Chapter 5

The Dutch Settlements in Asia: Historical Background, Planning and Implementation (East Indies, India and Sri Lanka)

5.1 Introduction

The previous chapter was about the Dutch Expansion in Asia. The purpose of this chapter is to expand on the historical background and planning of forts in the Netherlands and of forts and settlements in East Indies, Sri Lanka and India. VOC architecture and town planning, in the settlements in Asia, is similar in design, clear and straight forward[1]. Regulations for settlements during the 17th and 18th centuries were not only confined to architectural principles but also to technical aspects of planning and construction. They also covered all aspects of life: social, economic and cultural level from trading and warfare to everyday living and working. It seemed that this is deliberately planned in such a way.

The local commanders and engineers could have been, as Van Oers (2000:10) mentions, instructed by means of guidelines and technical and legal regulations from the Netherlands. The ideas of Dutch architects and mathematicians, on town planning, were laid down in treatises and have had a great influence on the construction of forts in the Netherlands and forts and outposts of the VOC/Dutch in Asia.

In turn Dutch architects had been influenced by the tracts of Italian architects from the *Renaissance* who wrote about their ideas of the "ideal" city. This combination of ideas led to the construction of typical, recognizable, Dutch settlements all over Asia.

5.2 Settlements in East Indies

In Asia, in particular, the VOC established, as Van Oers (2000:95) mentions, a policy to

[1] The VOC had its head office in Amsterdam, the Netherlands. The inhabitants of the Netherlands are referred to as The Dutch.

segregate and divide in order to provide for the necessary overview and safety. Maps of the period showed a clear division between different areas in town designed for the different cultural groups. Only these boundaries might be clear on a map in practice it was something else again. For people in their day-to-day life did not keep to these boundaries (in the case of building lines) or to the social lines so meticulously set out for them.

A very good example of this was to be found, as Van Oers (2000:95/96) describes, in the city of **Makassar** (nowadays *Ujung Pandang)* on Celebes (nowadays Sulawesi). It is taken over in 1667, by Cornelis Speelman[2], from the Makaresse kingdom of Gowa to get to the monopoly of the spice trade on these islands. The town has a large *kasteel* (castle) fort Rotterdam with the settlement *Vlaardingen* beside it and the garden of the VOC behind it. The native village the *Kampung Baru* was situated to the right of the castle and the *Kampung Melayu* to the left of it. In *Vlaardingen* lived the Dutch *Burgher* and the Chinese merchants. In *Kampung Melayu* the Malay population and in *Kampung Baru* a mix of natives (freed slaves as well) and *Burghers*. The idea was there for a town with specific areas for specific cultural groups.

There was a neighbourhood for the Europeans, Chinese, Malays, Indians, Buginese and Makassarese. Speelman laid down his ideas about townplanning in his *Memorandum* that was written in the period 1669-1670. Each of these areas had its own design. The castle had large stone walls, bastions and gates. *Vlaardingen* was surrounded by a more modest stockade and the two *Kampungs's* had simple bamboo fences.

"In the context the walls, stockades and bamboo fences marking the boundaries between castle, kampung and compounds faded because of the interaction of the company garrison and the East Indies port. A close look at the social reality of Makassar and, in particular its patterns of residence indeed showed that the theory of ethnic segregation, as expressed in Speelman's precepts, was far from being realized. The castle, as a military base, was tightly controlled. The

[2] Cornelis Speelman (1628 -1684).

day-to day problem was to keep its inhabitants inside, rather than trying to keep others out – the soldiers tended to abandon their posts for nights of drinking, whoring and gambling, while other higher officials sought the comfort of their houses and society in the settlements. Outside the castle walls, however, boundaries became vaguer, and inhabitants more variegated. While Vlaardingen was essentially a Chinese and European settlement, the presence of East Indiens (particularly at night) pursued the government to establish more security. Despite regulations and placards, it was easy to arrange nightly visits, a stockade was pierced by the back door of houses close to the walls, and many residents had personal or business ties with Indonesians". Sutherland (1989:109)

Figure 5.1: Makassar, Celebes. Plan of *kasteel Rotterdam* (ca. 1780). C.F.Reimer. Drawing. Source: Atlas of Mutual Heritage, the Netherlands.

Jakarta **(*Batavia*)** was meant to be the seat of the overseas government of the VOC and central meeting point for VOC ships in Asia. The site was ideal according to VOC officials: on the northern shore of the island Java at the mouth of a fresh water river *Tjiliwoeng* (Ciliwung) with a secure harbour behind the many islands in front of the Javanese coast with extensive agricultural lands behind. It was a total design of a *kasteel* (castle) with a city and villages for Asian peoples (Javanese and Chinese).

The city had a rectangular plan with large rectangular building blocks on both sides of the canalized river that ran through the city Its total size was 1.4, as Van Oers (2000:40) mentions, by 1 km at the end of the 17th century.

Initially the city was built on the east side of the river Ciliwung. Around 1629 the city was extended on the right bank of the river. To build a new part of the city further inland is considered too dangerous at this time. The primary axis ran from the *kasteel* at the

seaside to the land behind. Along this line the city was extended in the eighteenth and nineteenth centuries. The secondary axis ran horizontally to the first one. Along this axis the important social buildings were erected like the town hall and main church. The side on the left bank of the river *Ciliwung* was exactly symmetrically to the one on the right hand bank. The secondary axis however ran through both and ends at a bastion which marks at the same time the city limits of seventeenth century *Batavia*.

The defensive systems of the city were extensive: an inner canal, a wall with bastions and an outer canal surrounded the entire settlement. Inside the city there was a network of canals. On the coast and entirely surrounded by water with on the town side an open field (a field which could be flooded) was the gigantic castle *Batavia*. The canals in regular building plots divided the city. The major streets and canals ending on a bastion in the city wall. Outside the city wall there were plantations and gardens with simple wooden constructions for the Javanese farmers.

The main street was called the *Prinsenstraat* (Prince's Street) now *Jalan Cengkeh*, which did not follow the custom of naming the main street *Heerenstraat* (Gentlemen's Street). The most important streets and canals ran parallel to the primary axis. On the west side the most important street was called, indeed, *Heerenstraat* (Gentlemen's Street). The *Heerenstraat* was later split in two: the northern part gets the name *Theewaterstraat* (Teawater Street) and the southern part the *Binnennieuwpoortstraat* (the Insidenewgate Street) today these are called *Jalan The* and *Jalan Pintu Besar Utara/Selatan* (Great Gate Street).

The *Ciliwung* river was canalized in 1632, as Temminck Groll (2002:130) describes, and given the name *Kali Besar* of Great River. Although it had the appearance of a great canal it remained a river that could cause considerable problems. The canalized river became the city's new axis: building blocks were constructed on the west bank with the

main canals running north south. As early as 1650 there was a settlement on the west side. On the three outer edges the quarter was surrounded by a narrow canal, a city wall and in between these two a strip with rich vegetation. All this were surrounded by an outer moat. On the north side was the *kasteel* with access through *De Amsterdamsche Poort*. The *kasteel* protects the city from attacks from the sea while on the landside there was a ring of five strongholds at a distance of 2 to 4 km from the centre. Another part of the city was to the south and was not surrounded by a wall but it was more or less protected because it laid in the bend of the *Ciliwung* river. There the Chinese quarters: *Chinese Kamp* developed. *Kamp* was the name for a settlement where a certain ethnic group lives. It was actually closer to *Kampong* then to the Dutch *Kamp*. Vegetation, gardens, and country houses surrounded the entire settlement.

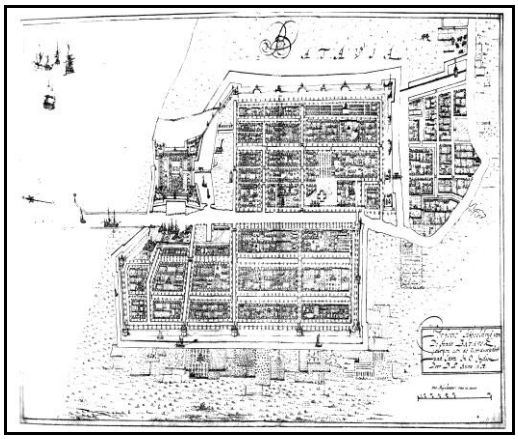


Figure 5.2a: Jakarta/ *Batavia*, Java. Typological Ground Plan (1681). Source: Temminck Groll (2002:130).

