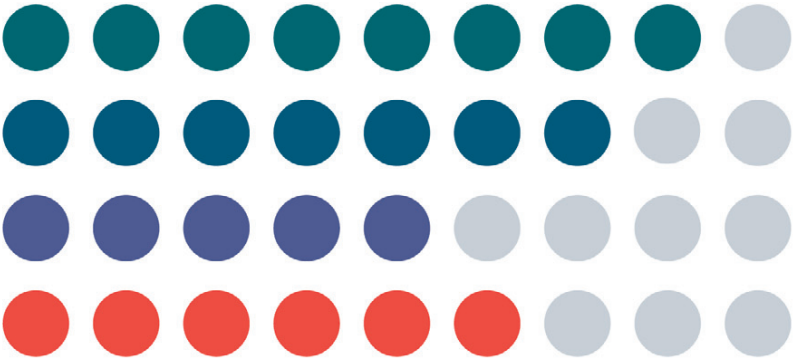
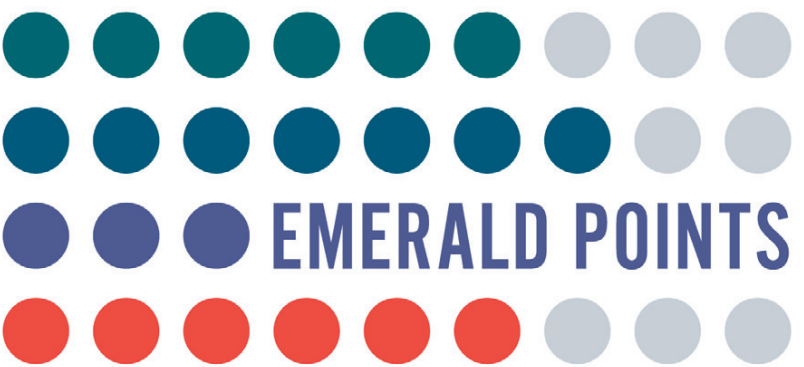


URBAN GOVERNANCE AND SMART CITY PLANNING

Lessons from Singapore

Zaheer Allam



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CONTENTS

LIST OF FIGURES

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Zaheer Allam holds a PhD from Curtin University (Australia), an MA (Res) in Political Economy from the University of Sydney (Australia), an MBA from Anglia Ruskin University (UK) and a Bachelor of Applied Science in Architectural Science from Curtin University (Australia). Based in Mauritius, he works as an Urban Strategist for The Port Louis Development Initiative (PLDI) and the Global Creative Leadership Initiative (GCLI) and consults on a number of projects on the thematic of Smart Cities across the African continent and on strategies dwelling in the increasing role of technology in Culture and the Society. Zaheer is also the African representative of the International Society of Biourbanism (ISB), member of the Advisory Circle of the International Federation of Landscape Architects (IFLA) and a member of a number of other international bodies. For his contributions to society, he was elevated, by the President of Mauritius, to the rank of Officer of the Order of the Star and Key of the Indian Ocean (OSK), the highest distinct order of merit in Mauritius. He is also a recipient of a number of other awards and writes extensively on the thematic of sustainability and resilience in cities. He is also the author of *Theology and Urban Sustainability* and *Cities and the Digital Revolution: Aligning Technology and Humanity*.

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FOREWORD

LOOK BEYOND THE 'GREEN CITY MIRACLE'

By Professor David S. Jones, FAILA

The urban regenerative process, as advanced in Singapore, is perhaps one of the most interesting precedents internationally, from both academic and professional practice standpoints. It is not simply a tree planning agenda, nor a greening the city agenda. It is more holistic and enlightened about the need to address urban regeneration, landscape healing and climate change/resilience-responsive strategies to the betterment and well-being of both the landscape and Singapore's citizens and visitors.

This strategy addressed all dimensions of liveability including societal, economic and environmental ones well before international recognition and acceptance of sustainable development, the essential message in the United Nations' SDG 11 (Sustainable Communities), was considered and adopted. The Singaporean approach is to use social uplift as a catalyst for urban regeneration. Such is unique in its very endeavour. But one must also acknowledge the governance models that led to this process and the societal transition through the strong leadership of the then Prime Minister Lee Kuan Yew (1923–2015).

