

Design Review

BUILDING IN TROPICAL STYLE (1) A Sketch of Developments in Architecture and Town Planning in Indonesia During the Last Two Centuries



By drs Pauline K.M. van Roosmalen



Office 'Algemeen Levensverzekeringmaatschappij',
Surabaya (1900) (Wood building from the right)
Design: H.P. Berlage
Source: Museum MPU Buitenc, Surabaya

Indonesian architecture built up as a mixture of enormous cultural influences. From its traditional roots to the European principles of modern designing. The following continuous article describes architectural developments from the early nineteenth century up to the early twenty-first century, including the works of Dutch architects and town planners such as H. P. Berlage, C. P. Wolf Schoemaker, H. Th. Karsten, H. Madame Pont, and Indonesian architects who built and are building in Indonesia today.

West Discovers East

When the well-known Dutch architect dr H. P. Berlage arrived in the Dutch East-Indies in 1923 to advise on some restoration projects on Java, he entered a country that on the one hand must have seemed familiar but on the other hand was largely unknown. Since the early days of the Vereenigde Oost-Indische Compagnie (VOC) it had brought cinnamon, cloves and nutmeg to the Netherlands making The Dutch around 1900 were familiar with these spices because for centuries they were incorporated in and blended with traditional food.

Another part of the familiarity originated from people who worked in the East Indies are: anthropologists, biologists, engineers, and politicians. Upon their return to the Netherlands they brought back stories, experiences, souvenirs, sometimes even films - thus recounting life and society in the Dutch East-Indies. Also writers like Louis Couperus, P.A. Daum and Multatuli, accounted of the experiences. In books and novels they described life and society in the Dutch East-Indies around the turn of the century. Through trade and social life part of the culture of the Dutch East-Indies was introduced to the West in general and the Netherlands Dutch East-Indies in particular. Vice versa parts of the West were exported to the East. Not only did VOC-merchants export Dutch cloth to the archipelago, from the very moment they arrived they also introduced Dutch housing and urban design to this colony.

Adjusting to Local Situations

In the seventeenth century houses, offices, ware houses, and cities in colonies constructed for the Dutch resembled those in patria:



Administration Office 'Nederlandsch-Indisch
Sparbank Maatschappij', Semarang (1900)
Design: J.F. Klinkhamer and H.L. Onkenby
Source: dr D. Boelma, Soerab



Auditorium East and West of the Technische Hogeschool, Bandung (1920)
 Design: H. Madeline Pont
 Source: Gedenkboek van Nederlands Indië 1898-1923, G. Kalf & Co.,
 Batavia, Willemstad, Leiden, 1923



Avenue road Gendangsis, Batavia (Batavia) (1927)
 Source: Vrij, J.J., & G. Gellert and A. Kalk of Batavia en omstreken,
 G. Kalf & Co., Willemstad, 1927



Chinese houses area, Batavia (Batavia) (1927)
 Source: Gedenkboek van Nederlands Indië 1898-1923,
 G. Kalf & Co., Batavia, Willemstad, Leiden, 1923

canals were dug and street were laid, usually in a rectangular pattern, warehouses and dwelling houses facing the waterfront, grand houses and mansions with deep gardens facing the streets. During the eighteenth century this pattern gradually changed as people started to look for means and ways to adapt both buildings and city lay-out in such a way that they would be more suitable to the tropical climate of the colony. In order to achieve this engineers turned to local ways of construction and particularly looked at the dwelling houses of prominent members of the indigenous population.

As a result of this rooms were no longer directly situated on the building line ('rootlijn') but receded. The receding of rooms created space around the outside of the house. This space often was turned in to open-air galleries. These galleries, in combination with protruding roofs and awnings, prevented direct sunlight and rain to touch and enter the house. Because of their direct connection to the adjacent rooms, the galleries furthermore created a flow of air that cooled down the temperature inside. For technical, hygienic and aesthetic reasons the walls often were plastered. The whitewash lent a regular and smooth appearance to the often rather inept and therefore irregular built brick walls, and also functioned as an extra sunscreen. In crowded areas other solutions were applied. Very often the axis of the roof was turned so that the ridge would run parallel to the street. This adjustment had two advantages, the first being that the protruding parts of the roofs would create some extra shade, the second being that rain water would not stay behind in the intersection of roofs of adjacent houses. Finally, in order to create natural ventilation, steep rising roofs were often applied. All in all a fairly well adapted architecture was developed to meet tropical needs and demands. The departure from strictly Dutch building methods

and styles gave way to what became known as 'colonial style'. Buildings built in this style would follow the architectural mainstream in its origin place but add a colonial twist. Thus a new style with its own artistic merits came into being and was applied until far into the nineteenth century in the East Indies and other Dutch colonies. After two centuries the colonial style around 1850 became increasingly applied without any artistic notion, which resulted in a decline of the artistic level. And even though this downward trend gradually changed towards the end of the nineteenth century, still in 1908 S. Snuyff, architect and working for the department of Public Works (Burgerlijke Openbare Werken) expressed his displeasure about the situation in the Dutch East-Indies where "witte huizen met hunne slechte - of nog slechter toegepaste Renaissance vormen" were considered architecture.

Dead End
 The unsatisfactory architectural level in the nineteenth century is closely related to the fact that many of the engineers in the colony were not educated a proper architects. Many of the engineers were trained at a Royal Military Academy either in Amersfoort, Delft or Breda in the Netherlands where emphasis was on military and utilitarian matters. For buildings this meant bridges, roads, barracks, prisons, etc. The artistic side of the profession of building was less or no point of consideration. Thus many engineers were trained that who, once sent out to the East, were all but capable to build anything that was stylistically

different from what they had learnt at the academy - simply because engineers employed by the Engineering Corps were not educated and asked to address stylistic demands.

It was not until 1843 that a distinction was made between military and civil engineering at the then newly established Royal Academy in Delft. Of particular interest for future engineers to the Engineering Corps was the fact that the curriculum included a specific training for those engineers who intended to go and work in the colonies. However, as the Royal Academy was discontinued and replaced by the Polytechnic in 1866, this particular part of the curriculum was left out even though an engineering diploma from the Polytechnic was a prerogative for any engineer wanting to work in the colony. The Polytechnic furthermore increasingly favoured technological research over professional training. Thus the knowledge of the 25 to 30 percent of the students who were to go and work in the colony was gradually reduced to almost zero. It would not be until 1920 when the Technical High-school in Bandung (Bandung) opened its gates that architects and engineers could finally be properly trained as architects and educated in the surroundings of their future working environment.

