CONTROLLING THE GROWTH OF CAMBRIDGE (UK) : CHALLENGES TO PLANNING ITS BUILT ENVIRONMENT

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Controlling the growth of Cambridge (UK): challenges to planning its built environment[1]

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1 Population growth and spatial spread

Today's town planners speak about "the growth agenda" for Cambridge. But growth has almost always been on its agenda. Cambridge probably more than doubled in size during the sixteenth century, to about 5,000 people, and doubled again in the following two centuries. During the nineteenth century its population quadrupled and during the twentieth century it almost tripled again.

In 1801, Cambridge had a population of just over 9,000. It was close to being the small market and university town about which many people still romanticise. By 1900, its population had increased to almost 40,000 but even then an eminent Cambridge legal historian, F. W. Maitland, could describe the town as "a village writ large". It was still a compact urban community with strong social and economic ties. During the twentieth century, Cambridge's population continued to increase to reach more than 100,000. Growth has been a central feature of Cambridge's past. But it is being written even more significantly into the script for its future. Cambridge today faces the prospect of a gargantuan growth in its population to almost 150,000 by 2021.

Cambridge's population growth produced spatial spread. From its hilltop Roman foothold on the left bank of the river Cam, a settlement expanded organically over two millennia to the Cambridge that we know today. But growth was neither uninterrupted nor evenly spread. From its medieval core within a meander of the river, Cambridge developed into a market and university town with many religious houses. By the end of the fifteenth century, the town had the form and functions that were to characterise it for the next three centuries.

Spatial spread was significantly renewed in the early-nineteenth century when building developments moved onto the privately-owned plots of the recently-enclosed common fields. The coming of the railway to Cambridge in 1845 gave further impetus to spatial expansion of the town especially to the east and south, largely because the colleges and university owned much of the land to the west

1 Avertissement : la note qui suit est le témoignage d'un géographe ayant pris des responsabilités dans l'aménagement urbain. Elle comporte à la fois une analyse scientifique et un plaidoyer en faveur de certains choix d'aménagement. Nous avons décidé de la publier, non seulement parce qu'elle concerne une ville étrangère emblématique, Cambridge, mais aussi parce qu'elle permet d'ouvrir la discussion sur des enjeux actuels de « géographie appliquée » (le comité de rédaction des *Annales de géographie*).

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and north. In the twentieth century, new building has both filled in gaps in earlier developments and further extended the edge of the built-up area with new housing estates (Mitchell 1938 and 1965; Caesar 1965; Bryan 2008).

Cambridge's population has been growing and its built-up area has been expanding for more than two thousand years. Change has been continuous but not constant. Growth and expansion have been expressions of Cambridge's success as a market and university town and as a regional centre. Its continuing success must be expected to produce – and to depend upon – further growth and additional expansion. Cambridge has been a university town for 800 years and for all but 60 of them it grew organically, from the bottom up. Only since 1950 has there been an over-arching attempt to control development, to plan it from the top down.

2 Planning history

In 1950 the first major planning report on Cambridge was produced by William Holford and Myles Wright for the Town and Country Planning Committee of the Cambridgeshire County Council. They wrote: "The Cambridge tradition is cherished by the present inhabitants, not merely as something to be preserved but to be continued. Planners who suggest improvements must therefore be certain either that change is inevitable or that clear advantage is to be gained from it. There is bound to be objection to changes that disturb historic associations or threaten the particular amenities which many different societies in Cambridge enjoy, and there will be serious opposition if it is proposed to change without strong reason conditions of life and work and movement that do very well as they are".

In 1950, Cambridge had about 90,000 people. Holford and Wright were alarmed by the recent, rapid, rate of growth of population and wanted to reduce it, so that the future population would not greatly exceed that figure. They considered that the town could grow to about 100,00 without any great change in its character. They did not wish to see it become any larger. Their basic premise was: "One cannot make a good expanding plan for Cambridge". While Holford and Wright believed that the population growth of Cambridge could be contained, they recognised that traffic flows and thus traffic congestion would continue to increase. They asserted: "If the probability of rapid growth is the gravest problem in the planning of Cambridge, the most urgent is that of traffic".

