointed manager in his place. As previously discussed, Harvie had been involved with the RMH from the beginning of the programming process so the iterative process of designing the hospital continued virtually uninterrupted.

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880 Harvie, ’Record of Years’, June 10 1938.
881 RMH correspondence between hospitals in the USA and Europe indicate that Afton Morcom was the first known full time publicity officer to be appointed. Source: Letter to the Manager of the RMH from R.H.P. Orde, Director, Central Bureau of Hospital Information, March 9 1938: ‘I do not know of any hospitals that have such appointed a definite publicity officer’. CEO files, RMH Archives.
882 Board of Reference minutes, May 6 1938, RMH Archives. Bernard was engaged by the RMH as their representative for the building and given the title of Assistant New Building Supervisor at a salary of £860 a year.
883 Harvie, Record of Years, June 10 1938.
884 Robert (Bob) Demaine left Stephenson & Turner in 1938 to establish his own practice, RS Demaine architects.
Harvie was well known to the members of the RMH committees as the Committee minutes recorded her presence at most meetings which she attended with Stephenson and sometimes with other members of the firm. Importantly, part of Harvie’s duties in attending meetings was to minute the proceedings on behalf of the architects – this way they would have their own record of the dialogue and of the decisions made at each of the meetings. In her minutes, Harvie, frequently and frankly, expressed her frustrations at some of the suggestions or just plain obstinacy of some of the members of various committees. Records also show that during the latter part of the development of Scheme J, she conducted direct interviews with specialist medical staff regarding the fit-out of their highly specialized departments. Early in 1938, Harvie was made the first Associate of the firm.

In 1939, Stephenson embarked on an overseas tour to study hospitals in New Zealand, Canada, USA, Europe and Britain and to deliver a paper at the International Hospital Association in Canada. He left the following advice to the RMH regarding the firm’s arrangements whilst he was away:

The firm of Stephenson and Turner consists of two partners and four associates; during Mr Stephenson’s absence from Australia, Mr Turner will be in charge and alternatively Mr Moline will be available in the Melbourne office one week per month or more if required; Mr Moline, Miss Harvie and Mr Sedgefield may be referred to and will be available to answer inquiries.

During Stephenson’s absence, Turner and Moline came to the Melbourne office for a week to ten days every month. Turner’s contribution to the RMH schematic development continued with the Melbourne office sending the plans to Sydney for his input. Stephenson acknowledged that the RMH was a challenge to the architects as “the problem is rather abstract for us because we have not put up a building of this magnitude in this country or this city.”

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885 Harvie’s minutes were compiled as a Record of Years and are available in the Stephenson & Turner Collection, MS 2072, Box 4, Vol. 210, State Library Victoria.
887 Stephenson visited the Australian Pavilion (designed by Stephenson & Turner) at the New York World’s Fair. For this, he was made an Honorary Citizen of New York. Sir Arthur Stephenson Collection, MS 2972, Box 12, Sir Arthur Stephenson Collection, National Library Australia.
888 Letter, Stephenson to the RMH, Committee of Management minutes, Sir Arthur Stephenson Collection, MS 2972, Box 1, National Library Australia.
889 Harvie, Record of Years, September 15 1938.
890 NBC minutes, January 11 1938, RMH Archives.
Areas of Responsibilities

In Stephenson’s absence, Turner was in charge of project and the associates were allocated the following areas of responsibility:

- Sedgefield to supervise the production of working drawings;
- Harvie to deal with committees and correspondence;
- John Lobb to work on the outside and understudy Harvie and Sedgefield;892
- Mary Turner Shaw to design the furniture for the Nurses’ bedrooms; and
- O’Mahony to advise on the detail regarding the minimum size of the service room for the wards, the central linen service, surgical tray set up and distribution.893

The £750,000.00 Hospital

Stephenson’s motto was “the people who hold the money call the tune”.894 At the end of Scheme G, the available finance was £950,000 however with the ultimate responsibility resting with the Premier, the budget had been further reduced to £750,000. The Premier was anxious to know what could be achieved for that amount. However, as this was the fourth capital cost reduction, Stephenson felt that the whole schematic process was one of trade-offs. Nevertheless he replied to the Premier, at the NBC meeting January 11 1938, by clarifying the basic essentials of Scheme J and listing the accommodation in the order of importance:

- Bed Capacity: 450. In April 1938, the Government raised the bed number to 500;895
- Nurses Home: 250 beds;
- Outpatient Department: 600–700 patients per day; and
- WEHI reduced to a minimum.

The Main Block

The concept for the Main Block would be based on the T-configuration with three distinct ward wings accommodating a definite number of beds.896 The wards would be designed around the central circulation tower as illustrated in Figure 9.3.

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892 Letter, Stephenson from John Lobb, January 8 1940, Sir Arthur Stephenson’s Collection, MS 2072 Box 4 Vol. 210 National Library Australia.
893 Letter, Stephenson to Harvie, November 25 1938 MS 2072 Box 4 Vol. 210, National Library of Australia, Canberra.
894 Stephenson & Turner, Hospital Seminar, October 31 1959, p. 2, Stephenson & Turner Collection, State Library Victoria.
895 Committee of Management minutes, April 4 1938, RMH Archives.
Nurses Home
The number of hospital beds determined the number of nurses and therefore the number of nurses bedrooms and hence the size of the Nurses Home. At the time, it was estimated that 250 nurses would be required for 450 hospital beds. Stephenson cited cost approximations: Nurses Home £118,000 based on figures on a minimum area of 9.6 ft. (2.9m) x 11ft (3.3 m) for each of the nurses’ bedrooms. He compared the cost of Nurses Homes from SM/T’s previous projects – the difference being that the RMH was a teaching hospital therefore requiring more spatial accommodation.

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<thead>
<tr>
<th>Hospital</th>
<th>Bed Numbers</th>
<th>Cost per bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Vincent’s Hospital, Melbourne</td>
<td>140</td>
<td>£418</td>
</tr>
<tr>
<td>Bethesda Hospital, Melbourne</td>
<td>70</td>
<td>£93</td>
</tr>
<tr>
<td>Royal Melbourne Hospital</td>
<td>250</td>
<td>£118</td>
</tr>
</tbody>
</table>

Table 9.2. Comparison of Costs of Nurses Home
Source: NBC minutes, January 11 1938, RMH Archives

Outpatient Department: This department should be built even if only a single story building.
Walter and Eliza Hall Institute: The RMH had an obligation to build the Institute on the Parkville site and every endeavour was to be made to finance the building.899

Diagnostic X-ray: Equipment cannot be reduced from original estimate.

Stephenson stated he would verify estimates for Scheme J only after they have had time to prepare complete sketch drawings and estimates in approximately ten weeks from receiving instructions.900 Importantly, he reminded the NBC that whilst this estimate would meet the government’s requirements, it did not cover nurses’ equipment, maids’ quarters, laundry, roadways and fifty nurses’ bedrooms plus architects’ fees.901

Nevertheless he offered to prepared skeleton specifications showing first and second class finishes for each item but the exact costs could not be known until the exact amount of equipment was determined. Stephenson emphasized that while he can advise, the final decision regarding the equipment lay with the clients, “You can eliminate them as you wish”.902

As the architects were faced with a constant juggles of implementing the requirements within the tight budget, they were constantly seeking ways to reduce building costs and had already gained a concession from the ‘Town Hall’ regarding the structural type of walls.903

The Outpatient Department

In Scheme G, the OPD was sited in the east wing and was contiguous with the hospital building. As discussed previously, the Outpatient HMOs were unhappy with the multi-storey concept. They had requested the architects to provide a department similar to the existing Lonsdale Street Department (Figure 8.10) which stood as a separate pavilion with its own entrance and with all the clinics placed on ground level. The HMOs’ argument supporting the ground floor concept was that “it was advantageous for a patient to walk in

899 NBC minutes, January 11 1938, RMH Archives.
900 NBC minutes, January 11 1938, RMH Archives.
901 NBC minutes, January 11 1938, RMH Archives.
902 NBC minutes, January 11 1938, RMH Archives.
903 NBC minutes, January 11 1938, RMH Archives.
off the street, past the office and then to a doctor”.\textsuperscript{904} This was a strange request considering the outmoded and overcrowded situation at Lonsdale Street. Stephenson argued against the single-storey building stating it would incur more cost due to the extra perimeter and excavations.\textsuperscript{905}

**The Temporary Outpatient Department**

In January 1938, in response to the HMOs’ request and, because of the need to reduce the scheme to £750,000, the architects proposed that the OPD be placed at the south-east corner of the site as a large temporary single-storey building.\textsuperscript{906} The NBC immediately rejected this concept, the reason being that it contravened their agreement with the University and that it was “undesirable to place accommodation in temporary buildings”.\textsuperscript{907} The NBC insisted that, from the beginning, all of the new RMH must be a permanent structure.

**The Architects’ Solution**

The OPD dilemma continued until July 1938 with the architects devising various alternate plans to show the consequences of placing six clinics on the ground floor in addition to other accommodation which must, by necessity, be on the ground floor. At the same time, the architects presented their argument to the NBC for a separate five-storey construct stating:

> It was necessary to alter the layout of the scheme and to place the Outpatient Department at the front of the building where, although connected to the main hospital, it was free to expand without presenting a lopsided appearance in the initial stages.\textsuperscript{908}

The architects submitted all the sketches\textsuperscript{909} with the following explanations to the meeting with the NBC on July 27 1938:

- By providing an additional storey, adequate space had been allowed in the Diagnostic X-ray Department, Radiotherapy Department and the Physiotherapy Department. The provision of the extra floor had also made possible the planning of a 6\textsuperscript{th} clinic;

\textsuperscript{904} Harvie, Record of Years, July 23 1938.  
\textsuperscript{905} Harvie, Record of Years, July 25 1938.  
\textsuperscript{906} NBC minutes, January 11 1938, RMH Archives.  
\textsuperscript{907} NBC minutes, January 11 1938, RMH Archives.  
\textsuperscript{908} Committee of Management minutes, July 13 1938, RMH Archives.  
\textsuperscript{909} The final plans of Scheme J were available in the State Library Victoria but the working drawings were unavailable.
• The clinics had been rearranged so that no physician or surgeon would have to go
more than one floor in order to consult his corresponding physician or surgeon;
• The internal planning of the standard clinic had been amended following discussion
at the meeting of the medical staff to give a larger examination room at each end of
the clinic for use in teaching rather than a single separate examining room common
to men and women;
• Cubicles for consultation were still shown on the plan but if only three were used,
as it seemed probable, would be adequate – these rooms have been further
enlarged;
• Treatment rooms were provided in the Surgical clinics for dressings; and
• A second operating room was provided in the Outpatient Department.910

As a result of this meeting, the Chairman and several members of the NBC changed their
mind and were prepared to accept the five-storey construct providing it met with approval
of the HMOs in regard to areas allocated to their departments and their related positions.911
The details of the planning of the definite departments were to be further discussed and
ratified by the official representatives of the NBC.912 Their approval was a relief to
Stephenson as the preceding two weeks had entailed the “most strenuous work and
difficult and constant meetings … another big hurdle passed”.913

On August 3 1938, the Committee of Management granted their general approval for a
separate five-storey building to be sited south of the Main Block and connected to the
Main Block by a wide traffic-way on each floor. This arrangement formed a T-
configuration in a similar manner to the Main Block thus creating a double T-configuration
for the RMH. Interestingly, the T-configuration of OPD, which included Administration,
had similarities to the T-configuration of the Administration Block at the new Royal
Freemasons Hospital, London.914

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910 NBC minutes, July 27 1938, RMH Archives.
911 Letter dated July 26 1938, Stephenson to Turner, Stephenson & Turner Collection, MS2072, Box 4, Vol. 210, State
Library Victoria.
912 NBC minutes, July 25 1938, RMH Archives.
913 Letter, Stephenson to Turner, July 26 1938, Stephenson & Turner Collection, MS2072, Box 4, Vol. 210, State Library
Victoria.
OPD was to include six Medical and six Surgical clinics on 3 floors together with specialists clinics involving an additional 5th floor. Administration was to be located on the first floor within the OPD block.\footnote{Committee of Management minutes, August 3 1938, RMH Archives.} This was on condition that:

- The variation of details of planning be the subject of consultation between architects and representatives of the Medical Staff.
- That the Board of Reference be authorised to give final approval of detailed plans.\footnote{Committee of Management minutes, August 3 1938, RMH Archives.}

**Appointment System**

The meeting of the Committee of Management, June 22 1938, approved the NBC’s resolution of June 17 that an appointment system be adopted.\footnote{Committee of Management minutes, June 22 1938, RMH Archives.} The concept of the Appointment System had been introduced by the architects in November 1936 so its acceptance resolved a long-standing point of contention and introduced an important innovation into the hospital’s practice.

**Outpatient Department Layout**

The dialogue regarding the layout of the OPD continued at a meeting on August 4 1938 with the Outpatient HMOs and Ken Sedgefield, representing S&T. Sedgefield’s task was to explain to the HMOs the plans of the proposed five-storey scheme in particular the disposition of various departments and clinics and the detailed layout of the standard clinic and to answer questions raised by those present. Sedgefield left the meeting in order for the HMOs to confer and was recalled later to answer further questions. The general layout met with the approval of those present, the chief difficulty being a concern about adequate protection of the department generally from rays emanating from the Radiotherapy department on the 4th floor.\footnote{Outpatient Honorary Staff minutes, August 4 1938, in the Honorary Medical Committee file, RMH Archives.}

**The Standard Clinic Plan**

The HMOs’ role in the programming process was clearly exhibited during these meetings as they made requests for adjustment to the standard clinic as follows:
• Consulting room to be the size already shown but any subdivision to be omitted at present and further discussed;

• Examination cubicles to be three for each sex but reduced in size to 6’0” (1.8m) wide and divided from each other by screens or curtains;

• One demonstration room only – approximately 14’0” (4.2m) – to be provided with balance of space; and

• Waiting space outside clinic to be reduced to twelve persons and dressing cubicles to be moved nearer to the corridor so as to increase the depth of examination cubicles.919

On August 31 1938, members of the Board of Reference, Mr Searby, Dr Thomas and Colonel Fanning met with Stephenson, Harvie and Sedgefield. The medical staff’s knowledge of the requirements of the OPD was instrumental in advancing the general development of the Department. The standard clinic plan (Figure 9.2) was agreed and would consist of:

• 3 consultation desks;

• 3 examination cubicles and one demonstration room on one side, and

• 2 examination cubicles and one demonstration room on the other side.

