Shopping Centres, Cycling Accessibility and Planning—The Case of Nova Lund in Sweden

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Abstract: This paper evaluates the history and cycling accessibility of Nova, a shopping centre established in Lund, Sweden, in 2002. The current situation was also analysed through observation and a literature review. Moreover, the study conducted a closer analysis of the history and role of the municipality based on further literature study and interviews with officials. The conclusion of the analysis indicates poor and unsafe bikeways caused by conflicts of interest between politicians, officials, landowners and the general public. It also depicts a situation in which the municipality’s master plan has been ignored, and, in contrast to the local goals, cycling accessibility at Nova has seen no significant improvement since the shopping centre was first established. The reasons for this, arguably, are a relatively low budget for bikeway improvements in the municipality, as well as a situation in which decision-makers have stopped approaching the subject, as a result of the long and often boisterous conflicts it has created in the past. Lastly, it must be noted that it is easy to regard the whole process of Nova, from its establishment to the current situation, as being symptomatic of the power structures between drivers and cyclists that still affect decision-makers at all levels.

Keywords: cycling accessibility; cycling infrastructure; planning; cycling mobility

1. Introduction

A sustainable transport system includes measures for increasing cycling, as well as other factors, such as the increased use of public transport. In order to develop a sustainable transport system, sustainable modes of transport must be increased in mode share and motorised modes must decrease. Sustainable modes of transport, such as public transport, walking and cycling are the modes that need to be increased. Furthermore, for developing a sustainable transport system, less mobility in general is often an important aspect as well [1–6]. In this respect, cycling is of great importance, since it is a very sustainable mode of transport [1,2]. However, shopping centres are usually very accessible by car and less so by bicycle or public transport. Thus, if a city or municipality desires a shopping centre to be accessible to more people, it would be an advantage to make it more accessible to bikes. Many researchers have focused on infrastructure when it comes to sustainable mobility and especially cycling, e.g., [1,2,7]. However, there are of course factors other than infrastructure that influence mobility decisions in peoples’ everyday lives. For example, Banister [8] discussed the effects of distance, speed, and time on mode choices in urban areas and concluded that within traditional transport planning, thinking that travel time needs to be reduced dominates. This often leads to a focus on motorised modes of transport since they more often have a better travel time ratio than, e.g., walking, thus leading the transport system into an unsustainable one. Similar to that, Kaufmann [9] argued that policy makers often make the mistake of setting aside the positive potentials of public transport, through promoting urban sprawl instead of dense cities. Furthermore, policies rather too often do not deal with the image many people have of public transport of being inconvenient or slower.
than the car. This leads to a negative opinion among citizens regarding public transport. Moreover, values among citizens and policy makers as well as mobility cultures are important aspects, in order to understand why people, for example, chose to take the car instead of the bicycle. de las Heras-Rosas and Herrera [10] showed that values are of great importance when it comes to sustainable decisions and thus mode choice. Their research suggested that high post-modern values often lead to a larger environmental awareness and thus to more sustainable mode choices. Values are also related to culture, as explored by Urry [11].

Lund is a small town (91,074 inhabitants). The wider municipality has approx. 121,274 inhabitants [12]. In 2014, Lund municipality was awarded a prize for best municipality in Sweden for sustainable transport. The urban structure of the town is medieval, and the town centre is comprised of many old buildings from different time periods. The street network still follows the medieval layout, which makes car driving rather difficult. Lund is traditionally a bicycle town that actively works on sustainable transport and has been a model among Swedish municipalities [13]. The mode share for Lund is as follows and includes all the trips that start or end within the city of Lund.

The mode share shows that a reasonable number of trips in Lund are done via sustainable modes of transport, such as walking, cycling or public transport. However, not all is as it seems in Lund. While the goals for sustainability and cycling are visible in almost all municipal public documents, an external shopping centre, Nova, was built in the early 2000s, despite Lund municipality’s master plan since the 1980s stating that no external shopping centres were to be built.

Hence, important questions must be asked. How could this happen in a municipality known for supporting cycling as a mode of transport? Could it be that the Nova shopping centre is actually easily accessible by bicycle and does not necessarily contribute to a less sustainable transport system? Very little research has been carried out in analysing cycling in connection to shopping centres, and little research has been carried out that studies how well actual planning outcomes align with current municipal policies and master plans. Thus, the research objective of this article is to perform a critical case study of the Nova development in Lund.

To answer the questions presented in the previous paragraph, three empirical studies were carried out for this article. The first study was an observational study in which different bikeways to the shopping centre were tested and observations were conducted at the shopping centre. This was carried out in order to develop an understanding of the bicycle situation both at Nova and on the way to Nova. That study analysed the accessibility of Nova by bicycle. Thus, the accessibility of Nova focused on cycling, not on public transport, and only to a smaller degree on the car since it was much easier to drive to Nova with a car than to bike to Nova. The car, however, is the dominant mode of transport to Nova, as one can see in Section 3. The second study was an analysis of different planning documents from the late 1980s until the present day. The third was an interview study involving different planners working for Lund municipality. The aim of the studies was firstly to understand the current traffic situation and how accessible Nova was by bicycle, and secondly to develop an understanding of how and why Nova was built in the first place and how cycling as a mode of transport has been part of the planning process. Moreover, the analysis also poses the question of to what extent the shopping centre is in line with the strategies for a sustainable transport system that have been adopted by Lund municipality. Overall, the aim of the studies is also to establish what lessons can be learned from the planning process of the Nova shopping centre.

1.1. Method

The methods used during the collection of the empirical data for this article comprised observations and a literature review for the bicycle study and its analysis, and interviews and a literature review for the second part in the analysis of Nova’s history. All photographs were taken by the authors.

