Transportation and Urban Development:
The Past and Future of Sydney.

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Table of Contents.


Abstract. p. 2.

Abbreviations. p. 3.

Introduction. p. 4.

- Theoretical outlining. p. 9.
- Conclusion. p. 32.

- Suburbanisation. p. 35.
- The General Development. p. 43.
- Some Aspects of Sydney’s Development. p. 47.
- Congestion/Commuting Patterns, Pollution and Necessary Changes p. 56.
  * Sydney Central Business District. p. 56.
  * Pollution. p. 60.
  * Necessary Changes. p. 62.
- Future Plans. p. 70.
- Conclusion. p. 71.

Chapter 3. Core Cities or Urban Consolidation. p. 73.
- Urban Australia. p. 75.
- New Developments or Urban Consolidation? p. 90.
- Conclusion. p. 99.

- Sydney Harbour Tunnel. p. 104.


  * Cross City Tunnel. p. 117.
  * Other Proposed Projects. p. 125.

- Final Thoughts. p. 129.

- Conclusion. p. 134.

Conclusion. p. 136.

Bibliography. p. 140.

Appendix. p. 146.
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Abstract

Urban areas of today are very often reliant on the private automobile as opposed to a public transport system. This is certainly the case for the Sydney metropolitan area. The result of a large reliance on the private automobile has been high levels of pollution and congested city centres. If this problem is to be controlled, changes have to be made to the way the metropolitan area is being developed.

Different ideas have been proposed throughout time in order to secure a lower use of cars. One reoccurring suggestion is the need for more compact, or planned, communities where people find most of the amenities needed, such as homes, jobs, shopping and recreation facilities. If planners and decision makers are able to secure developments where the end result is a lower level of driving, it becomes possible to limit some of the problems cities of today struggle with.

A project that has already influenced driving patterns in the Sydney metropolitan area is the Sydney Harbour Tunnel. Arguably the Tunnel has not been any great success, due to it having created an increase in total cross-harbour traffic. Future projects that will also have an impact on driving patterns are the proposed Cross City Tunnel, the proposed extension of the current tramline to Circular Quay, and a new inner city rail line. These latter projects will, however, as opposed to the Tunnel, have a positive impact on people’s driving patterns.
Abbreviations.

ABC = Australian Broadcasting Corporation
CBD = Central Business District
CCPS = County of Cumberland Planning Scheme
CCT = Cross City Tunnel
DEP = Department of Environment and Planning
DMR = Department of Main Roads
DOP = Department of Planning
DOT = Department of Transport
DUAP = Department of Urban Affairs and Planning
DURD = Department of Urban and Regional Development
EIS = Environmental Impact Statement
GDP = Gross Domestic Product
LA = Los Angeles
LGA = Local Government Area
NPV = Net Present Value
NRMA = National Roads and Motorists’ Association
NSW = New South Wales
RTA = Roads and Traffic Authority
SHT = Sydney Harbour Tunnel
SROP = Sydney Region Outline Plan
SSP = City of Sydney Strategic Plan
UNSW = University of New South Wales
USA = United States of America
US = United States
WWII = World War II
INTRODUCTION.

The overall object of this thesis will be to discuss how urban transportation affects a region; how it is hurting it and what can be done to improve it, but also what is good and can be preserved. Not only road projects will be discussed, although this is the main theme of the thesis. Other areas of importance for a good development of a region, is land-use, and other means of public transportation. However, it is also important to further develop the core cities that have been standing out as especially important in the metropolis. In the Sydney metropolitan area these are Chatswood, Hornsby and Parramatta.

Today we see a situation where transport organization is not at its best. The Sydney Central Business District (CBD) experiences a daily situation where many motor vehicles entering the city core have destinations elsewhere. However, for many commuting from one suburb to another, it is the quickest way of getting around. Why then is it that these people do not utilise the well-functioning public transport system in Sydney? One important explanation for this is that the main public transport corridor is going from the suburbs towards the CBD. However, for many this is not where they need to go. A large per cent of the Sydney metropolitan workforce (including Wollongong) live in one suburban location, while they work in another. For many of these it is not viable to go to work by train or bus, so they end up driving themselves. The end result of this is high pollution (both air and noise) especially due to congested city streets.

An important problem for Sydney is then the high level of pollution. Traffic congestion creates nuisance with both air- and noise pollution and things need to be done to improve this. Unfortunately, this cannot be solved over-night, but there are project
plans made that will greatly influence the development of the metropolis. For example, of
great importance is the proposed Cross City Tunnel (CCT) from Darling Harbour to
Kings Cross. This Tunnel will limit the amount of traffic on city streets, and make it
possible to ensure a city more focused on public transport and perhaps also on bicycles.

Overall something needs to be changed to halt the current situation in Sydney.
One argument in this thesis is, as mentioned above, in favour of further developing the
core cities outside the original CBD. This will ensure that people drive less, and the
overall pollution level will decline.

However, it is not enough to declare that at this point in time we should stop using
cars and merely utilise a public transport system. Before such a situation can actually
occur there has to be created a viable bus and train system that covers the metropolitan
region well. The case today for Sydney and many, both domestic and internationally,
metropolitan areas, is that the current public transport system does not cover all suburbs
well enough. In other words, for many there is no viable alternative to the use of one’s
private car. A claim that will be discussed in a later chapter is that the majority of focus is
aimed at the corridors going between some leafy suburbs and the CBD. The flip side of
this is that lower-income suburbs experience a different situation, where commuters from
these areas have more difficulties getting to and from work.

Issues such as these are vital to discuss and try to solve, due to their often-
devastating effect on society as a whole. If the level of pollution is allowed to increase,
regions can experience as diverse results as health problems for its population, in addition
to problems for its natural habitat. The longer we wait before we try to do something
about this, the more severe these problems will become. Hence, it is vital that planners
and decision makers try to find solutions to these problems as soon as possible.

Chapter 1 of this thesis is the theoretical outlining of the foundation for this work.
Here the basis for the arguments to come is laid. Scholars used are Bent Flyvbjerg,
Richard Hall and David Harvey, amongst others. Flyvbjerg is, however, the one I rely
most of my line of thought upon. His discussion of democracy in terms of power and
rationality, have been ground braking. Flyvbjerg is important to use, for instance because
of how he describes power relations in modern societies. His views will, among other
places, be reflected in the process leading to the decision on building the Sydney Harbour
Tunnel (SHT).

In Chapter 2 I will discuss suburbanisation since World War II, with the main
focus being on Australia and especially Sydney, from the Cumberland County Council
Plan of 1948 to the 1988 Metropolitan Strategy Plan. The situation for Sydney is that
there is a need for improvement, in order to limit total traffic entering the CBD. This can
be done by further developing core cities on the outskirts of the metropolis. One way is
by encouraging people and businesses to relocate to these and other suburban locations.
Improvements are needed due to the high level of pollution, which is partly caused by the
large amount of cars entering the CBD every day, and also the long distances people
commute daily. A problem with the vast level of suburbanisation is that it forces people
to drive longer distances in order to get to work. This leads us over to Chapter 3, which is
a discussion of how to limit these problems. A main argument in this thesis is that a car
related problem such as pollution could be limited by a strengthening of the already
existing core cities on the edge of the metropolis. Thereby it would be possible to have
people and businesses relocating to these and other suburban locations, minimising total driving.

The last chapter will be a discussion of projects that have, and will, influence the future of Sydney. It is not merely sufficient to encourage growth in Chatswood, Hornsby and Parramatta, and other suburban locations. It is also vital to improve the current system in the City of Sydney. By doing so, planners and decision makers can ensure a development that takes in to account the well being of the large workforce in the CBD as well. The SHT and the CCT are projects that have, and will, influence the development, and will therefore be discussed. However, as will be shown, with the SHT a substantial increase in total cross-harbour traffic, which again led to an increase in pollution, came along. Core cities are, though, not enough to ensure an improved situation; other means do need to be implemented in order to secure a good result for the whole of the metropolitan area. It is merely not sufficient to invest in suburban projects. The CBD is, and will continue to have, an important role in the economy of Sydney. If asked to choose suburbs or CBD, then the answer has to be both.
Chapter 1.

Theoretical Approach.

This chapter will be a discussion of the theoretical foundation for the thesis. The centre of the discussion will be the transport system in metropolitan areas. The focus will be on how the different income groups experience their everyday life. Many jobs during the last few decades have been located in the suburbs. Poorer people still live in low standard inner city neighbourhoods, however the city centre used to be solely home to poorer groups and that situation has now changed. Gentrification has occurred in many of the major cities in the western world over the last twenty to thirty years. For a city like Sydney this trend is apparent in areas such as Circular Quay, Darling Harbour, Pyrmont, Ultimo, parts of the Rocks and Redfern. This indicates the poorer will eventually be forced to leave their inner city homes, and relocate to suburbs that are far from the original city and poorly served by public transport.

Overall, the argument in this chapter is one of urban developments favouring the more affluent groups as opposed to the poorer ones. This will in later chapters be linked to the discussion concerning suburbanisation, urban consolidation, and different projects that are either completed, or planned, in Sydney. Due to the close connection between powerful factions in society, these are more likely to see their interests maintained than is the case for poor people.
**Theoretical Outlining.**

Since World War II (WWII) the general trend has been in favour of decentralized development. More and more people have relocated to what has been known as suburbia. Reasons for this have been numerous, but according to David Harvey one very important factor is the aim of investments. He claims that our major reliance on the automobile has been due to large funding of highways instead of other modes of transportation such as buses or trains.¹ This will be thoroughly discussed in Chapter 2, alongside the results this decentralisation has produced, such as clogged city streets and increased pollution.

Owning an automobile can be said to be a luxury not everybody can afford. The purchase of the car itself, its insurance, gas and parking are only a few expenses that confirm that cars are not something everyone can find the required funds for.

A transport system will reflect the distinct geographical separation of the different classes. As Bent Flyvbjerg argues:

> "democracy, rationality, and neutrality, all central to modern institutions, are young and fragile when compared to traditions of class and privilege."²

It is impossible to expect that modernity, defined partly by democracy, can compete fully with the traditions linked to classes, tribes and privileges.

Especially important is the private motor vehicle in this equation. Castells finds that the private motor vehicle is the richer people’s means of transportation, which

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indicates that, the extensive building of roads have been made to accommodate the more affluent. However, the public transportation system has also traditionally been aimed at improving the everyday commute for certain areas of the metropolis. As will be discussed thoroughly in Chapter 4, the building of the Sydney Harbour Tunnel (SHT) was the result of the Department of Main Roads (DMR) working together with the powerful auto lobby. This group of lobbyists are defined by their important position in the Australian economy. By taking advantage of their powerful position, instead of what serves the whole metropolitan area, they can force politicians to make decisions in their favour. The decision to build the SHT, cannot be claimed to have favoured large parts of the Sydney metropolitan area. In other words, power beat rationality. This discussion will be returned to below.

In Sydney the affluent areas are mainly concentrated in the northern and eastern suburbs where the white-collar workers working in the CBD reside. The corridors between these suburbs and the CBD have been well serviced for a long time. But as the main new employment centres have become located in other suburbs, one can question why there has not been a change in focus from the government. Castells argues the overall goal with the planning process of an urban area is to secure the privileged groups position in society. Flyvbjerg counters this view by suggesting it is more a historical fact that certain groups take advantage of their situation, and this is difficult to alter. Although the latter is a more viable explanation, it also contradicts how it necessarily

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should be in a democracy: namely a desire from planners and decision makers to secure
the overall well being of the metropolitan population.

Flyvbjerg stresses the fact that social conflict gives strength to any society. Only
through such conflict can a democratic society develop. Discussions and freethinking are
what separates a democratic society from one dominated by control and regulations.7
This is closely connected to the discussion of ‘power versus rationality’. Flyvbjerg argues
that within the decision-making process, power is more vital than rationality or ‘the better
argument’.8 This has, as seen above, deep historical roots, and can therefore not be
dismissed easily. Michel Foucault further links ‘power’ to both ‘knowledge’ and
‘rationality’, his claim being that, in a given context, power linked to a specific position is
more valuable than power linked to a rational argument.9 Flyvbjerg writes:

“In an open confrontation, actions are dictated by whatever works best to defeat
the opponent. And more the confrontation is overt, the raw exercise of power
tends to be more effective than appeal to objectivity, facts, knowledge,
rationality, or the ‘better argument’, even though rationalization may be used to
legitimate the exercise of raw power.”10

Rationality seems to stabilize power relations. But stable power relations are not
necessarily equally balanced power relations, which indicate that ‘justice’ is not
achieved.11 These stable power relations

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7 Flyvbjerg, Rationality and Power, p. 6.
8 Ibid, p. 80.
9 Ibid, 141.
10 Ibid.
“may entail no more than a working consensus with unequal relations of dominance, which may lead to distortions in the production and use of rational or quasi-rational arguments. Where rational considerations play a role, however, they typically do so in the context of stable power relations.”

Flyvbjerg further finds that confrontations are an integral part of ‘the rationality of power’, and not ‘the power of rationality’. But due to the fact that power is seemingly stronger than rationality in a confrontation, power defined by rationality is often non-existent, however not always. This means that win-win solutions may be found, although this is not the norm. Reasoning and sound arguments reaches its peak only within stable organizations with a reliance on argumentation, which means “the power of rationality can be maintained only insofar as power relations are kept nonantagonistic and stable.” Groups where power can be exhibited in such a way are community groups, lobbyists, and other special interest organizations. Opposed to these are elected officials in office, who, on the other hand, are bound by legal and rational arguments, as exhibited in our Western model. This, however, gives a situation in which there is a significant differentiation

“between governmental rationality and private power, and between formal politics and Realpolitik, such that governmental rationality and formal politics end up in the weaker position.”

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12 Ibid.
13 Ibid.
14 Ibid.
15 Ibid.
This can in the shorter run be seen as one of democracy’s weaknesses in the struggle over certain policies. In the longer run, it can be viewed as a strength that elected officials cannot limit private organization’s pure power. The idea of democracy benefits from allowing private organizations to fight for their beliefs. Flyvbjerg’s argument continues with his claim that power is more effective in forcing an organization’s view on others and that rationality in the end lacks real power even though it gains strength through an absence of confrontation.\footnote{Ibid.} If it is desirable to alter this situation and enhance the importance of rational arguments, knowledge and truth, naked power and its enforcers will see their activities restricted. According to Flyvbjerg rationality, knowledge and truth are closely related.\footnote{Ibid, p. 234.} ‘Truth’ is a key word in this context, and Flyvbjerg makes use of Foucault’s reasoning to explain this. ‘Truth’ is a basic political problem, and also an endless task in which ‘\textit{no power can avoid the obligation to respect this task in all its complexity, unless it imposes silence and servitude.}’\footnote{Ibid.} And this is the power of rationality.

Flyvbjerg also links this type of power to positions in an organization or a society as a whole, for instance by saying ‘\textit{Power defines knowledge,}...’\footnote{Ibid, p. 226.} Kant draws this even further by saying ‘\textit{The possession of power unavoidably spoils the free use of reason.}’\footnote{Ibid, p. 229.} Power is thus defined as a goal in itself, not something for the good of the whole of a community. It is easy then to question the sensibility behind any society ruling on the...
basis of often inherited power, instead of on well thought out ideas. Although desirable, it might also be difficult to change this.

When discussing power, it is, then, important to focus on the role of leadership. Hall finds that in a situation where power is used, we cannot out rule leadership as an important factor. According to Hall

“leadership is closely related to power, but involves more than simply the power allocated to a position in the organization or claimed by a member or members of organizations. Leadership is something that is attributed to people by their followers.”

Through his or her position in the organization, the leader receives the legitimacy needed to justify this position to the organization’s members. This gives the impression of the leader having a legitimate right to the position, and will further help shape the ideas of the members in order to become a powerful unit.

As will be discussed in Chapter 4, powerful fractions (the DMR, the motorist lobby and the local constituency) managed to set aside solid arguments against building the SHT, in favour of clearly misleading calculations, to secure a decision that would protect their interests. Environmental considerations come in, at best, second, as exemplified with numbers used by Gary Glazebrook in Chapter 2. He, amongst others, argues, that between 1961 and 1981 per capita public transport usage was reduced by

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50%, while per capita car usage doubled.23 Within a few years after opening the SHT, total cross-harbour traffic had increased with as much as 30 per cent.24 This opposed calculations made by the motorist friendly DMR.25

How then were the DMR and the motorist lobby able to force their opinion on the decision makers? An organization can measure its power by its ability to manipulate its surroundings. Especially important is its access to knowledge, family ties, the ability to reward, or other issues controlled that permits an organization to influence the behaviour of others.26 In other words, the DMR, the local constituency and the automakers were able to influence the decision makers more so than is the case for the DEP and its supporters.

An issue raised by Castells and others regarding urban transportation is the transformation of the metropolitan area towards a social organization where location is no longer a key issue. By this he indicates that due to people’s reliance on cars there is no need for them to live close to where they work. It is not vital for businesses to locate in a particular city area to be close to their customers and workforce. For example, a business does not need to have its headquarters or outlets in the city core. Most of its employees, and potential customers, are likely to live in a suburban location and not in the inner city.

26 Hall, Organizations, p.112.
Hence, there is no necessity to pay rent in the often most expensive part of the metropolitan area when it is cheaper, and more convenient, to be located in a suburb.

Traditionally, the corridors that are adequately serviced are between the CBD and a few suburban locations, as stated in Chapter 2. This is also why Sydney CBD has a large percentage making use of its public transportation system, while Sydney’s second CBD, Parramatta, experiences as many as 67.40% of workers commuting by car. In other words, as Glazebrook argues, where there is an adequate public transportation system, people will use it.27

This conflict reflects the overall situation of ‘rationality vs. power’. Power is the key to controlling any development. It is stronger than a mere rational argument. The ‘better argument’, as Habermas expressed it, comes second to the rationality produced by power.28 Naked power in an organization is the best way to guarantee you will have it your way. According to Flyvbjerg, this occurs because:

“..while power produces rationality and rationality produces power, their relationship is asymmetrical. Power has a clear tendency to dominate rationality in the dynamic and overlapping relationship between the two.”29

Politics is, then, shaped as much by the ancient argument of naked power as by rational arguments and through democratic institutions. This is despite the aim of democratic theory and practice to eliminate the large influence of power relations created

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28 Flyvbjerg, Rationality and Power, p. 234.
29 Ibid.
by non-democratic institutions linked to ‘tradition, tribe, and class’. Yet this is an ongoing struggle and not a situation created once and for all. So new traditions will be created, and democracy and modernity, through the constant struggle to create well-functioning institutions, secures urban development favouring privileged sections of society.

The system, in other words, does not take the overall metropolitan area into account, but mostly the wishes of the affluent. The leafy suburbs are then both the recipient of a well-functioning public transport system and a vast road network. As will be discussed in a later chapter, the main transit corridors go between suburbs and the Central Business District. It is important to remember, though, that in the CBD we find people with higher education and a good income. This strongly suggests that there is a favouring of the affluent suburbs (with public transport and roads) over the less wealthy ones.

The use of cars, arguably, proves to be the most flexible way of getting around town. This flexibility can probably never be matched by the public transportation system. Into the nearest future carmakers can most likely be assured their products will not be threatened by widespread use of a public transport system. However, another way of viewing the inequality in society is by looking at a group’s income, which determines what quality it can afford to invest in. But this is not only an apparent result of the level of income one has; it is additionally an indication of one’s income directing one’s mobility. The large reliance on the use of private transportation creates a separation

31 Ibid., p. 31.
between drivers and non-drivers. This situation is probably most apparent in larger
American metropolitan areas such as Detroit and Los Angeles, where transportation is
mainly reliant on private automobiles. Unless you own a car in these cities, it is virtually
impossible to get around town. And even with regard to public transport there is
discrimination. Thus, in 1996 a federal judge in LA found the Los Angeles Metropolitan
Transit Authority guilty of discriminating against the poor by redirecting money from the
inner city bus system into suburban rail projects.\textsuperscript{32}

It is, nonetheless, not necessarily easy, or even desirable, to severely diminish the
importance of cars in favour of a widespread public transportation system. It is also
possible to argue in favour of keeping a strong focus on the making of cars. This can be
argued because of the vast importance of the car industry. Due to the financial
consequences both for individuals and geographical areas if the automakers were partly,
or entirely, forced out of business, such a scenario is probably not likely to occur. David
Harvey has pointed out that a strong reduction in the role of the motor industry would
create severe consequences for a city such as Detroit.\textsuperscript{33} Detroit is home to the three
biggest automakers: Ford, General Motors and what was formerly known only as
Chrysler. The impact on that city would be severe. Therefore the motor lobby acquires a
tremendous amount of power through its economic strength and importance. The
automakers would experience a large drop in their income, which would eventually lead
to a need to discharge a number of workers. But the effects would not only be felt in the
company headquarters in the City of Dearborn, the City of Detroit, and in the City of

\textsuperscript{32} Society, \textit{Public Transit is Largely Ineffective}, Jan-Feb 1999, p. 3.
\textsuperscript{33} David Harvey, \textit{Social Justice and the City}, p. 271.
Auburn. Consequences would also be felt in other places around the country, for instance where these automakers produce car parts.

