



Comparative study of planning history, spatial development and sociological significance of the back alley in Yangon and Singapore

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A comparison of two similar types of back alley spaces: Back Drainage Space (BDS) in Yangon and Back-lane in Singapore, is conducted to find out if there are any relationships between their spatial development and lessons that can be learned from the precedent case in Singapore. Commonalities and differences of the back alley are identified by comparing the historical urban context of their formation and development in British colonial cities. The findings suggest that the back alley spaces in both cities, despite divergent circumstances and development after independence, possess common traits as interstitial space between public and private, with a unique way of spatial management based on informal, mutual agreement, which suggests some useful ideas when considering the role of these spaces in the redevelopment of Yangon in the near future.

Keywords: Back Drainage Space, British colonial city, back alley, Yangon, Singapore, urban renewal

Introduction

In the centre of Yangon, Myanmar, there is a long-neglected space, even considered an eyesore, called Back Drainage Space (BDS), dark and dingy, long and narrow in proportion, typically 5 meters wide by 250 meter long, running north-south behind entire city blocks throughout the Central Business District (CBD). A similar type of space called Back-lane, behind so-called shophouse, an architectural style of Chinese merchants commonly found in Asian countries, is creating part of the scenes in highly touristic areas in Singapore. The two cities share a background as former British colonies that flourished during the 19th to early 20th century as Southeast Asian harbours. Reflecting post-industrial revolution concerns for diseases caused by crowded urban environments, both back alleys were created for the purpose of sanitation. While BDS in Yangon are still largely intact today as originally implemented, many of Singapore's Back-lanes have been lost in the course of modernization, buried among high-rise buildings. Recognizing the potential of this under-utilized urban heritage as an important asset for the rapidly changing city of Yangon, the authors selected the two cities as targets of this study with the goal of gaining useful lessons from the precedents of back alley in Singapore that could inform the development of BDS in Yangon. As there are no previous studies on BDS and limited materials on related subjects, the authors relied on information from accounts of residents and semi-structured interviews with the local community and authorities. For Singapore's back-lanes, facts and analysis are based on literature which provided important information to support the core of this paper. First the two cities are compared in terms of their history of urban formation, development, use and sociological significance of the back alley, then commonalities and differences are identified to draw insights that may be useful in considering the urban renewal of Yangon City in the near future.

Comparison

Urban formation of Yangon: reclaiming land and the problem of sanitation

When Yangon was seized under British colonial rule in 1852 after the second Anglo-Burmese war, it was a small trading town, ruled by King Alaungpaya, with some roads and timber houses on stilts, suffering from frequent floods. Europeans who saw Yangon at that time depicted it as having poor housing, lack of proper drainage and insanitary conditions.¹ A rough sketch by Grant who visited Yangon from 1836 to 1849 shows a road leading up to the great pagoda, Shwe Dagon Pagoda, located inland and also a number of religious buildings such as an Armenian Church, a Roman Catholic Church and a few mosques near the port, indicating that the town's population was diverse before colonization.² Yangon was mostly destroyed during the war, so there were no pre-existing buildings of any value or city layout to follow.³



A medical doctor Dr. Montgomerie⁴, gave the original idea for the city's planning after coming to Yangon with the troops in 1852. Although he was not an architect or urban planner, it was common in the late 19th century for doctors and public health experts to have dominant role in the planning of colonial cities⁵ and Montgomerie was quite confident because of his experience serving as a Secretary to a Town Committee in Singapore from its beginning in 1819 to 1842 prior to coming to Yangon.⁶ He proposed a new city plan that reflected a general British philosophy of colonial urbanism with wide streets in a grid pattern which symbolized human order and was intended to encourage proper ventilation, prevent spread of fire, and reduce congestion which could cause insanitary conditions and spread of crime⁷. Based on this idea, Fraser⁸ revised and drafted the plan and Phayre⁹ accepted them for implementation.

