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Publication date
2020

Document Version
Final published version

Citation (APA)
Streefland, A. (2020). *The Shared History of TU Delft and Bandung Institute of Technology*. Delft University of Technology.

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On 3 July 1920, a technical college was opened in Bandung, on the island of Java, in the Dutch East Indies. It was a special day full of pump and circumstance. The Javanese elite came to Bandung in large numbers to attend the ceremony in one of the recently finished buildings of the college. The mayor of Bandung gave a proud speech, as did the regent of the district of Serang. The governor-general of the Dutch East Indies, Johan Paul graaf van Limburg Stirum, came from Batavia to formally open the school. Some sources even say that the whole city of Bandung had the day off to celebrate the opening. After all, it was the first institute of higher technical learning in the Dutch colony, and the second technical college in the Dutch empire, after Delft technical college.

The first rector of the college in Bandung, Jan Klopper, was one of its initiators. As a professor of applied mathematics in Delft, he knew engineering education inside out. The Dutch East Indies appealed to him and after a first visit in 1919 he decided that he did not want to return to Delft. In his speech at the opening ceremony of the college, he addressed the future students:

> May the College in Bandung succeed in finding a place in the heart of its students just like the school in Delft did and still does. Ladies and gentlemen students. The prosperity of this school depends for a large part on you. [...] You have chosen a study that is beautiful everywhere, but especially beautiful in this country. The East Indies is calling for workers who can provide its material needs; it is your task to work on the economically limitless development of this wonderful country; it is the task of the college to prepare you for this.[1]

As he pointed out in his speech, Klopper wished to model the Bandung technical college on Delft. This essay explores the events that led up to the founding of this special school in Bandung. The historical ties that the college in Delft had with the Dutch East Indies form part of the backdrop to the story. But what was the actual relationship between Delft and Bandung? And how much of Klopper's ambition to model the school on Delft was realised?

1 Jan Klopper, 'Rede bij de opening der Hogeschool uitgesproken door den Rector-Magnificus' in *De Technische Hogeschool te Bandung*, Landsdrukkerij, Weltevreden, 1920, on page 28. In Dutch: "Moge de Bandoengsche Hogeschool er in slagen, zich in de harten harer leerlingen dezelfde plaats te veroveren als de Delftsche dit deed en doet. Dames en Heeren studenten. De werkelijke bloei dezer Hogeschool ligt voor een groot deel in Uwe handen. [...] Gij hebt U een studie gekozen, overal schoon, in dit land schooner dan ergens anders, Indië roept om werkers, die in zijn stoffelijke noorden kunnen voorzien; aan U de taak, mede te werken aan de economisch-onbegrensde ontwikkeling van dit heerlijk land; aan de Hogeschool, U daartoe voor te bereiden."

Logo TH Bandung, 1935. From: *Jaarboek der Technische Hogeschool te Bandung, Lustrumuitgave*, 1935, p. 1.

Prof. J. Klopper. From: *Jaarboek der Technische Hogeschool te Bandung, Lustrumuitgave*, 1935, p. 15.

Delft and the Dutch East Indies

From its founding, Delft University of Technology had a special relationship with the Dutch East Indies. When the Royal Academy, the first predecessor of the technical college in Delft, was established in 1842, training courses specifically for civil servants in the East Indies were incorporated into the school's curriculum. This four-year programme was meant to guarantee the quality of future civil servants in the Dutch colony. In total, just over 300 students started this track but a large number of them failed to graduate.[2]

When the Dutch educational system was reformed by the famous Dutch statesman Johan Rudolph Thorbecke in 1864, the Royal Academy was closed and replaced by Delft Polytechnic. The training courses for civil servants in the Dutch East Indies were removed from the curriculum, but found a new home at the 'Indische Instelling', a municipal institute that existed until 1900 and functioned independently of Delft Polytechnic. After the Indische Instelling closed, the training of civil servants for the Dutch East Indies was mainly moved to Leiden.[3]

The city of Delft was an important centre for knowledge of the Dutch East Indies. Nonetheless, Delft Polytechnic and its successor Delft Technical College (founded in 1905) did not pay much attention to the Dutch East Indies in the curriculum. Only in 1908 was a professor for water management appointed with the explicit task of training engineers who aspired to work in the East Indies.[4]

2 Henk Makkink, 'Toen studeren exerceren was: De Koninklijke Akademie (1842-1864)', *Delft Integraal*, 2006, no. 4, pp. 34-37.

3 The official name was 'Instelling van Onderwijs in de Taal-, Land- en Volkenkunde van Nederlandsch-Indië'. For a more complete history of this institute and its collection, see: J.L.W. van Leur et al. *De Indische Instelling te Delft: Méér dan een opleiding tot bestuursambtenaar*, Delft, Museum Nusantara, 1989. See also: C. Fasseur, 'Hemelse godin of melkgevende koe: de Leidse universiteit en de Indische ambtenarenopleiding 1825-1925', *BMGN – Low Countries Historical Review*, 1988, no. 103, pp. 209-224; C. Fasseur, *De Indologen: ambtenaren voor de Oost 1825-1950*, Amsterdam, Bakker, 1993.

4 J.A.A. van Doorn, *De laatste eeuw van Indië: ontwikkeling en ondergang van een koloniaal project*, Amsterdam, Bakker, 1994.

