Essay B Mark 20/36

This essay examines the urban morphology of Geneva.

The research question is apparent only from the abstract but is clearly stated. The introduction contains too much unnecessary historical detail. Hypotheses are rather convoluted and contradictory The theoretical background is sound, though the inevitable land-use models appear yet again There is some good data on real estate prices but it is not applied spatially to the city Similarly, using a single transect to test the Hoyt and the Harris/Ullmann model is not a valid approach, though it may be relevant to the Burgess model. The transect itself is good field data but it is not used to test to the hypotheses. The student produces some very good land-use maps but they are not analysed in the context of the theoretical models. The essay is essentially based on the premise of changes in land prices across the city but these prices could not be obtained. There is evidence of some good personal involvement but the essay lack direction and organization.

Essay B

International Baccalaureate Organization

Category and candidate number								
Candidate name	Essay B							
School name								
Examination session	Month [May or November]: May					Year: 2003		

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Candidates must complete this page and then give this cover and their final version of the extended essay to their supervisor

IB subject in which this extended essay is registered: Geography (For an extended essay in the area of languages, state the language and whether it is group 1 or group 2)
Title of the extended essay: Urban Morphology in Geneva

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If this declaration is not signed by the candidate the extended essay will not be assessed

The extended essay I am submitting is my own work (apart from guidance allowed by the International Baccalaureate Organization).

I have acknowledged each use of the words, graphics or ideas of another person, whether written or oral.

I am aware that the word limit for all extended essays is 4000 words and that examiners are not required to read beyond this limit.

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The supervisor should complete the report below and then give this cover enclosing the final version of the extended essay to the diploma coordinator. If this report is not signed by the supervisor the extended essay will not be assessed and may be returned to the school

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Comments

If appropriate, please comment on the candidate's performance, the context in which the candidate undertook the research for the extended essay, any difficulties encountered and how these were overcome. These comments can help the examiner award a level for criterion H. Do not comment on any personal adverse circumstances which may have affected the candidate

An essay which shows much competence in the application of geographical theory. He has put in a tremendous amount of work and personal engagement and as can be seen has produced a first class piece of writing. ✓

I have read the final version of the extended essay, which will be submitted to the examiner.

To the best of my knowledge, the extended essay is the authentic work of the candidate.

I spent [1] hours with the candidate discussing the progress of the extended essay.

Signature of supervisor:

Date: 09.02.03

ASSESSMENT FORM (for examiner use only)

Category and candidate number								

General assessment criteria

Refer to the general guidelines

ACHIEVEMENT LEVEL

	X	maximum	Y
A Research question	2	2	2
B Approach	2	3	2
C Analysis/interpretation	1	4	1
D Argument/evaluation	2	4	2
E Conclusion	1	2	1
F Abstract	1	2	1
G Formal presentation	2	3	2
H Holistic judgement	2	4	2
TOTAL OUT OF 24	13		13

Subject assessment criteria

Refer to the subject guidelines

Not all of the following criteria will apply to all subjects, use only the criteria which apply to the subject of the extended essay.

Criterion J	2	2
Criterion K	2	2
Criterion L	1	1
Criterion M	2	2
Criterion N		
Criterion P		
TOTAL OUT OF 12		7

Name of examiner [*CAPITAL letters*]: _____ Examiner number: _____

Signature of examiner: _____ Date: 1 APRIL

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Stage A checker:
Stage B checker:

Urban Morphology in Geneva

Subject: Geography

Word Count: 3987

Abstract

The purpose of this essay is to determine whether the building rules and regulations enforced by the canton of Geneva and its communes will create an urban morphology resembling that of a classic textbook model such as Burgess. The hypothesis of this essay is that because of the stringent laws regarding the purchase of land and the type of development on it will lead the urban morphology of Geneva resembling that of the cities in which the test models were conducted. The data that will be examined is that of land prices and rents as well as that of what types of land is being employed for as distance increases from the Central Business District. This will require a transect of the city to be taken and studied in detail pertaining to the types of land uses that are found on either side of the of the transect as distance increases from the CBD. This part of the information gathering was carried out as a fieldwork exercise by myself but as the differing types of industry and commerce along the transect chosen did not share information on what the rent of the land was I had to rely on past surveys taken by institutions that wield more influence than myself. The conclusions reached were that the city shows no uniform pattern of land use and so the rules and regulations imposed by the Canton and its Communes have no effect in producing a textbook model of land use in Geneva. ***The research question for the following essay is therefore; Does the city of Geneva with its building laws and regulations have a urban morphology resembling that to textbook model?***

Table of Contents

Introduction

In a developed nation such as Switzerland, cities such as Geneva do not follow the traditional pattern of land uses in developing countries as the use of the land in economically more developed countries (EMDC's) highly depends upon land values. As in all Countries land values vary from one city to another and in this respect Switzerland is no different. What does make the city of Geneva rather special is that there are other major forces at work that influence the land use in this international city. These forces may in fact be critical in determining the urban morphology of this city and so warrant importance and study. These forces shall be further mentioned and developed throughout this essay in they way that they affect the urban morphology Geneva but I would like to give a short but concise summary of the subject area I will be dealing with throughout this essay, which is urban morphology and urban dynamics.

To be able to study this topic thoroughly one has to look but on the development of Geneva as it indeed has great importance in determining its future. Geneva developed into an internationally reputable city during the latter stages of the Middle Ages when its fairs captured international attention. During the following years, the City suffered numerous attacks on it by the Prices of Savoy but due to the intervention of the Swiss cantons, Bern and Fribourg, the assaults amounted to nothing (Geneva-tourism and history on the web). The city became a Republic in 1535 through the work of one of its founding fathers, Jean Calvin who created a sanctuary for Protestants fleeing their respective countries such as France and Italy due to religious persecution (Geneva-tourism and history on the web). This streak of refugees helped rekindle the economy only to then be attack by the Duke of Savoy on the 11th and 12th of December 1602 during the night(Geneva-tourism and history on the web). A second wave of refugees moved into Geneva from France fleeing the persecution of Protestants by Louis XIV's savage regime(Geneva-tourism and history on the web). The 18th century was one of triumph in Geneva as industries such as horology, businesses and banking prospered and grew. This prosperity was however overshadowed with the revolution of 1792 that brought down the Ancien Régime and proclaimed political equality (Geneva-tourism and history on the web). Geneva was then annexed by France in 1798 and went on to have its freedom restored on December 13 1813 following Napoleon's defeat (Geneva-tourism and history on the web). The republic magistrates then applied for the city's entry into the Swiss Confederation to which it was granted access in 1815 (Geneva-tourism and history on the web). A revolution in 1846 led by James Fazy overthrew the government of the Restoration and established the constitution that is still in force today (Geneva on the web). This constitution has lead to the divergence of power from the State to the individual Cantons that make up the city of Geneva (Geneva on the web). Each Canton has been allocated powers of administration that their own community wield (Geneva on the web). The representatives chosen from each Canton have to represent their communities views on the changes taking place in their communes undertaken by the federal state of Geneva and if need be, may oppose them (Geneva on the web). This system can have effects on the morphology of the city as a whole as each Canton has the power to control the type of development they want to see happening in their community. The price of land is said to be the defining factor of land use but in Geneva the Cantons may have they final word.

