ABSTRACT

In relation to urban spatial planning, it is thought-provoking and substantial to study the development of railway lines and stations in Priangan in the 19th to 20th century. The issues discussed in this research are how to build a railway line when it had to pass through urban areas? And how to locate a railway station in order to be easily accessed from all corners of the city without disrupting the users of land transportation routes. To examine the issues, a historical study is conducted by employing historical method comprising heuristics, criticism, interpretation, and historiography. The result of the research demonstrates that the railway line passing through the urban areas was built in the areas with hardly any settlements; and in big cities, a bridge (viaduct) was specially built for a railway line in order not to obstruct the land transportation routes. The railway line, however, was not too far from the city center, so the railway station was built in a location easily accessible from and to all the corners of the city.

Keyword: Urban Spatial Planning, Railway Line, Railway Station, Priangan

ABSTRAK

Dalam kaitannya dengan tata ruang kota, pembangunan jalur dan stasiun kereta api di Priangan pada abad XIX-XX penting dan menarik untuk dikaji. Permasalahannya adalah bagaimana jalur kereta api dibangun ketika harus melewati kawasan perkotaan?, dan bagaimana penempatan stasiun kereta api sehingga dapat dijangkau dan menjangkau seluruh pelosok kota tanpa mengganggu pengguna jalur transportasi darat? Untuk menjawab permasalahan tersebut, dilakukan penelitian sejarah dengan menerapkan metode sejarah yang meliputi empat tahap, yakni heuristik, kritik, interpretasi, dan historiografi. Hasil penelitian menunjukkan bahwa jalur kereta api yang melewati kawasan perkotaan dibangun di kawasan yang masih jarak pemukiman dan di kota besar dibuatkan jembatan (viaduct) sehingga tidak mengganggu jalur transportasi darat. Namun demikian, jalur tersebut tidak terlalu jauh dari pusat kota sehingga stasiun kereta api dibangun di suatu lokasi agar dengan mudah dapat dijangkau dari dan ke pelosok kota.

Kata Kunci: Tata Ruang Kota, Jalur Kereta Api, Stasiun Kereta Api, Priangan
INTRODUCTION

In the region of Priangan Residency, there were several highly important old cities both politically and economically, such as the City of Bandung, Sukabumi, Tasikmalaya, Cianjur, Sumedang, Garut, and Ciamis. The first three cities were autonomous regions, but they had gone through different processes. Since colonial era, Bandung and Sukabumi had the status of gemeente (respectively in 1906 and 1914) and later became stadsgemeente (1926), while Tasikmalaya gained the status of an autonomous region in 2002. On the contrary, the other four cities had the status of administrative capital (hoofdplaats), not only for the level of residency, but also afdeeling and regency.

Those seven cities were regarded politically and economically significant because their district areas produced high commodities for European market, particularly coffee. Coffee was considered not only as a mandatory plant, but also as “one of the ways” to achieve carrier success for political elites and to escape from taxation for farmers (Muhsin, 2017: 193). In addition to coffee, Priangan produced tea as well which plantations scattered widely in mountainous areas, both in the northern and southern part of Priangan. The owners of tea plantations used to assemble every week in the district towns, so in this case the towns of administrative capital run their status as the center of social-cultural activities.

The physical growth of the cities was inevitable in order to meet the needs of the inhabitants; many urban infrastructures had been constructed particularly for the Dutch/European and local elites as well. The transportation infrastructures were built to improve the mobility of people and goods. Railway was a form of technological advancement in that time since it could transport people and goods in a relatively faster way. Various commodities produced by various plantations were sent to warehouses in district towns by means of land transportation before they were transported to seaports. The delivery process to seaports took quite a long time, thus infrastructure to transport the commodities quicker was truly necessary. For this reason, the Government of the Dutch East Indies had built railway lines since the mid-19th century. In Priangan, a railway line was built from Batavia passing through Bogor, Sukabumi, Cianjur, and Bandung (Lasmiyati, 2017: 198–199). Then, the colonial government built the railway line of Bandung, Tasikmalaya, up to Yogyakarta.

