**Chapter 11**

# Making space for the car at home: planning, priorities and practices

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## Introduction

In 2014, there were 28 million private cars in Great Britain. Given that the current standard for residential parking bays is 2.4m by 4.8m (HM Government, 2010) and estimating that every car has a space at its owner's home, that is 336 million square meters. Nearly all the Isle of Wight or placed in a straight line, a third of the distance to the moon. Residential parking space is a big topic, yet just 60 years ago, it was not part of neighbourhood plans at all. This chapter focusses on residential parking spaces and explores how they became a normal, legitimate and planned for aspect of everyday life.

Accounts of the embedding of automobility into everyday life have almost exclusively focussed on cars in motion. Analysis has privileged the trips, distances and new living arrangements that automobility affords and the institutions and infrastructures that have made possible the emergence and stabilisation of car-dependent lifestyles (Geels, 2005; Urry, 2004). This focus on cars in motion is understandable. For example, in debates of sustainability it is car *use* which impacts greenhouse gas emissions; cars accounted for more than 50% of the UK transport sector's greenhouse gas emissions in 2015 (BEIS, 2015). Likewise, for those concerned with the impact of (auto) mobility on society, it is the transformative effects of *movement* which is the central concern (Sheller, 2003).

In contrast to these accounts, this chapter focusses on parked cars rather than cars in use, and explores how planning for stationary vehicles has helped to make automobility what it is today. To do so, it conceives of parking space as an interface of infrastructure and systems of practices, and draws on this framework to present archival work from Stevenage New Town, UK. Planned and built between the mid-1940s and 1970 to rehouse the residents

of war-damaged areas of London, Stevenage was based on a utopian vision for the post-war working class. Importantly for this study, the original house plans did not include any parking spaces at all. This soon proved a problem as the building of Stevenage coincided with a massive rise in motorcar ownership in the UK, from 1.7 million private cars in 1945 to approximately ten million private cars in 1970 (DfT, 2015). The planners faced the challenge of providing space for the car from the moment that the first residents arrived. Given this interweaving of the history of Stevenage and the rise of the motor car, it provides a pertinent case with which to explore how parking space became normal.

The chapter demonstrates a changing relationship between planning and everyday life across the period of study, namely 'envisioning', 'contestation and control', 'survey and provide' and 'predict and provide'. The following sections introduce the conceptual framework and present the Stevenage data to argue that the planning of parking space played an important part in making automobility what it is today. The conclusion reflects on the implications of the analysis for the present and future.

**Infrastructure, practices and space**

Forms of mobility, such as driving, can be usefully conceptualised as practices (Shove, Pantzar and Watson, 2012; Spurling and McMeekin, 2015). For example, Shove, Pantzar and Watson's three elements model (2012: 26) draws attention to driving as constituted of meanings, skills and materials. As noted by Aldred and Jungnickel (2013), the materials of mobility practices (and, in fact, of all practices) are 'at rest' in between performances. These resting objects make demands on space, including requirements of size and scale, location and connectivity (e.g., to the road infrastructure).

In itself, this is not a new problem. For example, in 1900, there were an estimated 50,000 horses in London providing horsepower for 11,000 hansom cabs, thousands of omnibuses and for moving freight in railway yards. When 'resting', this transport system required space for cabs, carriages and carts; stables for horses and systems to deal with the 15–35 pounds of manure produced by each horse every day (London Transport Museum, 2016). The Camden Railway Heritage Trust (2016) records that at its peak, Camden Goods Depot had 700 working horses, a demand for space that was met through several phases of development from stabling for 50 horses in 1839 to stabling for 427 horses in the revised plans of 1849 and subsequent additions of blocks, connected by horse tunnels, in the 1850s.

In recent decades, car parking space in towns and cities has posed similar challenges. The main focus for those concerned with these challenges has been the aesthetic and environmental consequences of hard surfaces, including the increased difficulty of dealing with rain water and the reduction of green space in the urban environment (Ben-Joseph, 2012). In this framing, the problem is that parking space stands empty for much of the time and the solution is to make flexible spaces that might be more often in-use as public space. These forms of analysis and intervention focus on improving parking space itself, but without asking what driving is for or challenging the role of parking space in perpetuating private car dependence.

An alternative approach is to conceptualise parking space as an interface. Driving is a practice, but we can also conceive of it as an outcome of interlocking practices (Spurling and McMeekin, 2015; Shove, Watson and Spurling, 2015). This line of thought argues that journey patterns are an outcome of where and when activities take place. Across time, temporal and spatial patterns of practice are reflected – in material form - in the road network. Activities become car-dependent because the spatial geography of practice - where we work, live, exercise, take children to school, shop and so on -- takes material form. As

such places and patterns of practice are shaped and perpetuated by processes of land use planning, the development of road networks and the use of cars.