Montgomerie was specifically concerned about the drainage system as the city suffered from frequent floods since pre-colonial times, and proposed "that down the centre of each block of buildings a narrow lane or back-drainage-space should be placed, along which a sewer should be carried to the river"¹⁰(Figure 1)." The idea was to implement fifteen-foot-wide canals and reservoirs to collect water during high tide and to use that to flush the sewers to the river once a day to keep the city free of stagnant water. The canal was never realized because of the potential of contaminating the river water significantly¹¹ however the Back Drainage Space was implemented as one can see in almost every block of the city today, years later after the problem of sanitation became a serious issue.

To construct the new city, Yangon had to reclaim much of its land, about two to three feet in height, which was largely below high-flood levels surrounded by swamps, creeks and lagoons.¹² By then all property in Yangon belonged to the government and revenue from selling city property was used to finance reclamation work. The reclamation was delayed due to a lack of funds while at the same time the city outgrew the originally planned population of 33,000, especially with the drastic increase of the Indian population recorded in the census from 15,677 in 1872, 16 % of the total population of 98,138, to 66,077 in 1881, 49 % of the total population of 134,176.¹³ Many of those who supported the growth and prosperity of Yangon were crammed into small, swampy areas and "housed under the worst possible conditions".¹⁴ Without proper systems for water supply and drainage, the city suffered from great losses caused by fire as well as high death rates due to unsanitary conditions. In 1887, a proper sewage system was finally introduced and a hydro-pneumatic system installed by the British company Messrs. Shone & Ault is still in use today, 140 years later.¹⁵ Yangon was as dense and crowded as cities in India at that time but the planning of BDS contributed to better conditions in the city. As Pearn wrote "Rangoon was fortunate in that Fraser's scheme provided some 43 per cent of open space in the form of roads and back drainage spaces, a circumstance which moderated the evil of overcrowding as known in Indian cities."¹⁶

BDS: the users' stories

Due to a lack of official documentation about BDS, the authors relied on the accounts of the residents who shared stories of their childhood that go back as early as the 1960s. Semi-structured interviews were conducted by the authors with six groups of residents including local communities and authorities¹⁷. 1988 was the year of nationwide protests and it turned out to be a turning point for the BDS as well. In the early days, the CBD was low density with low-rise buildings where most neighbours knew each other, so BDS was not only used for drainage purposes but some residents used it as a place to socialize, sit and relax, a playground for children and passageways to visit neighbours or relatives' houses (Figure 2). The city government cleaned it regularly since it is a public property and the drainage and sewage system functioned according to its designed capacity. However, after 1988, gradually the situation changed as society underwent instability following the uprising. The Yangon City Development Committee was established around this time in 1990 and a large amount of new construction was realized, many owners took the opportunity to maximize values by building high-rises up to eight stories with rentable units. As a result, an influx of new residents from around the country crowded the downtown area and residents could no longer identify their neighbours' faces. Consequently crime rate increased, and finally the ward council decided to shut the BDS for security reasons (Figure 3). When the BDS were closed, people stopped using them and started to put trash there. Some owners may not have upgraded their sewage system properly when they increased the number of units, which caused overflow and it made the BDS an even more unpleasant place. So there was a common experience of many of residents that the BDS was closed for security reasons and when it became unused, it became a 'trash alley' eventually.

Situations may differ depending on the location. There was an interesting story about a street vendor who ran his business as a tea shop in the BDS for twenty years. Because it is a public space, officially one is not allowed to use or occupy the space for any activities including washing, cooking, running a business or storing a generator.

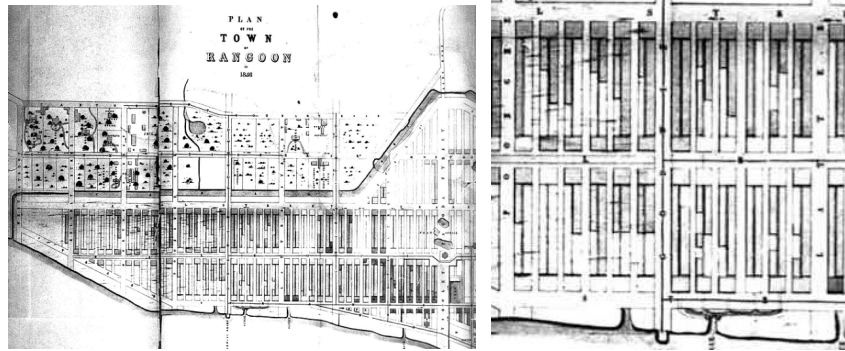


Figure 1: *Plan of the town of Rangoon in 1856 showing the grid pattern with BDS laid out in every block.* (Enlarged partial plan on the right) [London: s.n, 1856]