In this respect it is my aim to find out if indeed the morphology of Geneva has been affected by the powers of the differing Cantons to oppose certain types of land uses in their commune thereby defying models of urban morphology.

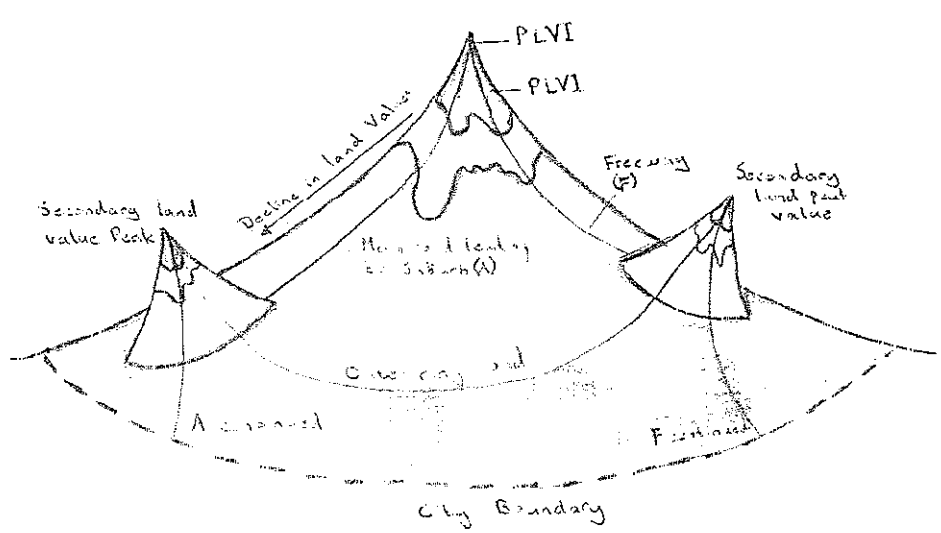
The urban morphology of Geneva will concur with that of a concentric model such as that of Burgess as the use of land is determined by a number of factors apart from the price of land such as building regulations imposed by the state of Geneva and those imposed by separate Cantons which wield power as to which types of business can appropriate land in their commune.

As stated above the price of land is a major factor in determining land use and therefore urban morphology. This is why this essay will start with the CBD as all others types of land usage radiated from in it what this essay hopes to prove, a concentric manner.

The Central Business District (CBD)

The parts of the city, which will have the highest land value, will be located at the centre of the city in question, which in this case will be the canton of Geneva itself. This is a reflection of the area's accessibility as it is the greatest in the city and accessible by the people living within the canton and the people living in the surrounding areas to the canton. This also explains why businesses that are located in the Central Business District (CBD) expect to attract more clients because of the area's accessibility. The point with the highest land values is called the Peak Land Value Intersection, or PLVI and is always located in the CBD (Codrington, 2002, 478). It is needless to say that the price of land in these areas can be incredibly high. Only a few types of businesses (that have to be very profitable) such as large retail stores can afford to pay the price for land in the city centre as they are able to afford it with the amount of revenue that their shops bring in due to the high level of consumers who make it to the CBD to shop as it is very accessible (Codrington, 2002, 478). The scarcity of land in the CBD also pushes up the land prices, which determine its uses. Basic economic principles can be applied here as when supply does not equal demand the price rises until it reaches equilibrium (Mauder et al, 2000, 53). Commercial enterprises such as financial companies, solicitors and corporate offices can be found a little further away from the PLVI towards the edge of the CBD. The diagram below **(Figure One)** shows the pattern of land values in an economically developed city such as Geneva.

Figure One



Bid-Rent Theory

Land prices do however drop quite sharply from the PLVI. This is because of the process of distance-decay (Codrington, 2002, 479) As distance from the PLVI increases, land prices decrease, and reflecting this building heights decrease From this process the pattern that emerges is called the bid-rent theory (Codrington, 2002, 478)**(Figure Two)**. Retailers can afford the highest rents but are not prepared to pay high prices for land in an inaccessible area. This is why the slope of the rent curve for retail shop is very steep as **Figure Two** shows (Codrington, 2002, 478) The rent curve for industrial and commercial enterprises such as retail falls away but it has a gentle more sloping slope as accessibility as not as crucial to these enterprises. These forces are the same with dwellings such as homes and flats and finally agriculture, which is the least competive of land uses and so is found beyond the urban limits of the city (Waugh, 1990, 357). It is taken for fact that land developers will try and maximise their profits thus retail is found in the PLVI and movement away from this area we will find industrial and commercial land uses and apartments and finally the agriculture sectors of the city which surround the urban fringe (Waugh, 1990, 357)

Figure TWO

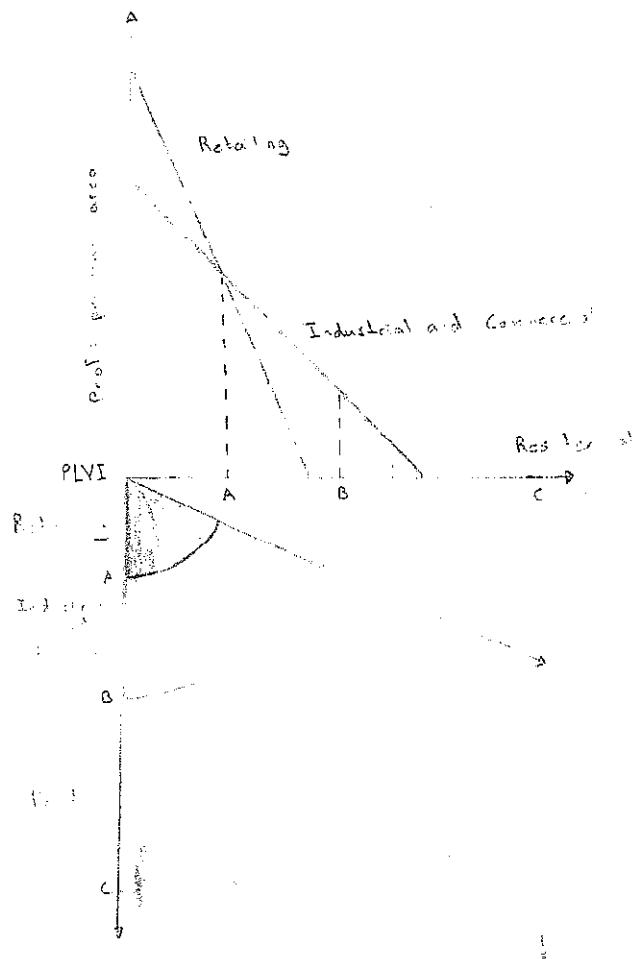


Table One Non Residential real estate in Geneva

Non residential real estate	Price range (rent p.a./m²)					
	CHF		€		US $	
	min.	max.	min.	max.	min.	max.
Downtown offices						
- Business quarter	508	858	346	584	343	579
- Other quarters	283	408	193	278	191	275
Out of town offices						
- Airport	335	517	228	352	226	349
- Other areas	237	343	161	234	160	232
Industrial premises	182	272	124	185	123	184
Retail premises	447	1 613	304	1098	302	1 089

Source : DEEE, 2002 regional real estate survey (data provided by local real estate agencies), June 2002

Notes : The rather wide price range reflects the diversity of real estate offer in Geneva. The exact location, total floor area and equipment quality also account for that price range

Prices in € and US $ were computed by our office on the basis of July 1st, 2002 exchange rates (see page 76)