Pushing this conceptual scheme a step further, the current chapter argues that parking spaces and parked cars form the interfaces of the road network and the systems of social practices which driving makes possible. The chapter focuses on one particular interface: between the road network and people's homes. It explores how the provision of space for private cars, as close to the home as possible, became a normal aspect of planning and everyday life. To conclude, the chapter explores the potential of parking to perpetuate or reduce car-use in the present and future.

**Exploring histories of parking space**

The data presented was collected in June 2014 and 2015 from The Stevenage Development Corporation Archives. Stevenage was the first of fourteen post-war new towns in Britain, established under the 1946 New Towns Act and planned in the late-1940s. These were new centres of housing and employment outside of major conurbations, in this case London. The small country town of Stevenage, which had circa 6,000 inhabitants, was planned as a new town for 60,000 people with a town centre, industrial area and six neighbourhoods providing homes, schools, community centres and churches.

The governance of New Towns was unique. Rather than being assigned to local authorities, new Development Corporations were established by Act of Parliament (Black, 1951: 43). Although similar to Local Authorities in that they prepared plans and provided services, there were many differences too. For example, they had much greater upward influence and were exempt from standards that applied in other places. They purchased land, which gave them control over development, and as landowners they were concerned with

balancing construction costs and rents charged. They were (initially) dependent on the National Exchequer for all their funds, but knew this would be time-limited. They were therefore concerned with their own attractiveness to residents and industrialists (Black, 1951: 44). Their geographic jurisdiction cut across existing district boundaries (three district councils in the case of Stevenage), and the relations of the Corporations and Councils were fraught with tension because of these overlapping jurisdictions (Black, 1951: 46). The Development Corporations were wound up in 1981 (New Towns Act, 1981) at which point all responsibilities were ceded to the Stevenage Borough Council.

As the first post-war new town in the UK, Stevenage's history is well documented. This is one reason Stevenage was chosen for this study of parking space in residential areas. The second reason is the coincidence of the planning and building of Stevenage (approximately 1945–1970) with the rise of the motorcar in Britain.

The materials reviewed for this chapter include books of house plans (1951–1969), administrative files on car parking and housing areas (1950–1975), Development Corporation Annual Reports (1948–1979), files of the Social Relations Officer (1960–1971), the Car Parking and Garaging Committee (1960–1971), several folders of reports and surveys (1946–1971) and the plans and files from Bedwell (1948–1977), the first new neighbourhood. The analysis that follows reveals a shifting relationship between planning and everyday life across the period, namely: envisioning; contestation and control; survey and provide and predict and provide.

**Making space for the car in residential neighbourhoods**

*Envisioning everyday life and the car 1946–1953*

In the initial phases the planners were in an unusual position: they had a large amount of freedom to design an entire town on a green field site. As such, they envisioned future ways of life that might 'put right' some of the social problems of the pre-war period and create a

'land fit for heroes' returning from war (Talking New Towns, 2015). This involved the creation of an alternative to overcrowded cities, smog, pollution and long commutes, and a focus on green 'garden' cities and fresh country air in which all families would have their own home, a job and time to engage in leisure activities, all of which would be provided for in the town itself. Although radical in the sense of being a nationalised effort to create a better life, many aspects of social structure inherent of the era remained unchallenged. Specifically, envisioned futures centred on providing for the nuclear family (Aldridge, 1996), on the young and growing family (Ledeboer, 1947) and contained implicit assumptions about gender, in particular that the husband would be employed and earn a family wage (Aldridge, 1996: 30).

The town was designed with a system of cycle ways and pedestrian walkways that were segregated from the roads. This provision was viewed as vital if workers and school children were to experience fresh country air and safer commutes. The Government cartoon *Charley in New Town* (Central Office of Information, 1948) provides a pertinent example depicting the 'everyman' Charley and his scenic bicycle ride to work. This vision not only underpinned the construction of the cycle way infrastructure, but also influenced land use planning with the creation of zones for different kinds of activity, and a focus on locational relationships, such that most journeys could be cycled or walked (Bunker, 1967: 216). Issues of road safety also played their part, especially in arguing for segregation of different modes. For example, Eric Claxton, who designed and advocated the cycle way system recalled in 1986 that 'beyond all this was my experience of the terrible carnage of wartime… if I could possibly help it, nobody should ever be injured again' (Talking New Towns, 2015).

