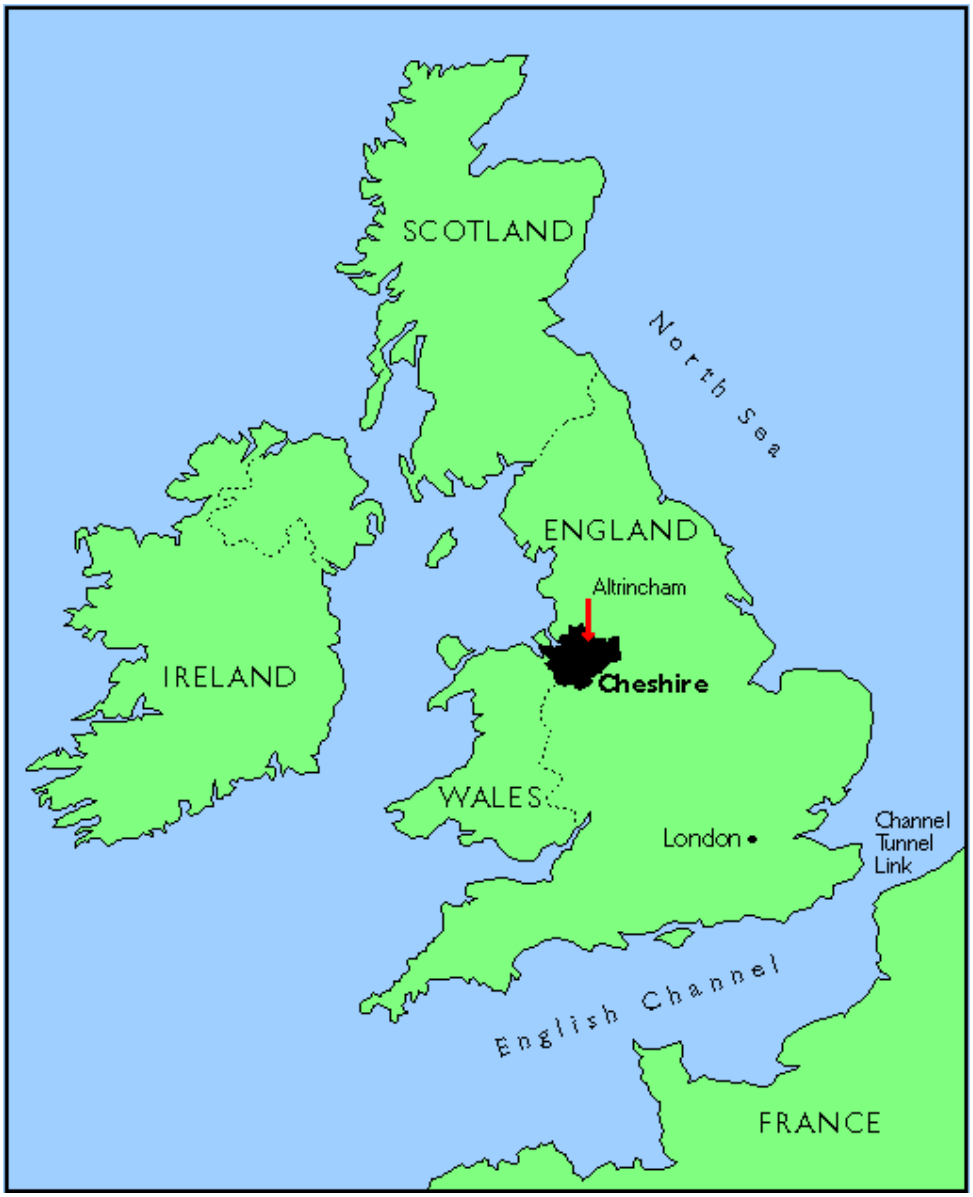
Geography Coursework

Altrincham Fieldwork

2nd October 2001

Introduction



When I went to Altrincham I was prepared for what I was going to do. I had also researched about Altrincham's history. This helped when it came to defining the CBD as I already had a fair idea of where the centre was. What I found was from a web site. This research was found at – http://www.luso.u-net.com/altrinch.htm.

"The oldest part of the town is that around the Old Market Place and Church Street. The town became part of Trafford

Metropolitan Borough in 1974 having, till then, been part of the County of Cheshire. Today, most of the town's heavy industry has disappeared and much of Broadheath is now a Retail Park, housing Homebase, B+Q and other national stores. The railway link has also declined, with Altrincham now served only by an hourly service to Chester and Manchester (via Stockport). The town centre was redeveloped in the 1970's and lies along the pedestrianised George Street and the Parallel Stamford New Road, which lead southward to The Downs, Hale and Bowdon. The Town's old market hall survives, as does the covered market itself, which is sited between Market Street and Greenwood Street.