For the colonial government, the biggest problem of developing railway lines was how to keep the rail speed uninterrupted by the movement of land transportation? Contrariwise, how to ensure the safety of land transportation users was not threaten by the speed of the trains. This problem arose because the railway network system was built on the ground, thus in a certain point the railway would intersect with roads (Handinoto, 1999: 49–50). The construction of railway lines must consider the urban spatial planning in order to avoid the intersection with primary roads.

RESEARCH METHOD

The method employed in this research is historical method, i.e. the process of critically examining and analyzing the records and survivals of the past. The imaginative reconstruction of the past from the data derived by the process is called historiography" (Gottschalk, 1968: 48). The research procedure consists of four stages. The first stage is heuristic analysis in which the process of searching, obtaining, and collecting historical sources related to the main research question was conducted. In this stage, all sources, both secondary and primary, in both written and material form, are compiled to be externally and internally criticized. In the second stage, authentic sources and highly credible historical facts are generated. Then, the historical facts are strung together to be interpreted verbally, factually, technically, logically, and psychologically. The last stage of the historical method is the writing of history, known as historiography. To give an explanation of the string of the facts critically, this study employs
urban morphological approach. One of the aspects of the urban morphology is the constructed city road, which includes the system of railway line development. Under those circumstances, the resulted historiography does not only tell a diachronically past event, but also give a synchronically historical explanation.

RESULTS AND DISCUSSION
The Construction of Railway Lines in Priangan
In the Dutch East Indies, the idea of building railway lines had emerged since 1861 due to a bad infrastructure of land transportation that gave a detrimental effect on private landowners. The idea was then presented to J.J. Rouschen, the Minister of the Colonies. Subsequently, the minister assigned F.J. Stieltjes, a technical advisor in the Ministry of the Colonies, to investigate the condition of the transportation infrastructures and facilities in Java Island. The result of Stieltjes’ investigation recommended that the Kingdom of the Netherlands should build railway lines and later Minister Rouschen responded the recommendation positively. On 7 February 1861, Stieltjes together with Dixon and van Panhuys established Transportation Commission in Batavia as a follow-up to his investigation result. It was the Commission that proposed the construction of Semarang-Vorstenlanden and Batavia-Preanger Regent-schappen railway line (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 4).

The proposal was then realized by carrying out the construction of the railway line of Semarang-Solo-Yogyakarta, which was inaugurated on June 17, 1864 by Mr. Rudolph Anne Jan Wilt Baron Sloet van de Beele, the Governor-General. On 10 August 1864, Semarang-Tangoeng railway line was open for public. Meanwhile, Semarang-Yogyakarta railway line had just finished and was open for public on May 21, 1873. This first railway line was operated by Nederlandsch-Indische Spoorweg Maatschappij (NIS) (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 4; Reitsma, 1925: 7). In the same year, NIS obtained consent to build the railway line of Batavia-Buitenzorg (Bogor). The line was approved for political and economical reasons. Buitenzorg was a summer residence of the Governors-General of Dutch East Indies and hence the construction of the railway line should be prioritized. In addition, Buitenzorg was “the main warehouse” of plantation products in the remote areas of Buitenzorg and Priangan before being transported to the seaport of Tanjung Priok. However, the development of Batavia-Buitenzorg line was only implemented on October 15, 1869 inaugurated by the Governor-General Pieter Mijer (1866–1872) (Lasmiyati, 2017: 2015).

In 1878, the colonial government established a plan for the construction of Buitenzorg-Tjitjalengka lines (Staatsblad van Nederlandsch-Indië voor het Jaar 1878, Number 202). The construction of this line was done gradually for almost four years. The first lines were Buitenzorg-Tjitjoeroeg installed on 5 October 1881, Tjitjoeroeg-Sokeaboemi installed on 10 May 1883, Tjiandjoer-Bandoeng installed on 17 May 1884, and Bandoen-Tjitjalengka installed on 10 September 1884 (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 58; Reitsma, 1925: 18-19; Wellenstein, 1915: 6). Two years after the route of Bandung-Cicalengka was operated, the Government of Dutch East Indies developed a plan for Tjitjalengka-Garoet via Tjibatu (Staatsblad van Neder-landsch-Indië voor het Jaar 1886, Number 254) and on August 14, 1889, the operation of this route was inaugurated. (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 58; Wellenstein, 1915: 8). Based on the decision of the government, a new route from Cibatu to Tasikmalaya up to Kesugihan would be built (Staatsblad van Nederlandsch-Indië voor het Jaar 1888, Number 8). The line Cibatu-Tasikmalaya was installed on September 16, 1893 while the line of Tasikmalaja-Kesoegihan was installed on November 1, 1894 (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 58). As a result, the railway lines had linked all the district towns in Priangan. The only district town that was not connected by the
railway lines was Sumedang. This was caused by the arrival Japan to Dutch East Indies that made the construction of Bandung-Sumedang-Cirebon route uncompleted. The construction was just reached Rancaekek-Tanjungsari route via Jatinangor (see figure 1).