The centrality of cyclists and cycling should not detract from the otherwise modernist vision of the motorcar upon which the town was based. The segregation of traffic was as much designed to facilitate the fast, smooth movement of cars as to facilitate cyclists and pedestrians. For example, a 1949 technical report on The Road System in the New Town

recommended that ‘main roads be designed and constructed for vehicular traffic only, excluding cyclists and pedestrians. No footway being provided but a strip of grass verge being left for the stranded motorist or other exceptional user’ (SDC, 1949). The Great North Road, which ran through Stevenage’s centre, was to be replaced with a road of motorway standard skirting the New Town (Bunker, 1967). Moreover, pride was taken in making the town centre the first in England to properly accommodate the motorcar via road access and car parking (Vincent, 1960). There were therefore multiple futures envisioned in the plans. On the one hand, Stevenage was a modernist town built for the motorcar, on the other hand, the envisioned life of the Stevenage ‘everyman’ was associated with walking and velomobility.

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These envisioned futures had implications for the planning of parking space for houses and neighbourhood areas. Bedwell was the first new neighbourhood, built in 1950. Developed in the period following The Dudley Report (The Dudley Committee, 1944), car parking did not feature in national house design standards, nor in Bedwell. It is not only because there was no national standard that parking was not planned, but also because automobility was not part of the envisioned way of life for future residents.

For example, an early report for the SDC (Ledeboer, 1947) stated:

‘There will be a great number of bicycles and a great deal of gardening at Stevenage. It cannot be sufficiently stressed that adequate provision is necessary… the shed should be large enough to contain a bicycle’ (Ledeboer, 1947: 18). This report gave particular consideration to terraced houses and how to ‘avoid dirtying the house with the traffic of children, dustbins and bicycles’. The Report suggested that the location of the shed should be changed, so that instead of being at the back of the house, it should be brought to the front with access to the street. This suggestion was taken up in the Bedwell C5 house design, in

which terraced houses had two doors on the front of the house, a front door and a door providing access to the store.

Parking space was not completely absent in Bedwell: one parking space was provided for every eight households (Stevenage Borough Council, 2004), though it is unclear if this was driveways, garages or on-street parking. It is also unclear how the planners arrived at this level of provision, but one hypothesis is that it derived from the proportions of housing for different income groups. A principle of mixed housing in neighbourhoods was adopted by the New Town planners (The Dudley Committee, 1944), and given the anticipated population of skilled and semi-skilled workers (Ledeboer, 1947; Willmott, 1964) it is possible that one in eight homes was expected to be middle class and to therefore own a car.

Landscape was also a crucial part of the new town vision. Edwards (1956: 45) notes that consultant landscape architects were involved in both the initial Master Planning and throughout the building process. This work included detailed planning of neighbourhoods, open space, parks and allotments and the design and execution of landscape schemes and their maintenance. In Bedwell, the majority of houses had front gardens and in some cases, grass verges~~d~~ between the garden and the road. There was at least one area of allotments, woodland (Whomerley Wood), a park and several smaller play areas for children. Such provision was viewed as vital to the realisation of the 'garden city'. However, as we will see, such spaces were threatened once car ownership increased.

Between 1946 and 1953, multiple futures were envisioned. On the one hand, Stevenage was built with the future of the car in view. On the other hand, the future daily lives of the majority of its residents were characterised as lives lived locally, with cycling and walking as the main modes of transport. This is reflected in the design of homes and the provision of parking spaces in the first neighbourhood. The first residents moved into

Bedwell in 1952 and the newly built infrastructure became part of everyday practices, which did not entirely reflect the plan.

*Contestation and control 1954–1959*

Car parking in residential neighbourhoods emerges as a topic in the SDC archives from 1954 onwards (SDC, 1954–1959). We know from national car ownership statistics that private car ownership in Britain more than doubled in the 1950s, from circa 2 million in 1950 to approximately 5 million in 1960 (DfT, 2015). By 1960, approximately 22% of British households had access to a car (Leibling, 2008). Willmott (1964) quotes national statistics from 1960 that of those households owning a car, 52% were middle class and 22% were working class. It is highly probable that car ownership in Stevenage was higher than the planners' estimates from the moment that the first residents moved in.

A small survey of 380 Stevenage residents by Willmott (1964) shows that by 1960, car ownership in Stevenage was way above the national average, with 59% of non-manual and 40% of manual households owning a car – an average of around 50%. This is also supported by Osborn and Whittick (1963) who note of Stevenage that 'the people have had well-paid regular jobs in the factories and this has… enabled them to furnish their homes well, to acquire televisions, cars and domestic gadgets' (1963: 24).