The solutions that Holford and Wright proposed to the problems they identified more than 50 years ago have not been adequate. They put forward two main suggestions: (1) controlling the physical spread of Cambridge and of the immediately nearby villages; and (2) not building bypasses far out from the town but instead leading traffic through the inner districts along two relief roads. But decanting the city's population growth into the surrounding villages combined with the growth of car ownership and commuting has merely served

to increase traffic congestion within the city itself. Even in 1950 Holford and Wright recognised that the continued increase in the number of vehicles parked on public highways was "a real problem". They believed that it would require an attempt to estimate the real benefit to the whole town of liberal and restrictive parking policies and a readiness to put up with the inconvenience of giving a fair trial to two or three policies in turn. No such trial has yet been held.

Cambridge's planners and politicians have wrestled for more than 50 years with the problems identified by Holford and Wright. Urban development has come to be controlled by a plethora of national and regional as well as local policies, frameworks, structure plans and action plans. These set out the rules of the planning game. They have to be followed by all those playing the game, be they landowners, developers, planners, local councillors or local residents. Some of the rules are rigid and prescriptive; others are flexible and merely provide guidance. But every planning application for a site in Cambridge has to be assessed within the framework provided by central Government legislation and advice, by the regional East of England Plan (2008), and by the Cambridge Local Plan (2006). Alongside these principal policy documents lie others prepared by the City Council – such as area frameworks and action plans setting out the Council's requirements in relation to particular issues or localities. This detailed statutory and advisory framework has to be taken into account when professional planning officers and elected councillors assess applications – as they should also be when developers submit their applications and when members of the public comment on planning applications and on the Planning Committee's decisions. The task is not only sensitive it is also huge: the City Council receives more than 1,500 planning applications annually. Controlling the development of Cambridge is a massive task.

Never before have pressures upon the growth and the planning of Cambridge been greater than they are today,

3 Planning today

Controlling urban growth through the planning process is very controversial. Planning decisions impact upon many different social groups. They almost always involve a "gain" for some people and a "loss" for others. The planning process cannot reconcile to everyone's satisfaction the differing interests of commercial developers, professional architects and planners, environmental lobby groups (such as the Cambridge Preservation Society and the Cambridge Cycling Campaign), local residents and elected city councillors. Compromises have to be sought among these interests but they have to found within the framework of planning policies.

The City Council is determined to make the most of development while grappling with its associated problems. Members and officers of the Council are planning to maximise a range of opportunities. Their aims are to provide

well-designed homes that meet the highest environmental standards; to promote sustainable forms of transport to make Cambridge a more accessible, cleaner and greener city; to create new facilities in the City's neighbourhoods, including schools, community, arts and leisure facilities and green spaces; to drive forward Cambridge's strong local economy and to enhance the City's international reputation as a centre of excellence in higher education and research; and to conserve and enhance the rich cultural heritage that makes Cambridge unique. Splendid "motherhood and apple pie" aims, but achieving them will not be easy given the scale and the pace of the City's expected growth during the next fifteen years.

Cambridge is the major shopping and service centre for a region with almost half a million people; it attracts more than 4 million visitors a year; it has about 23,000 students at its two universities; it has burgeoning research-based industries and high-tech firms; and a medical campus centred on Addenbrooke's Hospital employing about 9000 people. Unemployment is low (less than 2 per cent). There are about 80,000 jobs in the city, with just under half of these being held by its residents and just over half by commuters from beyond the City's boundary (Lewis, 1974; Segal, 1985; Keeble, 1989; Gonzales-Benito, Reid, Garnsey, 1997; Keeble, 1999;Garnsey, Heffernan, 2005). These factors combine to put considerable pressure on housing and on transport. Property prices are very high, roads are heavily congested. While Cambridge has good external road and rail connections (and is close to London's Stansted airport), it suffers internally from traffic congestion on its narrow historic streets and from inadequate facilities for public transport, especially in the city centre. Cambridge's highly treasured open spaces, such as three near the city centre where cattle are seasonally pastured, contribute significantly to the "village feel" of the city but they are being pressured to provide that experience for ever-increasing numbers of residents and visitors (Maitland, 2006).

Economic success produces environmental problems. Planning policies at a variety of geographical scales have been developed both to address those issues as they currently exist and to guide and even promote further growth in Cambridge and its region. The Cambridgeshire Structure Plan adopted by the County Council in 2003 and the Cambridge Local Plan approved by the City Council in 2006 anticipated delivering 12,500 new homes (apartments and houses) in the City between 1999 and 2016. But the Labour Government, in its East of England Plan (2008), is requiring Cambridge City Council to give planning permission for even more new homes, for a minimum of 19,000 additional homes between 2001 and 2021 and to plan for at least a further 1,000 homes each year after that until 2025. The City Council is contesting the additional expansion demanded by central Government.