With the development of the SHT, the affluent Eastern and Northern suburbs were favoured, although they were not in the utmost need of improvements to their public transport (and road) system. Looking at the battle, and the final result in the struggle over the SHT, between the DMR and the motor lobby on the one hand, and the DEP on the other, it becomes clear how influential different organizations are in the ‘social change process’. Hall describes it in the following way:

“This can be most readily seen in the political arena, as organizations lobby and fight for legislation and rulings favourable to their own programs. A favourable decision for one organization leads to programs that in turn affect the society.”

The SHT has clearly influenced the city environment. Some groups have seen improved access, while others were left out in the process. The environment has become the overall loser, while some suburbs winners with a largely improved access. This will be discussed thoroughly in Chapter 4.

Moreover, over the last few years it has become apparent that with the large increase in jobs outside the CBD, public transport investments are needed as well in the corridors going between suburbs and not only between suburbs and the CBD, as argued in Chapter 3. As will also be discussed in Chapter 3, the use of automobiles has created flexibility for the individual that can never be matched by buses or trains. But this has not

34 Hall, Organizations, pp.17/18.
occurred for everybody, which creates unnecessary social differences. That someone would exploit an already privileged situation to enhance advantages over someone else, breaches with what Hans L. Westerman claims is the ‘essential role’ of a society.\textsuperscript{35} This ‘essential role’ is to allow for everyone to become engaged and creative individuals with a meaningful existence.\textsuperscript{36} This reflects on the discussion above on ‘power, rationality and knowledge’. When someone uses their position only to secure their wealth, it breaches the ‘essential role’ of society, as with the SHT. The ‘essential role’ of society can be argued to be for decision makers to cater for every one (as far as possible), and not only for the ones with already good access to funds. This ‘essential role’ argued by Westerman, could be linked to ‘modernity’, which is part of the democratic foundation. In a democracy the idea is to look beyond class or tribal links, and let rationality and discussions rule over power-coalitions. However, in real life “\textit{rationality is such a weak form of power that democracy built on rationality will be weak too.}”\textsuperscript{37} By the use of power, antagonistic confrontations are common. In such a case, the strength of power becomes visible, especially in relation to knowledge and rationality. Rationality quickly distinguishes itself as the loser in such a confrontation. Power, on the other hand, shows its strength through these confrontations. As Flyvbjerg suggests, this is “Because rationality yields to power in open, antagonistic confrontations,…”\textsuperscript{38} He further finds that a ruling group “\textit{finds ignorance, deception, self-deception, rationalizations, and lies more useful for its purposes than truth and rationality.}”\textsuperscript{39} Although not an ideal situation,

\begin{flushright}
\textsuperscript{36} Ibid.
\textsuperscript{37} Flyvbjerg, Rationality and Power, p. 234.
\textsuperscript{38} Ibid, p. 233.
\textsuperscript{39} Ibid, p. 230.
\end{flushright}
duplicitous techniques are widely used in politics to create stable inter-organizational relationships or simply to impose power. Flyvbjerg finds that these power relations can develop into direct confrontations, although stable power relations are more common than confrontations. When, and if, such confrontations should occur, they are quickly dealt with in order to regain stable relations. In the end, then, ‘stable power relations’ construct the world of politics instead of argumentation based on confrontations.40

This is vital to be aware of for every area of a society, including education, housing, social services as well as transportation. Overall, the ideal aim should be to secure people’s well being regardless of the individuals’ background. However, it can be argued that capitalism cannot secure the same level of fairness as a system more focused on equality. Capitalism is a system where people compete in order to secure their own interests, which is not necessarily the same as that which is best for the society as a whole. The end result is that while some will become winners, others will become losers in the competition to secure their own interests. This reflects the discussion tied to, amongst others, Paul Keating, in Chapter 3 where he argues against the market being the most important actor in any development. This is once again connected to the trend after WWII where the affluent have controlled the development of society by initiating road developments, due to them being in need of access between the suburbs and the CBD. This started with the economic upturn after WWII, and has continued until now. The question is whether there is a will to alter this, and work towards a more environmentally friendly metropolis. As will be seen in Chapter 2, pollution caused by the use of cars is in need of reduction. However, as long as there are big economic interests linked to the use of cars, there will probably not be any immediate changes to this.

40 Ibid, p. 231.
How, then, have the winners been able to take advantage of their situation to secure their position? In today’s society a lot is determined by our elected representatives and bureaucrats. These groups control a lot of our common funds and resources, and with the steady increase in positions in public administration, it becomes of importance who is in what position.\textsuperscript{41} Brian Elliot and David McCrone interestingly claim that due to strong business interests, and especially property industry questions, in many city and state councils, there is a strong tendency among planners and decision makers to favour these groups.\textsuperscript{42} These groups can, among others, be local business chambers, as well as trade- and community groups. There are different ways to measure the outcomes of inter-organizational relationships. We can use the standpoint of members within an organization, the whole organization,

\textquote [Hall, Organizations, p. 243.]

“clients served or disserved, the community in which the interactions take place, or legislative or administrative decision makers who have jurisdiction over the particular dyads, sets, or networks in question.”\textsuperscript{43}

In other words, ‘political power, resource dependence, and moral choice’ are ways in which inter-organizational relationships can be measured.\textsuperscript{44} However, this type of interaction between organizations may cause differing outcomes, as will be seen with the discussion of the SHT. In this case economic interests within the DMR beat environmental interests raised by the DEP.

\textsuperscript{42} Ibid.
\textsuperscript{43} Hall, Organizations, p. 243.
\textsuperscript{44} Ibid.
A major traditional problem in society has been the split between the richer and the poorer. The richer have always had the ability to buy their way out of many difficult situations, while individuals with a more modest income cannot afford the same luxury. According to Manuel Castells this is a situation that is strengthened with the support of the state through its favouring of the dominant classes.\textsuperscript{45} Flyvbjerg, on the other hand, suggests more convincingly the balance of power in society is not best described by arguing a particular class is favoured. It is more a situation where different groups stand against each other, fighting for what they believe is the best. Often, the only way anyone can win such a conflict, is by putting their group-strength behind their arguments, and creating a power-rationality situation. This was done with the building of the SHT. This is opposed to a knowledge-power situation, where the aim is to defeat your opponent with a more sound reasoning. Power then stands out as the most important factor in this struggle between individuals and groups. This can lead to conflicts, but the importance of such should not be underestimated. Only through social conflicts can we produce “the valuable ties that hold modern democratic societies together…”\textsuperscript{46} Argumentation and reasoning are what is described as “pillars of any modern democracy.”\textsuperscript{47} Conflicts linked to the power question represent something different than compliance within an organization. While compliance is a less dramatic and exciting result of power, it is still the most common. The workforce coming to work on time, and fulfilling their tasks exemplifies compliance.\textsuperscript{48} Conflict, on the other hand, is much more dramatic for an organization, and its bases can be identified in different ways.

\textsuperscript{45} Castells, City, Class and Power, p. viii.
\textsuperscript{46} Flyvbjerg, Rationality and Power, p. 6.
\textsuperscript{47} Ibid.
\textsuperscript{48} Hall, Organizations, pp. 125/126.
Daniel Katz identifies three organizational bases of conflict. The first is a "functional conflict induced by various subsystems within the organizations."\(^{49}\) By this he refers to people focusing inward in organizations and mostly worrying about keeping things the way they are. Different subunits in the organizations have crossing interests that may lead to conflict. Katz’s second source of conflict is, as the first one, a disagreement stemming from horizontal power relationships. Here the different subunits of the organization is best exemplified via ‘hostile rivalry or good-natured competition.’\(^{50}\) The last type of conflict is hierarchically oriented, and stems from the fight between different interest groups arguing in favour of their view.\(^{51}\) This is the type of conflict that will be seen in Chapter 4 between the DMR/motorist lobby and the DEP, where the organizations will not always act in a rational way.

However, this situation can also be seen as a clear weakness with modern democracies. A society, in which power and power-coalitions are more important than rationality, has obvious limitations, and might create non-desirable results such as the SHT. The result of conflicts is often one of ‘total settlement’.\(^{52}\) Yet the result can also become one of not resolved issues, leading to even more serious conflicts in the future. However, the original conflict can also produce more open communication and cooperation among the parties involved. In other terms, conflicts can therefore not be said to be solely positive or negative for an organization. It can be either or, depending on the organization and the issue at hand. But conflicts can get out of hand and let the powerful


\(^{50}\) Ibid, p. 106.

\(^{51}\) Ibid.

\(^{52}\) Hall, Organizations, p. 131.
manipulate situations to the disadvantage of the less powerful, even without the latter knowing it.\textsuperscript{53}

Hall discovered that conflicts were based on both interaction and formal agreements and mandates. Agreements and mandates are not the cause of conflicts, but they are made in areas that are vital to the parties of the conflict.\textsuperscript{54} As Bent Flyvbjerg argued, conflicts have a tendency to be wrongly viewed merely as negative. Hall’s argument coincides with this notion, when he claims that the idea that conflicts should be avoided “appears to be misguided”.\textsuperscript{55} Conflicts can have long-term benefits for organizations in that new issues can be brought up and dealt with. This can turn in to a positive asset for any organization.

The inner city with its historically low-income class has traditionally become the scene of the underdogs in society, while the affluent groups live in the suburbs. However, with the gentrification seen over the last decades for example in parts of Sydney such as Paddington, Darlinghurst, Pyrmont, Ultimo and also in certain areas of Redfern, the more affluent have made inner city areas their home. The new situation is that many low-income earners can no longer afford the often increased rent in inner city apartment buildings, and may be forced to relocate to less expensive suburban locations. The same gentrification started in San Francisco in the 1970s, while a city such as Detroit has yet to see any large amount of wealthy people moving from the leafy suburbs to downtown apartment buildings.

This situation has the potential of creating tension between different classes, as has been argued above. Additionally, Flyvbjerg opposes this view by viewing conflicts to

\textsuperscript{53} Ibid, p. 132.  
\textsuperscript{54} Ibid, p. 237.  
\textsuperscript{55} Ibid, p. 236.
be a part of modernity and a positive asset to any democratic society. People challenge policy makers and other authorities by questioning their way of ruling. Only in this manner will a democratic society develop. The problem, however, is that the conflict frequently has one-sided outcomes.

J.R. Meyer, J.F. Kain and M. Wohl raise some arguments in favour of an urban transit system as opposed to that of a highway one. Firstly, the latter system is argued to be too expensive, while the public transport system, although costly, is still a better alternative economically speaking. Secondly, it is argued that the strong focus on a quick suburban development after WWII, has made it impossible to build a sufficient public transport system quickly enough. This will in the future become an important task to solve in order to reshape "urban areas toward a more orderly and better form of urban development."56

Thirdly, there is the ‘vicious circle’.57 This refers to the downturn in the use of transit. This fall in usage will create lower investments in the system, which again will lead to a lower use and so on. However, in case such a system is to be successful, it is imperative to secure large enough investments to ensure a quality of services the public can accept.58

On a larger scale it can also be questioned whether it is really a competition between cities and the more rural areas? David Harvey points out that the cities are

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57 Ibid.
58 Ibid.
exploiting the surrounding areas in an economic manner. By this he suggests cities are using the areas around to secure a flow of goods and materials to the urban centre.\textsuperscript{59} However, the surrounding area is experiencing the loss due to the transfer of values of its district. But on the other hand, the ‘exploited’ areas also see an opposite trend, or a reverse flow: technological creations, new products and ideas are things the city-surrounding areas will also benefit from.\textsuperscript{60} So it might not be a total exploitation of one area, but instead a dual dependence. One cannot exist without the other: while one provides the raw material, the other makes available the necessary proficiency and know-how.

Flyvbjerg argues strongly in favour of the existence of close ties between the power elite in society and the political elite, in his case study of the Danish City of Aalborg, called “Power and Rationality. Democracy in Practice.” Here he identifies the people and groups using their position to enhance their situation. Flyvbjerg’s study is an attempt to uncover what goes on behind the scenes in real policy making, administration, environmental improvement, auto traffic reduction, land use, and urban renewal.\textsuperscript{61} This is imperative to see in close connection with discussions conducted in Chapters 2, 3 and 4. It is further written about Flyvbjerg’s study:

“Flyvbjerg reads the Aalborg case as a metaphor of modernity and of modern politics, administration, and planning. Flyvbjerg uncovers the interplay of power

\textsuperscript{59} David Harvey, \textit{Society, the City and the Space-economy of Urbanism}, Commission of College Geography Resource Paper No. 18, Association of American Geographers, Washington, D.C.,1972, p. 6. Some of the examples are linked to rural experiences as well. However, when using Harvey’s ideas it becomes evident it is often not easy to distinguish between rural- and urban areas.
\textsuperscript{60} Ibid., p. 7.
\textsuperscript{61} Press release from the publisher, The University of Chicago Press. Accessed at \url{www.press.uchicago.edu/cgi-bin/hfs.cgi/00/13393.ctl}, February 12\textsuperscript{th} 2003.
and rationality that distorts policy deliberation. He demonstrates that modern “rationality” is but an ideal when confronted with the real rationalities involved in decision making by central actors in government, economy, and civil society.”

Harvey finds there is a clear connection between ‘the redistribution of real income and political decisions’, and he suggests there are ‘hidden mechanisms’ that influence this. Especially important is the closeness to people in key positions with the ability to exercise naked power, often opposed to a high level of rationality. Furthermore, these hidden mechanisms tend to work in favour of the affluent and against low-income groups. Harvey describes this phenomenon in the following way as “the rather obvious relationship between the redistribution of real income and political decisions.” This can be made clearer by using the following explanatory example utilised by Harvey: If community A invests in features that will also benefit community B, should B be allowed to use it for free or should it be required to pay its share? Furthermore, if community A makes investments in a project that will affect community B in a negative way, should A pay B some form of compensation? These examples draw a two-person, or non-zero, sum game, where it becomes possible to find optimal solutions. However, an ‘optimal’ solution is linked to who asks and who answers the question. What is ‘optimal’ for one part is not necessarily so for another. There is, in other words, no universal answer to what people view as being in their best interest. In a major urban area there are many different interests that need to be taken into account when making suggestions, and later

62 Ibid.
63 David Harvey, Social Justice and the City, p. 73.
64 Ibid.
65 Ibid, pp. 73/74.
decisions, for a project. This is where the ‘hidden mechanisms’ come in. It can be claimed that since an optimal solution does not exist for the whole urban area, a project will necessarily worsen the situation of some while improving it for others. Harvey argues a situation where a project, as described above with communities A and B, will benefit every one, is not likely. It is more likely the rich will benefit, while the poor will find it harmful to their overall situation. In this type of game every player has some sort of ‘resource’ he or she can bring to the table. However, the ones that are the most important is money (the ability to make side-payments), influence (connections with people from another group) or information (for example about a project). The least important resource in this term is a vote. Hence, the situation seen is one where the powerful in communities are able to “dominate locational decisions to its own advantage.” This is an important reason why the DMR and the motorist lobby managed to see the SHT finished, despite the obvious historical arguments against it. Inter organizational relationships, such as between the DMR, the DEP and the political decision makers, are defined by the amount of power possessed by the participants. For instance, the ability of one of the participants to strongly influence the other (-s). As Bent Flyvbjerg argues, power is more influential than rationality. More so, as Hall argues, resources are a key to being influential. For organizations finding their position too weak, this can be improved by increasing its resources and thereby reducing its dependency.

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66 Road projects are often detrimental to neighbourhoods.
67 David Harvey, Social Justice and the City, pp. 74/75.
68 Ibid., p. 75.
69 Ibid.
70 Planners in Los Angeles, USA, have tried to build more roads to accommodate the ever-increasing traffic volume. However, total traffic, and subsequently, the level of pollution, has only increased.
Reduced dependency can be further secured by seeking alternative power sources.

Thirdly,

“an organization can use coercive force to make the other organization surrender resources without complying with its demands.”

Lastly, the organization can simply withdraw from the situation all together, while at the same time altering its overall goals.

What are important goals to aim for, then, when developing an urban area? John Dyckman correctly suggests there are two goals that should be the recipient of most of the overall focus. The first is to ensure an appropriate level of living for all families, while the second is the improvement of the urban environment by ensuring ‘efficiency, convenience, safety, and attractiveness’. By creating an appropriate level of living for all families, it is also ensured that poverty is erased from society.

This type of goal has a few sides to itself, but one of vital importance is the one aimed at increasing people’s efficiency. It is important to ensure people’s ability to regularly add to their level of education and training, and to create jobs for the ones that wish to work. Dyckman links all this to national policies when arguing how to solve problems this creates, but makes an important distinction between helping people in need and spoiling them to the extent they do not see the need to work. As mentioned, his second goal is the continued improvement of the urban environment. This can be done by

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71 Hall, Organizations, p. 235.
72 Ibid.
74 Ibid.
75 Ibid.
securing people a choice when deciding where to live (either in the city or in the suburbs), while crime and air- and noise pollution are equally important issues when trying to improve the overall situation. Furthermore, creating liveable cities with amenities such as education and arts in addition to homes and places of work, are vital in order to relieve the often ‘sterile’ urban areas.\textsuperscript{76}

\textsuperscript{76} Ibid.
Conclusion.

In this chapter focus has been on the theoretical ideas that are the foundation for the whole thesis. Especially important is the view that when decisions are made, they are done so in favour of the groups already possessing the most privilege and power. Important in this context has been the discussion concerning ‘power versus rationality’. It became evident that within such a framework, power, with its links to traditions and class, is the stronger of the two. The relationship between the two is also described by conflicts, although these are not necessarily to be viewed as negative. Through disagreements and discussions, arguments are built and developed, and this is part of modernity, or democracy, as we know it. Unfortunately, certain groups are likely to take advantage of their situation and improve their overall position over others. The example used in this context is the process of building the Sydney Harbour Tunnel. This case will be returned to in Chapter 4 for a more meticulous discussion of the underlying process. However, the Tunnel can be said to be a clear example of strong economic interests sidelining the overall good of the metropolis.

The discussion conducted in this first chapter is the foundation for the rest of the thesis. In the next chapter I will move on to a debate concerning suburbanisation and the impacts this has had on metropolitan regions, and especially Sydney.
Chapter 2.

Historical Discussion.

In this chapter I will solely discuss the Australian development (and mainly Sydney) since WWII. The issues I will focus on are: suburbanisation (mostly residential), pollution (air and noise), congestion (Sydney Central Business District is clogged, and so are other major areas such as Parramatta as well), the changed commuting patterns (more and more people live and work in the suburbs), and plans made for Sydney since 1948. A big problem is that in order to get to work, people often have to go via the Central Business District (CBD). Estimates show that, as much as 50 percent of people entering the CBD during peak hours have destinations beyond. This heightens the problem due to the fact that there is not much space in which to improve the public transportation. When the streets are clogged, the best solution is to build through roads either under ground, or ring roads on the outskirts of the city. A major problem with ring roads is that we are merely moving the problem. Therefore I will argue in a later chapter that under ground through roads are the best. In theory, we free the CBD for as much as 50 percent of the motor vehicles entering the city core. This gives us room to increase the number of buses running, and a possibility to build more tramlines. It will be argued that the remaining 50 percent of people commuting by car have valid reasons for doing so, and it is therefore not easy to limit their car use.

Australia has gone from a situation with a solid dependence on a public transportation system, via a system that has seen a large increase in private car ownership, to one that has recently tried to heighten its focus on public transportation, yet again. In Appendix 1 through 5 there are maps showing what areas of the metropolitan
region new growth has occurred in, and also indicating which areas are affluent and which are not.¹

There are different reasons as to why suburbanisation has occurred. Some of these reasons will be discussed in the part called ‘The General development’.

While other cities, such as Los Angeles, have tried to build their way out of congestion, this is not the best way to do it. More roads create more traffic, which is referred to as The Parkinsonian Law.² An example to follow is the one set by the Canadian City of Toronto. In the 1970s a clear stand was taken against freeways and their large absorption of land. Decision makers in Toronto refused to allow the completion of a large freeway construction. Instead of finishing the project, it was stopped on the outskirts of the city. This was an important step in Toronto’s case, and should be used as an example of responsible and dedicated planning. We will return to this in the part called ‘Necessary Changes’.

Suburbanisation

After WWII the average Australian experienced an increase in his/hers income. With this increased income people were able to purchase goods they had not been able to afford earlier. This period is “characterised by rapidly increasing populations, low density dwelling patterns and rising standards of living.”³

People could, for instance, invest in bigger homes in nicer locations. This led to many families relocating to areas outside the original cities.⁴ The green areas were bigger and the air and noise pollution was not as severe. One big problem, though, was that there was not a widespread public transport system connecting the city with the suburbs. This resulted in most suburbanites having to purchase a car. It was therefore no longer considered a problem not living in walking distance from the city. The introduction of the car provided a flexibility that could not be matched by a public transportation system, except for certain corridors such as to the Central Business District where parking was, and still is, a problem.⁵

The car dependence has become a trademark for Australian cities. Australia now has

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⁴ According to Gordon and Richardson as much as 86 percent of population growth since the 1970s has occurred in the suburbs. Peter Gordon; Harry W. Richardson, Defending Suburban Sprawl, In The Public Interest, Spring 2000, p. 65.
⁵ Lionel Edwin Frost, Australian Cities in Comparative View, South Yarra, Vic.: McPhee Gribble, 1990.
“the second highest rate of car ownership in the world and the third highest rate of petrol consumption.”

More and more cars are driven on the streets of Sydney. The Total Environment Centre claims that over the two years following 1994, as much as 200,000 extra cars have been using the roads, and that Government estimates indicate an increase of 30% by 2011.