The Placement of Railway Lines in Urban Areas
Due to the limitation of technology, the railway lines in Dutch East Indies was built on the ground instead of underground (subway). Consequently, the placement of railway lines must be arranged in such a way to avoid the intersection with roads for the purpose of road users safety. The implementation of this idea can be seen from the construction of railway lines that are as far as possible avoid residential areas, so its construction is directed to relatively unoccupied areas. On the other hand, the railway lines are required to be able to reach all corners of the city areas in terms of travel time and accessibility. For this reason, the development of railway lines in Priangan takes into account the related urban spatial condition. When the colonial government built the railway line of Buitenzorg-Tasikmalaja (1878–1894), the construction started from the west (Buitenzorg) to the east (Maos, Cilacap). The first phase of construction was Buitenzorg-Bandoeng route passing through the towns of Sukabumi, Cianjur, and Bandung. The three towns were regarded as the center of political, social, economic, and cultural activities, so it was important to link them by railway lines. Different from Cianjur, the development of Sukabumi and Bandung were much more rapid and hence they were awarded the status of municipality (kotapraj).

Sukabumi was formerly a resort and entertainment center for plantation owners. Along with the development of plantation products, Sukabumi grew into a city and had quite a lot of residents from Neth-


Figure 1. The Network of Priangan Railways in 1922
erland and other European nations. To fulfill their needs, the Government of Dutch East Indies turned Sukabumi into an administrative capital of Afdeeling Soekaboemi resulting from the extension of Afdeeling Tjiandjoer. In 1914, the city of Soekaboemi became Gemeente Soekaboemi (Staatsblad van Nederlandsch-Indie voor het Jaar 1914 Number 310) and twelve years later changed into Stadsgemeente Soekaboemi (Staatsblad van Nederlandsche-Indie voor het Jaar 1926 Number 371). The city of Cianjur was an administrative center of Cianjur Regency which development was closely associated with the development of Cianjur Regency. On October 19–20, 1677, the Sultanate of Mataram signed an agreement with VOC about the handing over of Priangan to VOC (de Haan, 1911: 261; Surianingrat, 1982: 54-55). In the submitted area, a new political center arose named as Padaleman Cianjur which the administrative capital was in Cikundul. In the reign of Aria Wira Tanu III (1707–1726), the administrative capital of Cianjur Regency was moved from Pamoyanan to Kampung Cianjur (de Haan, 1912: 131 & 170; Dienaputra, 2004: 27; Surianingrat, 1982: 71 & 85). Since that moment, Kampung Cianjur had grown and become an important city for until1864 it was made as the administrative capital of Priangan Residency, before it was moved to Bandung city based on Besluit 7 August 1864 Number 18 (de Klein, 1931: 12, 92; Staatsblad van Nederlandsche-Indie voor het Jaar 1864 No. 114). The existence of Bandung as the administrative capital of Bandung Regency could not be separated by the Great Post Road (groote posweg) built by the Governor-General Herman W. Daendels (Plakaatboek XV, 1810: 699; Hall, 1988: 445–446). In this regard, on May 25, 1810, Daendels issued an order to move the administrative center of Bandung Regency to an area close to the Great Post Road. The order was issued because in Daendels’ view the location of Da-jeuhkolot as an administrative capital of Bandung Regency was too far from groote posweg. The order was then implemented on September 25, 1810 (Hardjiasaputra dkk., 2000: 55; Herlina dkk, 2016: 47-48; Tim Penyusun Sejarah Kabupaten Bandung, 1974:116; van der Chijs, 1885; Voskuil, 1999: 20).

