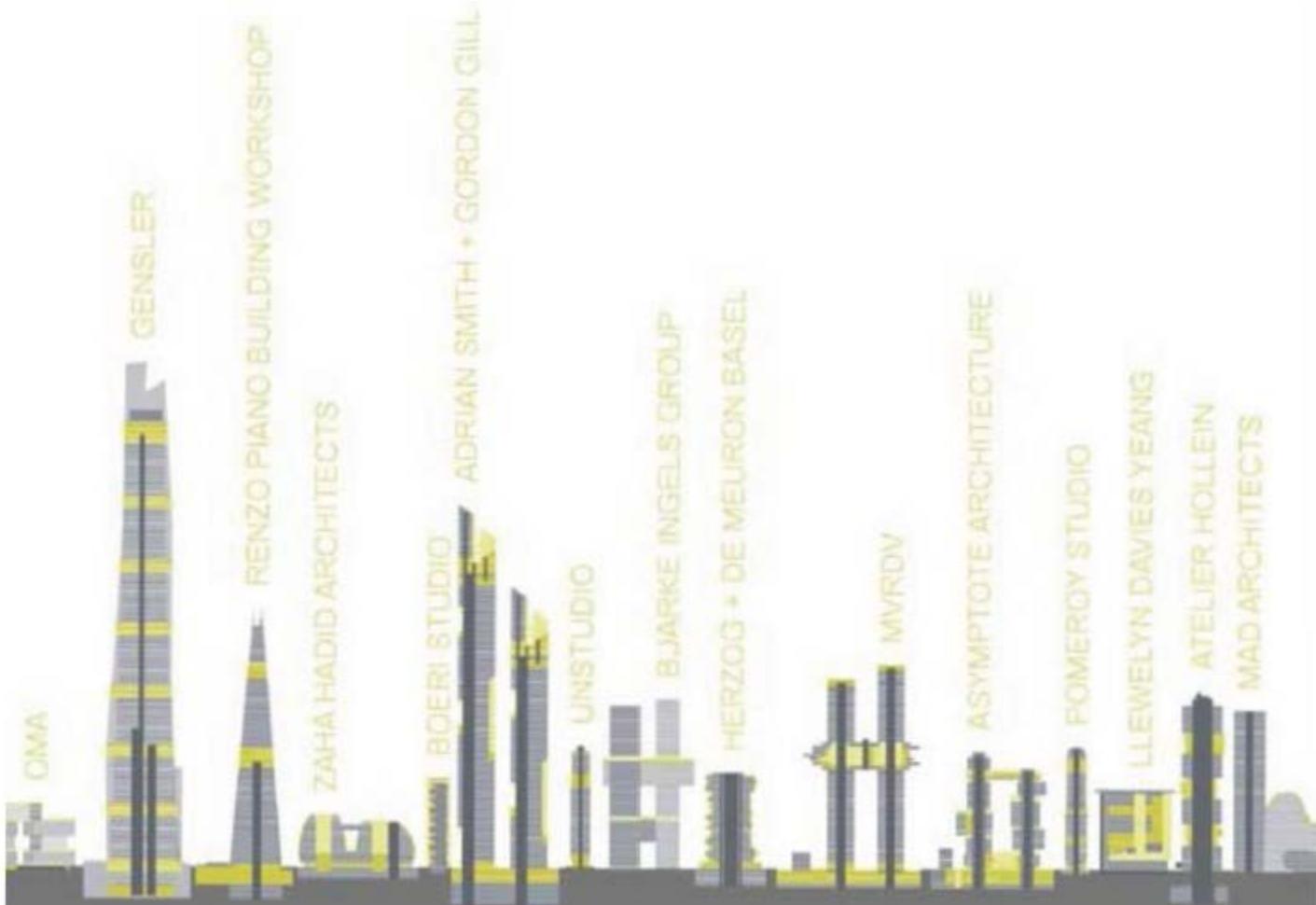


THE SKYCOURT AND SKYGARDEN

GREENING THE URBAN HABITAT

JASON POMEROY



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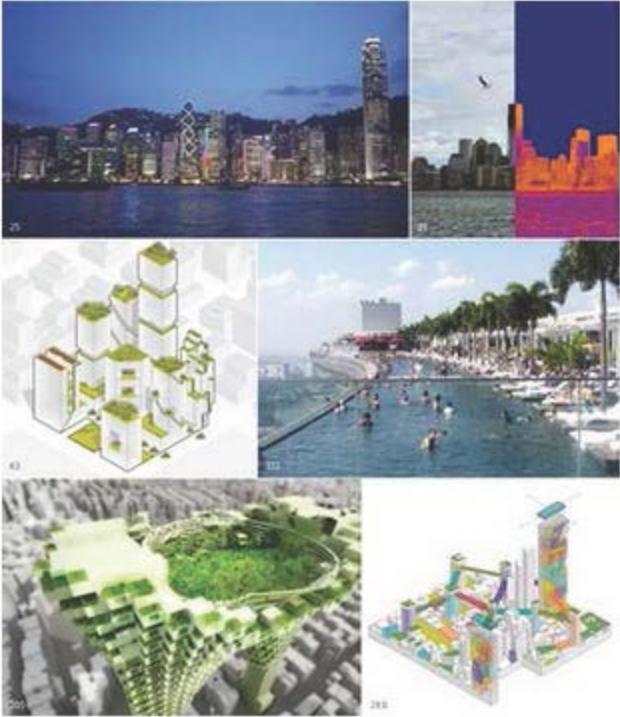
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To Yasmin



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Foreword

Public spaces, such as the street and square, have provided for centuries a social platform that has supported society's day-to-day civic needs. It has been a means of 'transference', be that of material goods, knowledge, secrets, movement, culture, or spiritual or political message. Social change has however heightened the depletion of public space and accelerated its privatization, resulting in the consequent birth of alternative social spaces that started to wield more influence in the urban habitat. The semi-public realm, captured within hybrid structures, has developed through the centuries into a collection of new social spaces that possess some of the qualities that one would associate with successful public spaces – memorable places that embody character, a continuity of frontage or a sense of enclosure to create 'outdoor rooms', a well maintained and policed environment conducive to society's co-presence, an ease of movement, a legibility, an adaptability to changing social, political or economic need, and a diversity of use and function.

This book considers skycourts and skygardens in terms of the social, economic, environmental and spatial benefits that they provide to the urban habitat. The book argues that they have the potential to be 'alternative' social spaces that can form part of a broader multi-level open space infrastructure that seeks to replenish the loss of open space within the urban habitat. Both the skygarden and skycourt's incorporation into buildings can be viewed almost as a vertical rotation of Noll's traditional figure ground plan, albeit to create a figure section. It starts to illustrate how semipublic spaces can be incorporated into high-rise structures, and be suitably placed into a hierarchy of open spaces that supports the primary figurative voids on the ground or, in their absence, creates them in the sky (diagram of vertical extrapolation). It also advocates for a new hybrid that can harness the social characteristics of the public domain, but placed within the figurative private object as an alternative social space for the 21st century.