<u>Aim:</u> My aim is to define the boundaries and location of the CBD in Altrincham. This was done by using my hypotheses and taking them to be true.

My definition of a CBD (Central Business District) is brought about by the main characteristics of a general CBD. These characteristics are:

1. **The CBD contains the major retailing outlets. The principal Department Stores and specialist shops with the highest turnover and requiring largest threshold populations compete for the prime sites.**

2. **It contains a high proportion of the city's main offices.**

3. **It contains the tallest buildings in the city, mainly due to the high rents, which result for the competition for land.**

4. **It has the greatest number and concentration of pedestrians.**

5. **It has the greatest volume and concentration of traffic. The city centre grows at the meeting point of the major lines of communication into the city and therefore has the greatest accessibility**

6. **It has the highest land values in the city.**

This list of 6 things is also my prediction of what I expect to find in the CBD of Altrincham. These hypotheses are my thoughts and ideas about how Altrincham's CBD can be defined.

Method

On the second of October, our school (The Grange School, Hartford) went on a fieldtrip to Altrincham. We were dropped off in what appeared to be the CBD. However our aim as a whole and individual was to define the location of the CBD. We were put into pairs, in which we were to count how many, specific buildings there were in out areas. Our 'specific' buildings included:

- **Newsagents (A)**
- **Charity Shops (B)**
- **Pubs (C)**
- **Banks/Building Societies (D)**
- **Jewellers (E)**
- **Big Department Stores (F)**
- **Shoe Shops (G)**

After collecting our data in our pairs and noting the data down on our street maps of Altrincham. We split up in order to complete our main objective, to count each waling person (including wheelchairs but excluding children under 3) going past us in both directions in a certain amount of time. We did this 'Pedestrian Count' in 2 specific areas (see diagram). Each person had 2 sites but some sites were given 2 people. This was to ensure a more accurate result. Each count lasted 10 minutes and we recorded the data on special data sheets (see example) in tallies. We did these counts at certain times during the morning and afternoon. This was to see what would happen at different times during the day, when people were leaving. We also repeated these 4 times at each site, to give a bigger range and to give more reliable results.

Diagram –

Example –

Town Centre Pedestrian Count	**Date:02/10/01**
Data Collected by: Andy Robertson **Point Location in the study area: 4**	
Pedestrian Count No.1 **IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII IIIII II** **Total:72**	**Pedestrian Count No.2** **IIIII IIIII IIIII IIIII IIIII IIIII IIIII III** **Total:38**
Pedestrian Count No.3 **IIIII IIIII IIIII IIII** **Total:19**	**Pedestrian Count No.4** **IIIII IIIII IIIII IIIII II** **Total:22**
RESULTS **Total Time spent counting: 40minutes** **Average No. of Persons counted: 35** **Pedestrian Flow Rate: 0.875 people/min**	

Once we had completed this task wee took up out own tasks, e.g.

- **Counting no.'s of storeys on different types of buildings**
- **Finding where derelict buildings were**
- **Discovering if types of buildings were clustered together**
- **Seeing what type of layout was (Nuclear, Linear or Dispersed).**

We arrived back at school and sorted our data and tallies out. This showed us how accurate our 'counting' was (conferring with others).

Along with our main aim I had other aims, these were:

- **To see how the 'Rateable Values' were dispersed around Altrincham. I did this by going to the local Town Hall and asking for the details on the area. This was then copied down into my notes.**

- **To see what happened to the order of services in and around the CBD of Altrincham. This was done by noting down what I found whilst walking around Altrincham**
- **I also looked to see how tall the buildings were (how many storeys).**
- **The Convergence of Infrastructure was very obvious when I was in Altrincham, but I noted down what I found and looked for how accessible Altrincham's busiest area was.**

