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How the technical bodies build the city

Strategic management of time during the creation of the urban
development plan in the 19th century and the underground tramway/
railway in the 20th century in Brussels

*Comment les corps techniques construisent la ville. Gestion stratégique du temps
lors de la conception du plan d'extension urbaine au 19^e siècle et de la création
du (pré-)métro au 20^e siècle à Bruxelles*

*Hoe de technische overheidsdiensten aan de stad bouwen. Strategisch time
management bij het ontwerp van het plan voor stadsuitbreiding in de 19e eeuw
en bij de aanleg van de (pre)metro in de 20e eeuw in Brussel*

Benedikte Zitouni and Céline Tellier

Translator: Jane Corrigan

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How the technical bodies build the city

Strategic management of time during the creation of the urban development plan in the 19th century and the underground tramway/railway in the 20th century in Brussels

Translation: Jane Corrigan

This article combines the results of two doctoral research papers and is the fruit of work carried out within the framework of a more global study on the elite in the city. Two sociologists relate the plans for the extension of the city by the road inspectorate in the 19th century and the creation of the underground by the Service Spécial d'Etudes of the STIB in the 20th century. Behind the scenes in the state departments, by dissecting the internal archives of the administration (correspondence, reports, notes and circulars), we discover that civil servants and, more specifically, the technical bodies have developed a practice of time allowing the step-by-step realisation of large-scale projects. Time is a tactical and flexible element in these cases, formulated and manipulated in order to prompt an expansion of the city and to ensure the irreversible commitment of the stakeholders involved. The conclusion shared by the two analyses carried out in parallel questions the idea that it is necessary to have powerful visions and authority for Brussels in order to face major urbanistic challenges. As an alternative, based on information from the history of organisations, the authors propose to examine the technical bodies and their knowledge and capacity to act as mediators.

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This article was initiated while they were both working in the framework of the concerted research action 'Les élites dans la ville', carried out at ULB from 2006 to 2012. This research programme gathering historians, geographers and sociologists, analysed the operating mode (land area, residence, production of specific spaces, networks of influence, public stance, insertion in decision-making spheres, etc.) used by the elite in the processes of urban reconstruction over the past three centuries in Brussels.

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Introduction: two periods, a single approach

'To refuse an improvement because it can only be made gradually is an untenable thesis [...] One must reach the same result smoothly, successively and according to the necessary reconstruction of facades – which are not intended to last forever – due to their dilapidation; such that after a century or two perhaps, Rue du Berger will reach the width required by royal decree.'¹

And regarding the underground tramway in Brussels: 'The beginnings of the underground networks which would be created this way could of course be extended according to the circumstances; they could furthermore be transformed into a true underground railway as soon as the conditions are met to justify the application of this mode of transport from an economic point of view.'²

Or: 'We do not know what our cities will be like in 50 years; at that time, public transport must be sufficient. [...] It is out of consideration for the future that we must build now.'³

1. The first citation comes from a letter written in 1842, as part of a case between suburban road inspector Charles Vanderstraeten – who wrote the letter – to the property owners in Rue du Berger, located between Toison d'Or and Chaussée d'Ixelles. Le Hardy de Beaulieu, Staumont and other property owners had lodged a complaint against the King and the municipality, contesting *the method* which had been recommended for widening their street. It was supposed to be widened to seven metres in order to accommodate the width of two cars, as required by the royal decree of 31 August 1841, but instead of being widened all at once or left unchanged, Rue du Berger was modified gradually, in stages according to the successive changes made to the

buildings. The method invented by the inspection unit therefore envisaged organic rather than planned time, and gradual additions rather than a clean sweep.

2. The next two citations are much more recent. They date from 1963, at an important moment when the Ministry of Public Works and the Ministry of Communications reached a compromise. The surface of Brussels would be used by cars, whereas public transport would make use of an underground network; the sharing of the surface and the underground was thus established. But in this case as well, the method advocated was gradual. The irreversibility happened in stages, beginning with the underground tramway. The right conditions needed to be met, according to the citation. This method was advocated by the Ministry of Communications and in particular by the SSE (*Service Spécial d'Etudes*), which was dependent on the Ministry and the *Société des Transports Intercommunaux Bruxellois* (STIB), whose role would be to study and precisely to implement the right conditions in order to carry out underground works. The SSE engineers thus proposed to 'consider the future', i.e. not plan the whole network at once but prepare the ground so that an extension would be possible and even desirable.

3. In both cases – be it the road inspectorate in the 19th century or the SSE in the 20th century – the state's technical bodies were quite ingenious with respect to the question of time and the future. One may detect rhetorical ingenuity – a sham in which meaningless words are aimed only at convincing the public of the validity of the project. But one may also detect practical and active ingenuity, whereby words have a philosophical and strategic impact, are significant and guide the effective construction of the city. We have chosen to explore the latter. It has allowed us to discover complex methods and practices of time among civil servants.

¹ State archives in Brussels - Anderlecht Repository [hereafter referred to as AEB], *Fonds du gouvernement provincial du Brabant*, department 12, Brussels, room 192, *Plan général d'alignement des faubourgs. Plan n° 7. Partie comprise entre la chaussée de Namur et la Porte de Hal, 1839-1852; 1862-1878; 1896; 1918*, letter from the road inspector to the municipality of Ixelles dated 16 August 1842.

