GCSE Geography Coursework: Cambridge

Introduction

This year as part of my GCSE course I travelled to Cambridge with the rest of my class to carry out my GCSE Coursework on settlements. On getting to Cambridge, my aims were to find out if the general characteristics of the CBD's I have studied were put into practise in Cambridge, and to see if Cambridge has a typical CBD. To do this I carried out several different surveys of the area.

Background

Cambridge has been an important British town since Roman times, and the success it has had as a settlement is mainly due to its position on the River Cam. This makes Cambridge a wet-point site, and also a bridging point and a defensive site. It began to establish it self into the religious and educational town we see today in 1209 when a group of religious scholars broke away from the famous Oxford university after academic disputes and settled there. Thus Cambridge is the proud home of many old universities and colleges like Kings College and Cambridge University, arguably the top two in Britain. Today it is also popular for tourism accommodates 3 million tourists each year. Of course this is mainly due to the historical colleges, but there are many other sites of interest in Cambridge such as the 12th Century 'Round Church, the Fitzwilliam Museum and the ever popular River Cam itself, where tourists can enjoy the lazy pastime of 'punting.' The 3 million tourists Cambridge receives each year is made even more impressive with the fact that Cambridge itself only has a population of 110,000. This however does not include the universities, which add an extra 65,000.

Cambridge is only fifty miles from London and has good access to other major cities in England. There is also a small domestic airport and a British rail system going to London.

Today Cambridge also serves as a service city to many of the surrounding towns and villages as the biggest market town in its area. This means Cambridge attracts a lot of trade and is one of the fastest growing regions in Britain for light industry. The science park which has assembled here does well to help this. It is an area with greenery modern buildings owned by industrial and hi-tech companies with good contacts to the universities.

What is a C.B.D?

The CBD, or Central Business District is the commercial centre of a city or large town. It is full of shops and offices, is a meeting place for transport routes and its land values are very high do to the intense competition between developers for space. As a result of the little available space, buildings are very tall, and building density is very high. Very few people live in the CBD.

Urban Models

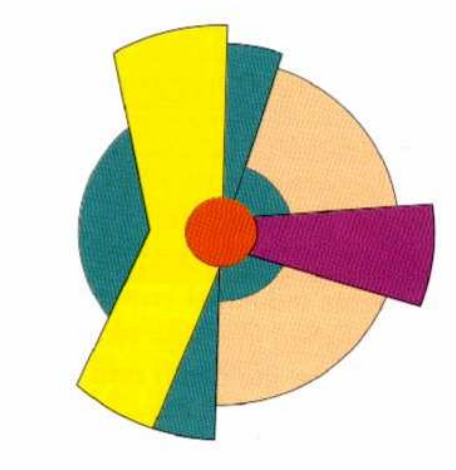
There are two main Urban Models we use in Geography to describe the patterns of land use in cities: The **Concentric Zone Model** (Burgess) and the **Sector Model** (Hoyt).

For both of the models on the following page the key is as follows:

The Concentric Zone Model

This says that the centre is the oldest part of the city and building spreads ou t from the middle, meaning that the newest part of the city is at the edge.