How can such gargantuan growth be managed in Cambridge? It was envisaged that 6,000 of the 12,500 new homes to be built by 2016 would be within the existing built-up area and 6,500 in new urban extensions (fig. 1). This dual process of *intensification* and *extension* is not without its problems. The former

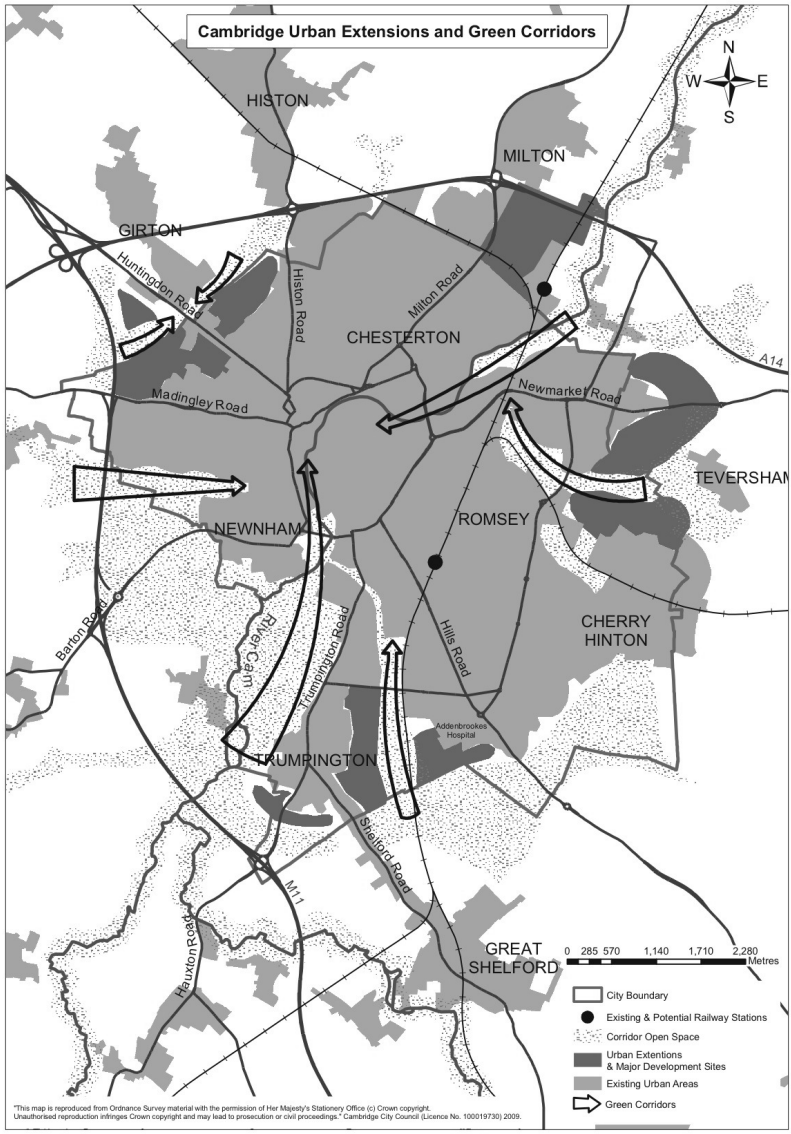

Fig. 1 Cambridge's urban extensions and green corridors. Reproduced by permission from Cambridge City Council.

involves not only building flats and houses on disused industrial and commercial sites but also increasing dwelling densities on existing housing sites, for example by building new homes in the gardens of existing houses or by demolishing large detached houses and replacing them with apartment buildings. Concerns about

the resultant loss of biodiversity, of neighbourhood character and of suburban amenity lead local residents to oppose such developments. Particularly threatened by this process are the principal avenues which present visitors and residents alike with their first impression, after crossing the City boundary, of Cambridge's verdant and spacious character. The second, parallel and not alternative, measure – extension - involves encroaching onto the City's open spaces and in some instances even onto its surrounding Green Belt (Cooper, 2000)[2]. Of course, some of those spaces are "sacred places" which nobody could envisage being developed for housing. But other open spaces are being sacrificed in order to meet the demands for housing. In addition to a massive redevelopment of the area around the railway station in central Cambridge, there are plans to build some 14,000 new homes on its periphery, in new "urban extensions". Such large-scale residential developments create their own needs for roads, schools, shops, community centres, medical facilities and public transport. (Carolin, 2008).