² Ministry of Communications, the Post, Telegraphs and Telephones - Transport Department, 1963, *Promotion des transports en commun dans les grandes agglomérations. Exposé du problème*, May, 62 pages, p. 43.

³ Van Geel, P. & Vandermar, R.M., 1962, 'Un problème capital... L'avenir des transports urbains', *Rail et Traction*, n°80, published by the Association Royale belge des Amis des Chemins de fer, September-October, 36 pages, p. 30.

4. In our approach, instead of being considered as executive intermediaries or neutral players in the decision-making process, technical bodies are seen as agents which transform and reorientate collective action [Latour, 1991; Latour, 2006; Latour & Hermant, 1998]. In order to understand this reorientation, an *internal* perspective of the departments studied needed to be adopted. We therefore went behind the scenes with an analysis of the state archives, i.e. the files, reports, internal correspondence, specifications and statements of intent which circulate between the different departments. These documents are often ignored by social science researchers due to the fact that the administration is considered to be passive.

5. More precisely, we have consulted two sets of archives. The first is that of the Brabant municipal road network department which, in the 19th century, controlled the openings and modifications of roads planned by the municipalities of Brussels. These files contain many letters, minutes and project evaluations which circulated between the Minister of the Interior, the Governor, the roads inspector and the municipal authorities [Zitouni, 2010: 28-33]. The second contains documents gathered from several current institutions such as STIB and *Bruxelles Mobilité*, the former *Administration régionale de l'Équipement et des Déplacements* (AED), as well as from key informants regarding the history of the Brussels underground. These included preparatory notes, activity reports, cooperation agreements, master plans, invitations to tender and responses to these, etc. In addition, there was also information provided by many stakeholders of the Brussels underground, politicians and above all civil servants from several Belgian and Brussels administrations: former engineers from the SSE and the Ministries of Communication and Public Works; current members of Beliris,⁴ AED, the *Administration de l'Aménagement du Territoire et du Logement* (AATL), Bruxelles-Environnement (IBGE) and the *Commission Régionale de la Mobilité* [Tellier, 2012: 36-46].

6. Thanks to these archives, we discovered that in the 19th and 20th centuries, civil servants succeeded not only in thinking about the rate at

which the urban fabric would evolve, but also about guiding the construction of the city by inventing and placing technical and political markers throughout the territory. They implemented a strategic art which consisted in preparing the ground and considering the successions in order to lead to the desired developments. Rather than imposing a plan, they prompted an expansion. In the first case studied, they did it by inventing what we have called 'the dotted line'. In the second case, they did it by creating an 'escalation of commitments'. In both cases, the aim was to get the future under way.

1. Several approaches to the construction of the city

7. Before presenting the facts, let us position ourselves in the field of social science and say more about our approach. We wanted to look at the construction of the city from an anthropological and ethnographic point of view: where and how is Brussels built? What are the processes, acts, words and techniques which shape the material city? We sought to identify places and environments which build the city and exert this type of material power, and this led us to study the state's technical bodies. In other words, the practices of time are not the starting point of our research, but rather the arrival point. They were a discovery. Our research is therefore positioned in the area of work centred on the territories and in particular on the origins of the territories, rather than in the area of work centred on time. In the former area, we have distinguished three important traditions.

1.1. The dynamics of real estate

8. The first tradition is of Marxist inspiration. A series of analyses – from Manuel Castells to Christian Topalov in sociology, and from David Harvey to Neil Smith in geography – reveal the economic logic which shapes the city [Castells, 1973; Harvey 1982 and 1985; Smith, 1984; Topalov, 1974]. These authors have focused in particular on the dynamics of real estate. They have shown that the parcelling out and di-

⁴ Beliris is a cooperation agreement between the Belgian federal authority and the Brussels-Capital Region, which increases the means made available for the Brussels-Capital Region to develop its infrastructures within the framework of its role as national and European capital, in particular as regards land use planning and mobility.

viding up, i.e. the change in the status of land, creates the opportunity and the profit margin which attract investment and get the development of the city under way. They have also shown that time is an important ingredient in this process. On the one hand, speculation is a game of time in which one must be ahead of the others by very little in order to rake in the profits. On the other hand, the flow of capital is guaranteed by the banks which act as players in the construction of the city and which thus settle the thorny problem of sleeping capital or amortisation. To sum up, according to these authors, the construction of the city is in keeping with the logic of capitalism.

9. Our approach responds to this first tradition with a slowing down and indecision. We feel that it is necessary to dissect the rule of opportunity and investment. It is necessary to avoid determining ahead of time what may create a margin and lead to change. An investment does not take place only by following profit calculations. Technical innovations, legal subtleties, negotiations, comings and goings and strategic alliances intervene in an important way and cannot be reduced to an economic rule. The economic aspect is important in the shaping of a city as it is the indispensable condition for construction, but it does not allow us to understand why the city is built in such a way, why buildings have a certain shape, why one process is adopted instead of another, why a profitable project is cancelled when another is begun. The manner and the method are important. They direct the choices made. In other words, the technique is political.

