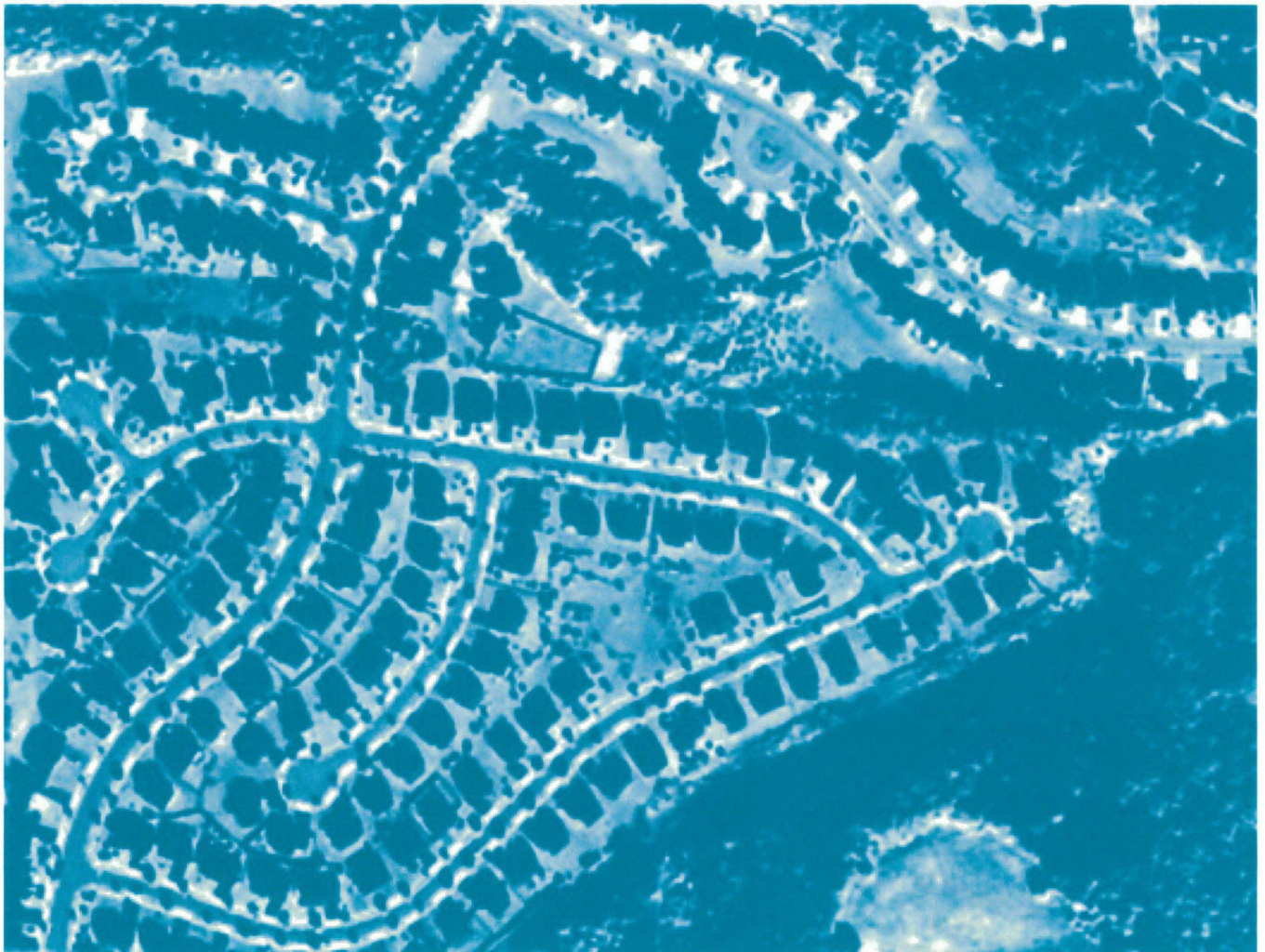


THE EVOLUTION OF SUBURBAN FORM

**DISSERTATION SUBMITTED JUNE, 2007 IN FULFILMENT OF THE
REQUIREMENTS OF A MASTERS OF URBAN AND REGIONAL
PLANNING AT THE UNIVERSITY OF NEW ENGLAND**

PHILIP GRAUS: M.Arch (Penn), B.Arch, Hons1 (Syd), B.Sc (Arch) (Syd)



86382693

DECLARATIONS

I certify that this thesis is 39,384 words in length

I certify that this work does not incorporate without acknowledgement any material previously submitted for any degree in any University, College of Advanced Education, or other educational institution, and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text

Philip Graus
24th June 2007



ACKNOWLEDGEMENTS AND AUTHOR'S DECLARATION OF INTEREST

The following people have generously contributed their time, knowledge and experience. Of course any inaccuracies remain the property of the author. Angus Witherby of the University of New England supervised the study, providing valuable advice and considerable time on all aspects of the study including subject matter, scope and methodology. Bob Meyer, planner and architect, provided ongoing encouragement, review and advice. Professor Robert Freestone of the University of New South Wales offered constructive criticism, as well as advice with research and further reading.

My wife Alison and our three children offered encouragement and were generous in allowing me the time to carry out this study over a three-year period. June Foster proof read the many drafts.

The author is a practising architect and partner of Cox Architects and Planners and has had an involvement in one of the Case Studies included or referred to in this thesis, Newington. The selection criterion for Case Studies is set out in the study.

