Batavia was built as a clear cut copy of a Dutch town at that time with canals, drawbridges, canal houses, step-gables, a church, church bell-ringing and streets paved with cobble stones.

In what ways did the city slowly adapt to the realities of life in tropical Java?

Batavia, the 'Jewel of Asia', was established by the VOC (*Vereenigde Oost-Indische Compagnie*) in 1619, after the razing and burning of the former settlement *Jayakarta*. Throughout the 17th Century, it saw unprecedented economic prosperity mostly in the hands of the Dutch, whilst the neighbouring regencies of the Sultanate of Mataram acted effectively as 'agents' and 'tributaries' to the VOC. However, within a century, it had become a 'graveyard'[1] and the need to 'adapt' or acclimatise to the climate change was fundamental. However, as many earlier and recent commentators have attested such as J.J. Stockdale, Blussé and Windodo collectively argue, it was more of a case of the eventual 'desertion' of Batavia, led by the upper echelon of society, often VOC officials, for the cooler highlands that became the key approach to dealing with the tropical conditions that Java had presented.

During VOC rule, Dutch colonial cities were built alongside rivers which flowed perpendicular to the coastline. Water features were an important aspect of Dutch colonial cities, and Dutch civil engineering specialised in managing these waterways.[2] Batavia was similarly planned in this manner by Simon Stevin, a mathematician and engineer, who became an advisor for its construction.[3] Under his 'Ideal Scheme for a City', the town planning for Batavia resembled a typical Dutch city with canals.[4] According to Putri and

[1] Blussé (1986), p. 16.
[2] Oers (2000), p. 164.
[3] Devresse (2008), p. 105.
[4] Oers (2000), p. 163.

Rahmanti, Dutch water management during 1500-1800 took on an aggressive characteristic, challenging delta areas,[5] perhaps because the Dutch had a natural affinity with water, and to build a permanent base against inland native rivals such as the Sultanate of Mataram.[6] Similar to other 'Indonesian' settlements like Bantam and Makassar, Batavia was situated by the coast, with a river-like partition separating two parts of the settlement.[7] Likewise, Batavia followed the formula of an ideal town plan, later depicted in Cornelis Speelman's *Memorandum* for Dutch Makassar: a fortified castle, *kampong* (native quarters) and a merchant town.[8]

At first, visitors were astounded by how magnificent the city was; Christopher Schewitzer arrived in Batavia around June 1676 and noted that Batavia, despite having become a commercial port, still retained its defensive characteristics, remarking how strong the city and fort were and how all the Dutch enemies could be housed within the fort.[9] Similarly, in late 1680, Christoph Fryck described the city in detail, considering it greater than Amsterdam itself. Attention was paid to the river *Jacatra* (probably a reference to the *Ciliwung*) which was used extensively, as well as the abundance of fruit, vegetation and life encountered in the city.[10] Thus, Batavia soon became the 'Jewel of Asia' (for the city structure, see figure 1 in the appendix).

The residents of Batavia also helped to shape the city itself, most notably the Chinese immigrants of Java. They outnumbered native Javanese, Balinese and the Dutch in Batavia and were the richest on average. Jan Coen was said to have initially welcomed and incorporated the Chinese traders and were soon perceived as an 'indispensable element to the

[5] Putri & Rahmanti p. 64 and p. 67.
[6] Ibid. p. 67.
[7] Wake p. 76.
[8] Sutherland (1989), p. 109.
[9] Frick & Schewitzer, (1700), pp. 250-251.
[10] Ibid. p. 33.