1.2. Urban governance

10. The second tradition is of Weberian inspiration. It is concerned with the reasons for public action, i.e. the objectives and the means mobilised. Authors such as Patrick Le Galès [2003], Pierre Lascoumes [2012] and Pierre Veltz [1995] have studied how the urban territory is made under the dual impact of public policies and strategies for the establishment of companies. They have demonstrated the varied effects of instruments of public action such as cartography, statistics, the designation of priority neighbourhoods, etc. They have also demonstrated the emergence of urban governance. Today, the territorial authority is no longer under the state's remit only, nor that of local stakeholders, but is situated at an intermediate level where coalitions

are formed as well as networks for collaboration between many private and public stakeholders.

11. Our research responds to this second tradition with rooting and an overflowing of action [Latour, 2006: 64-89]. Of course, our research also concerns action carried out by the state on the city. We have adapted the ethnographic method, but not the outline, comparison or routine report methods. This has two consequences. Firstly, our research sets the action with respect to specific locations and stakeholders which are named and analysed in detail. It thus allows the strategic centres for territorial action to be discovered, such as the state's technical bodies, which are not given a privileged role in the Weberian tradition. Secondly, our research follows the action step by step through each stage, and can therefore show that a clearly defined objective is rarely in keeping with the process which is supposed to lead to it. Public action, like any other collective action, undergoes many reorientations according to the interventions of stakeholders. The public stakeholders create the territory due to the effects of interventions and not the immediate effects.

1.3. The real machinery

12. The last tradition is inspired by Michel Foucault and Bruno Latour. Saskia Sassen [1991] and younger researchers such as Emmanuel Didier [2009], Isabelle Doucet [2010], Delphine Gardey [2008], Annelise Riles [2000; 2006; 2011] and Albena Yaneva [2009], have shown that entities as large and imposing as the state, the city and the world economy, are built in the real machinery of the local authorities. They have demonstrated that procedural words, technical inventions and legal tactics are part of continuously exercised territorial authority. Furthermore, exercised authority is the only authority. More specifically, this tradition has renewed the study of the state and the administration by underlining the role played by the circulation of papers and the elaboration of technical knowledge in the strategies implemented by civil servants. Finally, it has renewed the study of the project by illustrating how important it is for a public or private creator to keep records of promising ideas and to file cancelled works in order to be able to start again when the occasion arises. This is precisely what time management is all about.

13. Our research has great affinities with this tradition as demonstrated by the fact that we have underlined the value of procedural words and the active character of the state departments, as well as analysing the internal archives. We also share with this tradition an interest in classical anthropology and the notions developed by it, such as the performativity of gestures and words, the marking and differentiation of spaces, and the tendencies and environments created by technology [Douglas, 1966; Leroi-Gourhan, 1945 and 1964; van Genep, 1981].

14. Nevertheless, our research responds to this third tradition with the fact that not everything is concrete, and that one must also consider the pre-concrete, or what our discoveries have prompted us to refer to as virtual or latent. The virtuality and latency of a city are not only gauged according to all of the cancelled projects set aside by civil servants or architects. They also involve the measures, interventions and minimal notions which may seem harmless and even insignificant, yet which prepare the ground for the events to come. They are the slight differences and variations which give a propensity for future actions [Jullien, 2003]. Or – to reverse the reasoning – before a territorial operation can take place, the ground must be prepared and a virtual presence must be ready for it [Foucault, 1972: 110-112].

15. Now that we have situated and specified our approach, we may now get to the point. We have decided to concentrate on the beginning of the two case histories analysed, in particular to be able to underline the importance of virtuality and latency.

2. The development plan and the addition of the dotted line

16. The plan by inspector Charles Vanderstraeten was the first overall plan for the extension of the city beyond the old walls, ordered by the Belgian state in 1839. The plan provided for the construction of a ring road and large infrastructures – barracks, churches, swimming school, esplanade, circus, etc. – intended to encourage the development of the urban fabric where there were only a few industries, farms and country homes. It was an urban plan. But the word and the discipline did not exist yet and the challenge facing the plan was in reality something else.

17. When we make a detailed analysis of the internal reports which Vanderstraeten addressed to the Minister of the Interior,⁵ we realise that the circle had a strategic importance. It introduced a *latent* presence in the territory. If adopted, the entire circle would be filled with dotted lines. These lines were a novelty. The inspector probably drew them as a dotted line in order to visualise his intuition – as stated in the report – according to which there was 'no material analogy'⁶ between the neighbourhoods and buildings of the future city and the architecture plans, in this case those of the ring road. The future city would only be built much later, at which point – may we add on reading the internal documents – it would be supervised (as the circle also inaugurated a new road inspection area, leading to the Road Inspection Department of which Vanderstraeten was the first director).

18. The plan therefore simultaneously considered different degrees of possibility and materiality. The realisation of elements was more or less close in time, more or less decided ahead of time, more or less clearly outlined in the plan: every metre of the ring road was planned, the buildings were located and indicated in pink, the future neighbourhoods were drawn in dotted lines. By opening a future which was undefined

⁵ In the 19th century, the opening of roads and the control of buildings did not come under the remit of the Ministry of Public Works but instead that of the Ministry of the Interior. It was only at the beginning of the 20th century, when urbanism strictly speaking emerged, that it took over. On this subject, see Benedikte Zitouni, 2010, *op. cit.*, pp. 255-261.

⁶ AEB, Fonds du gouvernement provincial du Brabant, department 12, Molenbeek, room 1138, *Projet d'un cirque dans les faubourgs de Bruxelles, 1837-1838*, report by Vanderstraeten addressed to the minister, dated 7 October 1837.