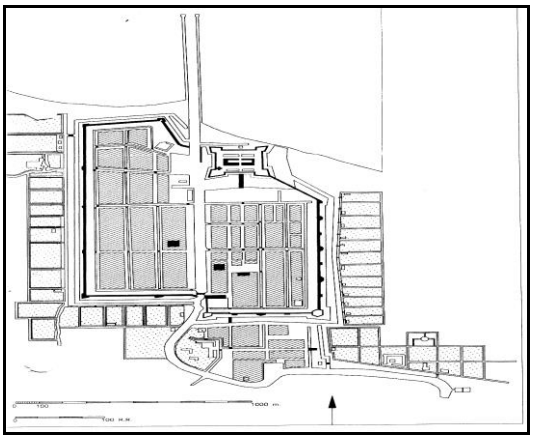


Figure 5.2b: Jakarta /*Batavia*, Java. Plan of the City (1650). Source: Van Oers (2000:41).

In Jakarta (*Batavia)* the, large, *kasteel* was constructed as a square with four corners or bastions: *Diamant* (Diamant), *Robijn* (Ruby), *Saphier* (Saphire) and *Parel* (Pearl). It had auxiliary buildings along the walls of the inner courtyard. In the middle of the square there was an administrative building, located east west, with two storeys's. The building had steep roofs and cross-bar window frames. There were also a couple of small inner courtyards in the building and a passage through the ground floor along the axis from the southern *Landspoort* Gate to the northern *Water Gate*. In the southern part of the *kasteel,* the government was housed. This part had a monumental staircase and a small

turret. In the northern part of the *kasteel* the council chamber was situated. There a modest octagonal church stood in the south-west corner of the square and the 'playhouse' is located outside in the moat on the west side. At least until a few decades ago there was a building called the *dispens* or storage/warehouse standing on the erstwhile forecourt of the *kasteel*. It was a spacious two storey building within inner court surrounded by a gallery and arches.

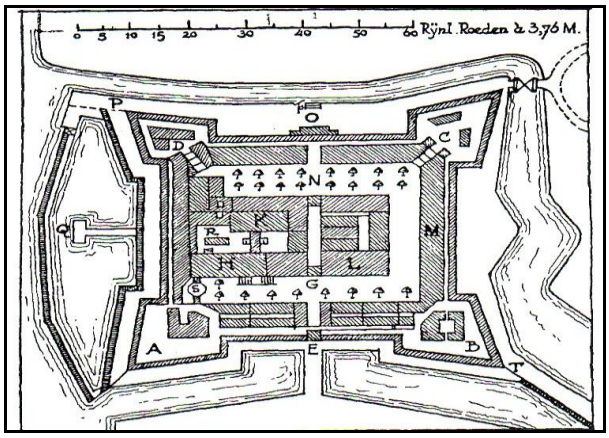


Figure 5.3: Het Kasteel. (ca. 1740).
Jakarta/ *Batavia* , Java.
Source: Temminck Groll (2002:131).

A large fort (in a five star form, with five corners or bastions) was constructed at the mouth, a little inland, of the river **Semarang** in 1708 to secure the trade in indigo and rice. Later a town was designed with an irregular street pattern where the main characteristics were the avenue with bridge and gate in a right angle to the river and a central square with a church. Walls and canals surrounded the city and fort. By the end of the 18th century, as Van Oers (2000:62) mentions, the size of *Batavia* is 0.4 by 0.8 km.

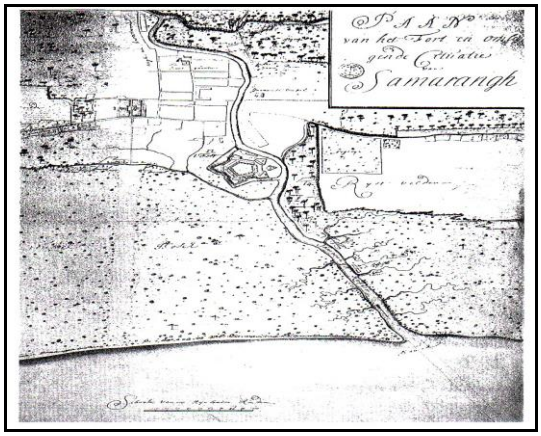


Figure 5.4a: Semarang, Java.
Plan of the City (1719).
Source: Van Oers (2000:62).

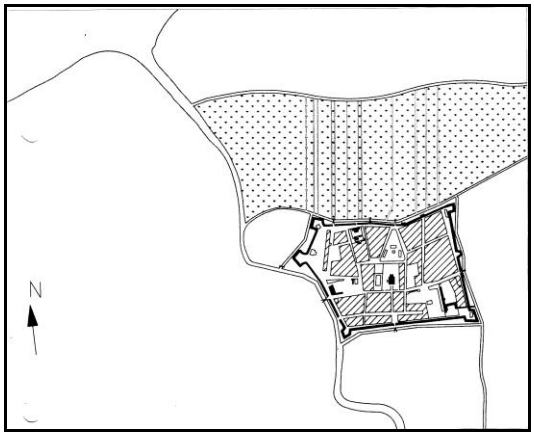


Figure 5.4b: Semarang, Java
Typological Ground Plan (1787).
Source: Van Oers (2000:63).

Surabaya was already an existing town in north-east Java, on the left bank of the river

Kali Mas, when the VOC capture it in 1743. The Dutch built a fort: *Fort Belvedere* and a new town directly opposite the existing indigenous one where Javanese, Arabs and Chinese lived. The new town was designed close to the river mouth with a main tree-lined road in a right angle to the river. The fort had the form of a square with four corners or bastions. The town had a regular street pattern. The whole was surrounded by walls and canals. The size of the city by the end of the 18th century was, as Van Oers (2000:66) describes, 0.4 by 0.8 km.

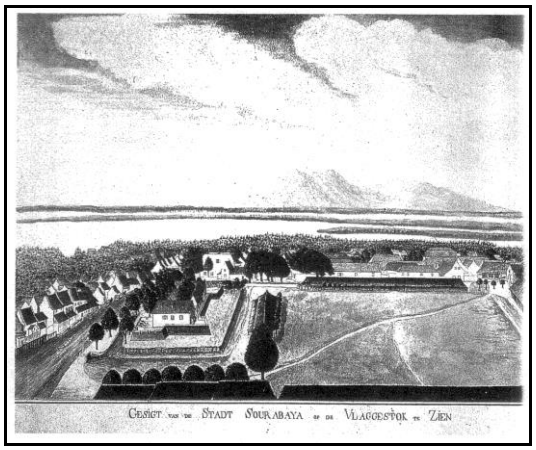


Figure 5.5a: Surabaya, Java.
Plan of the City (1719).
Source: Van Oers (2000:66).

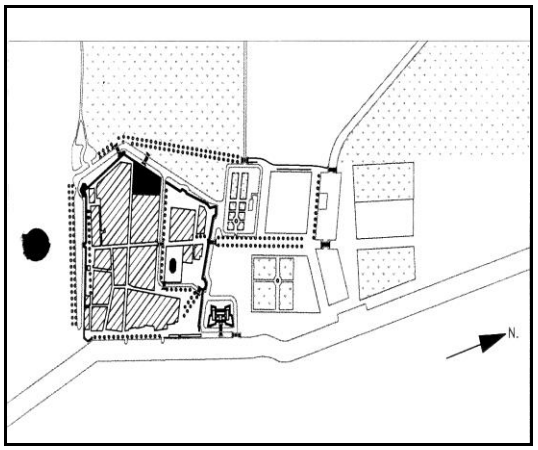
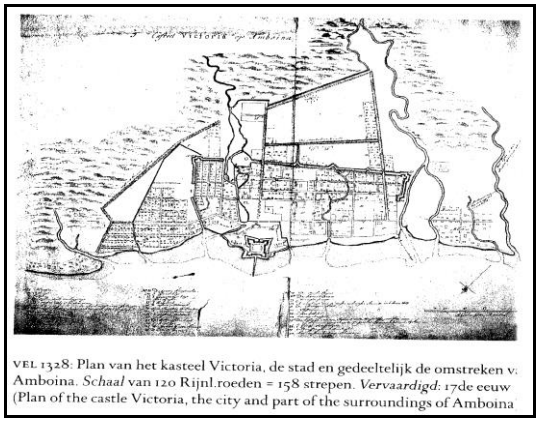


Figure 5.5b: Surabaya, Java.
Typological Ground Plan (1787).
Source: Van Oers (2000:67) .