The method was based on hermeneutics and was qualitatively consistent throughout the article, as this is the method that we believe to be best suited to answering the questions posed in this article. Hermeneutics are interpretative, as opposed to the positivist theory of science. In a hermeneutic
approach, empathy is used as a source of knowledge. The aim is to understand, rather than simply to intellectually comprehend [14].

The research is based not only on what has been concretely shown in the collected data, texts and interviews, but also in how the data have been interpreted. The disadvantage of this type of research is that it can never be completely objective but will to some extent be influenced by one’s own interpretations [15].

In the second part, only a hermeneutic approach was considered possible in light of our objective. The goal was to gain a basic understanding of how the municipality and, by extension, how individuals, have reasoned in specific cases. Qualifying these data to a degree in which objective conclusions could be made would be difficult, if not impossible. The great advantage of hermeneutics in this case is that it allows the researchers to try to identify the underlying structures that have affected decision-makers and thus provide a better picture of what the situation was like.

The qualitative interview is based on the interviewer’s ability to ask the right questions. In order to do this effectively, proper prior knowledge of the field, in addition to training, is required, particularly when it comes to asking the relevant supplementary questions. Thus, the quality of the data is heavily dependent on the interviewer’s expertise and the interviewee’s knowledge of the field [16].

The knowledge developed through the interviews partially consists of pure factual knowledge of Nova Lund’s history, which is not a part of the official documents from Lund municipality. It has also involved trying to understand why Lund municipality has acted as it has in certain situations. A degree of self-criticism must be acknowledged here, as all the interviewees had to answer for events in which they themselves were not involved and therefore lacked full knowledge of the events. Naturally, the consequence of this is that parts of the material may be considered speculative and must therefore be treated with caution.

1.2. The Swedish Planning System—A Brief Introduction

The Swedish planning and administrative system comprises three levels—the national level (the state), the regional level (county) and the local level (municipal). The Swedish Parliament and the national government guide planning through official legislation and policymaking, e.g., the Environmental Code or the Planning and Building Act [17,18].

Formally, the Swedish planning system grants substantial powers over land use and urban and transport planning at the local level. The Swedish Planning and Building Act [19] states: “Planning land and water use according to this Act is a municipal affair” (authors’ translation). Swedish municipalities control the formal instruments for planning, including the municipal master plans (which are mandatory but not legally binding for all municipalities) and the detailed plans. It can therefore be argued that from a formal perspective, the municipalities possess a “planning monopoly”. Thus, theoretically speaking, Swedish municipalities have the power to plan what should be built and when and where it should be built. However, the planning monopoly in Sweden can be questioned due to the fact that several stakeholders and actors are involved in the planning processes, and other factors, such as economic structures, situations or growth, play an important role in the respective municipality’s planning and political processes [20].

2. Nova’s History

In order to establish why the situation at Nova is the way it is today, it was necessary to try and establish what the whole process from planning and construction to the current situation looked like. This was no easy task since none of the planners interviewed for this study worked at Lund municipality when Nova was built, and, as a result, their stories from that time were only based on what they were able to understand after Nova was established. What could be deduced from the zoning and master plans was surprisingly limited, and sometimes unclear. Nevertheless, there are stories in the interviews and the documents that are worth analysing.
Nova Lund is a shopping centre with around 26,000 square meters of floor space. It consists primarily of small to medium size retail-type stores. At present, there are 62 active stores at Nova. Bigger sized stores with things like bulkier goods and groceries can be found close by, but not at Nova itself. It is evident that Nova is a place for leisure shopping of lighter things, most of which one could easily carry by bike [21–23]. Thus, Nova is mainly in competition with the centre of Lund and its shopping facilities. In the area around Nova, there are also convenience stores and supermarkets, which also exist in the city centre of Lund. However, they are not part of the analysis of this article. There are no other shopping centres in Lund. Though there are other shopping centres in the region, which are in competition with Nova. There are several shopping centres in Malmö, one in the neighbouring municipality of Burlöv, and one a little bit further away in the municipality of Kävlinge. Nova attracts mainly citizens of the municipality of Lund and the closest municipalities surrounding Lund. The use of Nova differs. There are more visitors during the weekends doing their shopping. Nevertheless, there are also rather many visitors after five p.m. during weekdays. It seems that many people do their shopping of different items on a daily basis at Nova, but more extensive shopping during the weekends. Thus, Nova does seem to play an important role in people’s everyday and weekend shopping, which does affect the city centre of Lund rather negatively.

2.1. Before the First Establishment

The detailed plan that was current when Nova was built, and was adhered to until 2010, was adopted in 1989. The explicit purpose of the plan was to “allow for commercial activities, but not food sales, in the area”. Furthermore, the zoning plan states that companies had an interest in establishing trade in the area and that the planning committee at the time was in favour of this [24].

Because of the amount of time that has elapsed since the plan was adopted, we have not been able to establish what types of establishments the municipality envisaged when the plan was adopted. However, when we look at the plan, and in light of what subsequently occurred, it is clear that the plan allowed for the establishment of a shopping centre of Nova’s size.

In 1998, Lund municipality’s new master plan was adopted. There was a strong overall focus on sustainability, not least from the perspective of transport. The master plan states that it “reports the goals of an infrastructure which will lead to, among other things, increased public transport and opportunities to walk and cycle and thus contribute to sustainable development.” [24] (p. 15). Furthermore, it states that: “The city is expanded in such a way that the bike as means of transport are promoted. That means the distance 5 km to the centre is acceptable” [24] (p. 41). These quotes show that the 1998 master plan already focused on sustainable transport issues and on cycling as an important factor for the municipality. In fact, traffic issues were valued so highly by Lund municipality that reference was made to a separate project, LundaMaTs (Lund’s sustainable mobility plan), which aimed to increase the proportion of walking, cycling and public transport. In particular, Lund municipality considered the number of cyclists to be important. “A well-functioning bike network is important in order for the bicycle to be an attractive means of transport for work trips as well as shopping and leisure trips” [25] (p. 48). According to the master plan, the number of bicycle trips in the city at the time was around 45% of the modal split [25].