Opening of the technical college in Bandung, 3 July 1920. The speaker is probably W. IJzerman. Leiden University Library, KITLV collection, no. KITLV 11908.

This initiative came surprisingly late. For example, since 1874, the Department of Public Works in the East Indies had set a diploma from Delft as a requirement for working there. Moreover, since the mid-19th century, a staggering average of 25% to 30% of all engineers who completed their education in Delft went to the Dutch East Indies.[5] Civil engineers from Delft were deemed to be capable of more than was expected on the basis of their education and work experience. There were military engineers from the navy who worked on railway development, irrigation experts engaged in mining and agricultural reform, and there were engineers who published on topics ranging from vocational education to harbour development and bridge construction. The constant call from the East Indies for Delft-trained engineers meant that graduates were expected to be versatile.[6]

For a long time, Dutch interests in the Dutch East Indies were mainly aimed at economic gain for the state. After the abolition of the controversial 'cultuurstelsel', the tax system that existed in the Dutch East Indies from 1830 until 1870, a shift took place, slowly moving away from the Dutch state to private businesses

5 Van Doorn, *De laatste eeuw*, p. 119. See also W. Ravesteijn, *De Zegenrijke Heeren der Wateren: irrigatie en staat op java, 1832-1942*, Delft, Delft University Press, 1997; M. Ertsen, 'Dutch Irrigation Engineers and Their (Post-) Colonial Irrigation Networks', in D. Pretel and L. Camprubí, *Technology and Globalisation*, Cham, Palgrave Macmillan, 2018, pp. 283-312.

6 Van Doorn, *De laatste eeuw*, p. 119.

Objects from the collection of Museum Nusantara, presently kept in the Academic Heritage collection of TU Delft.

as the most important exploiters. From 1900 to 1940, Dutch companies invested large sums of money in mining and petroleum drilling. The East Indies became, perhaps even more than before, an investment area. At the same time, there was a growing call for Indonesian independence. This prompted the Dutch government to adopt an ostensibly more ethical policy towards the Indonesian people. Through this so-called 'ethische politiek', the government carried out agricultural and economic reforms, and encouraged both the spread of education and the increased participation of Indonesians in local government.

Two separate initiatives illustrate the growing attention in Delft for the training of engineers for a career in the East Indies. The first originated from a large collection of objects that had remained in Delft after the Indische Instelling closed in 1900. The home of the collection, the Municipal Ethnographic Museum, opened in 1911 in the Sint-Agnietenklooster. It offered future engineers a way to familiarize themselves with the culture of the East Indies. There was a lot on display: from Wajang puppets and wooden statues, to more specialised model bridges illustrating traditional Indonesian building culture. In 1977, the museum was renamed Museum Nusantara and it remained in existence until 2013.[7]

7 J.L.W. van Leur et al., *De Indische Instelling te Delft: Méér dan een opleiding tot bestuursambtenaar*, Delft, Museum Nusantara, 1989.

The second initiative came from a growing scientific interest in the properties of tropical plants. In 1910, Delft professor Gerrit van Iterson convinced the minister of education to found the 'Rijksrubberdienst', a government-funded rubber research laboratory. Nine years later, together with his colleague Isaac de Vooijs, he took the initiative of establishing the 'Rijksvezeldienst', a fibre research laboratory. The objective of both institutes was to boost trade and industry. These institutes formed the cradle of the broad research organisation TNO, of which Van Iterson would later become chairman.[8]

Since 1908, Van Iterson had advocated for a laboratory for technical botany at Delft technical college, together with a botanical garden. It took until 1917 for this idea to come to fruition. Van Iterson was a fervent collector of plants and fibres from the East Indies, which he studied at the new institute. The laboratory was a breeding ground for engineers interested in tropical botany who wanted to prepare for a career in, for example, the rubber or sugar industry.[9]

As we have seen, growing attention was being given to colonial engineering at Delft technical college in the first decades of the 20th century. At the same time, the call for new engineers in the East Indies persisted. From an unexpected quarter, plans started to emerge to found a technical college in the East Indies.

8 Harry Lintsen (ed.), *Tachtig jaar TNO*, Eindhoven, Stichting Historie der Techniek, 2012.

9 Trudy van der Wees, *Het Groene Laboratorium*, Delft, Eburon Academic Publishers, 2017.

Botanical Garden in Delft, around 1961. TU Delft Image Archive, resolver link: resolver.tudelft.nl/uuid:c9d1030a-4117-40cd-bf31-6470fc0174c5

A technical college in the East Indies?