The SDC's Car Parking and Garaging Committee was established in 1954 and a memo from November that year notes that 'the Ministry of Housing and Local Government has only allowed the Corporation to build initially 8–14% of garages to dwellings, although recently it has been found that even the initial demand for garages from tenants of newly occupied dwellings has been as high as 16%' (SDC, 1954). In 1956, just four years after the first residents had moved into Bedwell, the SDC Annual Report commented that: 'the

problem of garage accommodation and parking space in the residential neighbourhoods is still acute, but the completion of additional garages, for which expenditure was approved during the year, will be of considerable help' (HMSO, 1956). This early attempt to meet the demands of residents contrasted with the events that followed.

The period 1957 to 1959 witnessed a marked shift in the planners' approach. They became focussed on controlling the emergent practices of residents and on keeping to the original plan. They enforced that there would be no spaces on roads and verges for motorcars. For example, the SDC Annual Report in 1957 noted that 'the problem of cars parked overnight on roadways and grass verges is one which continues to exercise the Police, the local authority and the Corporation' (HMSO, 1957).

Bedwell was particularly problematic: not only was it built for a future without the car, but its development had coincided with funding cuts that had been achieved by reducing road widths and building higher density homes (SDC, 1971). Narrow roads meant that roadside parking caused congestion and as a result, tenants were leaving cars on front gardens and landscaped areas. As noted above, these green spaces were key tenets of the new town philosophy; moreover they were maintained by the SDC, and as such the planners fought to protect them.

A series of memos between the Corporation's Chief Estates Officer (CEO) and the Chief Architect (CA) reveals these tensions. On 18 November 1958, the CEO wrote how there were 'many tenants who insist on having their vehicle in the immediate vicinity of their houses…', that 'landscaped areas are being ruined' and that 'Harlow Development Corporation [a neighbouring new town] do not allow any vehicles to be parked on grassed areas' (SDC, 1958). Another memo, from 1959, records a 'persistent offender… parking at night opposite number 30 Whormley Road… making a bad mess of the grass' (SDC,1959a). The memo requested that the vehicle be removed.

These measures were accompanied by schemes that attempted to retrofit parking. A 1958 report (SDC, 1958a) on the initial Stevenage neighbourhoods listed land that could be used for garages and hard standings. This included: the temporary use of undeveloped land such as the site of the future nursery school, the rear of the telephone exchange, parts of children's play areas, parts of the gardens of houses and getting rid of pavements and grass verges (SDC, 1958b). Other options discussed included car stacking (i.e. multi-storey car parking) (SDC, 1958c), though this was never implemented.

Alongside these concessions, the enforcement of parking became stronger. In 1959, the Urban District Council and SDC agreed to prosecute residents if they parked on a grass verge when hard standings or garages had been provided (SDC,1959a). On 23 April 1959, the CA wrote to all tenants informing them that the Corporation was 'concerned at the number of cars being parked on grass verges… [their] very unsightly appearance… [that they are] causing damage' and warning tenants that 'the SDC would use all their powers to stop the practice' (SDC, 1959c). On 10 December 1959, 15 cars parked on landscaped areas in Bedwell were removed (SDC, 1959d).

These are just a few examples of how the residents' lived practices came into conflict with the planners' imagined futures and the planners' attempts to control activities. At the same time, these experiences provided an opportunity to more accurately plan the next areas to match the demands of future tenants.

*Challenging the standards: survey and provide in new build areas 1957–1960*

Rather than envisioning future daily lives and the transport that might be part of them, the planners began to focus on actual parking demands based on their experiences in the original neighbourhoods. This led the SDC to challenge the standard of 8–14% dwellings with

parking space that the Ministry had previously set. In a letter to the car parking and garaging committee in 1955 (SDC, 1955a), the Chief Architect noted that 'under pressure from the Corporation the Ministry has now agreed to consider a larger provision'. In July 1955 (SDC, 1955b), these new standards were outlined as being at least 1 in 4 'A' type dwellings (aimed at lower income groups) would have a garage and eventually 1 in 2. 'B' and 'C' type dwellings (aimed at higher income groups) would have an allocated garage each. In Stevenage, these new standards were implemented immediately and the next tranche of contracts was modified so that from 1957, garages were built into the neighbourhoods (SDC, 1955b). For 'A' type dwellings, which were often terraces, these took the form of separate garage blocks. In 'B' and 'C' type dwellings, the garages were attached to the homes (SDC, 1955b).