• The Radiotherapy Plan: It was agreed that the 400 K.V. plant should be located above the Operating Recovery Room so that no staff was permanently located under this section. This plan was to be reviewed and confirmed with Mr Kaye Scott, (the Radiotherapist);

• Almoners’ Room: It was agreed that one room on every floor would be adequate;

• Venereal Diseases Clinic: The question of a separate entrance was discussed but Dr Thomas expressed the view that there should be no separate entrance. However, as the Outpatient entrance (would) not be opened at hours when the VD clinic must remain open does not seem altogether practical. This is to be checked with Dr Westmore Stephens, Head of the Department.920

• Dentist: The Dental clinic was to be placed on the fourth floor. The provisions of two chairs, sterilising facilities and waiting room space for about six persons is

919 Outpatient Honorary Staff minutes, August 4 1938, in the Honorary Medical Committee file, RMH Archives.
adequate and need not be referred to Mr Findlay (the dentist) except for his
arrangements within this space;

- Students’ room: This was not required and a small gown lobby in Radiotherapy is
  all that is to be allowed;

- Dressing Stations: A dressing station for a third surgical clinic was to be planned
  and the west dressing section moved to the centre of the building. The stations were
  to be extended if possible whereby subsidising the men’s section so that nurses can
  attend to cases not requiring couches;

- Lavatory and Tea-room: to be shared by almoners and nurses - one on the third
  floor (Outpatients Operating) and one on the ground floor. Another nurses’
  lavatory required on fourth floor; and

- Query with Dr Praagst, Head of Radiology, regarding the arrangement for lavatories
  and fluoroscopy rooms.\textsuperscript{921}

The complexity of juggling all the clinical requirements for the OPD within the one
envelope and accommodating the specific technical demands for departments such as
Radiotherapy as well as convincing the OPD HMOs to accept a multi-storey block and the
appointment system had proved challenging for the architects. However it was achieved as
illustrated in Figures 9.17– 9. 22.

\textsuperscript{921} Harvie, Record of Years, August 31 1938.
The Hospital Proper

The Planning Methodology: the Unit System

As mentioned in Chapter 7, the Organisers’ Report of Requirements had specified the unit system for wards based on 24 beds per unit. The architects had complied with this requirement for Scheme B and C although there were complications due to some of the specialist HMOs' limited bed requirements and the fact that they refused to share wards. In Scheme J, the architects applied the unit system for the wards in keeping with the specified requirements. At a meeting with the Committee of Management, April 4 1938, Stephenson took great pains to fully explain the methodology to the members. The unit system was a very organised system as one unit (ward) was designed to meet the requirements and then could be easily repeated or subtracted as necessary. This was a form of mass production which would prove cost effective and very functional.

It can be argued that the unit system, or standardisation of wards, had been inherent in hospital planning since the implementation of the Nightingale ward from the 1860s. As discussed in Chapter 2, Florence Nightingale had specified the dimensions of the ward, the size of the windows and their placement, the number of beds and their position between windows, the location of the Nurses’ desk, utilities room and the bathroom facilities. As a committed miasmatist, she concentrated on the circulation of fresh air rather than functionality and cost effectiveness. As illustrated in the two surveys, one conducted by Henry Snell and the other by Henry Burdet, versions of the standardised Nightingale ward was implemented in the Pavilion hospitals throughout the western world. In 1918, due to the increasing complexity of requirements, standardisation in hospital planning became official in the USA when it was introduced by the American College of Surgeons led by Dr Malcolm MacEachern. MacEachern devised a point system for standardizing hospitals with points being allocated during department inspections.

In 1928, standardisation (and rationalism) were officially recognised in Switzerland, as the logical prerequisites to the efficient production of buildings particularly buildings on an industrial scale. These principals were incorporated into the manifesto of the

923 Committee of Management minutes, April 4 1938, RMH Archives.
International Congres Internationaux d’Architecture Moderne (CIAM).\textsuperscript{925} The manifesto, signed by twenty-two of Europe’s leading architects and led by Hannes Meyer (1889–1954), the then Director at the Bauhaus, (1928–30) established the foundations of modern architecture.\textsuperscript{926} By 1938, the standardisation of wards or the unit system was current practice in hospital planning.\textsuperscript{927}

The General Plan

The general plans of the hospital were submitted to the NBC on March 30 1938 and then to the Committee of Management on April 4 1938. As discussed, the architects had settled on the T-configuration. By 1939, the T-configuration, originally devised by Goldwater in 1911,\textsuperscript{928} had been accepted as an efficient design and one which, according to Butler and Erdman, was “the most economical and (could) be used in any sized hospital very efficiently”.\textsuperscript{929} Australian architects, Irwin & Stevenson\textsuperscript{930} had demonstrated this in their small multi-storey Mildura Base Hospital, (1933) in country Victoria. During his 1936 study trip of the United States of America, Turner had also observed the T-configuration operating successfully at the University Hospital of the University of Maryland, Baltimore, completed in 1934. Turner noted that the T-configuration adapted very well to Maryland’s restricted site and limited budget:

> The plan is cruciform, is compact and ingenious in arrangement, having a central control space from which radiate the service rooms and the wards in the arms of the cross.\textsuperscript{931}

By implementing both the T-configuration and the unit system, that is, replicating each ward throughout the entire hospital, the cost could be contained. As a result, the schematic layout of Scheme J (Figure. 9.3) meant that the ward units were located in the east and west

\textsuperscript{925} The International Congress was held in La Sarraz castle in Switzerland on June 25 and 29 1928. Source: Claude Schmaidt, \textit{Hannes Meyer: Buildings, projects and writings}, p 25.

\textsuperscript{926} Claude Schmaidt, \textit{Hannes Meyer: Buildings, projects and writings}, p. 25.

\textsuperscript{927} It was not until 1961, that the British National Health Service (NHS) produced their first version of the Building Notes (HBNs) which contained the set standards for hospital development. This publication set the standards for hospital development in Britain and throughout the world. Susan Francis, Rosemary Glanville Ann Noble & Peter Scher, \textit{50 years of Ideas in health care buildings}, The Nuffield Trust, London, 1999, p. 29.

\textsuperscript{928} Goldwater can be credited with devising the T-configuration in 1911. In his plan each ward contained 31 beds of which 26 beds were in an open ward and supplemented by 5 others in quiet rooms, located among the service rooms, 3 of them containing 1 bed and 1 room with 2 beds. One sunny balcony next to the day room was reserved for noisy convalescents and the other for acutely ill cases requiring quietness. The corridor at the cross of the T was designed for cross ventilation. He planned for flexibility: the section for service and single rooms could be lengthened and/or the open ward short-ended depending on the degree of separation required by the patients. SS Goldwater, \textit{On hospitals}, p. 193.


\textsuperscript{930} Leighton Irwin and Roy Stevenson were in partnership from 1922 to 1934. After the partnership dissolved, Irwin practiced as Leighton Irwin & Company. Source: Robin Boyd, \textit{Victorian Modern: One hundred and eleven years of modern architecture in Victoria}, Australia, p. 18.

\textsuperscript{931} DK Turner, ‘Cruciform Plan in Modern Hospitals, University of Maryland (Hospital), Baltimore, USA’, \textit{Hospital Magazine}, March 1938, pp. 24–25.
wings (the crossover) and in the north wing (the stem). Each of these three wings projected from a central circulation tower in keeping with Edward Steven’s principle of keeping the ‘noisy parts’, stairs, lifts and kitchen at the extreme end of the ward unit.932

**The Ward Units**

The iterative dialogue revealed there were six prevailing issues that continued to dominate the planning process of the wards and, at this point in time, decisions were vital to the final plans.

1. The total number of beds in the hospital;
2. Whether each ward should be for one sex only or both sexes;
3. The organisation of the ward units in accordance with the Inpatient HMOs insistence that they would not share wards;
4. The number of beds per ward;
5. The spatial allocation per bed and the furniture per bed; and
6. The spatial organisation of the ward determined by the ward requirements.

**1. Bed Numbers**

The fixed number of beds to be provided in the entire hospital was 500.933

**2. Wards: Single or Dual-Sex.**

The wards in Scheme G1 had been developed on the single-sex principle in keeping with open Nightingale wards at Lonsdale Street hospital. However, during the development of Scheme J, all the committees engaged in considerable discourse on the advantages and disadvantages of single and dual-sex wards. In June 1938, the Board of Reference decided to exercise their authority to act on behalf of the Committee of Management by accepting single-sex wards on the grounds that dual-sex wards involved considerable extra cost – assessed at £70,000.934 In response to this, the architects produced plans accordingly. The isometric sketch of the Main Block (Figure. 9.11) reveals how the individual male wards and the female wards were located. The fact that the specialists’ disciplines, such as neurology and neurosurgery, were mixed with the general medical and general surgical

933 Committee of Management minutes, April 1938, RMH Archives.
934 Board of Reference minutes, June 1938, RMH Archives.
wards indicates that the Inpatient HMOs would have to share wards – something they strenuously opposed.

However on July 7 1938, the Committee of Management approved the plan for dual-sex ward units:

That the general plans be approved provided that every effort be made to alter the arrangement of the ward units from the present single-sex arrangements to a mixed sex arrangement without additional cost.935

As the dual-sex ward required two bathrooms and two lavatories – one male and one female – the length of the ward increased therefore expanding the footprint of the hospital proper at an additional cost of £10,000.936

The fact that the Inpatient HMOs refused to share wards was recognised by the NBC and therefore, as a result, they were allocated one ward each. By dividing the 30-bed unit into male and female sections, a HMO and his team could function within one ward unit for all teaching purposes. This would not have been the case in single-sex wards.

3. General Ward Arrangement

Medical wards and general surgical wards were to be placed on the lower floors with the upper floors being allocated to the specialist wards, such as Thoracic, Orthopaedic and Plastic Surgery.

3a. Ward Layout

Each floor contained 90 beds. These were divided into three wings, each ward containing 30 beds. The 30 beds were divided into a 16-bed section and a 14-bed section – one section for male patients and the other for female patients with a reasonable degree of flexibility. This was necessary as the records from the Lonsdale Street hospital showed more beds were required for male patients than female patients.937

The arrangement of the beds within the ward was a matter of dissension between the Inpatient HMOs and the architects. At a meeting on November 1 1938, Harvie and

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935 Letter, Colonel Fanning to Stephenson & Turner, July 7 1938, CEO files, RMH Archives.
936 Letter, Fanning to Stephenson & Turner, July 7 1938, CEO files, RMH Archives.
Sedgefield were confronted with “the HMOs wanting all sorts of crazy alterations to their plans”.\textsuperscript{938} Despite the fact that the Nightingale ward had long been regarded as obsolete, the medical staff were accustomed to this arrangement at the existing hospital. Their sentiments were supported by the fact that the new Birmingham Hospital and Westminster Hospital which, whilst employing the vertical typology, retained the Nightingale wards.

However, Hurley supported the architects and their plans for small subdivisions within the wards of a public hospital.\textsuperscript{939} From the commencement of their practice SM/T had employed the Rigs system\textsuperscript{940} within their hospitals as it offered patients some degree of privacy.\textsuperscript{941} Harvie was aghast at Hearn's idea of placing the beds directly back to back with solid partitions 3.6ft. (1.0m) high and omitting all glass screens. She commented that the meeting was quite maddening and she hoped that an inspection visit planned for the next day to St Vincent’s Hospital would convince the HMOs to agree to their architectural plans.\textsuperscript{942} Arguably, there are practical advantages for both architect and client in having a model available at St Vincent’s Hospital which illustrated the architects’ proposal and provided clarification for the client.

Consequently, the architects were able to implement the Rigs system and divide the 16-bed section (Figure 9.7) further into 4 sections of 4 – two sections (8 beds) on either side of a central aisle which lead from the ward door to the door of the fire escape. These two units were then divided by solid partitions 3.6 ft. (1.0m) high carrying electrical wiring for the radio and a call system with a glass screen above. The glass screen facilitated an open view of the ward when the curtains were not drawn. Screens were drawn during nursing procedures to ensure patient privacy.

The same principle was replicated in the 14-bed section (Figure 9.7) which was divided into four and two bed units. Two single rooms were included where patients could be isolated for medical reasons.

\textsuperscript{938} Harvie, Record of Years, November 1 1938.
\textsuperscript{939} Harvie, Record of Years, November 1 1938.
\textsuperscript{940} The Rigs System emanated from the Rigs Hospital in Copenhagen, Denmark, where the twenty-six bed ward was divided into eight sections, each containing three or four beds. The beds were placed parallel to the walls and a dividing screen offered patient privacy. Edward Stevens, \textit{The American Hospital of the Twentieth Century}, 3rd ed. New York, 1928, p. 61.
\textsuperscript{941} Edward Stevenson had introduced the Rigs system to American hospitals in 1914. By 1923, it was commonplace. On his study trip to the USA, 1927, Stephenson would have witnessed this arrangement in the hospitals he visited.
\textsuperscript{942} Harvie, Record of Years, November 1 1938.
3b. Circulation Spaces

The ward was planned around a central corridor (Figure 9.7). The corridors, stairs and lift wells were considered unusable space. Nevertheless they provided the vital circulation spaces within the hospital. The corridors and doorways were a specified width for the easy passage of beds and trolleys.
3c. Ward Orientation

The principle of sunlight and aeration continued to prevail and subsequently determine the siting and orientation of the wards. The beds were deliberately orientated to achieve maximum sunlight by locating them on the north\(^{943}\) side of the east and west wings (Figure 9.7) and the east side of the north wing. All the service rooms were located on the opposite side of the corridor with no direct sunlight on the south side of the crossover however the service rooms in the north wing were exposed to western (afternoon) sun.

3c. Ward Ventilation

In the 16-bed section, windows were placed directly opposite – as in the Nightingale ward – thus permitting effective cross-ventilation. Whereas, in the 12-bed section which was located to one side of the central corridor, the flow of air was restricted by the corridor.\(^ {944}\)

However, ceiling height influences the circulation of air in enclosed space. The air will circulate about six times the floor to ceiling height which, for the 3.0m height to a depth of approximately 18 metres.\(^ {945}\) Given the depth of the wards from the window, sufficient ventilation was provided by the single-sided arrangement.

Air also flows from doorways however there was only one main entrance to the ward and it was from the central lobby thence no air flowed from that direction. Mechanical ventilation was installed but any detailed consideration is beyond the scope of this dissertation.

4. Bed Arrangements
4a. Spatial Allocation per bed unit.

As this was a public hospital, the allocation per bed space was limited to only 60 ft.\(^2\) (5.5m\(^2\)) of floor space and the beds were fixed at 6 ft. (1.8m) from the centre of the bed to the centre of the next bed.\(^ {946}\) According to Goldwater, beds “should be accessible from all sides for clinical examination, treatment, nursing care and bed making, transfer and stretcher manipulation”.\(^ {947}\) Sufficient space was also required to accommodate the HMO and his medical students on their teaching rounds.

\(^ {943}\) In the southern hemisphere, north is the location of the sun at mid-day.


\(^ {945}\) Drake, The Third Skin, p. 118.

\(^ {946}\) Letter, Stephenson to Harvie, November 25 1938, MS 2072, Box 4 Vol. 210, State Library Victoria.

4b. Bed furniture
One single bed, one over-bed table, one bedside locker placed on one side of bed and one chair placed on the other side. The chair served several functions: it was a place for the patient to sit if able, for visitors to sit, a place for holding bed linen during the making of bed and a place for the patient’s dressing gown if patient was ambulatory. As space was limited, no wardrobes were provided instead a patient’s personal clothing was kept in a collective store cupboard located in the Basement.