Since 1910, plans had existed to found a university or technical college in the Dutch East Indies. The 'Indische Universiteits-vereniging' lobbied for the founding (and funding) of an institute of higher education. The Dutch minister of education torpedoed these plans in 1915, mainly because he expected too few students to enroll.[10]

But already in 1917 the plans resurfaced, instigated by a visit to the Netherlands by a delegation of the Indonesian popular movement 'Indië Weerbaar'. Indië Weerbaar advocated an Indonesian armed force – with or without conscription – to defend the Indonesian Archipelago against possible invasion. It advocated a kind of local armed force, in addition to – or possibly within – the official Koninklijk Nederlandsch-Indisch Leger (KNIL). The delegation that visited the Netherlands was a very diverse group of people, with different backgrounds, visions and agendas. Not all of them advocated a purely military agenda; some supported education, hygiene and economic development, especially for Indonesians. The chairman of the Chamber of Commerce in Batavia led the delegation. Despite their internal differences, they got serious attention from the government in the Netherlands. The delegation presented a wish to found a technical college in the colony. The reasoning was that engineers trained in the Dutch East Indies were in high demand to develop a well-functioning infrastructure. This, of course, would also be of great importance to future military purposes.[11]

The idea of a technical college was received surprisingly well. Partly because of the influence of K.A.R. Bosscha, a rich Dutch tea magnate, philanthropist and son of one of the rectors of Delft Polytechnic, a number of colonial industrialists became interested. Composed of people from trade, farming and private (and public) industrial enterprises, this group raised – allegedly on a single night – the staggering sum of 3.5 million Dutch guilders to establish the school. Among the benefactors were the Bataafse Petroleum Maatschappij, Koninklijke Hollandsche Lloyd, Stoomvaart Maatschappij Nederland, mining companies, and Bosscha himself. Their intentions were voiced during a meeting of the benefactors at the office of the Bataafse Petroleum Maatschappij in April, 1920. Cornelis van Aalst, the

10 Jef Notermans, 'Het onderwijs in Nederlands-Indië in de XXste eeuw', *Revue Belge de Philologie et d'Histoire*, 1966, tome 4, fasc. 4, pp. 1199-1216; Ben van Leerdam, *Henri Maclaine Pont, architect tussen twee werelden*, Delft, Eburon, 1995.

11 For more information on 'Indië Weerbaar', see: Humphrey de la Croix, 'Oorlog en Bersiap | Nederlands-Indië en de Eerste Wereldoorlog. Deel 2 De beweging "Indië Weerbaar", het Comité "Indië Weerbaar" en de rol van Indo-officier W.V. Rhemrev' on: www.indischhistorisch.nl, visited 25 Feb. 2020. See also: Kees van Dijk, *The Netherlands Indies and the Great War 1914-1918*, Leiden, Brill, 2014.

Delegation of 'Indië Weerbaar' (in the front row) visiting the mayor of Amsterdam, J.W.C. Tellegen (seated, third from the right), March 1917. National Archives, Elsevier photo collection, archive 2.24.05.02, no. 022-1311.

director of the Nederlandse Handelsmaatschappij, chaired the meeting. Their plan was described as follows:

> On the return of the Delegation of the Indië Weerbaar Committee to the East Indies, [Van Aalst] and several other gentlemen deemed it desirable to furnish proof of the interest of Dutch industry in the intellectual and economic development of the indigenous population. [...] [In order to] demonstrate this genuine interest in fostering the intellectual development of the indigenous people in a direction that would also specifically benefit their economic resilience, a plan was drawn up to raise a sum of money in order to thereby add impetus to the establishment of an education institution in the East Indies.[12]

The willingness of these private individuals and enterprises to join in funding the college might be less surprising than it seems. During the First World War, the Dutch East Indies experienced a big shortage of well-trained engineers. As communication and travel between the Netherlands and its colony had almost completely stalled, entrepreneurs realised that their situation was very sensitive to disruptions. A (hopefully) constant stream of engineers trained within the colony, sounded promising to the industrialists and philanthropists, and they had amassed fortunes great enough to be able to fund such initiative.

12 Anonymous, *Bijeenkomst ten kantore van de Bataafsche Petroleum Maatschappij, op vrijdag 20 april 1917*, Nationaal Archief, archive 2.20.37.01, inventory 24. In Dutch: "Het is [Van Aalst] en een paar andere heren wenselijk voorgekomen, aan de Deputatie van het Comité "Indië Weerbaar" bij hun terugkeer naar Indië een bewijs mee te geven van de belangstelling van het Nederlandsch kapitaal in de intellectueele en economische ontwikkeling der inlandsche bevolking. [...] [Teneinde] van daadwerkelijke belangstelling te doen blijken in de bevordering van de intellectuele ontwikkeling der inlanders, in een richting, die mede in het bijzonder ook hun economische weerbaarheid ten goede komt, is het plan ontstaan een geldsom bijeen te brengen, teneinde daarmede den stoot te kunnen geven tot de oprichting van een instelling van onderwijs in Indië."

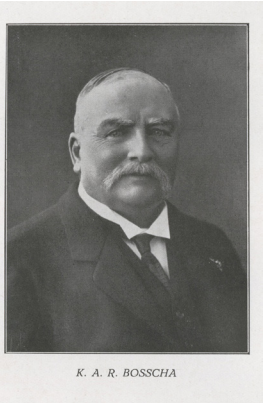
The Royal Institute for Higher Technical Education in the Dutch East Indies

The private funds were invested in the Royal Institute for Higher Technical Education in the Dutch East Indies, founded during a meeting at the office of the Nederlandse Handelsmaatschappij on 30 May 1917. Meanwhile in the colony, the governor-general set up a commission to work on the design of the entire technical education programme – from primary school via higher civic education ('HBS' in Dutch) and technical college to graduating as an engineer. This commission recommended the founding of a school for engineers in the East Indies, offering a three-year programme to become a secondary technician ('middelbaar technicus'). After finishing these three years, students had the option to study for another year to graduate as civil engineers. In practice, everybody stayed for that extra year.

