The Rural-urban Fringe

Abstract
This article looks at the rural-urban fringe, an important concept in settlement geography. After consideration of general trends and related concepts such as suburbanisation and green belts, there is a detailed examination of part of the south-west sector of London’s rural-urban fringe with a particular focus on land use change in the Epsom Hospital Cluster.

What is the rural-urban fringe?
The rural-urban fringe is the boundary zone outside the urban area proper where rural and urban land uses intermix. It is an area of transition from agricultural and other rural land uses to urban use. Located well within the urban sphere of influence the fringe is characterised by a wide variety of land use including dormitory settlements housing middle-income commuters who work in the main urban area. Over time the characteristics of the fringe change from largely rural to largely urban. Suburbanisation takes place at the urban boundary of rural-urban fringe.

Problems stem from the competing land uses within this zone and the constant pressure for new development, even in areas that have green belt status or other forms of protection. The issues of land use and prospective change are significant in most MEDCs (Figure 1) and an increasing number of LEDCs.

The nature of the rural-urban fringe is influenced by four main factors: agricultural policy, regional planning, the urban economy and the agricultural economy. Baker et al have identified four types of fringe (Figure 2) resulting from these influences:
- disturbed landscapes
- neglected landscapes
- simplified landscapes
- valued landscapes.

This model is useful as it shows that the rural-urban fringe varies in character from place to place according to the main influences acting upon it.

Figure 1 - The North American rural-urban fringe

The North American rural-urban fringe
Figure 3 summarises the main processes operating in the North American rural-urban fringe. In the United States in particular planning controls on urban development have usually been much weaker than in Britain resulting in far more extensive urban sprawl.

In general the size of the fringe area is dependent on the magnitude of the overall metropolitan area and the influence of nearby and competing metropolitan areas. As land values can change so rapidly in fringe areas speculators frequently hold much of the undeveloped land with the ownership and character of land frequently beginning to change more than 20 years before the area is actually built over. Detailed studies of a number of urban regions have shown that investors and property developers own a higher proportion of fringe land where development pressures are strong than where such pressures are moderate or weak. The main processes operating in North American fringe areas are:
- A marked change in ownership land size with distance from the built-up area. Units of land show decreasing size and increasing value with proximity to the urban area.
- The rate at which land ownership changes also varies with distance from the boundary of the built up area with the most intense activity closest to the urban area.
- Development takes the forms of peripheral accretion (adding on directly to the existing urban area), linear development along major routeways and leap-frogging. The locations of the latter are determined by a number of factors including the varying desirability of different locations and the ownership status of the land.

Land use change in the rural-urban fringe is a major issue in most North American urban areas. As more and more fringe land becomes developed, an increasing number of tools have been created to preserve the land that remains. One method that is now being employed in 18 US states is the purchase of development rights (PDR). This is a voluntary system whereby a land trust or some other
agency, usually linked to local government, makes an offer to a landowner to buy the development rights for a parcel of land. If agreement is reached a permanent deed restriction is placed on the property which restricts the type of activities that may take place on the land in perpetuity. In this way a legally binding guarantee is achieved to ensure that the parcel will remain agricultural or open space forever.

**Figure 2  The nature of the rural-urban fringe**

The location of the rural-urban fringe has changed over time (Figure 4), stabilising only after the introduction of green belt restrictions. Successive waves of suburban development swallowed up previous fringe areas as private and local authority builders tried to satisfy the insatiable demand for housing. The development of suburban railways and the increase in middle-income car ownership were the main catalysts in such development.
London's rural-urban fringe

Figure 5 is a sketch map that illustrates part of the south-western sector of London's rural-urban fringe drawn from the Ordnance Survey’s Landranger No.187 Map entitled Dorking, Reigate and Crawley. Figure 6 is an extract from this map that covers part of the area encompassed by Figure 5. You should be able to correlate the following points between the OS map extract and sketch map without too much difficulty:

- the M25 motorway
- the A217
- Epsom racecourse
- the settlements of Ashstead, Leatherhead, Banstead and Tadworth.