In retrospect, Lee has stated:

> Cities cannot just be made up of concrete buildings, tarmac and pavements. It would be depressing and unpleasant to live in. You need to balance that with trees and flowers. This will make Singapore more pleasant to live in.
>
> "Singapore has become much greener, despite increased urbanization. Almost half of Singapore is covered in greenery. We have set aside land for world-class gardens, parks and nature reserves. Many visitors are amazed at our tree-lined roads, and this has become an economic value to us. More importantly, Singaporeans today live in beautifully landscaped housing estates and are able to exercise and enjoy fresh air in the urban oases right at their doorsteps. None of this would have been possible without decades of conscientious planning and commitment (Lee in Soper, 2015).

Lee's strong leadership helped Singapore graduate from a third to a first world country in just under one generation. This endeavour is both remarkable and commendable. While it may be sometimes criticised today by Western democracies and Western authors, one must understand the context of this style of urban governance in respect to both time and place. Post-British and Japanese colonialism saw a Singapore plagued by poverty and poor infrastructures that had scared this society on many levels. The urban governance model applied was led through the willing co-operation of a population whom acknowledged the need for change, transform,

prosperity, stability and social cohesion. The interesting aspect of this is how large urban projects of national importance have successfully been devised from inception to delivery, within short time-frames, while engaging in participatory planning. Today, this success is not contested. As a consequence, Singapore enjoys a strong demographic platform that invests significantly in its urban realm and acknowledges the role of technology in furthering participatory planning to ensure a wider social cohesion whereby Singaporeans take ownership of state-led projects. Such is a key in ensuring high liveability levels in urban areas.

While architectural projects can be deployed in a few years, cities, on the other hand, can take generations and longitudinal landscape architecture projects to unfold to unveil their full potential. Though widely acclaimed, if we are to look at Singapore from a timescale, we will realise that the country is still young, is yet to fully establish itself and is now embarking on another exciting transformational journey. As this transformation unfolds, there will be increasing attention from both the academic and professional practice circles on how Singapore's societal and economic dimensions are been crafted and mediated to support, sustain and strengthen human and biodiversity quality of life, which also include the safeguarding of environmental assets.

Zaheer Allam has successfully addressed this topic in this book. Offering an insightful inquiry, he has explained the governance structures and participatory planning key processes as adopted by Singapore and their roles in driving this transformation. Although the same governance structures may be difficult to adopt, in our day and age, in other countries, there are 'lessons to be learnt' from Singapore's transformational journey. Better understanding the past is a key in providing a better outlook on the future, and Singapore may

be just innovatively leading the way by offering an inspiration that change is possible – irrespective of the challenges – but also by offering a co-ordinated 'toolkit' of how to effectively enable societal adhesion in urban regenerative processes. Allam has synthesised the Singaporean story carefully, and this book may hopefully act as a guide for others to calibrate the lessons learnt to better adapt to their own cities or countries.

As the world grapples today with challenges of scale, through demographic growth, urbanisation and climate change, we need revised urban governance models. Maybe it is the Singapore model that offers templates and ideas that can inspire us to change ourselves towards alternate urban survival strategies and enable the greater enrichment of humanity.

ABOUT

Professor David Jones has been the Foundation Professor of Landscape Architecture and Planning at Deakin University since 2011. He has degrees in planning, landscape architecture and heritage studies, including a PhD from the University of Pennsylvania. His teaching and research spans across urban planning, landscape architecture, indigenous knowledge systems, regenerative systems and biophilia. His portfolio includes work on the Forest Gallery at Museum Victoria (1995–1996), the Victoria Square-Tarntanyangga Regeneration Project (2017), the *Adelaide Park Lands and Squares Cultural Landscape Assessment Study* (2007) and design scenarios for Gunditjmara lands associated with the Budj Bim National Heritage Landscape and their World Heritage Listed property. He is the co-author of *Geelong's Changing Landscape: Ecology, Development and Conservation* (2019),

Re-casting Terra Nullius Blindness (2017), *Creating Healthy Places: Railway Stations, Biophilic Design and the Melbourne Metro Rail Project* (2017) and *Aboriginal Reconnections* (2013), and has co-contributed significant chapters to the *Routledge Handbook to Landscape and Food* (2018) and the *The Handbook of Contemporary Indigenous Architecture* (2018).

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PREFACE

The subject of seeking urban development and economic prosperity in a post-colonial setting is increasingly sought as countries, formerly under the reign of colonial powers, move away from dictatorial regimes to adopt models of democracy. This shift is well received by communities as those witnessed how stronghold regimes can exploit the resources of areas for personal profits, and how this can lead to marginalised communities, hence rendering a fabric of inequity, being a breeding ground for conflicts.