The Royal Institute was tasked with building the college and designing the curriculum. Already in April 1918, a preliminary recommendation was written by Jan Willem IJzerman, who would later become chairman of the institute.[13] IJzerman, a prominent railway engineer in the Dutch East Indies, began his recommendation by stating that the training provided by the new technical college should be at the same level as Delft. The curriculum would focus on training civil engineers. The plan was to later add a chemical engineering programme. For this reason, Delft professor of chemical engineering Sebastiaan Hoogewerff was asked to help develop the curriculum.[14] IJzerman and his colleagues envisioned a fully functioning college, encompassing all types of engineering sciences. It would take a number of decades before this would be realized.

Delft professor Jan Klopper was subsequently asked to further develop the curriculum.[15] Its four-year duration was the most important difference to Delft, where students had one additional year – and often needed longer – depending on their extracurricular activities. Klopper's deliberate choice of four years can be seen as a disguised criticism of Delft's work ethic. In addition to keeping an attendance register, Klopper proposed to raise the students' level by holding periodic tests and spending 40 weeks of the year on education – in contrast to Delft's 25 weeks. The school in the Dutch East Indies should thus become more efficient than Delft, compensating for the shorter programme duration.[16]

Moreover, the curriculum itself differed from Delft's. Less time was reserved for mathematics courses. Especially time for "the harder parts of 'Delft' mathematics was deemed



K.A.R. Bosscha. From: *Jaarboek der Technische Hogeschool te Bandung, Lustrumuitgave*, 1935, p. 16.

13 J.W. IJzerman, *Voorlopig advies betreffende doel en inrichting der School voor Hooger Technisch Onderwijs in N.I. en regelingen haar betreffende*, National Archive, Den Haag, archive 2.19.047.01, inventory 28.

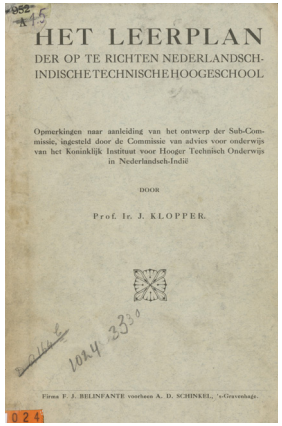
14 S. Hoogewerff, C.W. Weys, R.A. Van Sandick, *Het Leerplan voor de op te richten Nederlands-Indische Technische Hogeschool*, Den Haag, Belinfante, 1918.

15 J. Klopper, *Het leerplan der op te richten Nederlandsch-Indische Technische Hoogeschool: opmerkingen naar aanleiding van het ontwerp der sub-commissie*, Den Haag, Belinfante, 1918.

16 J. Klopper, 'De Technische Hogeschool te Bandung in de eerste jaren van haar bestaan', in *De ingenieur in Indonesië*, vol. 7, no. 4, 1955, pp. 22-29.

unnecessary", according to Klopper later in his life. Students in the Dutch East Indies would simply have no need for this, was his argument.[17] The complex subject of descriptive geometry, for example, was removed in full from the curriculum. In this way, the school focused more on applied sciences. By taking classes on subjects that were applicable to the context of the Dutch East Indies, students became well-trained colonial engineers. The privately funded, and thus independent, Royal Institute could essentially make its own plans in this regard, in line with the colonial vision of the funders.

At least during the first few years of its existence, the school functioned more as a private school than as a public technical college like the one in Delft. This is illustrated , for example, by (never realised) plans to house the students on the school's premises, similarly to a boarding school. In 1924, the school was gifted to the government of the Dutch East Indies by way of thanks for the opportunities that various industries had been given in the colony. This was an offer the colonial government could not easily refuse, and it allowed them to bypass complicated political discussions on the necessity of higher education in the colony.


HET LEERPLAN
DER OP TE RICHTEN NEDERLANDSCH-INDISCHE TECHNISCHE HOOGESCHOOL

Opmerkingen naar aanleiding van het ontwerp der Sub-Commissie, ingesteld door de Commissie van advies voor onderwijs van het Koninklijk Instituut voor Hooger Technisch Onderwijs in Nederlandsch-Indië

DOOR

Prof. Ir. J. KLOPPER.

Firma F. J. BELINFANTE voorheen A. D. SCHINKEL, 's-Gravenhage.

J. Klopper, *Opmerkingen naar aanleiding van het leerplan der op te richten Nederlandsch-Indische Technische Hoogeschool*, October 1918.