Along with the construction of Bui-
tenzorg-Tjitjalengka railway line, those three towns had developed into an urban area that attracted migrants. Accordingly, the Government of Dutch East Indies built the railway line in the relatively empty areas (see Figure 2). In the city of Sukabumi, the railway line was built in the south, horizontally parallel with the primary road. The intersection with road segments took place around Pecinan, heading to Pelabuhan Ratu. The crossing was located on the ground and thus it had a great potential to disrupt road users. From the time when Bandung became the administrative capital, its development arose rapidly. The appearance of the morphology of Bandung City tends to develop in the southern part of the road. In the meantime, rice fields, fields, forests, or vacant lands were still found in the northern area. Likewise, more indigenous villages were built in the southern area of the Great Post Road. Such morphological conditions were used by the colonial government as the basis to build the railway lines in the areas of Bandung City that crossed three secondary road segments. The railway line that intersected with Lembangweg was built underground in order not to obstruct the activity of road users. Meanwhile, the railway line that intersected with Soeniaradjaweg-Landraadweg was built above the road (viaduct). Then, the line that intersected with Merdikaweg (around Bandung City Hall) was made in one land surface. Different from the City of Sukabumi and Bandung, the position of Cianjur City railway line was built vertically (from the south) and then horizontally headed to Bandung. The line was not made parallel with the primary road (groote posweg) because it did not pass through the urban areas, but the suburbs. As a result, at the western end of groote posweg, there was an intersection with the railway line although it was regarded not too undisturbing the mobility of the primary road users.

The next phase was building the railway line of Cicalengka-Banjari via the City of Tasikmalaya and Ciamis. For the purpose of transporting people and plantation products, the colonial government built the railway line of Cibatu-Garut-Cikajang. In this route, Garut City was not directly passed by the main line, but it had its own line, i.e. Cibatu-Garut route. The operation of Tjitjalengka-Garoet railway line for public passengers was installed on August 14, 1898 (Nederlandsch Indische Staatspoor-en Tramwegen, t.t.: 20). In Garut City, also known as Swiss van Java or Kota Intan ‘The City of Diamond’ (Soefianto, 2008), the railway line passed through the city center areas as shown in Figure 2. The line was made parallel with the primary road orienting from the west to the east. Notwithstanding that it passed through the city center areas, the position of the line relatively did not disrupt people’s activities since the northern area of the primary road was quite vacant rather than the southern area. Meanwhile, the railway line in Ciamis City was built in a vertical way with the orientation of the south-north-east. The railway line in Tasikmalaya city was built in a vertical way as well, but in different orientation, i.e. north-south-east. All of these railway lines did not cross the primary roads, except at the end segment of the primary road that was relatively less crowded than the middle segment that crossed the city centers.

With such railway line arrangement, the movement of the railway will not threaten the safety of the road users. In its development, the areas that previously were vacant have changed along with the growth of the cities. The railway lines are now “besieged” by residential areas, education center, business center, etc. On the top of that, some railway lines no longer operated such as the route of Cibatu-Garut-Cikajang. This railway line was not only unable to compete with the land transportation modes, but it also was not managed professionally that caused the national railway company suffer losses. In a like manner, the railway lines of Bandung-Ciwidey and Bandung-Majalaya was finally closed along with the decline of planation products produced by the plantation areas in South Bandung. Bogor
The Sukabumi-Cianjur railway line was once no longer operated for being unable to compete with the land transportation modes. The railway line, however, was then re-functioned around the middle of 2000s due to the congestion of the road segments of Cianjur-Sukabumi-Bogor and Cianjur-Puncak-Bogor. In contrast, the railway line of Bandung-Tasikmalaya-Ciamis-Banjar is still operating and becoming one of the busiest lines of the south to east route.

The Position of Railway Stations in the Urban Spatial Planning

In Priangan Regency, the first railway station was only built in 1882. Handinoto (2017: 51) argues that a railway station has three different related functions. Firstly, it serves as a facility or area for the trains to stop and to pick up or let off passengers (people or animal) and goods. Secondly, it is used as a place of departure of the trains transporting passengers (people or animal) and goods. Thirdly, it provides an area for the trains to cross, to overtake or to follow. The operation of a railway station is under the responsibility of a stationmaster.