The attitude towards external commerce was clear. “As far as externally localised commerce is concerned, the municipality has long taken a restrictive stance. In this plan, with its strong emphasis on reducing transport and in particular car traffic, the absence of areas reserved for external commerce confirms that this attitude remains” [25] (p. 85). Specifically, the municipality of Lund’s stance was: “Externally located shopping aimed primarily at car-dependent customers should not be given the opportunity to become established within the municipal border” [25] (p. 85), and “A continued restrictive approach should be taken regarding proposals for the external location of trade in the region. Regional cooperation shall be initiated/supported” [25] (p. 85). Thus, it can be said that in its 1998 master plan, there is no doubt that Lund municipality took a strong stand against externally located commerce, given the amount of car traffic involved. It is also
clear that Lund municipality was very interested in and wanted to promote better opportunities to cycle in the municipality. The master plan does not address the establishment of Nova. We did not have the opportunity to examine the building permit, but Christian Rydén, a planner we interviewed for this study, believes it is probable that it was issued two to three years before Nova’s opening, meaning 1999 at the earliest [26]. Thus, it is difficult to assess whether or not Lund municipality was aware that there was an interest in building Nova at the time when the master plan was adopted.

2.2. Nova under Construction

On 19 September 2002, Nova opened its doors for the first time. According to its own website, Nova was a “bold initiative”, given the restrictive attitude that the municipality had previously taken towards external shopping establishments [26]. Thus, it could be asked how the municipality could allow Nova to be built. None of the documents we have read have provided any clarity regarding what incentives the municipality received or the reasons for building Nova. Given the consistent objectives of increased cycling and reduced car traffic, as well as the apparent resistance to external shopping centres, this is remarkable.

Rydén [27] stated that Nova was not an initiative of the municipality but was handled as part of a building permit case. The landowner wanted to build this establishment, and it transpired that the detailed plan at the time allowed it. Furthermore, Rydén [27] believed that the purpose of the detailed plan was initially not a shopping establishment of the kind it became, but rather small trade and industry. Since the original idea was not about this type of establishment, the traffic situation in the surrounding area at the time was also not designed for the kind of large flows entailed by a large shopping establishment. The result was a traffic situation at Nova that was not optimal for any type of traffic, and that remains suboptimal even today.

Söderberg [28], a traffic environment coordinator at Lund municipality who was interviewed for this study, believed that the landowners saw an opportunity to gain market shares, and the municipality saw an opportunity to create jobs. In his view [28], the municipality wanted to attract people with good incomes from nearby commuter towns to shop in Lund, thereby strengthening the local job market and generating revenue for the municipality. Both Söderberg and Rydén also asked whether there was any viable alternative. In their view, Lund municipality saw a risk of more and more inhabitants visiting one of the other shopping centres that had been established in the region. This would have been negative, both for the municipality’s local trade and consequently its revenue, but also from a sustainability perspective, since the customers’ mileage would increase and even more people would choose to drive in preference to other modes of transport [27,28].

Something should also be said about whether or not Nova should be regarded as an external shopping centre. Rydén [27] stated that the question is political and that the answer would be different depending on which politician was asked the question. In the administration of Lund, as Rydén [27] describes it, the term semi-external shopping centre is often used. Moreover, Söderberg [28] stated that the proximity to the city centre, the link to built-up areas in the surroundings of Nova and the possibility of reaching the shopping centre via several different modes of transport meant that it was not possible to regard it as an external shopping centre. In connection with a report by Ljungberg et al. [29], the chairman of the building committee at the time stated that Nova was not an external shopping centre because it was possible to cycle there. He pointed out that the master plan was not legally binding.

2.3. Nova’s Development

In 2005, the detailed master plan “Värna och Vinna Staden” was adopted [30]. Yet again, it was found that the municipality still had an opposition to external shopping centres. However, in its detailed master plan, Lund municipality claimed that adjacent municipalities had implemented the opposite policy, particularly with reference to Malmö, Burlöv and Kävlinge. It was also argued that there was no support for the regional or inter-municipal regulation of new establishments from the County Administrative Board and Region Skåne [30].
Nova was mentioned in the document. It was noted that the facility had not been planned to accommodate trade undertaken in the area for various reasons, and that a comprehensive review would be necessary, not least from a traffic perspective. Simultaneously, further expansion was predicted. It was also noted that the establishment of a shopping centre of the desired size could take place within the area [30]. In other words, expansion in the area was not directly described as desirable, but rather as a fact that should be considered. In 2006, Nova indeed expanded by an additional 6500 square metres. According to Karlsson [31], a traffic environment engineer interviewed for this study, this process was rather uncontroversial because the master plan allowed it, and the municipality did not see any reason to stop it. Further, the fact that the expansion was uncontroversial can also be partially confirmed by how difficult it was to find any documentation on this matter.

In 2010, Lund municipality’s new master plan was adopted [32]. Despite the expansion of Nova four years earlier, the municipality remained negative about the concept. In this plan, however, Lund municipality made it clear that it was also sceptical about the concept of a semi-external shopping centre. In the new master plan, it stated that “The municipality shall continue to take a restrictive approach to proposals for external and semi-external locations for grocery retailing and retail trade, such as clothes (shopping)” [32] (p. 103). Moreover, it was noted that the master plan should contribute to sustainable development in which the “ecological aspect has a special status as a framework and a prerequisite for all other developments” [32] (p. 3). To achieve this, Lund municipality believed that local residents must travel less by car, and choose, for example, to ride bicycles instead. The master plan repeatedly emphasised that increased cycling and reduced car traffic was desirable, and several strategies to achieve this were presented. However, we can see nothing specifically about cycling at Nova [32].