The small town of **Amboina** in the Moluccas became a city of regional importance through some changes the VOC brought to the town: the fortifications of Amboina were for the greater part reconstructed, the marshy lands in the surrounding countryside were drained. Canals were dug and the town got a regular lay-out. Also due to its location there was potential for this town: it was at the seashore of the island Ambon, fresh water flowed down the mountains behind the town and it has one of the most beautiful and sheltered harbours in East Indies. It was captured from the Portuguese in 1605 because it was a major trading post for cloves, nutmeg and mace. It consisted of a fort: *Fort Victoria* (which was a square with four corners or bastions, a town and a village for the indigenous population.

The size of Amboina was minimal: only 0.4km by 1 km, as Van Oers (2000:38) men-

tions, the second half of the 17th century. Walls and canals all around the city protected it.



VEL 1328: Plan van het kasteel Victoria, de stad en gedeeltelijk de omstreken v. Amboina. *Schaal* van 120 Rijnl.roeden = 158 strepen. *Vervaardigd*: 17de eeuw (Plan of the castle Victoria, the city and part of the surroundings of Amboina

Figure 5.6a: Amboina, Ambon.
Plan of the City and its surroundings
(17th century).
Source: Van Oers (2000:38).

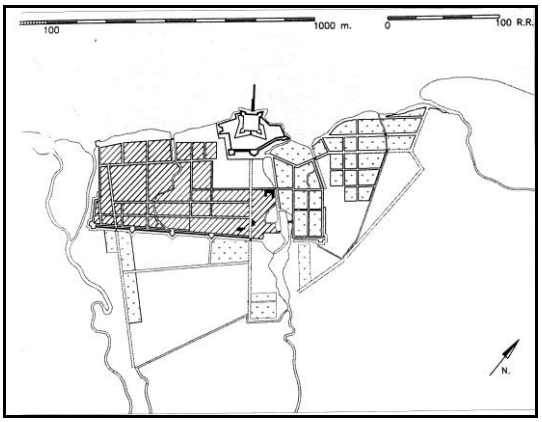


Figure 5.6b: Amboina, Ambon.
Typological Ground Plan. Historical situation
(Second half of the 17th century).
Source: Van Oers (2000:39).

5.3 Settlements in India

The settlement of **Pondicherry** was situated on the Coromandel Coast of India where two rivers converge. When the city was captured from the French the planning and design for a whole new town and city wall was laid out. In the six years (1693-1699) that the VOC occupied the city the plans could not be completed. The French, after they recaptured the town, finished the project as planned by the VOC/Dutch. There was Fort

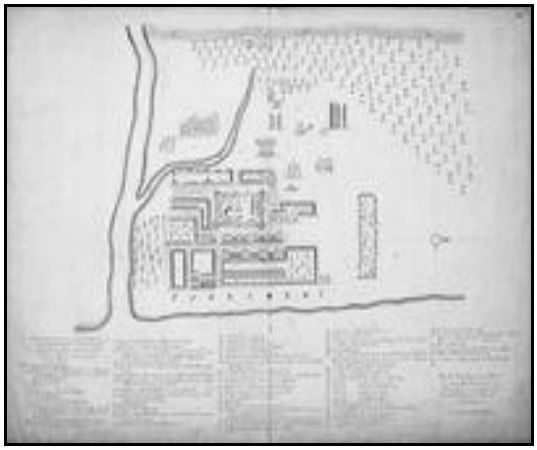


Figure 5.7a: Pondicherry, India.
Plan of the City (1693).
Source:Atlas of Mutual Heritage, the Netherlands.

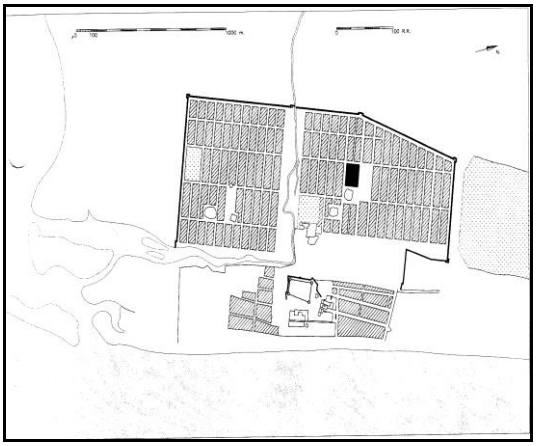


Figure 5.7b: Pondicherry, India.
Typological Ground Plan (1694).
Source: Van Oers (2000:61).

d'Orleans: a square with four corners or bastions and the city in a rectangular from with large, rectangular building blocks. Its size was 1.3 by 1.8 km, as Van Oers (2000:60) describes, by the end of the 17th century.

Cochin had the fort *Vesting* Cochin and city within the same walls. Here there was no separation of the *kasteel* and the town. When the VOC took over Cochin in 1663 they reconstructed the whole settlement: fortifications and the city. The fort was a *citadel* and the city had a regular street pattern. Within the city there was a central square lined with trees. Cochin was located at the sea shore with behind in the inland lakes and rivers. It was the center for trade, storage and shipping of pepper. By the end of the 17th century, as Van Oers (2000:56) mentions, its size was 1.5 by 0.8 km by the end of the 17th century.

Figure 5.8a: Cochin, India
Plan of the city (17th century).
Source: Atlas of Mutual Heritage, the Netherlands.

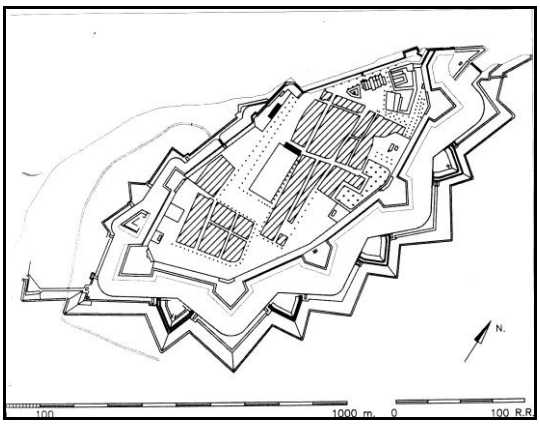


Figure 5.8b: Cochin, India
Typological Ground Plan (1782).
Source: Van Oers (2000:57).

5.4 Settlements in Sri Lanka

The same situation also occurred for the city of **Colombo** as with Makassar: the construction of the fort with the old city and native villages behind them to the north. A governmental decree was issued on March 13, 1684. It stated that it was forbidden to sell houses inside Colombo Castle to natives. Even a century later it was not allowed for natives to buy houses within the castle. A police regulation of that period states: "Binnen deze Kasteele zullen gene zwarten of vrijgegeevene slaaven moogen woonen dan's kompagniesdienaaren, hunne weduwen an kinderen" (Within this castle no black man or free slave is allowed to live other than Company servants, their widows and children). Except for these, also other Europeans were allowed to live within the castle. The city was taken in 1640 from the Portuguese to secure the monopoly on the cinnamon trade.

The town of Colombo was divided, as Van Oers (2000:97) describes, in three parts: the *kasteel* or fort, an intermediate zone (the Buffalo field or *Buffel's veld*) where military exercises could be held, which field could be flooded in times of danger, and the city for the *Burghers* to the east. By the end of the 17th century the city had a total size of 1.4 by 0.7 km. There were two axes: one from north to south, through the fort, from the harbour in the direction of Galle and the cinnamon plantations, and one from west to east through the buffalo field and the town of the *Burghers*. There was much water in and around the city, which was incorporated in the design on purpose in view of the defense of the city: the fort had a water-filled moat on the landside, the fort and the city were separated from each other by the buffalo field, which was partially filled with water. A canal and marshes from the native villages behind it separated the city. Finally yet importantly, an ocean to the north and marshy plains to the south and east surrounded the whole ensemble of fort or castle, buffalo field and city.