The planned growth of Cambridge is not proceeding unchallenged by local residents. There is, for example, considerable concern about proposals for tall buildings and about the impact of developments on traffic flows. While public opposition to developments is often well-informed, sometimes it is based on misunderstandings about the planning process.

4 Tall buildings

Any major planning application for residential development in Cambridge provokes debate about the proposed building design. But probably no issue promotes more passionate discussion than does that of the height of new buildings. Almost 50 years ago, a distinguished town planner argued that the height to which new buildings should be permitted to rise in Cambridge was a matter "of grave concern" (Sharp, 1962-63). Tall buildings are part of the Cambridge landscape and if they are well designed and carefully located they can become valued, iconic, landmarks. King's College Chapel is often used to symbolise the city (fig. 2) but there are other landmark tall buildings, such as the Roman Catholic Church, the University Arms Hotel, the University Library, and the chimneys at the Museum of Technology (housed in a former sewage pumping station) and at Addenbrooke's Hospital. But these examples are not residential buildings. In the historic core of Cambridge, buildings rarely exceed six storeys and in other parts the historic urban legacy is of much lower buildings. Panoramic views over the city from hills to the south, as well as more localised views such as from the tops of tall buildings in the city or even from its public parks and open spaces contribute to the construction of the widely-shared image of Cambridge's low

2 "Green Belt" is a legal designation of a geographical area made for the purposes of checking the unrestricted sprawl of large built-up areas, assisting in safeguarding the countryside from encroachment and preserving the setting and special character of historic towns.

and verdant skyline with most built structures hidden, a skyline punctured only by a few friendly, public (or at least accessible to the public), towers and spires of the colleges and churches.

Fig. 2 A medieval tall building: King's College Chapel (constructed 1446-1515). The height to the parapet is 29 metres, to which the pinnacles add further height. The buildings in the middle distance (with shops on the ground floor and dwellings above, dating mainly from the eighteenth and nineteenth centuries) have 3-5 storeys, some also with attics.

Proposals for residential buildings that are taller than their neighbours must be considered carefully. They must demonstrate design excellence. What makes for excellence in design is to some degree subjective and there will always be both well-informed and poorly-informed arguments put forward about specific planning applications. But the higher residential densities now being demanded for Cambridge will have to be met in part by buildings that are significantly taller than their neighbours, providing they do not detract from the character of their immediate localities or from key vistas within or from outside the city. In appropriate locations, taller buildings can act as landmarks or focal points – such as the recently completed Belvedere "urban gateway", an apartment building on the main southern access road to the city (fig. 3). Such tall buildings will always be contentious, being viewed by some as bold and creative adornments to the City's urban fabric and by others as blots on its townscape.

Fig. 3 A modern tall building: The Belvedere Tower (constructed 2006). The 8 storeys tower is 33 metres high.

5 Traffic flows

Taller buildings and higher residential densities might bring even more traffic onto Cambridge's roads. Already, about 186,000 vehicles enter the City every

day. More than half of the City's workforce of 80,000 people comes from outside its boundary and more than half of its workforce travels by car. Accommodating the huge population growth in Cambridge itself should reduce commuting to it by car, thereby cutting carbon emissions and atmospheric pollution. But the new developments in the City will inevitably impact upon traffic flows. Cambridgeshire County Council, as the Highways Authority, very rarely judges that a proposed development will have a sufficiently adverse effect upon local traffic flows to justify its opposition to the development. I can recall only two such instances during the eight years that I have been a member of the City's Planning Committee. This flies in the face of common sense. It also illustrates a serious constraint upon the City Council, which has no direct responsibility for highways. The County Council has been very slow to develop strategic plans for the transport networks needed to support the growth agenda for Cambridge. Its preoccupation with a Guided Busway (now under construction) has meant that it has only slowly come to consider demand management measures and to review its policy for managing the intensive commuter parking which seriously erodes the amenity of the City's suburbs.

To the very limited influence that the City Council can exercise over Cambridge's private traffic management has to be added its even more limited ability to influence public transport. The deregulation of public bus services by the Conservative Government more than twenty years ago and the failure of the Labour Government to reintroduce regulation have been and remain major impediments to the comprehensive planning and management of the growth of Cambridge. The City Council has, in effect, no control over bus routes, capacities and timetables. It is limited to exhorting those who live and/or work in the city to leave their cars at home and to use public transport instead.