To Be Continue...

¹ "Witte huizen met hunne slechte of nog slechter toegepaste Renaissance vormen" (Snyff 1908: 10). De lering der architectuur in de koloniën, G. Kalf & Co., Batavia, 1923, p. 104. Snyff, Dier bouw en de bouw der koloniën, G. Kalf & Co., Batavia, 1923, p. 104.

² In the Netherlands the Engineering Corps, or 'Witvesters Corps', was a military corps for engineers and architects. It was established in 1843 and was the first technical school in the Netherlands. The engineers of this corps were sent to the colonies to work on infrastructure projects.

BANGUNAN-BANGUNAN BERGAYA TROPIS

Arsitektur Indonesia terbentuk dari pengaruh banyak budaya. Dari mulai akar tradisional Nusantara sendiri, hingga prinsip-prinsip modernisasi Eropa. Tulisan bersambung dibawah ini menggambarkan perkembangan arsitektur Nusantara dari awal abad 19 hingga awal abad ke 21. Termasuk didalamnya karya-karya arsitek Belanda dan perencana kota seperti H.P. Berlage, C.P. Wolf Schoemaker, H.Th. Karsten, H. Madeline Pont. Tak lupa arsitek-arsitek Nusantara yang merencanakan dan membangun desainnya di Indonesia.

Bunt Berema Timur

Tahun 1923, seorang arsitek Belanda dr. H.P. Berlage tiba di Hindia Belanda untuk mengerjakan beberapa proyek restorasi di pulau Jawa. Dia terkesan dengan suasana yang di rasanya sangat kontradiktif, antara begitu familiar dan disisi lain begitu asing. Sisi familiar dia rasakan dalam bentuk masakan, cerita-cerita para penjelajah, cinderamata dan film-film yang merekam kehidupan di Hindia Belanda. Masakan yang dia makan, memang beberapa di kenalnya di Belanda, khususnya yang banyak mengandung rempah-rempah yang dibawa dari tanah ini. Sehingga seringkali hal tersebut mengingatkannya pada kampung halaman. Kedatangan Belanda di bumi Nusantara melalui VOC ternyata tidak saja membawa hasil bumi dan cerita-cerita ke negeri Kincir Angin itu, namun juga membawa (dan memperkenalkan) sistem perumahan dan tata kota ke Nusantara.

Adaptasi Terhadap Iklim Lokal

Pada abad ke-17 bangunan-bangunan dan kota-kota di wilayah kolonial Belanda sangat

mencerminkan pengaruh tersebut; pembangunan kanal-kanal dan jalan, gudang-gudang dan perumahan yang menghadap sungai/kali, serta tataana rumah-rumah besar dengan taman yang luas menghadap jalan. Dalam abad ke-18, pola-pola ini berubah sesuai dengan kesediaan manusia untuk mencari makna dan cara untuk mengadaptasikan bentuk-bentuk tadi dalam iklim tropis. Untuk hal tersebut, para insinyur mulai menoleh kepada cara membangun yang dilakukan oleh para kalangan terpandang di komunitas pribumi.

Sebagai hasilnya, ruangan-ruangan tidak lagi ditata persis dengan garis muka bangunan, namun ditarik mundur ('set back'). Penataan yang baru ini memberikan ruang tambahan di depan bangunan yang digunakan sebagai ruang pealihan yang semi terbuka (teras) yang berguna untuk meminimalisir sinar matahari dan menegakkan air hujan masuk ke dalam bangunan. Teras ini juga ternyata berguna untuk membantu sirkulasi udara ruang dalam sehingga dapat menurunkan temperatur di dalam. Untuk alasan-alasan teknik, kesehatan dan keindahan, dinding-dinding biasanya diples ter. Plesteran yang umumnya bernuansa putih ini memberikan penampilan yang hialus dibandingkan bata polos. Pada beberapa area pemukiman yang padat, beragam solusi ditawarkan. Sangat sering aksis atap di putar sehingga ujung-ujungnya sejajar dengan jalan. Pemutaran ini mempunyai dua keuntungan. Pertama, overstek dapat memberikan shading yang lebih banyak dan kedua, air hujan tidak akan berkumpul di pertemuan atap dengan rumah tertangga. Terakhir, untuk memudahkan sirkulasi udara, sistem atap yang tinggi diterapkan.

Perpaduan antara metode Belanda dengan kondisi iklim lokal ini memberikan gaya arsitektur yang disebut 'colonial style'. Gaya ini kemudian berkembang ke seluruh wilayah Hindia Belanda dan wilayah-wilayah koloni lainnya hingga abad ke-19. Setelah dua abad, pada era 1850-an, colonial style ini menjadi membosankan. Tidak adanya perhatian pada sisi artistik menimbulkan penurunan nilai pada bangunan ini. Dan meskipun tren penurunan nilai artistik ini berubah pada akhir abad ke-19, S.Snyff, arsitek yang bekerja pada Departemen Pekerjaan Umum pada tahun 1908, menyatakan ketidaksenangannya pada situasi tersebut.

Jalan Bunt

Tingkat ketidakpuasan tersebut diubungkan dengan fakta bahwa sebagian besar insinyur bangunan yang bekerja di wilayah kolonial pada jaman itu bukanlah mereka yang dididik khusus sebagai arsitek. Para insinyur tersebut merupakan produk dari akademi-akademi militer yang tentunya dididik untuk menghasilkan bangunan-bangunan yang digunakan untuk kepentingan militer yang sangat fungsional (jembatan, barak, penjara, jalan, dll), sehingga nilai estetis tidak masuk dalam perhitungan. Kebutuhan ini sedikit terpecahkan ketika pada tahun 1843, didirikan Royal Academy di Delft yang secara tegas membedakan keahlian insinyur militer dengan sipil. Namun Royal Academy ini tidak berumur panjang, ia digantikan Polytechnic pada 1866. Sifat Polytechnic yang memacu perkembangan riset di bidang pelatihan profesional mengakibatkan penurunan tingkat pengetahuan yang dibutuhkan oleh siswanya yang akan berangkat dan bekerja di tanah-tanah koloni. Pada akhirnya di tahun 1920, Sekolah Tinggi Teknik di Bandung membuka gerbang di mana arsitek dan insinyur dilatih dan dididik sebagai mana seharusnya arsitek dididik dan lebih jauh lagi, mereka dididik di tanah dimana para siswa tersebut akan bekerja. *Bersambung...*



Pirce Bros., Batavia (1927)
Source: J.J. de Vries,
Gedrukt naar Jaarboek van Batavia en omstreken,
G. Kolff & Co., Weltevreden, 1927.