5. Ward Requirements
5.1. Nurses Station
Stephenson believed that the Nurses Station was:

> Among the most important position in hospitals and their relationship to the ward (was) vital, if effective control and convenience both to the nurse and the patient are to be regarded adequately … to arrange the nurses station outside the wards and to locate them in a convenient location.\(^{948}\)

![Figure 9.7. The Nurses Station with view to the 16-bed section only.](source: RMH Archives)

The Nurses Station was situated outside the wards between the 16 and 14 bed sections. Unlike the Nightingale ward at Lonsdale Street where the Nurses Station was placed within the ward and patients could be observed twenty-four hours per day, the arrangement at the RMH provided only limited observation of patients. The Nurses Station was shared with the Resident Doctors.

\(^{948}\) An Address by Arthur Stephenson to the Standards Association, Sydney, no date, Sir Arthur Stephenson Collection, National Library Australia.
5.2. The Utility rooms
There were 2 utility rooms, one clean and one dirty. The clean utility room was divided into two. The dressing trays, obtained from the Centralised Sterialising Department (CSD) were prepared on one side and then cleaned and sterilised in the water steriliser on the other. The architects’ level of planning detail is illustrated in the water sterilisers. The water sterilisers in the surgical wards of the extant hospital were 22” x 16” x 12” (55.8 x 40.6 x 30.4cms). Through a phone call to the Board of Reference, Harvie established that sterilisers 24” x 16” x 12” (60.9 x 40.6 x 30.4cms) would be installed at Parkville as they will be large enough to take certain utensils other than instruments.\(^\text{949}\)

The Dirty Utility Room - or as it was commonly referred to - the Pan Room. This was regarded as dirty for it was designed for the emptying, cleaning and sterilizing of urinals and bedpans and for their storage.

5.3. The Flower Room
This room was used for arranging patient’s flowers and for storing them overnight to prevent accidents.

6. The Clinical Room
This room was a requirement by the University for teaching purposes. Equipment as specified in the Organisers’ Report of Requirements was:

- Seating for approximately 20 students;
- One built-in blackboard;
- Projection equipment; and
- Bench for urine testing.\(^\text{950}\)

Clinical teaching involved the observation of the patient and therefore it was customary practice for the Medical Staff to provide tuition at the patient’s bedside. However, at times it was necessary to discuss the patient’s condition out of range of the patient’s hearing and where discussion could be unrestricted. The Clinical Room, located on each ward, provided a place for students to report prior to and after ward rounds. Here the students were given

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\(^\text{949}\) Harvie, ‘Record of Years’, November 11 1938.

\(^\text{950}\) Organisers’ Report, Appendix A, RMH Archives, 1936, p. 4.
instruction as “to make certain examinations on certain patients and report back to the teaching room and discussion of the various clinical findings could then be resumed”.951

7. A special entrance and waiting room was provided for visitors who must be at hand outside visiting hours. The floor plan shows this located in the central tower.

8. The central hall on each floor is the office of the floor supervisor shown as ‘Clerk’ on the plans. This location acts also a floor inquiry desk and is connected by the pneumatic communication tube system to related departments.

9. **Pantry**

   The food-lifts transport the food trolleys from kitchen to the wards via the pantry.

**Proposed Amendments to the Ward Plan**

This ward plan was accepted on December 22 1938.952 The Committee of Management adopted the NBC’s recommendation “that the detailed plan of the ward unit as submitted by you be approved subject to some minor changes”. These changes were:

- Wash basin and Lotion Bowl adjacent to the sixteen bed ward to be eliminated;
- Service room: sterilizer to be large enough to take utensils;
- Wireless: one wireless plug be installed per bed;
- Nurse Station window: Outside the 16-bed ward to be reduced to 2 ft² (0.18m²).
- Ward Layout: Door to corridor outside the 16-bed medical ward to remain but be moved from the surgical ward so as to include in that section the fully partitioned two bed cubicle;
- Heated Towel Rails: to be eliminated;
- Tiling in service rooms to be dado height where required – behind wash basins either a splash glass or sufficient tiling to protect the walls from splash;
- Clinical room: a shelf to be provided for the testing of urine;
- Night lights: to be omitted;
- False ceilings: the most economical false ceiling be provided where necessary;
- Blankets warmers: Connection to be provided for possible connections in the future;
- Sound absorbing plaster: to be included in the corridors and Nurse’s Station;

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952 Letter, Colonel Fanning to Stephenson & Turner, December 22 1938, CEO file, RMH Archives.
• Faucets: type of faucet be provided where needed in different locations as indicated in the plan submitted by the architects; and
• Floor coverings were still under consideration.

Model ward
At the suggestions of the architects, June 1941, during construction, one 30-bed ward was expedited so that it could be fully equipped and available for inspection and criticism by the Committees and the Hospital Medical and Nursing experts thus any unsatisfactory features would be avoided in the other units.953

Balconies
During the development of the previous schemes, Stephenson had attempted to convince the Committees of the practical value of balconies and he considered their possible omission at the RMH as ‘very regrettable’.954 As already mentioned, Richardson claimed the balconies had become the fetish of architects in the 1930s and 40s.955 SM/T were no exception, in fact, cantilever balconies had become their signature after 1934. Apart from their practicality, the balconies emphasized the horizontality of the modernist facades of the Mercy, Freemasons and Bethesda Hospitals, Ballarat & District Hospital, Gloucester House and the King George Memorial Hospital for Mothers and Babies at Royal Prince Alfred Hospital, Sydney.

In May 1938, the architects presented the Board of Reference with sketches of the main hospital with the balconies added and informed them of the cost, £17,000.956 In June 1938, with the building program being developed and, as the balconies were cantilevered the architects needed to know “if the balconies were to be included as they affected the whole structure”957 and the architects were keen to see the contracts for the tenders let for the excavations before Christmas. On August 17 1938, the Committee of Management finally adopted the architects’ recommendations for the addition of balconies on the north and east elevations only (Figure 10.1). The money for the balconies however “was to come

953 RMH Annual Report, June 30 1941, p. 6.
954 NBC minutes, April 4 1938, RMH Archives.
956 Board of Reference minutes, May 6 1938, RMH Archives.
957 Board of Reference minutes, May 6 1938, RMH Archives.
from donations and not add to the estimate of obligations to be incurred as promised to
the Premier when financial arrangements were agreed upon with him”.

Compared to the 10ft (3.0m) wide balconies at Gloucester House, Royal Prince Alfred
Hospital, the balconies at the RMH were deliberately narrow. Being an acute hospital, they
were not intended for patients’ beds instead for:

The purpose of shading the floors beneath, protecting the windows from rain and … as an
alternate access path for the ward. The balconies allowed for the windows to be carried to the
floor so making for greater openness in the wards.

Nurses Home
As already mentioned, the number of bedrooms in the Nurses Home was tied to the
patient bed numbers and was therefore constantly fluctuating throughout the previous
schemes mainly due to financial concerns. At the NBC meeting November 21 1938, the
architects were informed that, under the Wages Board determination granting nurses a 48-
hour working week, the new hospital would require extra nurses. Sedgefield stated that:

Additional accommodation (on the unit system) could be made most economically by adding
two lateral units of 36 beds each to the Nurses Home at an estimated cost of £17,500 each.
But owing to the provision of lavatory accommodation, the total number of beds would have
to be reduced to 64 and the estimated cost would be £8,500 per unit.

The Committee of Management approved the additional units and Messrs Ernest and
George Connibere solved the financial problem by gifting £140,000 in memory of their
brother, Sir Charles Connibere. When completed, the Sir Charles Connibere Nurses Home
consisted of 447 single well-furnished bedrooms, 14 sitting rooms, house laundry,
hairdressing parlour, milk bar and library as illustrated in Figures 9.25–9.28.

Tunnel
The service tunnel was 850 ft. (259m) long and extended from the basement lift in WEHI
to the Service Block in Flemington Road with branches connecting all buildings with the
exception of those north of the Hospital Road. As already noted, the tunnel “was to be the

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958 Committee of Management minutes, August 17 1938, RMH Archives.
959 Stephenson, Committee of Management minutes, April 4 1938, RMH Archives.
960 NBC minutes, November 21 1938, RMH Archives.
main traffic route for goods and hospital personnel moving from one section of the hospital to another.” 961

### Walter and Eliza Hall Institute

Due to the siting of the OPD, WEHI was considerable reduced in size and, despite the hospital giving “an undertaking to see that the Institute had adequate buildings at Parkville,” 962 proposed that WEHI should seek finance from other sources. 963 Fortunately Kellaway had made some influential friends in the sixteen years he had been director. The Nicholas family donated £20,000, Mr Russell Grimwade and BHP donated £1,000 each. With some smaller sums, this made up half the cost of the £47,000 for the Institute. 964

The sketch plan (Figure 9.9) showed that WEHI had been located at the east end of the main block. The four floors linked directly with the wards of the east wing. WEHI considered this a “convenient plan if the Department of Medicine ever eventuated”. 965

One of the specific requirements for the WEHI working laboratories was that they be placed on the south side with the windows facing south and with the service areas placed on the opposite side of the central corridor. The heavy equipment was housed in the extensive basement. The principle of separation was implemented whereby the Biochemical and Virological departments were appropriately divided by placing them on separate floors. 966

However the architects were not able to accommodate WEHI’s requirement in regard to the animal accommodation:

> Originally the plan was to have a block of animal housing separate from the Institute building proper but connected to each floor by an open bridge. This could not be fitted into the general scheme and the animal house had eventually to be placed on the northwest corner of the site 200 yards (182.8m) from the laboratories. The arrangement worked well enough but the long...
walk through the service tunnel that ran the whole length of the hospital was far from convenient.  

Figure 9.8. Proposed Sketch: North East Elevations showing the 4 floors of WEHI on the left adjoining the east wing. Source: Stephenson & Turner Collection, State Library Victoria.

Clinical School Accommodation

Lecture Theatre
The Committee of Management accepted the revised plan regarding the theatre which was sited on the Ground Floor and the Basement at the northern end of the North wing. It provided accommodation for 200 students and waiting rooms for patients. It cost approximately £3,800 to £4,300 in excess of the theatre as originally planned.  

Student accommodation
Provision to be made for a common room for 150 day students as well as locker rooms and lavatories on the lowest floor of the WEHI and that access for the students be from the north side of the wing.

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967 Macfarlane Burnet, pp. 37–38.
968 Letter, Colonel Fanning to Stephenson & Turner, December 22 1938, CEO files, RMH Archives.
969 Letter, Colonel Fanning to Stephenson & Turner, December 22 1938, CEO files, RMH Archives.
Final Site Plan

With the Outpatient HMOs finally accepting the OPD as a separate multi-storey construct and the Inpatient HMOs accepting the dual-sex ward, the architects were – at last – able to develop the site plan.

The Main Block, incorporating the University Clinical School of Medicine and Surgery and the Walter and Eliza Hall Institute, continued to occupy the large quadrant of the site. The Nurses Home was now set back to the north from Flemington Road thus making way for the proposed Entertainment Hall. A separate RMO’s residence was sited immediately north of the Main Block and north of the Hospital Road running between Sydney Road and Flemington Road. The Service Block continued to be sited on the western boundary adjacent the University of Melbourne Veterinary School. One major difference was the location of the OPD sited immediately south of the main block. The T-configuration linked the Main Block and OPD on floor levels whereby providing efficient movement of traffic.
Due to a limited budget, there were three omissions on this plan: the Chapel, the Entertainment Hall and the Laundry.\textsuperscript{970} It was anticipated that they would be built at a later date.

**Orientation**

The orientation of the hospital and the OPD were placed on a north-south axis to address Grattan Street whilst looking south down Elizabeth Street directly to the City of Melbourne. The Nurses Home and the RMOs’ quarters were also orientated to the south. The main entrance was through Administration placed on the first floor of the five-storey Outpatient Block.

**Further Dissension between the Architects and the Clients**

In June and July 1938, dissension flared again – this time between the architects, the Committee of Management, the NBC and the Board of Reference. The areas involved were the type of construction and the building program.

**Type of Construction**

Dissension between the NBC and the architects emerged over the method of construction and the cost involved. This time, Stephenson felt that, if the hospital had no confidence in S&T, then they would withdraw from the project.

The architects had specified structural steel and reinforced concrete. However, despite Mr Kiddle’s suggestion they should put more confidence in Stephenson, the NBC, acting of the advice of Bernard, exercised their right to seek other advice on the use of reinforced concrete only. The NBC engaged Mr McMillan, a consulting structural engineer from Sydney. This independent report was being conducted:

> On the use of concrete and to the stress levels of the concrete beams under the SAA code and its relation – assuming that the Melbourne City Council will permit this hospital using a Code of Reinforced Concrete being used in other cities. The report is not based on the SAA (Standards Association of Australia) report but on the saving that could be affected if the existing By-Law No. 220 were used.\textsuperscript{971}

\textsuperscript{970} The new RMH was able to continue to use the laundry at the old Lonsdale Street hospital until such time as their laundry was built.

\textsuperscript{971} NBC minutes, April 28 1939, RMH Archives.
Stephenson accused McMillan of being in breach of professional etiquette. Despite this, Stephenson stated that if the Committee wished an independent report, the firm would cooperate. Although they stated they would place everything at McMillan’s disposal, Stephenson nevertheless expressed his frustration:

> We have given our recommendation that this building should be in structural steel. There is no evidence from any source to disprove this statement. We are in the position to tell you that when it comes to the solid fact of building the Hospital you will revert to structural steel … The margins between the two types of construction is 1%. If you are satisfied we cannot do this job we will say very well we are satisfied.\(^{972}\)

McMillan’s report was not to shown to Stephenson or Turner. It remained confidential to the Committee. S&T continued as architects and the RMH was constructed with steel framing.

**The Building Program**

The Architects’ Agreement with the RMH stipulated that the new hospital at Parkville would be constructed in stages. The Committees, anxious to erect something on the site,\(^ {973}\) had continually proposed building the Nurses Home and Service Block. Stephenson had agreed to this as the site position of the Nurses Home and the Service Block had been regarded as definite. However, at the Board of Reference meeting, July 28 1938, convened to review the building program for Scheme J, Bernard, the Assistant Supervisor, recommended to the Committees that all the buildings be planned to be completed at approximately the same time:

> Instead of erecting the Nurses Home and Service Block first, a programme of works be adopted so arranged the first buildings will be the main hospital and Out-patient department and that other buildings will be commenced at such times as to ensure that the whole will be completed as nearly as possible at the same time. If the proposed sequence of building the Nurses Home and the Boiler House before the Main Building were followed it would cost the hospital some £10,000 in interest and maintenance. \(^ {974}\)

Basically Bernard was reiterating Clapp’s suggestion made during discussions for Scheme G at the NBC meeting on December 7 1937. However, at that time, the NBC and Colonel Fanning were still keen for some construction and again proposed the building of the Nurses Home and the Service Block.

\(^{972}\) NBC minutes, April 28 1939, RMH Archives.
\(^{973}\) Board of Reference minutes, June 28 1938, RMH Archives.
\(^{974}\) Board of Reference minutes, June 22 1938, RMH Archives.
Table 9.3. Proposed building schedule by Mr Bernard, Assistant Supervisor.  
Source: Board of Reference minutes, June 28 1938, RMH Archives.