This demonstrates a revised approach to the future on the part of the planners. They accepted that patterns of life were different to those they had envisioned. The planners learned from how tenants lived in the original areas and proposed new standards based on their observations. These were not so much forecasts or models as we know them today, but a view that lived experience provided the most useful estimate of the amount of provision required. For example, the SDC Annual Report in 1957 notes that 'surveys conducted during the year have revealed that although the initial demand for garages in areas of standard housing is generally between 20 per cent and 25 per cent, within three years this increases to an average of 35 per cent' (SDC, 1957: 364). Under pressure from the SDC, the Ministry agreed to Stevenage applying these new standards and eventually adopted the standard nationally.

For the areas built in the late 1950s, the approach to the future was no longer one of envisioning daily life. Rather, it was about monitoring and keeping up with the rise of the motorcar. From the start of the 1960s, their approach began to shift again, as newly available

statistics and forecasts led planners to anticipate and get ahead of the future, predicting demand and providing for it, even before it happened.

*Predict and provide 1961–1970*

Within National Housing standards, provision for the car first appeared in the Parker Morris Report on housing space standards (1961). The context was one of growing concern that housing standards had declined across the 1950s because of spending cuts and a focus on quantity over quality. The recommendation on parking space within this Report was a response to a Road Research Laboratory study in 1960, which estimated that by 1980, there would be an average of one car per household in Great Britain (Road Research Laboratory in Mackenzie, 1961). This Study was taken seriously at the SDC, where a *Daily Telegraph* article (Mackenzie, 1961) about it was discussed in the Car Parking Committee meeting. The Parker Morris Report suggested that 'each of these ten and a half million extra cars will need about 250 square feet of scarce residential land or building space for overnight parking and for access to the place where it is kept'. The report suggested that parking space should 'be provided as near as possible to the home' (1961: 45). Though the recommendations in the Parker Morris Report were not compulsory, in 1961, the County Council advised the SDC to 'plan with the motor vehicle and not against it', because 'motor cars are a universal ideal' (SDC, 1961a).

These new guidelines influenced approaches in existing areas as well as areas yet to be built. For example, the enforcement of illegally parked cars in the original areas continued until the end of 1960 then, in 1961, the discourse changed. SDC discussions began to frame illegally parked cars as evidence for more and better parking provision. A memo from the CEO to the CA on 13 December 1961 (SDC, 1961b) requested the provision of additional

parking: ‘There is a lot of parking on forecourts every night with consequent damage to verges. Is there any possibility that a temporary parking area could be made available on the vacant land?’ In this example, the CA responded by informing the CEO of multiple parking developments that were nearly complete in the area, including 65 new garages on the offending street (SDC, 1961c).

This new acceptance of retrofit was reiterated in the 1961 SDC Annual Report (HMSO, 1961), which recorded that the demand for garages showed ‘no sign of slackening’ and reported that the Corporation had prepared schemes for 600 more garages to be provided by 1963. Further, the SDC responded positively to tenant demands. For example, in 1962, a petition signed by residents of King George’s Close on the edge of Bedwell was sent to the SDC (SDC, 1962a), requesting that the grass verge at the top of the cul-de-sac be converted into parking spaces. After some quibbling over responsibilities between the SDC and the Stevenage Urban District Council (SDC, 1962b; 1962c), the change was included in the SDC’s minor improvement works in 1963 (SDC, 1963a). The progress and impact of retrofit schemes was carefully monitored. In 1965 alone the SDC undertook 10 surveys that noted details of parked cars at different times of day and across the days of the week at specific locations, many of which were in Bedwell.

The 1960s saw a shift away from the emphasis on garages that had been the solution up to that point. Gardens and landscaped areas were conceded for the creation of drive-ins (which we now call drives or driveways) and parking bays (hard standings on the grass verges between the front garden and the road). New estimates suggested that 150% provision (i.e., 1.5 parking spaces per dwelling) was possible in even the oldest neighbourhoods to meet the Parker Morris recommendations.

The Car Parking and Garaging Committee discussed how the retrofit of parking spaces should be organised, as some tenants did not want to pay the additional rent. The SDC

decided to build drive-ins and garages whenever a change of tenancy occurred (SDC, 1965a). There was therefore a full commitment to retrofitting based on predict and provide and a sense of urgency underpinned the whole endeavour. This is captured in a 1965 Report which stated that provision 'should be made at the best pace possible…' (SDC, 1965b).

The SDC embraced this approach in relation to new build areas too. The SDC Annual Report in 1961 (HMSO, 1961) recorded that land was being reserved for 100% garage provision (i.e., a garage for every dwelling) in all new developments. In 1966, this was updated to 2.3 parking spaces per dwelling irrespective of size or type: 'the minimum provision must be about 2.3 car spaces per unit if we are going to cater properly in the future for keeping the cars off the highway' (SDC, 1966). These spaces were provided in front or adjacent to the property, with additional spaces for casual parking.