The case of Singapore is interesting in this sense as we see how, immediately after its colonial episode, the country embarked on a transformative journey so successful that the country has managed to move from a third world to a first world country in only one generation. Even if its style of autocratic governance has often been criticised, we need to adopt an objective view and explore how this has led to numerous positive outcomes which have helped the government to provide basic services to an impoverished post-colonial state at an accelerated rate. The success of Singapore is apparent, as today the country enjoys the quality of life – a high-class society.

So how did the country manage this feat? What can we learn from this style of governance? And how sustainable was

this transformation? This book looks into those questions and unveils the urban narrative from a historical perspective and explores the key dimensions in the urban policy of the country. While we cannot openly advocate for the establishment of similar governance styles in other countries, the study of the Singapore's success story can help to identify how we could re-calibrate our current governance models in our own context in developments of varying scale and complexity to achieve similar results.

One aspect that has attracted my interest in the formulation of this book is how the local population responded positively to the strong leadership style of Lee Kuan Yew, which begs the question on the validity of complex processes of participatory planning. Indeed, the country would not have achieved this success at this rate if numerous layers of community validation had to be achieved. We then see how prioritisation on certain issues were adopted, where participatory processes were included but only at selected levels, hence achieving community support while allowing for the fast deployment of urban infrastructure and services.

This book thus sets forth to explore the thematic of Urban Governance in the Singaporean context and underlines subjects of interest from the viewpoint of an independent and objective urban practitioner and researcher.

ACKNOWLEDGEMENTS

I am indebted to the Singapore's Centre for Liveable Cities for an invitation for their flagship programme, the 'International Leaders for Urban Governance', in 2018 and later to attend the World Cities Summit in 2019, during which I was introduced to the challenges faced by the country, their incredibly bold solutions and lessons learnt from their transition from a third to first world country. I am also indebted to Sameerah Aumjaud for the editing of this manuscript.

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1

THE RISE OF SINGAPORE: AN URBAN PERSPECTIVE

INTRODUCTION

Singapore is a small country, and can be termed as a city, both in terms of size and population. Singapore also carries a rich and vibrant history (Crinson, 2017; Tan, Chuah, & Luu, 2018), which can be paradoxically summed up through despair and massive triumph. Throughout history, Singapore's strategic position on the global map has rendered it a target to the earliest colonial and imperial powers, especially in regard to trade. Singapore eventually became a critical point for the British Empire from which it could access merchant from the larger Asian regions for trade (Findlay & O'Rourke, 2007). Furthermore, the British used Singapore, which was then just a port, as one of its control point for its broader agenda of conquering what Lloyd (1996) calls the Burmese coastline. By capturing such areas, the colony was assured of an expansive trade route covering almost the entire South Eastern Asia. This port as Findlay and O'Rourke (2007) explain was so significant to the British for the aforementioned objectives, such that they were ready to defend and protect it at any cost.

But, as Yong (2019) explains, the history of Singapore and its trading prowess did not start with the landing of the British. Before their arrival, Singapore was already an active trading point and widely engaged with its counterparts in flourishing trade and commerce. However, it was the developments started out by the British that brought about the impetus that marked the beginning of Singapore as a bustling port city, which has maintained its attractiveness as a trading centre to date. But, again, its standing today has little to do with the colonial administrations, but every ounce of success can be credited to the Singaporean and the sound leadership that took over after the departure of the colonialists.

Indeed, by the time the country gained independence, it was so crowded by numerous challenges: massive corruption, pollution, poverty, poor housing, lack of clean water and little infrastructural investments, amongst others (OECD, 2011; Quah, 2017). Unknown to many people, the fortunes of Singapore started to change after Lee Kuan Yew (LKY); the country's first prime minister took over the reins of leadership. From a vast ocean of literature, it is recorded how Prime Minister LKY proposed strong, quantifiable and workable measures that were geared towards uplifting the livelihood and lifestyle of all the inhabitants of Singapore. Today, Singaporeans rightfully take great pride in this uproar. Such pride, as expounded by the Ministry of Foreign Affairs Singapore (2018), emanates from the fact that the country was ranked amongst the most competitive economies globally, due to its very promising and sustainable environment.