<table>
<thead>
<tr>
<th>Building</th>
<th>Work to Commence</th>
<th>Period of Construction</th>
<th>Completion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td>March 1939</td>
<td>24 months</td>
<td>March 1941</td>
</tr>
<tr>
<td>OPD</td>
<td>March 1939</td>
<td>24 months</td>
<td>March 1941</td>
</tr>
<tr>
<td>Service Block</td>
<td>January 1940</td>
<td>15 months</td>
<td>March 1941</td>
</tr>
<tr>
<td>Nurses Home</td>
<td>January 1940</td>
<td>15 months</td>
<td>March 1941</td>
</tr>
<tr>
<td>RMO Quarters</td>
<td>March 1940</td>
<td>12 months</td>
<td>March 1941</td>
</tr>
<tr>
<td>WEHI</td>
<td>March 1940</td>
<td>12 months</td>
<td>March 1941</td>
</tr>
</tbody>
</table>

As a consequence of this meeting, the Board of Reference wanted excavations to be prepared at once for the entire hospital complex in order for it to be completed more or less at the same time. The Board of Reference approved the fifth floor to OPD on July 22 1938 and the Committee of Management approved for provision to be made in the foundations for an extra floor on both the Main Block and the OPD on September 16 1938.

The Board of Reference decided to recommend to the Committee of Management that:

- The architects be instructed in writing to proceed with the detailed plans of the whole hospital.
- That the architects be informed that it is desired that they be in position by December 15 next to call for tenders for the whole of the work covered by the plans and that balconies be included.

By October 1939, the tenders had been received. The lowest tenderers were John R & E Seccull, WC Burne & Son, and Concrete Constructions. As the intention was for all the buildings to be completed simultaneously in March 1941, it was deemed advisable to split the contract into two parts. John R & E Seccull were contracted to build the Main Block and the RMO Quarters and WC Burne & Son to do the Nurses Home, the Service Block

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975 Board of Reference minutes, June 22 1938, RMH Archives.  
976 Board of Reference minutes, June 22 1938, RMH Archives.  
977 Board of Reference minutes, June 22 1938, RMH Archives.
and Animal House. A fence was built on a north-south axis to divide the site.\textsuperscript{978}

\textbf{The Consequence of War}

World War 2 was declared on September 3 1939 and the contact for the building of the new hospital was signed on November 22 1939. With the exception of Stephenson, the photo of the signing of the contract included the main protagonists of the program (Figure 9.10).

The construction of the RMH during the war was a huge undertaking as there was an acute shortage of materials, equipment and tradesmen particularly skilled tradesmen in finishes. Fortunately for the RMH, it had invoked the Rise and Fall Clause of the building contracts: “the hospital (was) fortunate in forward buying. What would have been a major problem turned into a minor one and saved thousands of pounds”.\textsuperscript{979}

\textsuperscript{978} Sir Arthur Stephenson Collection, MS 2072 Box 12, National Library Australia.
\textsuperscript{979} RMH: \textit{Annual Report}, 1945, p. 6.
The American Hospital in Melbourne

The construction of the RMH was completed during 1942. Although the RMH was programmed as a civilian hospital, it nevertheless hosted the American Army and, for two years from March 1942 until March 1944, was known as the 4th General Hospital of the United States Army. As a consequence of the war, construction of the RMH buildings had been accelerated during the second half of 1941 and were nearing completion when the US Army disembarked in Melbourne. The Army initially established a temporary tent hospital in Royal Park and gradually occupied the RMH as blocks were completed: the Nurses Home in March 1942 when the Home and the Service Block were completed and then occupied the remainder of the complex from June 1942 to December 1942. The Army provided all their equipment and took it all when they left. This occupation and the fact that the architecture of the RMH replicated the American vertical typology led to the perception that the RMH had been design by and built for the Americans and indeed this myth – still believed today – was perpetuated by the Americans. The New York Daily News (April 1943) and other newspapers said:

The ten story ultra-modern hospital (was) built by the Australian government under reciprocal lend-lease (arrangements) to care for the American troops recuperating from illness and wounds.

Clearly the programming process documented here proves the fallacy of such claims and perceptions.

During the occupation, every available space was utilised for beds including the Nurses Home, several floors of WEHI and the OPD subsequently accommodating approximately 2,300 patients at any time. Majority of them were convalescing and therefore mobile. In March 1944, the RMH was returned for civilian purposes.

Walter and Eliza Hall Institute

During the American occupation, WEHI occupied one floor of the building from May 9 1941. This was:

980 The 4th General Hospital was constituted from staff of the School of Medicine, Western Reserve University and its Associated Hospitals, Cleveland, Ohio, 1938. Source: David R. Weir and Lewis Bronson Jr., 'The History of the 4th General Hospital', The Clinical Bulletin of the School of Medicine, Western Reserve University and its associated hospitals, Cleveland, 100: 53–57 1947, p.18.
981 Arthur Stephenson, 'Australia Prepares for the Wounded', The Modern Hospital, Vol. 56, No. 4, April 1941, p. 72.
982 With the war in the Pacific moving northwards, it was logistical for the 4th General Hospital of the United States Army to relocate to Brisbane.
Arranged to relieve the pressure in the present obsolete building which, with a large amount of
war work being undertaking, became severely overcrowded.983

In August 1942, the remaining departments transferred to Parkville thus freeing up the old
WEHI building at Lonsdale Street for the Victorian Branch of the Red Cross and their
development of emergency donor service and the preparation of human serum.984

Reinstatement of the Hospital
The programming phase was re-established during the reinstatement period. The Heads of
Departments had revised their requirements resulting in the hospital undergoing
innumerable minor alterations and additions. The NBC approved the expenditure.985

Conclusion
Scheme J’s development commenced in January 1938 when the architects were informed
that the available finances had been reduced to £750,000 yet the RMH’s goal remained
unchanged: to create a hospital on a par with the world’s best. This added to the challenge
the architects were already facing as this was the largest project of their ten-years’
experience. The protracted programming process from December 1935 – December 1939
had taken four full years. The period had been fraught with complexities and difficulties
particularly by the stubbornness of the HMOs and the ever-decreasing budget. To their
credit, all the client committees and the architects combined their expertise to bring the
RMH to completion and, so doing, modernised many hospital procedures to the benefit of
staff and patients. In the 1944 Annual Report, Zwar concluded:

The new building is the outcome of certain factors without which nothing worthwhile is
achieved: vision, courageous planning and unwritten hard work on the part of everyone
connected with the hospital. Its operation for civilian purposes will mark a big advance in the
treatment of the sick and injured, and in the education of medical personnel and medical
research.986

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983 RMH Annual Report, 1941, p. 6.
985 Report from VD Bernard to Fanning, CEO file, RMH Archives.
986 RMH Annual Report, 1944, p. 4.
Scheme J Drawings
Source: Stephenson & Turner Collection, State Library Victoria

Figure 9.11. Scheme J Single-sex wards

Source: Stephenson & Turner Collection, State Library Victoria.
Scheme J Drawings

Figure 9.12. Site Plan: 1939.

Figure 9.13. Aerial sketch of RMH complex from junction of Sydney Road and Grattan Street, 1939.

Figure 9.14. Main Block: East and West Elevation

Figure 9.15. Main Block: South Elevation
Scheme J Drawings Floor Plans

Figure 9.16. Main Block and OPD: Basement plan

Figure 9.17. Main Block, OPD and WEHI: Ground Floor Plan

Figure 9.18. Main Block, OPD and WEHI: First Floor Plan

Figure 9.19. Main Block: Second to Fourth Floors
Scheme J Drawings Floor Plans

Figure 9.20. Main Block, OPD and WEHI: Third Floor plan

Figure 9.21. Main Block, OPD and WEHI: Fourth Floor

Figure 9.22. Main Block: Fifth, Sixth, Seventh and Eighth Floors.

Figure 9.23. Main Block: Ninth and Tenth Floors
Scheme J Outpatient Block: Floor Plans

Figure 9.24. Basement

Figure 9.25. Ground Floor

Figure 9.26. First and Second Floor

Figure 9.27. Third and Fourth Floor
Scheme J Plans for Nurses Home

Figure 9.28. Nurses Home Entrance

Figure 9.29. Nurses Home: Floor Plans

Figure 9.30. Nurses Home: South Elevation

Figure 9.31. Axiomatic Drawing of Nurse’s Bedroom
10. REFLECTIONS OF DESIGN-IN-USE

Introduction

The purpose of this chapter is to ascertain if the new building responded to the Organisers’ programming requirements and to the clients’ goal: to create a hospital on a par with the world’s best. In other words, was the hospital functioning in the manner for which it was designed? Were the architects satisfied that they had met the planning criteria for a modern hospital in the vertical typology? How did the users respond to the new hospital?

The RMH Parkville officially commenced operations on December 10 1944 having been completely reinstated from a military hospital to a general hospital. The shift from Lonsdale Street to Parkville was a major logistical undertaking. Mr Hearn and Colonel Fanning were deputized to organise the move and they spent months preparing the new hospital to commence operations. In order to reduce the patient numbers for the

987 Committee of Management minutes, July 7 1944, RMH Archives
move, the Committee of Management requested other metropolitan hospitals to take more patients.988

On Sunday morning, December 10 1944, aptly termed ‘D-Day’ by the staff,989 a fleet of sixteen ambulances transported two hundred patients from the old hospital to the new. Casualty opened at 10am on Sunday and, on Monday morning December 11, OPD commenced operation. Visitors, however, were not permitted until Tuesday night. The Ever Open Door990 policy was immediately activated – the hospital was open twenty-four hours a day, seven days a week to receive the sick poor and the injured.

Although the programming, design and construction process plus the occupation of the US Army had taken nine years, Scheme J was not complete mainly due to insufficient finance. The following buildings were still to be erected: the Chapel, the upper five storeys of the north wing, the Intermediate block, the University of Melbourne’s Department of Medicine and Surgery, the communal Laundry and the Entertainment Hall.991

**Design-in-Use**

Post-Occupancy Evaluation was not adopted as an Architectural Discipline until the 1960s. However, as considerable time has passed and with the key protagonists now deceased and the hospital much altered from 1944, this chapter will evaluate the occupancy of the new hospital based on comments and reports in the RMH Annual Reports and Scapel, the Staff Bulletin of the RMH. Scapel was first issued in June 1945 and discontinued in 1952. It was a monthly publication with representatives of different disciplines comprising the editorial committee. It allowed a ‘Design-in-Use’ study producing a picture of how the users of the building responded to it.

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988 Committee of Management minutes, July 7 1944, RMH Archives.
990 From its inception, the Melbourne Hospital implemented the policy of the ‘Door that Never Closes’ and for many years, this caption appeared on the Annual Report. On April 1 1927, the Morning Post newspaper introduced the phrase ‘Ever Open Door’. This phrase was repeated on the RMH 1934 Appeal Brochure. It was later used by the Premier, the Hon. AA Dunstan at the inauguration of the excavations of the new Parkville Hospital on March 16 1941. Gregory also refers to an article in the *Argus*, December 11 1944, which commented that the door at the Lonsdale Street hospital that had been continuously open since 1848 and that the “maintenance staff had great difficulty closing the door and gates”. Source: Gregory, *The Ever Open Door*, pp. xiii and 265.
991 Scapel, July 1946, p. 8, RMH Archives.
The Committee of Management regarded *Scapel* as an important form of feedback from the users as they announced their plan to watch comments from staff with interest. Fanning, as the RMH Manager, clearly saw this publication as a communication tool:

To help us understand each other’s problems and difficulties: it should be an intelligence centre for local news whether social or pertaining to our work and it should be a means of transmitting information of interest about the hospital and the work of the people who serve it.\(^992\)

Baynes et al recommended that a ‘Design-in-Use’ study should include the patients as their response was as important as that of the staff.\(^993\) However, this study does not do that as:

- There is no evidence of patients’ opinions being sought or recorded; and  
- This is consistent with the mores of the time that the expert knows best – something that was particularly prevalent in the medical field.

Therefore what this study provides is the hospital users’ perspective.

**Purpose of Post-Occupancy Evaluation**

In general terms, the purpose of the modern evaluation is an attempt to improve the methodology of programming and designing process and ultimately improve the quality and functional aspects of future hospitals. Green summed it up as ‘knowledge of effects’ of Design-in-Use.\(^994\) Stephenson & Turner commissioned photographs of every aspect of the hospital complex and, whilst the photographs were most likely intended as a promotional tool advertising their expertise as hospital specialists, conversely the photographs provide a visual account of the hospital in action thus making them an indirect form of evaluation which Donald Schön referred as ‘reflective practice’.\(^995\) The fact that S&T were very aware of their past mistakes\(^996\) was also an indirect form of

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\(^992\) Colonial Fanning, *Scapel*, May 1946.


\(^996\) An incident had occurred involving the Freemasons Hospital, when the Melbourne ‘Town’ Hall required an extra staircase and this required alterations. In addition, the firm had made a mistake in the estimates which Stephenson regarded “as bad enough to cause them to doubt any figures which we may submit to them”. Source: Letter, Stephenson to Meldrum, December 1935, Sir Arthur Stephenson Collection, MS No. 2072, Box 6, Vol. 286, National Library Australia. Another incident of architects’ error occurred at the Austin Hospital, (1931) when they
evaluation. They were very conscious that hospital authorities should feel assured of the attention their firm paid to their projects.997

**Time Frame**

Baynes et al also recommended that the evaluation of a building should commence from the first day it is occupied.998 In hospital terms, that is the day the first patients are received and the hospital commences operation. At the RMH, the normal ‘settling-in-phase’ was aggravated by the continuing war as the hospital faced great difficulties caused by staff shortages especially medical staff, and a continuing shortage of medical, surgical and other supplies.999 As the war did not end until August 1945, this evaluation will include 1946 when the hospital can be said to be fully staffed and fully operational.

Regardless of the shortages, Dr Lindell, Medical Superintendent, commented seven months after occupation that:

> The new hospital has lived up to expectations. A period of adjustment was necessary for all to accustom themselves to new systems, but now that this has been achieved the result can be seen in the rising standard of efficiency, due to better conditions for patients and medical and lay staff.1000

**The Client: The Committee of Management**

The clause in the architects’ agreement that “no work was to be undertaken without written authority from the Committee of Management” meant that the Committee assumed complete responsibility for all the major decisions involving the programming, design, construction and the financing of the new hospital complex. Most of the members, as listed in the RMH Annual Report 1945, had staunchly committed their time and expertise to this major endeavour, especially Messrs Zwar, Hearn, Hillier, Searby, Air Marshall Hurley,1001 (Sir) Harold Clapp, Dr (Colonel) Douglas Thomas, and Colonel

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1001 Air Marshall Hurley had been appointed Chairman of the Medical Staff Committee as Dr WWS Johnston’s term of office had expired. RMH Annual Report, June 1941. His Majesty, the King honoured Hurley by appointing him a Companion of the Order of the Bath. RMH Annual Report 1945, p. 5.
Fanning. Blackett, the Honorary Consulting Architect, had played no part in the programming design process.\textsuperscript{1002}

Mr Zwar resigned from the Presidency in September 1945 due to ill health. His commitment to the rebuilding program was applauded: “It is to his capacity, enthusiasm and driving force that we mainly owe the achievement and transfer of the site and the completion of the new hospital”.\textsuperscript{1003} Zwar died on January 16 1947. Norman MacKintosh replaced him as President. Dr Kellaway resigned from WEHI in 1944 to become the Director-in-Chief of the Welcome Research Laboratories, London, and Professor (Sir) Frank Macfarlane Burnet was appointed Director of WEHI.\textsuperscript{1004}

| President: | Mr Bernard Zwar |
| Vice Presidents: | Norman MacKintosh, J. Beacham Kiddle |
| Treasurer: | Cecil Hearn |
| Henry G. Allan | Miss Jessie Bage | Sir Norman Brookes |
| Sir William Brunton | Sir Harold Clapp | George Fielding |
| James C. Gates | H.D. Giddy | Cecil B. Hearn |
| Konrad Hillier | Victor Hurley\textsuperscript{1005} | J. Beacham Kiddle |
| James A. Levey\textsuperscript{1006} | Joseph Levi\textsuperscript{1007} | H. Brenner Lewis |
| (Dame) Merlyn Myer | (Sir) Clive McPherson | Lionel F. Miller |
| L.J. McConnan | Maurice Nicholas\textsuperscript{1008} | A.T. Smithers |
| D. York Syme | R.W.E. Wilmot |

| Honorary Consulting Architect: | W.A.M. Blacket |
| Medical Superintendent: | Dr J.H. Lindell |
| Lady Superintendent: | Miss H.D. Grey |
| Manager: | Lt. Colonel Rupert Fanning |
| Building Supervisor: | Mr V.D. Bernard |

Table 10.1. Members of the Committee of Management, 1945.