Graph One Cost of Office space, Industrial and retail premises (annual rent)

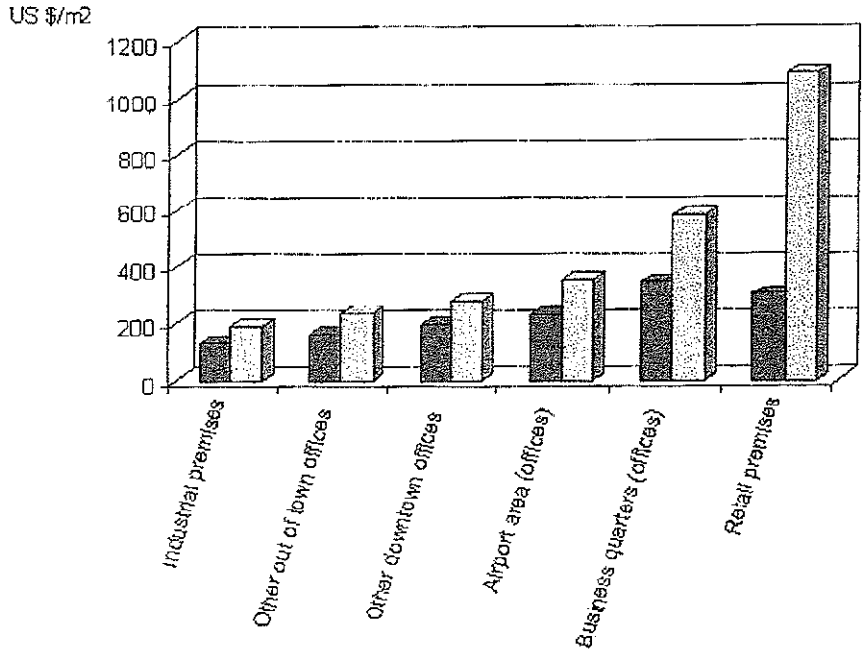


Table Two Monthly rent for non-subsidized residential property

Rental prices	Price range (monthly rent)					
	CHF		€		US $	
	min.	max.	min.	max.	min.	max.
Apartments						
- 4 rooms (2 bedrooms)	1 550	2 467	1 056	1 680	1 047	1 666
- 5 rooms (3 bedrooms)	1 975	3 633	1 345	2 474	1 334	2 453
- 6 rooms (4 bedrooms)	2 800	5 067	1 907	3 451	1 891	3 421
- 100 m² apartment (new)	2 225	3 083	1 515	2 100	1 502	2 082
- 100 m² apartment (older)	1 867	2 800	1 271	1 907	1 261	1 891
Townhouses						
- 6 rooms (4 bedrooms)	4 750	8 333	3 235	5 675	3 207	5 626

Source : DEEE, 2002 regional real estate survey (data provided by local real estate agencies), June 2002

Notes : In Geneva, the kitchen and the dining/living room count as 2 separate rooms. A 2 bedroom apartment is thus referred to as a 4 room apartment.
Prices in € and US $ were computed by our office on the basis of July 1st, 2002 exchange rates (see page 76)

Table Three Residential property ownership prices

Ownership prices	Price range					
	CHF		€		US $	
	min.	max.	min.	max	min.	max.
Apartments						
- new (per square metre)	4 259	6 842	2 900	4 659	2 876	4 620
- older (per square metre)	3 640	7 957	2479	5 419	2 458	5 373
Villas (4 bedroom, garden)						
- townhouses	800 000	1 138 333	544 800	775 205	540 160	768 602
- individual houses	1 100 000	1 741 667	749 100	1 186 075	742 720	1 175 974

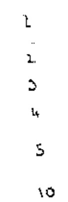
Source : DEEE, 2002 regional real estate survey (data provided by local real estate agencies), June 2002
Note : Prices in € and US $ were computed by our office on the basis of July 1st, 2002 exchange rates (see page 76)

The tables and graphs shown above depict a bid rent theory phenomenon in Geneva within the residential and non-residential sectors of land use This implies that as the bid rent theory does seem to be practiced it can therefore be applied to Geneva, which should lead to a concentric development model of land use

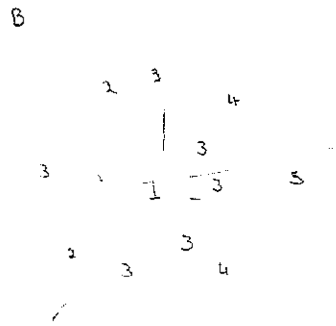
Urban Models

If we assume that the land is horizontal from the PLVI then this pattern will be found in all directions but this is not the casein most cities and so models of land use such the concentric Burgess model after Burgess, the sector model after Hoyt and the Multiple nuclei model after Harris and Ullman will not to fit to all cities in the developed world. These models are shown in **Figure Three** below (Codrington, 2002, 478)

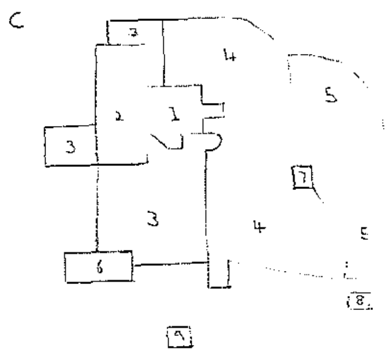
Figure Three



The concentric Model (after Burgess)



The Sector Model (after Hoyt)



1 CBD
2 Wholesale light manufacturing
3 Low class residential
4 [illegible]
5 [illegible]
6 [illegible]
7 [illegible]
8 [illegible]
9. [illegible]
10 [illegible]

The multiple nuclei model (after Harris & Ullman)

Source Codrington 2002 478

Burgess

The problem with the Burgess model is that it is toosimple, as it takes no account of landforms which are important as land with a view other the lake or a mountain view are more expensive, transport routes, which attract industry and or changes that occur over time (Waugh, 1990, 353) The model suggests that there are clear defined boundaries that separate land uses when in fact these fade and merge into each other. As this is the model that will be looked for the factors or rather types of land use found in this model will be the ones that the fieldwork exercise following will relate to

Hoyt

Hoyt suggested that land uses in cities are arranged in sectors rather than in concentric circles, as he rightly could not accept that all the land upon which a city was built is uniform and his model took landform and transport routes into account (Waugh, 1990, 353) Hoyt suggested that the wealthier sections of society tend to live on higher land while manufacturing industry will be aligned along transport routes such as roads, railways and rivers (Waugh, 1990, 353) In conclusion Hoyt argued that land uses would be arranged in sectors that radiate out from the CBD (Waugh, 1990, 354)

Harris and Ullman

Two American geographers named Harris and Ullman argued that even Hoyt's model was to simplistic and so created their own, the multiple nuclei model They stated that land uses are not arranged around just one CBD but that large cities have several business centres, which they referred to as nuclei, such as shopping centres and areas of office development (Waugh, 1990, 355). These centres emerge as the city grows because the one central CBD is no longer accessible to residents who live on the periphery of the city. Therefore, Harris and Ullman argued that land uses tend to be arranged in cells or patch throughout the city depending on the availability of land and the quality of land (Waugh, 1990, 355). Some land uses such as retail and commerce will cluster together for more of an advantage whereas some such as high-class residential areas will not be compatible next to heavy industry sectors (Waugh, 1990, 355) Manufacturing land uses will therefore locate to the periphery of the city where land is cheaper and transport links are numerous, as they require large areas of land (Waugh, 1990, 357)