The Sector Model

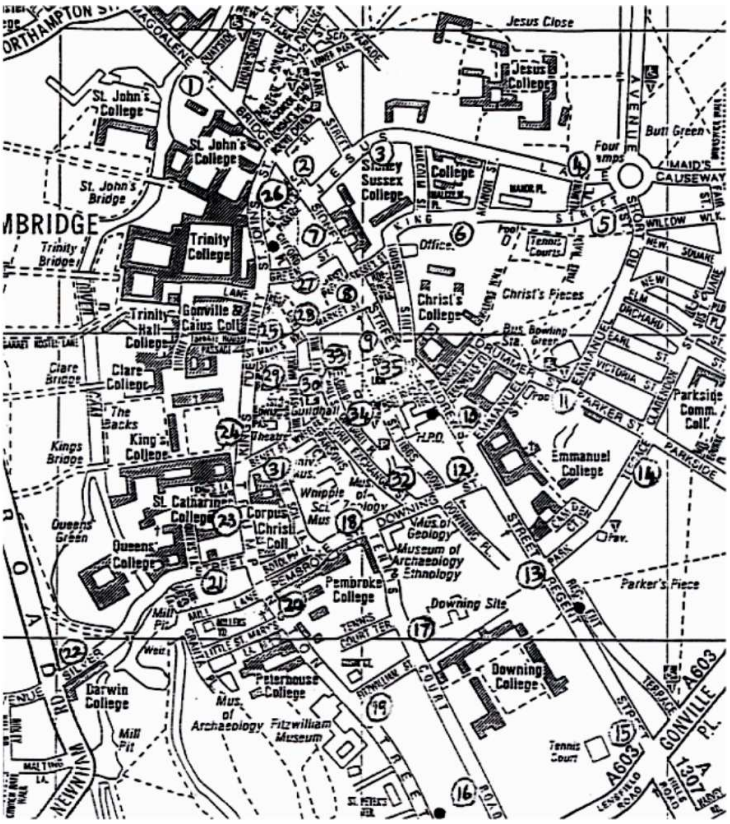


This model expanded the Burgess idea and took into account industrial development along main route ways of the city.

The Surveys

1. The Pedestrian Count

Each boy in our party stood at a numbered location on our map (Below), and counted the number of pedestrians walking past him over a period of 10 minutes, recording them on our sheets. Below is a map showing the numbered locations each of the thirty five boys took his pedestrian count.



My Hypothesis

I think that the boys further away from the centre of Cambridge would have lower pedestrian counts than the boys closer to the centre; i.e. There will be more pedestrians in the centre of Cambridge than on the outskirts. This is due to the concept of the urban models (Burgess and Hoyt), meaning that the centre of Cambridge will be full of high demand shops and services which many people need to use, and people come from miles around to use. The shops and services on the outskirts of Cambridge will mainly be used by the local residents and be a) Not as big and b) Not have such a high demand.

Results

See Isoline Map, Scatter Graph and Table.

Analysis

My Isoline Map of Cambridge shows that, as I predicted, the overall trend of my data is that the further you move away from the city, the fewer the number of pedestrians. This theory is backed up by my scatter graph, which shows a negative correlation meaning that the pedestrian counts and the distance away from the city centre are inversely proportional, with lower counts the further you move away. The two innermost, red coloured zones of the map have pedestrian counts in the mid four hundreds. These counts are this high for a number of reasons. They are in the **centre** of Cambridge's CBD, and as a result are filled with high demand shops and services, and a large number of densely populated office blocks. For instance the reading recorded on Market road, showing 419 people passing that point in ten minutes was most probably due to the famous 'Cambridge Market' which lies there. The highest reading of 465 on the corner of St Andrews street was again due to the presence of a great many shops and services. I also note that the time when these readings were taken is also important. The fact that they were taken at 11:30am on a Wednesday morning is crucial as this would be one of the times where the highest density of people would be shopping and working in offices. If these readings had been taken at 11:30am on a Sunday then I believe that the results would have been very different.

At point number 27 I would say that there is an anomalous result. A pedestrian count of only 90 here does not keep in with the 400+ trend, and though there are a few similar results around it, such as the 107 at point 28, I feel that this result is an anomaly. A possible explanation for this is that there are very few shops in that area, but I think that a more likely one is that the boys took the reading at a point which was not actually on the main road, but down a tiny side street. Of course the boy may simply have got it wrong.

The next zone on the Isoline map is coloured orange and deals with pedestrian counts from 300 down to 200. These points are situated mainly near the larger collages meaning I would estimate that the majority of the pedestrians would be tourists. This theory is corroborated by the fact that the highest reading of 270 was recorded at the corner of the St John's Collage, a place of great tourist interest.

The final yellow zone is for counts of 200 to 100. They seem to be mainly clustered around the western side of the shopping district, with four out of the seven reading found here. The other three readings are on main roads, with the highest of 178 being found at a junction of two main roads.