The SDC Annual Report in 1973 (HMSO, 1973) noted that the new standard of 2.3 parking spaces per dwelling was being retrofitted into the original areas to keep up with demand. This was achieved by building more drive-ins and parking bays and the development of 'car tracks': hard standing tracks which ran through rear gardens (HMSO, 1976). Allotments were another source of space in this swathe of development and in an Allotment Survey (SDC, 1970), the usage of the 20 allotment areas in Stevenage was evaluated and proposals were made about the proportion of each that could be reallocated for parking cars.

**Conclusion**

This chapter argues that planning for stationary cars has helped to make automobility what it is today. It has offered an account of how parking for ever-increasing numbers of vehicles became a normal and legitimate aspect of housing and neighbourhood design. The archive

material demonstrates that between 1946 and 1970, planning practices were variously shaped by and helped shape the practices of residents through processes of envisioning, enforcing, surveying, predicting and providing. By tracing parking space over time, the chapter illustrates that predicting and providing for car use – and parking – is not the only possible approach. It reminds us that parking standards (and thus assumptions about car use and car dependence) are currently embedded in a range of planning domains – for example within house design and neighbourhood planning. Finally, the study demonstrates that approaches to parking are inseparable from ideas and visions of (auto)mobility and its anticipated future.

Given these findings, I wish to conclude by reflecting on how the historical work might contribute to analyses of the present and future, and in particular to futures with less car travel and fewer cars. To do so I briefly consider near futures of parking and automobility reflected in the most recent Stevenage Parking Strategy, and reflect on them in the context of broader discourses of city and transport futures.

Within the most recent Stevenage Parking Strategy (Stevenage Borough Council, 2004) parking space is woven into several anticipated futures, with different approaches contained in each, namely survey and provide; intervening to reduce car use; and, creating new forms of car use. How do these multiple, conflicting, approaches come to coexist alongside each other?

*Survey and provide:* The discussion of parking on residential streets is reminiscent of that in the historical material: ‘many of our residential streets suffer chronic parking congestion causing safety hazards and environmental damage to verges’ (2004: foreword). Although the document notes that providing ever more parking space into the future is not a viable option, the strategy illustrates a shortage of alternatives. As such there is a focus on increasing provision to cope with demand, for example through surveying the types of vehicle parked, and offering new kinds of parking for certain categories (e.g. separate secure

parking areas for work vans). Rather than challenging patterns of car and vehicle use, such strategies reproduce the existing system and its associated problems.

*Intervening to reduce car use:* There is a different approach on new build developments where the ratios of parking space per home have been lowered. Such maximum (rather than minimum) parking standards have been included in a number of new build developments nationally over the past 5-10 years with the aim that new residents will take up car-free (or reduced car) living. What such interventions mean for car ownership and use (and for the practices to which car use interconnects) is an empirical question. However, the historical findings of this chapter suggest that such interventions in car use are likely to be most successful if the intervention is part of a broader series of developments that make car-free living practically possible. The conflicting approaches within the parking strategy suggest that such synergies have not yet been achieved in this case.

*Creating new forms of car use:* Thirdly, the Strategy describes parking space as an important prerequisite to Stevenage's future as a commuter town for London, a vision that contrasts with the regionalised economic strategy that underpinned the town's original development. Improving the railway commute to central London and accommodating an increased number of 'park and ride' commuters is deemed essential. Here, national standards beyond the control of the local council come into play, inadvertently tying the car into Stevenage's future. To explain, the Stevenage Railway Station finds itself in competition with a proposed Parkway station, the standards of which require large amounts of parking space. Parkway stations are generally located in out-of-town developments – next to stadiums or shopping centres – where such space is easy to come by. In this case, the proposed Parkway Station would replace Stevenage as the local stopping station on the London Mainline, posing a major threat to Stevenage's envisaged economic future. The town centre station must therefore demonstrate that it can meet Parkway station standards to survive.

These examples highlight a central challenge that planners face in their day-to-day work: balancing visions of long-term futures of lower car use (often developed elsewhere) with the more pressing challenges of the here and now. As such the current transport infrastructure developments in the town (which emphasise car-use for London commutes) are at odds with the lower parking provision in new residential developments (which emphasise reducing car use). Such challenges are not simple to resolve, however, identifying the issue and reflecting on how and why current strategies pull in opposite directions is a useful initial step.

The model of maximum parking standards in new build housing has developed within contexts of dense urban living and future (liveable) cities. In these locations the provision of less parking is a controversial issue, and its impact on car use an empirical question. However, at least in these contexts the idea makes logical sense. This is because there are multiple social, built environments and technological developments occurring within urban centres, with altered patterns of car use and car dependence emerging.