Methodology

The three models of urban morphology shown in **Figure Three**, will be used to deduce if the urban landscape of Geneva conforms to either one of the them or as I hypothesis, the information will indeed prove that there is a pattern of urbanisation in Geneva due to the powers allocated to the differing communes which enable them to facilitate development of land if they choose to. Building laws and regulations will also be examined as well as land laws

To establish if Geneva does have a pattern of urban morphology that conforms to either of the models discussed earlier I will be conducting, among other things, a map work exercise by using a present day map of the Geneva area. Using this map I have chosen the straightest transect through the city by a transport link, in this case, a road or rather connected roads. The roads that I will be using are Route de Meyrin, Rue de la Servette, Rue de Chantepoulet and finally Rue du Mont Blanc(Plan de Genève: Ville et Canton). The transect will begin on the French border with Geneva through which route de Meyrin continues on into France. The distance covered by this transect is approximately 9km from the French border to the core of Geneva itself at the Pont du Mont Blanc (Plan de Genève: Ville et Canton). With the map mentioned before, I travelled down this transect marking down the different types of land use undertaken by the buildings or in some cases spaces on either side of the road on the map though each with a different coloured pencil so as not to confuse myself. This in turn will produce a map showing different zones of land uses, which I will be able to compare with the models. The colours I used represented the types of uses of the land and they are shown below and are to be used in reference with the maps that will follow

Red = CBD
Purple = Wholesale light manufacturing (transitional)
Yellow = Low-class residential
Orange = Medium-class residential
Black = High-class residential
Green = Agricultural uses
Brown = Services

Further investigation will be needed in the domain of law in Geneva according to the development of land. Maps will be produced showing affected areas of Geneva by these laws through which the transect will travel. Maps showing transportation links will also be used as they reflect the accessibility of the land there by increasing its potential value for certain industries and uses. This research will also yield results, which I will be able to take into account when analysing the map

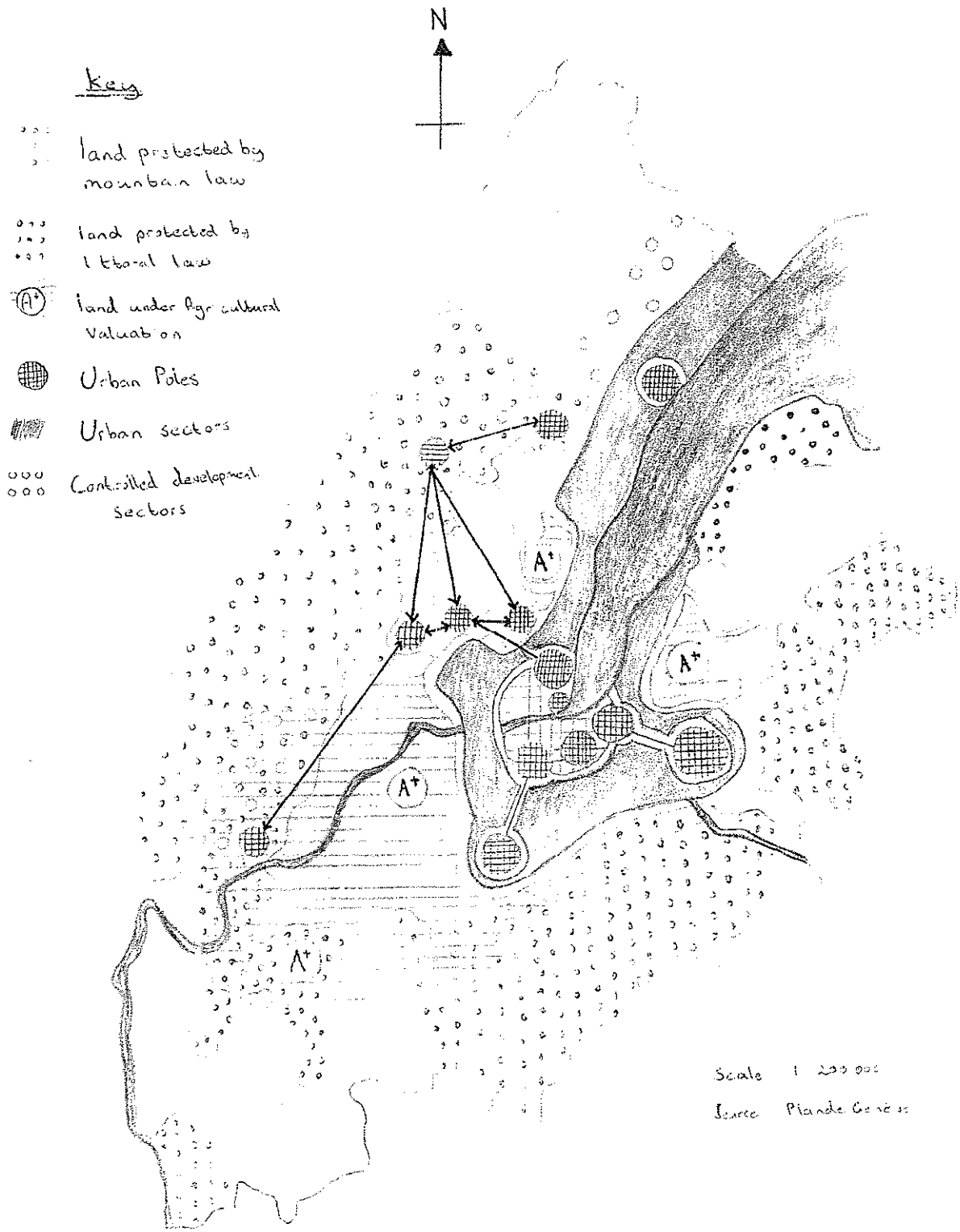
A particular relief, laws, different institutions and organizations of the infrastructures of transit essentially determine the uses of land in the greater Geneva area but are also influenced by external forces in surrounding areas such as France

Law

The land in the district of Nyon and Gex will be the focus as the transect to be studied runs through them. On figure five it is plain to see that the route of the transect runs through an area which is protected by "la loi montagne", the mountain law. The importance of this law that was passed in 1985 is that it protects the land surrounding the mountains from free and unfettered development and so hinders the traditional uses to land that could be found in many developed cities, which will inevitably affect the morphology of the city. For example one of the clauses of the law states that The law of the mountain allows the local populations and their elected representatives to obtain the means and the mastery of their development, in the respect of the cultural identity of the mountain, the distribution of income and life conditions between the mountain and the other regions (<http://www.urbanisme.equipement.gouv.fr/cdu/accueil/histoire/loimontagne.htm>). One of the functions of the differing communes is to observe that the public is adhering to the law. To stipulate on how much land is worth in these areas would be to presume too much but we can assume that it is high taking into consideration the transport infrastructure already in place. We can observe from **Figure Five**, that transport links such as major highways and railway lines which are already in place, are in line with the land use map mentioned earlier **(Figure Four and Figure Six)**, they both show areas of heavy urbanisation. The site of the TGV (train à grand vittesse) train station, which is marked on figure six is instrumental to the development of the land around it as it connects the city to numerous other locations in Europe and so has become an area of mass importance close to the CBD. Existing railway lines which are also marked on figure six also lead to major industrial areas in Geneva such as the industrial zone situated in the canton of Meyrin through which the transect I have chosen to follow runs through. The transport infrastructure is vital to establishing what types of lands uses we can assume to find in each region as industry will likely be situated very close to the major transport links because it leads to lower production costs for transporting materials and goods around the country (Carter, 1972, 50).