But it was not just the necessity for private transportation that resulted in increased car ownership and lower tram patronage after WWII. Ian Manning explains this also in terms of

“worn-out equipment and ill-will born of wartime travel in overcrowded trams and trains.”

Many people now preferred driving their own car instead of using public transportation.

The Labor Government in office in Canberra in 1946 wanted to ration gas in order to limit the use of cars. This had been ruled as unconstitutional, and when the Government still tried to implement such a policy they were destined to lose the next

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The Liberal Party, on the other hand, guaranteed that they would not implement such a policy. Political commentators such as Manning and Maddox have argued that this, and also the disagreements that arouse over attempts to nationalise the banking system, were important reasons as to why the Labor Party lost the next election. Manning claims the Liberal Party’s stand against rationing gas can be seen as an active support of the motorists at the time.

This indicated there was a change in politics on the horizon. The public transportation system that had worked well for many years (especially trams in the inner city areas) was in danger of being replaced. And private cars would replace it. Groups that greeted warmly the increase in car ownership included the National Roads and Motorists’ Association (NRMA) and, of course, the automakers. The NRMA used the increase in private car ownership when arguing for the removal of the trams. In 1949 the NRMA argued in their magazine Open Road that,

“Trams are a relic of the pre-motor age, and must eventually go. They are the greatest single cause of road congestion, and one of the greatest contributors to road accidents...They also create impatience among motorists, causing them to take chances in order to pass...”

Two years later they modified this statement saying there were other causes for congestion as well. The suggested solution to congested roads was the construction of

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9 Ian Manning, The Open Street, p. 31.
11 Ian Manning, The Open Street, p. 63.
12 Ibid., p.63.
more roads. And it was claimed that if only the funding was big enough, it was possible to build one’s way out of congestion.\textsuperscript{13} This method has been tried in Los Angeles where “the city has built the world’s most extensive system of freeways”\textsuperscript{14} without much success. The City of Los Angeles probably has the worst congestion in the western world. The NRMA did, however, not abandon their view on trams, and argued in the editorial of their January 1, 1956 edition of Open Road that, “the tram is the greatest single cause of traffic holdups in any city.”\textsuperscript{15}

On February 25, 1961 Sydneysiders took their last tram ride from City to Maroubra Beach.\textsuperscript{16} In the decades that followed the removal of the tram, cars became dominant in the Sydney metropolitan area.

From the 1950s onwards most transport investments were in road building. More and more space was being transformed into roads and parking facilities. At this point suburbs were, in other words, being developed with a main focus on road connections. There were often no shops or other services in these areas.\textsuperscript{17} It was further argued that because people were living so far apart, there was no justification in actually spending the required amount of money to develop a vast level of services.\textsuperscript{18}

In the period 1947 to 1991 numbers used by Patrick Moriarty indicates living city densities continued to decrease. The density decrease reflected a large increase in per

\textsuperscript{13} Ibid., p. 66.
\textsuperscript{14} Insight Guides, Crossing America, APA Publications (HK) Ltd, 1995, p. 275.
\textsuperscript{15} Open Road, Editorial, January 1, 1956.
\textsuperscript{17} Tony Collins, Living for the City, 1993, p. 58.
\textsuperscript{18} Ibid.
capita travel, which came as a result of the massive increase in private car ownership.\textsuperscript{19} It is safe to say we can divide the transport era in two, along the lines of Moriarty. One is the ‘public transport era’, the other being the ‘car era’.\textsuperscript{20} This division reflects the historical pattern seen especially in western societies: increased wealth gave the ability to purchase a car, which again gave the opportunity to move further away from the core city. People no longer needed to live in close proximity to their place of work. It became possible, and desirable, to commute to and from leafy suburban locations every day.

This leads us over to the decades following the 1950s, where cars grasped an increasingly larger portion of the market. More and more people purchased cars and the decision makers’ justification of building more freeways was ‘timesaving’.\textsuperscript{21} However, numbers from before and after the Sydney Harbour Tunnel was opened indicate that more roads lead to more cars, which can lead to slower moving traffic.\textsuperscript{22}

What then are the main reasons affecting vehicular travel levels? Moriarty finds in favour of income, rail network and geographical differences when determining the average travel distance from the CBD.\textsuperscript{23} This is also in accordance with what I have argued earlier in this thesis. However, Moriarty and Beed (1992) have made the conclusion that for the period 1947 to 1986 there was little or no evidence for increased shopping, work or education trips in Sydney. The number actually decreased from 5.9 km to 5.4 km during the period.\textsuperscript{24} The natural consequence of this is to further develop the

\textsuperscript{20} Ibid., p. 112.
\textsuperscript{21} Ian Manning, The Open Street, pp. 71/72.
\textsuperscript{22} City of Sydney, City on the Move, Living City Beyond 2000: Transport, Sydney, 1999, p. 11.
\textsuperscript{23} Moriarty, p. 112.
\textsuperscript{24} Moriarty, p. 113.
places of work, homes and education with a greater variety in services. Moriarty and Beed argue strongly in favour of the core areas:

“In 1991 for example, urban density for the two larger cities was about 40% higher than for the three smaller capitals considered together, but per capita travel differences between the two groups was less than 5%. At the very least, this suggests that density changes are not a very effective policy instrument for reducing travel.”

As Australia entered the 1970s the tide started to turn. Amongst other things environmental questions became part of people’s concern. People were now worried about the negative effects that car driving brought about. Noise, pollution and also fear of collisions were reservations that were stated. But Manning also sees one other important reason for why we need a better public transport system:

“[I]t was recognised that motor cars were not available to all the people all the time, and to maintain the mobility of the carless some sort of minimum public transport service should be guaranteed.”

It was at this point possible to introduce improved amenities, such as reserved lanes, for public transportation in Australian cities. But although cars are currently the dominant way of getting around, it does not necessarily have to be that way forever. It is almost impossible to tell what the future will bring, but we can make more or less

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25 Ibid.
26 Ian Manning, The Open Street, p. 89.
27 Ibid, pp. 77/78.
qualified guesses. Gary Glazebrook’s prediction is of a future consisting of ‘urban villages’.\textsuperscript{28} These villages will be served by a transportation system that secures people’s coverage as well as the one provided by private car. The Norwegian author Bjørn Røe argues the same. He argues that parts of the money being invested in the corridor connecting suburbs and the CBD should be redirected to improve connections between suburbs.\textsuperscript{29} It is difficult to imagine the Sydney metropolitan area with its 4 million\textsuperscript{30} inhabitants being able to serve its suburbs and city area with such a well functioning system. When considering that other major cities have struggled with these same problems for years and years, it might be more of a theoretical dream Glazebrook describes here. He also points to the difficulty in jobs having been decentralised to such a large extent.\textsuperscript{31} With jobs and residential locations spread over a large metropolitan area, it requires a lot of funding if we want to have a system that covers the traffic moving from suburb to suburb. The main radial corridor is no longer between suburbs and the CBD. It is between suburbs like Sutherland and Parramatta. Sydney CBD has lost some of its employment importance in the later years, while a suburban location like Parramatta has increased its significance.\textsuperscript{32} This has altered the whole commuting pattern of the Sydney Metropolitan area. People travel between suburbs instead of between their suburban home and the CBD. This means that most funding should be directed towards the


\textsuperscript{31} Gary Glazebrook in Transit Supportive Development – Benefits and Possibilities, p. 50.

\textsuperscript{32} If we look at the total Sydney Metropolitan area workforce, the number of people employed in the CBD went down from 30% in 1945 to 12.5% in 1986. Areas such as Parramatta and the North Shore have gained people in the same time span. These numbers are borrowed from: Gary Glazebrook, Sydney at the Crossroads. New Land Use and Transport Options. Planning Research Centre – University of Sydney, 1992, p. 7.
corridors between suburbs and the new growth areas, and not the CBD. With people unnecessarily having to travel via the Sydney CBD, an increase in congestion and pollution is unavoidable.

Is it then possible to secure an increased level of use of public transport at the same time as we see a lower level of car travel? The advantage with cars over public transportation is its high level of convenience. However, as Moriarty argues, suburbanisation has given us an opportunity to actually decrease the use of cars. The reason for this is that since many car-trips are ‘shorter than one kilometre’, it is possible to transfer some of these trips to non-motorised travel such as bicycles. The Sydney Bikeplan 2010 will be discussed in a later chapter.

When trying to improve commuting patterns it is important that planners and decision makers look at problems with earlier eras and try not to fail in the same way as colleagues before them have. In a discussion paper prepared by the City Development Division for the Council of the City of Sydney, it is argued that there are lessons to be learned from the ‘motorway era’. These are:

1. "motorways built at ground or above-ground level, while increasing convenience for motorists, can be extremely destructive of urban quality, acting as great divides in the urban landscape, isolating city precincts,"

33 Ibid.
34 Ibid., p. 116.
35 City of Sydney, City on the Move, p. 8.
spreading noise and air-pollution and sterilising surrounding areas against viable human habitation, and

2. even in traffic-flow terms, motorways can be self-defeating, merely facilitating an increase in total traffic volumes, unless traffic calming is undertaken simultaneously on the ground-level streets." 36

And the paper identifies this type of bad development from the ‘motor era’ in Sydney to be the Cahill Expressway and the Western Distributor. 37

The General Development.
As I have argued in the previous chapter there was a massive abandonment of the ‘original’ cities after WWII. Both people and manufacturers moved out of the cramped cities and into the new areas with less density. The transformation is clear: there has been a vast development of new cities on the outskirts and beyond the boundaries of the older ones. According to Jonathan Barnett there have been big changes to the outlay of metropolitan areas. First of all the original city’s downtowns still possess their older style neighbourhoods. However, the newer suburban developments have changed into viable cities of their own. Homes, places of work and shopping facilities are spread out for miles turning former dormitory suburbs into new communities with every thinkable amenity. 38

It is this type of development I support and argue we should encourage in the future.

36 Ibid.
37 Ibid., p. 9.
Shean McConnel finds that many residents may have an income level that does not allow for a high taxation. This leads to a lower level of total income for the federal- and state governments, and therefore less money available to invest in the different communities. Considering investments in ‘schools, health and community care, homes, job creation, and other facilities’ is highly needed,\textsuperscript{39} cities, and other regions, experience problems as a result of a too low income base. Expenditures are also higher in many cities than that for a suburban city, for instance because their land acquisition price level is higher than what is the case on the outskirts. This poses a real problem. Many cities experience a too low income base, due to small federal- and state government funding. This leads to a lower level of quality of the provided services.

As the development of suburbia occurred, it became clear that with the vast new developments outside the old centres, new centres were created. These centres possessed every amenity that before was exclusively found in the ‘original’ cities. The new city developments were no longer mainly ‘dormitory’ suburbs that people commuted back and forth to. Many cities now had schools, hospitals, places of work, entertainment, recreation facilities, in addition to homes. But for many cities the transition, from merely being a place of residence to now also possessing the before mentioned facilities, was rather dramatic. Barnett finds that many expanding suburban towns, upon becoming centres themselves, were confronted with a surprising development. Prior to becoming centres they were merely satellites of original cities. Due to their transformation from dormitory suburbs to centres with homes, jobs, schools, hospitals and shopping facilities, many edge cities became important parts of the greater metropolitan area. However, the

cities were often not built to cater for this growth, which led to problems for planners in keeping with the expansion.\textsuperscript{40}

What made this transition even more difficult were people’s often unrealistically high expectations concerning what amenities they hoped to find in these new centres. People wanted affordable housing, good schools, clean and safe environments, post offices, police- and fire stations, to mention but a few services required.\textsuperscript{41} This was often easier achieved in areas that attracted the affluent, such as the Northern Suburbs, where inhabitants were able to, for instance, pay for their children attending private schools. Other areas populated with people from the lower income groups, such as Cabramatta and other Western Sydney suburbs, were often not able to offer the same level of services. This meant they would have a hard time attracting people from middle- and higher income classes. This again identifies a dilemma that is connected to fairness and elitism in a society. Developments like these enforce an already existent divide in the social order; the richer ones stick together, while the poorer ones are left to themselves. As Barnett suggests, environmental problems, traffic congestion, unemployment, isolation and trouble connected to law and order, are partly caused by these suburban developments. This type of situation enhances an even bigger gap between the wealthier and the poorer districts.\textsuperscript{42}

William J.V. Neill highlights this problem by using the City of Detroit as an example. He finds the relocation of Ford Motor Company’s World Headquarters from Detroit to its then new location in the neighbouring City of Dearborn, and the closing of Detroit’s second largest department store Kern’s, to have been an indication of things to

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{40} Jonathan Barnett, \textit{The Fractured Metropolis}, p. 5.
\item \textsuperscript{41} Ibid., p. 75.
\item \textsuperscript{42} Ibid., p. 114.
\end{itemize}
\end{footnotesize}
come,\textsuperscript{43} not only for Detroit but also for other big cities. With these two companies being removed from the tax rolls of the city, and the flight of the white middle class to the suburbs, a financial downturn was only waiting to happen.\textsuperscript{44} Neill argues that in

\begin{quote}
\textit{“the suburbs, the stark reality of black exclusion was clear, shored up by well documented racist practices.”}\textsuperscript{45}
\end{quote}

Affluent whites did not want to live next to poor African-Americans.

In Australia at the beginning of the 1970s, Gough Whitlam’s Labor government became more aware of the increased problems that occurred in the cities. Areas with problems were given financial aid to help resolve these. In the Australian context this meant suburban areas to the west of both Sydney and Melbourne.\textsuperscript{46} Peter Self put forward in this context the proposed idea of the formation of regional organizations to manage financial support. However, they were only given limited powers, which restricted their capability to make plans. This Labor initiated scheme also saw direct financial enticements for the states to set up new growth centres.\textsuperscript{47} Numbers from the 1996 Census show that as many as 178,336 households in Sydney received a weekly income of less

\textsuperscript{45} Neill, Fitzsimons and Murtagh, \textit{Reimaging the Pariah City}, p. 120.
\textsuperscript{47} Ibid.
than $300, and many of these were in the western suburbs.\textsuperscript{48} There is, in other words, a large need to improve living conditions for people in certain parts of the metropolis.

**Some Aspects of Sydney’s Development.**

The first preparations for a major Sydney plan came in 1947 when the Cumberland County Council started its work.\textsuperscript{49} The plan was, however, too modest in its estimations. For instance it did not take into account the high population increase that would occur. In 1947 the population of Sydney was 1 702 000\textsuperscript{50}, while, according to the New South Wales Premier Bob Carr, the population had increased to 4 million by the year 2000.\textsuperscript{51} The main factors in this substantial population growth are ‘natural change’ and ‘migration’, with the latter being the most important, accounting for as much as 80 per cent of the increase in the male work force between 1947 and 1961.\textsuperscript{52}

It was argued in the Cumberland County Council Plan that there was a problem with an increased amount of roads and an easier access to the CBD. By improving access to the city core it was predicted more people would utilise this opportunity and drive to work. In the argumentation above this is referred to as the ‘Parkinsonian Law’, where more roads create more traffic.\textsuperscript{53} To avoid this scenario for Sydney, it was viewed highly attractive to create decentralised employment centres closer to where the workforce

\textsuperscript{50} Ibid., p. 13.
\textsuperscript{52} New South Wales Planning Authority, *Sydney Region*, p. 15.
resided in order to scatter the workers.\textsuperscript{54} In regards to the transport system it was argued in the same County Plan in favour of giving relief to the congested transport system, by initiating growth centres in locations away from the original city core and its adjacent suburbs.\textsuperscript{55}

Peter Spearritt and Christina DeMarco argue in their book \textit{Planning Sydney’s Future}, that the development that had occurred until the Cumberland County Council launched its well-known plan in 1948, had turned Sydney into an overcrowded city with a vast range of problems. The only function the distant suburbs had was that of a dormitory. An issue raised in the book is that the future described in the Cumberland County Council Planning Scheme (CCPS) in 1948, was that of a troubled city with many problems to solve:

"Motor transport had turned 'almost every street into a highway', industry and commerce had remained at the centre, while the population moved out and the new suburbs were the creation of speculators – 'vast dormitories with a minimum of local shopping and employment'. Long journeys to work destroyed the neighbourhood spirit, because 'the people next door were strangers who disappeared into the maelstrom each morning'."\textsuperscript{56}

Another concern raised by the County of Cumberland planners was that the City of Sydney had grown too quickly, which meant that, in their opinion, the city was now

\textsuperscript{54} New South Wales Planning Authority, \textit{Sydney Region}, p. 95.
\textsuperscript{55} Ibid., p. 51.
'ugly and inconvenient'. The reason for this was that earlier plans had been too focused on beautification of the city. An earlier project referred to here is especially the 1909 establishment of the Royal Commission for the Improvement of the City of Sydney and its suburbs. In addition to the rapid growth and the inadequacy of earlier attempts, it is also argued,

"the Cumberland planners singled out land speculation, motor vehicles and individual selfishness as the cause of suburban sprawl and urban decay."

This was how the County of Cumberland viewed suburbanisation. In other words, improvements were required. There was an apparent need to create more jobs and homes close together to solve problems created by purely dormitory suburbs. These cities can be labelled ‘core’ (or ‘edge’) cities, or developments on the outskirts of the metropolis. In Sydney good examples of such developments are Chatswood, Hornsby and Parramatta.

The CCPS was recognised by the Parliament, but the New South Wales State Government only accepted a partly responsibility for its fulfilment. The latter funded 50 per cent of necessary land acquisitions, while the rest was financed with tax from local governments collected by the County Council. Between 1951 and 1964 the County Council invested $6.6 million on land, and spent $2.9 million on road related

57 Ibid.
58 Ibid.
59 Ibid.
60 Ibid.
investments, while from 1964 to 1971 the total expenditures reached $7.5 million.\textsuperscript{63} In the Sydney Area Transportation Study (which commenced in 1971 and was completed in 1974), an initiative was taken to develop dramatically the road system. However, the Federal Government at the time had a negative view towards road projects that would “\textit{destroy established inner urban areas.}”\textsuperscript{64} Hence, projects that were aimed at inner city areas were laid to rest.

By the time the 1968 Sydney Region Outline Plan (SROP) was published, it was a common perception that the total level of transportation was too much for the city core. The SROP recognised the rapid growth that occurred at the time, and found suburban centres to be a better solution than a restructuring of the already existing areas. According to the Plan it was desirable to decentralise jobs to adjust to the increased residential locations being developed in suburban areas. It wanted to limit the importance of the Sydney Central Business District and also weaken North Sydney’s position by creating new

“\textit{sub-regional retail and commercial centres and extensive industrial zonings to which development could be attracted.}”\textsuperscript{65}

\textsuperscript{63} Ibid.
\textsuperscript{64} Ibid., p. 34.
\textsuperscript{65} Ibid., p. 22.
This was also apparent with the opening of the Roseland Shopping Mall in 1965. The New South Wales Premier at the time, Robert Askin, referred to it as a utopia for shoppers with access to a motor vehicle.\textsuperscript{66}

This development can be highlighted by the following example; by 1986 there were only two major department stores – David Jones and Grace Brothers – left in Central Sydney.\textsuperscript{67} It was in other words only a matter of strengthening a development that was already under way.

However, somewhere down the line something went wrong. A prized project like Macarthur in the southwest of the metropolis failed. It was supposed to attract residents and commercial interests to the area, but did no such thing. The lessons learned in the case of Macarthur includes that of governments being unwilling to wait decades for infrastructure payoffs, of funding public transport at a sufficient level to attract patronage in the absence of more economic inner city densities, to mention some of the problems experienced. There are no apparent signs indicating we will see a similar focus on building an area after the Macarthur model in the future either. On the contrary, as Peter Newman argues, there has been a change in the human flow. The trend now is one of ‘reurbanisation’, with clear economic benefits in sight.\textsuperscript{68} I will return to this point later in the thesis.

One important difference between the CCPS and the SROP was that while the former received strong support from both the Parliament and the State Government, the

\textsuperscript{66} Peter Spearritt & Christina DeMarco, \textit{Planning Sydney’s Future}, p. 56.
\textsuperscript{67} Ibid.
\textsuperscript{68} George Pund: “City Density and Public Transport. A review of Recent publication.” In Australian Planner Volume 38, Number 2 2001, p. 76.
SROP was not endorsed in the same way. The SROP then lacked both the statutory force and political legitimacy the CCPS had.\textsuperscript{69}

Numbers from the 1967 New South Wales Planning Authority Report indicates there was already a problem with overcrowding in the city core. In addition the numbers point out people’s everyday commute had become longer. According to the New South Wales State Planning Authority the ‘average daily urban rail journey’ had grown from 7.46 miles in 1929 to 9.01 miles by 1941, and was a clear consequence of cities growing into outer areas.\textsuperscript{70} Something had subsequently to be done. With the evidently higher crowding of the fringe areas, ideas were raised on developing centres there, along the lines of Macarthur. These were to be dismissed, accurately, as undesirable.