At the first meeting of the Committee of Management in the Parkville hospital, Stephenson, accompanied by the associates of the firm were, most appropriately, invited

\textsuperscript{1002}RMH Annual Report, 1945, p. 3.  
\textsuperscript{1003}Committee of Management minutes, September 4 1945, RMH Archives.  
\textsuperscript{1004}RMH Annual Report, 1945, p. 5.  
\textsuperscript{1005}Air Vice-Marshall Victor Hurley was away on war service, RMH Annual Report, 1945, p. 3.  
\textsuperscript{1007}Joseph Levi died on October 25 1944 and Mr Hugh Syme replaced him. RMH Annual Report, 1945, p. 14.  
\textsuperscript{1008}Maurice Nicholas was away on war service, RMH Annual Report, 1945, p. 3.
to attend. The Committee thanked them for their services.\textsuperscript{1009} Stephenson later acknowledged the Committee’s contribution, accrediting this achievement of the new hospital to: “the progressive thinking and planning of the Hospital’s Board (sic) of Management”.\textsuperscript{1010}

The Architects

Stephenson was satisfied that the architects had met the requirements fully and to an international standard. Visiting New York for the opening of the World’s Fair in April 1939, Stephenson had investigated the ‘poor peoples’ hospitals in New York and was reassured that the firm’s recommendations for the RMH “were minimal and nothing below them should be considered … our recommendations are the only ones possible”.\textsuperscript{1011} S&T’s involvement with the RMH continued and would see the completion of the five floors of the north wing (1949) and remaining ancillary buildings of Scheme J and later work.

The Hospital

The RMH was the first completed hospital in the modern vertical typology in Australia and Australians were proud of it:

They take great pride in it. This applies … to people throughout the state, even interstate and overseas, large numbers of whom have been taken on tours of inspection.\textsuperscript{1012}

In November 1944, just prior to its occupation, 4,380 people toured the hospital over five viewing days. Among them were members of Parliament, civic leaders, staff from other hospitals, RMH auxiliary members … and the general public.\textsuperscript{1013}

The Modernist Aesthetic

The ten storeys of the Main Block towered literally over the landscape shining at night like a beacon of hope and healing (Figure 10.2). The six buildings: Main Block, Nurses

\footnotesize{\textsuperscript{1009} Committee of Management minutes, January 9 1945, RMH Archives.\textsuperscript{1010} Arthur Stephenson, ‘Hospitals in Australia’, \textit{Architectural Forum}, Vol. 85, No. 6, December 1946, p. 109.\textsuperscript{1011} Letter, Stephenson to Turner, New York, 1939, MS No. 2072, Box 6, Vol. 286, National Library Australia.\textsuperscript{1012} Scapel, August 1946, p 2, RMH Archives.\textsuperscript{1013} Gregory, \textit{The Ever Open Door}, p. 264.}
Home, WEHI, OPD, RMO Quarters and the Service Block, blended coherently together. This was achieved by:

- The clean, uncluttered lines of modernist architecture; and
- The use of the same, warm cream face bricks

Both the Main Block and the Nurses Home presented as a pleasing counter point of verticality and horizontality. The narrow rectangular form of the buildings expressed the interior organization thus demonstrating that the architects had applied the modernist theory of ‘form following function’. The north and south elevations of the Main Block presented different perspectives. The starkness of the south elevation was punctuated by a grid of small windows which reduced the mass to reflect the human dimension of the interior. In contrast, the northern façade of the east and west wings and the east façade of the north wing carried the cantilever balconies. The whiteness of the balconies and the window mullions contrasted pleasingly to the cream colour of the brick walls. The end elevation of the east, north and west wings carried the enclosed stairs of the fire escape.

Some points of interest about the building were highlighted in Scapet:

The cost to build RMH was £1,000,000.1014… All buildings occupy 11 1/2 acres and the floor space is equivalent to the area of land occupied.1015… Main Circulation corridors and

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1014 Scapet, May 1945, p. 8. RMH Archives. As at June 1944, the public appeal had raised £340,011 + other individual donations - added to the original £750,000 - paid for the £1,000,000 building. Source: RMH Annual Report, 1944, p. 5.
traffic flow are unusable space. There are eleven operating theatres including the main suite of six on the ninth floor. Vertical transport in the form of lifts: 17 in all and passenger lifts were planned to carry 2,000 people per hour.\textsuperscript{1016} The Flag Pole, the top of which is 220 feet above ground and has an electric light as a guide for planes … the tunnel is 850ft long.\textsuperscript{1017}

Nevertheless, comments regarding the physicality of the building were minimal. In fact, the building itself seemed to fade into the background as the functionality of the hospital predominated. Although acknowledging the hospital as a “magnificent building, the best in the Southern Hemisphere”\textsuperscript{1018} and “one of the most modern and progressive hospitals in Australia”, Dr Lindell, regarded the hospital in terms of its purpose “for it can do noble work for the sick and for medical education – work infinitely better than was possible previously”.\textsuperscript{1019}

**Hospital Proper and the Departments**

In contrast to the Lonsdale Street hospital, the Hospital Proper and the Departments were incorporated into a modern unified efficient vertical building enabling “new methods of procedures (to be) established”.\textsuperscript{1020} The majority of wards were medical and general surgical. However with the introduction of new departments in 1945, specialist wards were required for Neurology and Neurosurgery, Thoracic Surgery and Plastic Surgery as these were recognised as “essential modern departments whose creation has only been deferred due of abnormal times”.\textsuperscript{1021} The Heads of these Departments are “highly skilled whose work will prove of great benefit to patients and add lustre to the Hospital”.\textsuperscript{1022} Importantly in 1944, antibiotics, Penicillin and Streptomycin, were introduced to the RMH and were to revolutionise the treatment of certain diseases.\textsuperscript{1023} As previously discussed, the wards accommodated 30 patients of both sexes. In June 1945, Mr Zwar stated that there will be 558 beds as opposed to 387 at the old hospital.\textsuperscript{1024} Significantly however, there was also a reduction in the time of patients’ bed stay. These two facts alone justified the motivation for the new hospital:

\textsuperscript{1015} Scapel, May 1946, p. 9, RMH Archives.  
\textsuperscript{1016} Scapel, May 1946, p. 9, RMH Archives.  
\textsuperscript{1017} Scapel, May 1946, p. 9, RMH Archives  
\textsuperscript{1018} RMH Annual Report, 1945, p. 7.  
\textsuperscript{1019} RMH Annual Report, 1945, p. 30.  
\textsuperscript{1020} RMH Annual Report, 1945, p. 6.  
\textsuperscript{1021} RMH Annual Report, 1945, p. 6.  
\textsuperscript{1022} RMH Annual Report, 1946, p. 13.  
\textsuperscript{1023} RMH Annual Report, 1944, p. 6.  
\textsuperscript{1024} RMH Annual Report, 1945, p. 6.
In spite of overcrowding in the old hospital, the highest number of occupied beds ever recorded in that hospital has been exceeded in the new. A satisfactory feature has been the reduction in time of the average bed stay of patients. Although small, this is gratifying in view of the large numbers of chronic and senile patients in the hospital and is an index of the efficiency of service.  

Outpatient Department

The arrangement of departments was based on the principle of connectivity and separation. Despite this, the Chairman of the Medical Staff, Dr Johnston, wrote in *Scapel*, that the “various departments are much larger and more widely separated making close personal contacts difficult”. He clearly was lamenting the close association of the Outpatient Department clinics at the old hospital.

As previously discussed, due to Stephenson’s insistence, the clinics were fully operational each day. There were 55 clinics per week with a daily average attendance between 600 and 700. However:

On several days weekly the cash register reached 1000. The increasing attendances placed pressure on the system due to shortage of medical staff due to war service particularly at

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1026 *Scapel, July* 1946, p. 1, RMH Archives.
1027 *Scapel, May* 1946, p. 4, RMH Archives.
medical and surgical Outpatient Department. The number of new patients is interesting, the January figure being 1,868 (for the month) the highest for many years.\textsuperscript{1028}

**Appointment System**

Stephenson’s persistence in persuading the Outpatient HMOs to adopt the Appointment System successfully introduced organisation to the clinics and consideration to the patients by cutting down their waiting time. In 1945, Dr Lindell reported that the appointment system was in operation:

But does not work efficiently because of depleted medical staff, due to war service, but is a success with the patients. The appointment system means so much to the patients that it must stay. In order for the appointment system to work effectively, increased staff and expenditure are required but the resultant saving time to the sick is ample justification.\textsuperscript{1029}

The appointment system limited the number of patients waiting outside the clinics to twelve thereby allowing the architects to reduce the floor space of the waiting areas. In order to control this, hospital introduced the following procedure:

In all clinics, half hourly block appointment system (was) used. Patients (were) issued with appointment tickets which they present at the cash register in OPD hall with their prescription books on arrival on the day of appointment. They (were) then routed through OPD control door to lifts at their appointed times – not allowed to clinic floors before hand.

\textsuperscript{1028} Scapel, May 1946, p. 4, RMH Archives.
\textsuperscript{1029} RMH Annual Report, June 1945, p. 7.
Different colours (were) used for each half hour block of appointment tickets to facilitate checking through Outpatient Patient Department.\textsuperscript{1030}

**New Patient Procedures**

The organisation of the departments within one building enabled more efficient procedures. The introduction of coloured lines directed patients to the various departments making tasks easier for the staff and less confusing for the patients:

Coloured lines are painted on the floor from Casualty desk to guide the patient to various parts of the hospital such as the blood donor is told to follow the yellow line … a patient for dressings, to follow the red line. This had proved a great time saver for the Casualty staff.\textsuperscript{1031}

![Figure 10.5. Patients waiting outside an Outpatient Clinic. Source: Building & Engineering Journal, December 24 1946.](image)

**New Departments**

The new hospital facilitated new departments: Speech Therapy, Clinical Photography and Occupational Therapy.\textsuperscript{1032} The US Army introduced Occupational Therapy to the RMH during their occupation. Realising the benefits, the RMH established a Department of Occupational Therapy in early 1945 within the Physiotherapy Department:

The need for Occupational Therapy was great, and its effect is being felt in a rapid restoration of health of damaged bodies and limbs, apart from the assistance given to long-term patients in overcoming the tedium of hospitalisation.\textsuperscript{1033}

\textsuperscript{1030}RMH Annual Report, June 1945, p. 6.
\textsuperscript{1031}Scapel, March 1947, RMH Archives.
\textsuperscript{1032}RMH: Annual Report, 1946, p. 13.
\textsuperscript{1033}Dr Lindell, RMH Annual Report, 1945, p 6.
Diagnostic and Therapeutic Departments

The head of each department: Radiotherapy, Diagnostic X-ray, Clinical Pathology and Bacteriology contributed a report to the RMH Annual Report 1945 and stated that the new laboratories “have been found very satisfactory. The provision of adequate supplies and equipment in these laboratories fill(ed) a long-felt need”.\(^{1034}\) Fortunately, the new laboratories coincided with introduction of Penicillin whereby increasing the “bacteriology work, as chemo-therapeutic treatment necessitated bacteriological diagnosis and control”.\(^{1035}\) The architects clearly meet the spatial and fit-out requirements of the departments.

Centralisation of Services

Stephenson was adamant that centralisation of services would increase the efficiency of the hospital operation and judging from the following reports, he was correct. The centralised services included:

Centralised Medical Records.

This department played an important part in the efficient operations of the hospital and particularly in the organisation of OPD:

More than 245,000 medical histories are filed in the hospital. They are used for diagnosis, treatment, teaching and research. The medical history of a patient coming to the hospital

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\(^{1034}\) Dr Lindell, RMH Annual Report, 1945, p 6.

\(^{1035}\) Dr Hilda Gardner, Clinical Pathologist, RMH Annual Report, 1945.
after previous treatment can be obtained within five minutes. A cross-index of records for every disease treated within the hospital since 1909 and histories date back to the first patients. The Medical Records has a librarian in charge.\textsuperscript{1036}

**Central Sterialising Department (CSD)**

This Department relieved the nursing staff from the responsibility of sterilising the instruments and equipment in the ward:

Medical equipment of every kind is sterilised and ready for immediate use. All hospital dressings are sterilised under expert supervision. Every article likely to be required in an emergency is ready. Any such article can be transferred to a ward or department by special lift service in a matter of seconds.\textsuperscript{1037}

**Centralised Food Services**

Sister LS Aitken, Chief Dietitian, reported that she was very happy with the new facilities. Food service, which was one of the “worst features of the old hospital, has become one of the best at the new hospital”:\textsuperscript{1038}

Re-organisation of service routine was necessary in accordance with the modern layout of the new hospital. The equipment and the improved facilities for meal service are greatly appreciated by the staff. The transport of meals from the kitchen to bedside in electrically heated food conveyors has enabled hot and appetising meals to be served and has resulted in increased food consumption.\textsuperscript{1039}

**Centralised Linen Services**

The communal laundry not completed until 1953. In the meantime, all the laundry was undertaken at the Lonsdale Street hospital.