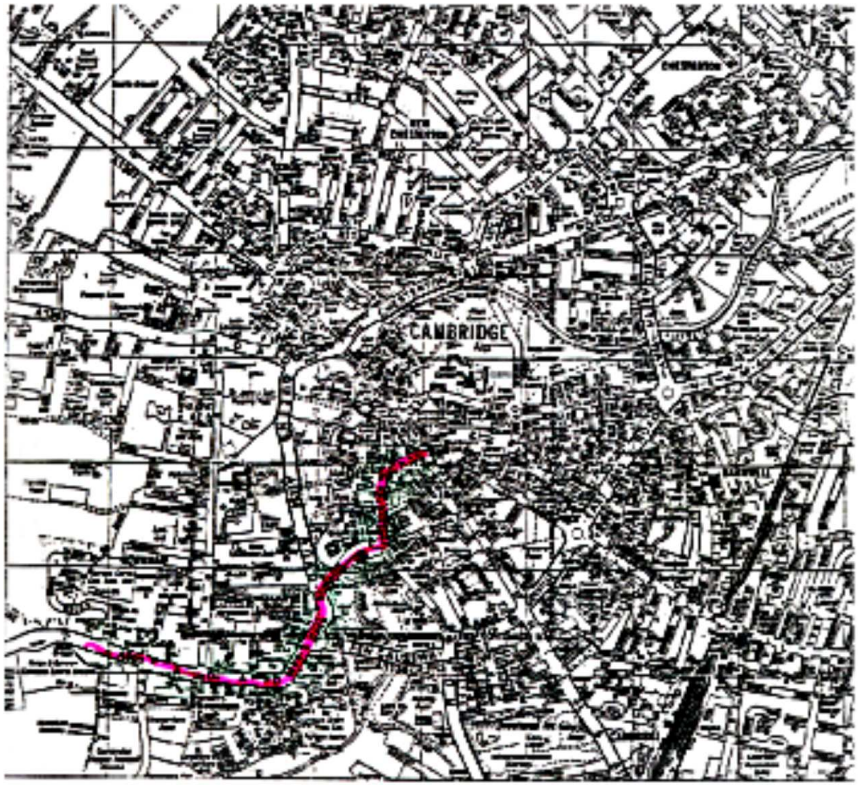
This Isoline map is similar to the Burgess Urban model, in the highest density of people are in the centre of the town. However, it also differs from it as the zones are clearly not circular, with no people being found on the river.

Evaluation

The Transect

The transect was a long main road going in one general direction. The boys were divided up into groups, and each group had a different transect. Along the transect we collected the data for the Tax Disc survey,

The Lad usage survey, The building Height and Age Survey, The parking restrictions survey, the Transect pedestrian counts and traffic count. A map of my transect is highlighted below:



2. Tax Discs

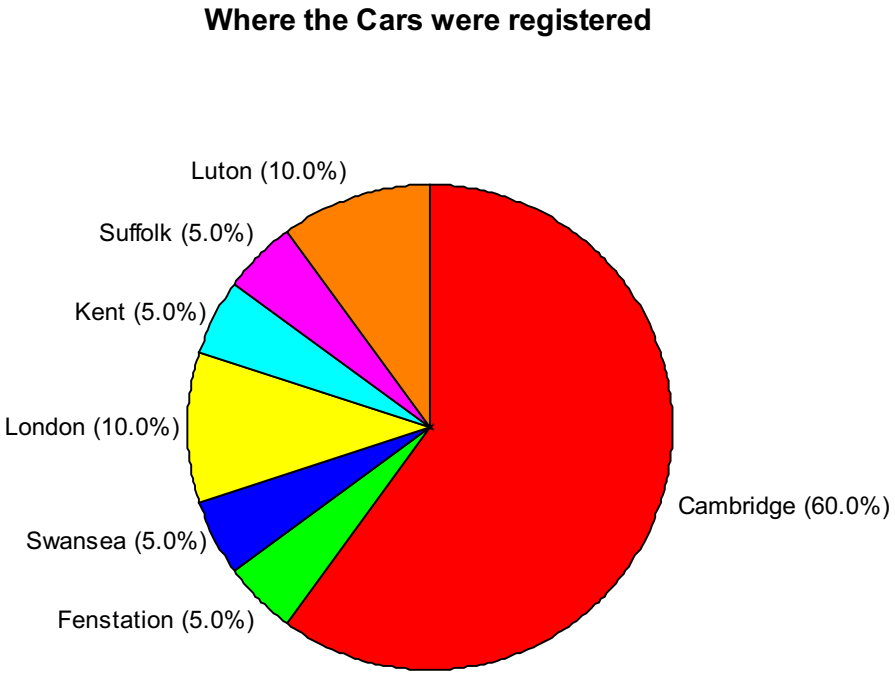
Each group of boys walked down the transect, and recorded the place where the first twenty cars they came to were registered (Shown on the tax discs).