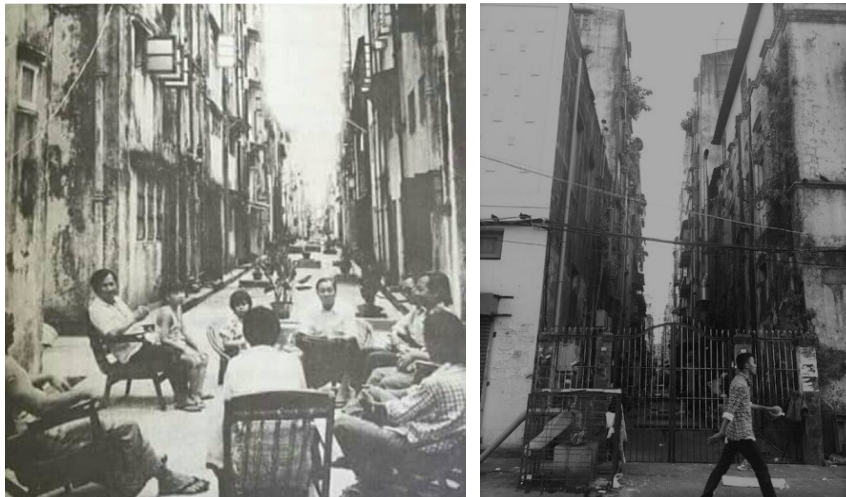


Figure 2 (Left): *BDS in the past with residents socializing.* [Yangon: s.n.]

Figure 3 (Right): *BDS today, closed by the fence, seen from a sidewalk.* (Photo by T. Matsushita, 2016)

Yet one occasionally finds such scenes in the BDS. There seems to be a number of informal or unofficial agreements between the users and authorities and it seems to be accepted as long as there is no harm to others; it may even benefit the neighbours by acting as a safeguard for the community.

Urban formation of Singapore: Spatial segregation and concentration

Malacca was occupied by the Portuguese in 1511 then by the Dutch in 1641. When the British came to Singapore in 1819, it was still a small fishing village, described as a dense forest with approximately twenty plantations built by the Chinese.¹⁸ Raffles¹⁹ came to negotiate with the Malay Sultan on trading rights and after the agreement was made successfully, he immediately set out for the new settlement, appointed the Town Committee in 1822 and instructed the basic land-use patterns. Raffles' idea was to make a clear separation between the government, commercial uses, Europeans, and different ethnic groups namely Arabs, Malays, Bugis, Javanese and Chinese, based on expediency and his belief that close integration of different ethnic groups may create conflict.²⁰ Many of Raffles' decisions were based on his experience in England and his knowledge of colonial India and as Edwards describes, "consideration of health, safety, and fear of native contamination all suggested proper separation of the European community from the Chinese and native quarter."²¹ Priority was given to the merchants and specific guidelines were given for building forms and materials, including shophouses which were the main type of buildings in Singapore until the 1960s.²²

Back-lanes: 'innovation in the war against disease' and its failure

The city was growing rapidly and on the surface life seemed pleasant and prosperous, especially for the Europeans and rich merchants living in suburbs, however Chinese people who made up 70 % of the population in 1901 lived in crowded, insanitary condition,²³ described by Yeoh as "subdivided tenements, makeshift cubicles and back-to-back shophouses."²⁴ Although the bottom line problem was a lack of adequate housing, instead of providing more