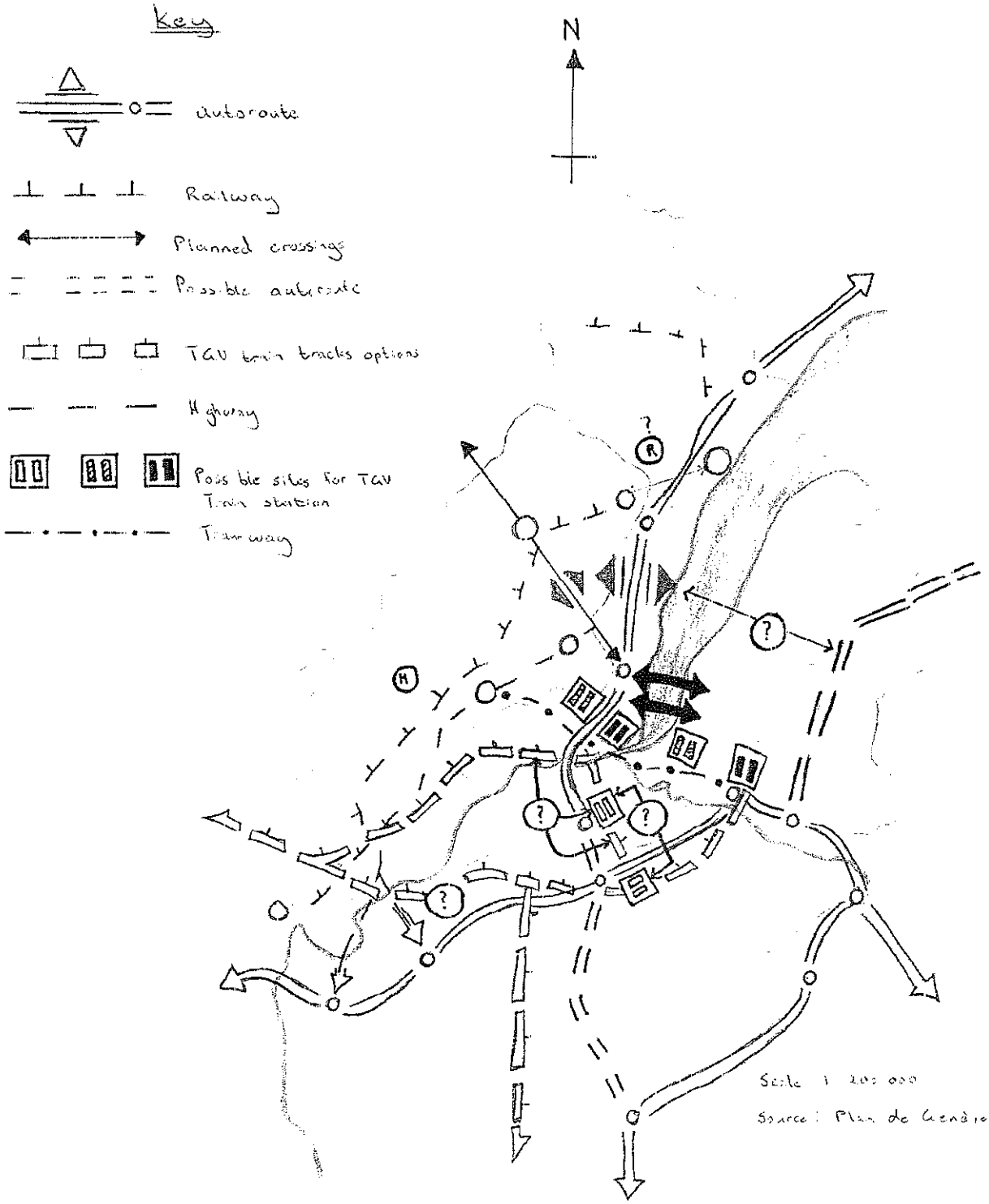
Land Use Map

Figure Four



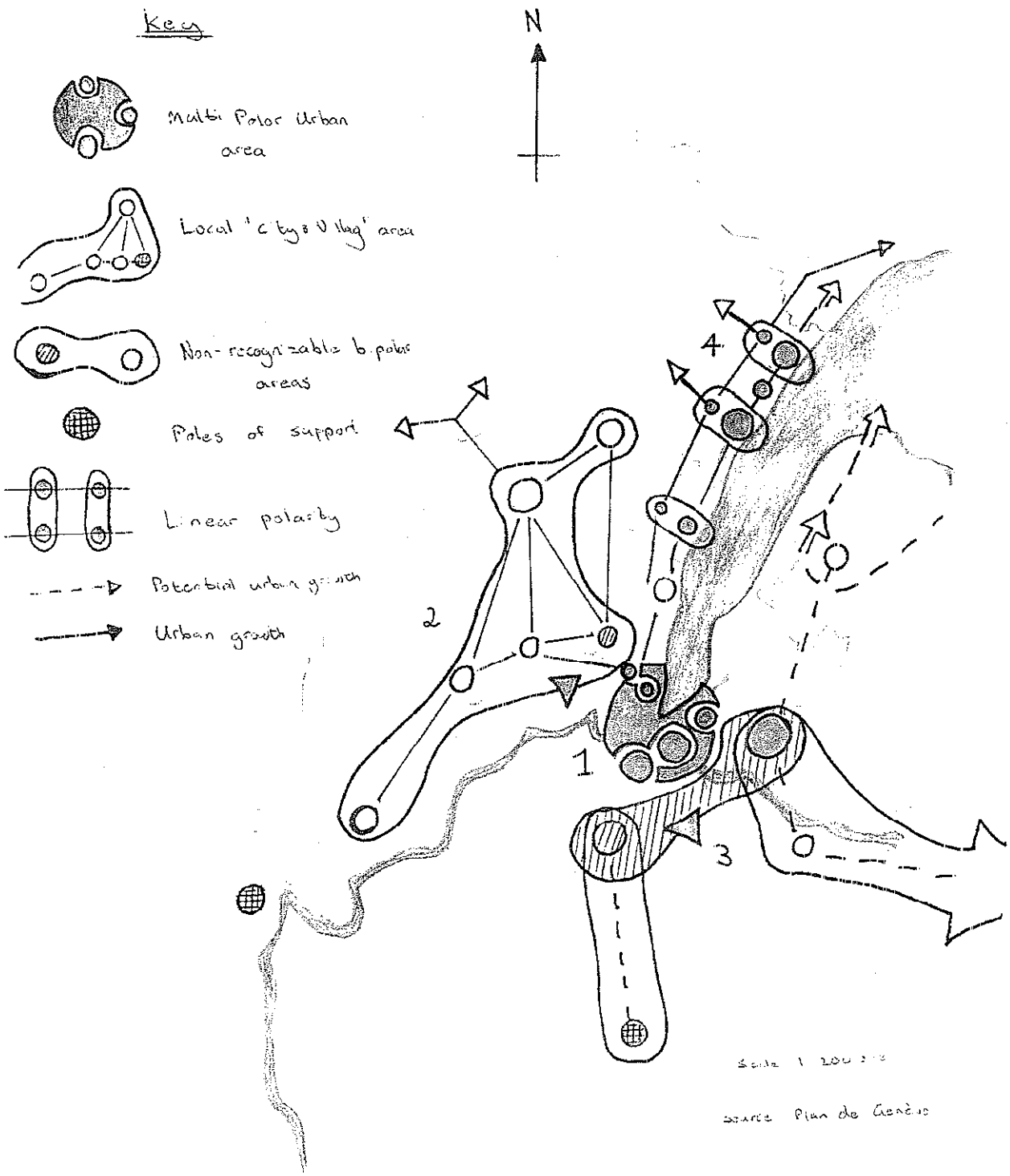
Infrastructure and Transport Map

Figure Five



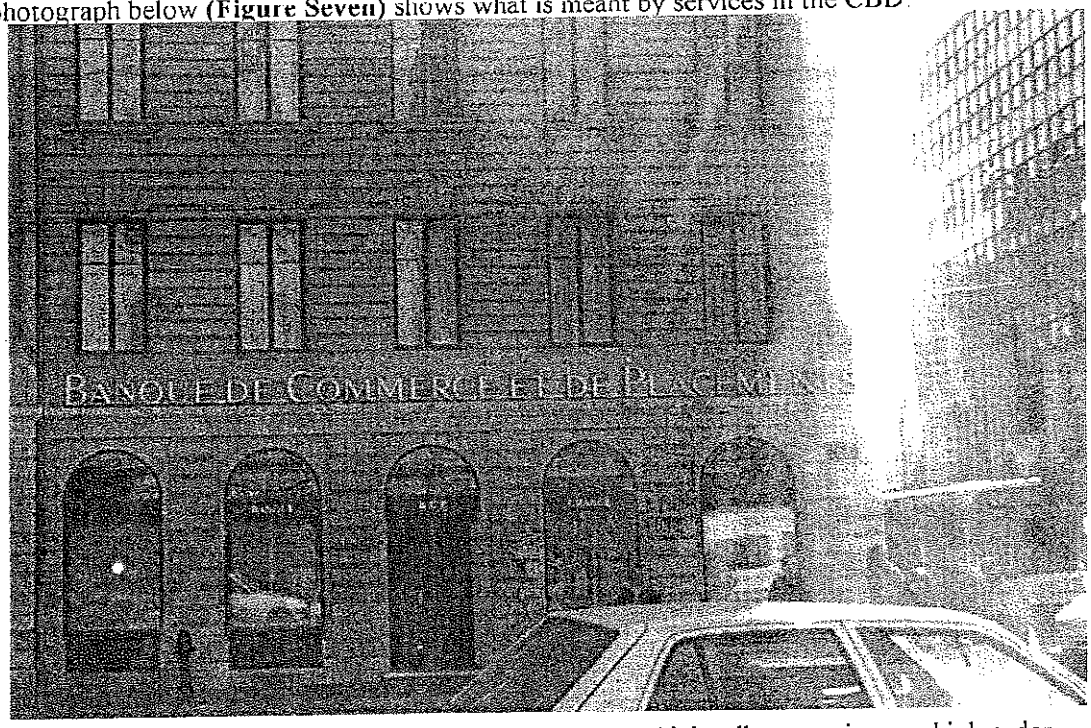
Urbanisation Map

Figure Six



Field Maps

The figures that contribute to the maps are designed to give us a view on the land uses in Geneva as the data collected is situated on a major road that when combined with four others produces a straight transect through the city of Geneva The map is broken down into six sections simply because it made the task of recording the data onto the map easier and more reader friendly as I could enlarge the map by 200% The six descriptors chosen to depict land use were CBD (red), wholesale light manufacturing (transitional) (purple), low-class residential (yellow), medium-class residential (orange), High-class residential (black), agricultural uses (green) and finally services (brown) Each of the above descriptors of land use vary from city to city and maybe even from person to person so it would be appropriate highlight what each of them mean concerning the city of Geneva The CBD is area of highly specialised services such as banking, insurance, law firms, and businesses are situated The photograph below **(Figure Seven)** shows what is meant by services in the CBD



The CBD is also an area where large department stores which sell comparison or high order items which although purchased less frequently need a high threshold population, can be found situated next to each other (Waugh, 1990, 360) Examples of services such as these are marked onto the maps but these are only the major ones as marking them all down would have contributed more confusion as the map would be overflowing with the names and functions of different buildings situated on the transect