To add up what has been seen as weaknesses with the CCPS there are two main points in the 1967 NSW Planning Authority report: firstly, the plan underestimated how large the population growth in the Sydney region would actually be. Secondly, and as a result of the first point, the total amount of public investments in areas such as communications, the securing of a well-functioning public transport system and an overall upgrading of the environment, were insufficient.\textsuperscript{71}

\textsuperscript{69} New South Wales Planning & Environment Commission, Review, p. 23.
\textsuperscript{70} New South Wales Planning Authority, Sydney Region, p. 70. I have not been able to find more recent numbers. However, it would not be too bold to suggest that 60 years later these numbers are substantially higher.
\textsuperscript{71} Ibid., p. 77.
A new plan was introduced in 1971, and was called the City of Sydney Strategic Plan (SSP). A main theme in this work was to secure some tolerable form of controlling Sydney’s development. This was done in areas like floor space ratio, and by introducing specific types of activity zones in the city. Although there was some control via the County of Cumberland Plan of 1948/1951, (for instance by designating legal land use zones for every property in Sydney), issues that today are widely debated, such as environmental concerns and social versus private efficiency, were never put on the agenda. It seems there was now a dominant view among planners, and decision makers, that the market had been too dominant for too long in the development of Sydney. The interests that were being argued in favour of were such that they would enhance the economic prosperity of the city. But the ideas portrayed in this manner were not necessarily for the best of the city. As argued in the SSP, environmental problems were for instance an issue that had not been taken too seriously by private developers.

Percy Johnson-Marshall has identified three major positive developments for many cities, including the City of Sydney: firstly, the decentralisation of upper-income groups; secondly, shopping centres following their customers from the city core, thirdly, employment being relocated. The latter development was achieved with the same reasoning as for retailers - employers saw the importance of being located close to their potential work force. There has, in other words, been a change to accommodate the purposes land has been used for. With the large migration to the suburbs both by families

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73 Ibid.
74 As argued above only two major department stores were left in the City of Sydney by 1986. More and more firms saw the necessity of locating in the vicinity of where their customers lived.
and firms, areas in the ‘original’ cities became available. For a time it was, as has been argued in the previous chapter, wealthier people who chose to relocate to the affluent suburbs. But in the later years there has been a change in the inner city areas as to who chose to live there. As Apps and Ravallion argue, residents in some inner-urban areas, with a low average income, have seen their neighbourhoods transformed into attracting persons with a stronger income base. This process of gentrification, or reurbanisation, is truly evident for areas such as Paddington, Darlinghurst, Ultimo, Pyrmont, and lately also parts of Newtown and Redfern. The original tenants have, due to an increased rent base, been forced to relocate to cheaper areas that are also less accessible and more poorly serviced.  

These types of areas are often found in the western suburbs, such as in Auburn, Bankstown, Cabramatta, Campbelltown, to mention but a few.

In February 1988 a new plan called “Sydney Into Its Third Century” was released. Peter Spearritt and Christina DeMarco suggest this was a controversial proposal when put forward by the Department of Planning (DOP). One contentious aim with this plan was to concentrate employment in 15 centres, while at the same time trying to swell population density in the areas closest to the city core. The reasoning behind this was that by creating self-employed centres on the outskirt of the Sydney region, employment and homes would be brought closer together and thereby a more liveable society would be created. Suburbs would no longer merely serve as dormitories for city workers. People would now have their place of work close to where they lived. With the large suburbanisation created by increased wealth amongst people, it would merely be a

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77 Peter Spearritt & Christina DeMarco, Planning Sydney’s Future, p. ix.
78 Ibid., p. x.
question of investing in the right core areas, which already had an important place in the metropolis.

Investigations were made as background for the Metropolitan Strategy on what effect different population and employment patterns would have on the urban transport system. By increasing the population density and also the concentration of jobs, Spearritt and DeMarco view this as a promotion of accessibility. However, the benefits can only be realised with a vast upgrading of the public transport system.79

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79 Ibid., p. 35.
Congestion/Commuting Patterns, Pollution and Necessary Changes.

After WWII we have seen that people increased their average income. This enabled them to purchase a car, a nicer house, and other available consumer goods. With this suburban lifestyle a higher car use came along. Australia currently has the second highest car ownership in the world. The car gave them a freedom that was not available by public transport. But with the increased car ownership, problems have arisen. For the City of Sydney this has been seen through a large congestion in its Central Business District, while in a new centre such as Parramatta, air pollution has also increased.

Sydney Central Business District.

Sydney has one of the highest rates in the world when it comes to the use of public transport to and from its CBD. Train is used by approximately 50 per cent of commuters in order to get to work, while another 16 per cent or so use other modes of public transport.

So why is it then that there are still problems with congested streets in the Sydney CBD? This is mainly the result of the fact that over 50 per cent of commuters that travel via the CBD, have destinations beyond. With such a substantial number of cars merely passing through, unnecessary problems are caused. The real problem then is not the lack of use of public transport to get to work in the CBD, but travel patterns for those

80 Tony Collins, Living for the City, p. 66.
82 Ibid.
83 The City Development Division argues in the City of Sydney, City on the Move, p. 8, that the number is 51%. While the NRMA argues in N.R.M.A. Survey – Use of Cars for C.B.D. Work Trips, Sydney, August 1976, p. 1, that the number is 56.7%.
commuting from one suburb to another. This is often the case because there is not a sufficient public transport system covering the needs for those that travel between suburbs. Hence, this is where the biggest expenditure should be aimed. Estimations made for Sydney supports developments in outer areas. Environmentalist and transport expert Randal O’Toole correctly argues that

“People don’t ride transit because, very often, they can’t. It either won’t take them where they need to go or, if it does, it takes far too long to get there.”

Glazebrook supports this observation:

“It must be remembered that for a lot of the population, public transport is not really geared to meet their needs. It is basically a radial system into the CBD, which is all right if you want to work or shop in the CBD.”

This indicates that in order for people to use public transport, it must be available where they live, namely in the suburbs. And it is not sufficient merely being available; it also has to be safe, reliable and clean in order for people to make use of it.

A big problem with trying to make Australians more reliant on public transport is (besides the fact that it does not cover suburbs very well), that they have grown attached to their use of cars. Glazebrook list numbers that show the changes in Australian cities between 1961 and 1981:

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84 See Appendix 1.
85 Randal O’Toole quoted in Society, Public Transit is Largely Ineffective, Jan-Feb 1999, p. 3.
- “per capita public transport usage halved;
- per capita car usage doubled;
- petrol consumption per person rose by about 74%; and
- the average density of our cities fell by about 27%.”

Australia’s love affair with its cars will not be easy to turn around. Gary Johns MP, who chaired the Inquiry into Patterns of Urban Settlement, accurately claims there is a two-sidedness to Australians use of motor vehicles. First of all, people love the freedom it gives them; and secondly our cities are organised with the problems and benefits of car usage in mind. Hence, the end result of this is a situation in which it today is hard to see a large increase in the use of public transportation. But this is mainly due to today’s commuting patterns. If people were to have jobs closer to where they live, an increased use would be easier achieved. However, there would also be a higher proportion of people walking to work as a result of them living closer to their place of employment.

However, the easiest solution will therefore probably be to develop alternative road solutions to lessen the traffic burden in the Sydney CBD. There are a few proposed solutions to the congestion problem Sydney experiences. One is to put ring roads on the outskirts of the city, and thereby redirect traffic via another suburb. Another suggestion is to build through roads underground. The City Development Division of the City of Sydney proposes a few changes. It views these projects as proposals that will remove most of the through traffic on the city streets. These underground projects will be

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87 Ibid., p. 49.
88 Tony Collins, Living for the City, p. 58.
89 This last point is argued by the City Development Division of the City of Sydney to be a solution. City of Sydney City Development Division, City on the Move, p. 11.
discussed in a later chapter, so I will only list them here.\textsuperscript{90} The Cross-City Tunnel (CCT) between Darling Harbour and Kings Cross; the Cleveland/Wattle Street tunnel in the southern parts of the city will be the second east-west tunnel; the underground Western Distributor will reconnect Darling Harbour with the city and also Pyrmont and Ultimo. Another project that has been long coming is the removal of the Cahill Expressway. With the proposed CCT, this can actually be made a reality.

As discussed, there is a high level of car travel by people commuting between suburbs. But what is the case for those travelling between suburbs and the Sydney CBD by car? Is it possible to increase their use of public transportation? The National Roads and Motorists’ Association (NRMA) conducted a survey on this issue back in 1976. They concluded that as many as 83\% of commuters had viable reasons for why they did not make use of the available public transport system.\textsuperscript{91} There were several reasons as to why respondents brought their car to work: for instance, a large percentage used their car during the day. Other answers were that

“public transport was inadequate after the peak period (and they often worked late), there was no public transport in the area in which they resided, they went to lectures at night, health reasons forced them to use a car, they collected and delivered children to school or drove company or subsidised vehicles etc.”\textsuperscript{92}

These are all feasible reasons as to why many use their car. As argued before, trains or buses cannot compensate for the flexibility that is created by the use of cars.

\textsuperscript{90} City of Sydney City Development Division, \textit{City on the Move}, pp. 11/12/13/14.
\textsuperscript{91} National Roads and Motorists’ Association (Traffic and Safety Department), \textit{N.R.M.A. Survey}, p. 35.
\textsuperscript{92} Ibid., p. i.
Therefore we have to accept that people, to a certain point, use their private transportation. The important task at hand then, is to secure a system that is good enough to tempt people to leave their car at home. There needs to be a real alternative to the use of private cars. Unless such a viable choice is created, the worsened air quality and the often-clogged city streets will only intensify as more and more people utilise the road network.

**Pollution.**

Increased suburbanisation has meant increased travel. People’s everyday commute has become longer and longer. The most evident result of this is the increased congestion and higher pollution. Congestion has been discussed in other parts of the chapter so I will not repeat the discussion here. But it is important to emphasise that suburbanisation has resulted in increased driving to more remote suburbs, when compared to the CBD, such as is the case for Hornsby and Parramatta.

The biggest problems with pollution can be seen in the western parts of Sydney, where public transport is insufficient. According to David Hughes

> “if we continue to build sprawling dormitory suburbs miles from nowhere with no public transport, the repercussions in terms of air quality will be disastrous.”

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93 Numbers provided by Glazebrook show that as much as 67.40% of people working in Parramatta get there by car. The argument is that if there was a well functioning public transport system available, commuters would utilise it. Gary Glazebrook in *Transit Supportive Development – Benefits and Possibilities*, p. 54.

94 David Hughes in Tony Collins, *Living for the City*, p. 79.
He rightly claims the situation to be worst in Western Sydney.\textsuperscript{95} In these areas there are plans for large new housing developments that are not covered by public transportation. This will increase the air pollution level severely. He compares these developments in Western Sydney with Los Angeles.\textsuperscript{96} Los Angeles has for decades tried to build enough roads to remove congestion, but has failed. The City of Los Angeles has been a victim of the earlier referred to Parkinsonian Law.

Sydney’s level of air pollution has, according to the Total Environment Centre, decreased in recent years. One important reason for this is the requirement that cars use lead-free petrol and be fitted with catalytic converters.\textsuperscript{97} The NRMA, and the automakers, of course, opposed these moves. But when examining the numbers of how much cars contribute to Sydney’s total air pollution, it seems reasonable to implement these changes. Lowered air pollution, for parts of the city, has so far been a result. But not all parts of the metropolis have experienced the same trend. The western and south-western parts of the metropolis have been unfortunate enough to receive airflow with pollution from other parts of the area. This air has also, at certain times, been described as harmful.\textsuperscript{98} According to statistics from the NRMA, cars contributed the following numbers to Sydney’s air pollution\textsuperscript{99}:

\begin{itemize}
  \item \textsuperscript{95} Ibid. This argument is also supported by Total Environment Centre (Sydney NSW), \textit{Sydney’s Future}, p. 27.
  \item \textsuperscript{96} Tony Collins, \textit{Living for the City}, p. 79.
  \item \textsuperscript{97} Total Environment Centre (Sydney NSW), \textit{Sydney’s Future}, p. 27.
  \item \textsuperscript{98} Ibid.
  \item \textsuperscript{99} Ibid.
\end{itemize}
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<tr>
<th>Type</th>
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<th>Tonnes/year</th>
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<td>Hydrocarbons</td>
<td>45%</td>
<td>78,000</td>
</tr>
<tr>
<td>Carbon Monoxide</td>
<td>87%</td>
<td>633,000</td>
</tr>
<tr>
<td>Oxides of Nitrogen</td>
<td>80%</td>
<td>59,000</td>
</tr>
<tr>
<td>Sulphur Dioxide</td>
<td>18%</td>
<td>3,000</td>
</tr>
</tbody>
</table>

Necessary Changes.

The process leading up to the decisions being made about urban improvements is long, and there are many parties involved, for instance the New South Wales Department of Urban Affairs and Planning (DUAP), and the New South Wales Department of Transport (DOT). However, as argued in Chapter 1, there are many more lobbyist groups, such as trade groups, automakers, motor organizations, and neighbourhood organizations. Although Bent Flyvbjerg discusses the Danish City of Aalborg in his highly acclaimed study, there is no reason as to why we cannot take for granted the same types of lobbying groups are present in the development of Sydney and other Australian cities as well.

There are other interests that should be heard as well, interests that so far have been neglected. The Bureau of Transport Economics argues that in Sydney’s case, certain non-desirable effects can be seen. It especially becomes apparent that certain interests are being excluded. The ones that are favoured are elite groups, as discussed in Chapter 1, which already possess power linked to their key positions in society.\(^\text{100}\)

In a situation where the main aim is to improve the outlay of a city, it is important that decision-makers initiate a process where all affected parties get to state their opinion. According to the Bureau of Transport Economics there are three reasons as to why this is necessary:

“people have different needs and requirements; people have quite different capacities to influence service provision by Governmental agencies; and some people have needs which are less readily satisfied or conflict with those of other people.”

By allowing every affected group to state their concerns with the proposed plans, every city, including Sydney, can reach a point where the public transportation system can be described by the following terms:

- Usefulness: frequent, comfortable, flexible, accessible and reliable.
- Equity: everyone should be able to access a system as described in the previous point.
- Ecological sustainability: reduce gases such as carbon dioxide and scarce valuable land and water resources.
- Community:
  “Transport systems should also make streets livable, and provide safe environments for residents, pedestrians, children and cyclists.”
- Integration:

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101 Ibid.
102 Total Environment Centre (Sydney NSW), Sydney’s Future, p. 59.
103 Ibid.
“different modes and routes should complement each other, ticketing should not disadvantage those needing to interchange, land use and transport should be planned together to cater for their interaction, and actions by different departments and different levels of government should complement each other.”

As discussed above, there is a need to limit car usage. This is probably the only way to effectively relieve the City of Sydney from its congestion nightmare. Therefore solely improving driver’s amenity is not a desirable solution. More roads generally create more traffic. This Parkinsonian Law can in Sydney’s case be exemplified with the opening of the Harbour Tunnel. With the opening of the Tunnel there was a reduction in traffic on the Sydney Harbour Bridge. By 1993, however, the total amount of cross-harbour traffic had increased by 13 per cent. Unfortunately it has only continued to rise and by 1998 had reached a level that was almost 30 per cent higher than for 1991.

One crucial step that needs to be taken is to limit the funding provided for freeway projects, and increase the amount spent on rail. Numbers from Australia indicate that between 1980 and 1990 the percentage of gross domestic product (GDP) invested in roads and rail was 1.7 per cent for roads and ranged between 0.4 and 0.7 per cent for rail. The difference is striking. This shows there is a real need to limit road spending and increase spending on public transport. But we cannot only increase public transport spending. Investments in urban road projects have to decrease at the same time.

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104 Ibid.  
105 D.J. Potter argues that if there is easy access to a good road system, more people will drive. This is referred to as the Parkinsonian Law. Potter, D.J., *Alternative to Inner Urban Expressways*, p.4.  
106 City of Sydney, *City on the Move*, p. 11.  
As mentioned in the introduction, the Canadian City of Toronto made crucial changes to its outlay back in the 1970s. Former mayor of Toronto, Art Eggleton, explains what critical moves Toronto made in the 1970s to limit the use of cars in its city core, and what lessons can be learned:

“Like a lot of cities, when we reached the sixties and early seventies we were facing the onslaught of the automobile. It was beginning to take over with many expressways being built here and there criss-crossing the city. Many citizens became quite concerned about the predominance of the automobile and where it was leading us. About twenty years ago a major decision was made by government in Toronto to stop a major expressway. That was a watershed decision; it was a turning point for us. We decided that instead of building that expressway into the heart of the city, we would stop it cold in its tracks some two kilometres into its construction and instead build a rapid train or subway train into the downtown core.”\(^{108}\)

This strongly indicates that the City of Toronto did make decisions that positively affected the fight against motor traffic. Knowing the vast negative impacts use of cars has on the environment, every limitation of such usage can be claimed positive for the environment.

As discussed above, the lack of sufficient public transportation between suburbs is an important reason as to why people use their cars. It is not a question of commuters not

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\(^{108}\) Ibid., p. 68.
wanting to use public transportation; it is more a question of not being able to go where they want to go,\textsuperscript{109} or having other reasons as indicated in the NRMA survey.\textsuperscript{110}

What can then be done to solve the urban transport problem? Gary Glazebrook of Glazebrook and Associates in Sydney, argues that rail is a very important mode of transportation.\textsuperscript{111} He points out that wherever there is an accessible railway line, people’s use of car declines accordingly.\textsuperscript{112} Sydney CBD is easily accessible by public transportation, which leads us to the conclusion drawn by Glazebrook, that where a rail line is available, commuting patterns follow this.\textsuperscript{113} It can then be argued in favour of heavy rail being most suitable for moving large amounts of people.\textsuperscript{114}

A new centre outside the traditional city, such as Parramatta, would then ideally be well served by a heavy rail line. Numbers indicate that compared with Sydney CBD, there are not many using public transportation to get to work in Parramatta. 13.73% utilise train while only 3.76% use bus to get to work in this Western Sydney suburb. As many as 67.40% of commuters are car drivers. The remaining people were either passengers in cars, or they walked to work.\textsuperscript{115}

Glazebrook emphasized that because of its potential to move large numbers of people over longer distances, the railway system helps relieve the roads of a vast share of

\textsuperscript{109} Society, Public Transit is Largely Ineffective, p. 1.
\textsuperscript{110} National Roads and Motorists’ Association (Traffic and Safety Department), N.R.M.A. Survey, p. i.
\textsuperscript{111} Gary Glazebrook in Transit Supportive Development – Benefits and Possibilities, p. 50.
\textsuperscript{112} Ibid.
\textsuperscript{113} Ibid.
\textsuperscript{114} Gary Glazebrook, Sydney at the Crossroads, p. 36.
\textsuperscript{115} Gary Glazebrook in Transit Supportive Development – Benefits and Possibilities, p. 54.
peak hour traffic.\textsuperscript{116} The question is then whether decision makers are willing to provide the necessary funding to build such a system.

Up until now there has been a fight between groups in favour of roads and those in favour of rail. But it is not so much a question of which means of transportation is more suitable. Cars definitely give people most freedom, but we also need a public transportation system because Sydney’s roads are congested, because of the widespread suburbanisation, because pollution is too high, because car ownership is increasing and lastly because Australians drive more and more.\textsuperscript{117}

Paul Mees from the Public Transport Users’ Association in Melbourne explains that over the last three to four decades it has become much more attractive to make use of cars, due to more and wider roads and easily accessible parking. It is thus inevitable that cars are more popular than public transportation.\textsuperscript{118}

Professor Peter Newman from the Institute of Science and Technology Policy at Murdoch University in Perth, stresses how it is possible to lessen people’s need to travel. His stand is that this can be done by an ever-increasing amount of jobs, homes and services in suburbia.\textsuperscript{119} Commuting patterns would then be altered. Instead of living and working in two different suburbs, people would now be able to work and live in the same one. This would create a lower demand for the use of cars, and a negative effect like pollution would be decreased. Congestion in the Sydney CBD would be lowered as a result of fewer motor vehicles having to pass through it, or even enter. Newman further

\textsuperscript{116} Gary Glazebrook, \textit{Sydney at the Crossroads}, p. 36.
\textsuperscript{117} Tony Collins, \textit{Living for the City}, pp. 58/66.
\textsuperscript{118} Ibid., p. 61.
\textsuperscript{119} Ibid., p. 60.
affirms that by giving preference to motor vehicles, planners saw it as a step towards the future. But this Californian, or Michigan, type of development is no longer viewed as the most desirable. Newman’s solution to the problem is to invest more in public transport and stop building freeways. Freeways will only create more widespread urban areas and thereby a heightened need for private transportation.120

Newman, in collaboration with Kenworthy, controversially argues, that cities worldwide are ‘reurbanising’. Furthermore, their argument aims at explaining a decrease in car use by increasing city density.121 Their claim is transformation can only be achieved through four steps:

"revitalise the inner city; focus development around the present rail system; discourage urban sprawl; and finally expand public transportation into poorly served suburbs and villages around public transport services."122

In other words, by increasing density it becomes desirable to focus on use of rail due to its superior capacity.123 However, this is a rather controversial argument. George Pund, of the Graduate School of the Environment at Macquarie University, finds Newman’s ideas about ‘extensive road systems leading to dispersed cities that are less economically efficient’ to be too simplistic.124 Pund himself argues economic efficiency is measured through how much of the Gross Regional Product (GRP) is spent on ‘operating necessary transport’. He concludes that while a higher portion of the GRP is

120 Ibid., p. 67.
121 Pund, p. 74.
122 Ibid.
123 Ibid.
124 Ibid, p. 78.
spent on passenger transport, and it may be environmentally damaging, it may all the
same be efficient in mere economic terms.\textsuperscript{125} To put it more cynically, while morally and
ethically wrong, it is good for business.