In operation

On 8 March 1919, Klopper and IJzerman boarded the ship J.Pz. Coen in Amsterdam, the first mail boat to sail after the First World War. They brought with them the blueprints for the new technical college. The design by the young architect Henri Maclaine Pont stood out thanks to its references to traditional Indonesian architecture. Maclaine Pont was born in Java in 1884, but left with his parents for the Netherlands in the 1890s. He graduated from the technical college in Delft as an architect in 1911, after which he travelled back and forth between the East Indies and the Netherlands. The preliminary plans that he made for the technical college in Bandung can be compared with Javanese palace complexes (called *kratons*) in Solo and Yogjakarta, which are characterised not so much by the buildings as by the spaces in between: open fields, gardens and squares. Maclaine Pont used this idea for the technical college, which he designed as a large enclosed campus-like complex with at its core the library and the aula, surrounded by more than ten faculty buildings. His plan included buildings for chemistry, electrical engineering, architecture and mining, which shows that the Royal Institute aimed for creating a fully-fledged technical college, although it would start with only a faculty for civil engineering.[18] Although these plans were preliminary, his designs for the first two buildings, for mathematics, mechanics and technical drawing, and for building materials science, were more advanced. Maclaine Pont based the roof form on a free interpretation of the traditional Sumatran Minangkabau roof system. On their way to Batavia, Klopper and IJzerman studied the plans and discussed the curriculum of the new school.[19]

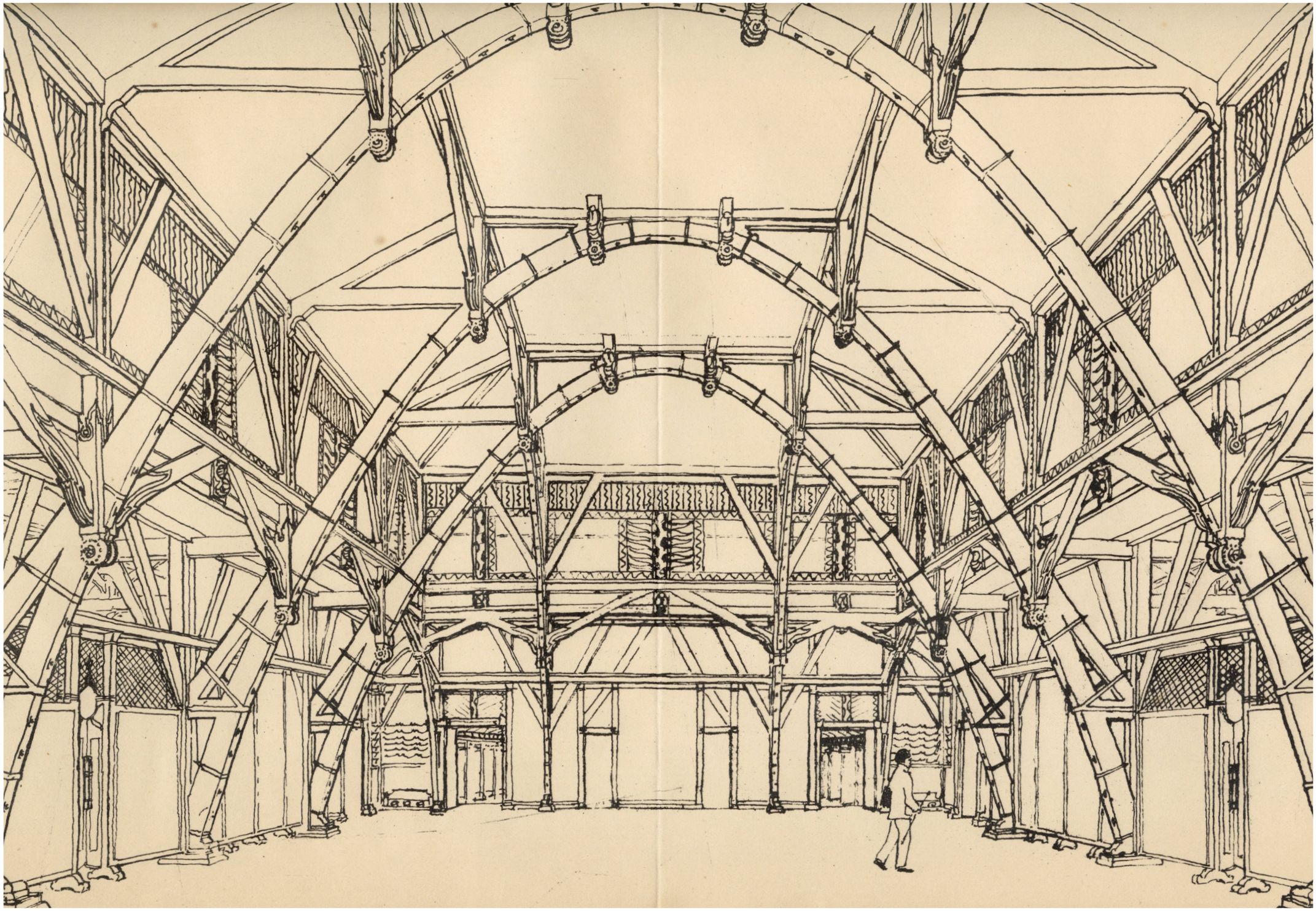
Where the school would be built had not yet been decided, and led to heated discussions. At the time, plans existed to move the government of the Dutch East Indies from the capital Batavia to Bandung, which had a cooler climate due to the high altitude. The Department of Warfare had already moved there and other departments planned to do the same. IJzerman had his mind set on a location close to Bandung. But a counter-campaign was launched in the capital to keep parts of the government there. In 1918, the governor-general, together with the Department of Education, had chosen Batavia as the preferred place to establish the new technical college.