Hotel Savoy Homann,
Bandung (1929)
Design: R.A. Adriaens
Source: Economisch Weekblad
voor Nederlandsch-Indië (1931)

BUILDING IN TROPICAL STYLE (2)

By: drs Pauline K.M van Roosmalen

New Demands

Towards the end of the nineteenth century, just like in patria, some engineers in the colony decided to no longer put up with the continuing decline of architectural styles and values and opened a debate on the issue of 'appropriate architecture' in general and for the Dutch East Indies in particular. Coinciding with the arising debate on architectural style was the explosive growth of private enterprise following the abolishment of the Culture System after 1870.

One of the results of the new business opportunities was an enormous increase of European immigrants to the colony. Contrary to the situation before 1870, these people came over with the intention to stay in the colony for a longer period of time. Therefore a whole new range of facilities and services was needed to make the Europeans feel at home in the East Indies. So apart from dwelling houses, churches and hospitals, a substantial number of schools, factories, covered markets, stations, post-offices, shops, hotels, sports facilities, etc. was needed.

Apart from changing society, the increase of people also changed its physical appearance. From 1870 onwards, and especially after 1910, the streetscape

and the function of many city-centres changed rather radically: the open way of building was replaced by a closed way of building while buildings became larger and higher and roads more important. Physical, visual and sociological distinction between various ethnic groups had long since been a characteristic of colonial settlements in the Dutch East Indies. This distinction became even more apparent around 1900. Gradually the majority of the rather affluent Europeans moved out of the city-centres to often spacious and newly developed areas at the outer limits of the city such as Menteng and Gondangdia in Batavia, Polonia in Medan, Tjandi Baru in Semarang, or Dama in Soerabaya. The residential areas that were left behind were usually turned into business areas: Kota in Batavia and Kota Lama in Semarang. Most Chinese, Arabs and Indonesians did not move out of the centres. They often continued to live either above their shop or in semi-permanent housing close to their workplace. In order to provide a more decent and hygienic housing the national government sometimes provided social housing for the low- and middle-income-groups in these centres and in the countryside close to for instance factories or plantations.

Background
Perspective for the Department
of Government Buildings (ca. 1917), Bandung
Design: Algemeen Ingenieurs- en Architectenbureau
Source: P.O.W. Heringa, Algemeenb.



Governor's Office, Surabaya (1931)
 Design: Willem Berlage
 Source: Spinnestad Fotograafschief, Haarlem

architectuur kan ik niet anders dan een afkeurend oordeel geven, omdat de gevel is die van een villa-achtig winkelhuisje in een kleine gemeente, ontworpen door een kleine architect. Het is deze architectuur die al onze mooie steden en stadjes heeft leelijk gemaakt."⁵

Upon writing this letter Berlage then was commissioned to take over the design for De Algemeene. He designed an office in a style that very soon afterwards was adopted by the first modern architects in the Dutch East-Indies. S. Snuyf, P.A.J. Moojen and J.F. van Hoytema as an appropriate style for a humid tropical climate. The major part of the facade opened up to the street: on both sides of the centrally positioned entrance a huge arcade and on the first floor a built-in gallery. By applying this so-called 'double facade' the design met the climatic demands of the tropics. Berlage was less considerate to local circumstances with regard to his choice of building materials: the majority of the bricks, natural stones, glazed tiles, etc., were imported from the Netherlands.

Building Materials and Constructions

From the very beginning the Dutch set foot in the East-Indies, the (non-)availability and quality of building materials was problematic. Shape, colour and quality of indigenous bricks according to Dutch quality standards was so bad that during VOC-rule Dutch ships often took in Dutch bricks as ballast on their journey to the colony. After arrival in the colony these bricks could then be used as building material for fortifications and what not. Later on the Dutch increasingly used indigenous bricks as well but would always cover the walls with white plaster.

Though the use of whitewash originated from necessity, some architects in the twentieth century were of the opinion that there was something very positive about it: "In de tropen is baksteenbouw een irriterende verschijning, geeft het aanden van het stapelwerk met kleine eenheden een nederige prikkeling [...]. De tropenatmosfeer

vraagt niet het gebruik van materialen met fijne kleurvarieeringen, daarom kan baksteen zonder meer in Indië rijmer toegepast worden gelijk in Holland met zijn dampige atmosfeer."⁶

Until the beginning of the twentieth century architects would also extensively apply natural stone in their buildings even though this was as hardly and sparsely available and variety very limited. Apart from the indigenous trachiet, andesiet and wadjak-marble, Coramandel-marble from British India was imported and applied.

The introduction of reinforced concrete early in the twentieth century gradually changed the building industry: new constructions enabled new building types and in line with this a different kind of architecture originated. High-rise-buildings were the new thing and large wall-surfaces could be applied. As a result it was no longer the multitude of details that determined the quality of a building but the play with volumes, space, shapes and shades volumes. Architects who applied the new building materials and building constructions were aware that not everybody might be appreciative towards this new architecture: "Het zal ons moeilijk vallen te wennen aan de schoonheid van groote vlakken, aan de rust van enkele groote verhoudingen en aan het gemis van toemen, die uit den stelselmatigen opbouw voortspuiten."⁷ (graphic: cow)⁸

⁴ "When large trading companies, such as de Factory, the Javaische Bank, the Handelsbank et cetera, who do not build for the current generation only, in the process of creating new buildings would see the distance from men like Mr. Moojen, it would be much easier for us, Europeans, to tune in with what our architect has right."