The area marked wholesale light manufacturing is where we would find industrial activity taking place at on a large scale compared to the specialised services that can be found in the CBD Manufacturing could take the form of large industrial firms, which produce tangible goods to be sold internationally and nationally such as textile firms, food processing plants or horology complexes, which Geneva is renowned for Low class residential housing will be defined as housing, which has been left to go to ruins This means that any residential buildings that are not being maintained to a sufficient standard are to be acknowledged as low quality residential sites Graffiti on the walls, buildings that are architecturally stale such as

box apartment blocks situated in close proximity to each other as well as exceeding the surrounding areas building heights are to be counted as low quality housing **Figures Eight and Nine** depict the type of low class housing found in Geneva

Figure Eight

Figure Nine

Residential units that are depicted as medium quality housing are those which share none of the characteristics to low quality housing blocks whilst not crossing over into high quality housing. This means that they are clean and spaced out from each other. High quality housing can be described as the largest detached single unit residential homes. They can take the form of apartments in the CBD, as they will normally be penthouses on the top of large office blocks. High quality housing can be described as unit, which are architecturally well constructed with unique styling for each unit built. Agricultural uses of the land are those, which use the land for farming. It could take the form of pastoral or agricultural farming or even both. The types of functions we would expect to find in the category of services are services such as schools, churches, local municipalities, garages, filling stations, restaurants or convenience shops which sell low order goods which are bought frequently, usually daily but are not sufficiently high in value to attract customers further from the immediate catchment area. Examples of all of the above are shown below respectively through **Figures 10 to 13** (Codrington, 2002, 479).