houses, the government focused on issues of overcrowding and lack of sanitation of those shophouses. Committee members came up with an idea to create back-lanes to bring light and air into congested dwelling areas²⁵. In 1906, a public health officer W. J. R. Simpson²⁶ was invited by the government as an 'outside and independent expert' to investigate the sanitary conditions and causes of high mortality in the city of Singapore.²⁷ Simpson pointed out the problem of those shophouses built back-to-back lacking multiple egress to allow for scavenging and drainage and recommended the creation of back lanes "not less than 15 feet, and not more than 20 feet wide for the purpose of scavenging and drainage."²⁸ Not only did he recommend stopping construction of new shophouses without back-lanes, but also demolishing rear of existing shophouses to create new back-lanes in existing neighbourhoods (Figure 4). He indicated five useful points that they: 1) facilitate drainage and scavenging; 2) add air space between the buildings; 3) prevent encroachments; 4) form alignment at the back; and 5) define the limits of the boundary of each plot.²⁹ The government considered it 'the latest spatial innovation in the war against disease (Figure 5), a spatial technique of combating 'the enemy' by using what Foucault calls 'power through transparency' or 'subjection through illumination'.³⁰ This operation would not only provide light to the residents but also to give authorities access to spaces which used to be private, hidden behind the public eye.

The law was passed and the government proposed the implementation of a total of 252 back-lanes between 1910 and 1947, mostly in Chinatown, Kampong Glam and Little India.³¹ However only 22 back-lanes were completed in 1918 and the government realized that this on-site, piecemeal solution could not solve the problem and the scheme failed, due to a number of reasons but cost being the major factor, for both compensation and construction.³² The residents also resisted this unrealistic idea forcing them to give up already tight living space while the authorities did not understand the local culture and customs in which they lived.³³ In 1927, the Singapore Improvement Trust was established to oversee various kinds of urban improvement schemes and gradually the back-lane scheme was abandoned and high-rise public housing projects eventually replaced the low-rise shophouse buildings.

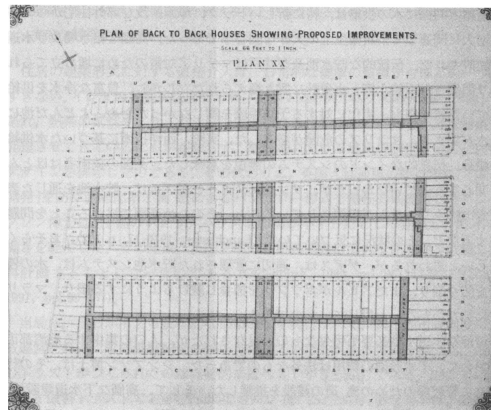


Figure 4: Simpson, W. R. C. *Plan of back to back shophouses highlighting the area to be demolished as a proposed back-lane scheme.* [London: s.n, 1907]



Figure 5 (Left): Yeoh, Brenda S. A. *'The latest spatial innovation in the war against disease' according to the government, the photo shows the demolition of the back of the shophouses to create back-lane.* [Singapore: s.n, 2003]

Figure 6 (Right): Chong, Ho Kong, Eun, Valerie Lim Nyuk. *Back-lane as used by the residents.* [Singapore: s.n, 1992]



Back-lanes as ‘contested regions’ with informal negotiation

Although the back-lane scheme may not have been a good solution to the housing problem, a fascinating sociological phenomenon was observed as a result of implementing the scheme. Residents displayed a sense of territoriality, for example by leaving visual markers of ownership, fighting for their right to use the space as before, while a certain level of indifference was also observed as the spaces were exposed to unexpected vandalism (Figure 6). In response to various acts of ‘colonization’ by the residents, the authorities would then place visual markers such as yellow lines on the ground for parking lots or pillars at the entrance physically delineating the boundary of public and private. The residents could also display their territoriality by just giving hard stares at the ‘encroachers’ such as authorities or passers-by.³⁴ Although the back-lanes became a ‘contested region’ where residents and authorities struggled to gain control over one another, the authorities were not too fussy about how the residents used the space. The residents in Chinatown often informed each other of approaching officials to prepare themselves, while inspectors overlooked minor offenses as long as residents followed basic standards and kept the place clean.³⁵ This kind of mutually beneficial, informal deal kept them both happy and the place tidy. Aside from the territorial issue, the back-lanes possessed both qualities of public and private, an intermediate space providing quieter, slower and more intimate atmosphere compared to fast, busy and formal front streets, more enclosed with a sense of comfort and protection while not totally closed, allowing for random encounters with employees or family members who may step out for a break from their work or daily routines.