**Walter and Eliza Hall Institute of Research**

Despite the fact that Dr Kellaway had found some generous donors, WEHI had nevertheless been considerably reduced in size. Macfarlane Burnett credited Kellaway and the architects for producing a good functional building:

The division of the Institute into physical Biochemical and Virological departments was confirmed by providing each with an appropriately divided floor. The working laboratories

\textsuperscript{1036} RMH Annual Report, 1945, p. 6.
\textsuperscript{1037} RMH Annual Report, 1945, p. 6.
\textsuperscript{1038} RMH Annual Report, 1945, p. 11.
\textsuperscript{1039} RMH Annual Report, 1945, p. 11.
were on the south side with windows filling most of the south wall. The various services were on the north side of the central corridor and there were extensive basement areas for heavy equipment. Originally the plan was to have a block of animal housing separate from the Institute building proper but connected to each floor by an open bridge. This could not be fitted into the general scheme and the animal house had eventually to be placed on the north-west corner of the site 200 yards from the laboratories. The arrangement worked well enough but the long walk through the service tunnel that ran the whole length of the Hospital was far from convenient.\textsuperscript{1040}

**Staff Evaluations**

The staff played a vital role in the operation of the hospital.

\begin{quote}
Every-one’s important to the hospital. Pride of place goes to the doctors undoubtedly but without the co-operation of everyone else, the wheels would not turn … it is a team job.\textsuperscript{1041}
\end{quote}

There were 860 people employed at the hospital and 120 HMOs.\textsuperscript{1042} In 1945, many of the staff were still on war service leave, of these 57 were doctors\textsuperscript{1043} among them were Dr (Colonel) Douglas Thomas, Air Marshall Hurley and Sir Alan Newton.\textsuperscript{1044}

In order to prepare the staff for the transfer to Parkville, Mr Bernard gave two introductory talks, November 21 and December 1, using a model of the hospital.\textsuperscript{1045} He explained the site layout, the road network, the buildings, the entrances and general activities of each floor of the Main Block and OPD.\textsuperscript{1046}

**Nurses Home**

As the nursing staff were required to live-in, the environment of the Nurses Home was important to them. From the following comments by Miss Grey, the Lady Superintendent, the nurses found the ambience satisfactory:

\begin{quote}
They are happy in their new surroundings and are enjoying the comfort and amenities of the Nurses’ Home.\textsuperscript{1047}
\end{quote}

\begin{flushleft}
\textsuperscript{1041} Scapel, May 1946, p. 2, RMH Archives  
\textsuperscript{1042} Scapel, July 1 1945, p. 8, RMH Archives.  
\textsuperscript{1043} Leave granted for duration of war service, Manager’s memo, July 18 1941, CEO files, RMH Archives.  
\textsuperscript{1044} Scapel, July 1 1946, p. 8, RMH Archives.  
\textsuperscript{1045} Attempts to locate the model of the hospital have been unsuccessful.  
\textsuperscript{1046} VD Bernard, ‘Planning and Layout of the new hospital and the operation of the equipment installed’, November 21 1944, RMH Archives.  
\textsuperscript{1047} RMH Annual Report, June 1945, p. 8.
\end{flushleft}
Miss Grey considered the “health of the nurses has been improved greatly, due mainly to the diet, better conditions and careful medical supervision”. Incidentally the nurses’ wages also increased.

**School of Nursing**

The teaching facilities were on the ground floor of the Nurses Home. The classroom was ‘large and airy’. However, the new and larger facilities for training required more staff. In 1945, the new hospital attracted 661 applicants for nursing training, 266 more than the previous year. 175 probationers entered Preliminary Training School in seven terms throughout the year. After completing three years training, 81 nurses received a hospital certificate in 1945. The RMH was looked upon as “one of the finest, if not the finest, training school of Australia”.

**Clinical School of Medicine and Surgery**

The architects ensured that the requirements of the School of Clinical Medicine and Surgery were accommodated. Clinical rooms were located in each ward and in OPD and a large lecture theatre was provided in the Main Block.

**The Medical Students’ Quarters**

From the following remarks, it would seem that the new medical students’ quarters played an influential role upon the students. The residential quarters had been presented in the memory of Mr Richard Allen:

(They) are proving a great boom to the 104 students at present at the Hospital and should stimulate them to even better results next year … The final year students achieved eight of the nine places on the honours list.

**Post Script**

During 1944-45, the State Government of Victoria purchased the Lonsdale Street hospital from the RMH for the sum of £549,000 in order to establish a hospital for

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1048 The Lady Superintendent, Miss Grey, RMH Annual Report, June 1945, p. 8.
1051 RMH Annual Report, June 1945, p. 8.
1052 Scapel, August 1946, p. 2.
1053 RMH Annual Report, 1945, p. 10.
cancer patients. This money was used to pay off loans for the new RMH.\textsuperscript{1054} In 1946, Mrs (Dame) Merlyn Myer donated £10,000 for the building of the entertainment hall which was named in her honour, The Merlyn Myer Hall, and it opened in 1961.\textsuperscript{1055} In 1950, the completion of the north wing (floors 5, 6, 7, 8 and 9) provided a further 150 beds raising the total number of beds in the hospital to 650.\textsuperscript{1056} These additional floors and the Red Cross Blood Transfusion unit was funded with the £62,338, 2s & 9d, reimbursed to the RMH from The Central Hiring Committee of the Australian Military Forces for the 2 years of US military occupation.\textsuperscript{1057} Also, the Victorian racing clubs donated £20,000 to build a Clinical Research Unit in the north wing. However, the Research Unit was eventually and conveniently placed in Ward 3 East with direct access to WEHI.\textsuperscript{1058} The Laundry was completed in 1949 and the Chapel in 1954.

**Conclusion**

These comments were reflections of a “Design-in-Use” study whereby producing a picture of how the some of the users responded to the building and, with the exceptions of a few comments, they responded positively. The new unified, vertical, well-organised building was a major shift for the staff from the scattered pavilions of the former hospital. According to Dr Lindell, the modern planning facilitated the introduction of many new procedures which increased the efficient operation – one being the introduction of the Appointment System for OPD. The new building attracted new patients and it attracted students to its various courses. However, from the comments cited, it is evident that the hospital was not about the building but about the people – the staff, the students and, most importantly, the patients.

On March 15 1948, the RMH celebrated the centenary of its opening. With this auspicious occasion, came the realisation that the new hospital and the significant medical innovations had revolutionised patient care and consigned to the past, the practices of the old Lonsdale Street hospital.

\textsuperscript{1054} RMH Annual Report, 1945, p. 4.
\textsuperscript{1056} RMH Annual Report, 1946, p. 15.
\textsuperscript{1057} Letter, to C.W. Hutton, Assistant Director of Hirings, Australian Military Forces, October 20 1945, CEO files, RMH Archives.
\textsuperscript{1058} Scapel, May 1946, p. 10, RMH Archives.
11. CONCLUSION

Introduction
This dissertation has provided evidence that the dialogue between expert clients and expert architects was critical to the creation of the programmatically complex RMH at Parkville 1935–45. Heeding Summerson’s advice to architectural historians to look beyond “style, patronage and theory” and, by restricting this research to a single case study, I have been able to examine in depth and in detail, the programming design process of the five official iterative schemes. This was possible as the documentation recording all the communication between the client and the architects had been preserved in archives. Richardson noted that such documentation was relatively rare so this dissertation is unique for two reasons. First, it provides rare insight into the actual practice of programming: Design-by-Dialogue and second, it provides evidence that programming was being practiced thirty years before the discipline was recognized by the architectural profession. This dissertation has addressed the gap in the literature of the history of the RMH, Architectural History and Architectural Programming. This therefore places this dissertation in a unique position to contribute to Architectural History and Architectural Programming thereby increasing the significance of its contribution to knowledge.
It would appear at first glance that there were ten schemes – A to J. However, there were actually only five official schemes, B, C, D, G, and J. Scheme A was undertaken prior to the signing of the Architects’ Agreement and, as such, became the precursor to the official programming process. No reports or drawings could be found to confirm the existence of Schemes E, F, H, and I. Furthermore, the continuity evident in the documentation of Schemes B, C, D, G and J tends to confirm the non-existence or at least the ephemerality of the missing Schemes. I surmise that they may have been the architects’ in-house drafts which never left SM/T’s office but this would need to be established by further research.

The focus of this dissertation has been limited to the general layout and mainly to those areas relating to the dissension between the HMOs and the architects – OPD and the ward units. I have explored the manner in which their differences were resolved through their interactive dialogue for the five iterative Schemes B, C, D, G, and J. I have also explored how the architects responded to the reduction in Government funding and the project budget for Schemes D, G and J.

**The Significance of the RMH**

By reviewing the existing literature on the RMH, its significance as one of Australia’s leading medical, teaching and research facilities was clearly evident. Since its founding in 1848, on the Lonsdale Street site as Melbourne’s first general public hospital, it has, through its Open-Door-Policy, always provided care for the sick poor and treatment for the injured. For this reason, the hospital holds a significant place within the Melbourne community and the community of Victoria. However, almost from the first day, the buildings have been under constant stress to meet the accommodation needs from Melbourne’s rapidly increasing populace and, as a consequence, the buildings have been subjected to continual expansion and, in 1910–1916, total renewal, albeit in stages.

The hospital’s significance was enhanced after its association in 1864, with the University of Melbourne Faculty of Medicine and Surgery to provide clinical training for its students and, in 1895, with the establishment of the Nurse Training School. In 1915, the hospital’s status was further enhanced by its association with WEHI, as an individual entity wholly separate from the Melbourne Hospital but closely associated with it and the university. In 1935, the hospital’s status was recognized when, in 1934, King George V granted Royal Patronage and, in 1935, the prefix ‘Royal’. Subsequently, on March 27 1935, the name of
the hospital changed from the Melbourne Hospital to the Royal Melbourne Hospital yet ironically, the existing hospital buildings were outmoded and overcrowded. With the passing of the *Royal Melbourne Hospital Act* in 1935, the RMH Committee of Management could commence proceedings for a new hospital on the Parkville site. The timing was opportune as 1935 was the centennial of the founding of the city.

In 1944, the six new modernist buildings at Parkville expounded the RMH’s importance and these buildings clearly earned a significant place within the Australian Architectural milieu but until now, no research has been undertaken into the creation of the architecture of this important health facility. It has been my honour to address this omission by providing an original, albeit descriptive, single case study of the dialogue between clients and the architects to develop the design for the RMH 1935-45.

**Re-statement of the Research Questions:**

The primary question is as follows: How did the dialogue between expert clients and expert architects influence the architectural programming of the Royal Melbourne Hospital 1935–45?

The sub-questions are as follows:

1. What were the attributes that characterised the RMH clients and the architects, SM/T as expert?
2. How did the architectural programming methodology, Design-by-Dialogue, between the RMH client and the architects SM/T, influence the iterative process of the five schemes – B, C, D, G and J?
3. Why did the functional program, which is the primary focus here, and to a lesser extent the aesthetic program, give rise to claims of SM/T’s introduction of the modernist aesthetic to Australia?
4. How did the reflections of the ‘Design-in-Use’ study – following the occupation of the Parkville Hospital, December 10 1944 – prove the success of the programming process? and
5. What was the significance of the RMH to the Australian architectural milieu?
Answering the research questions

The primary question: How did the dialogue between expert clients and expert architects influence the architectural programming of the Royal Melbourne Hospital 1935–45?

By conducting a single case study, this dissertation has answered the primary question by providing convincing evidence of the clients and the architects’ expertise for the architectural programming for the RMH 1935-45. Through the protracted process, both parties grappled with a complex program that was overly ambitious from a budgetary perspective. The head-strong personalities of the HMOs and the reducing budgets were a challenge to the architects to fulfil the clients’ requirements.

The clients and architects’ expertise and their collaboration throughout the programming process has been examined through the following sub-questions:

1. The Expertise of the Client and the Architects.

In Chapter 4, I have established the attributes that characterised the expertise of both the clients and the architects for this complex project. The fact that the names of the client committee members were recorded in the minutes of meetings had two advantages. Firstly, I could identify who they were, ascertain their medical expertise and their role within the hospital and, secondly to understand the positions each one took on the architects’ proposals. With the exception of most members of the Committee of Management, the other specially appointed committees, the Organisers, the NBC and the Board of Reference, comprised of senior medical staff – the users – of either the hospital, WEHI or the University of Melbourne's Clinical School of Medicine and Surgery. The standing HMO Committee was a powerful group of highly qualified and respected medical officers within the hospital hierarchy and played a demanding role in the schematic development.

My research revealed that the clients’ expertise lay in their medical discipline, the requirements for their departments and in their knowledge of the organisation of the hospital. Importantly, the clients fulfilled their responsibility to the programming process by preparing a detailed list of requirements from the Heads of Departments and the Medical Profession and collating them into ‘The Report of the Organisers to the Committee of Management of the Royal Melbourne Hospital on the Requirements of the
Royal Melbourne Hospital at the proposed New Medical Centre at Parkville’. The Report specified:

- The Parkville site;
- Identified the purpose and nature of the RMH;
- Provided the detailed Report of Requirements;
- Specified the budget; and
- Established a timeframe

The architects’ expertise lay in their ten years of hospital experience in Melbourne and country Victoria. SM/T operated a professional, highly organised and well-staffed office and, through their research trips and architectural journals, they were well versed in recent international hospital architecture. Beyond this, the architects revealed their strong commitment to their profession and to their client. They believed that the RMH had engaged them because of their sense of understanding and knowledge of hospital architecture and that they therefore had an obligation to their client to advise them on what they believed was the correct interpretation of the problem.


Although there are a many publications on programming, very few are dedicated to the Programming of Hospitals. Authors such as Woolley 1970, Hershberger 1999, and Susan Francis et al, 1999, recommended ‘Design-based Programming’ for hospitals. However, these publications focused on normative theory (how to) with a specific purpose of guiding architects, clients and other professional. Significantly, SM/T had pre-empted them by implementing the methodology in the 1930s.

By undertaking an empirical study of the programming methodology, Design-by-Dialogue, I have been able to provide rare insight into the actual practice of this methodology where the programming stage and the design stage are interlinked. The process involved the architects developing the requirements into schematic sketches and presenting them to the client committees at meetings for the purpose of generating discussion which, in turn, would influence the design.
Despite their hospital experience, SM/T selected this methodology for the purpose of fostering dialogue with the client committees — the experienced users — as the RMH was their first general hospital and their first hospital to be designed in the vertical typology. On this premise, it is understandable why they elected to develop Scheme A instead of just providing grounds plans as requested by Priestley. Importantly, the value of requirement lists to the design development became evident when SM/T needed to refer to the requirement list for Blackett & Foster’s 1929 proposal.

When SM/T accepted this project, they expected to deliver the Client’s goal for a modern hospital on a par with the world’s best teaching hospitals. They could not have predicted the stubborn attitude of the HMOs who wanted to retain their archaic practices and the spatial organisation of the outmoded Lonsdale Street hospital. Much of my investigation into the schematic development evolved around the demands of the Inpatient HMOs regarding wards and the Outpatient HMOs regarding clinics. This dissension generated many sketches by the architects and considerable dialogue between the two parties. To the SM/T’s credit, they remained patient (though possibly tearing their hair out in private) with the HMOs as the architects possessed a broader knowledge of architectural functionality than the medical profession. As recorded, the HMOs eventually accepted the architects’ recommendations proving the success of the methodology.

3. The Functional and Aesthetic Program

The Functional program

The concept of an efficient functional hospital was mooted in 1788 by Tenon who coined the phrase ‘machines for healing’. So having embraced the American vertical typology and the European modernist tenets of functionalism, standardisation and the minimalist aesthetic, SM/T set about revolutionizing the RMH by placing functionality as the primary program and to a lesser extent, the aesthetic program. This was vital for the organisation of the new RMH as it was a major general hospital operating twenty-four hours, seven days per week to provide care for 650 inpatients, 600–800 outpatients per day and employing approximately 1,000 medical, nursing and other professional staff as well as domestic and service staff. It also operated as a teaching and research facility. Because of the magnitude of this project, I confined my research to the general layout particularly of the wards and Outpatient Department.
Hospitals however, comprise of many complex departments with highly technical demands so they operate within a series of complex spatial inter-relationships. In order to achieve efficiency of operation, the principle of separation and connectivity must be implemented.