Figure 1. Charles Vanderstraeten's plan for the alignment of the suburbs, 1840. Reproduction of an excerpt from the original document (a) and representation of the dotted lines which appear in it (b). Source: Archives of the City of Brussels (a) and Zitouni, 2010 (b)

This is a historical map of the Brussels area, showing the Canal de Bruxelles, the Bois de la Woluwe, and the Bois de la Senne. The map is color-coded with green for parks and blue for water. A red line highlights a specific area, and a red rectangle marks a location near the Canal de Bruxelles. The map is labeled with various place names and features.

20. It is interesting to note the reasons behind this reluctance. Saint-Josse and Schaerbeek investigated the planning which emerged at the time with insight. Each of their objections revealed one of the funda-

¹² Idem, letter from the commissioner to the governor dated 29 June 1845. At the Schaerbeek Archives, there is no trace of the response from Schaerbeek.

Figure 3. Charles Van-derstraeten's plan for the alignment of the suburbs, 1840. Reproduction of an excerpt centred on the current Avenue Rogier in Schaerbeek. Source: Archives of the City of Brussels.

mental principles of the plan [Zitouni, 2010: 64-65, 75-85]. To say that the plan would take too long to carry out and that the timeframe was too vague, meant that the dotted line was latent, that it could be executed with a delay and that it served above all as a *marker* for future interventions (principle of latency). To say that the plan was too big and that the dotted line covered a territory which was too vast, meant that

the state planned to use spaces which were far from being urbanised and, above all, that it noticeably extended the right of initiative of property owners. The latter would be able to build anywhere in the circle, without being in the immediate vicinity of the existing buildings (principle of ubiquity). To say that the plan was too difficult to execute and that it put the municipalities in financial difficulties, meant that the development risked being intermittent and that property owners could launch initiatives throughout the area without the municipalities being able to connect them – as the transfer of intermediate land was not at all guaranteed (principle of discontinuity). Finally, to say that the plan was too fixed and that the speculation introduced by the dotted line would be set by alignment orders and guided by the promise of the future context rather than by local circumstances and knowledge, meant that from then on, speculation would be supported by the state (principle of abstraction).

21. Let us have another look at the historical context. In opposition to the development plan, Saint-Josse claimed a territory which was created according to local circumstances and events: as expressed by Schaerbeek in 1846 when it refused to adopt the plan once again, the reluctant municipalities claimed a territory where it would be impossible or at least considered very abstract to 'make connections according to lines drawn long in advance, without arising out of a material interest'.¹³

22. Faced with refusals, the state was obliged to explain the functioning of the dotted line. It agreed that speculation would be informed by the plan and responded especially to the first objection, which gave it the occasion to reassure the municipalities. It stated that the dotted line was indeed latent. It represented no obligation to act or to build. It only appeared when a property owner willingly launched an initiative. The plan was therefore not aimed at hindering but rather at supporting and directing property owners who alone could create the urban fabric. 'We must simply not allow any deviations from the plan for the property

¹³ AEB, Fonds du gouvernement provincial du Brabant, département 12, Brussels, room 277, *Plans généraux d'alignement des faubourgs, Partie comprise entre la rue Royale extérieure et la chaussée de Louvain, 1845-1846; 1859; 1862*, letter from Schaerbeek to the commissioner dated 22 January 1846.

owners, as in future they will spontaneously and willingly ask for the authorisation to open streets onto their properties.'¹⁴

23. Furthermore, the requirements represented by the dotted line were minimal. Unlike the alignment strictly speaking, the dotted line did not determine the details or the length of the streets, and simply imposed connections with the city's main streets. It was composed of lines which would guide the evolution of the entire framework. The inspector explained: 'In order to allow private interests the greatest amount of freedom, I felt, Governor, that I had to indicate regulation projects for all of the existing roads and only designate new roads whose establishment appeared to be absolutely necessary in order to constitute a symmetrical framework, which the interested property owners would be authorised to complete'.¹⁵ The requirement was therefore just a well laid out framework or whole.

24. Instead of being reassured by these explanations, Saint-Josse and Schaerbeek saw them as a confirmation of their worries. There was therefore a latent city established on the land, a sleeping code which for several generations would haunt urbanisation. If it had at least been a plan to be carried out all at once, step by step, then the two municipalities could have agreed to it. 'The adoption of the plan,' declared Schaerbeek, 'would not encounter any difficulties if we executed it in a systematic and continuous manner, if the buildings were developed one

after the other starting at the built-up part of the hill [...] [But] its adoption is impossible when the buildings are located everywhere at once'.¹⁶

25. The argument is insightful. Not only does it state that the dotted line was present throughout the territory, but it also states that the dotted line would allow each of the property owners to begin development at any time from anywhere in the circle. All of the property owners were authorised to develop. The state set a vast inspection area against the expanding city, which would materialise via a succession of requests made by property owners to create a road here or a beginning of a neighbourhood there. These scattered places were sometimes far from the city centre, as they could also be connected via a street or even a village centre, and not only to the city itself.