These include recent reductions in car-based travel for 18-30 year olds (a cohort who also make up a sizeable proportion of urban dwellers); changes in shopping and working patterns because of online shopping and working at home or in third spaces; new forms of traffic and parking in the form of light goods vehicles (to deliver online shopping), which require areas for waiting whilst deliveries are made; and finally, a recent emphasis away from private vehicle ownership to the provision of mobility as a service (Commission on Travel Demand, 2017). As such, lower parking provision at home, or the separation of home rental or ownership from parking space rental or ownership (unbundling) might support such shifts. Importing one element of this broad swathe of visions and innovations into the Stevenage context makes little sense.

In the late 1940s and early 1950s the future belonged to Stevenage. Whole ways of life for the post war working class were envisioned, planned and built into the town. The situation today is quite different. Large urban centres are the focus of envisioned futures and infrastructural innovation. Urban futures is the theme of the day, as reflected in the titles of research centres, conference themes and special issues of journals. Futures of other places – towns and small cities – and reflections on what ambitions for the future (and specifically for reducing car use) are practically possible for them, is unchartered terrain. The implications of these alternative pasts, presents and futures, for (auto)mobility and for parking, is therefore ripe for further research. This chapter forms a first step in that direction.


Aldred, R. & Jungnickel, K. (2013) Matter in or out of place? Bicycle parking strategies and their effects on people, practices and places. *Social and Cultural Geography,* 14**,** 604-624.

Aldridge, M. (1996) Only demi-paradise? Women in garden cities and new towns. *Planning Perspectives,* 11**,** 23-29.

(Department for) Business, Energy and Industrial Strategy (2015) 2015 UK greenhouse gas emissions: final figures - data tables, [online] https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-2015

Ben-Joseph, E. (2012) *Rethinking a Lot*, Cambridge, MA; London, England, MIT Press.

Black, R.B. (1951) The British New Towns: A Case Study of Stevenage. *Land Economics,* 27**,** 41-48.

Bunker, R. (1967) Travel in Stevenage. *The Town Planning Review,* 38**,** 215-232.

Camden Railway Heritage Trust (2016) *Camden Goods Depot* [Online]. Available: http://www.crht1837.org/history/camdengoodsdepot.

Central Office of Information (1948) *Charley in New Town* [Online]. Available: http://www.talkingnewtowns.org.uk/content/resources/films-new-towns.

Charlton, A. (2015) Uber: We want to end car ownership in London with Launch of cut-price UberPool. *International Business Times*, 25th November 2015.

The Commission on Travel Demand Website http://www.demand.ac.uk/commission-on-travel-demand/

Department for Transport (2015) *Vehicle Licensing Statistics* [Online]. Available: https://www.gov.uk/government/collections/vehicles-statistics.

Edwards, P. (1956) Landscape at Stevenage. *The Town Planning Review,* 27**,** 45-48.

Geels, F. W. (2005) *Technological Transitions and System Innovations,* Cheltenham, UK; Northampton, MA, USA, Edward Elgar.

HM Government (1946) The New Towns Act.

HM Government (1981) The New Towns Act.

HM Government (2010) The Building Regulations 2010 Part M: Access to and Use of Buildings. London: HMSO.