Nova also subsequently applied for permission to expand the shopping centre even more, before the new master plan was adopted. This resulted in political conflict, which was a recurring theme in the regional newspapers in Scania. The City Planning Office in Lund wanted a new detailed plan that limited the expansion of Nova, whereas the Conservative Party (Moderate Party) was in favour of such an extension [21,33].

The conflict ended up focusing on whether an extension would contribute to a traffic increase of such a magnitude that the Mobilia roundabout would be overloaded to the extent that other planned urban development measures, such as the development of the area around Öresundsvägen, would become impossible. This claim was made by Lund’s City Planning Office and the member of the Planning Committee who voted in favour of the new detailed plan. Those who disagreed were Nova’s then-owner Unibail-Rodamco, the Moderate Party and the Liberal People’s Party on the Planning Committee. The new detailed plan was voted through by the Planning Committee in spring 2011 six votes to five, thus halting Nova’s expansion [34].

What is surprising is that neither the new detailed plan, the investigations relating to the new detailed plan, nor the media touched upon the fact that an extension would be in stark contrast to the position taken by Lund municipality in its newly adopted master plan, or, for that matter, the 1998 master plan and the detailed master plan from 2005. This is particularly remarkable because, among other things, it was Göran Brinck, who had actively taken a stand in the media for the development and against the new detailed plan, who signed the foreword in the master plan [33,35,36]. Since the new detailed plan was adopted in 2011, no information could be found regarding whether anything further had happened that was of significance to this work. However, it can be added that Nova was sold in 2015 by the then-owners Unibail-Rodamco to TIAA Henderson Real Estate [37].

In conclusion, opposition to external shopping centres from before Nova was built until the present day has been prominent in the official documents of Lund municipality. From the master plan from 2010, semi-external shopping centres have also been included as something about which Lund municipality is sceptical. The documents analysed for this study also consistently expressed the importance of increasing the proportion of bicycle traffic, reducing the proportion of car traffic and strengthening the competitiveness of trade in the city centre. No arguments for the establishment or
expansion of Nova or the Pilsåker area, nor any concrete examples of how Lund wanted to change the traffic situation in the area were found in the documents.

3. Bicycle Study

The Nova shopping centre is located in the north-western part of Lund. The bicycle study tested three different routes for reaching the shopping centre (see Figure 1). The aim was to describe how bicycle traffic is planned, mainly in the immediate vicinity of the shopping centre. The bicycle study was conducted on two occasions in February 2015. The weather was cold but with no precipitation.

![Mode share Lund](image1)

**Figure 1.** Mode share Lund. Source: Regional Travel Survey Skåne (2018) [38].

The Nova shopping centre is located adjacent to the Mobilia roundabout, a large roundabout at which the major ring and access roads of Norra Ringen, Västra Ringen, Öresundsvägen and Fjelievägen converge. Bicycle traffic is not permitted to use the roundabout. Pedestrians and cyclists are directed around the roundabout on dedicated pedestrian paths/bikeways and then via tunnels underneath the busy roads. Apart from pedestrians and cyclists being permitted to move across the Nova car parks, the various traffic types are strictly separated. Figure 2 shows examples of the bicycle tunnels surrounding the Nova area, and the pedestrian paths/bikeways are shown in Figure 2.

![The Nova area and the bicycle routes investigated in the bicycle study](image2)

**Figure 2.** The Nova area and the bicycle routes investigated in the bicycle study. Source: Lucas Glasare.
When the bike path reaches the Nova shopping centre, bicycle parking is available at the respective corners of Nova (see the green markings in Figure 2). Figure 3 shows the infrastructure for cycling close to Nova that leads under the main roads for car traffic, which is also illustrated in the map in Figure 4. The bicycle parking spaces are relatively small and are located a considerable distance away from the nearest entrance to the shopping centre. This is particularly noticeable at the slightly larger bicycle parking spaces in Nova’s north-eastern corner. When the study was carried out, bicycles were also parked immediately outside the entrances to the shopping centre, which indicate that parking facilities for cyclists are not sufficient (see Figures 5–7). It is clear that the car park has been given much more space and that it has generally been located closer to the entrances to the shopping centre.

Figure 3. Pedestrian path and bikeway tunnel. Source: Lucas Glasare.

Figure 4. Bikeways around the Mobilia roundabout. Source: Google maps/Lucas Glasare.
Common to all the routes investigated in the study is that it was difficult to locate Nova and that the route there is perceived to be roundabout and non-linear, primarily because of strict separation from car traffic, whose roads are linear, as well as due to the lack of bicycle signage. Overall, in general the bicycle signage is not satisfactory. There are no signs showing the way to the Nova shopping centre, neither in the local vicinity nor some distance away.

There are no bikeways along Norra Ringen at all. Instead, bicycle traffic is directed to the nearby bike and pedestrian paths. The bike and pedestrian paths do not run along Norra Ringen. Instead, cyclists must cross the road and are led some distance away to cross a railway line, for example.
They sometimes end up in residential areas with no bike paths. This applies to both the southern and northern sides of Norra Ringen (see Figures 8 and 9).

**Figure 7.** Bicycle parking, north-eastern corner. Source: Lucas Glasare.

**Figure 8.** Distance from bicycle parking space to entrance—north-eastern corner. Source: Lucas Glasare.

When cycling to Nova via Öresundsvägen was investigated, good bikeways were available until the road reached the last roundabout before the Mobilia roundabout, where the cycle path ends. There is a sign prohibiting cyclists and bicycle signage towards the “City Centre” and “Gunnesbo”. Although signs for Nova are missing everywhere, it was particularly evident that a sign might be needed here. The same situation can also be found on one side of Fjelievägen adjacent to Nova (see Figure 10).
Cycling along Fjelievägen is regarded as the best route, as there is a bikeway along the pavement all the way up to the roundabout, where bicycle traffic is led down into the tunnel system previously mentioned in the article.