**Schematic Development**

After the signing of the Architects Agreement in August 1936, the official schematic process commenced with the development of Scheme B and C. As discussed, the architects prepared Scheme B in accordance with the Organisers’ Report of Requirements which was overtly ambitious as they had been prepared without any consideration of costs. SM/T regarded Scheme B as spatially and financially unviable. Acting on their own volition, they prepared Scheme C to support their argument. Scheme C was approved and it is unfortunate that the drawings were not available in order to compare them with Scheme B as they would have exhibited the architects’ version of the Organisers’ Report of Requirements. The reducing budget was the rationale behind the development of Schemes D, G and finally J.

**Site Organization**

The Parkville site proved functionally advantageous for its size, shape and the surrounding road network. The fact that the site was located on the corner of Sydney Road, Grattan Street and Flemington Road facilitated the hospital road sited at the back of the hospital. The siting of the buildings was dependent on the principle of separation and connectivity. Each of the five essential buildings were the Main Block which included the hospital proper, OPD, WEHI, the Nurses Home, and the Service Block. The small RMO’s quarters were only included in Scheme J. Whilst these buildings were required to be separate entities, they were also required to be connected for functional efficiency.

Responding to the Organisers’ instructions, the architects placed the Main Block of the Scheme B, C and D sequence on the eastern section of the site in order to address the Grattan Street and Sydney Road junction whereby orientating it on a south-east axis. In recognition of the University’s requirement as defined in the Organisers’ Report to locate their future Department of Medicine on Sydney Road and, to further reduce the capital cost to £997,000, S&T developed Scheme G by turning the Main Block forty-five degrees so that the façade directly addressed Grattan Street. They adopted the rectangular form, the E-configuration with a north-south orientation. To prove to the NBC that site plan for Scheme G was a good plan, the architects compared it to the site plan of the other recent
hospitals: Birmingham and Westminster Hospitals in the UK, and to the proposed hospital at Lille, France. Scheme J was developed in order to again reduce the capital cost – this time to £750,000. The position of the Main Block was retained on the site however the shape was changed to the T-configuration as Turner had witnessed this successfully operating at University of Maryland Hospital, Baltimore, USA, during his 1937 research trip. The positioning of WEHI and OPD varied according to the different schemes.

In all these schemes, Administration was positioned in a separate block placed symmetrically in front of the Main Block linked with a connecting corridor. The RMO quarters were placed on the upper floors of Administration until Scheme J. The Service Block was firmly positioned on the west portion of the site. The Nurses Home was sited on the north-west portion of the site, clearly separate from the hospital in keeping with Nightingale’s rule. The buildings, south of the hospital road, would be connected by a tunnel which would carry all service and foot traffic between the buildings and all the electrical and steam mains from the Service Block.

In each scheme, the entrances of the buildings and departments such as Casualty (Emergency Department) were placed to directly access one of the surrounding roads whereby facilitating the complete separation of vehicle and pedestrian traffic so eliminating congestion. The pedestrian traffic was further divided with specific entrances for staff, patients, outpatients and visitors so reducing congestion in the interior.

Despite the Pavilion plan and the Nightingale ward being consigned to history, the requirement for fresh air and sunshine in the wards remained. Consequently, the wards of each scheme were orientated towards the north/north-east for the best exposure to sunlight and aeration. In comparison, for functional reasons, the windows of the laboratories faced south so as not to attract any sunlight.

Scheme J was the only scheme to be fully developed and ultimately constructed. The hospital proper and Nurses Home were constructed to ten storeys. As mentioned, the hospital proper was designed in the T-configuration placing the wards in the north wing (the stem) and the east and west wing (the cross over). The central tower provided the circulation space for stairs and lifts.
My research showed how after considerable dialogue and much convincing, the HMOs finally agreed to dual-sexed wards of thirty beds. One ward was allocated to each inpatient HMO and his specific discipline thus pacifying their demands not to share wards. In order to introduce some privacy for the public patients, and against some of the medical staff’s approval, the ward design was based on the Rigs system as opposed to the open Nightingale plan. The principle of standardization, or what S&T called the unit system, was implemented for the wards for financial reasons and also for efficiency.

The documentation also recorded how, throughout the schematic development, intense and protracted dialogue between the architects and the OPD HMOs continued regarding the positioning of the department, the design and usage of the clinics. The architects’ international research tours proved clearly advantageous in the planning of OPD as they had witnessed the efficient operations of OPD in hospitals in the USA such as Cornell University Hospital, New York and Ann Arbour University Hospital, Detroit.

Finally, during the development of Scheme J, the HMOs accepted the architects’ proposals for a multi-storey block directly and symmetrically positioned in front of the Main Block. The functionality of OPD was considerable improved through the multi-storey department, the lifts, the sharing of clinics and the implementation of the Appointment System.

For functional reasons, OPD stood independently from the hospital proper. However OPD was conjoined to the hospital through a wide corridor on each floor so creating a T-configuration thus presenting the hospital in an unusual double T-configuration. Importantly, this corridor facilitated accessible to the diagnostic and therapeutic departments for both the hospital and OPD patients. It also facilitated an efficient circulation path for staff.

The RMH’s acceptance of the architects’ advice to introduce centralization of services lead to increased efficiency of the hospital’s operations: the Record System, the Central Sterialising Department, Food and Laundry Services.

The Aesthetic Program
The aesthetic program was secondary to the functionality of the RMH programming process however, as the exterior presentation revealed, the modernistic aesthetic had been encapsulated in the form of the buildings. The facades of the six buildings were designed with clean uncluttered lines and clad in the same warm cream brick so presenting a unified image. The facades of the hospital were broken only by the cantilever balconies on the north elevation of the east and west wings and the east elevation of the north wing. The hospital conveyed the architect’s intended message that public money had been wisely spent.

The modernistic aesthetic was evident in the interior as the hospital buildings, including the Nurses Home, was devoid of any ornament and decoration and the fittings and finishes were selected for their practicality.

**The RMH's role in introducing the modernist idiom to Australia**

Robin Boyd accorded SM/T with introducing the modernist idiom to Australia via their hospitals: Mercy Hospital, East Melbourne, 1934, the Freemasons’ Hospital, East Melbourne, 1936 and Bethesda Hospital, Richmond, 1936. Whereas these hospitals were small private block hospitals, the RMH was a large multi-story public hospital complex clearly endorsing Boyd’s claims and reaffirming Freeland’s vision of twentieth century hospitals as cathedrals of healing and science.

SM/T had encapsulated all the tenets of the modernism in the RMH by focusing on the functional program and to a lesser extent on the aesthetic program and in so doing, meeting Tenon’s expectation of a machine for healing.

**4. Design-in-Use**

As POE was not accepted as a professional discipline until the 1960s, no formal POE was undertaken of the RMH or of any contemporary hospitals. This chapter relied on staff /users comments as published in the RMH Annual Report and Seatel, the Staff Bulletin of the RMH 1945 to 46. These comments provided insight regarding the occupation and functionality of the new hospital and most of the comments were positive yet in a strange way, this new modern hospital seemed to fade into the background as the operations of the hospital focused on patient care.
5. The RMH’s significance to the Australian Architectural Milieu
The new RMH was to have a significant place within the Australian architectural milieu as the first completed hospital in Australia to be built in the vertical typology and one which employed the modernist principles of functionalism and the minimalist aesthetic. The vertical typology revolutionised the organisation of the RMH to such an extent that it attracted interest from other State governments who were to later appointed S&T to replicate it (or versions of it) for their general hospitals so increasing the status of the RMH within the milieu.

Summation
The new hospital had presented a challenge to all parties involved but they never failed in their commitment to the project as the need for the new hospital was urgent. Despite the difficulties posed by the HMOs, the reducing budget, the criticisms and the stress, the combined expertise of the client committees and the architects successfully achieved this impressive modernist building which was to ultimately revolutionise Australian hospitals.

Contribution to Knowledge
This dissertation’s primary contribution to knowledge is focussed on the RMH and significantly addresses a major gap within the literature of the RMH and that of Australian Architectural History. The secondary contributions to knowledge address five gaps in the literature of Architectural Programming and Architectural History generally. There has been considerable interest in the RMH Parkville from an architectural perspective because of its iconic status within the Australian modernist architectural milieu as the first completed hospital in the vertical typology. Despite the interest and the significance, there has been little investigation to date of its development programmatically and of the process of creation. Given the hospital’s significance and the previous cursory efforts in this regard, this is an oversight that needed rectifying.

This dissertation’s contribution to knowledge has considerable significance over and above its primary contribution to the understanding of the RMH’s development. An archival-based empirical study allowed me to document a rich and detailed account of the creation of this significant hospital. It was important for this work to be done - not just for the
RMH but for hospitals generally. This fact increases the significance of this dissertation as the literature reveals that such a study has never been done before.

This dissertation has documented the various influences: personal, programmatically and financial, that effected the project and the protagonists: the RMH client committees and the architects, Stephenson Meldrum /Turner and, from 1938, Stephenson & Turner, throughout the development of the official five iterative schemes B, C, D, G and J. By examining the architect’s methodology, Design-by-Dialogue, this dissertation has provided rare insight into the pragmatic manner in which the architects involved the client committees at every stage of the schematic development for the six essential buildings: the Hospital Proper, OPD, WEHI, the Nurses Home, the Residents Doctors Quarters and the Service Block. Despite the difficulties presented by the conservative HMOs and the ever-decreasing budget, the architects successfully converted the client’s requirements into an efficient functioning hospital and, at the same time, achieve the clients’ goal: a modern hospital on a par with the world’s best. The observation of such and, the analysis of which, provides new knowledge in the historical perspective of programming hospitals.

The second contribution addresses the gap in Architectural History as noted by Harriet Richardson and *The Hospital Investigator*. Their research showed that documentation recording the collaboration between architects and the medical profession for the development of hospitals was rare. In contrast, the extensive archive of SM/T material, held at the State Library Victoria and the National Library Australia and the material held at the RMH archive, facilitated this detailed examination of the documentation of the schematic development of the RMH between 1935–45.

The third contribution is to the emerging body of work within the current field of Architectural History. John Summerson’s advice to architectural historians to pursue a new field of inquiry beyond their usual thematic approach of “style, patronage and theory” led me to delve deeply into the factors that gave rise to the architecture of the RMH rather than the architecture itself. Consequently, this research examined the programming design process which was primarily concerned with planning based on functionality and efficiency and to a lesser extent the minimalist aesthetic. This then is an important contribution to current field of Architectural History where such concerns about production are adding to traditional approaches of style, theory and patronage.
My fourth contribution to knowledge addresses the gap in the literature on Programming by showing that, consequential to the profession recognising Programming as an Architectural Discipline in the 1960s, Programming, as a methodology, and the term ‘programming’, were in current usage in the 1930s – thirty years prior to its formalisation as an architectural discipline.

The fifth contribution to knowledge addresses the gap in the literature on Programming by providing evidence that the role of clients and their expertise was recognised in the 1930s. The development of the RMH can be applied in a broader sense and, as such provided new knowledge for historical perspectives on the actual programming of general hospitals.

The sixth contribution involves programming theory in that I have provided an empirical study of a programming process. My observation, noted elsewhere, that much of the programming literature is normative theory – advice on how to do it – rather than investigations and analysis of what actually occurred. There are a variety of explanations for this that can be canvassed here:

- Lack of interest by practitioners who have moved onto the next project / programming problem;
- Reflective practice is in play where normative theory is adopted and absorbed and adapted to the current situation; and
- Access to documents is problematic as noted in the second contribution

The development of the RMH can be applied in a broader sense and, as such provided new knowledge for historical perspectives on the actual programming of general hospitals – arguably the most complex programmatic building type. Of necessity, this required detailed exploration of a more constructed programming process.

**Contribution to the Contemporary Programming**

While there are undoubtedly lessons to be learnt for contemporary practice by investigating an historical revelatory case study of programming, this thesis is more clearly positioned as a contribution to Architectural History.

Much of the literature on programming exists as a guidance for architects so the emphasis on involving ‘clients’ is natural for that audience. Similarly recent work on Usability has a
user-centred focus. This work shows that clients/users and architects/programmers have contributions to make for successful programming (of hospitals).

There is a contribution to contemporary practice from being an actual study (albeit historical) of programming in-use rather than being normative (how to) guidance (theory). It shows the effect of strong personalities operating from high levels of expertise and interacting in programming. These contributions have now been more clearly articulated in this thesis (argument).

**Limitations: Research and Practical**

My dissertation was limited mainly due to working with archival material. Despite many requests, the drawings for Schemes C, D and most of Scheme G were unavailable from Stephenson & Turner Collection at the State Library Victoria whereby limiting any analysis of the variances between Scheme B to C and G to J.

There was no reference to Schemes E, F, H and I in either the documentation or in the drawing portfolio. As discussed, the continuity in the documentation clearly shows that these schemes were never presented to the Client Committees – reinforcing the fact that they were, probably, the architects’ in-house schemes. It would have been of value to examine them as they would have revealed the experimental ethos occurring within the practice. It is quite possible that they were destroyed.

The unavailability of drawings held at the RMH and S&T’s office manuals held at the University of Melbourne limited my research as they may have provided information not accessible elsewhere.

The State Library Victoria imposed strict limitations in regards to my photographing of the drawings used in this work. The opportunity to have them professionally photographed by the Library was not an option as they were very expensive.

My research was also limited in finding comparisons to the RMH programming process. I was unable to find any information on the programming process in the British institutions on their recently built hospitals that influenced Stephenson & Turner for the RMH. As Richardson noted, there was a lack of documentation recording the client architect
collaboration. Although the central wing of Blackett’s Prince Henry’s Hospital had preceded the completion of the RMH by 2 years, with the other wings and departments to be completed by 1965, the entire hospital was demolished in 1994, thirteen years prior to the commencement of my PhD. Although some material from Prince Henry’s Hospital had been deposited in the archive of The Monash Medical Centre, Clayton, my research there produced no documentation of the programming process.

**Future Research to emerge from this dissertation**

This present research could be extended by future research:

- Chapter 6 raised the possibility of investigating Blackett and Forster’s 1929 plans. These may provide evidence of Blackett and Forster’s solution to accommodating a 750-bed hospital on a restricted site was to introduce the vertical typology. These plans may also reveal if SM/T were influenced by the 1929 plans and the fact they were proposing the vertical typology and a 4-story OPD. Chapter 6 made reference to the Rockefeller’s series of monographs on hospitals which Dr Gregg offered to Priestley. Further research may find these drawings and review the Rockefeller recommendations for contemporary hospitals;

- Chapter 8 noted the missing sketch plans for Schemes E and F and Chapter 9 noted the missing sketch plans for Schemes H and I. Further research into the Stephenson & Turner Collection at the State Library Victoria may find them and if so, they could provide information as to whether they were actually the architects’-in-house schemes and if and how they contributed to the schematic development of the RMH by explaining the need for the later schemes;

- As the RMH was the first general hospital in the SM/T oeuvre, further research of their later hospitals may reveal if the dialogue with the RMH committees influenced their programming methodology with other hospital clients; and

- In its contribution to knowledge, this dissertation has illustrated that there is considerable scope for research into the Design-by-Dialogue methodology between the medical and architectural professions during the programming phase of new hospitals whilst extant documentation and the participants are still available.
Appendix A

The Royal Melbourne Committee of Management 1935

Miss Jessie Bage (1890 - 1980) was the daughter of Doctor Charles Bage. She served on the committee for forty years and was involved on the Central Council of Auxiliaries. Source: Gregory, *The Ever Open Door*, p. 237.