This is an instructive publication that expands with greater elaboration the notion that tall buildings should be designed as 'vertical urban design', requiring the creation of 'public' places in the sky (Yeang, 2002). This challenges the often pre-conceived ideas of many skyscraper architects who continue to design and build tall

buildings as a multiple stack of homogenous floor plates, one on top of the other. Whilst making construction structurally expedient and economically efficient for the engineers, it is the repetition of the typical floor plate over seemingly endless floors that gives the tall building its often negative reputation. Pomeroy's book considers skycourts and skygardens as 'in-between' spaces and in terms of their social, economic, environmental and spatial benefits that are so crucial to humanising the urban habitat. One might regard this as a futuristic book, but many ideas about enhancing and creating a vibrant and pleasurable life in the high-rise are implementable now. Architects, developers and academics of high-rise buildings within the urban habitat could learn much from this treatise.

Ken Yeang (Dr.) (2013)

A handwritten signature in black ink, appearing to read 'Ken Yeang', with a stylized flourish at the end.

Preface

The seed of this book started with my research at Cambridge University. The research covered the socio-spatial functions of skycourts and skygardens, and in particular how the increasing privatisation of the public realm necessitated a re-evaluation of open space infrastructure within the modern city. The thesis has led to continued research in my design firm which is based in Singapore – an environment that lends itself well to the subject matter given the city-state's high-density/high-rise nature. Singapore forms a notable precedent for many a developing global city that is seeking to green its urban habitat, as its spatial constraint of being an island, coupled with a predicted population growth from approximately 5 million people in 2011 to 6 million by 2020, has seen continued vertical urban densification. Increased density to house a transmigratory population, and the need to address the economic prospects of a financial services sector expansion, led to state-run urban renewal projects becoming inseparable from relocating the majority of the local population from the centre, to high-density residential blocks that bore similarities to Le Corbusier's vision for the modern city (Tremewan, 1994).