6 Planning: a misunderstood process

The growth agenda for Cambridge is massive and the development control system is complex. Unsurprisingly, the planning process is sometimes misunderstood by members of the public. From my experiences as a councillor and as a member of the Planning Committee for eight years, I have come to realise that there are some widely-held myths about the planning process. Here are a few of them.

(i) *"Planners never listen to objections by local residents"*. Not so. Members of the public are consulted fully about planning applications – they are able to express their views both individually and as community groups such as residents' associations. There are public consultations on the development of general policies and on policy frameworks for the development of particular areas. When a specific application has been submitted, residents are able to call for a Development Control Forum, a meeting with developers, planning officers and Planning Committee members, to discuss their worries about an application. Neighbours are consulted on local applications of direct concern to them. Planning officers

not only hear but also pay close attention to the views of objectors. But that does not mean that they must agree with those views. Indeed, members of the public themselves often have conflicting opinions about an application. When the University of Cambridge sought planning permission for 26 floodlighting columns to illuminate its athletic track and hockey pitches, objections to the application were lodged from 74 addresses but they were outnumbered by the 160 letters and emails submitted in support of the application. The Planning Committee listened carefully to all of the views expressed but it was clearly not able to agree with such contrasting opinions. It approved the application by eight votes to one[3].

(ii) *"Planners can and should control the opening and prevent the closure of city centre branches of national retail-chain shops (like Woolworth's)"*. Not so. Planning policy only allows the Council to control development in broadly-defined land-use categories. Planning law does not allow the Council to control the arrival or departure of particular companies who want to open or close, for example, shops, food outlets, or offices. The planning system cannot lawfully be used either to restrict competition or to preserve existing commercial interests.

(iii) "There is a private agreement between the University and the City Council that no new building in Cambridge should be taller than four storeys". Not so. The City Council's planning policy is set out in its Local Plan (2006). All developments must be assessed against those policies, one of which relates specifically to tall buildings. Policy 3/13 states: "New buildings which are significantly taller than their neighbours and/or roof-top plant on existing buildings will only be permitted if it can be demonstrated that they will not detract from a) local residential amenity; b) Ancient Monuments and their settings; c) Listed Buildings and their settings; d) Conservation Areas and their settings; e) historic landscapes and their settings; and f) key vistas, the skyline and views within, over and from outside the City".

(iv) "A planning application may be opposed on the grounds that the proposed development would will lower the value of nearby property". Not so. A development's impact on property values is not what is called a "material consideration" when an application is assessed. Material considerations which must be considered are, of course, national, regional and local planning policies, but also the views of statutory consultees (such as the County Council's transport officers, the City Council's Access Officer or the Environment Agency) and factors on the ground (such as visual impact). Objections which are non-material carry no weight when an application is assessed. Reasons for refusal of permission must be defensible because an applicant has the right to appeal against refusal.

(v) "So many people have objected to the application that the planning committee will have to turn it down". Not so. An application has to be assessed taking into

3 Planning application 07/0939/FUL determined by the City Council's Planning Committee at its meeting on 30 January 2008

account the nature but not the number of objections. What has to be assessed is the validity of the objections irrespective of their volume.

(vi)"When objecting to an application it is essential to list as many reasons as possible for objecting". Not so. One good reason is sufficient. Stated reasons for refusal must be valid in terms of planning law and must be based on assessment of the material considerations in the case. A refusal decision might be subject to appeal, so reasons must be sound. If numerous reasons are given, some of them might be weak and not easily defended.

(vii)"If approved, this application will create a precedent". Not so. Each site is unique, so each planning application must be judged on it own merits.

(viii) "With such gargantuan growth, Cambridge will lose many of its green spaces". Not so. The growth of Cambridge is being planned to ensure that the city has a strong green structure. At present there are 265 ha of public open space in the city; under the 'Growth Agenda' it will increase to 580 ha.

Conclusion

Cambridge has changed considerably in the past, it is changing rapidly at present, and it will change substantially in the future. "Cambridge" is synonymous with "change" – it is an internationally-recognised centre of innovation. The challenge facing the city is how best to manage change to its built form for the benefit of all who live, work and play there.

Although Cambridge is a unique city, other British cities face similar challenges. No city remains static, all cities are experiencing change. Controlling urban development involves the twin task of protecting historic environments valued by today's residents and creating new built-forms that future generations will admire. That task is constrained in Britain both by a finely-tuned framework of planning legislation and policies and by the conservatism of many residents. It also involves resolving the conflicting interests of residents, developers, lobby groups, elected representatives and professional planners and architects.

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