In connection to such functions, the building of a railway station architecturally has similar sections. It generally consists of four areas. The first is a front area serving as a place of shift from the transportation system of a steel rail to a road or from the transportation system of a road to a steel rail. This section typically consists of public transport terminals, vehicle parking space, and loading areas. The second is a station building commonly includes a hall or vestibule, ticket booth, administration building (the office of the stationmaster and the staff), and operational facilities such as a railway signal room, technical room, canteen, and public toilet. The third is a railway platform normally used as an area for passengers’ waiting and boarding as well as for loading and unloading goods. The fourth is an emplacement consisting of a straight rail, platform, and turning rail for a train to stop and allow other train passes. (Triwinarto, 1997: 94; Handinoto, 2017: 51).

Viewed from the aspect of urban spatial planning, the position of Bandung City’s railway station can be said very strategic since the location is not too far from the administrative capital and business centers (shown in Figure 3). The
building is fairly easy to access from various directions, thus the mobility of people and goods can run smoothly. Its close proximity to Pasar Baru ‘the New Market’ has contributed to an increase in trade activity. The delivery and/or acceptance of merchandises are getting easier which impact is economically cost-effective. This is not surprising because the main purpose of the development of railway lines is to support economic activity, specifically in relation to the loading and unloading of plantation products. Moreover, the construction of a tunnel under Lembangweg and viaduct above Soentiaradjaweg and Cikapundung has made the position of the railway station more strategic. The railway station of Bandung City is also easy to reach because it is linked by various road segments connecting many different areas in Bandung City.

Sukabumi City’s railway station was officially operated on March 21, 1882. The station was initially built in an indische style, but in 1930s it was reconstructed in an art deco style. It was located in Stationweg, not far from Plaboeanweg-Plaboeanstraat junction and its location was perpendicular to Groote Posweg (the primary road in Sukabumi City) (presented in Figure 3). The station was not difficult to reach because it was flanked by two major roads heading out of town, i.e. Plaboeanweg and Barosweg. Before 1918, this railway station was administratively outside the area of Gemeente Sukabumi. In the west, there was a market (Pecinan ‘Chinatown’) and thus the transportation for commercial goods for the benefit of the market became easy to reach. Seen from the urban spatial planning, the development of Sukabumi City’s railway station is overall very strategic for it is easily accessible from various directions, very close to residential areas, offices, and business centers.

Garut City’s railway station was built around one block to the north from the city center (shown in Figure 4). The building was made so close to the city center area that it was easily accessible. Observing from the concept of urban spatial planning, the position of this railway station is extremely strategic due to its closeness to the center of economic activity, settlement, and government. Unfortunately, this indische-style railway station no longer worked after the independence of Indonesia because the railway lines of Cibatu-Garut and Garut-Cikajang stopped operating, which were caused by neglect and losing in a competition with land transportation modes. Unlike the previous three railway stations, the building of Cianjur City’s railway station was located
vertically from the primary road (see Figure 6). In order to ease the people to enter the railway station, the government built a secondary road right next to the office of Wedana Cianjur. Viewing from the aspect of urban spatial planning, the position of the railway station was quite strategic even though the road to the railway station was not as wide as the city roads. Cianjur’s railway station from the south, the west, ad the north, however, was so easy to reach that its location was very much in line with the smooth movement of the railway.

CONCLUSION
As previously explained, it can be concluded that the development of railway lines is a follow-up of the government of the Kingdom of the Netherlands on the results of the investigation of the bad land transportation infrastructures in Java Island. Because the system of railway network was built on the ground, the construction of the railway lines cannot be done haphazardly. The key principle is to build the railway lines in an area that is still dominated by open ground. In order to minimize crossing by road, the railway lines are made parallel to primary road, either horizontally or vertically.

Based on the aspect of urban spatial planning, a railway station is built in a location that has potential to “promote” by itself, thus people from diverse backgrounds can easily reach the station. In point of fact, the position of Garut City’s railway station is the most strategic since it creates an axis with the administrative capital (pendopo ‘an open hall’ and the resident assistant office). Furthermore, the railway station is not far from the town square and close to business centers. By way of contrast, the position of Tasikmalaya City’s railway station, reviewed from the spatial planning, apparently rather difficult to access. Despite the fact that it is fairly close far from pendopo, the railway station is distant with the business centers. For the purpose of creating easy access to the railway station, the colonial government built a tramline to link the City of Tasikmalaya and Singaparnia.