Analysis

Altrincham itself can be seen in my Isopleth maps. My isopleths also show the concentration of rateable values and pedestrian count in the centre of Altrincham. These will start to define the CBD of Altrincham to us. We presumed that the area where we were told to cover did in fact include the CBD itself. We can define the CBD of Altrincham with our Isopleths by seeing where the highest rateable values and pedestrian counts were. The largest values moved into the centre to include George Street and some of Stamford New Road. These are shown as elliptical, shaded areas on my isopleths. The highest rateable values and pedestrian counts are shown as colours in my key. These areas seem to increase in numbers the closer to George Street they are. This would suggest George Street is the CBD of Altrincham (see map). This was both for the rateable values and pedestrian counts. The areas of growth and decline seemed to grow near George Street and Stamford New Road and decline in the outer areas (shown on my Isopleth maps). We had some anomalistic results. These were, in the rateable values; 5289 near site 7, 1227 near site 26 and 3105 near site 22. These could possibly be anomalies because these are run down areas (in the low cost areas); they may have closed down shops there or derelict buildings. However in the quite high anomaly was caused by this area being the old city centre where the banks were. This would mean the rates there would be generally higher.

The variations between the rateable values and pedestrian counts are not much they basically follow a similar pattern. Both are of elliptical shapes spreading outwards. Both the innermost areas

(areas of highest values) covered George Street, which would suggest George Street is the main centre of Altrincham.

My Scatter graph shows a slight pattern but it is not very clear, the pattern seems to be directly proportional from the origin. We used the Spearman's Rank to calculate the correlation coefficient because it is a very accurate method of measuring this. The closer to 1 or -1 it is the better the result is and therefore if the result is 0.0 it shows no correlation at all. I got 0.77, which is a good result and shows our results were quite accurate and had a strong positive correlation i.e. as the numbers of pedestrian counts increased, so did the rateable values.

We worked this out by using a certain Formula – $R= 1-6\Sigma d^2/n^3-n$. This is where:

R=Correlation coefficient

d=the difference between rankings

n=the total number of sites.

The correlation coefficient is calculated to highlight the strength of relationship between 2 variables. If a graph is drawn but the conclusions drawn are inconclusive, a Spearman's Rank Correlation Coefficient can be calculated and used to identify the strength of the relationship between the two.

In my hypotheses I predicted 5 main things these were:

1. **<u>The Highest Number of Pedestrians Would be in the CBD</u>**
   This turned out to be true as is shown in my Isopleth map of the pedestrian count and Spearman's Rank Correlation Coefficient.

2. **<u>The Rateable Values will Increase Towards the CBD</u>**
   This also turned out to be true and can be observed in my Isopleth map of the rateable values as well as my Spearman's Rank Correlation Coefficient.

3. **<u>The Order of Services will Decrease Outwards from the Centre</u>**
   This was not hugely noticeable, as, along George Street (my supposed CBD) there was a large amount of high order services such as big department stores. However just a quarter of a mile away the service were more-or-less unnoticeable.

4. <u>The Tallest Buildings will be in the Centre</u>
This was also not very noticeable; the buildings were not of any perceptible height although some office blocks were of 6 or 7 storeys high. These were around my supposed CBD and if this city had been bigger I'm sure there would have been a much more visible variation of height and location.

5. <u>The Convergence of Infrastructure will grow towards the CBD</u>
This is definitely the most obvious of the five just by looking at Altrincham and the surrounding area we can tell there is a clear convergence of infrastructure. There is a train station Just below Stamford New Road, which is just a 5-minute walk from George Street. Also all the roads merge into George Street. Not all of these streets are accessible but they all 'converge' into the CBD.

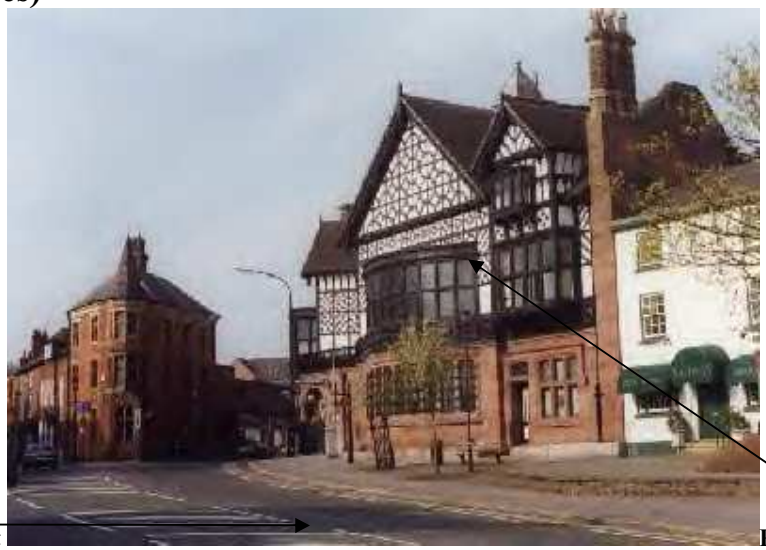
These explanations and hypotheses fit my results very well. They prove what I earlier thought and also give me enough evidence to later go on and develop these ideas into another city or bigger city. This could help me further my work on this particular subject and help me develop my ideas.