26. Saint-Josse and Schaerbeek were concerned that they would have to guarantee the continuity of the urban fabric. According to them, they would get caught in the domino effects triggered by the scattered initiatives and would have to purchase the plots of land situated between the various projects carried out. They would be at the mercy of the actions of all of the property owners, who would in turn be at each other's mercy, with no one ever knowing where and when the sleeping code would be activated. In other words, in the eyes of the two municipalities, the latency, ubiquity and discontinuity introduced by the dotted line imposed connections which were difficult to carry out. As a com-

¹⁴ AEB, Fonds du gouvernement provincial du Brabant, department 12, room 277, already cited, report by counsellor Annemans to the provincial council, session of 30 October 1845.

¹⁵ AEB, Fonds du gouvernement provincial du Brabant, department 12, Brussels, room 238, *Plans généraux d'alignement des faubourgs, Partie comprise entre le 1er bras de la Senne en amont et la chaussée de Ninove, Plan n° 2, 1838-1842; 1852-1853; 1860-1861; 1872 (pl.)*, letter from the inspector to the governor dated 24 June 1841.

¹⁶ AEB, Fonds du gouvernement provincial du Brabant, department 12, Brussels, room 277, already cited, letter from Schaerbeek to the commissioner dated 22 January 1846.

pensation, Saint-Josse and Schaerbeek demanded at the very least a better expropriation law.

27. Without any archival proof, it would appear that the state civil servants met with the municipalities and that they promised to take the necessary steps to obtain a better expropriation law. This law overcame two major obstacles in 1858 and in 1867.¹⁷ But at the same time, something else took place: the state formally disqualified objections made by the municipalities. In other words, there was a dual outcome: the municipalities obtained promises but they lost their more local and circumstantial way of developing the territory.

28. Concretely, on 28 April 1846, a royal decree adopted Vanderstraeten's plan.¹⁸ The objections of the two municipalities were reinterpreted as pleas for laissez-faire and expressions of special interests, with respect to which the state project was drawn up, playing a role of unity and social good. This reinterpretation is comical given that the municipalities dreaded too much freedom being given to private individuals. The dotted lines plan did not replace individual interest with collective interest, or laissez-faire with interventionism, but it replaced *ad hoc* speculation with assisted speculation. It did so by suggesting a possible city. The state joined the game of the future and of speculation.

29. The dotted line did not set deadlines or the final plan for the capital, but rather its method of evolution and the future layout. According to the principle of latency, each initiative was from then on oriented by an overall coherence which was marked out for the next century. From then on, development was distributed throughout the suburbs in an undifferentiated manner. The city would spread according to the main

roads already in place or opened on request of property owners, as provided for in the plan. Of course, the dotted line alone cannot sum up the technical and political character of the state's ascendancy in the 19th century. We must at least associate the series of constructions with it (alignment, measures allowing common ownership, etc.) and the reinforcement of demolition rights [Zitouni, 2012]. But it was quite certainly the starting point. Generally speaking, we may say that it started a plan which operated via evolution codes [Zitouni, 2012], rather than via great visions established once and for all.

30. The dotted line introduced a time period which was long and gradual, made of adjustments and individual constructions in the Brussels area, while providing the guarantee that it would keep going. It is this time period which Vanderstraeten mentioned in his introduction when he addressed the King and the property owners of Rue du Berger. It is this long and incalculable time period, full of negotiations and adjustments, which urbanism in the strict sense – i.e. from the second half of the 20th century – later wanted to eradicate. With the development plan, urbanism claimed immediacy. But that is another story. Let us look at how, in the same city at another time, a similar approach was taken by some specialised engineers to begin the future of underground public transport.

¹⁷ Law 1858: Archives de la Chambre des Représentants [hereafter referred to as ACB], *Pasinomie – Collection des lois, décrets, ordonnances, arrêtés et règlements généraux qui peuvent être invoqués en Belgique*, 1858, n° 238, 1 July, 'Loi relative à l'expropriation pour assainissement des quartiers insalubres', Presentation of motives during the session of 26 May 1858 to the Chamber, p. 219. Circular of the Minister of the Interior, Charles Rogier, dated 23 August 1858, addressed to the governors and mentioned in Coll., *Expropriation pour assainissement des quartiers insalubres, loi du 1er juillet 1858, documents et discussions*, Brussels, M. Hayez Imprimeur de l'Académie Royale, 1858.

Law 1867: ACB, *Pasinomie*, 1867, n° 340, 15 November, 'Loi sur l'expropriation pour cause d'utilité publique', Presentation of motives during the session of 11 December 1866 to the Chamber, pp. 287-288; Report by the central department presented by M. D'Elhounge during the session of 12 March 1867, p. 291. They both present the inconveniences and problems of the law of 1858 and the dissatisfaction expressed by the municipalities.

¹⁸ Van Bommel, Eugène, 1869, *Histoire de Saint-Josse-ten-Noode et de Schaerbeek*, Brussels: E. Van Bommel, p. 168. Guillaume Jacquemyns, 1931, 'Victor Besme et le Grand-Bruxelles', *Le Flambeau - Revue des questions politiques et littéraires*, 1 4th year, n° 9, pp. 163-165. Guillaume Jacquemyns, 1936, *Histoire contemporaine du Grand-Bruxelles*, Brussels, Librairie Vanderlinden, p. 41.

Figure 4. Low platform and rolling stock in the Brussels underground tramway. Source: Société des Transports Inter-communaux de Bruxelles, Métrovision. Passé-présent-futur, Bruxelles, avril 2009.