Analysis: commonalities and differences

Sanitation issue

Sanitation was a serious issue for both cities and back alleys were part of the solutions to this common issue. Both cities experienced difficulty managing increasing populations necessary to support the growing cities while providing decent housing and necessary infrastructure for them. Such problems happened in the areas where ethnic groups were living, Indians in the case of Yangon and Chinese in Singapore; their tenements were often extremely congested and insanitary with inadequate drainage systems. However, displacing those who worked in the central area to suburbs was not realistic thus such conditions were considered to be a ‘necessary evil’.³⁶

Montgomerie, though he was a surgeon, having served in the Town Committee in Singapore from the beginning of colonization in 1819 to 1842, came to Yangon in 1852. Maxim speculates that Montgomerie might have taken the waterfront design concept of Singapore and transplanted it directly to Yangon as Strand Road, considering the importance of creating visual impact at the arrival from the sea.³⁷ The authors speculate another possible linkage that Montgomerie who introduced the idea of BDS in Yangon could have been inspired after experiencing the early construction of the Chinatown in Singapore and its consequences with back-to-back shophouses in swampy areas.

Colonization of the alley, the ‘contested region’

Both alleys were used beyond their original functions, as a place of socialization or an extension of personal space as they shared a similar nature as an intermediary zone between public and private; this allowed residents to take their liberty and enjoy ‘colonizing’ the back alley. The case in Singapore showed how the residents and the authorities made an informal deal regarding the use of the space by ‘checking each other’ while the case in Yangon also revealed that a similar mechanism existed between the residents and the authorities.

Spatial segregation

When Raffles instructed the basic land allotment of Singapore, the intention was clear to segregate ethnic groups spatially to avoid conflicts while there was no indication of intended segregation in the original plan of Yangon, at least within the CBD. In Singapore, building guidelines were developed for those areas where Chinese merchants lived, and this led to the development of a specific colonial architectural style known as the shophouses.³⁸ In Yangon, spatial demarcation by ethnic groups was not directly indicated, however similar ethnic groups clustered together, creating designated areas within the city which can be recognized today, along with remaining architecture of distinctive characteristics such as row houses, Chinese temples, or mosques.³⁹

Modernization and the back alley

Looking at today’s back alleys in both cities, perhaps it is not possible to tell that one was planned and implemented from the beginning, while the other was not planned but implemented later, as a countermeasure to worsening



living conditions. Both alleys were used by residents as semi-private spaces at one point but took different paths thereafter. After the failure of the Back-lane scheme, many of the back-lanes in Singapore have disappeared together with the demolition of shophouses during the process of adapting a modern, high-rise housing scheme. However, starting in the late 1970s discussion about the conservation of historical districts began and in 1986, the Conservation Master Plan was announced and the central area became designated as a “Historic District.” Today’s Chinatown is one of the popular tourist attractions and the exotic feeling is enhanced by street cafés that are recreated to make the place feel more ‘original.’ The remaining shophouses and the attached back-lanes, though visually may be the same as before, have lost the original characteristics as a place for local people with dual functions for home and work. It has been transformed from being a place for ordinary people to a place for tourists.

Some fear that Chinatown in Singapore would eventually be reduced to a mere theme park, if not already. The big debate is whether the place should function as a residential or touristic landscape or both? Singapore Heritage Society argues that it should incorporate the residential community in order to keep the place alive and save the collective memory of the common people.⁴⁰

In Yangon, since their closure in the 1990s until recently, BDS were dirty and dangerous places, an eyesore to most people. Although many buildings were rebuilt in the 1990s, transforming the landscape drastically from low-rise to high-rise, BDS remained intact, perhaps due to the existence of the 140-year-old sewage system lying under most BDS in CBD. In Yangon one can still see the local people enjoying food from street vendors and casual tea meetings on the roadside or in the BDS, giving distinctive characters and liveliness to the place.