There are, however, limitations to this fieldwork, there are only a certain amount of things we can do in a small city like Altrincham. If we wanted to carry on this kind of work we would have to develop our ideas into more complex forms e.g. Exact numbers of building density etc. There are also some improvements that could have been made to this piece of work; we could have included more things to measure (Density of Buildings, measuring more kinds of buildings, widening the variety of pedestrians counted), we could have also put the different types of pedestrians in categories (this would be hard) to see which type and age of person arrives in the CBD at different times and by different methods of transport. It would also be possible to count on more than one day to take the average over a longer period of time, as the data we took was from one day (this day was also market day and therefore may give a false impression).

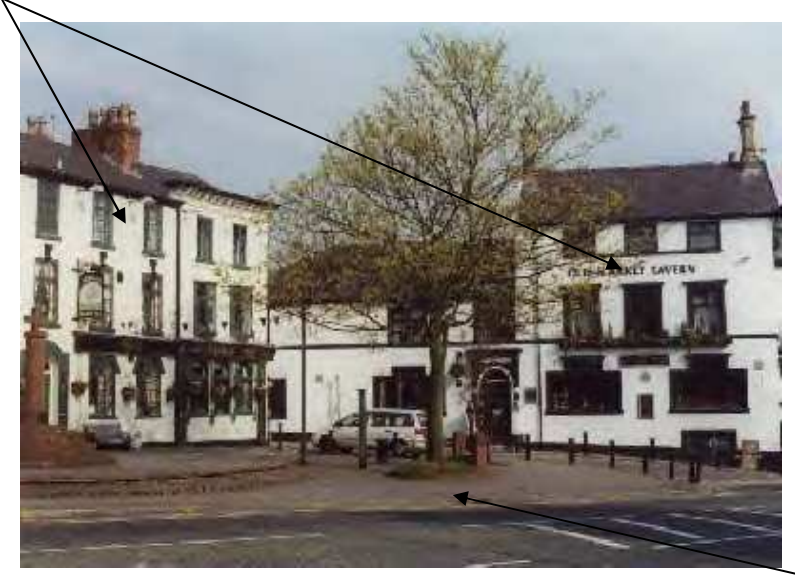
<u>Conclusion</u>

The majority of my conclusion is explained in the analysis although the most important point is that the results support my hypotheses. These prove my 2 main theories; that both the pedestrian count and the rateable values would be higher nearer the CBD. A

further point is that the CBD has moved as Altrincham has grown, as previously the CBD centred around the old banks and market place. (See pictures)



Previously Lloyds Bank, Altrincham



The Old Market Place, Altrincham

Geography coursework – Functions

(For all information use the diagrams at the back)

Aim: To locate the functions in Altrincham in relation to its CBD.

Hypothesis: The nearer I am to the CBD the more higher services I will encounter. Therefore the further out I go; there will be more low order services and fewer high order services. Consequently I predict, higher order services will be found within the CBD and order will decline outwards from the centre.

Method: While we were in Altrincham discovering pedestrian counts and rateable values, we also found the functions, their concentrations, type and frequency in this general area. This was done by locating each high order and low order service shop and seeing the pattern of their concentrations and frequencies. Once located, we recorded these results on maps of Altrincham. After doing this we plotted all these results on separate maps according to each shop recorded. We recorded 7 types of shops, these were:

- **Newsagents (A)**
- **Charity Shops (B)**
- **Pubs (C)**
- **Banks/Building Societies (D)**
- **Jewellers (E)**
- **Big Department Stores (F)**
- **Shoe Shops (G)**

(As shown in Method)

Results: (see all maps of Altrincham, with inter-quartiles marked on)

Analysis: My results show that the functions start to rise around the middle of my elliptical circles on my last maps. The high order services such as the banks/building societies, big department stores and jewellers, grew in both frequency and concentrations the closer to the found CBD, George Street and Stamford New Road, just as I predicted. Also I found that the low order services seemed to cluster outside my elliptical circles, usually in groups. All of these groups can be seen on my maps and a very good example is the map of pubs and the cluster on Church Street. The general definitions of the areas of each service can be seen by the area calculations on my maps. This indicates that the closer to the CBD the more high order services are

encountered. I think my maps are generally enough evidence to support a firm conclusion and show that my prediction was clear, precise and the evidence significantly proves it.