3. The underground tramway/railway and the escalation of commitments

31. At the beginning of the 1960s, in the eyes of politicians as well as the general public, the underground appeared to be a legitimate space for moving the population and thus clear the urban surface for the car, which was undergoing rapid growth [Lannoy & Tellier, 2011; Tellier, 2010]. The consensus was therefore of a political order: the underground would be left to public transport. But the form which the technical object would have to take was still subject to discussion. After many negotiations, the engineers finally opted for a novel hybridisation between tramway and underground: the 'underground tramway'. More than a compromise, it was a strategy of a temporal register. By inventing the underground tramway, the engineers opted for a temporary solution which was supposed to prepare the Brussels underground for the arrival of the underground strictly speaking. As its name suggests, the underground tramway was designed as the first milestone of the future project.

32. In December 1969, during the inauguration of the underground tramway, Mr Appelmans, director at STIB, confirmed the rapid conversion into regular underground:

'[T]he term "underground tramway" which was adopted to designate this temporary formula, truly indicates the will of those who collaborated in the work which you will see later, to consider it as the first link in a more vast network which must gradually extend itself to cover – we all hope as soon as possible – the four corners of our capital [...] The alarming problem of road congestion in our city is indeed urgent, with temporarily incomplete solutions which bear the seeds of more radical realisations in the area of urban transport.'¹⁹

33. Beyond specific material, the underground tramway was therefore granted an ambitious status: that of opening the way to investments in the underground.

¹⁹ Appelmans, Paul, *Exposé pour l'inauguration du prémétro bruxellois*, December 1969, 8 pages (numbered pp. 15-22), pp. 15-16.

34. However, *politically*, in the public arena, the underground tramway was presented as a rational decision. It was a 'solution which was both more in keeping with the true traffic needs to be met and with the economy of capital to be invested',²⁰ which allowed the underground space to be opened gradually to urban public transport. In addition to its economic advantages – the underground tramway makes profitable the rolling stock purchased for the 1958 Universal Exhibition – it allowed the public to get used to the underground while preserving a typical sight from the streets of Brussels, i.e. the tramway:

'Such a solution would enable the continued use of tramway networks, whose structure and material would of course be modernised, thus ensuring minimum modifications to the established connections which the public have been used to for many generations.'²¹

'Gradual education of users in terms of underground transport, localisation of entrances, fare-collection positions, services provided in stations (toilets, newsagent, information centre, telephone, etc.): the transition to underground will take place very easily due to already established habits.'²²

35. Finally, in the event that the conditions for a conversion to regular underground would not be met in future, its reversibility and flexibility would allow – at least in theory – a return to the past.

This gradual opening of the underground has a history. Beginning in 1957, the *Office National pour l'Achèvement de la Jonction Nord-Midi*

(ONJ),²³ the ancestor of the *Service Spécial d'Etudes*, ensured that possibilities remained for new underground works to take place. With the works in the Constitution tunnel between Boulevard Lemonnier and the new South Station, ONJ inaugurated the first 'tramway tunnel'.

36. While ONJ's mission was limited to the complex of tunnels at Brussels-South, by allowing the tramways to make use of the surface at the entrance to Boulevard Lemonnier, 'those who were not informed and who had followed the construction of the tunnels closely were surprised [...] [that] [...] the invert of the tunnel was continued horizontally until it joined the former vault of the Senne'.²⁴ 'It would have been proof of a lack of foresight not to allow the possibility to continue allowing underground tramways in future by using the former vaults of the Senne.'²⁵ In the framework of the works on the inner ring road tunnel, the Ministry of Public Works was even asked to build a channel under this tunnel for the passage of a future North-South underground connection for tramways.²⁶ Note that near the South Station, the inner ring did not end up with a road tunnel, but it is important to understand the foresight involved: one department asked another to create a channel. Convinced that it would eventually be necessary to go underground, ONJ – represented by Fernand Brunfaut – already pursued the conditions for the technical systems which would follow.²⁷

²⁰ Ministry of Communications, the Post, Telegraphs and Telephones - Transport Department, 1963, *op. cit.*, p. 42.

²¹ *Idem*, p. 45.

²² Lombard, Aril, 1976. *Titre inconnu*. UITP, p. 237.

²³ In 1935, ONJ was responsible for finishing the works on the North-South Junction, begun at the beginning of the century. The Constitution tunnel was the occasion for the ONJ engineers to demonstrate their versatility in the use of the underground, while waiting for new projects requiring their expertise.

²⁴ Brunfaut, Fernand, 1959, *La Jonction*, Brussels: Ad. Goemaere, p. 227.

²⁵ *Ibidem*.

²⁶ Lombard, Aril, unknown date, *Promotion des transports en commun à Bruxelles*, response to P. Hustin's personal note in 1993, 6 pages, p. 1.

²⁷ Hustin, Paul, 1993, *La construction du métro. Quelques souvenirs*, personal note.

38. The precedent created by this worksite was used as an argument in 1963, which pointed out that measures had already been taken to favour underground tramways:

'In this case it is worthwhile to point out that in Brussels, the creation of underground itineraries for certain tramways had already begun with the underground works at Place de la Constitution, which led to very conclusive results as regards the use of tramways as well as the improvement of surface traffic; temporary measures had been taken at the opening of these works and under the road tunnel at Place Rogier, in view of the use by tramways of the currently disused channels of the Senne under the central roads.'²⁸

Figure 5. Diagram illustrating the digging of the North-South line of the underground tramway beginning at the disused channel of the Senne vaults. Source: Commission regionale de la mobilité, *Schaerbeek et la desserte des zones Nord et Nord-Est de la Région. Futures étapes de développement des transports urbains, Avis et note préparatoire à l'avis de la Commission (préparée par le secrétaire Claude van den Hove), juin 2007.*

39. The underground tramway was thus a perfect illustration of the strategic management of time practised by the underground public transport engineers. As they were aware of the time required for the creation of an underground railway, they preferred to support the realisation of a transitional yet binding stage for the development of the Brussels underground.