The *kasteel* or castle had the form of a octagonal shape, as Van Oers (2000:96) mentions, with eight bastions with a water filled moat on the landside. Only one building inside the castle was known from records: the *Nederduitse* (Dutch Reformed) Church.

The *Kasteel* of Colombo, as designed by Adriaen de Leeuw[3], was not according to the ideal design, for this kind of city, as Vasari had in mind. This was due to the re-use by the Dutch of the remaining Portuguese bastions. The eight bastions were located at strategic points, with one side of a street ran directly to a bastion. Therefore, that the main streets could be easily defended but also the surrounding land and waters. Only the two central (axis) streets end there for on a bastion. In the design of De Leeuw there was no central square due to the fact that there were two rocky hills inside the *kasteel*. Instead, two squares, one at each end of the main axis going through the town, were

[3] Adriaen de Leeuw, active from 1667 to 1681, worked as military engineer and land surveyor in Ceylon. After 1667 he worked in Jakarta *(Batavia)* where he was responsible for public works and VOC buildings.

designed to provide the town with the necessary space for military exercise. Later the hills were removed to get more building space inside the *kasteel*. Thus providing a widening view when approaching one of the squares. However, there remained an elevation in the middle of the avenue because the rocks were situated here once. This road ran from the bastion *Amsterdam* at the harbour to the bastion *Middelburg* inland. At the square next to bastion *Amsterdam* the church and the seat of the government were located where the administrative center of the region was located.

Because of the form of the citadel with its polygonal shape the street plan on the inside had this form too. These kinds of designs could also be found in sixteenth century designs for ideal cities as in the plan of Giorgio Vasari[4] from 1570. His plan showed a radial plan and grid pattern. This plan was a combination between a formal urban plan with a central square, monumental vistas and a set of outer squares and military control of the bastions. With an overview from the central square with the necessary connections to the bastions. This led to a complex network of streets and squares in the city.

The design of the city next to the castle did not suffice for the needs of the Dutch. The former Portuguese town was positioned at the coast and a part followed the coastline and then turns inland. The winding city wall was there for straightened out. Due to the Dutch architects who redesigned the city it became rectangular.

The city had a clear and orderly lay-out with a grid pattern and fortifications around it. It has a regular plan where streets are at right angles to each other and with different sized building blocks between them. There were five horizontally and five vertically running streets in the city that are not parallel to each other. The horizontally running streets had names like: *Zeestraat* (Sea Street), *Koning's straat* (Kings Street), *Keyserstraat*

[4] Georgio Vasari (1511-1574). Painter, architect and writer. In 1550 his book on the *Lives of the Most Eminent Architects, Painters and Sculptors* was published.

(Emperor Street) and *Prinsenstraat* (Prince's street). Through the *Koningsstraat* and *Keyserstraat* cannons could be fired from the bastion *Hoorn* at the west side of the city. The centre of town was formed by the *Keysersstraat* running towards the bastion *Constantia* at the east side of the city. On the street, there were open spaces that were projected for a Town hall and a graveyard (which is created in 1668). Although around 1697 the centre of town shifted to the *Koningstraat* when engineer J.C. Toorzee designed a plan to connect the *Koningsstraat* with the new eastern gate of Colombo Castle by a road over the Buffalo field.

The harbour was the same as previously used by the Portuguese with a water fort, warehouses, a sawmill and an iron shop on top of the piece of land which was stretched out into the sea. The warehouses were to store trading goods like wine and arrack.

The city was certainly pleasant to dwell in the building blocks were open and painted white. The streets were lined with trees to provide shade in the unmerciful sun. All the buildings were lined with a single row of trees and the two squares in town with a double row of trees. While one half, of Buffalo field was planted with trees and the other half filled with water. Decrees were issued for the protection of these trees. Some citizens apparently needed wood for their fireplaces or their kitchens and then cut the trees simply down Life in Colombo was an orderly one, as Van Oers (2000:104) describes,: there were decrees for almost everything: there was one for garbage disposal, one for the thatched roofs that had to be replaced by tiled ones, one that ordered the inhabitants to work on the fortifications and even a decree on street lanterns in Galle.
Life in the city was organized and clean. So too create safe and healthy surroundings for the well-being of the inhabitants.

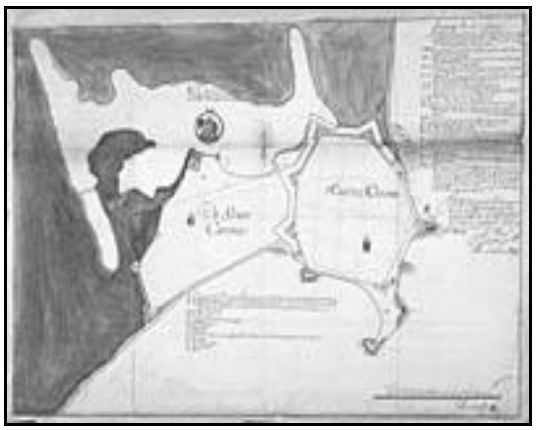


Figure 5.9a: Colombo, Sri Lanka.
Plan of the City. Adriaen de Leeuw (1659).
Source: Atlas of Mutual Heritage, the Netherlands.

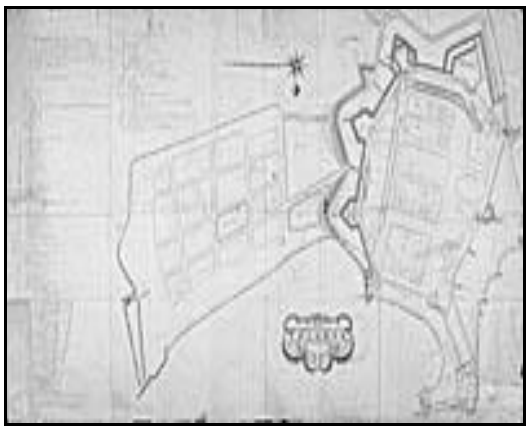


Figure 5.9b: Colombo, Sri Lanka.
Typological Ground Plan (1733-1734)
Source: Atlas of Mutual Heritage, the Netherlands.

Galle consisted of a fort and a town that were both placed on a rocky cliff overlooking the Bay of Galle. Its size by the end of the 17th century, as Van Oers (2000:46) mentions, was 0.8 by 0.7 km the fort, with the bastions, and town were the citadel type that meant that the entire settlement was fortified.

After the takeover from the Portuguese the settlement was totally reconstructed and the fortifications strengthened. Galle was taken because it was at a strategic meeting point for the fleet of VOC ships returning from Asia to the Netherlands. Van Oers (2000:46) describes that the town had a regular street pattern, which means streets are at right angles to each other but with different sized building blocks between them, with a drainage system due to the sloping terrain.

Figure 5.10a: Galle, Sri Lanka.
Plan of the City. Reimer G.E Schenk (1790).
Source: Van Oers (2000:46).

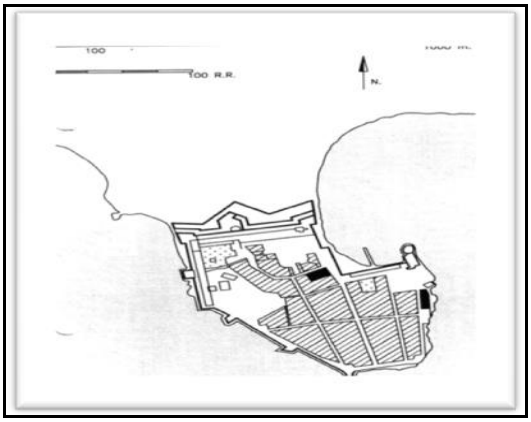


Figure 5.10b: Galle, Sri Lanka.
Typological Ground Plan (Second half of the 17th century).
Source: Van Oers (2000:47) .