17 Ibid.

18 Ben van Leerdam, *Henri Maclaine Pont, architect tussen twee werelden: over de perikelen rond het ontstaan van de gebouwen van een hogeschool*, Delft, Delftse Universitaire Pers, 1988.

19 Klopper documented his recollections of this period in an unpublished memoir. A copy of the chapter on Bandung can be studied at the National Archive, Den Haag, archive 2.21.305, inventory 275.

Jan Willem IJzerman (first row, second from the left) and Jan Klopper (first row, third from the left) among staff of the National Railway, 1919. Leiden University Library, KITLV collection, no. KITLV 404088.



However, when Klopper and IJzerman approached the harbour of Tandjong-Priok, they were informed that the mayor of Bandung had offered them a site of approximately 30 hectares free of charge. IJzerman preferred this option and decided that the technical college would be built in Bandung, very much against the will of the governor-general.[20]

Within a few days, the site on the north side of Bandung was closed off. The municipal building company, led by Colonel Slors, started building a road to the area and began levelling the site. On 4 July 1919, a small ceremony was held. Instead of placing the first stones, Klopper and IJzerman decided to plant four weeping fig trees at what would be the centre of the technical college. The trees were planted by four girls of Dutch, Indonesian, Chinese and mixed heritage, symbolizing both the binding strength of education and the diverse population of the city of Bandung, which has a large Chinese community. A container with coins and an encased certificate were buried in between the trees.[21]

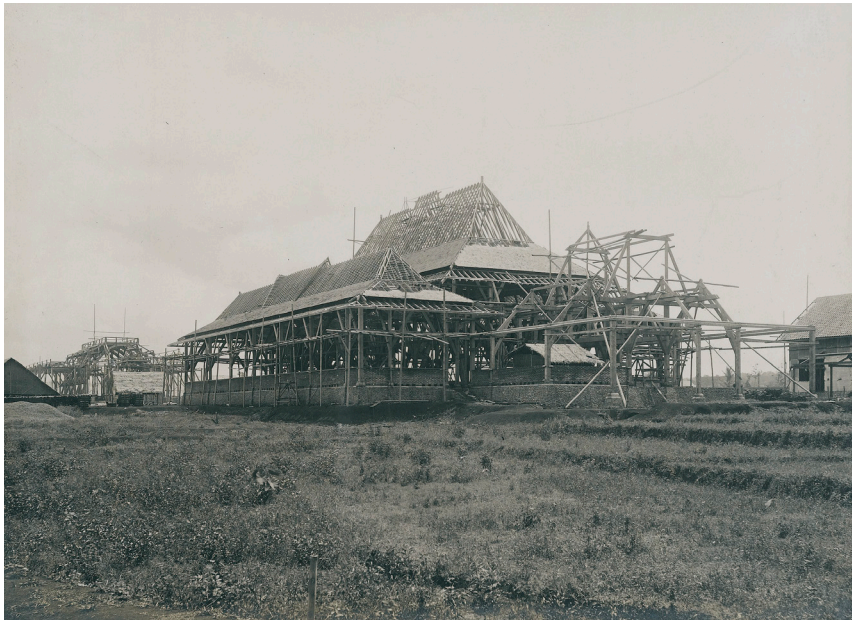
Later in July 1919, Klopper travelled back to the Netherlands. At his own initiative, he was honourably discharged as professor in Delft to become the first rector magnificus in Bandung. At the end of August, he travelled back to Java with his wife and five children. In Bandung, the first buildings were erected with amazing speed. The school opened in July 1920 for the first cohort of students: 28 students enrolled, of whom 22 were Dutch – among them one woman – four had a Chinese background and two were Indonesian. Three students left the school in the first few weeks, which left a group of 25. Classes started at seven in the morning, due to the heat later in the day. The school had a strict regime: precise attendance registers were kept and students had to wear a uniform. Twelve students received their engineering degree in four years. Four students took longer; the rest left the school without a degree.

The technical college in Bandung was mainly led by a board of three directors. These were people with a reasonable to high standing in the colony. K.A.R. Bosscha was the chairman. Three professors had been appointed when the school opened: Willem Boomstra for mathematics, Jacob Clay for physics and Jan Klopper for mechanics. In 1921, H.C.P. de Vos was appointed professor of irrigation and hydromechanics and Richard Schoemaker became professor of architecture. He had a background in the Dutch East Indies as an army captain. His brother Charles Wolff Schoemaker would become a professor at Bandung in 1922, after which Richard left for Delft.

Previous page: Drawing of the main hall of the building for mathematics, mechanics and technical drawing by Henri Maclaine Pont. From: *Memorie van toelichting bij de voor-projecten der gebouwen voor wiskunde, mechanica en technisch teekenen barak-gebouw A en voor kennis van bouwstoffen barakgebouw B, no. 2*, probably 1919.