40. The realisation of a true underground railway involved a spreading-out of worksites over time,²⁹ deemed unacceptable given the urgent nature of traffic problems which needed to be resolved. The necessary costly investments for the realisation of an underground railway required expenses – and therefore works – to be spread out over time. The restriction of having to coordinate worksites with other projects – such as roadworks or urban renovation works – in order to make optimum use of budgets, also scattered the available credit. The technical difficulties involved in carrying out the works – in particular the geological restrictions of the ground in Brussels – also extended the time limits. Finally, the use of an underground network was only conceivable with a long enough line, estimated by some to be at least 8 km, in order to allow the underground to be appealing and economically worthwhile.³⁰

'These various factors led to the idea of making tunnels in sections of relatively short lengths for use by tramway lines.'³¹

41. The transitional stage represented by the underground tramway had various advantages. At financial level: 'no immediate costs for the construction of depots and workshops or for the purchase of rolling stock; accelerated profitability of investments; and the possibility for

²⁸ Ministry of Communications, the Post, Telegraphs and Telephones - Transport Department, 1963, *op. cit.*, p.45.

²⁹ Woitchik, Maurice, unknown date (after 1969), *Le pré-métro de Bruxelles*, communication during an international conference, 8 pages.

³⁰ Vrebos, J., unknown date, *Allocution prononcée par M. Vrebos, secrétaire général du Ministère des Communications, Président de Transcomet, à l'occasion de la journée belge de Transport-Expo*, p. 5.

³¹ *Idem*, p. 3.

Figure 6. Intersection in the Constitution tunnel. Source: Ministère des Communications et des Postes, Télégraphes et Téléphones – Administration des Transports, *Promotion des transports en commun dans les grandes agglomérations. Exposé du problème*, mai 1963.

temporary interruption in the case of financing difficulties'.³² At transport level strictly speaking: 'clearing of congested roads by a judicious choice of priority sections; for users, rapid improvement of travel conditions as regards speed and regularity'.³³

'The advantage of the underground tramway with respect to the underground railway is therefore that the works become productive as soon as they are partially finished'.³⁴

42. Furthermore, the underground tramway prepared the future by representing a reserve of capacity and flexibility, as illustrated in the following passage, part of which was cited in the introduction of this article:

'We do not know what our cities will be like in 50 years; at that time, public transport must be sufficient. Consider Paris, where the underground – accused of megalomania from the beginning – is facing great difficulties and has called on the help of the railway in the form of R.E.R. (regional express railway). It is out of consideration for the future that we must build now'.³⁵

43. Finally, and above all, by promoting the underground tramway, the engineers maintained the technical possibility to continue to explore the underground and even to enter it on a massive scale. This took place underground by drawing the templates for platforms and stations or by avoiding road intersections, and on the surface, by creating temporary ramps in areas likely to be used for a future underground railway. In the end, the underground network could not be limited to the most congested areas. This is why the tunnel exits were studied in particular, either to connect with separated surface lines which therefore suited the underground material, or to come up to the surface in roads which were wide enough to eventually accommodate new tunnels.

³² Ibidem, p. 4.

³³ Ibidem.

³⁴ Lombard, Aril, 1964, *Le projet d'infrastructure souterraine pour les transports urbains de Bruxelles*, February, 23 pages + annexes (2 pages), p. 20.

³⁵ Van Geel, P. & Vandermar, R.M., 1962, *op. cit.*, p. 30.

'It is, however, not out of the question that even in these roads and especially in narrower ones, it might be necessary to create tunnels for trams. In this perspective, we must always provide for the possibility to extend the underground network towards the exterior via ramps which come apart. In future, if we decide to extend the tunnels, once the new underground railway is built, the ramps will just have to be taken apart and a connection will be made between the tunnels.'³⁶

44. Furthermore, this solution was adopted for the Constitution tunnel ramp, at the entrance to Boulevard du Centre: 'When the channels of the Senne have been appropriated, this ramp will be taken apart in a very short amount of time, thus making the transition from surface traffic to underground traffic'.³⁷ Let us point out, however, that plans had not been made to convert the tramways which used the Constitution tunnel for underground use (which causes a problem today): the forks and the intersections are level, driving is done visually, which is impossible underground, where there can never be an intersection of lines. The argument of the Constitution tunnel is therefore above all symbolic – the tramway is capable of operating underground – but nevertheless effective, as demonstrated by the events which followed.

45. In conclusion, one may say that even if the underground tramway is a temporary solution in terms of rolling stock, its reconversion for use on the surface is difficult.³⁸ Given the technical, political and financial means used, the underground tramway creates an escalation of commitments which limits the possibilities in terms of mobility. Its limited lifespan and temporary nature are surprisingly the reason behind its strength.