Figure 5 South-western sector of London’s rural-urban fringe
Identifying the boundaries of the rural-urban fringe

The critical boundaries are between (a) the continuous built-up area and the rural-urban fringe and (b) the fringe and the surrounding rural area. The boundary between the continuous built-up area and the rural-urban fringe is not difficult to identify (Figure 5). A succession of large open spaces separate the London conurbation from free-standing settlements located within the rural-urban fringe. These open spaces include Horton Country Park, Epsom Common, Epsom Downs and Banstead Downs. Settlements situated within the rural-urban fringe include Leatherhead, Ashstead, Banstead, Tadworth and Walton-on-the-Hill.

The second boundary, that between the rural-urban fringe and the rural area beyond, is perhaps more debatable but it is reasonable to argue that it is formed by the A25 which links the larger fringe towns of Dorking, Reigate and Redhill. To the south of this line:

- the density of population is considerably lower
- the distance between towns is greater
• more settlement is in the form of villages and hamlets
• agriculture is by far the most dominant land use
• the density of major roads decreases
• the level of commuting decreases
• visits from London day trippers fall off considerably
• environmental quality is generally higher.

Land use characteristics
The rural-urban fringe is characterised by a mixture of land uses, most of which require large areas of land. In the area under consideration the Ordnance Survey map shows a large theme park (Chessington World of Adventures), a major horse-racing course (Epsom), golf courses, cemeteries, hospitals, colleges, prisons and many farms. However, there are other typical fringe land uses not shown by the map. These include retail parks, business parks, waste disposal sites and a wide range of residential areas.

Epsom (Figure 7) has a worldwide reputation in the horse-racing industry. It is the venue for the Derby and the Oaks, two of the five classic horse races. The area around the race course is also renowned for racehorse training. The number of horses in training is approximately 300 spread among 12 trainers.

Figure 7  Epsom Race Course

Chessington World of Adventures (Figure 8) is the biggest theme park and zoo in the South of England with over 1.7 million visitors a year. Chessington Zoo was opened in 1931. After the Second World War Chessington became known for a wider range of activities – circus, funfair and miniature railway – in addition to the zoo. However, in the early 1970s the attendance figures of over 800,000 a year began to decline. In 1981 it was decided to transform the site into a theme park. At a cost of £12 million the new Chessington World of Adventures was opened in 1987. The opening coincided with the opening of the M25 which gives easy access to Chessington from a wide area. About 18 million people live within a two hour drive.

Figure 8  Chessington World of Adventures
The people who use the facilities in this area come mainly from London. Land uses such as the theme park and the race course could not be sited within the conurbation because either (a) sufficient space was not available, except within strictly protected areas (parks, commons etc.) or (b) the cost of such a large tract of land would be so great that the business would have no chance of making a profit. Thus it was logical for these land uses to locate where the space requirements could be met as close as possible to the continuous built-up area. It is likely that both Chessington and Epsom would attract considerably fewer visitors if they were located 20 miles further away from London.

**Green belt status slows land use change**

Land use in this area changed rapidly until the Green Belt Act came into force and imposed strict limitations on future development. New building has only been allowed when deemed beneficial for the community or in the national interest. The latter reason justified the construction of the M25 through Green belt land in the rural-urban fringe and the widening of major roads. However, developers have found it very difficult to get planning permission for a change in land use. Land in this area commands around £2500 an acre for farming but would be worth as much as £500,000 an acre if released for housing.

Even existing land uses find it very difficult to develop their own sites. Chessington World of Adventures has not been allowed to build above the tree line and often has to completely screen new attractions.

While there are many positive aspects to land use in fringe areas there are also many concerns regarding land use too (Figure 10). Illegal fly-tipping is often a significant problem because of the proximity of so much building work going on in the city.