Car-pooling is another way of reducing the amount of cars commuting to centres
such as Sydney CBD and Parramatta. The idea of people travelling together to work is
good, but in many cases not achievable. As described in the NRMA survey there are
many different reasons why people cannot use carpools. Different engagements before,
during and after work is finished, prevent many from sharing transportation.\textsuperscript{126} If we look
at experiences from New Jersey in the United States of America (USA), this scheme has
not worked out at all. The results experienced in this American state, have been so
disappointing that they have now transformed car-pooling lanes back to conventional
ones.\textsuperscript{127}

In case an oil crisis occurs there is a need for a vast public transport system. This
will limit the use of cars and result in a lower use, and need for, oil. Michael Renner and
Marcia D. Lowe argue that this is a potential problem in the future. In 1984 roughly 3
billion gallons of oil were wasted in the United States (US) because of traffic congestion,
and the estimates are as high as 7 billion for the year 2005.\textsuperscript{128} Australian car usage is
second only to the American, so it is not a wild estimate that we will experience the same
problem in the near future.

\textsuperscript{125} Ibid.
\textsuperscript{126} National Roads and Motorists’ Association (Traffic and Safety Department), \textit{N.R.M.A. Survey}, p. i.
\textsuperscript{127} Peter Gordon & Harry W. Richardson, \textit{Defending Suburban Sprawl}, The Public Interest, Spring 2000, p. 65.
\textsuperscript{128} Michael Renner & Marcia D. Lowe, \textit{Transportation Tomorrow: Rethinking the Role of the Automobile.}
Future Plans.

Some of the projects that are being proposed will be discussed in a later chapter. I will only briefly mention some of them here, while suggesting that we can see a circle of developments since WWII. People used public transportation to a large degree where available until after the war. When the war was over, people were inclined not to use public transportation as much as during the war. With increased income people were able to purchase cars, and move to suburban locations. This resulted in low-density suburbs, increased car ownership, congested streets in centres and an increased pollution. As the years went by people realised that something had to be done to limit car use. Freeways were found not to be the answer to reduce congestion, because more roads created more traffic. We are therefore at a point where there is an increased focus on public transportation. Projects that have been proposed to limit the use of cars are a new heavy rail line running north – south through the city, and also three light rail loops (inner suburban loop, inner city loop and outer city loop).\(^{129}\)

\(^{129}\) All proposals borrowed from: City of Sydney, *City on the Move*, pp. 16/19.
Conclusion.

In this chapter I have discussed some major developments for the Sydney Metropolitan region since WWII, including plans made for developing Sydney and its metropolitan region since 1948. Of vital importance is the high level of suburbanisation. With the second industrial revolution after the war, more and more people chose to relocate. In addition many employers did the same. With the increased car use it was no longer necessary to have all business located in the city core.

The biggest challenge with suburbanisation has been the demand for solving the transportation question. In the decades following the war, more and more roads were being built in Australia and the funding percentage was a lot higher for roads than public transportation. The NRMA was one of the biggest lobbyists in this process. This is a trend that existed for many years. In the later years, decision makers have come to the conclusion that a public transport system is of vital importance if we want to reduce congestion and pollution in our centres. Sydney CBD is already well covered by trains, but in a newer centre such as Parramatta, most people use private transport. It is argued that the main problem with the Western parts of Sydney is that there is not a sufficiently good system. By developing a safe, reliable and comfortable system we will be able to increase patronage. But it has to be realised that it is very unlikely that trains and buses will ever replace cars. Cars secure a freedom that cannot be matched by either trains or buses. Australia currently has the second largest car ownership in the world, and there is no indication that this will decline in the years to come.

A situation that can be seen more and more is that people live in one suburb, and work in another. This strengthens the problem. People’s commuting patterns now go
more between suburbs than between suburbs and the Central Business District. But very often they have to go via the Sydney CBD. This means more congestion and more pollution. By building a well functioning public transportation system, it is possible to lower congestion. Even though public transport will never replace cars, there is an obvious need to minimise today’s use of the private automobile.
Chapter 3.

Core Cities or Urban Consolidation?

In the previous chapter I discussed what I see as the main urban developments after WWII. Key issues were suburbanisation that included decentralisation of both people’s homes and later also their workplace. It was argued that a big problem was people’s commuting patterns. Today many people live and work in two different and distant suburbs, which creates problems. The overall goal must be to limit the distance people have to commute every day.

The main theme then in this chapter is the strengthening of already existing regional city centres, such as Chatswood, Parramatta and Hornsby. By initiating a development pattern where more and more jobs are being located in such regional centres, it becomes possible to limit problems as the ones listed in Chapter 2 of this thesis. We encourage a shorter commute for people. In addition, it is also an important step to solve other urban problems like congestion and air- and noise pollution. As I established in the previous chapter, a problem with commuting patterns today is that people mostly travel between suburbs and not between suburbs and the central business district. However, most of the transport investments are still directed towards the corridor between the CBD and certain suburbs.

By locating jobs, schools, and recreation facilities adjacent to the core city neighbourhoods, it becomes easier to encourage the use of buses, trains, trams, monorails or bicycles.
During Gough Whitlam’s years in Canberra the Department of Urban and Regional Development (DURD) initiated new urban projects. The idea was to create new growth centres outside the traditional metropolitan areas. These new areas did not receive the necessary support then, and the competition between the centralist and suburbanist views still persists. Supporters of the centralist view find, for instance, the proximity to major financial centres important. On the contrary, supporters of the suburbanist thought find that suburbia possesses many advantages over cities, such as space that may be used for technology parks and homes, to mention but a few. By closely examining this development and theoretical ideas thereof, we receive a better understanding of the progress that has occurred in Australia over the last few decades, and why the recommendations made in this thesis are the way they are.
Urban Australia.

As the 1970s approached it became clear that the major Australian cities were dealing with key problems such as congestion and pollution. This resulted in urban questions being an important issue at the next Federal election in 1972.\(^1\) The idea that was launched was the creation of new growth centres outside the already established metropolitan regions such as Sydney and Melbourne. Several locations were suggested, such as Monaro, Geelong, Tamar Valley, Bathurst-Orange and Albury-Wodonga, and they were all supposed to be part of a joint Commonwealth and State programme.\(^2\) However, the only project city that is still a joint Commonwealth-State centre is Albury-Wodonga.

Gough Whitlam was the one who raised the idea of new growth centres in Australia, and he saw Albury-Wodonga as

\[ \text{“the first step in a comprehensive programme aimed at improving urban life which would include other growth centres and selective decentralisation.”} \] \(^3\)

With its location on the New South Wales border along the Murray River, and approximately 600 kilometres from Sydney and 300 kilometres from Melbourne\(^4\) its location is to its advantage.


\(^2\) Ibid., p.4.

\(^3\) Ibid.

During Gough Whitlam’s years in Canberra, from 1972 till 1975, urban and regional policies became important for the Whitlam Government, and the government created DURD, which initiated new urban developments. The Whitlam and DURD initiatives were focused on new cities independent of metropolitan areas and with some distance from them. With financial support through federal grants and loans these urban areas were to be developed. Lionel Orchard accurately spots the mood in political circles at the time:

“In particular, many thought that services and employment should be redirected to the newer outer suburbs away from the inner suburbs and central business districts. We should take the ‘city to the suburbs’. We should also redirect some of the growth of our big cities to new, smaller cities in regional Australia. In this way, the most serious inequalities and structural problems in Australia’s cities could be addressed. The overall vision was regionalist and interventionist. Regional development within and away from the big cities required strong and active government.”

The federal government sought to work towards new city developments, but experienced problems. Orchard claims this shows the opposition experienced towards the reformation of the urban areas. One important reason as to why there was controversy

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7 Ibid. pp. 65/66.
surrounding the proposed programs was that they were aiming at long-term solutions.\(^8\) Furthermore, the transition from what Whitlam saw as important, to new ideas being launched complicated the process. One issue, recently highlighted by Joan Vipond, was the way that regional planning should incorporate ‘resource management and environmental protection’.\(^9\) Vipond points to an important development, which has occurred over the last few decades. She represents a way of thinking that differs from what was the dominant view in Whitlam’s era. There is no longer merely a need to provide jobs, homes, and recreation facilities within a certain geographical area. Now there is also the need to combine these with environmental protection and an idea of a better-funded management. In other words, protecting natural resources and the natural environment has become imperative.

Peter Self argues there were some problems with the ‘growth centres’ initiated by Whitlam and DURD, which led to its failure. He blames this failure on the lack of cooperation between the federal and the local governments, which he sees as vital to ensure a successful result.\(^10\) However, three decades later the debate concerning the inner city vs. the suburbs seems to still be alive. Clive Forster points to two issues he calls the suburbanist and the centralist.\(^11\) The suburbanist argument is merely a description of the development one has seen after WWII, where people moved to locations that were more distant to the CBD. Here they would live, work and socialise with not too much need to

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\(^8\) Ibid. p. 67.

\(^9\) Joan Vipond: “Regional Planning in NSW. Looking forward and looking back.” In Australian Planner, Volume 38 Number 34, 2001, page 121.


travel downtown. Kevin O’Connor of Monash University in Melbourne supports this view. His core argument is

“that the spatial form of a metropolitan area reflects the locational character of the production systems that are in place in a metropolitan area, subject to the constraints and opportunities due to the global and national role of that metropolitan area.”\(^{12}\)

So, certain areas have advantages over others that cannot be matched, such as access to a major port or an important financial district. The surrounding suburbs will then either prosper or suffer due to its location. He further argues the shift has also affected the way in which organizations are structured. More and more we see a shift towards ‘small scale flexible production systems’ as opposed to ‘hierarchically structured production systems’.\(^{13}\) The result of this is a stronger focus on suburbs than the CBD, due to the accessibility of available space in the suburbs. Technology parks will be developed there and specialist services will be on offer.

How then has this development influenced urban Australia? According to O’Connor, in the private sector there has become focus on the smaller organization. These smaller firms have the advantage that they do not have the rigidity of a large organization. They have a clearly specified knowledge and use this to provide services to customers. They are able to adjust their focus in different directions depending on whom they work for and what the project consists of. This leads us over to the second point,

\(^{13}\) Ibid.
knowledge creation, with a clear link to economic questions. O’Connor finds that also in
the public sector there has become a focus on adjusting the organizations, to fit a new and
different reality. There is no longer merely a need for large, rigid organizations.
Moreover, it is a need to adjust the size and its functions to the reality in which it exists.
And lastly, many new services are developing. Many of these new services are shaped in
such a way that there is no need for them to be located in a downtown world
headquarters. O’Connor uses an example where car designers are located in Los Angeles,
while the actual production is done in Japan.14 This shows, and strongly indicates, that
already now, and more so in the future, companies will initiate a changed location for
many of their employees. High rents and lack of office space15 in some cities have
already, and will do so even more in the future, forced many companies to relocate their
business to the suburbs. This movement will give developers an opportunity to strengthen
the dormitory suburbs to become lively and important regional centres.

Clive Forster’s second point is what he refers to as ‘centralist’. This contrasts
directly to what O’Connor argued above. Forster predicts that the situation where
investments are more focused on inner city areas will continue. Especially important here
are cities with an important international and national role. These cities will stand out as
‘flagships’ in the global competition.16 Forster’s argument has some merit. When viewing
a city like Sydney, much of this development has occurred already. Private and public
investments have increased and the city has the last few decades seen a revitalising of
some of its inner suburbs. Pyrmont and Ultimo have become highly expensive places of

14 Ibid, p. 142.
15 After 9.11. there is a lack of office space in New York City. The World Trade Centres were the
workplace of several thousand people.
16 Forster: “A New Era for the Inner City?” In Urban Policy and Research, Volume 15 Number 2, June
residence, while an area like Darling Harbour has been turned into a tourist magnet. However, numbers suggest that the largest increase in employment has been in the suburbs. In other words, it is not so much a question as to which sole model one can claim has influenced a development; rather which constellation of models has done so.

Robert Cervero of University of California, Berkeley, in the US, interestingly argues in favour of what he calls ‘smart growth’. Cervero finds ‘smart growth’ to be a better ‘coordination and integration’ of questions linked to transportation and land development. His first point is to acknowledge that decentralisation is a phenomenon, which will stay. Since WWII there has been advances in IT solutions, people have become wealthier and the number of people has also seen a dramatic increase. These issues have created a need to spread populations outward. The downfall of this is the large increase in numbers of cars, trucks and buses. Cervero quotes the increase in numbers between 1980 and 1995 to be 70 percent.

Cervero rightly finds the main theme in ‘smart growth’ is finding out where (in which location) growth should occur. Cervero lists a total of four points of vital importance. Firstly, there is the need to create plans for the future. By doing so, one avoids the many pitfalls earlier planners and decision makers have made when suggesting changes based on, for instance, population numbers of their time. Sydney plans have, for instance, been criticized for not taking into account future population growth. Secondly, this type of growth tries to balance the need for a specific form and the intended function

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19 Ibid.
20 For instance the Cumberland County Council Plan from 1948/51.
of the area. Cervero lists ‘livability and aestheticism’ as vital points in the strengthening of certain neighbourhoods. By doing so, these already existing areas will experience a transition from the life of a dormitory suburb to a lively community. Thirdly, he lists concerns linked to the environment. Over the last few decades questions concerning the environment have become widely focused upon, as mentioned above. This has given us a development where it is no longer desirable to locate rail lines or roads in valued areas such as wetlands, forests and hillsides.\textsuperscript{21} Today it has become the norm to protect areas that are endangered. Lastly, in his argumentation concerning ‘smart growth’, Cervero lists the need to deal with issues that go across borders. He suggests this means some form of

\begin{quote}
“\textit{regional governance and oversight of local land-use decisions, whether in the form of regional master planning, tax-base sharing, environmental mandates, or zoning overrides.”}\textsuperscript{22}
\end{quote}

After the Whitlam era, however, urban issues were out of the spotlight for a few years. Nevertheless, today urban questions once again receive a wide spread attention. Patrick Troy states this is due to an aim from Australian officials trying to secure its cities are ‘economically efficient and competitive in terms of the global economy.’ Secondly, there is serious concern due to man-made environmental problems. These are air, water and noise pollution, which can be connected to traffic congestion experienced in bigger cities. While the third concern he lists is a social one, and involves the impacts caused by

\textsuperscript{22} Ibid.
people being out of a job: a higher level of poverty, poor housing- and living conditions, and a worsening in crime levels.\textsuperscript{23}

If we seek to make cities more ‘economically efficient and competitive in terms of the global economy’, is it not better to leave the development more up to the market forces? There are different views on this. Mark Peel, for instance, argues in favour of

"not interfering with market mechanisms, and ensuring that anything private actors can do ‘better’ is left to them."\textsuperscript{24}

Robert Cervero also claims that both in financial terms and also in a developmental sense the private sector is better equipped to make development decisions than the public sector. His stand is there is no reason why private enterprises cannot successfully finance and organise infrastructure as long as they already dictate land development.\textsuperscript{25} However, by letting the market control much of the development in society, there is always the fear that the powerful groupings will take advantage of the weaker ones. Former Prime Minister from the Australian Labor Party, Paul Keating, precisely argues,

“the market is a dumb mechanism. It does not establish priorities, it does not assert social goods, it does not assert the social value of some institutions over

\textsuperscript{25} Cervero: “Transport and Land Use. Key Issues in Metropolitan Planning and Smart Growth”. In Australian Planner, Volume 38, 2001, page 33.
others...The market does not – and never will – protect the weak from the encroachment of the strong.”

Keating’s arguments should, in this case, weigh heavier than those of Cervero and Peel. The former PM claims we should not be ready to accept a development where the affluent will strengthen their position over the poorer. Poverty is an increasing problem, and the gap between the rich and the poor is only getting bigger. By not allowing this to increase, though, and instead focussing on social values that are closely linked together, such as the fight against crime and poverty, politicians and developers will send a clear and unmistakable signal to the opposition.

Frank Stilwell suggests an ‘environmentalist’ approach to decentralisation, along the lines of the one suggested above. His claim is that due to the large energy consumption and level of pollution created in a city, a suitable way to reduce this is to decentralise. But merely spreading activities out does not mean they become more environmentally friendly. A restructuring of cities in accordance with more ecological principles is also needed. When trying to limit the level of pollution in the city core, a key word is a well-functioning public transport system. Only by providing such a system, does it become possible to limit dramatically total pollution. This is due to people needing an alternative to the use of their private car. Decision makers cannot merely remove folk’s ability to drive motor vehicles into the city core without providing a feasible alternative. This is an often-quoted problem that needs to be solved.

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28 Ibid.
There are numerous instruments that can be utilised in order to achieve ‘decentralisation’. Frank Stilwell lists four ways to enhance decentralized growth.\(^{29}\) The first is when a state government increases its investments in infrastructure, and other services, in non-metropolitan areas. By doing this, a state government makes it more attractive for people to relocate to more remote areas. These areas will, due to government-initiated investments, be turned into prosperous regions, which will make them attractive places of residence. However, looking at Gough Whitlam and the DURD initiatives, it has already in this text been argued they were not successful partly due to the lack of cooperation between federal and local authorities.

Secondly, what becomes important in encouraging businesses to locate in these non-metropolitan areas is their direct financial gain.\(^{30}\) There needs to be clear advantages for those who choose to relocate. Governments can make it worthwhile by, for instance, introducing price policies, subsidies and cheap loans to mention but a few means of financial encouragements. If the financial gain for those involved is only minor, the likeliness of many relocating to such decentralized locations is small.

Thirdly, businesses can be forced to leave the metropolitan area due to strict controls on ‘building and land-use’.\(^{31}\) Implied in this is that they are being forced out of the inner city areas due to cramped conditions. By allowing firms to set up their business in the least congested areas, space is less of a problem. The flip side of such a policy, however, is that instead of firms actually relocating to certain non-metropolitan areas, as desired, they might move overseas or just close down altogether.

\(^{29}\) Ibid., p. 169. The discussion of the following four examples has all been doe with the listing on page 169 in mind.
\(^{30}\) Ibid.
\(^{31}\) Ibid.
Fourth, and last of the points raised by Stilwell, is the financial support of people relocating. However, this might not be the strongest argument when deciding whether to stay or go. All in all someone’s closeness to their place of residence, including friends, family and job, will probably weigh much heavier than the limited sum of money they receive in direct support to aid their moving.

Stilwell quotes Howe (1991) when saying that the costs of providing amenities such as schools, hospitals, water, a sewerage system, and roads, to mention but a few, on the outskirts of the capital cites have risen to $47 000 for each new house. With such a high price for developments it might not be as desirable to continue developing in large-scale, according to Stilwell. According to the argument in this thesis it is of importance to strengthen the already existing core areas, instead of creating totally new cities. In the Sydney metropolitan area this is the case for Chatswood, Hornsby and Parramatta. Instead of investing $47 000 on amenities for each new house, this money can be directed into giving the core areas a more diverse entirety.

Neoclassical economists highlight the importance of the market in order to use resources efficiently. The author of this thesis agrees with Frank Stilwell when he finds the same economists also admitting there are problems with a free market solution. These are especially connected to ‘public goods, externalities, monopoly and other market imperfections, economic stability and equity’. Firstly, there is the concern over public goods such as a well-functioning and widespread public transport system. These are the

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32 Ibid.
33 Ibid., 201.
34 Frank Stilwell, Reshaping Australia, p. 254.
type of goods that are ideally being collectively financed and made available.\textsuperscript{35} In a market economy there are doubts over whether such an extensive system will actually be offered. It is more likely that these services will be offered in the inner city. A finding in this thesis is the need for a substantial overhaul of the existing public transport system. Due to some of the arguments put forward by scholars above, I find the idea that a good enough public transport system can be provided purely by market forces rather fanciful. Hence, this type of service should be left to the government to cater for.

Secondly, are problems linked to ‘externalities’.\textsuperscript{36} The claim is that:

\begin{quote}
\textit{“Neoclassical economists concede that where private costs are out of line with social costs the market does not result in optimal allocation of resources.”}\textsuperscript{37}
\end{quote}

In the case of the urban area, outcomes such as traffic congestion, which results in a higher level of pollution, are apparent problems. Because a free market system in theory is more profit focused than concerned about the environment, it can be suggested these environmental problems are more likely to occur in a free market system than in a society where the government is more controlling of the development. But what needs to be realised is that unless there is an alternative to the use of one’s motor vehicle, people are inclined to use their private means of transportation as much as ever, because it is a necessity to get from A to B. And this occurs no matter who is largely controlling the development.

\textsuperscript{35} Admittedly, though, public transport has quasi-public goods aspects.
\textsuperscript{36} Frank Stilwell, \textit{Reshaping Australia}, p. 255.
\textsuperscript{37} Ibid.
Thirdly, additional market failures are ‘monopoly and other market imperfections’. Moreover, these create a stronger regional dependency. This is especially true in smaller areas where the argument is that there is more likely to be a divergence from perfectly competitive conditions. These regions are vulnerable due to decisions affecting companies located in their area being made with global strategic objectives in mind and not only the future of one or two branches. Hence, the region’s economy is equally unstable. It can then be argued in favour of governmental initiated industry due to its superior social role.

Stilwell suggests an alternative way to utilise urban and regional policies to pursue greater social equity. The more developed regions have been able to make policies that have enabled them to strengthen their development even further. This has unfortunately created an even bigger gap between the richer and poorer regions. If this situation continues the inevitable result will be that the more affluent regions will continue to attract investments that will further widen the gap. Investments do not necessarily need to be in the sense of the development of a firm, but can also result from prestigious festivals or similar types of events.