The quality of bicycle access to Nova is questionable. In order to increase the attractiveness and potential use of bicycles, the attractiveness of bicycles needs to be enhanced in relation to other means of transport, particularly cars. Furthermore, cycling as a means of transport is made more attractive by being made faster, safer, and more comfortable [39]. The results of the bicycle study at Nova show problems, particularly in terms of speed, resulting from limited accessibility, and convenience, due to problems with parking and mental/psychological accessibility. In order to give a better comparison with the access roads for cars to Nova, it can be said that basically all roads mentioned above have two lanes in each direction and the speed limits on those roads are 70 km/h. They are in their attributes comparable to inner-city highways and have a good capacity for car traffic. Thus, the access roads for car traffic cater for much greater capacity than the cycling access does. For the purpose of this study, the accessibility with the car was also tested and we drove to Nova via all the different access roads.

Figure 9. Bike paths by Norra Ringen. Norra Ringen (cars) in red, bike paths in green. Source: Google maps/Lucas Glasare.

Figure 10. Bike paths Öresundsvägen (blue), Fjelievägen (red), bike paths in green. Source: Google maps/Lucas Glasare.
In comparison with the bicycle, the access to Nova with the car was excellent and it was very easy to both drive to Nova, find the way, and park the car.

Compared to other cities, the situation in Lund is questionable. Freiburg in Germany is an example of a city in which the number of cyclists has increased due to some improvements. One of the measures taken was the expansion of the bike network from 29 km in 1972 to 160 kilometres in 2007. This allowed for the creation of a network by which cyclists could quickly, safely, and comfortably cycle between virtually any two points in the city [3].

The relationship between bicycle and car traffic is crucial, and must be made in such a way as to give a higher prioritisation to cycling. This can be carried out at intersections between modes of transport, for example, or by allowing shortcuts or passages along which cars do not have access [1,40].

In the case of Nova, this relationship has almost been the opposite. From the Mobilia roundabout, several straight, high-speed roads provide excellent accessibility for motorists, whereas cyclists along the same route are often directed off the roads onto separate cycle paths or into residential areas. The very concept of building cycle paths whose sole purpose is to divert bicycle traffic off the roads also tends to limit the flexibility of potential cyclists, and ultimately acts as a deterrent [39]. The concepts that have been implemented and that have succeeded for cyclists in Freiburg or Copenhagen [1], in terms of accessibility and priority, can be said to apply to car traffic in the case of Nova Lund.

Parking opportunities affect the attractiveness of different modes of transport. In cities in which the proportion of bicycle traffic has increased, the accessibility to parking has often changed. In Groningen, in The Netherlands, in which 50% of internal traffic is by bicycle, the proportion of car parking in the city has been significantly reduced in parallel with increased bicycle parking. In Freiburg, the car parks have been placed on the outskirts of the city centre, thereby forcing motorists to walk or use public transport to reach the city centre. Parking for cars is also expensive in both cities [3,39]. However, we are aware that comparisons between different cities are very difficult. The mentioning of Freiburg or Groningen should only be seen as examples of how cities can work in order to increase the share of cycling.

The study entitled *The Importance of Bicycle Parking Management* showed that greater accessibility to bicycle parking increases the number of cyclists. It should be noted that cyclists want to park as close to their destination as possible [41]. This is not the situation at Nova. There, the bicycle parking is marginalised and located at the corners of the facility, and the proportion of bicycle parking in relation to car parking is low. In addition, the car park is free of charge. The flexibility of the bike means that in situations in which there is a lack of bicycle parking in close proximity to the destination, many cyclists will leave their bikes close to the shopping centre anyway or they will not use a bike. This has also been observed at Nova [41]. Overall, it can be concluded that the Nova shopping centre in Lund is not very accessible to cyclists and that this has led to the car being the main mode of transport to Nova.

Overall, the bicycle study showed that the infrastructure and accessibility for cycling at Nova and on the way to it is not very well built and does not offer the comfort that might lead to an increase in cycling in the mode share of the municipality and of the trips to Nova; while the study was being conducted, very few bicycles were observed on the different routes to Nova, in the bicycle parking area at Nova or at the Nova shopping centre in general. Moreover, a study by Trivector [42] showed that in 2005, only about 5% of trips to Nova were by bicycle, whereas about 82% of the trips to Nova were done by car. This compares poorly to the centre of Lund, where only about 18% of the trips are done by car and 45% by bicycle. Thus, it seems that Nova is a very car-oriented shopping centre [42]. Bearing in mind that very few bicycles were observed in our study, Nova’s situation concerning mode share has hardly changed over time. Furthermore, the overall mode share of Lund is still dominated by motorised modes of transport (see Section 1 above), which gives strength to the assumption that most trips to Nova today are still conducted by car.

Considering the relatively short distances from Nova to other parts of the town, cycling could most definitely be increased. Other studies have shown that an improvement of the cycling infrastructure often also leads to an increase in cycling, meaning the better the infrastructure for cycling, the higher the
possibility that cycling increases. Moreover, how the environment in which people move is experienced also affects what transport mode people choose, which leads to the conclusion that an improved cycling infrastructure would lead to a more positive experience with the environment and thus lead to an increase in cycling [7,43].