The city of **Negombo** is taken in 1644 and reconstructed. The fortifications strengthened and the town newly designed. The town is situated on a point of land that was pointing out into the sea there for it was able to control the sea traffic and at the same time controlling the cinnamon fields in the land behind. The city is surrounded by water and there for this was an excellent system of defence. There are two parts of the settlement: Wjiesuryia (1996:59) describes that there is the fort: an irregular square form with four corners or bastions (polygonal). And then there is the town with a rectangular street plan: which means that the streets were at right angles to each other but also the building blocks were of the same sizes. In other words a strictly geometrical plan. Walls and canals surrounded the settlement. The total size of the city, as Van Oers (2000:50) mentions, by the middle of the was 17th century was 0.5 by 0.8 km.

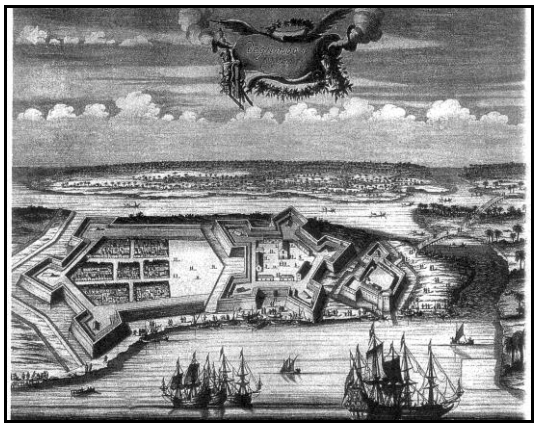


Figure 5.11a: Negombo, Sri Lanka.
Plan of the City (1657/58).
Source: Van Oers (2000:50).

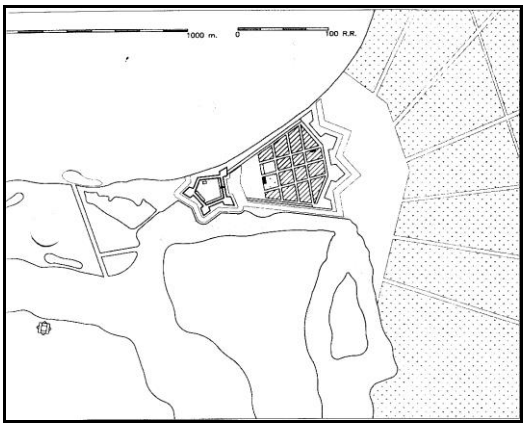


Figure 5.11b: Negombo, Sri Lanka.
Typological Ground Plan (1657/58).
Source: Van Oers (2000:51).

5.5 VOC Forts

5.5.1 Forts in East Indies

In the 18th century the large fort *Vredenburg* is constructed in Yogyakarta.

Figure 5.12: Yogyakarta, Java. Fort *Vredenburg* (1765).
Source:http://www.bentengindonesia.org.

designated to visually express the Dutch political power. Such forts, constructed from stones, were built as a protection against indigenous enemies who had no weapons; therefore, the structures were not as strongly fortified as those in Europe.

5.5.2 Forts in Sri Lanka

Fort **Jaffna** on the North-eastern tip of Sri Lanka shows an interesting parallel to the Naar den fortifications that were constructed east of Amsterdam. Jaffna was constructed between 1675 and 1685 with the help of the architect Adriaan Dorsman[5]. Both forts had the same design. Both had heavy earthen walls covered with a layer of masonry facing outwards and enclosed by wide moats. The fort of Jaffna was only completed in the 18th century.

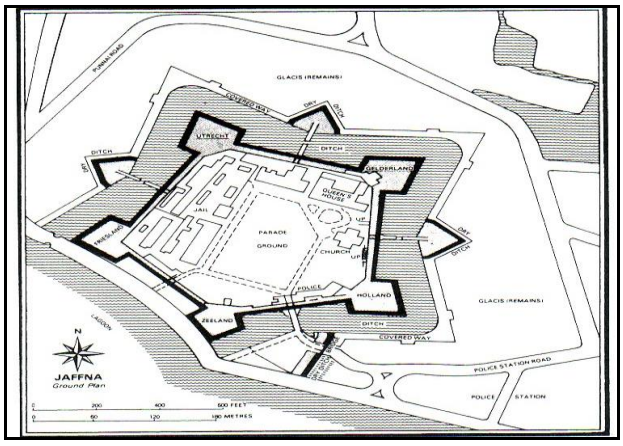


Figure 5.13: Sri Lanka. Fort Jaffna (1618).
Source: Temminck Groll (2002:258).

The hexagonal Redoubt *Van Eck* was constructed at Matara in the 18th century.

5.6 VOC Watch Towers

5.6.1 Watch Towers in East Indies

In the area close to the harbour in **Jakarta** *(Batavia)***,** there stood a watchtower that was constructed on the place of a bastion. It got the name *Culemborg* after a litte town in the province of Gelderland. It stood on a rectangular ground plan.

[5] ca. 1637-1682.

Figure 5.14: Jakarta/*Batavia*, Java.
Fort *Culemborg* (1830).
Source: Temminck Groll (2002:133).

In East Indies, there was no specific development of a specific form language for houses and official buildings. Here the Classicist architecture was introduced. Not exactly confirmed but rather more freely applied. Houses had spacious galleries or porticoes.

5.7 VOC Town halls

5.7.1 VOC Town halls in East Indies

In almost all countries overseas, the dome with the rectangular, decorated, entrance block , as Temminck Groll (2002:74) describes, was to be found back as was to be seen in the Royal Palace in Amsterdam. This could be seen in the Town Hall in **Jakarta** *(Batavia*) built in the beginning in 1707 century. The building fits in perfectly in the style of the 1650's. Only there were no sash windows but casement windows that originated in France.

The Stadhuis, Town Hall, in Jakarta (Batavia), now the Museum Sejarah Jakarta, was built under the Governors–General J. van Hoorn[6] and A. van Riebeeck[7]. The plan was drawn by the head of the VOC's craftsmen, W. J van de Velde and executed, over a period of three years (1707-1710), by J.F Kemmer, a German building contractor. On this site there first was a provisional building from 1620-1627 and a building from 1627-1707. There is a main block measuring 65x16 metres with two storey's (6 and 6.5

[6] Joan van Hoorn (1653-1711). Governor-General of the Dutch East Indies (1704-1709).
[7] Abraham van Riebeeck (1653-1713). Governor-General of the Dutch East Indies (1709-1713).

meters high) on a fundament with continuous roof. A domed tower stood in the middle at the front of the roof over the entrance. This dome was about 27 meters over the ground. Underneath the dome were the central staircase and two lateral staircases since the early 19th century. Originally, there was a peripheral staircase here. In the fronton, in the midsection, there was placed, in a niche, a statue of Justinian flanked by the emblems of the VOC and the town. This statue was removed during the Japanese occupation. The midsection originally had four Doric columns with arches in between. The upper storey had a broad arched window with a cross-bar window on either side. With the alteration of the midsection, in the 19th century, six Doric columns were placed on the ground level. Four on the extreme end and two between these. The upper storey four cross-bar windows were divided by Ionic pilasters. With on the outside of the lower windows shutters. The main *facade* had on either side of the midsection two rows of five cross-bar windows. At both sides of the main *facade* there were wings each with two storeys. The one on the left was five windows wide and the one on the right had three windows. They extended to the back so a backyard was created. The interior was sober and had a monumental gently sloping staircase in the central hall parallel to the front facade.

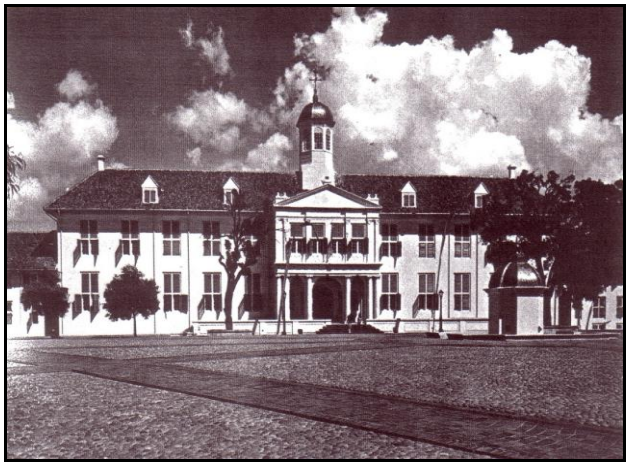


Figure 5.15: Jakarta/*Batavia*, Java. Town hall (1707-1710).
Source: Temminck Groll (2002:201).