Such high standings are based on the practicability of the measures that were agreed upon by LKY, his government and the entire country. And, noting that Singapore is just a small country (approximately 719 km^2) hosting only 5.7 million people, the measures taken were oriented on a city environment. The main reason for viewing the country as a city is that

the country is not endowed with any tangible resources, aside from its position as port city (Civil Service College & Centre for Liveable Cities, 2014). However, unlike in most urban cases, Singapore cannot rely on hinterlands of its own to support the challenges it faces. Therefore, Singapore found itself treating neighbouring countries like Malaysia and China as its hinterlands (Tan et al., 2018; Wee, 1995). For instance, Malaysia is the source of Singapore's clean water, though at a price, while China has been very instrumental in providing numerous resources, especially food and building materials as explained by Kolesnikov-Jessop (2010). According to Chye (2014), the measures that LKY initiated revolved around making the country a leader in economic competitiveness, environmental sustainability and liveability status. And, as of the current ranking, those initiatives have been achieved. The Economist Intelligence Unit (2018) ranked Singapore 11th in Asia in terms of liveability.

In regard to economic competitiveness, the country holds the top position, beating economies such as the United States and Hong Kong amongst other global economic giants (IMD, 2019). Pertaining to environmental sustainability, a 2018 report by Environmental Performance Index (EPI) (Environmental Performance Index, 2019) places the country at position 49 out of 180 countries globally. Noting its initial problems with the environment, notably the massive pollution of the Singapore River, the country's ranking is commendable as it holds the leading position in terms of water resource sustainability. From the report, it also ranks at the third position in regard to air quality and takes the first position in respect to household solid fuels use and also the first in terms of household sanitation.

In terms of liveability ranking, basing on factors like infrastructure, education, culture and environment, healthcare and social stability, the country ranks 37 as of 2018, but

stands as the most liveable location for East Asian Expats, a position it has held for the past 14 years (Chan, 2018; The Economist Intelligence Unit, 2018). These rankings are credited to the country's effort to improve safety, hence considerably reducing the crime rate (Gallup, 2018; Singapore Police Force, 2016, 2017, 2018). It is also credited for its good and robust infrastructure development as well as its efficient public service. From the very beginning, the Singaporean leadership was based on corruption intolerance, and anyone reported to engage in the vice is punished severely (Yew, 2015b). The public service is also guided by other principles in the likes of pragmatism, commitment to sound institution, community participation and open to working with the markets. Furthermore, the country is guided by Singapore's Liveability Framework (Chye, 2014; Civil Service College & Centre for Liveable Cities, 2014), which outlines the baseline for master planning and the urban governance, which are applied in a strict manner. H. Han (2017) showcases that the master plan encapsulates issues like housing, community development, transportation sector, the economy, recreation and identity that target to enrich the liveability status of the Singaporeans.

SINGAPORE AS THE IDEAL CASE STUDY FOR URBAN REGENERATION

The scale of Singapore brings about a compelling element of interest. First, as noted above, the country is small, and its size is comparative to that of a city. In perspective to scale, according to the United Nations (2016), there are approximately 31 megacities globally that host more than 10 million people and these are by far more populous than Singapore, yet they are not classified as countries. Singapore has an

approximate population of 5.7 million people, and as classified by world ranking standards, thus, conventionally, Singapore is only fit to be considered as a large city. Its surface area is another factor that makes it a classical case study to consider. As noted above, by the time it gained independence, only 581 km^2 of its surface area was habitable, but the devotion and passion of the Singaporeans allowed them to reclaim further grounds from the sea to push the habitable grounds to 719 km^2 (Civil Service College & Centre for Liveable Cities, 2014).

Another factor that makes Singapore an interesting case study is its success despite its lack of resource endowment, hence had to intensely rely on its neighbours for almost everything that makes a city liveable. Nevertheless, as noted in a report by the Environmental Performance Index (2019), the country has managed to turn around some statistics in regard to clean water supply. Initially, it was relying almost entire on Malaysian supply for this, but over the years, through an elaborate water cleaning strategy, the country has been able to complement its importation. The EPI report ranks Singapore 13th globally in terms of clean water provision to its citizens. The cleaning process started back in 1977 and entailed the start of the cleaning of the Singapore River, which is now an attractive recreational environment (Tortajada & Joshi, 2014). The country has also managed to ensure food supply sustainability through projects like the Sino-Singapore Jilin Food Zone (SSJFZ), that is, a collaboration between Singapore and China (Ludher, 2016; Tortajada & Hongzhou, 2016).

In terms of social welfare and affordable housing, which is a constant struggle faced by cities globally, Singapore has shown the way. It is reported that Singapore's home ownership stands at over 90%, and this was enabled by the Housing and Development Board (HDB), a government agency that

builds compact, mixed-use houses and sells to the locals at subsidised prices (Chia, Li, & Yang, 2017). These houses, unlike in many cities, are compliant with issues like environmental sustainability, especially in regard to energy and water usage and also in use of environmentally friendly construction materials (Kolczak, 2017).