⁵ "One can put the question forward whether it is desirable for this building to sustain the traditional type applied to houses or to deviate from this building type. As for this I think it is not need to debate [...]. In general I think it is the most desirable to maintain the building for most of India while improving its architecture. The original however is a kind of a mixture and applied a variety of European architecture. Although I am very willing to assume that for doing so he had a very good reason, I can not but regard this kind of European architecture because the facade resembles that of a residence into a house in a small community, close next to a small architect. If it is this architecture that has made our beautiful town and village."

⁶ "In the tropics bricks are an irritating feature, the appearance of a collection of small units causes no less annoyance [...]. The atmosphere of the tropics does not call for the application of materials with fine surfaces in color, that is why bricks can not just be applied in India the way they are applied in Holland with its climate atmosphere."

⁷ R.J.F. Cromm, 'Indische Natuur- en bouwkunst', Bouwen (1924), 355-359

⁸ All natural stone, except the Coramandel, were quarried in Middle Java. Badjak-marble and trachiet are slightly yellow with brown veins, andesiet is grey and harder than trachiet, which is made of a hard sandstone quality. Trachiet and andesiet were mainly used for the most valuable parts of a building.

⁹ "It will be difficult for us to get used to beauty of large surfaces, the irregularity of just a few large proportions and the lack of details that will result from a systematic construction."

¹⁰ H.H., 'Moderne materialen en hun invloed op de bouwkunst', Indische Bouwkunstig Tijdschrift 4 (1912), 57; C.J.A. Gokkel, 'Bouwkunst in Batavia', Indië (1907), 18

Good Architecture

Around the turn of the twentieth century a growing number of architects in both the Netherlands and the Dutch East-Indies increasingly objected against the popular building-practice which degraded architecture to nothing more than the application of pilars, capitals, cornices and pediments. The critics made a plea for good architecture. Good architecture in their opinion could be achieved when buildings would be designed in such a way that the style applied would express the function of the building and would also be in harmony with the construction of the building. This way character and truth in building would be brought about - and thus good architecture would arise.

They also believed that good architecture would be able to create the right atmosphere for Europeans to feel at home in the colony even though they were far away from home. In 1907 architect C.J.A. Gokkel expressed it like this: "Als de goede handelsinstellingen, zooals de Factory, de Javaische Bank, de Handelsbank en dergelijke, die toch niet laten bouwen alleen voor het tegenwoordige geslacht, bij het scheppen van nieuwe gebouwen de hulp innemen van mannen als de heer Moojen, dan zouden we ons, als we uit Europa kwamen, heel wat beter aanpassen bij het alhier bestaande dan thans."⁹

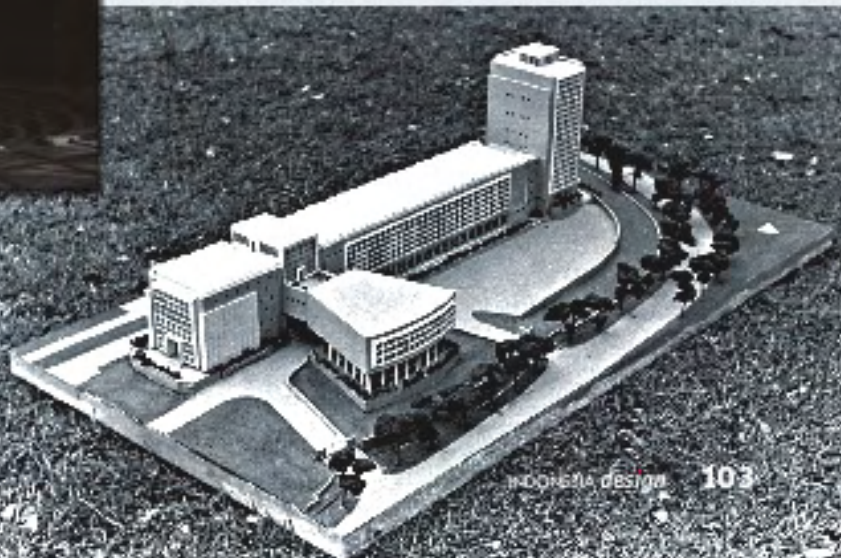
Berlage's Input

Besides an artistic debate the building industry at the end of the nineteenth century also faced an increasing demand for a variety of new building types. Berlage, without ever having been in the Dutch East-Indies, was of the opinion that architecture there should be responding to the environment, thus copious and not holding back. Thus, regarding the drawings by M.J. Hulswit for the office-building of De Algemeene Lijf- en Levensverzekering maatschappij in Soerabaja (1898) he wrote the direction of the insurance company: "De vraag kan dadelijk worden gesteld, of het wenschelijk is, het Indische type van huizen voor een gebouw als het bedoelde, te handhaven, of wel daarvan af te wijken. Voor mij is de keus niet twijfelachtig [...]. Het lijkt mij in het algemeen het meest gewenscht, de bouw wijze van Indië in hoofdzaak te behouden, maar voor dit doel die architectuur eenigszins rijker te maken. De ontwerper is echter van eene andere meening uitgegaan en heeft eene zuiver Europeesche architectuur gegeven. Daarvoor bestaat nu waarschijnlijk een goede reden, die ik dan ook gaarne aanneem, naar overdeze soort Europeesche



Faculty for Literature, University of Indonesia, Depok (1926-1927),
 Architects: H. van der Vlugt, Alheid Grooten
 Photograph: Yul Akbar

Model of the Faculty for Literature, University of Indonesia, Depok (1926-1927),
 Architects: H. van der Vlugt, Alheid Grooten





BUILDING IN TROPICAL STYLE (3) A Sketch of Developments in Architecture and Town Planning in Indonesia During the Last Two Centuries

By drs Pauline K.M. van Roosmalen

Impression Kebayoran Baru (1948)
Source: Pembangunan Kota Baru Kebajoran,
Kementerian Pekerjjaan Umum dan Tenaga Republik Indonesia, Jakarta, 1953.

In the nineteen-twenties the ongoing debate on building materials, building construction and architectural style culminated in a debate on appropriate and authentic architecture in the Dutch East-Indies. Though many architects joined in the discussion three men dominated the debate: Henri Maclaine Pont, Casper Prosper Wolff Schoemaker and Herman Thomas Karsten. Maclaine Pont, like Karsten, received his architectural training at the Polytechnic in Delft and studies amongst others with architect and urban designer M.J. Granpré Molière. After graduating from Delft Maclaine Pont (born Meester Cornelis (1884), died The Hague (1971)) established his own architectural office in Semarang in 1909. Six years later his weak health forced him temporarily to back to the Netherlands. Following his recovery he returned to the East-Indies where after 1924 he dedicated most of his time to archaeological research on Java. Particularly his studies on the kingdom and settlement of Madjapahit are well-known.