Conclusion

In this comparative study of the back alleys in two cities, the authors found that in both cases, despite divergent circumstances and development after independence, possess common traits as interstitial space between public and private. A unique way of spatial management based on informal, mutual agreements between residents and authorities seems to have existed in both cases, though further study with a comprehensive survey with various stakeholders is needed to verify the historical facts. The example of Singapore’s gentrified Chinatown today raised an important question, who should the place be made for? Further studies are needed to re-examine the meaning and the spatial value of the BDS and what kind of management strategy may be suitable for Yangon.

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Disclosure Statement

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- ⁷ Home summarized eight components of the British model of colonial town planning which included "4. Wide streets laid out in geometric, usually gridiron form, usually on an area of one square mile (2.6 km²)" and "6. Standard-sized, rectangular plots, spacious in comparison with those in British towns of the time." Robert Home, *Of Planting and Planning: The making of British colonial cities* (London: E & FN Spon, 1997), 10, 15-27.
- ⁸ Alexander Fraser, Lieutenant of Bengal Engineer.
- ⁹ Arthur Purves Phayre, Colonel who used to be an officer in the Bengal Army, came to Rangoon in December 1852.
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- ¹¹ *Ibid*, Chapter Ten; Modern Rangoon: 1855-1874, 199.
- ¹² *Ibid*, Chapter Ten; Modern Rangoon: 1855-1874, 199.
- ¹³ *Ibid*, Chapter Eleven; Modern Rangoon: 1874-1882, 234.
- ¹⁴ *Ibid*, Chapter Eleven; Modern Rangoon: 1874-1882, 236.
- ¹⁵ *Ibid*, Chapter Twelve; Modern Rangoon: 1882-1898, 255.
- ¹⁶ *Ibid*, Chapter Thirteen; Modern Rangoon: 1898-1938, 276.
- ¹⁷ Before conducting the semi-structured surveys, the authors conducted field surveys to understand the physical characteristics and spatial distribution of the BDS and then two questionnaire surveys with multiple choice were carried out, one in February 2017 to sixteen residents randomly selected by the authors in the neighborhood, another one in May 2017 to forty four households selected randomly from the list of residents of the 4th ward in Lanmadaw Township. Based on the experience and information acquired by these preliminary surveys, the interview questions were prepared and the authors conducted long, semi-structured interviews to a total of thirty two residents including the ward officers and parliamentary members in three Townships in the CBD namely Lanmadaw, Pabedan and Kyaukhada Township from July to August 2017. The summary and analysis of the survey is to be published in another paper due to space constraint therefore this paper illustrates main points from the findings. The subjects were selected by the community leaders, average age is fifty five years old, predominantly male, Buddhist (two females, six Muslims out of thirty two total subjects).
- ¹⁸ O. J. Dale, *Urban Planning in Singapore: The transformation of a city* (Oxford: Oxford University Press, 1999), 12-13.
- ¹⁹ Sir Thomas Stamford Raffles (1781-1826) is known as a founder of modern Singapore who implemented Raffles Town Plan (Jackson Plan) formulated in late 1822.
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- ²³ *Ibid*, 20-21.
- ²⁴ Brenda S. A. Yeoh, "From Colonial Neglect to Post-Independence Heritage: the housing landscape in the central area of Singapore," *City & Society* 12 (1) (June 2000): 103-124, <https://doi.org/10.1525/city.2000.12.1.103>.
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- ²⁹ *Ibid*, 307-308.
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- ³⁹ Shoichi Ota, "Report on the row house in Yangon- Report of inventory research of modern architecture in Yangon," *AIJ Conference* (September 2015): 80.
- ⁴⁰ Yeoh, "From Colonial Neglect to Post-Independence Heritage: the housing landscape in the central area of Singapore," 120.

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Figure 1: British Library, India Office Records [IOR/V/10/2].

Figure 2: Photo provided by a member of Yangon Heritage Trust. Year and location unknown.

Figure 3: Photo taken by the author in Lanmadaw Township, Yangon in 2016.

Figure 4: Simpson, W. R. C., *Report on the Sanitary Conditions of Singapore*. London: Waterloo, 1907.

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