The country's leadership structure and approach are another factor that make Singapore a worthy case study, and this is demonstrated by the number of countries that are borrowing the country's blueprint to duplicate in their own national and urban policies. As noted above, LKY set a pace and standards of leadership and vision that are worth emulating. He guided the country out of corruption, poverty and pollution to achieve the high rankings discussed in the Introduction section. Most cities faced with similar challenges have only struggled, and some have not done much to move out of such quagmires, and by taking the Singapore's challenge, they can ultimately start to experience some differences.

A HISTORICAL PERSPECTIVE

Singapore's history is quite unclear before the third century. Only some tales exist of Singapore during that time, and a verifiable account of the city is only available after the arrival of Raffles, the first British to land on the island. Findlay and O'Rourke (2007) describe this history as obscure and somehow disjointed. Nevertheless, the first account is that of a Chinese record that shows that the current city was just a marshy island at the end of the Malay Peninsula. They had named it *Pu Luo Chung* (a Malay name for an 'island at the end'). The tale twists and Prince Sri Tri Buana (as also known as Sang Nila Utama) of Srivajaya is introduced as the one who discovered the Island in the thirteenth century

(Hack, Margolin, & Delaye, 2010). Leyden and Raffles (1821) explain that the prince was in a hunting expedition when he caught sight of a strange looking animal that he thought was a lion, following which he named the land 'Singhapura', which in Sanskrit dialect means a 'Lion City'. In the fourteenth century, it is said that a number of traders, some from the Mongol Empire and others from China, also described to have made stops in an island which they called *Tamasek* or the *Sea Town,* which is believed to be the modern-day Singapore. During this period, another Srivajaya prince by the name Parameswara is noted to have fled his country to *Tamasek,* and later to Melaka where he gained control and founded the Sultanate of Malacca (Malacca Strait). The sultanate became a successful one, especially in regard to trade, and was a solid trade partner with Singapore, in its previous form. Yong (2019) explains that, indeed, by then, Singapore was already engaged in an intricate web of trade with other autonomous ports and was also a centre for power and politics.

It was the arrival of Sir Stamford Raffles in the nineteenth century that led to the international focus on Singapore. This propelled the island as the regional trade hub as well as a political and power point. Cangi (1993) credits Sir Raffles with, amongst other things, bringing civilisation to the island city, by proposing an elaborate and robust city plan that changed the port from a mere sea city to strategic port city that served as the doorway between the entire Southeast Asia and Britain. Astonished by the political regimes that reigned in the region, and specifically the city, Raffles made it his duty to persuade the locals to adopt such proactive, good practices like accepting democracy, allowing free trade with the neighbours and preaching the need for administration of justice. His motivation was driven by the tyrannical and capricious nature of the rulers ruling the Straits, especially in

regard to how they treated their subjects. In respect to his view on trade practices in the area, Raffles was baffled by and disliked the Mercantilism approach by which those who controlled the port employed. He therefore advocated for a free trade system that eventually led to the growth of Singapore as an admirable port city (Donnithome, 2003). Changes in the cities fortunes directly affected its demographic distribution. This led an amalgamation of cultures including Europeans, Chinese, Malays, Arabs, Indians and Bugis tribesmen (Buckley, 1984).

By 1824, five years after Raffles first landed in Singapore, the trading was acquired by the British East India Company, as annual payment by the Sultan who controlled the Islands. By then, the city had an approximate 10,683 inhabitants (Buckley, 1984), but the population was growing fast. By 1826, Singapore joined Melaka and Penang to form what was known as Straits Settlements, but the union did not last long. Due to issues with politics, Singapore separated from the settlement, and in 1867, it became a Crown colony, meaning that it was directly under the British government and not the British East India Company that controlled the Straits Settlements. Turnbull (2009) explains how political, economic and social issues like piracy, unfair taxation, unstandardised currencies and inhumane transportation of convicts who also experienced delayed judicial process are amongst issues that prompted Singapore to be separated from the Straits Settlements. From there, in 1867 (BBC News, 2018), it became a crown colony; meaning that it was directly under the British government and not the East India Company that controlled the Straits Settlements. Buckley (1984) shares that merchants, especially those based in Singapore, were instrumental in the separation, as they were not comfortable with trading environment, which they thought could be stronger if the aforementioned challenges were addressed. After becoming a