Chapter 7
The Language of Glenn Murcutt’s Domestic Architecture

ABSTRACT

This chapter presents a JPG grammar and massing grammar for Glenn Murcutt’s domestic architecture, demonstrating the analytical and generative capability of the combined grammatical and syntactical method. The chapter commences with a JPG-grammar-based analysis of 10 of Murcutt’s rural domestic designs. Using this as a starting point, the chapter then describes the massing grammar that configures the form of each design, defining block properties, composition, and roof types. Throughout this process, the new method is used to develop the mathematical indicators of the properties of each house that are most similar or disparate. This information supports the generation of a “dominant design” as well as potential new variations that are consistent with the language of Murcutt’s domestic architecture. Thus, the combined grammatical and syntactical method contributes to a deeper and more rigorous understanding of an architectural style and its design instances.
INTRODUCTION

This chapter demonstrates the use of two specific grammars – JPG and massing grammars – for analysing the combined grammatical and syntactical properties of Glenn Murcutt’s rural domestic architecture. As discussed in Chapter 6, a “generic” JPG grammar consists of a set of algebraic rules that are customised to create a “specific” JPG grammar and associated formal massing for a family of designs or architectural language. Pritzker prize winning architect Glenn Murcutt’s designs are the subject of the present chapter and the specific JPG grammar. Murcutt’s designs have been described as possessing a distinct and highly consistent architectural language of space and form (Baker, 1996; Fromonot, 1995). His rural domestic buildings typically have a modernist, linear pavilion plan with extensive visual and physical connections to the landscape (Spence, 1986). Indeed, each of these houses could be regarded as a local variant of a more universal type (Ostwald, 2011b), and his early rural domestic architecture has been identified as an exemplar of Arcadian minimalism and described as a rigorous modern evocation of the form and tectonics of the “primitive hut” (Ostwald, 2011c).

The seemingly close relationship between form and spatial structure in Murcutt’s architecture has been extensively documented in past research, although there is ongoing debate about the extent to which these works constitute either a largely static or an evolving architectural language. Indeed, such is their apparent consistency and rigour that multiple authors have used computational approaches to examine the properties of Murcutt’s architecture. For example, Hanson and Radford (1986a, 1986b) analysed Murcutt’s early houses using a variation of the Shape Grammar approach to attempt to understand their formal properties, while Ostwald (2011a, 2011b) used a syntactical technique to undertake visual, mathematical and theoretical analysis of Murcutt’s architecture. Despite such examples, Murcutt’s work has only rarely been the subject of any attempt to understand both its formal and spatial properties and the interplay between the two.

Our previous research (Lee, Ostwald, & Gu, 2015, 2018) investigates the results of a syntactically-derived grammatical analysis to characterise the combined spatial and formal properties of a set of potential design outcomes in the particular style of Glenn Murcutt’s domestic architecture. This chapter presents a detailed exploration of the language of Murcutt’s architecture through the combined method. Furthermore, because the method is innately grammatical, the chapter provides a generative sequence, or logic, for the
Related Content

Lip Modelling and Segmentation
[www.igi-global.com/chapter/lip-modelling-segmentation/31065?camid=4v1a](www.igi-global.com/chapter/lip-modelling-segmentation/31065?camid=4v1a)

Disambiguation and Filtering Methods in Using Web Knowledge for Coreference Resolution
Olga Uryupina, Massimo Poesio, Claudio Giuliano and Kateryna Tymoshenko (2012). *Cross-Disciplinary Advances in Applied Natural Language Processing: Issues and Approaches* (pp. 185-201).
[www.igi-global.com/chapter/disambiguation-filtering-methods-using-web/64588?camid=4v1a](www.igi-global.com/chapter/disambiguation-filtering-methods-using-web/64588?camid=4v1a)
Homo-di-fict: Creations Turn Against Humanity in South Park Town
[www.igi-global.com/chapter/homo-di-fict/239990?camid=4v1a](www.igi-global.com/chapter/homo-di-fict/239990?camid=4v1a)

Speaker Recognition
[www.igi-global.com/chapter/speaker-recognition/4693?camid=4v1a](www.igi-global.com/chapter/speaker-recognition/4693?camid=4v1a)