Table to Show Inter-Quartile Index of Services in Altrincham					
Land Use	**No. Of points**	**IQ Area m²**	**IQ Index m²**	**Median Point**	**Rank**
Banks/Building societies	**9**	**20111**	**0.020111**	**Stamford New Road**	**5**
Newsagents	**3**	**12084**	**0.012084**	**George Street**	**7**
Jewelers	**10**	**53446**	**0.053446**	**Railway Street**	**3**
Charity shops	**9**	**25688**	**0.025688**	**George Street**	**4**
Pubs	**20**	**137883**	**0.137883**	**Stamford New Road**	**1**
Department stores	**9**	**120666**	**0.120666**	**George Street**	**2**
Shoe shops	**4**	**16900**	**0.016900**	**George Street**	**6**

I represented the Median Point with the closest named road and the IQ index was worked out by taking the fact that the approximate area of Altrincham (that we measured) was 1000000m^2. I also took that my maps had a scale of 1cm : 6500m (As shown on my maps).

Explanation of Inter-quartiles

Banks/Building Societies

These can be mainly seen as a linearly clustered group of shops. This can be seen by the small IQ index of 0.020111 and the fact they are mainly clustered around Stamford New Road. This can be explained by the fact that Banks needed to be compared by the various types of customers. Therefore banks clustered in a highly pedestrianised area.

Newsagents

I found the Newsagents had the smallest IQ Area and therefore should be very clustered. However I found these Newsagents were infrequent and well spread out. In conclusion the IQ Area of 12084m^2 made the Newsagents very strange in the way that they were spread out but had a small area. This can be explained by 2 theories. The first being that there are very few newsagents to calculate the area

from (this being because each newsagent needs a large threshold population to accommodate a large profit). The second being that the way I measured these area's was from the outside, in but they could also be taken the opposite way around and therefore give a higher IQ Area.

Jewellers

This was quite an average IQ Area and did not show much clustering or extent of spreading. The area of 53446m^2 made me come up with the assumption that it would be quite average, as it showed out to be. However because jewellery shops are high order services and require a large threshold population. This is why it is less easy to predict my result.

Charity Shops

The Charity Shops gave quite a small, clustered IQ area of 25688m^2. This would suggest to me that the Charity Shops are quite clustered and in fact this statement is actually true. The majority of these were clustered around Railway Street. This is a sensible place to have Charity Shops because it is not in the CBD but just outside.

Pubs

The Pubs in Altrincham are very frequent and has the highest number of points. Therefore when there are more points, the accuracy of the IQ Area becomes more reliable. This would tell me that the pubs, being shown as well spread out proximities, are reliable enough to support a firm conclusion. This conclusion is, that as the public 'wander' around Altrincham they are 'bound' to find a pub. However there seems to be a small linear cluster around Stamford New Road. This would tell me that Stamford New Road was the main area for 'binge' drinkers. It is an ideal area for a 'pub-crawl' and this would bring great income and profits for the pubs in that area.

Department Stores

As I can see in my inter-quartile map of the department stores, the IQ area is quite thin and long. This gives the impression that it has a linear clustering pattern. Department stores do not, technically, need to worry about direct or indirect competition with rivals and therefore can be quite close. This is because each department store is so big it would not matter how close, or far apart they are, they

would always be in competition. However this competition does have an effect on the placing of these stores. The Department Stores are not very frequent with a total number of 9 but this gives us enough of an estimate to use on a different town or city.

Shoe Shops

My map of Shoe Shops conveys to me that, as there are only 4 points, my results are not particularly reliable. However I can make an educated guess at what is supposed to happen. There is a pattern of linear clustering along George Street (the general CBD). When *I* have shopped for shoes, in most towns or cities the shoes shops are close because of buyers and their need to compare each type of shoe and their process before buying them.

Final Conclusion

After calculating all the functions and factors contributing to the pedestrian counts in Altrincham, I can finally conclude that these0 are directly related to the rateable values and the locations of each function in Altrincham. For example the areas of high pedestrian counts are also the areas of high order services and higher rateable values. These facts complement each other and each is linked with the other. For instance, the rateable values are high in those areas because they also have high pedestrian counts and high order services. This means you have to pay more for property, as you get closer to these factors. Shops would be able to attract more custom in areas with high pedestrian counts and this is reflected in the business rates they pay for prime location.