The great castle of Batavia was built in the second decade of the seventeenth century, basically the designs of Simon Stevin were followed. The first buildings inside the castle

consisted of warehouses and simple accommodations for the staff of the company. Military engineers probably designed the buildings and they left their mark of austerity and solidity on the buildings. There were some decorative elements on some buildings like the gates, the church and the residence of the Governor-General.

The Governor's house in Jakarta *(Batavia)* dates, as Vis (1988:117/118) mentions, from around 1625. On the so-called 'painting of Coen' (1629) it was shown with the building *facades* cross-bar windows and a protruding element at the back of the building. A small staircase provided access to a large room of about 9.5 x 14.5 meter. At its left were the quarters of the Governor-General, probably consisted of a dining room, an antechamber and a bedroom. At the right were the quarters of the secretariat. Within a few years, the house was expanded with a gallery on two floors at the back. Until the height of the first floor the gallery was in stone (arcades). The gallery on the second was made of wood. There was also an overhanging gable roof at the expense of the stepped gables. The angular shape of the gable apparently did not suffice, and is soon replaced by straight or undulating bands. Because of the overhanging roof, the walls were protected from the abundant rain and direct sunlight, allowing the interior spaces to be considerably cooler. Thick walls, high ceilings and large finished tile floors provided the interior spaces with a relative coolness. However, most people probably lingered in the shady arcades, where the transition from the inside to the outside caused a pleasant atmosphere. These galleries were soon a normal part of the Dutch house in the tropics. For the larger urban house gradually emerged a general plan, which was copied in many provinces. Closely related with the *Stadhuis* was for example the house Great-Constantia in South Africa, build around 1690 by order of Governor Simon van der Stel[8]. Instead of a gallery, there was a sidewalk, complete with brick sidewalk banks. Also in the former Ceylon, some

[8] Simon van der Stel (1639-1712). Last Commander (1679-1691) and first Governor (1691-1699) of the Cape Colony. The Dutch settlement at the Cape of Good Hope in South Africa.

examples exist, as can be seen in the Dutch Period Museum in Colombo, which also has the U-shaped plan with gallery.

5.8 VOC Churches

5.8.1 VOC Churches in East Indies

In 1634 the first church The *Kruyskerk* was built at the *Stadhuisplein* (Town hall square), now *Taman Fatahillah*, in **Jakarta (***Batavia)*. It had a cruciform shape. It later was replaced by The *Nieuwe Hollandse Kerk* that had a beautiful dome. This church unfortunately had to be demolished in the 19th century due to flaws in the foundations.

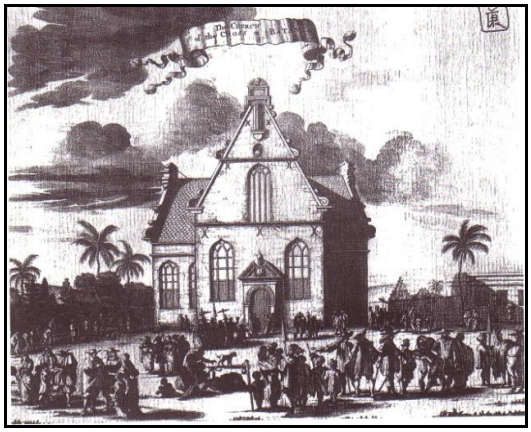


Figure 5.16a: Jakarta/Batavia, Java. The *Kruys-kerk* (1634-1732).
Source: Temminck Groll (2002:135)

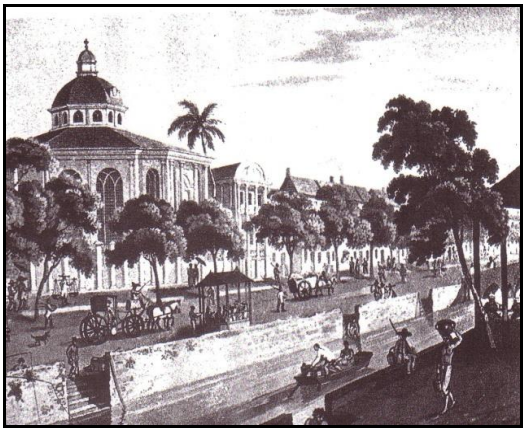


Figure 5.16b: Jakarta/Batavia, Java.
The *Nieuwe Hollandsche Kerk* (1736-1806).
Source: Temminck Groll (2002:136)

The *Portugese Buitenkerk, Geraja Sion*, on the *Jalan Pangeran Jayakarta*/*Dr. Suratmoto* Street, in Jakarta *(Batavia)*, was a rectangular block, built in a style that fits in the period of the middle of the 17th century, measuring 27x34 meters. It stood outside of town. This in contrast with the *Portuguese Binnenkerk* that once stood in the inner city. It has five windows by three and was divided (on the inside) into three aisles by two times three columns. It had relatively thin brick walls that measure 45 cm. These were plastered white. Originally three narrow saddle back roofs covered the church. In the 1920-21 restoration it was replaced by one continuous roof.

It has a very sober exterior but beautiful carving on the inside that was partly Javanese

and Dutch: at the organ gallery, the benches and the pulpit. It still had a sash window in the extended vestry. There also was a simple wooden belfry with a bell cast from 1675.

It was founded for the benefit of the Protestant East Indien people also known as *Mardijkers* or Freed men. *Mardijkers* came from the Indonesian word *Merdeka* that means freedom. The Portuguese did bring in East Indien people from the islands as slaves and gave them their freedom if they converted to the Roman Catholicism faith.

The Dutch followed this practice but they had to convert to Protestantism. The building was closely related to the Lutheran Church in Groningen but its furnishings had been decorated in the Javanese Style. Churches in Asia had the same kind of characteristic interiors as the churches in the Netherlands with their chairs, benches and pulpit.

Figure 5.16c: Jakarta/*Batavia*, Java.
Portugese Buitenkerk/ Geraja Sion (1693).
Source: Temminck Groll (2002:140).

Semarang has a domed church that is build in the 18th century as were the smaller churches in the Moluccas. The dome has an internal diameter of 15.5 and, as Temminck Groll (2002:167) describes, on the outside with attached buildings it measures over 21 meters.

Figure 5.17a: Semarang , Java.The *Koepelkerk. Geraja Blenduk (*1760).
Source: Atlas of Mutual Heritage, the Netherlands

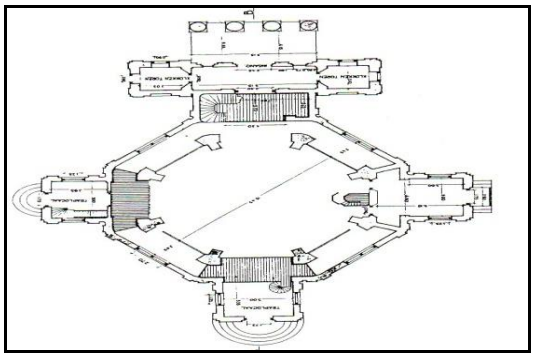


Figure 5.17b*:* Semarang , Java.The *Koepelkerk. Geraja Blanduk* (Ground Plan).
Source: Temminck Groll (2002:167) .

5.8.2 VOC Churches in Sri Lanka

The protestant church *Wolfendahl* in Colombo, still operational to this day, has been built in the 18th century. The church is constructed in the form of a Greek cross with walls nearly five feet thick over which the gables have been raised. The dome was originally arched and made out of brick. A brass lion was placed on top. The lion had a crown on its head, bearing a sword in one hand and seven arrows in the other, representing the seven united provinces of the Dutch Republic. In 1856, the lion was destroyed by a bolt of lightning and it seriously damaged the dome. The roof was later replaced with an iron covering.

Figure 5.18: Colombo, Sri Lanka. Wolvendaal Church (1749-1757). Source: http//:www.wolvendaal.org/ churches-monuments/wolvendaal-church-colombo (2005).

5.9 VOC Houses

5.9.1 VOC houses in East Indies

The clear proportions between the facades and, as Temminck Groll (2002:77) describes, the windows characterized the houses in the overseas settlements.