4. Power Relations, Cycling, Urban Development and Nova Lund

Urban development can always be seen in light of different power relations. This becomes even more evident when looking at cycling from an urban perspective and in connection with urban development. Research on cycling has shown again and again that cycling is often marginalised in transport planning and that cycling infrastructure is often highly politicised. Thus, urban and transport planning produce a politicised infrastructure through power relations that often favour motorised modes of transport. This marginalisation stems from the fact that within traditional transport planning, power relations have evolved that have produced urban spaces which favour motorised traffic and affect planners and politicians. This has been shown in research concerning transport and urban planning and cycling [1,2,44–46].

In terms of power relations, one could differentiate between three dimensions of power, according to Lukes [47].

- 1st dimension: A exerts power over B through actions that are easy to observe, e.g., a concrete planning decision that affects the owner of a house.
- 2nd dimension: A exerts power over B more indirectly, which is more difficult to observe, e.g., a planning decision that has evolved through discussions among planner and politicians and that will eventually affect the owner of the house in a certain way.
- 3rd dimension: A exerts power over B in such a subtle way that B does not notice this action, e.g., a decision to buy a car that has been influenced by advertisements, but the buyer does not realise that the advertising has affected their decision.

According to Lukes [47], power is most effective in the 3rd dimension, where B does not even know she/he is affected by it. This unconscious form of power can be seen in the effect that commercials have on consumer behaviour, for example. These power relations are very dominant within transport planning and have marginalised cycling as a mode of transport, as shown e.g. by Koglin [1,2,46,48]. Therefore, it might be the case that those power relations also have affected planning and the planning outcome in Lund, and have thus marginalised cycling in Nova as well as the actual building of an external shopping centre.

Why Was Nova Allowed to Be Built and Expanded, and What Happened to Cycling Accessibility?

There is no doubt that the establishment and eventual expansion of Nova was not compatible with the ambitions of Lund municipality’s overall planning objectives. The notion that Lund municipality has previously been openly sceptical about external shopping centres and that Nova is semi-external is rather weak. Lund municipality is clear about the reason for its scepticism with regard to external shopping centres leading to traffic problems, mainly due to an increase in car traffic. While intuition would suggest that a semi-external establishment should contribute less to traffic problems than an external establishment, there was no relevant research at the time of construction that pointed to this. In addition, semi-external shopping centres were never mentioned as something positive in the planning documents, compared to promoting trade in the city centre, which took up a great deal of space in all the plans [29]. As shown above, this was also confirmed by the fact that Lund municipality expressed its opposition to semi-external business establishments in the 2010 master plan and that the traffic situation at Nova has indeed become heavily car-orientated.

Söderberg’s [28] claim that mode of travel is the individual’s choice is, of course, true in and of itself, but as previously demonstrated in the analysis of the bicycle study, changes in the physical environment stand a good chance of influencing a visitor’s choice of transport mode. Lund municipality
has also clearly stated that it is interested in making changes to the physical environment in a general strategy to increase cycling.

It is therefore relevant to ask what led Lund municipality to allow Nova to be built, expanded and almost expanded again, despite the formal opposition to this articulated in the master plan. An initial theory relates to the original detailed plan. Rydén [27] claimed that the purpose of the plan was never to build a shopping centre like Nova. Whether this is true or not remains to be seen. What is clear is that the municipality allowed it. The municipality merely acted within the limits of what the law allowed once the proposal for establishment was received.

The objection to this is that the municipality had ample opportunities to update the detailed plan, if not at first establishment, then at least before the first extension. When asked why the plan was not updated earlier, Rydén [27] explained that such measures take time, and that someone has to pay for it. The time and money were clearly available at a later stage, when the plan was changed, and although there is a theoretical possibility that this was the only problem from 2002 to 2011, it does not seem very likely. It is more likely that there was a conflict of interest that was not presented in the master plan. This theory is supported by the interviews. Both Rydén [27] and Söderberg [28] agreed that things would not have turned out like they did if the municipality had not been positive. Both Rydén [27] and Söderberg [28] also believed that there might have been a solution for the municipality to reject the initial establishment if it had been the municipality’s collective will.

Thus, one could ask where the conflict of interest lay. Söderberg [28] believed it was protectionism. Both plans mention that there was a fear that more external shopping centres had been built in adjacent municipalities and that they had therefore lost trade and jobs to neighbouring municipalities. Söderberg [28] went further in his analysis. He believed that Nova’s location was also primarily aimed at attracting customers from neighbouring municipalities, thereby strengthening its own municipality’s finances. These potential customers would most likely be driving, which naturally makes the issue more sensitive. This conflict is not unusual. In simple terms, the conflict can be said to be between sustainability objectives that operate on a long-term basis, often at a regional or national level, and local objectives of rapid economic gains. Meeting sustainability goals without penalising municipalities that refrain from allowing external shopping centres to be established requires regional cooperation and, for that matter, legislation [29]. The conflict between environmental and economic interests is well known and often problematised in research. For example, the post-politics of sustainability and green growth have been discussed by Swyngedouw [49,50], among others. In his research on the post-politics of sustainability, Swyngedouw argued that it is often the case that the individual is at the centre of the issue and not political or economic systems. This often leads to a lack of social and environmental perspectives and shifts the focus from sustainability to economic growth [49,50]. This could also be seen in light of neo-liberal planning, which others have taken up in research. The fact that economic and private aspects are influencing planning is not only the case in Sweden, but also in other parts in Europe [20,51–54].