HMSO (1956) Reports of the Development Corporations, CNT/ST/17/6/1-32, HALS

(Hertfordshire Archives and Local Studies) Box 596-599.
HMSO (1957) Reports of the Development Corporation, CNT/ST/17/6/1-32, HALS Box 596-599.
HMSO (1961) Reports of the Development Corporations, CNT/ST/17/6/1-32, HALS Box 596-599.
HMSO (1973) Reports of the Development Corporations, CNT/ST/17/6/1-32, HALS Box 596-599
HMSO (1976) Reports of the Development Corporations, CNT/ST/17/6/1-32, HALS Box 596-599
Ledeboer, J. G. (1947) Stevenage Development Corporation (SDC) Report on Housing Requirements and Standards. HALS (Hertfordshire Archives and Local Studies) Box 585.
Leibling, D. (2008) Car Ownership in Great Britain. *RAC.*
London Transport Museum (2016) Available: http://www.ltmuseum.co.uk/.
Mackenzie, W.A. (1961) More than 9M Vehicles Now on the Roads, Daily Telegraph in: Car parking and Garaging (CPG) Vol 2, CNT/ST/5/1/AP/C37, HALS.
Osborn, F. J. & Whittick, A. (1963) *The New Towns. The Answer to Megalopolis*, McGraw-Hill.
Parker Morris Committee (1961) *Homes for Today and Tomorrow,* London, HMSO.
SDC (1949) Road System in the New Town, 22nd July 1949, in: CNT/ST/17/1/7, HALS, Box 582.
SDC (1954) Memo to Chief Architect 4th November 1954, in: CPG Vol.1, CNT/ST/5/1/AP/C37, HALS Box 148.
SDC (1954-1959) CPG, Vol.1. CNT/ST/5/1/AP/C37, HALS Box 148.
SDC (1955a) CA to Clerk of the Council, 8th December 1955, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1955b) CA to CPG Committee, July 1955, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1958a) C.G. Richards to R.G.Patterson, 18 November 1958, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1958b) Parking Proposals, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1958c), Meeting minutes, October 1958, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1959a) CEO to CA 'Cars Parking on grass, 31st December 1959, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1959b) Urban District Council to the SDC, 4th April 1959 , in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1959c) CLO to the General Manager, 23rd April 1959, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1959d) CEO to CA, 10th December 1959, in: CPG Vol 1, CNT/ST/5/1/AP/C37, HALS, BOX 148.
SDC (1960a) CEO to CA, 22nd July 1960, in: CPG Vol 2, CNT/ST/5/1/AP/C37.
SDC (1960b) CEO to CA, 31st March 1960, in: CPG Vol 2, CNT/ST/5/1/AP/C37.
SDC (1961a) Clerk of the County Council to SDC, 24th March 1960, in: CPG Vol 2, CNT/ST/5/1/AP/C37.
SDC (1961b) CEO to CA, 13th December 1961, in: CPG Vol 2, CNT/ST/5/1/AP/C37.
SDC (1961c) CA to CEO, 20th December 1961, in: CPG Vol 2, CNT/ST/5/1/AP/C37
SDC (1962a) CEO to CA, 29th October 1962, in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1962b) CEO to Mr Marshall, 3rd December 1962, in: CPG Vol 3, CNT/ST/5/1/AP/C37.

SDC (1962c) Stevenage Urban District Council to Mr Vincent, 13th December 1962, in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1963a) Acting Chief Engineer to the CA, 11th Feb 1963, in: CPG, Vol 3 Jan 1962-Mar 1966, CNT/ST/5/1/AP/C37.
SDC (1963b) Memo to the Car Parking and Garaging Committee, 31st January 1963, in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1965a) R.C. Edleston to CEO, CE, CFO, CEA, 12th October 1965, in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1965b) Report on Additional Garages and Provision of Drive-Ins, 12th October 1965 in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1966) B.T. Collins to CA, 30th November 1966, in: CPG Vol 3, CNT/ST/5/1/AP/C37.
SDC (1970) Draft Masterplan Working Paper No 1: Allotments Survey, in: Social Relations, CNT/ST/17/1/43, HALS Box 585.
SDC (1971) Social Indices in Stevenage, CNT/ST/17/1/43, HALS Box 585.
Sheller, M. (2003) Automotive emotions: feeling the car. *Theory, Culture and Society,* 21**,** 221-42.
Shove, E., Pantzar, M. & Watson, M. (2012) *The dynamics of social practice: everyday life and how it changes,* London, Sage.
Shove, E., Watson, M. & Spurling, N. (2015) Conceptualising Connections: Energy demand, infrastructures and social practices. *European Journal of Social Theory,* 18**,** 274-287.
Spurling, N. & McMeekin, A. (2015) Interventions in Practices: Sustainable mobility policies in England. *In:* Y. Strengers and C. Maller (eds) *Social Practices, Interventions and Sustainability: Beyond Behaviour Change.* London: Routledge.
Stevenage Borough Council (2004) Stevenage Parking Strategy (Full version).
Talking New Towns (2015) *Eric Claxton about Creating a Safe Town* [Online]. Available: http://www.talkingnewtowns.org.uk/content/category/towns/stevenage/eric-claxton-engineer.
The Dudley Committee (1944) The Design of Dwellings, the Report of the Sub-Committee of the Central Housing Advisory Committee appointed by the Minister of Health London.
Urry, J. (2004) The 'System' of Automobility *Theory, Culture and Society,* 21**,** 25-39.
Vincent, L. G. (1960) The Town Centre. *The Town Planning Review,* 31**,** 103-106.
Watson, M. (2012) How theories of practice can inform transition to a decarbonised transport system. *Journal of Transport Geography,* 24**,** 488-496.
Willmott, P. (1964) East Kilbride and Stevenage: Some Social Characteristics of a Scottish and an English New Town. *The Town Planning Review,* 34**,** 307-316.