In **Jakarta** *(Batavia)* there was a narrow parcelling of the land. The houses were quite deep. It was customary to construct the gables at the side of the house. These houses usually had inner courts. The decoration remained quite simple but the woodcarving was more elaborate than elsewhere. This was also applied to the fanlights over the windows and doors.

The smaller houses in Batavia had their side *facades, as* Temminck Groll (2002:137) mentions, to the street not the gables. They had two storeys. The reason that the gables were not at the street side was that a gutter between the houses could not handle the rainwater and with a gable at the street side it was not possible to use the protruding roof as a water ledge. These houses had a door and a window on the ground floor with a firehouse and a cooking area at the back that was at the same time the yard. A steep staircase in the corner would lead to the first floor that had one or two rooms and one or two windows.

There were bigger houses like the double house build by Gustaaf Willem Baron van Imhoff in 1730 on *Kali Besar* West. It was also known as the *Toko Merah* or the red shop due to the red colour of the interior. It measured 27x49.5 meters and had two storeys. It had very carefully laid brickwork. The *facade* had, on the ground floor, two doors and four sash windows filled with glass panes. On the first floor there were six sash windows filled with glass panes. Over the doors were elaborately carved fanlights. Due to its depth the interior had courtyards for light and air. Its rooms were decorated with plasterwork. A Dutch tiled, saddle back roof, with quite an overhanging part to prevent the rain form touching the outer walls, covers the whole building.

The Reynier de Klerk house was a rectangular building of no more than two storeys high. The roof stuck out over the wall so the wall is covered in shadow when the sun is at its peak during the day. There was an inner court when the building was deep to the back. The gable ends of the building were not at the front of the building but at the side. Not at the street side.

There were fanlights over the doors so there is constant ventilation. The only remaining country house in Jakarta *(Batavia)*: the Reynier de Klerk House, at the *Molenvliet, Jalan Gajah Mada,* or nowadays the *Arsip* National Museum is a good example of a typical

Dutch country house on a larger scale as it could be found at the *Vecht* river in the Netherlands. The stuccowork of the inside and outside remained very simple but the decoration on the woodwork was rather elaborate according to Javanese artisanship. The interiors had steep staircases but were sober and the furniture was often varied and very attractive.

Figure 5.19: Jakarta/*Batavia,* Java. The *Reynier de Klerk* House (1760). Source: http://www.panoramio.com.

In contrast to the Netherlands Antilles and South Africa, as Vis (1988:118) describes, where the gable-architecture was highly developed, it was not very highly developed in the *facade* architecture in the East Indien archipelago. The overhanging roof with cutter dominated the *facade* architecture. One of the exceptions in the former Batavia, were the out-buildings of the house of Reynier de Klerk (1755), which had bell-shaped end walls. From prints were also the tilted walls of the house *Weltevreden* from the same period.

On Sri Lanka most houses had only one level with a gallery along the street side. The service areas were located in narrow extended wings to the rear with a roof of under-and over tiles and roof slopes of 30-35%. The decoration was simple with a nice woodcarving but less abundant as on Java.

5.9.2 VOC houses in Sri Lanka

The Governor's house *in* **Colombo** was one of the most important buildings, as Temminck Groll (2002:249) mentions, in architectural terms build by the VOC in Asia. It had attached buildings and a big sunken garden. The entrance was in the north wall facing

the sea with a front extension 11 bays long and about 47.5 meters wide, one storey high and covered by a saddle back roof with gables at each end. A grand portico and two two-storey corner pavilions that have since vanished replaced the front extension. In 1687 there was an extension on the west side which was used as a dining hall. Adjoining the dining hall there is a block oriented north south with a saddle back roof with on each end a Dutch gable. This was the Governor's office. On the east site was the *tuynhuys* or garden house. The main block, the actual house had two storeys and was 13 bays wide; these bays were slightly smaller than those at the front. The house was crowned by a continuous balustrade and a saddle back roof between two tops with bay windows above the nine central bays. The garden *facade* was divided by two pilaster orders: a squat Corinthian order above an Ionic one. It stood upon a substructure because the attractively styled garden lay considerably deeper and was accessible via an extended pavilion with a staircase. The lower pilaster order was continued on the garden *facade* on the dining hall. Arched openings were visible across the entire width, while cross-bar windows were applied elsewhere. On the garden side, the symmetrical interior contained an impressive gallery along the whole width, behind there are three halls, with two staircases at the extremities.

Figure 5.20: Colombo, Sri Lanka. The Governor's House (ca. 1710). C.Steiger pinx. Drawing.
Source: Atlas of Mutual Heritage , the Netherlands.

On Sri Lanka most houses had only one level with a gallery along the street side. The service areas were located in narrow extended wings to the rear with a roof of under-and

over tiles and roof slopes of 30-35%. The decoration was simple with a nice woodcarving but less abundant as on Java.

5.9.3 VOC houses in India

In India the *facades* of the houses were plastered with tiles on the roof that were laid in the Portuguese fashion of over-and under tiles.

5.10 VOC Warehouses

5.10.1 VOC Warehouses in East Indies

In the area west to the *kasteel* in **Jakarta** *(Batavia)* stood the so-called *Westzijdse pakhuizen* or storage buildings. These were elongated buildings of two storeys high. These were plastered brick buildings with heavy wooden supports for the upper floor beams. They had steep steps between the triangular end gables. Behind these stood the *Oostzijdse pakhuizen*, heavy, well-ventilated, wooden warehouses. They date of the 17th century.

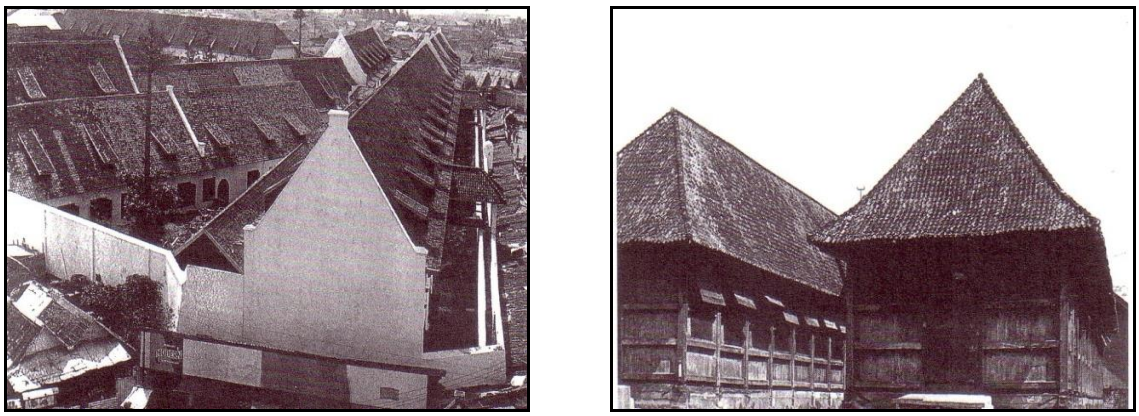


Figure 5.21: Jakarta/*Batavia.* Java.
Warehouses (1652).
Source: Temminck Groll (2002:133).

5.10.2 VOC Warehouses in India

The former warehouse, which is about 40 km south of **Madras**, as Temminck Groll (2002: 238) reports. consisted of four wings around an inner courtyard and had striking brick vaulting.

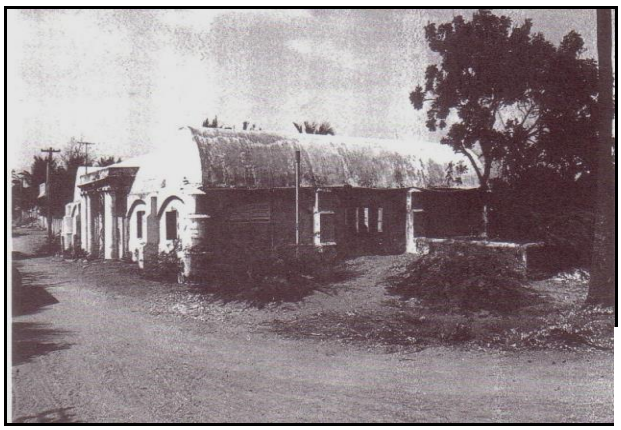


Figure 5.22: Madras, India. Covelong warehouses (17th century).
Source: Temminck Groll (2002:238).