TABLE OF CONTENTS

ABSTRACT

PART I – BACKGROUND AND METHODOLOGY

1 Introduction

1.1 Aims of the Study	8
1.2 Central Questions	10
1.3 Background - 19th and 20th Century Suburban Paradigms	11
1.4 Literature Review	12
1.5 Scope and Limitations	13
1.6 Structure of the Study	14
2 Methodology - An Evaluative Framework of Values & Elements	15
2.1 The Design Process - Integrating a Qualitative & Quantitative Approach	15
2.2 Key Assumptions	16
2.3 Elements of Suburban Form	17
2.3.1 The Elements	17
2.3.2 Description and Morphology of the Elements	18
2.4 Context of Social Values	26

PART II – PROTOTYPES AND EXAMPLARS

3 The RAIL Suburb 1870 - 1912

3.1 Background and Standard Practice	28
3.2 International Exemplar - Forest Hills Gardens 1912	28
3.2.1 Background and Values	30
3.2.2 Elements	30
3.3 Australian case study – Garden Village, Botany Bay (unbuilt) 1916	31
3.3.1 Background and Values	38
3.3.2 Elements	38

4 The Garden City/ Suburb 1900 - 1925	44
4.1 Background and Standard Practice	44
4.1.1 The English House and Garden	44
4.1.2 The Reform Movement and Low Density English Garden Suburb	45
4.2 International Exemplar - Hampstead Garden Suburb 1909	48
4.2.1 Background and Values	48
4.2.2 Elements	49
4.3 Australian CASE STUDY- Daceyville Garden Suburb 1912	54
4.3.1 Background and Values	54
4.3.2 Elements	56
5. The Radburn Idea 1925 - 1955	62
5.1 Background and Standard Practice	62
5.2 International Exemplar - Radburn 1928	64
5.2.1 Background and Values	64
5.2.2 Elements	66
5.3 Australian case study - Macquarie Fields 1972	74
5.3.1 Background and Values	74
5.3.2 Elements	76
6 Design with Nature and the return of community 1955 - 1975	84
6.1 Background and Standard Practice	84
6.2 International Exemplar - Tapiola 1952 - 1970	88
6.2.1 Background and Values	88
6.2.2 Elements	90
6.3 Australian case study - Swinger Hill 1969	98
6.3.1 Background and Values	98

7	Planned Communities 1975 - 1985	106	10	Conclusion	156
7.1	Background and Standard Practice	106	10.1	Durable Forms & Characteristics	157
7.1.1	Surveyor Suburbs – Private Values	106	10.2	Applying the Evaluative Framework	160
7.2	International Exemplar – Woodbridge, Irvine 1975 - 1991	108	10.2.1	Durable characteristics of current practice	160
7.2.1	Background and Values	108	10.2.2	emerging issues and values	161
7.2.2	Elements	110	10.3	applying the analytic framework to future practice	162
7.3	Australian case study - Golden Grove 1983	118	10.3.1	Durable Characteristics	162
7.3.1	Background and Values	118	10.3.2	Responsive Future Forms	163
7.3.2	Elements	119	10.4	Synthesis – Better Urban Environments	166
8	New Urbanism 1985 - Present	126	11	Appendices	167
8.1	Background and Standard Practice	126	11.1	Reference Material/ Literature Review	167
8.1.1	Return of the Public Domain	126	11.1.1	Books	167
8.2	International Exemplar - Seaside 1987	128	11.1.2	JOURNALS	169
8.2.1	Background and Values	128	11.1.4	THESES/ OTHER	170
8.2.2	Elements	129	11.2	Sydney Residential Planning Model Chronology	172
8.3	Australian case study - Newington 1997	134	11.3	Significant International Events, Planning Movements, and Exemplars Chronology	173
8.3.1	Background and Values	134			
8.3.2	Element	135			
PART III - ANALYSIS AND CONCLUSIONS		140			
9.	Analysis of the Models	140			
9.1	Description and Analysis of Elements of Suburban Form	140			
9.2	Description and Analysis of Form Groups	142			
9.2.1	Master Plan Structure	144			
9.2.2	Street Pattern	144			
9.2.3	Block Pattern	145			
9.2.4	Subdivision/ Lot Pattern	146			
9.2.5	Open Space Pattern	146			
9.2.6	Built Form	147			
9.2.7	Housing Design	147			
9.3	Analysis of Evolving Forms and Trends	148			
9.4	Evolving Issues and Social Values	151			



ABSTRACT

This enquiry has been prompted firstly by the question 'What makes a good suburb?', and secondly by the observation that recognised 'exemplars' of the past appear superior to the majority of contemporary suburbs that seem lacking in comparison.

This study attempts to answer this question, developing an analytic framework to examine physical forms that have evolved in suburbs over time in a way that offers fresh insights into contemporary suburbs and provides useful guidance in the physical design and subdivision of the contemporary suburb.



The key findings have been as follows:

1. The exemplars and Case Studies have been subject to a design process that has integrated the elements of form of the suburb, responding to contemporary social values
2. The analysis of the elements of each exemplar reveals that while new forms continue to develop in response to important social or other changes of the day, the most durable physical forms share common characteristics
3. It is the combination of common durable characteristics and the creation of responsive forms that distinguishes the majority of international exemplars and Australian Case Studies
4. A minority of international exemplars and half the Australian Case Studies include forms of elements that have not proved durable
5. Standard practice slowly assimilates new forms created by exemplars, often misinterpreting the exemplar by failing to incorporate the common characteristic. The reasons for this are not clear. As a result, Australian models, in a number of cases, have not proved as durable as the overseas exemplars
6. A more useful framework can be developed and is proposed here to better identify the underlying physical elements of suburban form, specifically durable characteristics and responsive forms. That can provide useful guidance in the design and subdivision of better urban environments