Despite this, the city-state has investigated alternative social spaces of interaction, and more recently embraced skycourts and skygardens as a means of offering spatial replenishment for socio-environmental benefit. According to Antony Wood of the Council on Tall Buildings and Urban Habitat, Singapore offers a glimpse of what could be 'the closest reality to an urban utopia that we have anywhere in the World today' (Wood, 2009). It therefore may come as little surprise that many of the case studies that we shall see in this book originate from Singapore and, along with other global case studies, form a body of projects that embrace skycourts and skygardens as part of a new urban vocabulary. This book seeks to balance the creative vigour of leading architects and designers in their pursuit of the new hybrid structures that include open space within the object, with an academic rigour of reference points that demonstrates the skycourt and skygarden's place within the high-density urban habitat.

Part 1, entitled 'Civility, community and the decline of the public realm', provides the traditional context of the city as the forum of our civil interaction. It seeks to define what it means to be out 'in

public', the meaning of the words 'civility' and 'community', and what constitutes 'public realm' before considering the elements that contributed to its decay. This leads us to consider the physical transformation of the urban habitat from a city dominated by spaces for social interaction and movement, to a city of objects as a response to changing socio-economic need. It also highlights the consequent and gradual depletion of urban greenery through the process of urbanisation. This allows us to explore the socio-environmental consequences of the loss of open space through densification – namely compromised opportunities for social interaction that can hinder the forging of 'community,' and the eradication of urban greenery that compromises bio-diversity and amplifies urban heat island effect. Part 1 closes by reviewing the birth of alternative social spaces that have been created in response to such changes in the urban habitat. It discusses how these new environments have the common characteristic of being semipublic spaces within the confines of private developments – thus providing an opportunity for society to use them – but are ultimately programmed spaces with particular social restrictions.

Part 2, entitled 'Defining the skycourt and skygarden', highlights how such environments have become part of an extended urban space vocabulary in response to increasing densification and society's need for alternative social spaces. It defines skycourts and skygardens as spaces of transition and destination, and draws parallels to the earlier precedents of the 18th century court and the 19th century arcade. It covers the measures being taken to counteract perceived density through legislation, before highlighting some of the socio-environmental benefits of their incorporation within buildings. Existing built examples from around the world are referenced to demonstrate the benefits of skycourts and skygardens that cover social issues (such as how skycourts can be community-orientated spaces), environmental issues (such as how they can help absorb noxious pollutants and counteract urban heat island effect by the incorporation of greenery), and economic issues (such as how they can generate income when used as observation decks).

Part 3, entitled 'Global case studies', seeks to document projects that incorporate skycourts and skygardens as an integral part of building design. These case studies include a brief write-up accompanied by imagery comprised of a combination of line drawing, graphics and photographs. Figure ground and figure section diagrams are generated for each development to demonstrate the relationship

between building and open space. Photographs of the building in context, and more detailed photographs of the skycourt and its use, complete the case study. In total, 40 global case studies are taken from Europe, North America, the Middle East and Asia that are deliberately divided into four parts to demonstrate the evolution of the new hybrid structures, namely:

- completed projects (examples of skycourt buildings that are occupied)
- under construction (projects on site that are not yet occupied)
- on the drawing board (schemes that are in the process of design development)
- future vision (projects of students and academics of our future urban habitats).

Part 4, entitled 'Towards a vertical urban theory', puts forward 'prompts for thinking' to optimise the design of skycourts and skygardens in the future in a way that integrates such spaces into the broader fabric of the city. It considers the rooftops of existing buildings as further opportunities for densification, social interaction and urban farming that relates back to the new vertical city. This chapter concludes by considering the 'age of authenticity' and the increasing trend towards evidence-based design to forward the design of such spaces in a more objective way. This provides the opportunity to discuss the space syntax method as a mechanism for a predictive theory of mass movement through space and measures of urban greenery through the green plot ratio method, which collectively can help the creation of more conducive spaces that will help foster more successful vertical communities, and a greener urban habitat.

It is probably apt to conclude on what our studio calls the '3Ds' – the ability to 'Distil, Design and Disseminate'. If we consider these words in isolation, it allows us to distil the lessons from the past in order to design for the present, and to then be able to disseminate the knowledge for future generations. This book has certainly been true to such a process. I owe a note of thanks to John Worthington and Alan Short – individuals who instilled in me a line of inquiry of historical precedents in order to distil the essence of an idea for the betterment of the contemporary built environment. I owe many

thanks to those who have designed for the present and future generations, and extend my deepest gratitude to the many architectural practices that allowed us to document their works in the case studies. I am finally thankful to my team who helped disseminate the information through the book itself — with special thanks going to Elizabeth Simonson, An Anh Nguyen, David Calder, Phil Oldfield and Chloe Li. Last, and certainly not least, to Ken Yeang, my mentor, who has also provided the starting point for so many green designers in the pursuit of sustainable tall building design within the urban habitat.

Jason Pomeroy (Prof.) (2013)

A handwritten signature in black ink, appearing to be 'J. Pomeroy', written in a cursive style.