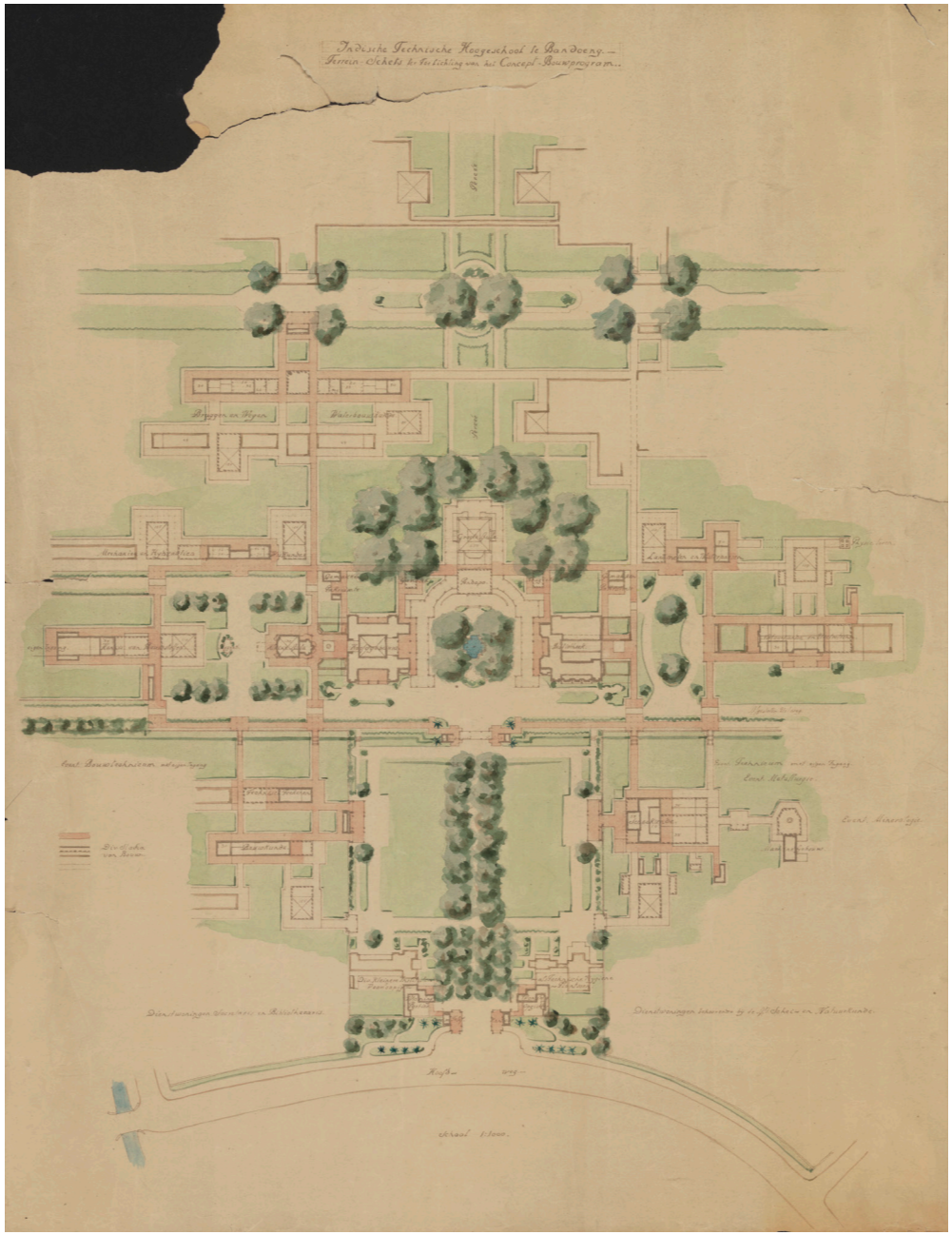
20 Henk Makkink, 'Het ontstaan van de Technische Hogeschool Bandoeng', *Zicht op Delft*, 2002, nr. 4, pp. 11-13. This story is also recollected by Klopper in his memoir, cited above.

21 Ibid.



Top: One of the buildings of the technical college under construction, 1920. Leiden University Library, KITLV collection, no. KITLV 11869.

Bottom: Buildings of the technical college in Bandung, 1920. Leiden University Library, KITLV collection, no. KITLV 11910.



Sketch of the site of the future technical college complex by Henri Maclaine Pont. National Archives, archive 4.KIVI, no. 864.

Students of the technical college in Bandung, around 1920. Leiden University Library, KITLV collection, no. KITLV 50582.

The technical college in Bandung – in contrast to Delft – made use of a large body of visiting professors. These were often engineers working on Java who, for a limited period of time, would share with the students their knowledge of and experiences in the Dutch East Indies. In this way, students received thorough training on topics that were specifically useful in the colony, for example, the use of local building materials, information on the colonial judicial system and on the irrigation systems that were designed specifically for use on Java.

There were numerous exchanges between Delft and Bandung. The two Schoemaker brothers, for example, alternated their positions for a year in 1938. The famous Delft professors Biezenoo and Keverling Buisman (both in the field of mechanics) visited Bandung for a year. In addition, the technical college in Bandung functioned as an incubator for aspiring scientists. Among these were Jacob Clay, who later became a professor in Amsterdam; P.P. Bijlaard, who became a professor in Delft (after which he went to Cornell University in the US) and C.G.J. Vreedenburgh, who also went to Delft.[22] Similar exchanges took place among the students body. The college in Delft had flexible admission requirements for graduates from Bandung.

22 *Jaarboek der Technische Hogeschool te Bandoeng, 21e cursusjaar*, Bandung, Faculteit van Technische Wetenschap, oktober 1941.