Maclaine Pont was in favour of architecture in which indigenous building constructions and -materials were utilized. Though he did not design a large number of buildings, Maclaine Pont always combined components from various regions in the East-Indies - often in one building. His probably most popular work is the design for the campus of the Technical High-school in Bandoeng and the auditoriums that flank the entrance to the campus (1920). Two other remarkable buildings are the head-office for the Semarang-Cheribon Stoomtram Maatschappij in Tegal (1911) and the archaeological museum in Trawulan (1929). Totally at odds with Maclaine Pont's point of view were the views of Casper Prosper Wolff Schoemaker (born Banyu Biru (1882), died Bandung (1949)). Born and raised in the colony, Wolff Schoemaker was educated at the Royal Military Academy in Breda and returned to his country of origin serving as lieutenant in the Engineering Corps.

Wolff Schoemaker was of the opinion that indigenous building traditions on Java were non-existent and that the application of traditional architecture from other regions in the archipelago would not take root on Java. He furthermore argued that native decorative elements were only to be used by an architect if he fully understand the character of the applied decoration. He strongly opposed against the opinion that Indonesian architecture was merely determined by the application of native decorative elements.

In his designs Wolff Schoemaker applied contemporary materials in a variety of Western architectural styles and, depending on the character of the building, applied abstract decorative elements. Amongst his best-known works are hotel Preanger (1929) and villa Isola (1932) in Bandoeng. The third man in the architectural debate was Karsten (born Amsterdam (1884), died Tjimahi (1945)). Like Maclaine Pont,



Extension Plan for Bandoeng (1917)
Design: Algemeen Ingenieurs- en Architectenbureau
Source: ir R.W. Heringa, Bloemendaal

Karsten studied architecture at the Polytechnic in Delft and finished his studies in 1909. After gaining some work-experience in the Netherlands and Germany, Karsten left the Netherlands in 1914 and joined the office of Maclaine Pont. Three years later he established his own company. Initially basically working on architectural commissions, Karsten gradually takes up commissions for urban designs. Particularly from the end of the nineteen-twenties he is increasingly asked to advise on urban designs for many of the larger cities throughout the archipelago.

Though Karsten frequently wrote on a wide variety of issues (architectural as well as social and political) his views on or preference for a particular kind of architecture are not very distinct. And though many of his designs in Semarang are of remarkable quality, for instance the *Nederlands-Indische Lijf- en Levensverzekerings Maatschappij* (1916) and people's theatre *Sobokartti* (1930), Karsten's reputation as an urban designer can largely be attributed to two urban designs, the extension-plan for Semarang (1916-20) and the development-plan for Malang (1933) and his many publications on urban design. The most noticeable probably being *Indiese Stedebouw*, published in 1920.

Out of Necessity

Karsten's career as urban designer evolved almost simultaneously with the explosive economic and simultaneous urban development in the colony. When as a result of the unbridled growth of the cities sanitary conditions in some cities rapidly deteriorated, the dire need to address urban and rural development issues made itself felt. And because architects and engineers were trained to direct matters related to three-dimensional design - although not specifically urban design - they became the first professionals to call upon for help. It was around the same time the economy started to blossom that the Dutch government recognized the need for more and further-reaching changes in its administration of the East Indies. Thus, after lengthy debate, a decentralised administration was agreed upon and a decentralisation act was passed in 1903. This act paved the way for the establishment of the local councils ordinance two years later. Another year later the first local councils were inaugurated, amongst them Bandoeng, Batavia, Blitar, Cherbon, Kedin, Meester Cornelis, Semarang, and Soerabaya. Though still under the supervision of the national government, the local administrators were free to decide on all kinds of administrative matters with regards to their municipality.

Regarding urban issues the government foremost paid attention to matters related to existing circumstances and thus focussed on the improvement of infrastructure, sewer system, drainage, social housing, and kampungs. However, when the general tendency of European companies to relocate their business - followed by their employees - at considerable distance from the city centre continued, the administration realised this development needed to be addressed in order to prevent the urban development to become beyond control. Thus organisations were set up who were in charge of designing and implementing urban development-plans and creating the legal frameworks that were needed for putting the plans into effect.

Far-Reaching Decisions

The development of a city does not always follow natural impulses: for one reason or other governments sometimes provoke natural developments. A fine example of this is the growth of Bandoeng, a fairly insignificant provincial town around the end of the nineteenth century that developed into the 'Paris of



Plan for Kebayoran Baru (1948)
Design: Jac.P. Thijsse and Mah. Susilo
Source: K. Handinata, Kebayoran.
A new town under construction.
An impression of a satellite town, Jakarta, s.a.

Java' in the 1920's and 1930's.

The rapid change of Bandoeng is largely due to the decision of governor-general, count J.P. van Limburg Stirum, in 1916 to move the residency and the departments from Weltevreden, just to the south of Batavia, to Bandoeng. The reason for this decision was that Batavia since time immemorial had been regarded as an unhealthy city afflicted by all sorts of diseases. Because the residential offices performed no strategic tasks Van Limburg Stirum deemed it no longer necessary that employers and employees were exposed to the unhealthy conditions of Batavia and Weltevreden.

Van Limburg Stirum's proposal caused a lot of worked for a good number of people and institutions. Municipal organisations to buy land, develop the necessary infrastructure, build and sell houses, offices, etc. were rapidly set up and architectural offices were asked to design lay-out and architecture of the new extension areas allocated for the departments. In 1918, the municipal council ratified the first northern expansion plan which encompassed the future location for the departments and the adjoining residences and neighbourhoods. Soon after the first parts of the plan were implemented. But despite the flying start - and without any reason known to us today - the plan to relocate the central government offices was abandoned a few years later and never executed as planned. However, the trend was set and having discovered the pleasant climate of Bandung and its hilly surrounding, many prestigious institutions and hotels settled in Bandoeng: Technical High-school, Institute Pasteur Institute, Institute for Cowpox, hotel Savoy Homann, etc. As a result of which, even though Van Limburg Stirum's idea was not completed, Bandoeng transformed almost overnight into a city of European allure.