The categories used to describe the shortcomings of the ‘economic rationalism’ can also be utilised on ‘radical interventionism’. ‘Public goods’ is the first point. Investments in this area are positive due to the increased amount of jobs it creates. Furthermore, it can be put in regions where the need for such amenities is large, with

38 Ibid.
39 Ibid., 256.
40 Ibid.
41 Ibid. The following section is borrowed from Frank Stilwell. This is an important explanation in describing the possible advantages this branch will have over the one discussed before.
something that will increase the district’s attractiveness. How then are we to finance these goods? Stilwell suggests a widely used way: an increase in the tax burden on income, or on wealth.\textsuperscript{42} He also correctly adds that the overall taxation level in Australia is low compared to other comparable countries, so an increase will not hit too hard.

Secondly, there is the issue concerning ‘externality’. Especially important are concerns linked to urban congestion and pollution. These two are then easy to associate with the fight between urban and rural policies. At the core here is the required shift from private to public transportation. A way of doing this is by largely increasing the cost of using private motor vehicles, while at the same time lowering the price level on buses, trains or trams. Simultaneously there is a need to make the public transportation system more attractive through an expanded network, increased safety, enlarged services and heightened reliance. However, this is not enough. According to Stilwell there is, for instance, a need to ensure that when designing new cities environmental questions are also linked to housing and energy policies.\textsuperscript{43}

The third issue is ‘equity’. Equity reflects, for example, directly on the difference in income level and social status between parts of the metropolitan area. This can be improved through

\textit{"more progressive tax scales, fewer tax exemptions from which high income groups are the principal beneficiaries, and possibly new forms of inheritance and wealth taxation."}\textsuperscript{44}

\textsuperscript{42} Ibid.
\textsuperscript{43} Ibid.
\textsuperscript{44} Ibid., p. 261.
In order to enhance the capacity of some local governments their income level must be heightened to give them a stronger ability to finance these services.

Number four is the need to deal with economic ‘stabilisation’. This can be done with the initiation of policies that creates a wide pattern of employment. Stilwell suggests that of importance are strong

“regionally targeted industry policies and a more expansionary and regionally targeted fiscal policy.”

Due to this a more stable economic situation can be ensured. It is of vital importance to secure a wide foundation of industry in local areas as well. Too many times it has been seen that when the corner stone in the local economy disappears, the area goes into recession. In 2001 the Australian Broadcasting Corporation ran a report on the La Trobe Valley as an example of this. The Valley is now in a deep recession and is experiencing a high unemployment rate. The area faces large difficulties in moving past the current problems. For the ones that have seen their jobs at the coal plant disappear, there are no other alternatives. Hence, with a stronger and more diverse industry many areas would stand stronger in the battle to move past problems like these.

The underlying argument in this section of the chapter is that the market should not solely provide services and amenities in cities. The reason for this is the market’s tendency to put financial gain ahead of concerns over issues such as traffic congestion, the related issues of air- and noise pollution, or more largely, environmental protection

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and resource management. Therefore, there has to be a situation where both the market and the government are important actors. The Scandinavian countries have created for themselves such a viable combination. Probably the best reason then for not solely relying on the market is as Paul Keating said earlier; the market is not created to provide for the poorer ones. Hence, if we want to secure a situation where everybody is being catered for in a more impartial manner, we cannot allow for too large, or total, market domination.

New developments or Urban Consolidation?

‘Urban consolidation’ concerns itself with issues such as housing, transportation, and social inequality in the urban context.\(^{47}\) Its main argument is the creation of a more compact urban society, where every amenity people need is found in fairly close vicinity to where they live. Forster refers to ‘urban consolidation’ in the following way:

\begin{quote}
“urban consolidation involves attempting to reduce the rate of suburban expansion by 1) housing more people in the existing built-up area and 2) reducing the average size of new housing allotments on the urban fringe.”\(^{48}\)
\end{quote}

\(^{47}\) Clive Forster, *Australian Cities*, p. 69.
\(^{48}\) Ibid. p. 131.
Patrick Troy points out that the meaning of the term ‘consolidation’ has changed over time.\[^{49}\] He lists several possible explanations to its meaning, which includes the utilising of vacant properties, or simply ensuring the city does not become too spread out. Troy also includes the transformation of neglected urban areas into productive use as a possible explanation of the term ‘consolidation’.\[^{50}\]

Richard Cardew of the Centre for Environmental and Urban Studies at Macquarie University, argues that a more widespread support for ‘urban consolidation’ has risen in recent years.\[^{51}\] The ‘gentrification’ process that has been seen in Australian cities, Cardew claims, is evidence of this.\[^{52}\] ‘Gentrification’ is a process where older working class neighbourhoods are being transformed into residential areas for people from middle- and upper class groups.\[^{53}\] In Australia this process started by the late 1960s, and a much-used example of areas where this has occurred, is Paddington and Darlinghurst in Sydney.\[^{54}\] In the later years Redfern has experienced some of the same. Forster describes this as a situation where these areas were renovated and the property values then rose. The result of this transformation was that these areas became more popular with the in-crowd.\[^{55}\]

Richard Cardew finishes his argument by stating he is not opposed to ‘urban consolidation’. He finds it to create a situation where it can be made better use of existing land and infrastructure, and the variety of housing is also greater.\[^{56}\]

\[^{50}\] Ibid.
\[^{51}\] Richard Cardew in Australian National University Research School of Social Sciences, Metropolitan Planning Australia, p. 1.
\[^{52}\] Ibid.
\[^{53}\] Clive Forster, Australian Cities, p. 98
\[^{54}\] Ibid.
\[^{55}\] Ibid.
\[^{56}\] Richard Cardew in Australian National University Research School of Social Sciences, Metropolitan Planning Australia, p.10.
University of Sydney claims in a convincing way that there are basically four reasons why we can expect a revival of Inner Sydney. Daly argues historically people moved away from inner city locations due to increased wealth, car use and also large families. However, in the future the proportion of people over 65 will increase from “the current level of 12% to 17.5% in 2021 and will reach 23% in 2051.”57

In addition to people merely becoming older, policies throughout the 1990s have made it possible to relocate to inner areas. Most wanting to do this are in seek of the urbanity that cannot be found in the suburbs. The last few decades we have seen a transformation of certain neighbourhoods into more lively places where office buildings or warehouses no longer dominate the landscape. A consequence of the popularity, and desire to move ‘downtown’, is higher rents. In order to move into the city you need to have a strong financial backing. According to numbers used by Daly, showing the trend from 1993 to 1996, we see a price increase of 26 percent in the central city, 33 percent in the Lower North Shore, 33 percent in the Inner West, and 38 percent in the Eastern Suburbs.58 This leads us directly over to the next point, facilities. This factor is very important for many relocaters. Many list access to cultural centres, sporting facilities, attractions, jobs, and shopping, as important. In Sydney, most of these can be found in close vicinity to the inner areas. Lastly, Sydney has been the main international city in Australia for many years. It has followed the pattern of other global cities like New York and London when attracting activities linked to such a status, like the stock exchange.59

59 Ibid.
All these factors are taken into account when people decide where to live. Some of these are more important than others, but they all matter.

What needs to be prevented, or limited, is a city-outlay where commuters have to travel long distances every single day in order to get to work. Today the pattern suggests many people live and work in two different suburbs. The proportion of people who live in a suburb and work in the central business district is, however, declining. At the same time the importance of new centres such as Chatswood, Hornsby and Parramatta is increasing. By strengthening the development process seen in such locations, commuting time can be limited. By this I suggest cities like Chatswood, Hornsby, and also Parramatta, are core areas within the metropolis. If they continue to experience a similar development to the one they have seen, commuting patterns will be altered. With the strengthening of the economic foundation in these already existing cities, we are able to transform people’s commuting patterns by enhancing employment opportunities closer to where they live.

As we approached the 1990s urban issues were once again put in focus, as mentioned above. There had not been an explicit policy for cities since the days of Whitlam and the DURD. Orchard makes a valid point when he claims the newly found interest for urban questions came as a result of sky-high property prices, especially in Sydney. The Hawke government ended up holding a conference in March 1989 that would hopefully give valuable answers on how to solve this problem. Its advice was

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“to release Commonwealth land for housing and improve land supply in each of
the major cities, and to accelerate the reform of planning and building
regulations and approval process.”  

For Sydney this was made evident with two reports from 1993 called “Sydney’s
Future: A Discussion Paper on Planning the Greater Metropolitan Region”, and the
Discussion.”

Here it was argued in favour of:

- “a more compact city…getting more out of new and existing
  infrastructure, with improved transport links, and bringing jobs,
  housing and facilities closer together;
  a better environment…more public transport use;
  a more equitable and efficient city, with improved services provision
  and accessibility, better location of jobs relative to housing...;
  effective implementation of the strategy...”

John Black, who outlines these reports, is a strong supporter of ‘urban
consolidation’. He suggests that redeveloping already existing cities is a better alternative
than creating new ones. This is what I have argued throughout this thesis as well: it is
more desirable to enhance the development spotted in certain core cities of the Sydney
metropolis. Building totally new cities will become a strain, and also an unnecessary

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61 Ibid. p. 69.
62 John Black, “The Provision of Transport Services.” In Patrick Troy (ed.), Serving the City. The Crisis in
Australia’s Urban Services, Pluto Press, 1999, p. 84.
expense, on federal- and state budgets, considering there already exist highly developed suburbs. Black emphasises the need for housing to be located adjacent to public transport, jobs and other necessary amenities such as parks, hospitals, libraries and other publicly provided services. By further developing certain communities, with many services adjacent to one another, it becomes achievable to limit the use of long car journeys. Employment centres already located in these suburban core areas, will need to be provided with links to public transport, entertainment facilities and housing (which also includes cheaper housing).63

These arguments support urban consolidation, which was also supported by the Vernon Report.64 Its core argument was that new developments on the city outskirts are not desirable. The report finds in favour of encouraging growth in already existing smaller towns. Instead of investing a vast amount of money in decentralisation, it is advantageous to develop already existing areas within the metropolis. The report sensibly questioned whether it was the appropriate time to spend vastly on a decentralized development. The answer given by the report was to not generally invest money in decentralized areas, but on the contrary in already existing areas with a certain level of development.65 This is what I have argued throughout the thesis. Instead of investing a large amount of money on creating new cities, why not make use of the areas with an already existing infrastructure and with a potential to become regional core centres.

63 Ibid., p. 82.
Chatswood, Hornsby and Parramatta have such status now, and by connecting smaller areas nearby to these, and other, centres, there is a real possibility that they can become even more important in the future. To prolong this view, I will connect it to Raymond Bunker’s observations on benefits created by urban consolidation.

Bunker argues these are the benefits:

“1. more compact urban form which would require lower levels of investment in infrastructure;
2. greater variety in choice of dwelling type;
3. reduction in average trip length which in turn would reduce consumption of liquid fuels; and
4. reduction in urban expansion which would reduce the taking of highly productive agricultural land.”

Bunker’s ideas are concerned with whether the benefits of consolidation are correct. My main argument in this thesis is in accordance with Bunker’s ideas about this. Bunker argues for investing money in already built up areas, which is especially important in this context, because it will give the need for lower investments in infrastructure, and a reduction in average trip length, which again will secure less use of liquid fuels, and will help improve the environment. He claims that making the urban areas more compact, and securing a stronger focus on already existing core areas would

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lead to reduced travel times, which could lead to more use of public transportation and less pollution from the use of motor vehicles.\textsuperscript{67}

Patrick Mullins argues in favour of the creation of ‘urban villages’ in Australia. He wants these villages to be a mixture of housing and employment opportunities adjacent to one another.\textsuperscript{68} The close proximity between home and place of work, means that it is now possible to decrease many people’s everyday commute. The type of system required in these new areas is not a vastly outspread one. What this type of city needs is a system that covers smaller areas than is the case for developments going from suburbs to the CBD. However, the problems linked to building these types of cities from scratch, are severe. This is probably the best reason for strengthening already existing cities, instead of starting from scratch.

Forster suggests that with decentralization, there is a push towards either an increased population in already existing smaller cities, or the creation of totally new ones. This latter is in the lines of what British writer Ebenezer Howard suggested.\textsuperscript{69} Forster finds the situation to be a win-win one for several groups. Firstly, for the people who will be a part of a new city development instead of adding to already existing metropolitan areas; but also for residents of these major cities, because they will as well benefit from a shorter commute to work, and less congestion than would otherwise occur.\textsuperscript{70} However, when viewing the result of highly planned cities such as Albury-Wodonga and Bathurst-Orange, it becomes evident that plans for such areas are better than the actual

\textsuperscript{67} Raymond Bunker in Australian National University Research School of Social Sciences, Metropolitan Planning Australia, p. 33.
\textsuperscript{69} Clive Forster, Australian Cities, p. 67.
\textsuperscript{70} Ibid.
implementation of these. For instance, a major problem with Albury-Wodonga was that it was a joint venture between the Federal governments in New South Wales and Victoria. As time passed, it became clear that there were problems in the execution of real policies. The project suffered, for instance, under the lack of cooperation, and can today be claimed to not having fulfilled its dreams. Additionally, one can wonder what it would require to redirect sufficient funds to this type of developments from other areas. Would it, for instance, be sufficient with a change of government, or are there powerful groups that need to see their influence limited? Even though, then, Albury-Wodonga is the more successful of the two twin-cities, no one with knowledge about the project will ever claim it as a big success.
Conclusion.

As I have tried to show in this chapter, there are contradictory opinions as to what is the best result regarding urban development. In order for us to gain a firm insight into the ongoing debate about these issues, a historical- and developmental discussion is vital. Only then it does become clear what defines the Australian development over the last few decades.

Some authors, such as Black and Mullins, argue in favour of a further development of the core cities on the outskirts of the original ones. This is a modified version of what the Whitlam Government and the DURD argued in the 1970s. Whitlam and DURD initiated projects that would create entirely new decentralised cities, which would be a strain on state and federal budgets. The enhancement of the core cities, on the other hand, would secure limited urban problems, such as traffic congestion and air- and noise pollution. Opposite to this is the view where the centralist vision is argued. Supporters of this find the proximity to a financial centre and attractive property markets.

These core cities are a type of society created by strong government influence, as opposed to the situation where the market is the major participant. Issues concerned with these questions were examined in the section where Frank Stilwell’s discussion was used, and the conclusion was drawn that the market puts financial gain ahead of issues such as air- and noise pollution.

I have argued that the continued development of these core cities, is not likely to create more driving, since most people already work in a local government area close to where they live, and not in the central business district.\footnote{Forster argues that only 13 per cent of total work force in the Sydney metropolitan area works in the CBD. Clive Forster, \textit{Australian Cities}, p. 57.} This is why it is of vital...
importance that planners and decision makers do what they can in order to further develop cities outside the original.

If we manage to create jobs closer to where people live, it is possible to limit the numbers of cars entering the downtown core. In these core cities we can also build a vast public transport system, which caters for work trips that will now be limited in distance. After all, a high number of commuters in the corridors between the suburbs and the CBD are already using public transportation. According to the NRMA most people who use a private car to get to work have valid reasons for doing so, which indicates it will be difficult to get more people to use public transport in these corridors.

Overall we need to be aware that people are inclined to use their car for certain trips, such as going shopping or to soccer practice. This is the case partly because it is more flexible to utilise a private motor vehicle, but also because the existing public transport system does not cover every part of the metropolitan region equally well. However, by creating a far-reaching and flexible transport system, it is possible to ensure a commute mostly reliant on the use of public transport instead of one's private motor vehicle.
Chapter 4

Sydney Transportation Projects: Past and Future.

In this last chapter focus will be on proposed and already finished road projects in Sydney. The ones chosen are the Sydney Harbour Tunnel (SHT) and the proposed Cross City Tunnel (CCT). When concerned with the SHT the discussion will be focused on the process that led to the decision being made in favour of this suggestion. Especially important here is the disagreement between the Department of Main Roads (DMR) and the Department of Environment and Planning (DEP). The reason that the SHT is the only completed project that will be discussed thoroughly, is due to its vast impact upon cross-harbour traffic.

First there will be a description of the project before we move on to a discussion. In the discussion, objections made, for instance by other government departments, will be raised. Furthermore, it will be appropriate to connect this discussion to other and more theoretical thoughts such as the ones launched by John Black on ‘accessibility’, and Bent Flyvbjerg’s reasoning on power versus rationality.

The discussion will be linked to important findings such as the before described ‘Parkinsonian Law’¹, and the necessity to strengthen already existing core cities with a strong position in the metropolis. The question is whether these projects will help fulfil goals put forward by the decision makers. It is a stated Government policy to limit the use of private vehicles when entering the Sydney Central Business District (CBD). As a

¹ See earlier chapters for discussion. (More road space creates more cars.)
result of this, decision makers encourage the use of the public transport system. Yet another important goal is connected to the question concerning land-use; namely the promotion of a better and more sound distribution of jobs in the metropolitan area.

In addition to these purely road related projects there will be a brief description of proposed projects connected to public transport: the extension of the light rail system, and a new heavy rail line between Central and Circular Quay, to mention but a few. Another important suggestion is connected to the use of bikes and walkways. These ideas are discussed in the part concerning the Bikeplan 2010 proposal.

The main argument in this thesis is, as argued in earlier chapters, in favour of improving already existing core cities. However, it is not possible to do this by forcing companies and families to relocate to the suburbs. There will always be a need for a CBD, where we find many companies who do not find the idea of relocating appealing. Hence, there is a need for improvements in, and adjacent to, the CBD as well. In this chapter there will be a discussion of one already completed project that has influenced the way in which people travel to the CBD: the Sydney Harbour Tunnel. In addition there will be a discussion of projects aiming to improve the future of the city, such as the proposed Cross City Tunnel.

With the after all large workforce found in this area, the CBD is obviously an important part of metropolitan planning. It is therefore a necessity to secure a well functioning transport system in this area as well, and not only deal with issues concerning suburban regions. This chapter is an important part of such an aim, and the discussion

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2 Abigroup Limited, Road/Rail Harbour Crossing, Australia, March 1987, p. 40.
will try to clarify some aspects surrounding questions linked to completed and proposed projects in, and adjacent to, the Sydney CBD.
Sydney Harbour Tunnel.

This section of the chapter will concern itself with the SHT. The Tunnel project represents the one completed project that will be discussed. Firstly, the project will be described, before being followed by a discussion later in this section. The arguments that have been used for, and against, this development will be examined.

Construction of the Tunnel began in January 1988 and was completed in August 1992. The SHT opened to the public in September 1992. It extends between Warringah Freeway on the north side of Sydney Harbour, and Cahill Expressway on the south side, and is a total of 2.3 kilometres long.

The Tunnel was built as a result of planners and decision makers wanting to relieve the congested Sydney Harbour Bridge, and make cross-harbour travel time shorter. This desire was not a new one, and had been suggested as early as 1957. Before a decision was made on the Harbour Tunnel, other suggestions had been made as well. The DEP lists several other projects that were suggested at this time:

- “A Ninth Lane on the Harbour Bridge;
- A new road crossing of the Parramatta River west of the Gladesville Bridge;

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6 Ibid.
8 John Black, Public Inconvenience. Access and Travel in Seven Sydney Suburbs. Urban Research Unit Research School of Social Sciences, Australian National University, 1977, p. 4.
• The Warringah Council’s proposal for a light rail line from Warringah to the City;

• The Abi Group proposal for a new rail tunnel between Wynyard and St. Leonards with the existing rail lines across the Bridge replaced by two road lanes;

• Accelerated development of a combination of the Gore Hill Freeway, the Eastern Distributor extension and the Ninth Lane on the Bridge;”

The DMR raised several queries about the Harbour Tunnel. Firstly, and very important, are the calculations made in the Environmental Impact Statement (EIS). It was argued the expected traffic growth would be about one per cent per year, between 1986 and 2011. This estimation was made on the grounds of a trend that had started in 1965. Between 1965 and 1975, traffic growth was three per cent. The following decade a downturn in traffic growth started, when it declined to two per cent. On this background, mathematical calculations were made, and the result was a prospected traffic growth, of only one per cent for the period between 1986 and 2011.

One bold statement that was put forward by the DMR was:

“Regarding public transport in general, the Tunnel is not expected to divert a significant number of passengers away from rail or bus because choice of mode is primarily dependent upon car availability and parking facilities.”

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10 Department of Main Roads, New South Wales, Sydney Harbour Tunnel, p. 11.
11 Ibid.
12 Ibid.
Although the availability of parking and ownership of a motor vehicle play a part in this picture, they are not of sole importance. Especially important is the access to roads. There are many examples of this. A good example of a car dependent city is the American city of Detroit. Being home to the three great automakers Ford, General Motors and what was formerly known only as Chrysler, one can only imagine the difficulties decision makers and planners would have faced, when arguing in favour of a vast public transport system. Detroit now has an extensive highway system with a number of interstate highways running through the city and its suburbs. But also there the difficulties of getting from place to place, especially in the am and pm peak hours, are substantial.

Another example is the situation that actually occurred after the SHT was opened. The total increase in traffic was 13 per cent by the following year; while in 1998 the total traffic had augmented by 30 per cent.\textsuperscript{13} These numbers make it justifiable to question the building of, and also the calculations for total estimated traffic in, the Tunnel.