(Sir) Norman Brookes (1877–1968) was the chairman of the Australian Pulp and Paper Mills as well as serving on the boards of other leading companies. He was well known as a Wimbledon and Davis Cup tennis champion. Source: Gregory, *The Ever Open Door*, p. 235.

(Sir) William Brunton (1867–1938) was a Director of London Stores, Metropolitan Gas Company and Currie and Richards. He was also a Melbourne City Councillor and

(Sir) Harold Clapp (1875–1952) was a renowned railways engineer in both Australia and America and Chairman of the Victorian Railways Commission (1920 - 51) Source: Gregory, *The Ever Open Door*, p. 235.

George Fielding was a solicitor. Source: Gregory, *The Ever Open Door*, p. 236.


Mr Konrad Hillier (1875 -1965) graduated from University of Melbourne in 1901. He studied in England and in Europe returning to the Melbourne Hospital to become honorary physician to outpatients in 1906, inpatients 1923 and retired in 1934 to become a consulting physician. He was a member of the RMH Committee of Management from 1935 to 1963 and played a `major role in policy and administration decisions`. Source: Gregory, *The Ever Open Door*, p. 209.
(Air Vice-Marshall Sir) Victor Hurley, (1888 - 1958), graduated in Medicine from the University of Melbourne in 1910 and became a resident at Melbourne Hospital where he became a surgeon under the guidance of McKelvey and Bird. In 1912, he was appointed Medical Superintendent and oversaw the shift to the new buildings on Lonsdale Street. During WW1, he served with the AIF in Gallipoli, Egypt and France. He completed his FRCS in London and, on returning to Melbourne in 1920, entered private practice as well as becoming an outpatient surgeon at the Melbourne Hospital. He became an in-patient surgeon in 1927, Dean of the clinical school 1929–36 and Steward lecturer in surgery 1936 - 46. During WW2, he served with the RAAF attaining the rank of Air Vice-Marshall. He served on the Committee of Management from 1929 becoming President in 1947. His ‘contribution to the RMH was considerable’ and he was regarded as ‘one of the most distinguished members of the medical profession’. Source: Gregory, *The Ever Open Door*, p. 287.

John Kiddle, a solicitor, was President of the Law Institute of Victoria 1923 - 24, Honorary Secretary of the Red Cross and Chairman of Permawan Wright. Source: Gregory, *The Ever Open Door*, p. 235.

James A. Levey (1846–1944) served on the committee from 1907 to his death at the age of 98. Born in England, he came to Australia at the age of 16, held several public service positions and retired at the age of 49. He was married to Sarah Grice, daughter of Richard Grice, a wealthy and influential man and spent his long retirement pursuing philanthropic interests. Source: Gregory, *The Ever Open Door*, p. 234–5.


H. Bremner Lewis was a solicitor. Source: Gregory, *The Ever Open Door*, p. 235.

(Sir) L.J. McConnan was the general manager of the National Bank of Australasian. Source: Gregory, *The Ever Open Door*, p. 236.
Norman MacKintosh (1879–1967) was the Superintendent of the Sun Insurance, Australia. Source: Gregory, *The Ever Open Door*, p. 236.

(Sir) Clive McPherson, CBE, (1884 1958) was managing partner of McPherson Thom, stock station and financial agents, and was the Australia government representative on the British Phosphate Commission. Source: Gregory, *The Ever Open Door*, p. 236.

Lionel Miller was elected to the Committee of Management in 1906 as part of the reform group. He was Director of the Metropolitan Gas Company, Director of the Commercial Banking Company and Chairman of the Victorian Insurance Company. Source: Gregory, *The Ever Open Door*, p. 236.

(Dame) Merlyn Myer (1900–1982) was the wife of Sydney Myer (1878–1934) founder and chairman of the retail chain, the Myer Emporium. Sydney Myer was on the Committee of Management for three and a half years before his sudden death. Mrs Myer was appointed to the Committee in his place and served from 1934 until 1976. She was a great supporter and generous donor to the hospital. In 1954, she was made an Honorary Life Governor. Source: Gregory, *The Ever Open Door*, p. 237. The Historical Room, opened in 2008, was named in her honour. Source: www.mh.org.au.

George Richard Nicholas CBE (1884–1960) was the Managing Director of Nicholas Pty Ltd. Source: Gregory, *The Ever Open Door*, p. 236.

David York Syme (1876–1963) was Managing Director of the Melbourne Steamship Company, Director of the National Bank and on many other boards. Source: Gregory, *The Ever Open Door*, p. 236.

Alan Spowers (1892 –1968) DSO MC BA was the Director of the *Australian and Argus* and had other interests. Source: Gregory, *The Ever Open Door*, p. 236.

R. W. Wilmot was a journalist with the *Argus* group and a well-known sporting identity. Source: Gregory, *The Ever Open Door*, p. 236.
Mr Harry Giddy was an accountant with the firm of Wilson, Danby and Giddy. He was Chairman of the National Bank and Chairman of the Herald and Weekly Times (newspaper) thus making him a very influential person in the business world.

Appendix B:

Conference Papers produced as a result of this research

Tate, Catherine, The American Hospital in Melbourne 1935-45.
Paper presented at the Architectural History Research Association (AHRA)
Conference for PhD candidates, University of Wales, Cardiff, December 2009.

Tate, Catherine, The 4th General Hospital of the United States Army, Melbourne 1942-44.
Paper presented at the Australian and New Zealand History of Medicine Society
Conference, Brisbane, July 2011.
BIBLIOGRAPHY

Primary Sources

Archives

National Library Australia.
Sir Arthur Stephenson Collection, MS 2235 – containing his personal papers.
Arthur Stephenson’s Notebooks, Study Tour to Europe, Russia, United Kingdom and America, 1932.
General Hospitals, Part 1, Books I–IX.
General Hospitals, Part 2, Books I–XVII.
University Hospitals, Books I–XV.

State Library Victoria
Stephenson & Turner Collection: YLTAD110.
Architectural Drawings: Stephenson & Turner and its predecessors, Stephenson & Meldrum and Stephenson, Meldrum & Turner.
Manuscript Collection: records and papers of Stephenson & Turner and its predecessors, Stephenson & Meldrum and Stephenson, Meldrum & Turner.

University of Melbourne
Stephenson & Turner Collection: Library and Office Records.

Royal Prince Alfred Hospital, Sydney.
Records: Gloucester House (1936) and King George V Memorial Hospital for Mothers and Babies, (1941) Stephenson Meldrum & Turner Architects.

State Library NSW

English Heritage Archive, Swindon, UK.
Records: British Hospitals, 1920–1940.

Victoria and Albert Museum, London
Architectural Drawings:
Birmingham Hospital, 1933–38.
Royal Masonic Hospital, London, 1931–33.
Royal Institute of British Architects, London
Royal Institute of British Architects (RIBA) Journals, 1920–1940.

The Royal Melbourne Hospital
The Committee of Management minutes of meetings.
Special Advisory and New Building Committee minutes of meetings.
The Organisers’ minutes of meetings and The Report of the Organisers to the Committee of Management of the Royal Melbourne Hospital on the Requirements of the Royal Melbourne Hospital at the proposed New Medical Centre at Parkville.
Board of Reference minutes of meetings.
Honorary Medical Staff Committee minutes of meetings.
The Chief Executive Officer File.
The Chief Executive Correspondence File.
The WAM Blackett File.
The 1929–1935 Requirement lists.
RMH Scapel, (1946–52).
Royal Melbourne Quarterly

Journals

British
Building
National Hospital
RVIA Journal,
The Architect & Building News
The Architects’ Journal
The Builder
The Hospital
The Hospital Investigator
The Hospital Magazine

Australian
Architectural Forum
Architecture in Australia
Art in Australia
Australian Health Society
Decoration and Glass
Medical Journal of Australia
Modern Hospital
Trust News
RVIA Quarterly Bulletin

USA
The Modern Hospital
Architectural Record
Bibliography

Catherine Tate

Newspapers

Age
Argus
Herald
Port Philip Gazette

Books


Stevens, Edward. The American Hospital of the Twentieth Century, a treatise on the development of medical institutions, both in Europe and in America, since the beginning of the present century, 2nd edition, Dodge, New York, 1928.


Articles

Moline, G. L. ‘Administrators and Architects Must Travel’, The Australian Modern Hospital, No 1, October 1949, pp. 51–60.


Stephenson, Arthur. ‘Australia Prepares for the Wounded’, Modern Hospital, Vol. 56, No. 4, April 1941, pp. 68–73.


Stephenson, Arthur. ‘The Early Adventure of the New Royal Melbourne Hospital’, Modern Hospital, June 1946.


Turner Donald K. ‘Hospital Construction: Birmingham’s New Medical Centre’, The Hospital Magazine, April 1938, pp. 30–32.

**Personal Journals**


Reports


Baynes, Ken; Langslow, Brian; Wade, Courtney, C. Evaluating new hospital buildings: a report containing a review of the major hospital evaluations so far carried out, an analysis of the methods used and recommendations for a future programme of studies related to the growing complexity of hospital planning and design, King Edward's Hospital Fund for London, London, 1969.

Design guidelines for hospital and day procedures centres, Victoria (Australia) Health Projects International Pty Limited (HPI) for the Department of Human Services, Victoria, (DHS), 2004.

Fanning, Rupert. Report on Hospital Administration and Organisation Abroad by the Manager of the Royal Melbourne Hospital on Completion of his 1937 Tour, unpublished manuscript, RMH Archives.


Royal Melbourne Hospital Annual Reports, 1934 to 1946.


Lectures

Stephenson, Arthur. ‘Hospital Administration Abroad’, Address given at the British Medical Association Victorian Branch, July 16 1933, Sir Arthur Stephenson Collection, Box 2, Series 4, MS 2235, National Library Australia.


Stephenson, Arthur. Address given at the ANZAAS meeting, Section 1 Hospital Design, August 27 1959, Sir Arthur Stephenson Collection, Box 2, Series 4, MS 2235, National Library Australia.


Stephenson, Arthur. ‘Some Thoughts on Hospitals Problems’, Address to RMH Nurses Graduation Ceremony, Melbourne, April 22 1966, Sir Arthur Stephenson Collection, Box 2, Series 5, MS 2235, National Library Australia.
Stephenson, Arthur. Address to the Standards Association, Sydney, (no title or date) Sir Arthur Stephenson Collection, Box 4, Series 5, MS 2235, National Library Australia.

Bernard, VD. 'Description of the RMH', Talk to RMH Staff on the planning and layout of the new hospital and the operation of the equipment installed, November 11 1944, RMH Archives.

Secondary Sources

Books


Barnes, Stanley. The Birmingham Hospital at Metchley, Birmingham, 1952.


Penrose, Helen, & Waterhouse, Catherine. *Life is to be cared for: a history of Box Hill Hospital*, Eastern Health - Box Hill Hospital, Box Hill, 2003.


Sherson, Susan. *Being there: Nursing at The Melbourne, Victoria’s First Hospital*, The Royal Melbourne Hospital Graduate Nurses’ Association, Melbourne, 2005.


**Authored Articles**


Burnet, FM. ‘Changes of twenty-five years in the outlook on Infectious Disease’, *Medical Journal of Australia*, July 1939.


Murray ES. ‘Contributory Funds Value to Community: Seven and a Half Years’ Benefit at Mildura; £31,000, The Hospital Magazine, June 1937, pp. 10–11.


Reilly, Professor, ‘Some Younger Architects of Today: Thomas Smith Tait’, *Building*, October 1931.

Reilly, Professor, ‘Some Younger Architects of Today: H.V. Lancaster’, *Building*, February 1930.


**Unauthored Articles**

**1923**


**1929:**


**1930s**


______, ‘Freemasons’ Hospital, East Melbourne’, *Journal of the Royal Victorian Institute of Architects*, July 1936, pp. 86–87


‘Preliminary sketch showing a possible development of the Royal Melbourne Hospital and Medical Centre on the Pig Market Site at Parkville’, *Journal of the Royal Victorian Institute of Architects*, September 1936.

‘Freemasons Masonic Hospital, Clarendon St, East Melbourne’, *Journal of the Royal Victorian Institute of Architects*, March 1937.


‘New Boiler House, Royal Prince Alfred Hospital, Sydney’, in *Art in Australia*, May 15 1937.


‘Keeping Abreast of Progress: Wangaratta Hospital’s Extensions Provide Modern Medical Centre in the North-East’, *The Hospital Magazine*, December 1937.

‘An Axonometric Drawing (of Gloucester House, Royal Prince Alfred Hospital, Sydney), in *Art in Australia*, August 1937.


1938

_________ , ‘Wooden model, showing proposed additions to St. Vincent’s Hospital, Darlinghurst, Sydney’, in Art in Australia, March 1938.


1940s

___________, ‘Dental Hospital, Sydney, N.S.W’, Art in Australia, May 1940, pp. 85–90.

___________, ‘Royal Melbourne Hospital’, Journal of the Royal Victorian Institute of Architects, October –November 1940, p xii.
_______, ‘The Geelong Community Hospital’, *Art in Australia*, 25 November 1940, pp. 78–79.

_______, ‘The King George V: New block for Mothers and Babies is added to the Royal Prince Alfred Hospital, Camperdown, New South Wales’, *Decoration and Glass*, July 1941, pp. 8–17.


_______, ‘113th Australian General Hospital, Concord West, Sydney’, *Building*, July 24 1942, not paginated.


_______, ‘King George V Memorial Hospital for Mothers and Babies”, in *Art in Australia*, May 23 1944, pp. 82–83.


1950s


Bibliography


Unpublished material

Bamford, FN. *A Brief History of New College, Box Hill Grammar School & Kingswood College 1890–1966*, Box Hill Historical Society Archives.


Harvie, Ellison. ‘374 Little Collins Street’, Stephenson & Turner Collection, University of Melbourne Archive.

Lindell, John, Address given at the Memorial Service for the late Sir Arthur Stephenson C.M.G., M.C, held at Christ Church, South Yarra, November 23 1967, The University of Melbourne Archives.
Theses


Fronczek Munter, Aneta. Useability briefing for hospital design: Exploring user needs and experiences to improve complex buildings, PhD, DTU, 2016.


Van der Zwart, Johan. Building for a better hospital: value-adding management & design of healthcare real estate, PhD, DTU, 2014.
Author/s:
Tate, Catherine Ann

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Design-by-dialogue: the architectural programming of the Royal Melbourne Hospital 1935-1945

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Design-By-Discourse: The Architectural Programming of the Royal Melbourne Hospital 1935-1945

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