Another example was Kebayoran Baru, the first satellite town that was established in Indonesia after the Japanese surrender. The main reason for the administration to decide and build Kebayoran Baru was that the devastation and damage in Batavia were of such scale and gravity that an far-reaching measure was needed to address the needs of the inhabitants of the existing town. Because the tension between local and European inhabitants grew ever more hostile however and the army thus could not guarantee the safety of people living to far away from Batavia, it was agreed by the administration and architects in charge that the satellite town could not be located at the required distance of 11 kilometres from the centre but needed to be located closer to Batavia. The location that seemed suitable for a new town was the area around Kebayoran, an existing agricultural village. There were three reasons why this was considered so. The first reason was that the 4.5 kilometres distance that separated it from was big enough to guarantee the self-sustainable character - a prerequisite for a satellite town. The second reason was that the area was largely unbuilt which would make it relatively easy to expropriate the farmers that were currently working and living on the land. The third and definitely most 'architectural' reason was that the area was undulated and therefore visually attractive, elevated from its surroundings and bordered on a river.

The committees that were responsible for the planning and execution of Kebayoran Baru faced a complex task. Not only because expertise was missing due to the death or departure of many architects and administrators during and shortly after the war, but also because the building of a satellite town was literally terra incognita for the people in charge.



Modest Dwellings (1948), Kebayoran Baru
Source: K. Handinata, Kebayoran: A new town under construction. An impression of a satellite town, Jakarta, s.a.

The two leading men responsible for the design of Kebayoran Baru were ir Jac.P. Thijssen and Moh. Susilo. Both men had gathered quite a lot of expertise during their work before the war: Thijssen as a civil servant at the municipality of Bandung and Susilo as an employee at Karsten's bureau in Bandung. The plan they designed in many ways dwelled of these experiences. Following contemporary planning ideologies and in line with a traditional Indonesian notion of the planning of a settlements, the Kebayoran-plan was a compromise between an autonomous town with its own administration on the one hand and a extensive residential area to an existing town on the other hand. Based on Karsten's philosophies and set up according to the notion of districts, the plan distinguished various neighbourhoods with their own characteristics, segregated by streets or green belts. Grouped together according to their predominant function these neighbourhoods in turn formed clearly distinguished zones ('kringen'). The plan evoked criticism from V.R. van Romondt, a Dutch architect who worked at the Department for

Conservation and in the 50's was appointed professor at the faculty for architecture at the former Technische Hoogeschool in Bandung. Van Romondt's main comment was that the plan was not built up of the characteristic 'European' and 'Indonesian' neighbourhoods that were common in all town plans designed before the war. As Susilo explained, the elimination of this design principle was exactly what the designers of Kebayoran Baru had in mind as they considered it unrealistic to continue basically rural town planning principles in towns that were increasingly oriented towards the Western civilisation. In order to push Indonesian town planning forward - and in a more Western direction - the designers therefore on purpose designed a plan that resembled European plans: with a commercial and administrative activities in the centre, surrounded by neighbourhoods with a wide range dwelling houses equipped with modern comforts, and abundant recreational and green areas. (graphic: caw) ¹

¹ H.Th. Karsten, 'Indiese stedenbouw', *Locale Belangen Mededeeling* 40 (1920), 145-250.



Villa Isala, Bandoeng (1932)
Design: C.P. Wolff Schoemaker



Sabakarti, Semarang (1930)



Design Review

By drs Pauline K.M. van Roosmalen

BUILDING IN TROPICAL STYLE (4 of 4) A Sketch of Developments in Architecture and Town Planning in Indonesia During the Last Two Centuries

Developments in the Independent Republic of Indonesia

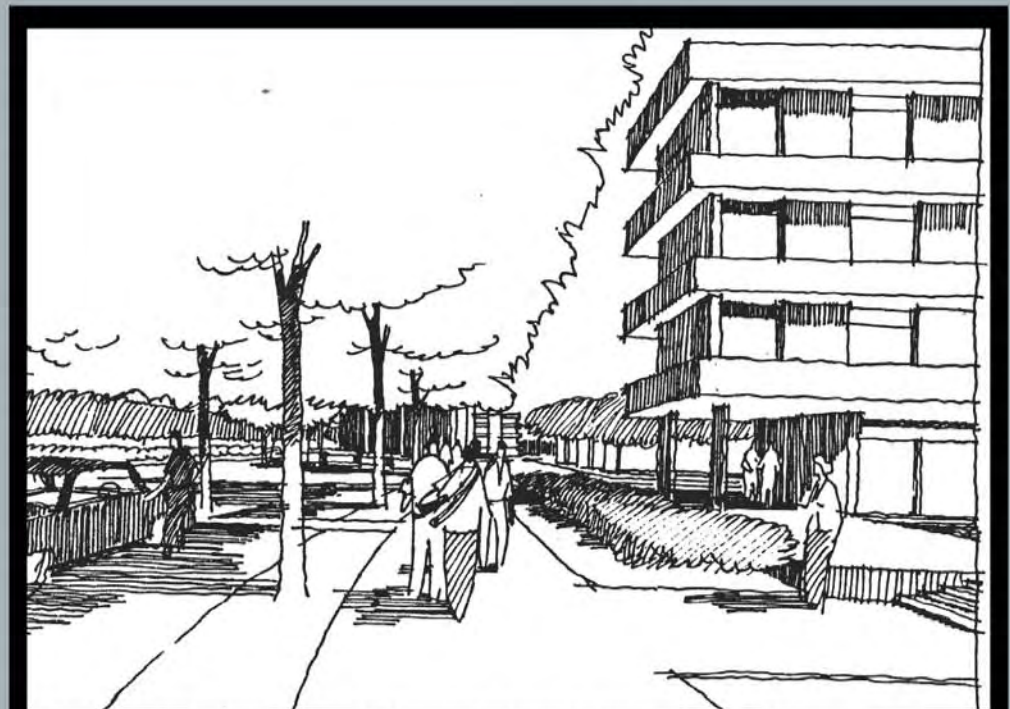
The architecture that was designed and realised after the Second World War show stylistic differences from the architecture that was designed and realised prior to the war. An outstanding example of this shift can be seen in the work of the Chinese-Indonesian architect Liem Bwan Tjie (born Semarang (1891), died Jakarta (1966)). Whereas in his pre-war work he often and particularly in his interior designs applied curved lines, his post-war oeuvre increasingly reflects influences of the International Style. The same can be said of the work of the Dutch engineering and architectural firm Ingenieren Vrijburg (IBIV) in Bandung. Although the architecture designed by the architects and engineers who worked for IBIV differed due to the 'signature' of the individual architects, was in general less elaborate than the Liem's, it also gradually became more 'functional' in its appearance.