Secondly, another important point made against the Tunnel, was connected to the idea of whether this was the area that was in utmost need of a vast improvement to the road network. This can understandably be asked, since the growth region at the time was considered to be the Western parts of the metropolis. The DEP argued that the road corridor crossing Sydney Harbour was not where improvements were needed the most. Instead, the Department viewed corridors going to Parramatta and the CBD, from the west and southwest, as potential problem corridors.\textsuperscript{14} One aspect that has to be drawn in is the observation of who would gain benefits of the SHT. The Tunnel would improve

\textsuperscript{13} City of Sydney, \textit{City on the Move}, p. 11.
\textsuperscript{14} Department of Environment and Planning, \textit{Proposed Sydney Harbour Tunnel}, p. 3.
access from the Northern Suburbs to the Eastern ones. In this area the more affluent people in the Sydney region reside. In other words, it can be argued, that this was a project made to improve the lifestyle of a few. The SHT would, in particular, accommodate many living in the northern suburbs, and in the Manly Warringah area.\textsuperscript{15} Nevertheless, what is interesting with this decision is that it was made with the Labor Party in office. The controversy surrounding the project can, though, (together with the controversy surrounding the monorail), be argued to have weakened the Labor Party’s position, leading to its loss of the 1988 election to the Liberal-National Party coalition, after 12 years in office.

Thirdly, the DMR claimed that the air quality would improve as a result of the development suggested in the report.\textsuperscript{16} Also this can be questioned. According to Gary Glazebrook, between 1961 and 1981, there were several developments that did little to improve the environment. First, each person’s use of public transportation was halved. Second, people’s use of cars were doubled, and thirdly, average petrol consumption rose by around 74 per cent.\textsuperscript{17} Although these numbers are not directly taken from a study made on the area covered by the SHT, they cover changes in Australia’s capital cities, which include Sydney. With these numbers in mind, it can be alleged that this development had gone on for many years, when the proposal for this Tunnel was made. More use should have been made of these findings.

\textsuperscript{15} David A. Hensher, Helen C. Battellino and Rhonda Daniels, \textit{The Proposed Eastern Distributor Toll Road: Traffic Diversion and the Behavioural Value of Travel Time Savings}. Institute of Transport Studies Graduate School of Business The University of Sydney, November 1994, p. 8.
\textsuperscript{16} Department of Main Roads, New South Wales, \textit{Sydney Harbour Tunnel}, p. 30.
If only viewing the traffic- and environmental aspects of the project, there was clearly no justification for the SHT. Although there might have been a powerful constituency working in favour of the Tunnel, fact remains that total cross-harbour traffic has increased due to the development of the SHT. Numbers from the City of Sydney show there has been a total traffic increase of as much as 30 per cent since the Tunnel opened. As a result of this, the estimations of an increase of 2.5 per cent, made by the DMR, can be claimed to be inaccurate. These miscalculations can as well be used as proof of there not having been any need for the Tunnel. Perhaps the appropriate solution instead should have been to build a ninth lane on the Harbour Bridge, as proposed by the DEP.

The DEP found that the project should not have proceeded. The department’s conclusion is supported in this thesis. The DEP justified this partly with the economic outlook. It is, however, also important to question the calculations that were made as to the traffic increase that would occur. The numbers projected in the proposal, and the numbers seen years later, are miles apart. Maybe the decision makers were more inclined to please the lobbyists, than to make a viable decision. This is, then, what was argued by Bent Flyvbjerg in Chapter 1 to have been a battle between ‘power and rationality’, where power emerged as the stronger of the two. In the case of the SHT, the more rationale arguments from the DEP were defeated by the stronger coalition of the DMR, the motorist lobby, the local constituency, and the Labor Party in office in NSW at the time. Additionally, other issues such as the seniority of the Roads Minister in State Cabinet due to the large budget of the DMR, and also the semi-independent source of much roads

18 City of Sydney, City on the Move, p. 11.
19 Department of Main Roads, New South Wales, Sydney Harbour Tunnel, p. 20.
funding through the Commonwealth-State Roads Agreement, which made the DMR more immune from Treasury pressure, may also have influenced the decision.

The discussion now moves to a debate concerning itself with what occurred between the DMR and the DEP in the case of the SHT. According to the DEP, the proposal was not in accordance with ‘Regional Planning Objectives’. These planning objectives were attached to:

“the promotion of jobs in areas of population growth, such as the south, south-west and western parts of the Sydney Region.”

Western Sydney is expected to be the growth area in the metropolis, with an estimated increase in population of 46,700 per year, for the next fifteen years. This brings it to a total of 2 million people, which is a total increase of 700,000. Numbers from the Roads and Traffic Authority (RTA) indicate the same. According to a publication by the DEP, there are now growth areas in the Sydney metropolitan area that are as much as 50 kilometres from the Sydney CBD.

The DEP was opposed to the SHT also on the grounds that it would lead to an increase in jobs in the Sydney CBD and in North Sydney. These areas are also

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21 Ibid.
experiencing a declining population. With the increased road access leading to the CBD, there would be a real danger of more people choosing to drive instead of making use of the public transportation system. There would then be a justified fear of Sydney streets becoming even more congested, and the pollution level worse.

The DMR argued against the DEP’s fears. Its view was that it is better to encourage population growth in areas already well covered by public transportation, than having to create new centres with the large investments then needed to build a well-functioning public transport system.25 It justified this, referring to numbers put forward by the DEP, where the latter projected an increase in jobs in the Sydney CBD by as much as 30,000 jobs between 1981 and 2011.26 This follows the downward trend between 1971 and 1981, where the number of jobs fell from 220,000 to 189,000 in the Sydney CBD. Other areas that were forecast as growth areas were North Sydney, St Leonards, Chatswood, Hornsby, Brookvale/Dee Why, Manly, Pymble/Gordon and Neutral Bay/Cremorne, with a proposed growth of 36,000 jobs.27

Numbers from the City of Sydney also indicate there has been a sharp increase in jobs in Central Sydney between 1976 and 1997. Within this time frame, the workforce ‘swelled’ from 180,000 to 213,000.28 From 1996 to 2016, the RTA projects there will be an increase in the working force in the CBD and the Ultimo-Pyrmont area from 235,400 to 258,400.29

25 Department of Main Roads, New South Wales, Sydney Harbour Tunnel, p. 34.
26 Ibid.
27 Ibid.
28 City of Sydney, City on the Move, p. 8.
The DEP feared that the level of public transport patronage would fall with the opening of the SHT.\textsuperscript{30} Although it is argued in this thesis that improved road access will create more driving, it is not the only factor that will influence this. In total, increased driving is likely to occur when car ownership goes up, but also with more accessible parking facilities. Numbers from the Total Environment Centre point towards a growth in car ownership of roughly 200,000, within the two-year stretch from 1992 to 1994. A projection is also being made for a 30 per cent increase by 2011.\textsuperscript{31} According to the City of Sydney there has been a large increase in off-street parking in the City core. There has been almost a doubling from 17,600 in 1976 to 30,000 in 1997, making it 166 spaces per thousand workers as opposed to 109 at the beginning of the period.\textsuperscript{32}

According to the DMR, 75 per cent of trips to the Sydney CBD were made by public transport. On the other hand, merely 50 per cent of commuters made their trips to the North Sydney CBD by public transport.\textsuperscript{33} The DMR then argued that these numbers would not have been reached if these jobs were to have been relocated to more outlying areas. This was, and probably is, an accurate observation.

In other words, a fall in the use of public transport can be estimated with a large relocation of jobs to suburbia, solely due to public transport being more or less non-existent in many outer suburbs. However, if the appropriate level of funding were aimed at these areas, it would be achievable to raise the level of public transport use in the outer areas as well. The way it is now, Sydney CBD has a very high level of public transport usage. According to numbers presented in \textit{The Sunday Telegraph} as many as 400,000

\begin{flushleft}
\textsuperscript{31} Total Environment Centre (Sydney NSW), \textit{Sydney’s Future}, p. 28.
\textsuperscript{32} City of Sydney, \textit{City on the Move}, p. 9.
\textsuperscript{33} Department of Main Roads, New South Wales, \textit{Sydney Harbour Tunnel}, p. 35.
\end{flushleft}
people catch trains in the evening peak.\textsuperscript{34} At the same time it must be emphasised that the largest investments in public transport are seen in the city core. Both Randal O’Toole and Gary Glazebrook argue this, as discussed in Chapter 2.\textsuperscript{35} It can be questioned then, why planners and policy makers have not initiated more projects in outer lying areas, with a strong employment growth. The pressure from the commuters, travelling to and from the city every weekday, is large. The trains are close to reaching their capacity level, in the rush hours. This is an issue that will be discussed further down.

The DEP found the ‘Traffic projections to be unsound’, and that ‘Arterial roads are nearing saturation’.\textsuperscript{36} It was argued, that the projections for future traffic, did not have any ‘validity’.\textsuperscript{37} The main argument was that there were other road corridors suffering more severe congestion. Examples used in this connection were

\begin{quote}
\textit{“corridors oriented to Parramatta from most directions and to the Central Business District from the west and south-west.”}\textsuperscript{38}
\end{quote}

Furthermore, the objection against the proposal was a result of a fear of arterial roads not being able to cover the demand for road space. The DEP claimed the Western Distributor and the Domain Tunnel did not have sufficient capacity to deal with the peak hour traffic coming off the Bridge and the Tunnel. They correctly concluded that, by

\begin{footnotesize}
\begin{itemize}
\item[34] Nathan Vass, “Action to ease train crush.” In \textit{The Sunday Telegraph}, August 19, 2001, p. 3.
\item[37] Ibid.
\item[38] Ibid., p. 3.
\end{itemize}
\end{footnotesize}
building the SHT, the result would be increased peak hour traffic through city streets. The DMR’s reply was that the DEP had made some mix-up when doing their calculations. Mix-up or not, the level of traffic in the city has increased substantially over the last decade, and the congestion is now worse than ever.

The DEP hired independent experts from the University of New South Wales (UNSW), Unisearch Ltd. Their conclusion was:

"that the tunnel was unjustifiable on normal benefit/cost terms and would not support accepted planning objectives." 

All in all, then, the end result of this exchange of opinions was that the DEP rejected the proposal, while the DMR gave it the go-ahead. The natural question then is why did the DEP reject the proposal while the DMR gave it two thumbs up? This of course will only be speculation, but it is tempting to suggest closer ties between a strong group, such as the NRMA, and decision makers in the DMR, than between the former and the DEP. Strong pressure from the motorist lobby had contributed to the removal of the last tram from city streets in 1961. With this situation in mind, it is not too bold to claim that there could have been close ties between the NRMA and certain key people within the DMR, which gave the final outcome. Furthermore, as discussed in Chapter 1, there are important and strong lobbyist groups present in every society, also the Australian. These are trade groups, community groups, industrial companies, car-manufactures, and environmental organizations. They all try to influence the decision

39 Ibid.
40 Department of Main Roads, New South Wales, Sydney Harbour Tunnel, pp. 39/40.
41 The Roads and Traffic Authority, Private Participation in the Provision of Public Infrastructure, p. 257.
makers. Some of these groupings had a very clear economic interest in seeing the Tunnel completed. Car-manufactures and other industrial companies, such as certain entrepreneurs, would receive a lot more business if the project were decided upon. More roads would clearly give an increase in cars sold. And of course, someone had to build the Tunnel. Moreover, as already stressed, the Tunnel connected privileged suburban areas. Additionally, as indicated above, the size of the DMR’s budget may also have affected the outcome.

Focus will now switch to a brief discussion of other objections made either for or against the Tunnel project. There were some differing opinions as to whether the Tunnel project should continue or not. Several important, and knowledgeable participants, had concerns with the proposed Tunnel. Travers Morgan was one of these. Its stand was in line with the DEP- the project should not proceed.42 The main reason for this conclusion was the project was not ‘economically justifiable’.43 Travers Morgan’s report on this issue concluded that:

“...None of the options considered is currently economically warranted, nor is likely to be for several years. The NPV’s of immediate construction average around $-250 million...”44

Opposed to this was the view formed by Transfield-Kumagai. Their argument was:

42 The Roads and Traffic Authority, Private Participation in the Provision of Public Infrastructure, p. 256.
43 Ibid.
44 Ibid., p. 257. (These numbers can be found in the Travers Morgan report on this issue Chapter 7, Paragraph 7.6.)
“...the proposed Tunnel is justified on travel, economic, energy and air quality grounds...”45

The DMR agreed with this latter view. Its justification for the project read as follows:

“the four lanes will provide the necessary capacity well into the foreseeable future; a significant proportion of cross Harbour traffic will be able to by-pass the central business districts of the City of Sydney and North Sydney; the Harbour Bridge will be relieved of traffic and be able to serve these two centres, to serve traffic growth to the western side of the City Centre and to provide priority lanes for buses.”46

However, as was soon discovered when the SHT was completed, the total level of cross-harbour traffic increased severely. This can be used as evidence that the calculations made by the DMR were, at the very least, inaccurate. There would necessarily have been better ways of improving people’s everyday commute to the city centre, than by creating more road space, and thereby causing increased traffic congestion.

When viewing the calculations made by Transfield-Kumagai, and supported by the DMR, it is obvious they are at best questionable, and far from what can be described as justifiable. It is clear the decision to build the SHT was made on the basis of factors

45 Ibid. (This statement was adopted from Cameron McNamara’s findings. It was then incorporated into the EIS from November 1986, p. 15.)
46 Department of Main Roads, New South Wales, Sydney Harbour Tunnel, p. 66.
other than economic and environmental ones. Also, the calculations for an increase in traffic were a result of wishful thinking.

**Proposed Projects.**

In this section of the chapter, focus will be directed towards project ideas for the Sydney metropolis. The main project will be the Cross City Tunnel (CCT). Secondly, recommended projects will be viewed, before finishing off with a section about ideas connected to one such project.

It is imperative, at this point, to make a comparison between different projects. The CCT is probably the most dominant project proposed in recent years, and needs to be looked at in connection with the SHT. An important question is whether the CCT will work out better than the SHT. As we have seen, the SHT planners dramatically miscalculated the level of traffic increase in the years following the tunnel’s opening. Miscalculations of such magnitude will not happen again. There was also a substantial increase in parking spaces per thousand workers, growing from 109 in 1976 to 166 in 1997. With the CCT it becomes imperative to limit the level of available parking spaces. If so is done, it is possible to reduce traffic, due to problems finding parking. Furthermore, and also important, by placing traffic underground it is easier to control the total level of pollution.
Cross City Tunnel.

The Roads and Traffic Authority of New South Wales proposed the Cross City Tunnel in the ‘Cross City Tunnel Environmental Impact Statement’. The EIS described the proposal in the following way:

“Two road tunnels for travelling east-west through Central Sydney would be constructed between Darling Harbour and Kings Cross.”

This development would secure better conditions for public transportation, pedestrians and cyclists. A more in depth description is given:

“The proposed Cross City Tunnel would comprise two separate, two-lane tunnels. One tunnel would be for vehicles travelling from west to east, starting near the intersection of Bathurst and Harbour Streets at Darling Harbour and extending beneath the alignment of Bathurst and William Streets to the Kings Cross Tunnel beneath Darlinghurst Road. This tunnel would cross diagonally from Bathurst to William Streets beneath Hyde Park. Another tunnel would be provided for vehicles travelling from east to west, commencing within the Kings Cross Tunnel beneath Darlinghurst Road and extending beneath the alignment of William, Park and Druitt Streets.”

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48 Ibid., p. 0-1.
49 Ibid., p. 7-1.
The proposal is in line with general plans for the Sydney region. According to the ‘Sydney Into Its Third Century’ report, the overall objective of upgrading the existing road system is

“to improve accessibility for people and goods by catering for people’s work, educational, shopping and recreational needs and industry’s raw material, wholesale and retail sales needs.”

In this sense the proposed CCT is a viable alternative to improve the public’s conditions. As a result of this proposed Tunnel, the City of Sydney experiences an opportunity to improve other parts of the city, and make it more ‘liveable’.

This plan is viewed in a twenty to thirty year perspective for the City of Sydney. The most important projects in terms of improvements, resulting from enhanced quality of the transportation network, are a revitalising of Circular Quay, new developments concerning Town Square and a suggested Druitt, Park and William Street Boulevard.

With the new development of the CCT, certain improvements are thought to be achievable for the inner parts of Sydney. Today the Cahill Expressway separates the city from its Circular Quay foreshore. The proposed CCT will serve as an east-west connection between these parts of the City, and its suburbs. This makes the Cahill Expressway redundant, and it can therefore be demolished. In the ‘City Spaces’ document, the City of Sydney makes it clear, that another option is to relocate the

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51 ‘Liveable’ in this context is borrowed from a City of Sydney publication. In this working paper seven key principles for what makes such a city, are outlined. City of Sydney, *City Spaces. Living City Beyond 2000*, Sydney 1999, p. 4.
53 City of Sydney, *City Spaces*, pp. 11/12/13.
Circular Quay train station under ground. With these moves Customs Square will be reconnected with the foreshore.\textsuperscript{54}

If the CCT is completed in its proposed form, a lot of traffic will be removed from especially the Druitt, Park and William Street corridor. This enables planners, and decision makers, to utilise space directly opposite Town Hall to create a Town Square.\textsuperscript{55} According to the proposal, this would be a place for ‘meeting, debate, protest and special events’.\textsuperscript{56} Druitt, Park and William Street may also be turned into a boulevard.

Numbers from the RTA point towards almost 4000 motor vehicles moving east west in the Sydney morning peak hour.\textsuperscript{57} In 1998 numbers for Park Street alone were 27,400 vehicles per day, while William Street carried as much as 64,300 each day.\textsuperscript{58} Due to the total amount of cars on Sydney roads, level of air- and noise pollution has reached a point of concern.\textsuperscript{59} With potentially 4000 cars removed from the east west corridor each morning, improvements will be noticed. With this number substantially reduced, there is no need to maintain this section as a multiple lane road. There will then be room for the creation of an avenue with tree lining, benches, and wider footpaths, to mention but a few possibilities. Planners now have a golden opportunity to form an area that is much more people friendly than seen before.

\textsuperscript{54} Ibid., p. 11.  
\textsuperscript{55} Ibid., p. 12.  
\textsuperscript{56} Ibid.  
\textsuperscript{57} The Roads and Traffic Authority, The Cross City Tunnel Environmental Impact Statement, p. 2-27.  
\textsuperscript{58} Ibid., p. 2-9.  
\textsuperscript{59} Numbers for how much pollution motor vehicles cause in Sydney were listed in Chapter 2 of this thesis.
Why is there then a need for a tunnel that crosses between Darling Harbour and Kings Cross? In accordance with the RTA proposal, and plans from the City of Sydney, there is a need to complete such a development because the city is facing some serious problems. These problems are directly related to the amount of traffic on city streets. The traffic exceeds the available road capacity, which means the road system is frequently blocked. One unfortunate result of cars being stuck in traffic for longer periods of time, is high air pollution. Another severe pollution is the noise. In many parts of the city, the noise is almost unbearable. Parts of George St. and Elizabeth St. are, for instance, badly affected. But not only the pollution is excruciating. Getting around town is a test of ones patience. Because of the high level of traffic in the city, it is apparent that going from one place to another is not as swift as one would have hoped for, particularly if you are moving between areas not covered by the City Circle train line. And this is where one important problem lies - the hold-up of public transport services. As a result of the large amount of cars taking up valuable street space that could, and should, have been used by buses and other means of public transportation, people’s commute from one part of the city to another can be extensively slower than desirable. When we know many of the motor vehicles entering the Sydney CBD have destinations elsewhere, it is apparent there is room for improvement. If it were possible to severely limit the amount of cars on the city surface, these streets would have a potential to become more public transport friendly. Busses would have priority, and if the light rail were to be extended to Circular Quay, the inner city areas would be well covered by means of public transportation. The CCT is not supported by Greenways and the Total Environment Centre.60 They argue it is

“essential new expressways are not built in the inner Sydney suburbs.” Greenways and Total Environment Centre are, for instance, worried the CCT will encourage more road use and thereby worsen the air quality. However, it is of vital importance to emphasize that by building the CCT, there will not be an addition of road network available for private cars. The current on-surface streets will, on the other hand, in the longer run be freed to allow for more buses and eventually trams to dominate, as mentioned above.

Overall, then, the rationales behind developing the CCT are therefore numerous. According to the RTA, the first benefit is linked to the environmental quality of Central Sydney, while the second issue is concerned with the travel efficiency and reliability. Air quality improvements would especially be noticeable on some Central Sydney streets, and William Street would experience a considerable drop in surface traffic. There are many different factors that influence the air quality level in the centre of Sydney. While the residential population of the CBD is currently small (expected to grow to 28,000 by 2016) the number of people working there is high. In 1996 the CBD workforce was about 217,000, while expected to grow to 233,000 by 2016. At the same time as pedestrians and shoppers in some areas of the city core have been guided under ground, in walkways and shopping malls, motorists are crowding city streets. This high level of traffic has lead to an unacceptable level of air and noise pollution. With the almost 4000 motor vehicles travelling in the east west direction each morning at peak hour, it is apparent that something needs to be done. Numbers borrowed from the CCT EIS argue a dark future

61 Ibid.
62 Ibid., pp. 1 and 9.
64 Ibid., p. 15-5.
65 Ibid.
66 Ibid.
unless the Tunnel is built. Without the tunnel, streets such as Market, Park, Bathurst, Liverpool and Goulburn will all see an increase in traffic. Market will be most affected, with an estimated increase of as much as 60 per cent between 1998 and 2016. Liverpool Street follows with an increase of 26 per cent, while Park, Bathurst and Goulburn have a 13-, 12- and 7 per cent increase respectively.67

As argued elsewhere in this chapter, building a more accessible road network does not mean there will be a reduction in the total traffic volume. There is always a fear that by building more and better roads, new drivers will emerge. It has been seen elsewhere in the world, for instance in Los Angeles, and also with the opening of the SHT, as argued above. However, yet again it must be underlined that the CCT will not be an addition of road network, merely a physical alteration that enables us to control emission more easily, while at the same time allowing for a continuous development of the public transport system.