46. With the underground tramway, the technical administration specialised in the underground introduced a gradual timeframe, while en-

suring an irreversibility of commitments. It demonstrated its capacity to create temporalities in the long term. It is ready to reawaken sleeping projects when the time comes. It thus informs us of what constitutes a planning in stages which commits the future of the city much more than what was initially thought. Let us note how similar this information is to that provided by the roads department a century earlier.

Conclusions

47. Let us look at the citations in the introduction. The irony is that in both cases – for Rue du Berger and the underground tramway – the situation has not really evolved. Rue du Berger is still a very narrow and nonaligned street. In certain sections, the underground tramway still exists (North-South and outer ring lines), with trams and low platforms. In our research, we have encountered criticism and even exasperation due to the feeling that in Brussels and in Belgium, compromises and negotiations cause provisional measures to become permanent. Thus, in the 19th century, a newspaper observed that: 'In our country, provisional measures are in the habit of becoming permanent, to such an extent that the latter itself is sometimes only provisional'.³⁹ In the 20th century, the press criticised and still criticises compromises, worksites and situations which drag on.

48. The city is full of objects which are evidence of transitions. It just takes a closer look to see that Brussels has many nonaligned streets and facades, unlevelled land and provisional stairs waiting for a street to be raised or lowered. Underground, if one looks closely, one may see empty spaces and additional floors for the eventual intersection with another line, abandoned sections requiring a few hundred metres of

³⁶ Lombard, Aril, 1964, *op. cit.*, p. 18.

³⁷ Ibidem.

³⁸ On this subject, see the debate regarding 'Cityvision' which suggested the conversion of part of the underground and underground tramway network into a 'light rail' network capable of operating on the surface with material of a greater capacity: LEBRUN L. *et al.*, *Une nouvelle ambition pour les transports publics urbains et le développement de Bruxelles. La Cityvision ou comment faire beaucoup mieux que la Métrovision de la STIB avec moins de moyens*, Brussels, 23 October 2009, 55 pp. and STIB, BRUXELLES MOBILITÉ, *La 'Cityvision', une vision tronquée*, Brussels, 10 February 2010, 16 pp.

³⁹ Anonymous, 1892. Le Provisoire. *Le Moniteur des Travaux Publics*, n° 936.

rails before taking on a new life, which has sometimes been promised for a long time. Rather than seeing this as an inability to take decisions and design the city once and for all, we see it as evidence of a collective capacity – technical and political – to consider the future. This is our first conclusion: these imperfections are in reality evidence of flexibility and strategic creativity which has allowed several destinies to merge in the same place.

49. The city is constantly evolving. So how can one future be committed to rather than another? How can a horizon be created? Rather than outlining great visions and calling on the imagination, one must accept the fact that any measure – no matter how provisional – potentially involves a commitment to the future. The ascendancy takes place gradually. In short, one must recognise the power of procedural inventiveness. If we were to rehabilitate the administrative departments and stop seeing them as passive entities, and if we were to take more explicit control of procedures and technical objects by elaborating public claims regarding them, there would once again be so many things to invent. This is therefore our second conclusion: not only has our research taught us to see and appreciate the traces of a city in transition, but it has also taught us to recognise the power of procedural inventiveness.

50. The third conclusion is centred on the administration. According to us, what is unique to the administration is its capacity to establish long timeframes, and to invent technical and political tools and procedural measures which commit the future of a city. More specifically, the power of technical bodies lies in the fact that they endeavour to transform a single physical process – such as being set up or moved – by punctuating it and shaping it in the long term. Instead of being a totalising power, the administration is a patient power. The power it exerts is rarely head-on. It inserts itself into the series of opportunities offered by each situation and each ambivalent formulation. In short, behind the scenes, civil servants make the city emerge with their taste for technology, their availability and their attentiveness, rather than with their great visions.

51. According to our final conclusion, our research shows that in Brussels, the major projects such as the extension of the city and the

development of the underground are not realised through the institution of powerful authority. In reality, behind each of these realisations is a team of diplomats, negotiators and skilful technicians.

52. We feel that the argument is invalid according to which such realisations are no longer possible today because we live in a globalised world, a decentralised state and an era of urban governance, in which cities must take themselves in hand with no guidance from the authorities. The two historical cases analysed are the product of teams who worked at the level of the Brussels urban area. These teams operated according to delegated tasks which they carried out. We therefore do not feel that there were any structural obstacles preventing the Brussels-Capital Region and its administration from being the author of such inventiveness. Furthermore, perhaps there are already technical bodies which are emerging in this direction. It is important for these technical bodies to be able to adopt the roles referred to in sociology and philosophy as carriers, mediators and diplomats [Joseph, 1998; Latour 1991; Stengers, 1997].

53. The technical bodies which we have analysed were great negotiators. Each stage in a project was submitted to the stakeholders and was modified accordingly, often on several occasions. Even so, the technical bodies kept moving towards the goal to be reached. The idea is therefore not to refuse great ideas or to abandon urban ideals, but rather to learn to develop a long-term horizon and to negotiate and make every effort for years to come. If we empower the departments and technical bodies to become mediators who continuously propose arrangements, adjustments and changes, it will finally be possible to prepare the technical and political ground which commits our future today.

54. This is of course not the only means, but it is the means suggested by our research and it is a compelling alternative to the current claims for a powerful, united and – may we add – non-negotiated vision and authority for Brussels.

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