city'.[11] They were assigned their own *kapitan* who conducted civil affairs for his own people. 'Bencon' or Jan Con, (心肝, *sam gon*), was the *kapitan* under Jan Coen. He became fundamental in procuring the limestone and wood for the city and fort walls, but fell into heavy debt towards his demise in 1639.[12] Similarly, the Bandanese, Bengalese slaves and other Asians were segregated in their *kampongs* with their own headsman, sent to the *Ommelanden* as agricultural workers. The *Mardijkers*, freed Christian slaves who became an infantry force, were another population whose numbers stood around 5,000-7,000 in the period 1691-1739.[13] Unsurprisingly, Europeans constituted the smallest population, but had a disproportionate amount of power.[14] P.L. Gie argues that the Chinese had denunciated their citizenship to their motherland and that they were at the mercy of their hosts.[15] However, Kratoska suggests that the Dutch were at the 'mercy' of the extensive Chinese trading network and argue that the Dutch required the Chinese and their trade for their survival in Batavia.[16] Furthermore, their tried-and-tested clay method of processing sugar and *arak* meant they monopolised sugar refineries in Batavia between the 17th-18th centuries. This led to the opening of the *Ommenlanden*, beyond the walls of Batavia, further changing the physical dynamics of the city.[17] Unfortunately, sugar plantation became one of the causes of the decadence of the city due to the water contamination that occurred.[18] By 1740, 15,000 resided outside the wall and 2,500 inside the citadel.[19] It was the same year as the Chinese massacre, which marked deterioration in Dutch-Chinese relations, and the Chinese quarter, the *Glodok*, outside the city walls.[20]

[11] Gie p. 9.
[12] Blussé (1986), pp. 51- 68.
[13]Kanumoyoso pp. 4-5, 50, 51.
[14] Ibid. p. 54.
[15] Ibid. p. 8.
[16] Kratoska, (2001), p. 120.
[17] Matsuyama (2009), pp. 259-260
[18] Blussé (1986), p. 26.
[19] Kumar (1997), p. 32.
[20] Blussé (1986), p. 95.

In contrast, the tropical swamp and the climate soon proved to be a physical hindrance to economic progress for the VOC. These conditions were exacerbated due to the construction of canals and tightly-packed buildings, both contributing to the manifestation of water-borne diseases such as cholera. Several commentators associated these attributes to the decay of the city, and suggested ways for the city to adapt to tropical Java. Sir Raffle's publication *History of Java* indicated a clear contrast between the natural beauty and wealth of the island Java and the wretchedness of Batavia as a hovel of disease.[21] Stockdale and another author, whose name is unknown, described Batavia as an 'ancient and dilapidated aspect strangely at variance with the luxurious verdure of the tropical scenery'.[22] The 'demise' of the Old City and the suburbanisation of Batavia are described briefly. All well-to-do individuals gradually moved out as a result of the 'insalubrious' climate and miasma that permeated Batavia.[23] More contemporary critics of this issue include Blussé, who argues that the tropical climate was the main cause of logistical problems in the city, and that Batavia became a graveyard within a century of its founding due to reckless sugar plantations.[24] Van der Brug indicates how the fish ponds were situated next to a thriving culture of malaria-carrying mosquitos.[25] Additionally, Gillen-Wood agrees with Blussé that the irresponsible and unsustainable sugar plantations caused the decay of the city, criticising Raffles for his incorrect deduction of the compactness of the building layout.[26] Conversely, Widodo argues it was the direct transplantation of European architecture in an unfamiliar, tropical environment that was the catalyst for the 'insalubriousness' of the city.[27] He suggests, at the beginning of the Early Modern period, when European influences were at its zenith, the architecture built emphasised security, not comfort nor adaptability to the local climate. This

[21] Raffles (1883), Appendix A, ix-xi.
[22] Unknown Author (1875), p. 130. Also see Stockdale (1812), p. 129.
[23] Unknown Author (1875), p. 135.
[24] Blussé (1986), p. 17.
[25] Nas (1993), p. 9.
[26] Wood p. 5.
[27] Widodo (2007), p. 19.

was demonstrated through the construction of military forts, garrisons and trading posts: thick walls, flat façades and lack of ventilation allowed the 'insalubriousness' to manifest throughout the city.[28] The uninhabitable conditions meant medicine was consumed as frequently as food in order to cope with the depravity of the environment.[29] Yet this did not seem to halt the rate of mortality. At the time of the malaria outbreak in 1733, there was a general rise in mortality. A 54% decline in 1735 with 910 deaths was recorded, in comparison to 1692 deaths in 1732. In the period 1735-1737, the death rate sharply rose to 2671 deaths, an increase of 293.5 per cent.[30]