5.11 Decoration

In the decoration of the houses the *Louis XV* and *Louis XVI* styles were introduced in Asia. The *Louis XV* style was characterized through convex and concave lines that would flow into each other. Components of the decoration were often asymmetrical. A well-known feature of this style was the shell or *rocaille*. The *Louis XVI* style was much more austere and follows the classical form language. There for the decorations were much more symmetrical and linear. *Festoons* and slender vases were often used in this style.

5.12 Materials

Dutch bricks, as Temminck Groll (2000:71) describes, were generally used for the construction of the houses in Asia. These were used as ballast for the ships that sailed to Asia. The small yellow *IJsselklinkertjes* (3.5 to 4 x8x16 cm) were very suitable for use in the tropics.

They came from the clay from the *IJssel* River that ran through the province of South-Holland. The *Vechtsteen* which was baked from the clay from the river *Vecht* in the province of *Utrecht* was also exported to Asia as was a slightly, softer red brick.

The Dutch used locally available late rite, as Rosli (1996:9) mentions, as a building material. The Dutch initiated, like the Portuguese, the manufacture of roofing tiles in Malacca. Under Dutch rule, the authorities granted a monopoly to a group of Dutch

businessmen for the manufacture of bricks. Portuguese and Chinese roofing tiles, and square terra cotta tiles.

In East Indies bricks were made from the clay found in the country itself and the walls were generally coated with plaster. Natural stone came from India. Wood of a good quality was readily available. Galleries were not very much to be seen in the houses. The roofs were covered with tiles made locally after Dutch design.

Many of the bricks for the construction of the new castle and the town (in *Batavia*), as Blussé (2009:120) describes, which was to be built behind it were brought as ballast in the holds of the Dutch East Indiamen. Even the arches of the city gates were prefabricated in Europe. Evidence of which had been provided by the recently retrieved cargo of the Batavia, a VOC ship which was recently shipwrecked on the Albanos Reefs of the west coast of Austalia in 1629.

On Sri Lanka the walls were not build of brick but of a local material: *cabook*. These were blocks cut of the ground and dried in the sun. The walls were there for quite thick and protect well from the heat of the sun. They were however plastered anyway. Most houses had galleries. The areas for the servants and kitchen were placed in narrow wings at the back of the house. Roofs were done in the Portuguese way with tiles that were lying over each other. The roofs had generally a slope of 30 to 35 degrees. Most houses had one story.

In India houses were builds with bricks and the outside walls plastered. The tiles on the roof were covering each other in the Portuguese way.

5.13 Conclusion

The VOC slowly increased the number of settlements throughout Asia with military

force: the first is *Grant Kei* is or Banda in 1599, the last is Pondicherry in 1693. In all the VOC had sixty-six outposts in Asia. Captured from the Portuguese or taken over from the indigenous population. The VOC held on to their possessions with tenacity: the average rule is about 158 years.

Concerning the settlements there was a distinction to be made between open and closed settlements. A closed one was at least surrounded on three sites by walls with or without water-filled moats or canals. An open one had a fort and moats. Walls or ramparts with the exception of Pondicherry initially protect all settlements in Asia. The engineers began to realize that any threats did not come from land but from the sea. A fort was sufficient to protect the settlement from any attacks from sea. A simple moat system was effective enough for any attacks from land. Water was incorporated in the town's defence as an important element as well as for the management and maintenance of the surrounding areas. In the case of Colombo and Negombo large bodies of water were cleverly incorporated into the cities defence system.

A settlement was always built on the shores of rivers or seas. The main reason that the VOC established settlements in Asia was for trade purposes. So building a settlement close to the sea or river meant control over incoming (indigenous and European) ships and control over goods going and coming from the lands behind and from other areas in Asia. The goods were stocked, processed and distributed either in Asia or too Europe. Settlements were there for always at strategic positions at the seashore or on a tip of land with natural harbours. Natural rivers flowed from the land behind for fresh water supply and were canalized for defence purposes. Canals around the settlement served that same purpose. In addition, the land around the settlement could be inundated. Water was used for drainage, storage and circulation. In low lying lands (like *Batavia*) it could be stored and used to clear the sewerage. It could also be used for leisure and aesthetic reasons.

The main (primary) axis of the settlement was often running from the harbour to the inland stressing the importance of trade and communication. In most cases it was a river. In some cases it ran to a vegetable garden. In other cases it ended in squares. The second (secondary) axis, with the important buildings alongside like the city hall, main church and central market square, stood horizontally on the main axis and ended in bastions at the city wall.

The fresh water and gardens were there too guarantee the self-sufficiency of the settlement. The harbour was linked to the city with its landing place or quays and its activities such as warehouses, carpentry or other workshops. The intricate defence systems that were built like the walls, ramparts, canals, sluices, locks, bridges, wharves and dikes were another distinctive landmark of the VOC settlements overseas.

The fort or *kasteel*, to house the military government, was either erected next to the settlement (instead of the princely palace) or was a part of it. There are four types: a four star one: a square form with four corners or bastions (*Batavia*, Surabaya, Negombo and Pondicherry) a five star form with five corners or bastions (Semarang), one where the entire settlement is protected by walls or ramparts (Galle, Colombo, Cochin and Melaka) and one which is different from the previous ones. Most commonly used was the four star form followed closely by the five star form and the citadel.

The settlements, as Van Oers (2000:159) mentions, itself could consist of three parts (a fort, city and indigenous village) (*Batavia*, Makassar, Surabaya, Colombo and Melaka), two parts (fort and city) (Negombo, Pondicherry) or one complete settlement within the same walls consisted of a fort and a city (Cochin). The size of the settlements could differ (although it is never very big) but mostly the lengths of these were 1.5 to 2 times its width. Towns were probably not planned carefully but ideas about town planning were put into practice on the spot or a pragmatic approach is more important.

There were three kinds of street patterns: an irregular one, like the medieval types without any planning (Semarang). One with a regular street pattern of streets at right angles to each other and different sized building blocks between them (Amboina, *Batavia*, Surabaya, Colombo, Galle, Cochin and Melaka). In addition, the strictly geometrical design with streets at right angles to each other but also with building blocks of the same size (Negombo and Pondicherry). The city was divided, as Van Oers (2000:60) describes, in a geometrical pattern with small and narrow building plots. The land that was distributed was there mainly to make money. It was there for carefully recorded on maps and in writing.

Although settlements could be different in lay-out and design the ideas of Simon Stevin were most probably implemented in one way or the other. The towns build by the VOC through Asia were organized, as Van Oers (2000:166/167) mentions, according to two ideas: an architectural one according to the ideas of Simon Stevin. Like the distribution of buildings and public spaces, accessibility through functional use of space and maximum distribution of space capacity in the settlement. Houses should be build in groups rather then separate ones according to Stevin. Therefore, the whole would look like a palace. Stevin referred to street widths and arcades not for ornamental use but out of practical reasons.

The other idea was that of stability of the VOC outposts, implemented by the *Heeren XVII* (the Gentlemen Seventeen) through law, order, religious tolerance and democracy. Both components contributed to the maximum productivity of the settlement for trade opportunities and therefore profits. A fixed organizational scheme, as Van Oers (2000:161) describes, with a maximum of flexibility was the secret of the VOC settlements in Southeast Asia.

VOC Settlements have a rectangular street pattern intersected by canals and surrounded by fortification walls and a water filled moat. The sense of proportion was well balanced in the width and accessibility of the streets and the building blocks at the side of the streets. All elements in the town were fixed with a specific social and public aspect.

Secondly there was the architectural side of the city: a fixed system of measurement of *facades,* building height and style. There was a central market, that was placed in the centre of town and there were local markets which were at the side of the centre. There was main church, in the centre of town, and secondary churches, which were again more out of the centre of town. A settlement was there for logical and symmetrical in design.

Thirdly the city could be easily expanded, if necessary, on all sites as with the army camps in the Netherlands. Another fortification wall could be erected and another water-filled moat can be dug. In the newly open space houses and public buildings could be built. There for a settlement designed by Simon Stevin was like a do-it-yourself kit and could be constructed anywhere. A VOC settlement in Asia there for will be immediately, recognizable and identifiable.