Hypothesis

The only possible Hypothesis that I can mention is the I believe that the majority of the cars will have been registered in Cambridge, as most of the residents of the city (who most of the cars belong to) would probably have bought their cars in Cambridge.

Results

See Map and Pie Chart (Below)



Analysis

As you can see from my tax discs map, most (12 out of 20) of the cars I surveyed were registered in Cambridge. This fits my prediction, and the is obviously because the survey was carried out IN Cambridge, and therefore any residents surveyed were very likely to have their car registered at the placed they lived. In regard to the other 8 cars not registered in Cambridge, the ones registered in relatively far off places such as Kent and London and were most probably belonging to tourists who had come up to see Cambridge.

Evaluation

3. Land Usage

Every 50 paces along the transect I noted the land use of the ground floor in the building to my right.

Hypothesis

As you walk further away from the centre of Cambridge, the land use will generally change from Commercial uses (e.g. Shops, Warehouses), Industry (and Offices), and Services, to Residential and Natural (e.g. Parks, Open Space) land uses. This is again due to the concept of the urban models, with the centre (CBD) of Cambridge being the shopping and business district, and moving back through the city into the inner city area, and then the residential area.

Results

Analysis

Evaluation

4. Age and Height of Buildings

For the same buildings as in the land use survey I recorded the age of the building, and the number of storeys.

My Hypothesis

For Age: That the age of the buildings would generally decrease as we walked further away from the city centre. This is due to the fact that the city started of as the small area we now call the CBD, and it is here that the first buildings were, and therefore the oldest ones. The city then gradually grew outwards, and newer buildings were built. For Height: That the Height of the buildings would generally decrease as you walk further away from the city centre. This is because in the centre of the city there is limited space, so developers build compact but tall buildings. As you progress out of the city centre, more space becomes available so developers do not have to build such high buildings.

Key for Age

I refer to the age of the buildings as 1, 2, 3 or 4. There meanings are as follows:

1. Terraced Housing Pre-1900

- Stone roofs
- Tall chimneys
- No front gardens
- Stained glass above the door
- No place for cars
- Attic Bedroom
- Made of Brick or stone

2. Interwar Housing

- Tiled roof and porch
- Curved bay windows
- Brick rendered with pebble dash or concrete
- Metal window frames
- Small front gardens
- Drive but no garage