So how is it possible to avoid a situation where the surface road space that becomes available due to the CCT, is not being filled with new drivers? As suggested in official plans, there will be placed a computerised tag on people’s licence plates. This is a scheme where it is possible to control the total level of drivers entering the CBD by simply charging money for it.

When entering a certain geographical area one’s movements are registered, and a fee automatically deducted from the individual’s account, or the driver can be billed monthly. This would allow for an easier follow-up of the scheme, which might ensure its success. Furthermore, it is of vital importance to limit the amount of available parking spaces (both on- and off street ones). By implementing such measures, planners and

67 Ibid., p. 5-2.
decision makers can ensure that many new drivers will not take to the streets as a result of the now available road space. Nonetheless, a problem with this system is that it could possibly exacerbate existing social and economic inequalities.

With the vast traffic in the city core, other problems follow as well. These are linked to the efficiency and reliability of travelling. It might not come as a surprise that the time people spend travelling from place to place in Sydney, is severely altered by the hold-up they experience in the city traffic. The lack of major arterial routes in the east-west direction substantially slows people’s commute, if compared to the north-south stretch where it is possible to use either the Eastern- or the Western Distributor. Today east-west travel goes on several streets. For the westbound commute William, Park and Druitt Streets are used for the most part, while for eastbound travel this is the case for Bathurst/Elizabeth and Park/William or Liverpool/Oxford Streets.68

According to the RTA, in the inner areas of the city, traffic signals give priority to traffic travelling east-west, and not the ones going north-south.69 Considering most buses of the Central Sydney routes are directed in the north-south direction, delays are not difficult to predict.

“The majority of Central Sydney’s bus routes run on north-south streets.

Operations are affected by signal priority favouring east-west traffic. Bus

68 Ibid., p. 5-1.
journey times and reliability in Central Sydney are poor due to congestion and delays.”70

If we move our attention to what might happen if the CCT is not developed, the RTA claims there are five main points. The first point made is the expected increase in traffic in the east-west corridor; the second is the increased congestion on the city streets and the lowered travel speeds; thirdly, is, as argued above, the fear of increased travel time on city buses; fourthly, there will be more ‘emissions of air pollutants from vehicles within Central Sydney’; while the fifth, and last fear is, that there will be more vehicle and pedestrian accidents.71 All of these issues, then, confirm that the reasoning behind the CCT has been different from that of the SHT. The CCT will by contrast to the SHT reduce the commute from east to west in Sydney. More road space will be freed, making it possible to enhance the network of buses currently servicing the city. Also, it becomes achievable to alter Sydney’s oceanfront by removing the potentially redundant Cahill Expressway after the CCT has been completed.

In the case of the CCT, the powerful RTA suggested a project that will benefit Sydney. The freeing up of road space makes it achievable to re-introduce the tram to larger areas of Sydney that what is currently the case. Buses will also potentially run more frequently and be more reliable. Air-and noise pollution will also be easier controlled. Overall, then, the whole development process is in clear contradiction to what was the case for the SHT. In the latter case power won over rationality. By using Flyvbjerg’s terminology of power and rationality, it becomes evident that the CCT is the

71 Ibid., p. 5-16.
result of power (possessed by the RTA) and rationality (the CCT being the best overall solution) coinciding. This is what was stated in Chapter 1 to be a situation that is often non-existent. However, this type of sound reasoning may occur, and can thereby ensure win-win solutions to be found.

Other Proposed Projects.

Another important suggestion for the inner areas of the city, is the extension of the existing light rail line. The suggestion is put forward in the City of Sydney’s ‘City on the Move’ plan. The proposal suggests an Inner City loop that would run between Central and Circular Quay. This extended light rail line will be a valuable addition to the already existing public transport system. Numbers quoted in The Sunday Telegraph point towards the railway system in the inner core of the City running at its full capacity. If the extension of the light rail line becomes a reality, this will relieve some of the large crowds currently using the trains during morning and evening peak hours.

By the creation of an Outer City loop, a Pyrmont Bridge connection and a South-Eastern extension of the tramline, it would be ensured that areas such as Kingsford, La Perouse and Maroubra would all have an easier access to the CBD. With these plans fully or even partly implemented, the City would see an improvement to its workforce’s everyday commute. The City of Sydney also revealed plans for a new Inner City rail line, the Metro West. According to the description given, it would run in the north-south direction ‘parallel to, and west of, the existing Central-Town Hall-Wynyard line’.  

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72 City of Sydney, City on the Move, p. 19.
73 Nathan Vass, “Action to ease train crush.” In The Sunday Telegraph, p. 3.
74 Ibid., p. 16.
Although these plans are still on the drawing board, they are worthy of further consideration.

**Bikeplan 2010.**

In this section of the chapter, focus will be on plans for improving the bicycle system. The material used here is mainly the ‘Bikeplan 2010’, put forward by the Roads and Traffic Authority of New South Wales. It is part of the larger framework ‘Action for Transport 2010’. In addition to this report, there will be made references to the ‘Integrated Transport Strategy for Greater Sydney’. This is a publication by the New South Wales Government Department of Planning.\(^5\)

The use of bikes has an image problem. For many younger users, it is not viewed as ‘cool’ to utilise a bike for transportation. But instead of worrying about the lack of coolness when using a bike-helmet, focus has to be on the obvious advantages one can see with the use of bikes. The two most important ones are that it improves the individual’s health, and it does not cause any pollution (neither air or noise).\(^6\)

The reasoning behind the ‘Bikeplan 2010’ project was to gain information, in order to build a system for bicycle use throughout New South Wales.\(^7\) The first bicycle plans were made in the early 1980’s\(^8\), but with the apparent lack of funding, and bicycle related developments, one is free to ask whether these were more than just a waste of

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\(^7\) Ibid., p. 6.

\(^8\) Ibid., p. 8.
paper. The RTA questions whether elected councillors are really in favour of strengthening the bicycle network. Whenever a favourable result is reached, it is normally due to active user groups lobbying councillors in their municipality.79

The RTA raises some issues in the ‘Bikeplan 2010’ report that affects the use of bicycles. The first is the ‘lack of facilities’.80 There are not as many on-road bike-lanes as one would hope for. By not having a well-developed system, it becomes difficult to view biking as a real option, as opposed to using one’s private vehicle or the public transport system. Until such facilities are more extensively developed, we will probably not see a large increase in use of bicycles. This is a problem also seen with the public transport system: unless it is a viable alternative people will not use it.

Secondly, there is an ‘inadequate level of funding’.81 This point goes hand in hand with the first. Without an adequate level of funding, it is impossible to provide the necessary facilities. On the other hand, it is also difficult to get one’s arguments through as long as there are not many cyclists pushing in favour of increased funding.82

Safety and a lack of commitment have also been claimed from the communities as important issues to solve.83 It is not likely that anyone will let their children use their bike, or go biking themselves for that matter, as long as their safety is not being maintained. Here the RTA has an important job to do. The way it is now, many do not feel comfortable that the Authority possesses the required knowledge, or dedication, to improve this situation.

79 Ibid.
80 Ibid., p. 9.
81 Ibid.
82 Ibid.
83 Ibid.
How can then the system be improved? The apparent solution for the RTA, and the State Government, is to increase the level of funding so that it is possible to develop a more extensive bicycle system.84 By increasing funding, and thereby extending the current system, planners and decision makers have a golden opportunity to improve the level of pollution in the Sydney metropolitan area. Every improvement made is a step in the right direction, and in the longer run it is possible, due to these steps, to achieve significant reductions in air- and noise pollution.

Sydney is blessed with a nice average temperature year round. There is no snow or ice, which is the case for many European and North American cities. Due to the pleasant climate, it is achievable to make people use their bike instead of their private car. Of course, for most people it is not very likely that they will be able to ride their bike, or walk for that matter, to work because they work too far from where they live. But for some of the almost 23,00085 people living in the Sydney Local Government Area (LGA) this is an option.86 A survey presented by the DOP, stated that in 1988 as many as 923,300 people in Sydney, Newcastle and Wollongong rode a bicycle monthly, while the numbers for a weekly use was 708,000.87

Riding bicycles is not something only children do for fun. It is actually a viable alternative to the use of motor vehicles, particularly with regard to trips that cover relatively short distances. As suggested by The DOP:

84 Ibid., pp. 10/11.
86 It has been established elsewhere in this thesis that many live and work close together. With the high prices for inner city living it is a justifiable argument that many living in this area also work within the Sydney, or other nearby located, LGA’s.
“One third of car trips are estimated to be 3 km or less. These are likely to be trips to public transport nodes, convenience shopping trips etc. For many of these trips cycling could substitute for cars, as the average bicycle trip is 2.5 km.”

Although this is by no means proof that focus diverted from cars to bicycles, will secure a lower level of pollution in Sydney, and its adjacent LGA’s, it is an indication that it is possible to alter the current development. With the plans for a CCT, it is clear that there are viable suggestions for how to implement better conditions for cyclists on the streets of Sydney. When one sees the positive effects cycling, and also walking, result in, it becomes apparent that it is vital that such a system is encouraged. This means more funding and more focus.

Final Thoughts.

In this section of the chapter, there will be some connecting thoughts linked to the proposed projects, and a discussion as to how they stand in comparison to plans for the development of the Sydney metropolitan area.

In reports arguing how the future should be, there are many suggested solutions on how to reduce the traffic, and thereby also the level of pollution. One aspect that has been raised is the use of car-pooling lanes. Such lanes are argued in the ‘Action for Transport 2010’ to have a positive impact on the city’s traffic. If we look at the

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88 Ibid.
experiences that were made with such lanes in New Jersey in the United States, as argued in Chapter 2, they indicate that car-pooling is not very effective. In fact in New Jersey these lanes were changed back to conventional ones due to lack of success. Although the apparent lack of success in the US does not mean it is not worth trying it out here, it gives a clear indication that it might not be the best way to reduce traffic congestion. Furthermore, many find car-pooling not appealing. For many it is not attractive to drive together with strangers, while for others it is more of a practical difficulty, because there is a lack of people living and working in the same area as them.

One more suggestion made in the same plan is connected to electronic payment. Instead of making people stop and pay at crossings such as the Sydney Harbour Bridge, the SHT, the Eastern Distributor or the proposed CCT, payment will be done electronically. By placing a computerised tag on the individual motor vehicle, as suggested for the CCT, it will be allowed for monthly deductions made from the user’s accounts, and this can be a factor in ensuring the success of this scheme.

As argued above, the air quality in Sydney is not good. There are supposedly three main sources of pollution. These are motor vehicles, industry or indoor air pollution (fumes from building materials, pesticides, paints, furnishings, etc.). How can this then be improved? According to the DOT there are four important ways of decreasing pollution. These are:

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91 Department of Transport, “Getting the Best Out of the System.” In Action for Transport 2010, p. 3.
92 Total Environment Centre (Sydney NSW), “Air Pollution from Motor Vehicles in Sydney.” P. 27.
“1. Halt the growth in per capita vkt93 by 2011

2. Implement the vehicle emissions program by 2000

3. Buy 150 low emission cng buses for Sydney

4. Continue to develop diesel emission testing.”94

Knowing there has been a large increase in car ownership over the last few years95, and that many people’s only option going to work is by the use of their private motor vehicle, it is not surprising to find that cars are a big contributor to the increased level of pollution experienced lately in Sydney.96 How then can the use of cars be limited to a level that does not have such devastating effects on the metropolis? The most important way of getting more people to leave their motor vehicle at home, is by improving the existing public transportation system. Arguments put forward by Gary Glazebrook indicate that where there is a “railway line, the car usage for commuting drops substantially.”97 Ideas by the DOT confirm this stand as the most viable one, and also add the wish for a network of cycle ways.98 According to the DOT, getting more people to take advantage of the public transport system is not secured merely by improving the existing system. In addition to a functioning system with an increased access, it needs to be safe for travellers (by equipping buses and trains with cameras and

93 VKT stands for vehicle kilometres travelled.
95 According to Ross Gittins only 11 per cent of households in Australia today do not own a car. Ross Gittins, “Why we find it’s not easy being green.” In The Sydney Morning Herald, Wednesday 20 June, 2001, p. 18.
96 Chapter 2 lists figures from the NRMA that confirms the impression of cars being a large contributor to the overall pollution level in Sydney.
more security guards); informative as to when trains (or buses) are expected to arrive and where they are going, and last, but not least, there needs to be easy access for everybody including people with handicaps.\textsuperscript{99} The improved access can best be exemplified in Sydney with the newly opened Airport Line, making it easier for travellers to get to and from the airport.

According to plans put forward in the ‘Sydney Into Its Third Century’ report, it is important to create communities that are in close relation to employment, and means of transportation.\textsuperscript{100} Nonetheless, as presented in earlier chapters, it might not be desirable to principally focus attention towards developments of roads. There is a greater need to create a highly functioning, and efficient, public transport system, that caters for new employment and residential developments.\textsuperscript{101} Further initiatives to make it more attractive taking the bus, train and light rail, can be achieved by increasing its frequencies, maintaining a fair level of price, and securing a well co-ordinated co-operation between the different areas of the public transport system.\textsuperscript{102}

What then is the main objective when developing a new project? John Black finds that individuals value ‘accessibility’ highly.\textsuperscript{103} This has been thoroughly discussed in a previous chapter, but since this is a main argument in the thesis it is important to continue this discussion. By supporting the development of the core cities on the outskirts of the original one, a situation is created where there is a need for more roads and public

\textsuperscript{99} Ibid., pp. 1/2/5.
\textsuperscript{100} Department of Environment and Planning, \textit{Sydney Into Its Third Century}, p. 47.
\textsuperscript{101} Ibid., p. 20.
\textsuperscript{102} Ibid., p. 21.
\textsuperscript{103} John Black, \textit{Public Inconvenience}, pp. 2/3.
transport investments (not only within these communities, but also between them). It is a utopia to believe that people will not see the need to travel between suburbs because they have jobs, homes and shopping in their close vicinity. People are likely to find shopping on the other side of the metropolis to be better than what they have in their neighbourhood. The same goes for restaurants and coffee shops as well. The strengthening of such communities is likely to have two important consequences. On one side people will, at least in theory, not need to travel far to get to work. But on the other hand they might see the need to go wherever when they have time off work. This means they might go shopping somewhere else on the weekend, they might have friends living far away that they go to see, or that their children participate in sporting activities further afield.

It is possible to support the development of these communities, which will hopefully reduce the amount of driving. This leads to less congestion in the morning and evening peak hours, which again leads to a lower total level of pollution (both air and noise). But as a result of the isolation people might feel by working and living in the same place, they want to (and need to) get away on the weekends. This can lead to an increase in the use of private vehicles, although not substantially. By investing in heavy- and light rail it is possible to create a system that people will utilise. Of course, as argued before, public transport will never be as flexible as private vehicles and can therefore not be used by everyone. People with handicaps and people doing grocery shopping will probably never find public transport to be as convenient as the use of their private vehicle.
Conclusion.

In this chapter focus has been on the SHT, and the proposed CCT. Some of the disagreements concerning the SHT project were examined. Especially important in this sense, was the divergence between the DMR and the DEP. The DMR concluded the project should go ahead partly because it would reduce the level of traffic. An objection against the Tunnel was that improved road access should not be provided to the CBD, because it would create more traffic. The DEP, in conjunction with Travers Morgan, viewed the project as not viable and turned it down.

A short time after the opening it became apparent the Tunnel did not do much for reducing cross-harbour congestion. The actual result was an increase of as much as 13 per cent within the time span of a few days. This is a strong indication that the calculations made by the DMR were wrong, and that the Tunnel should never have been built.

By way of contrast, the proposed CCT between Darling Harbour and Kings Cross opens the way for improvements to the inner city. It will give planners, and decision makers, the opportunity to create a more people- and public transportation -friendly city. Also, the time commuters will need to spend going from east to west, will be significantly reduced. For many cities such an opportunity does not come a long at all, so in the light of this proposed project, planners and decision makers should have a golden opportunity to reduce the level of pollution in Sydney. If they pass on this opportunity, the City of Sydney will suffer, as the number of cars only seems to increase.

For obvious reasons there is also a need to improve the level of quality on the public transportation system going to the CBD. The CBD is the home of many work places, and many of the ones working there, are not likely to relocate their place of
employment to suburbia. This leads to a situation where it becomes necessary, and
desirable, to put more emphasis on projects relating to the city core, as well as suburbia.
Although the greatest growth will be seen in certain suburbs, there is a risk in ‘forgetting’
to invest funds in public and private transport within the city core.
CONCLUSION.

This work has been a discussion of what problems are apparent in major metropolitan areas today. Main focus has been on the City of Sydney.

By using the works of Bent Flyvbjerg, Richard Hall and David Harvey, amongst others, I have tried to show how processes in a modern democracy take place. Flyvbjerg has, though, been the most important influence used in this thesis. His discussion of power versus rationality has been very significant in determining how real-term politics works. This discussion was for instance used as background when discussing the process leading to the building of the SHT. Also for the CCT Flyvbjerg’s terminology was used. The conclusion reached was that power is normally more important than rationality. However, on occasion power and rationality may coincide, although this is not the norm.

A main theme has been that something needs to be done urgently with the large usage of private motor vehicles for the commute between suburbs. Today the main share of people working in the Sydney CBD use the public transport system to get to work. However, the same cannot be said to be the case for people travelling between suburban locations. Most people travelling from their suburban home to their place of work in another suburban location, are more likely to use their private car. What this then indicates is not that these people are stubborn and do not see the importance of a wide use of buses and trains; they are simply not able to make use of such means of transportation. Firstly, for many it is not really an option because the public transport system does not cover directly either the area they live in or where they are going. Secondly, by using the system the commute will take too long. Today the case for many is that the train ride
from, for example, Sutherland to Parramatta goes via Central Station on the outskirts of Sydney CBD. This makes people’s commute much longer than if there had been a direct link between these areas. Unfortunately, though, these cross-city rail routes seem to be a long way from happening, perhaps due to the large strain they put on the state budget.

Parramatta is often being described as the ‘Second CBD’ of Sydney, and has a large workforce commuting there every day. Obviously, services need to be strengthened between other suburban locations and this centre. The way it is now, most funding is focused on the corridor leading in to the CBD. The main growth areas are today in the suburbs, so in the longer run the level of funding needs to be directed away from mainly focusing on this corridor, to also focus on corridors between major areas of employment and residence.

A recommendation made in this thesis is to strengthen the areas that are already experiencing a strong boost to its development. It is important to secure, and further enhance, an already ongoing trend. By doing so, it becomes possible to limit people’s need for driving, since especially their home and workplace are located close by. It then becomes possible to develop a transport system that covers new cities, in such a way, that there is a limited need to commute by private motor vehicles to work. This again is severely going to improve the congestion in the original cities, and thereby also a major problem such as air- and noise pollution. But it will not only improve the situation in the original cities, but also create a situation in these ‘edge’, or bordering, cities, where it becomes possible to live in an environment with an emphasis on public transportation instead of merely a reliance on ones private automobile. The overall goal, then, is simply
put, to create a situation where public transportation becomes as important in the suburbs as we have seen it is in the original Sydney CBD.

The last chapter was a discussion of a few of the projects that had, and will someday, influence the transport network in the Sydney metropolitan area. First, the conclusion was made that the Sydney Harbour Tunnel was not needed as much as relief was on other stretches, for instance in the western suburbs. Another argument against the Tunnel was that it would create a larger total cross-harbour traffic. Total traffic for the Bridge and the Tunnel did increase with as much as 30 per cent in only a few years. This indicates a big problem with the notion that one can build ones way out of traffic congestion. A city like Los Angeles in California has arguably the most developed road and freeway system in the western world today, but is also home to the largest and most severe traffic problems. This strongly suggests that it is impossible to build ones way out of congestion.

In only a short while after the Tunnel had opened, then, the total level of traffic increased severely. This gave the conclusion that there was no real justification for the project, and that it should not have been completed. Another project that will hopefully influence the inner city traffic in a more positive manner, is the CCT between Darling Harbour and Kings Cross. Other important ones are the extension of the Light Rail line all the way to Circular Quay, and a new rail line running parallel with City Circle. However, probably the most noticeable that might take place is the removal of the Cahill Expressway as a result of the CCT. This will enable planners and decision makers to reconnect the City with its beautiful harbour for the first time in decades.
All in all, cities all over the world have the same problems: congestion and pollution. How these issues are dealt with, is very different from place to place. But it is apparent that steps need to be taken. The overall solution suggested here is to improve access created by public transport, and further develop cities on the edge of the original, by encouraging businesses and people alike, to relocate there. This will ensure a lower level of total traffic, and thereby reduce problems linked to congestion, such as air- and noise pollution. Only then it does become achievable to create an environment within which we can live and thrive.
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