The apparent influence from Europe and the United States of America was also – and maybe better – visible in town plans. One remarkable example in this case is the scheme designed in 1962 by ir Herbowo, ir Kandar Tisnawanata, and, later, Radinal Moochtar during their post-graduate course at the Royal Danish Academy of Fine Arts in Copenhagen (Denmark). The course was an initiative of the Danish Academy, supported by the Danish Committee for Technical Assistance and the United Nations Technical Assistance Programme, and offered qualified architects from development countries a training on residential, town and regional planning that was based on the methods offered by The Architectural Associations School in London (Great Britain) at their Department for Tropical Architecture. The project Herbowo, Tisnawanata and Moochar choose for this training was the design of a low-cost housing project in Pulo Mas, Djakarta. The idea was to

develop, elaborate, and lay down principles, procedures, and objectives for extensive housing projects that could address the housing shortage and suit the low-income groups anywhere in Indonesia. Pulo Mas was to be the prototype for such this approach.

The project they presented smartly combined elements of indigenous and Western culture. Divided in four separate neighbourhoods and centred around a commercial and business axis, the plan applied zoning, segregated various traffic modes, amply provided pedestrian

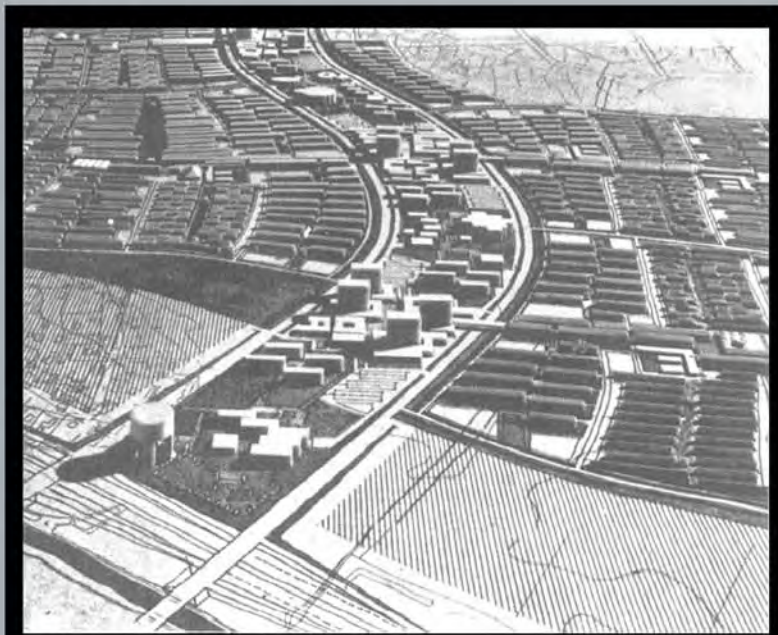
areas, and advocated standardization. Following customs in Indonesian settlements, each 'finger' of the neighbourhood consisted of four housing units (rukun tetangga – RT) that formed one neighbourhood unit (rukun warga – RW). Four neighbourhood units formed one city quarter (kelurahan), and four city quarters formed one sub-district (kecamatan). The roads system, apart from the slightly undulated central axis, was laid out in a rectangular pattern. It also showed a hierarchic structure: housing units were made up of pedestrian streets only, neighbourhood units were bordered by streets



Pedestrian Area in Commercial Centre Pulo Mas, Djakarta (1962)
Design: Herbowo, Kandar Tisnawanata, Radinal Moochtar
Source: *Pulo Mas Development Plan*, Royal Danish Academy of Fine Arts, Department of Town Planning, Copenhagen, 1963

for wheeled traffic, and city quarters were surrounded by roads for motorised traffic. Industrial activities were located all along the northern edge of the plan. The rest of the plan was designed in such a way that housing, commercial-, public- and sport facilities, and occasional industry were evenly spread over all four quarters and density increased towards the centre of these and around the central axis. As far as housing was concerned various types were provided: high-rise until eight stories high, two-storied, semi-detached, and detached houses. As the plan was specifically designed for low income groups, the plan abundantly provided pedestrian routes and appropriate houses. The whole plan, lay-out as well as building types, applied contemporary Western ideas and form and adapted them to Indonesian circumstances.

Although Ali Sadikin, governor of Jakarta, approved and signed the plan in 1963, the initial idea to built Pulo Mas for people with little income soon vanished: the business and commercial centre were completely replaced by a racing-track and many plots were enlarged and allocated for larger houses than intended by the designer. By doing so the government of Jakarta missed an early opportunity to acquire knowledge and insight into the problems and solutions related to housing for low-income groups in Indonesia.



Model of Pulo Mas, Djakarta (1962)
Design: Herbowo, Kandar Tisnawanata, Radinal Moochtar
Source: *Pulo Mas Development Plan*, Royal Danish Academy of Fine Arts, Department of Town Planning, Copenhagen, 1963

Recent Developments

Many years have passed since Bandoeng was reputed to be the archipelago's city of learning, leisure and luxury, Kebayoran Baru was separated from Batavia by a green belt and three ambitious young Indonesian architects left for Denmark. Since then Indonesia went through political, social and economic turmoil more than once. Especially the economic boom that flooded the country from the early 1980's until 1997 brought many changes to many levels of society.

Today the West, and in particular the United States of America, are the example to which changes and developments in many parts of the world are modelled. Thus also in major cities in Indonesia blue jeans, fast-food, fast cars and shopping-malls have become today's icons of civilisation for the middle-and upper-class citizenry. Likewise glass-curtained high-rise-buildings, extravagant use of marble, waterfalls and air-conditioning, and plenty of parking space are today's indispensable image-builders for any private company. In the name of and for the sake of modernisation 'old' buildings are replaced by new and (much) larger ones, urban fabrics are torn apart or linked by new roads and flyovers, new suburbs are created. The result being a fast and almost irreversible change of physical and social-economic structures that were built over the past decades or even centuries, leaving behind a country bereaved of irreplaceable traces of its cultural heritage.