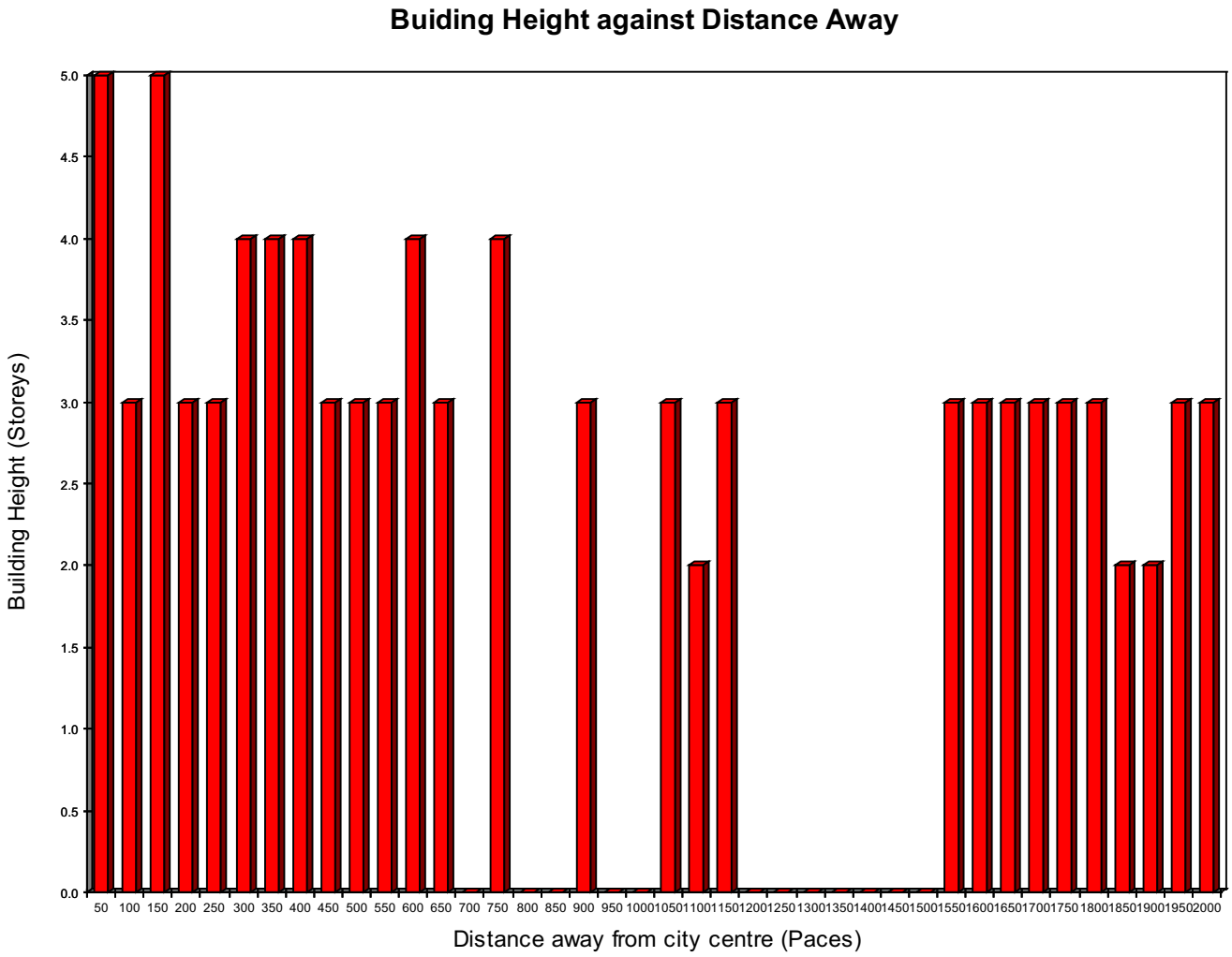
3. 1950s

- Steep tiled roof
- Square bay windows
- Garden with walks and hedges
- Tiled porch roofs
- Tiled upper bays

4. Modern day housing

- Some double garages
- Central heading chimney
- PVC or wood windows
- Plain front gardens
- Wood panelling
- Shallow roof

Results



(NB: A height of zero means that there wasn't a building there, just open space)

Analysis

Looking at my chart I can say that my results do support my original prediction, and the height of the buildings does decrease as you get further away from the city. As you can see, right in the heart of the CBD and for the first 150 paces the building heights were very high, with two of them reaching 5 storeys. These buildings will mainly be offices. This is due to the fact that the CBD is where the most business is done, and so everyone wants to have their business there. This means limited space, so developers must build higher to accommodate for the lack of ground area.

After these initial tall very buildings, the next 500 paces (Up to 650) the buildings are mainly three or four storeys high, still quite tall. It is when we get 700 paces into the transect, and we meet the first 'open space' that we know we have truly left the high demand area. For the next 800 paces there is much open field, with 12 out of the 17 pieces of land surveyed then were free from buildings. This means that we were now leaving the city altogether, and moving out into the country.

At 1500 paces the buildings start