Professors of the technical college in Bandung, around 1925. Leiden University Library, KITLV collection, no. KITLV 116885.

A leading institute

In October 1924, the school in Bandung was officially handed over to the colonial government. The Royal Institute was liquidated and the money that was left was put into a foundation, the 'Stichting Bandungsche Technische Hoogeschoolfonds'. The organization of the school was handed over to the governor-general and the board of directors was abolished. A new executive board ('Curatorium') was installed, of which Bosscha – again – became the chairman. In honour of his work for the college, the brand-new physics laboratory, furnished by Jacob Clay, was named after Bosscha in 1924.[23]

The student who is now regarded as the most famous alumnus of the technical college in Bandung was among the second cohort of students. Sukarno started his training as a civil engineer and architect in 1921. He was a very promising student, who became interested in politics during his studies. Later in his life, Jan Klopper had a special memory of him. One day, the chief of police came to warn Klopper that Sukarno "was going into the dessas to give politically inflammatory speeches." Klopper called Sukarno to his room and told him:

> [...] that high-quality education was incompatible with political activities, and that he had to choose: either become a politician or an engineer. After thinking it over for several days, Sukarno returned and stated that he wanted to become an engineer and would not participate in politics. He kept his promise until shortly before the end of his studies. At that time he came back again and informed me that given the distress of his people, his conscience dictated that he could no longer stay out of politics – and that he was asking to be released from his promise. This made a deep impression on me. Young people had often made promises to me, and these promises were definitely not always kept, but no one except Sukarno had ever asked to be released from their promise.[24]

23 Ad Maas, 'Kroniek van een onvolkomen ontdekking', *De Gids*, 2009, vol. 172, no. 1, p. 46-62.

Jan Klopper stayed in the Dutch East Indies until the summer of 1925, when he went back to the Netherlands and started working on the board of the Thomassen machine factory in the Delft region. He remained deeply involved in university life. After World War II, for example, he took part on the reconstruction board ('College van Herstel') that organized the reconstruction of Delft Technical College.

The technical college in Bandung slowly grew to become one of the leading institutes of technology in Indonesia. Around the start of the Second World War, plans to expand the curriculum of the school were put into action. In 1940, a chemical engineering programme started. At the same time, the length of the curriculum was expanded to five years. One year later, a mechanical engineering programme opened its doors and in 1948 electrical engineering and mining engineering were added to the school.

During the war, the technical college was closed from the attack on Pearl Harbour (7 December 1941) until the end of the Japanese occupation of Indonesia. In 1942, the University of the Dutch East Indies was founded, of which the technical college and other colleges for farming, medicine and law became faculties. After Indonesia became an independent country, the name of the university was changed to Universitas Indonesia. The curriculum basically stayed the same until most of the Dutch left Indonesia in the 1950s.

On 2 March 1959, the government of Indonesia changed the technical faculty into an independent school, the Institut Teknologi Bandung (ITB), where nowadays students can choose from a multitude of technical disciplines. The original campus of the technical college still lies at the heart of ITB. The four weeping fig trees, planted by Klopper and IJzerman, don't exist anymore, but the buildings of Maclaine Pont serve as silent witnesses to the school's past.

24 These two quotes come from Klopper's memoirs, cited above. In Dutch they read: "naar de Dessa's ging en daar opruiende redevoeringen hield." and "dat een goede studie onverenigbaar was met politieke activiteit, en dat hij dus moest kiezen: óf politicus, óf ingenieur. Na enige dagen bedenktijd kwam Sukarno terug en verklaarde dat hij ingenieur wilde worden en niet aan politiek zou doen. Hij heeft die belofte tot kort voor het einde van zijn studie gehouden – toen kwam hij weer, en deelde me mede, dat zijn geweten, gezien de nood van zijn volk, hem noopte niet langer buiten de politiek te blijven – en dat hij zijn belofte terug vroeg. Dit heeft een diepen indruk op me gevraagd. Mij is vaak iets door jongeren beloofd, en lang niet altijd zijn die beloften gehouden, maar nooit heeft iemand, behalve Sukarno, zijn belofte terug gevraagd."

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Credits
Published in 2020 by the Academic Heritage Team of Delft University of Technology Library on the occasion of the centenary of Institut Teknologi Bandung in Bandung, Indonesia.

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Graphic design
Studio Mellegers van Dam

Cover photo
Students of the technical college in Bandung, around 1920. Leiden University Library, KITLV collection, no. KITLV 50582.

Translations and copy editing
Renuka Wikramasinha, Afterwords

Thanks to
Prasetyo Adhitama
Jan van Dullemen
Maurits Ertsen
Frida de Jong
Wouter Keller
Jan Klopper (jr.)
Krista Knopper
Rikrik Kusmara
Tita Larasati
Wim Ravesteijn
Pauline van Roosmalen
Mo Smit
Peter Wieringa

ISBN / EAN
978-94-6384-127-6

TU Delft

In 2020, the Institut Teknologi Bandung (ITB), Indonesia, is celebrating its centenary. This essay offers deeper insight into the founding of ITB and the historical relationship between Delft University of Technology and its Indonesian counterpart. It breaks down several myths concerning the establishment of the school in Bandung and also provides an overview of the main actors involved.