**Figure 9 Issues in the rural-urban fringe**

<table>
<thead>
<tr>
<th>Land use</th>
<th>Positive aspects</th>
<th>Negative aspects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agriculture</strong></td>
<td>Many well-managed farms and small-holdings</td>
<td>Farms often suffer litter, trespass and vandalism; some land is derelict in the hope of planning permission</td>
</tr>
<tr>
<td><strong>Development</strong></td>
<td>Some well-sited, carefully landscaped developments such as business and science parks</td>
<td>Some developments, such as out-of-town shopping areas cause heavy traffic flows and pollution. Unregulated businesses such as scrap metal</td>
</tr>
<tr>
<td>Urban services</td>
<td>Some, such as reservoirs or cemeteries, may be attractive</td>
<td>Mineral workings, sewage works, landfill sites etc, can be unattractive and polluting</td>
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<tr>
<td>Transport</td>
<td>New cycleways and footpaths can improve access to the countryside</td>
<td>Motorways destroy countryside and promote new development, particularly near junctions</td>
</tr>
<tr>
<td>Recreation and sport</td>
<td>Country parks, sports fields and golf courses can lead to conservation</td>
<td>Some activities such as stock car racing and scrambling erode ecosystems and create localised litter and pollution</td>
</tr>
<tr>
<td>Landscape and nature conservation</td>
<td>Many SSSI (sites of special scientific interest) and AONB (areas of natural beauty)</td>
<td>Much degraded land e.g. land ruined by fly-tipping; many SSSIs under threat.</td>
</tr>
</tbody>
</table>

**Figure 10  Negative aspects of the rural-urban fringe**

**Land use change: case study of the Epsom Hospital Cluster**

However, at times, significant new developments have been allowed. One of the most recent has been new housing development (Figure 11) on the old site of the Epsom Hospital Cluster (Figures 5 and 6). The Hospital Cluster encompasses four former NHS establishments and their grounds within the Green belt to the west and northwest of Epsom. The borough of Epsom and Ewell straddles both the continuous built-up area and the rural-urban fringe. The Green belt makes up 42 per cent of the land area of the borough.

Under the ‘Care in the Community’ policy for the mentally ill, which began in the late 1980s, the cluster of Victorian hospitals, like many others around the country, were gradually closed down. By the late
1990s most of this area was derelict and the Epsom and Ewell council had to come to a difficult decision:

- either allow the building to deteriorate (to maintain them as empty buildings would have been extremely expensive)
- or allow new housing development.

![Figure 11 Green Belt Development](image)

The Epsom and Ewell council opted for the latter because:

- Government guidance and the Surrey Structure Plan (the borough of Epsom and Ewell is part of Surrey) recognise the exceptional circumstances within the Green belt created by large building complexes which are no longer required for their original use
- central government has been pressurising county councils to speed up the release of land for development where possible because of the shortage of housing nationally
- there was general public support for the re-use of the hospital sites following closure providing certain criteria were met.

In December 1997 the Borough Council granted outline planning permission for the development of about 1500 dwellings and associated facilities although it is now likely that the final outcome will be 1300 new dwellings.

The borough’s objective is to create a distinct new community at the Epsom Hospital Cluster while enhancing the area as a resource for the whole borough. The plan involves:

- clear separation of the new residential areas from the existing built-up area
- formation of highly individual residential areas with a mixture of new buildings and the conversion of existing buildings
- provision of complementary local facilities
- retention of mature garden areas
- provision of a comprehensive range of borough-wide and local recreation and leisure facilities within the open land.

The main adverse consequence has been an increase in traffic volume, particularly in peak periods around Epsom town centre and on major roads into London. Other new housing developments in different locations within this general area have caused similar problems.

The future of this fringe area

The pressures on green belt land remain formidable. A report published in 1995 projected that the number of households in Britain would rise by 4.4 million between 1991 and 2016. Each county in the country was told by central government to find space for a given number of new homes. Every part of the country is under pressure, which is at its most intense in the South East. Other land uses such as leisure and retailing are continually looking for more space. Can the green belt in general and this area of London’s rural-urban fringe in particular resist such intense pressure?
Improving Britain’s rural-urban fringe areas

In early 2003 the chair of the Countryside Agency, Sir Ewan Cameron stated, ‘Now is the time to make major and long-term improvements to the urban-rural fringe. At the moment this countryside is all too often badly planned and badly managed making it unattractive and neglected – it is a wasted asset.’ He identified two key facts illustrating the importance of the urban-rural fringe:

- over half of all day trips to the countryside have a round trip distance of under five miles
- some of the most deprived urban estates are located on the edge of cities.

The Countryside Agency argue that well-managed rural-urban fringes will bring health and social benefits for local communities and attract visitors. At the same time visitors will bring much needed money into the local economy and provide the opportunity for local farmers to re-engage people with the process of food production. A more attractive rural-urban fringe will help to encourage inward investment.