Unmistakably, there was a fundamental need to adapt to the environment of tropical Java, lest the entire commercial operation of the VOC collapse. A conscious move to the south of Batavia and changes in architecture adopting characteristics, brought about by *Indische* culture, were ways to cope with the tropical climate of Java amongst the 'elite' of Batavian society.[31] Due to the lack of a Dutch female population during the establishment of Batavia, many Dutch soldiers chose to intermarry with the local female population as they did not pass on a typical Dutch bourgeoise culture onto their wives or offspring.[32] Furthermore, Asian women tended to not have as many material demands as their European counterparts. European women wished to return home as soon as possible to show off their new riches in front of their acquaintances in Holland.[33] Thus through miscegenation there was a gradual 'indianisation' of the Dutch and 'europeanisation' of the natives.[34]

An intentional move outside of the city walls was prominent among this class, though the original intentions for suburbanisation had been a desire to have country houses away

[28] Widodo (2007), p. 19.
[29] Stockdale (1812), p. 130.
[30] Raffles (1883), Appendix iv-v.
[31] Milone (1967), pp. 410-411.
[32] Hollander (2008), 10.
[33] Ibid p. 11.
[34] Nas (1993), p. 10.

from the city and display their wealth in the form of gardens and estates.[35] Similarly, Protschky argues the southern suburbs of *Buitenzorg* (meaning 'without care') and *Weltevreden* ('well-kept') became a place of retreat away from the swampy mouth of the *Ciliwung*. However, these detrimental features of *Kota Batavia* later became the primary reason for relocation. People began to commute to the city, as opposed to residing there.[36] Additionally, the human impact upon Batavia (tightly-packed, and later, abandoned, buildings) restricted airflow and allowed the spread of disease.[3738] With these estates, emerged an architectural peculiarity which reflected the *indische* culture, the *pendopo*, incorporating a roof design with large gaps to allow air flow to circulate, thus allowing a constant cool breeze to enter these houses.[39] This limited the effects of the tropical climate that Java presented as well as reduced the mugginess that European-styled buildings in Batavia were known to have.

Meanwhile, in the city, conditions only worsened for the average inhabitant. Furthermore, a lack of social consciousness of the 'common' people, who settled in Batavia, impeded living standards.[40] Therefore an effort to improve physical amplifications to the canals were installed such as levied edges, heightened streets and deepened canals to accommodate the increasing amount of waste and refuse dumped into these waterways.[41] Despite these measures, the phenomenon of *banjir* (flooding) continued to be a recurring problem through the VOC and colonial era. Another approach employed by the VOC was to convert Batavia from a trade and administration centre to a garrison city by the turn of the 19th century.[42] By the mid-1800s, the canals, which were seen as one of the causes of disease

[35] Taylor *(*1983), pp. 52-53.
[36] Molen (1993), p. 317.
[37] Raffles (1883), Appendix xi-xii.
[38] Molen (1993), p. 317.
[39] Milone (1965), p. 418.
[40] Ibid. p. 413.
[41] Nas (1993), p. 11.
[42] Blussé (1986), p. 34.

in the city, were filled up and converted into streets.[43] This enabled the suburbanisation of Batavia, to the extent that *Buitenzorg* became the administrative centre in the early 19th century.[44]

To conclude, Batavia was a striking city built with Dutch, native and Chinese influences. However, by the 18th and 19th centuries, the effects of the tropical environment and human impact upon the city turned it into a blot. The city attempted to acclimatise to tropical Java, but arguably failed in its attempts, and these problems persisted throughout the colonial era. The gradual 'exodus' of citizens, most notably of the gentry, from the centre of the city towards the newly-founded suburbs best demonstrates this.

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Appendix: Image

Figure 1: National Museum of World Cultures. Coll. no. TM-496-3. The city of Batavia, circa. 1627. Notice the extensive use of canals and walls, as well as *Casteel Batavia.*

[43] Cobban (1985), p. 309.
[44] Protschky (2011), p. 53.

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