A third aspect is that the power to influence what is built largely lies with municipal politicians. They are not primarily traffic or transport experts, but elected representatives and are therefore often ideologically driven and, of course, will avoid the risk of not being re-elected for making unpopular decisions. It is reasonable to expect that responsible politicians are kept informed of Lund’s overview planning, but the same demands cannot be made of the voters in the municipality. There are several examples of local construction projects which, although well rooted in the master plan, caused major mobilisation among the voters within Lund. The clearest recent example may be the emergence of the party FörNyaLund, which was started as a counter-initiative to the establishment of a light rail system in Lund. The party was elected to the city council in 2014 with 6.37% of the vote [55]. This sudden political disruption happened despite the fact that the light rail system had been part of the municipality’s long-term plans at least since the master plan of 1998 [25]. Hence, politicians have reason to be sensitive to local opinion in such matters. This is not only the case in Sweden, or Lund for that matter, as research by Koglin [2] on planning for cycling in Copenhagen and Stockholm has shown.
The impact of public opinion in the case of Nova is uncertain, but Söderberg [28] believed that the establishing of external and semi-external shopping centres is generally well received politically. “If you want to build a light rail system, 10 years of feasibility studies are required, but if a company wants to establish an external business centre, most municipalities stay out of the way” [28]. The Nova project must also be seen in relation to the power structures that affect planning. Koglin, but also Emanuel [1,45,56] claimed that the influences of modernism and planning rationalities, in the Swedish context and materialised by different planning guidelines, have created power structures that favour motorists at the expense of cyclists. These structures are difficult to see, but affect planners, decision-makers and public opinion. From a motorist’s perspective, Nova is very well designed and, as a consequence, the underlying power relations can lead to problems for Lund municipality to reject or make demands for good cycling opportunities for a proposal such as Nova. From this perspective, Nova’s entire history can be seen as symptomatic of a society that is still affected by the power relations that prioritise motorised modes of transport. In our view, this claim is substantiated by the fact that once the further expansion of Nova was prevented, it was not primarily with reference to the master plan, but with reference to the unsustainable situation of car traffic that was anticipated during an expansion.

What is also surprising is that this inaccuracy has not been noted in the past. This is particularly evident in the context of the conflict about the new detailed plan. In Skånska Dagbladet and Sydsvenskan, we have read about articles in which no one has mentioned a “master plan”. As previously stated, the new detailed plan focused on whether or not the traffic system could cope with the increase in car traffic. The new detailed plan, a 36-page document, including appendices, mentions neither “master plan” nor “bicycle” once. This is despite the fact that the new master plan had been adopted only months earlier by the same politicians who were now advocating expansion. In fact, it is difficult to see whether the master plan itself had any formal impact on the outcome of Nova.

Furthermore, cycling accessibility around Nova is not perfect, as seen in the analysis. The question is why. Lund municipality is obviously aware of the problem, as several of the roads in Nova’s immediate vicinity have been identified as missing links in the cycling infrastructure in Lund. Yet cycling accessibility remains poor, even several years after Nova was opened. One reason why cycling accessibility has not improved could be financial considerations. Söderberg [28] maintained that new cycle lanes are usually built with some financial support from property owners in the area. Söderberg [28] also believed that the building of new cycling paths by the municipality on a larger scale would be very unusual, and that funding was not available. This was confirmed by Karlsson [31], who talked about other bike paths being prioritised. It should also be noted that the accessibility for biking in the vicinity of Nova is not solely a municipal matter. In fact, the connection that is furthest north to Nova runs along the road Norra Ringen, a road that belongs to the Swedish Road Administration. Consequently, Karlsson [31] argued that it is primarily responsible for bike accessibility along that particular route. Be that as it may, the Swedish Road Administration’s reasoning in this matter is not covered by this study.

Moreover, according to Söderberg [28], in recent years, Nova’s property owners have also realised that due to problems with the traffic system regarding handling more car traffic, their potential for customer development is largely among customers who choose other modes of transport. Additionally, a large group of other companies has been established in the area that would also benefit from a higher number of cyclists, if only to free up space on the road. Thus, if it is then rational for both property owners and the municipality to improve cycling accessibility from a transport perspective, the economic issue should also be possible to resolve. Even if this is not the case, it does not explain the lack of bicycle signage to Nova or in the area as a whole. The funding for improving cycling accessibility may be limited. However, it seems highly unlikely that it would be so bad that it would not have been possible to fund bike signage in recent years. On this issue, Koglin [1,57] argued that the lack of investment in cycling is a consequence of power relations between motoring and cycling. Moreover, it seems that planning in the case of Nova has been influenced by power relations that
favour motorised modes of transport and marginalise cycling, in the sense of Lukes [47]. Thus, cycling, although it is mentioned as an important aspect of a sustainable transport system in several documents by the municipality of Lund, is marginalised in the planning process of Nova.

What needs to happen in order to prevent such development from happening is an institutional change. This could be a change in legislation, e.g., making the master plan legally binding so that municipalities in Sweden cannot implement measures that are in contradiction to the master plan. Moreover, cycling needs to be part of the planning process at all stages, which is the case, for example, in Copenhagen, a city that is leading the world in terms of cycling [1,2,57]. These institutional changes are of course not easy to implement; the change in legislation in particular is not even in the hands of the municipalities in Sweden. However, such changes would mean that cycling takes a larger and more important role in planning and that the master plan cannot be ignored.

5. Conclusions

Cycling accessibility at Nova is clearly inadequate, regardless of whether it is compared with successful international examples or what, in the Swedish context, is considered good planning for cycling. Cycling accessibility has been considered poor in terms of three factors:

- Mobility—cyclists are often obliged to make quite significant detours in relation to car traffic. As a result, bike journeys take an unreasonably long time.
- Parking—the car park at Nova has heavily favoured motorists at the expense of cyclists, in both number and location.
- Mental/psychological accessibility—cyclists perceive themselves as being marginalised and unwanted. This is due to factors such as lack of bicycle signage, lack of clear cycling paths, a lack of cycling paths on Nova’s property and the tunnel system for pedestrians and bicycle users located underneath the Mobilia roundabout.