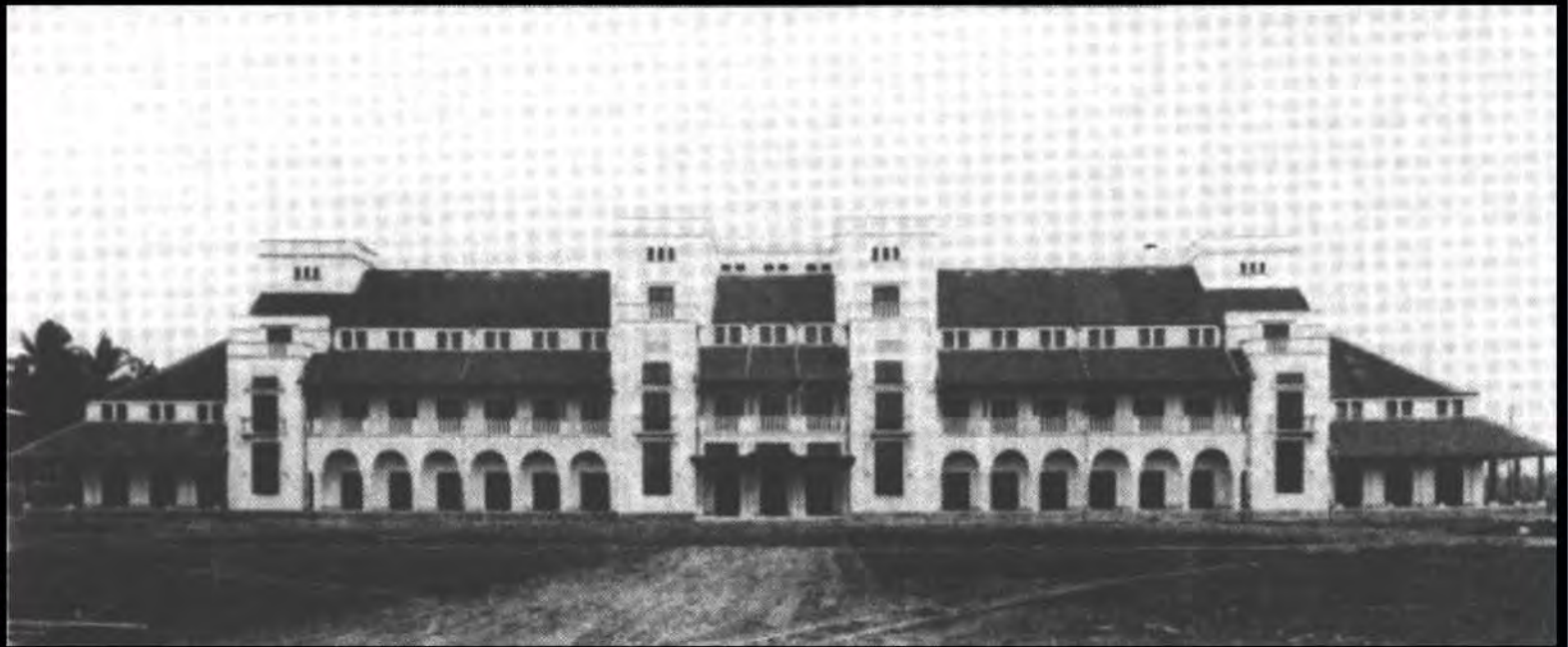
Given the irreversibility of this development the abrupt economic standstill in 1997 might turn out to be a blessing in disguise for it creates space for reflection on the course westernization has taken Indonesia. Because whereas it the Dutch over 200 years gradually adjusted their lifestyle to tropical conditions, the ultimate goal of many Indonesians today seems to be imitate a lifestyle suitable for a moderate climate. Without questioning whether some of the Western achievements are at all suitable to the tropics people buy and wear boots, nylon stockings, pullovers, padded jackets, fur coats, woollen suits, etc., and are increasingly surrounded by houses with zinc roofs, vast stretches of glass, interiors spaced without natural ventilation, diminishing greenery and more asphalt.

Authenticity Again

Given the length of time that separates today from the moment the Dutch first set foot on shore in this archipelago, westernization today puts the clock forwards and back at the same time. It's almost like the days of the VOC when Europeans wore traditional Dutch woollen costumes and lived in closed off houses. The only real distinction is the air-conditioning:



Housing-project Kupang, Timor (1994-1995).
Design: Yori Antar, Marco Kusumawijaya
Photographer: Yori Antar



Head-office Semarang-Cheribon Stoomtram Maatschappij, Tegal (1911)

Design: H. Maclaine Pont

Source : H. Maclaine Pont, 'Het nieuwe hoofdbureau der Semarang-Cheribon-Stoomtram Maatschappij te Tegal', *Nederlandsch-Indië Oud en Nieuw* (1916/1917), 89-98.



would the Dutch have had that, the demand for tropical architecture and urban design maybe never would have arisen.

The quest for an authentic contemporary Indonesian architecture and urban design is as alive today as it was a hundred or three hundred years ago. And today, just like back then, the best solution probably is to be found combining the best of both worlds.

This not necessarily means covering traditional houses with zinc roofs 'because zinc roofs are progressive' or accommodating an office for a thousand people in an enlarged traditional longhouse. Something more needs to be done. There are good examples to be found throughout the country, for the more and the less affluent, in rural as well as in urban areas. Designed by architects who know and understand Indonesian as well as Western architecture, building techniques and materials, these buildings hold a promise for the future. The blindfolded copy-past practice that unfortunately today still dominates the Indonesian architectural landscape needs to be replaced. Like in the old days it will not be simple but it will be rewarding.

(graphic: **th**) *i*



Extension Plan for Semarang (1916)

Design: H.Th. Karsten for Bouwkundig Bureau Maclaine Pont, and A. Plate

Source: A. Plate, 'Het uitbreidingsplan der Indische Gemeenten', *De Ingenieur* 16 (1918), 274-297.