Thus, the conditions for cycling at Nova can be regarded as relatively poor. For the municipality, cycling accessibility to Nova should be a high priority. However, as our study has shown, this is not the case. Furthermore, this study has shown that the lack of cycling accessibility might be a result of the economic situation. This could certainly be true to some extent, and, based on this, it would be interesting to ask why the funding for cycling paths is so low even though Lund municipality promotes itself as a cycling city. Moreover, it can be noted that power relations in favour of motorised transport have clearly not prevented Lund municipality from investing in bicycle traffic in other parts of the municipality.

The construction of Nova contrasts sharply with the positions stated in Lund’s strategy documents. There are plenty of examples of highly restrictive attitudes towards the establishment of external and semi-external shopping centres. All the documents we have looked at have pointed to increased bicycle traffic and reduced motorised modes of transport as something to actively strive for. Nova, or the whole area, has never been mentioned in particularly positive terms in municipal documents, compared to, for example, trade in the city centre. This applies to both documents adopted before and after Nova was built. Thus, the fact that Nova was built despite the discrepancy in the strategic documents is probably due to the fact that it was treated as a building permit case on an old detailed plan and was therefore difficult to prevent.

Moreover, interest was expressed by several people in the municipality because of a fear of losing jobs and trade to adjacent municipalities. This then became a conflict of interest between local interests relating to economic growth and the broader objectives of sustainability and environmental issues. This can also be connected to the fact the Nova has been on the political agenda and politicians have acted as ideologues and popular representatives rather than transport planners for a sustainable transport system. There has been an awareness of public opinion that has influenced decisions. This is a common argument for such developments. However, with a functional regional planning system, such developments could be stopped, and with that, car traffic could, if not be reduced, then at least not
be increased. Planning, as has been shown in other previous studies, has moved to a more neo-liberal perspective, which has private economic interests and cooperation with private developers at its core. Other examples here include the development of the South Bank in London, UK, Ørestad in Copenhagen, Denmark or the development of such policies in Antwerp, Belgium, which have been developed with similar spirit as Nova has [20,52–54].

Furthermore, it can be concluded that the master plan has consistently been ignored and has been given no role or a minimal role in the discussion. In part, the current situation for Nova exists because Nova was never meant to be built, and the area was therefore not prepared for the kind of traffic flows that its construction entailed. However, it should be noted that years have elapsed since Nova was built, and there has been plenty of time to improve bike accessibility. Overall, it is astounding how little room the master plan as a strategy document has been given in the debate about Nova. The idea that the expansion of Nova would be limited by whether or not the situation would become unsustainable for motorists feels totally incompatible when one reads the master plan, which instead implies that unsustainable situations for cyclists or possibly public transport should be the focus in planning in Lund. This should have enabled planners and politicians to stop such an establishment. Had this been the case for Nova, it is difficult to see that an initial expansion could have been allowed before the situation for cyclists had improved, if the shopping centre had even been allowed to be built. It is not a matter of a few minor oversights, but a project that has gone directly against some of the clearest objectives of the master plan. In addition, it was such a large-scale project that it has had a major impact on Lund’s urban development.

Thus, it can be concluded that Lund municipality had, and still has, good policies and plans for developing a sustainable transport system. However, the policies that were clearly critical for the development of external shopping centres such as Nova had no bearing on the actual planning outcome. It can be concluded that power relations that planners were unaware of have affected the processes in favour of motorised modes of transport, marginalising cycling as a mode of transport. Although the aim of the policy documents in Lund is to develop a sustainable transport system, the building of Nova and the lack of access for cycling to Nova moves in the wrong direction. This makes the dominance of focus on motorised modes of transport very apparent in the planning processes in Lund municipality. Planners must be aware of the unconscious power relations affecting the planning processes in order to prevent such developments in the future. Thus, even though the master plan can be a move towards a sustainable transport system, it is crucial that the policy is followed through in the whole planning process if one wants to achieve a sustainable transport system. In Lefebvre’s words [58]:

Although necessary, policy is not enough. It changes during the course of its implementation. Only social force, capable of investing itself in the urban through a long political experience, can take charge of the realization of a programme concerning urban society [58] (p. 156).

This study was carried out in 2015 (five years ago). One of the authors cycled to Nova on the 21st of November 2020 and found that the access for cyclists to Nova is still much the same as it was then. The car park was rather full despite the restrictions and recommendations related to the ongoing pandemic. The municipality of Lund and the Swedish Transport Administration have discussed adding more lanes to the access roads for cars in order to facilitate car traffic in the Nova area. Furthermore, small businesses in the city centre of Lund have had difficulty surviving the competition from Nova. Moreover, Nova is still very popular for shopping and car traffic is still at a high level, especially during weekends and even after rush hour. Many of Lund’s inhabitants live within a short distance of the city centre. Short distances are in turn an important aspect for the promotion of cycling. Most people do not use the bike for distances of more than five kilometres [59]. As shopping activities are now more limited in the centre of Lund, people might have to take the car to Nova for shopping. This increases car traffic and is very much in conflict with the policies Lund has for a sustainable transport system. Finally, the whole establishment of Nova was from the beginning in conflict with the master plan the municipality had set out as a guiding policy for future development. This in turn conflicts with the development of a sustainable transport system.
As a note on the limitations of this study, it has to be said that this is a detailed case study of one case and thus the potential to draw general conclusions from it is limited. A more quantitative approach could have offered better comparability with other cases and a more rigorous assessment of the cycling access to Nova. This is something a future study could deal with. Nevertheless, we find that this particular case might be of interest to a broader international audience due to the fact that similar cases might exist in other countries as well. The focus on the decision makers is something we think is also applicable to other cases and thus, one can learn from this case and our analysis as to how economic factors play an important role in planning decisions and that this might lead to an unsustainable transport system.

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