Figure Ten

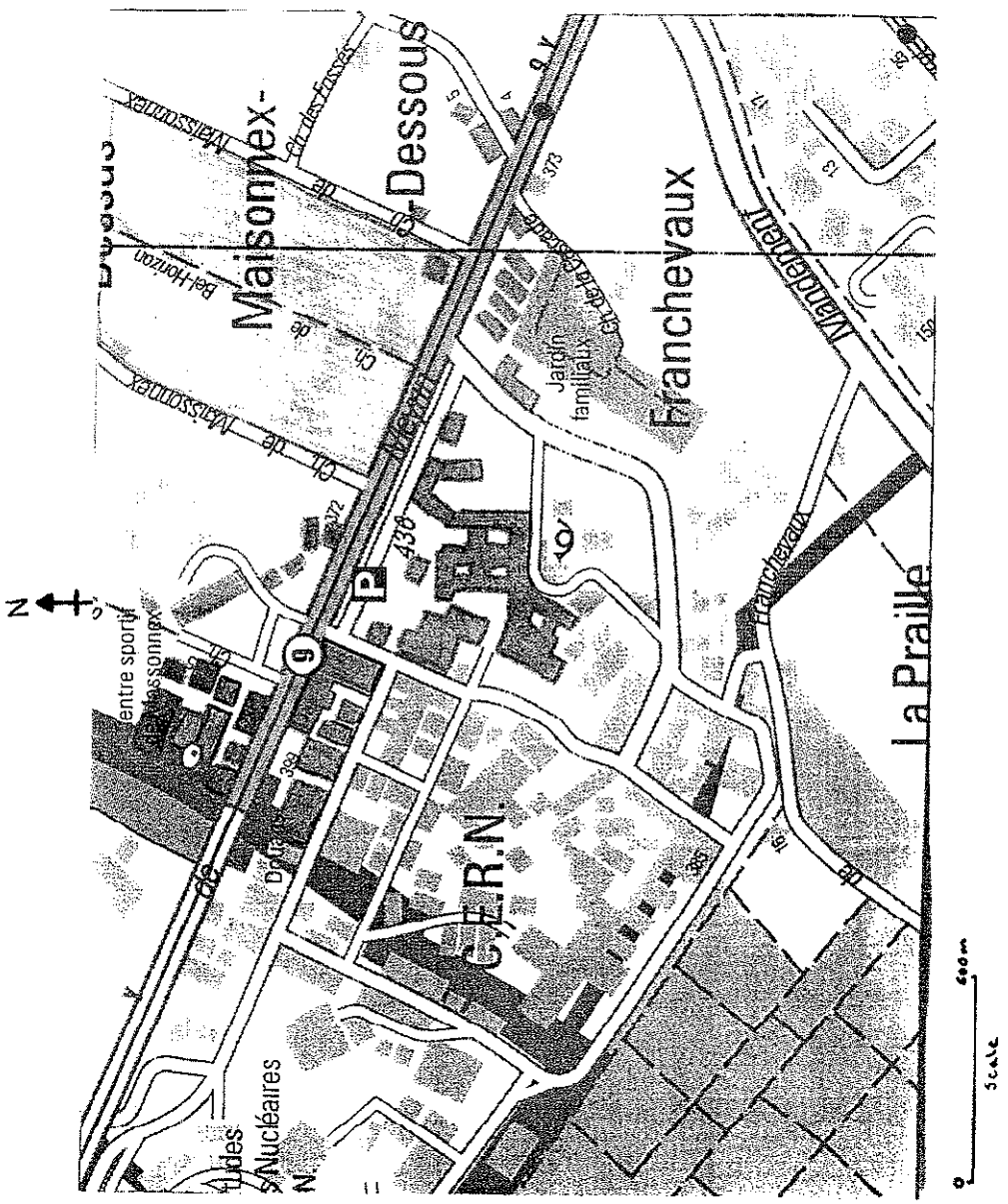
Figure Eleven

Figure Twelve

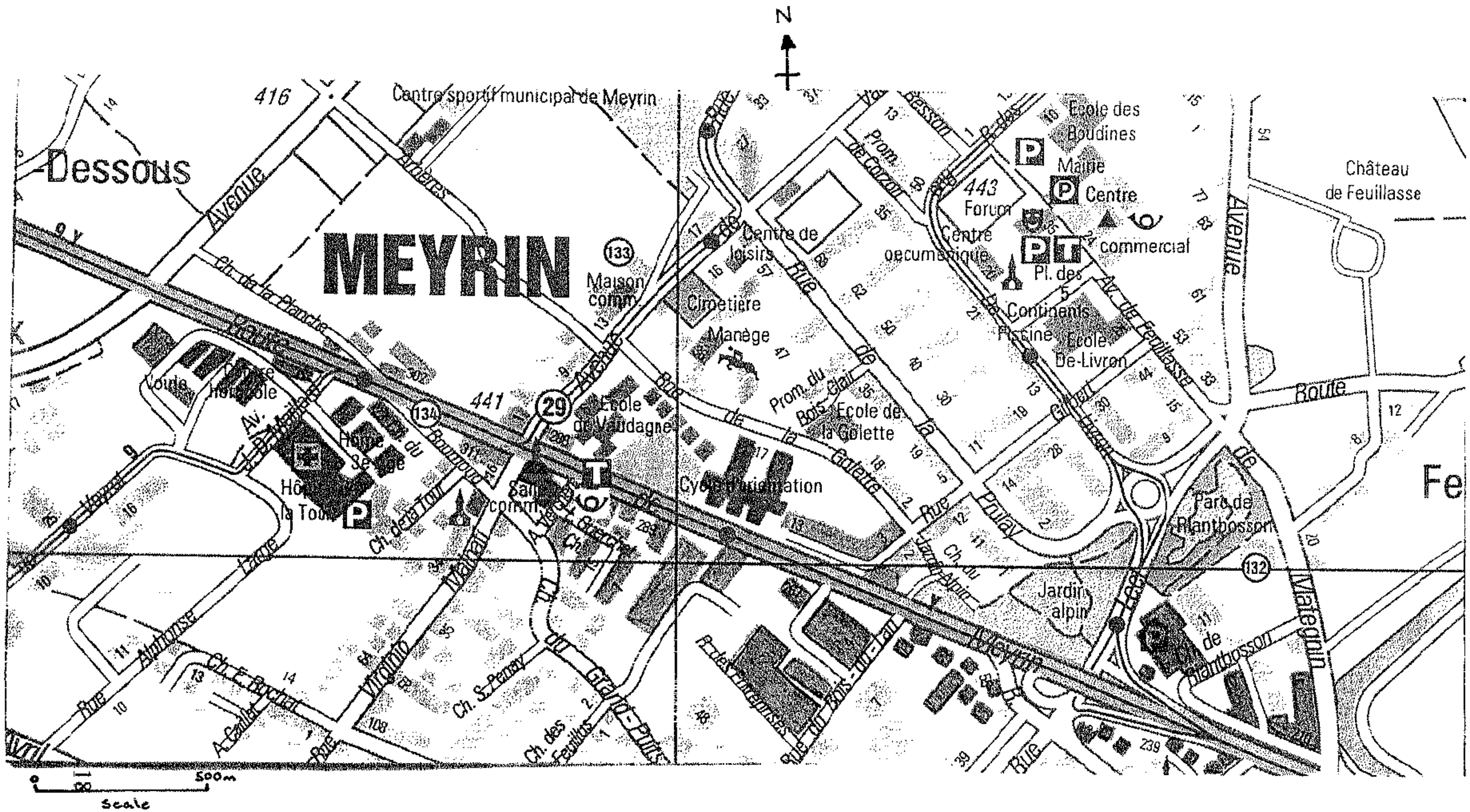
Figure Thirteen

Choropleth Map

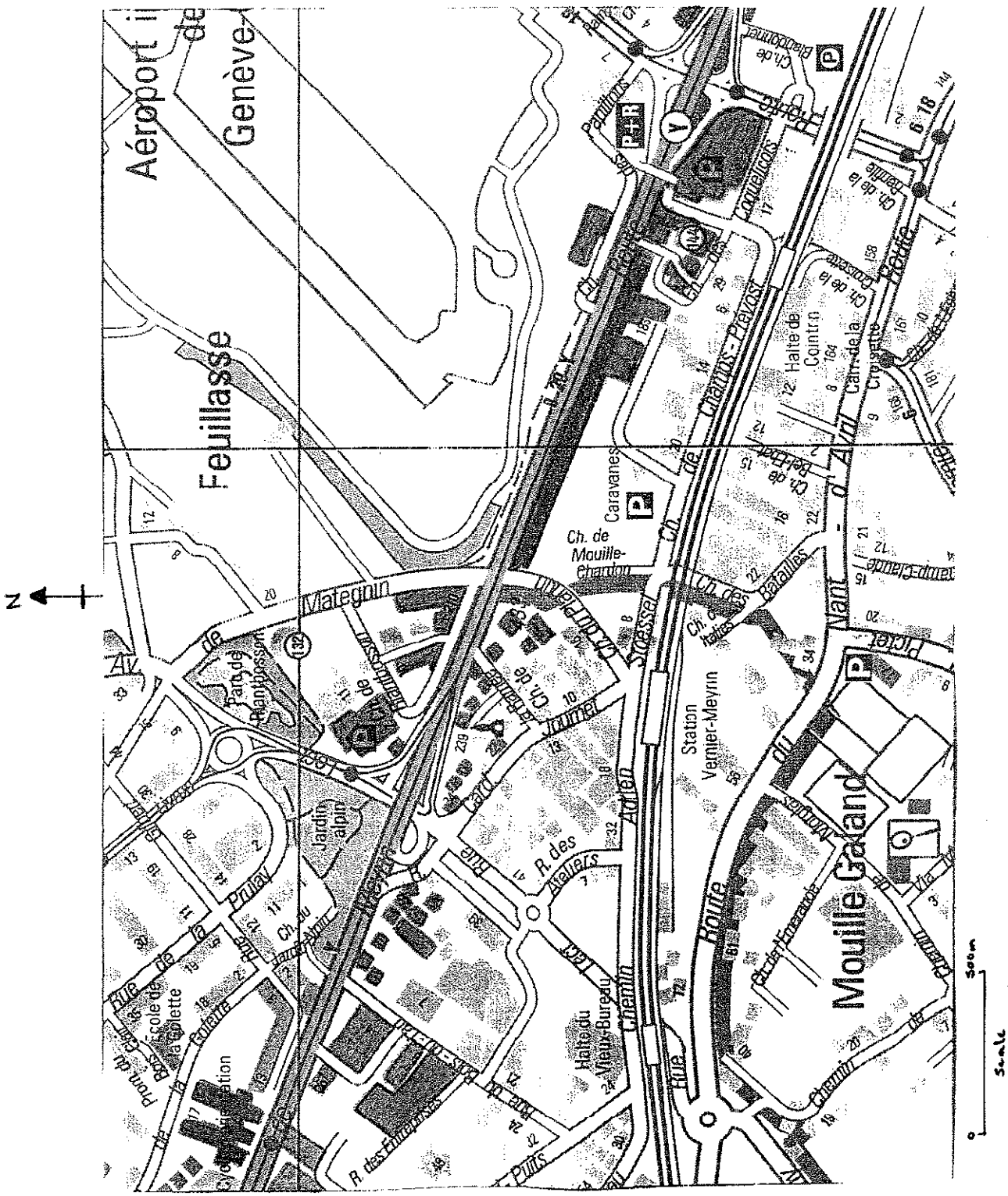
Section One



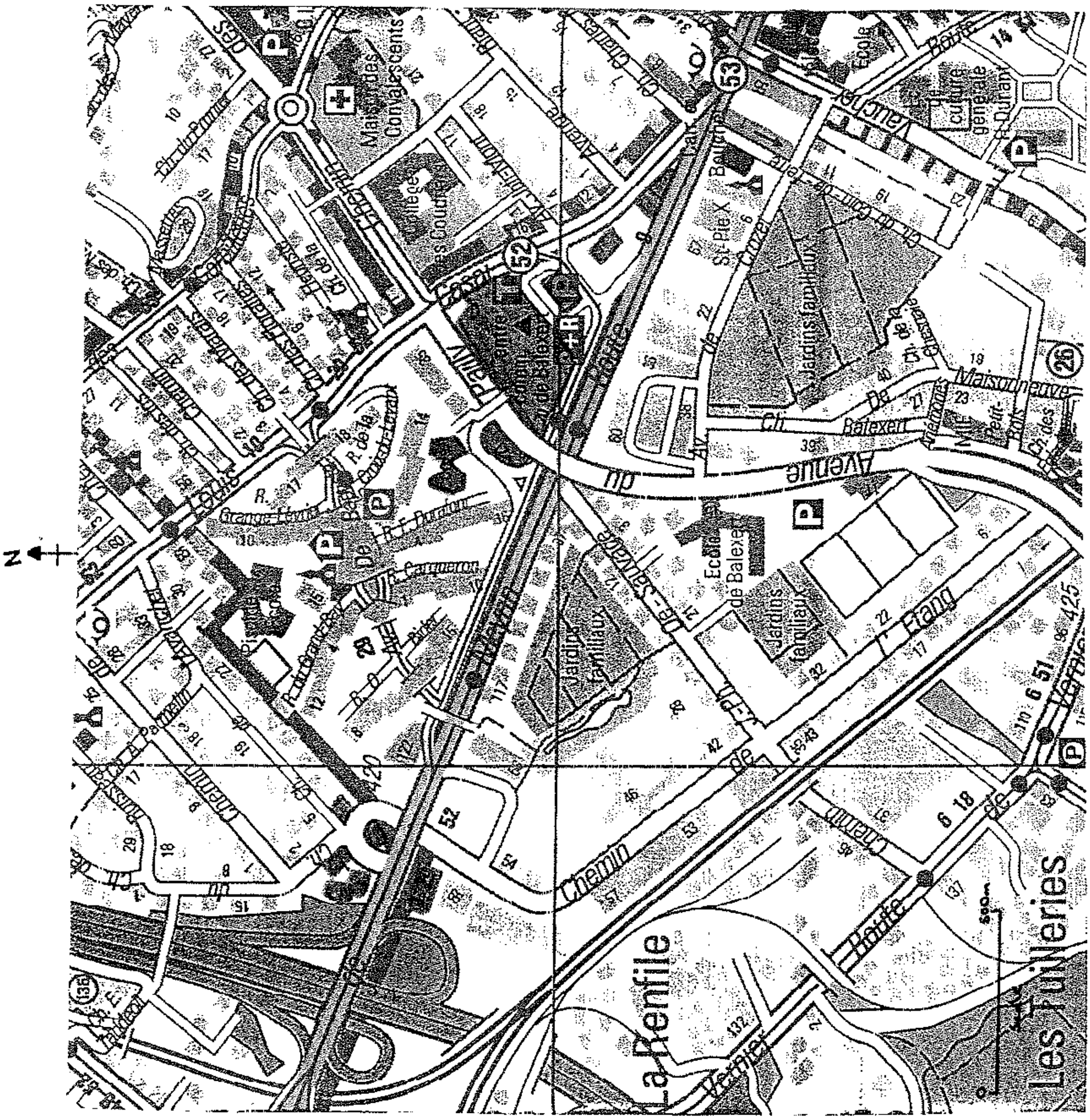
Section Two


N
MEYRIN
Dessous
Centre sportif municipal de Meyrin
Maison comm.
Cimetière
Manège
Centre de loisirs
Prom. du Bois-Clair
École de la Golette
École de Vaudagne
Cycle d'orientation
Forum
Centre oecuménique
Pl. des Continents
Piscine
École De-Livron
École des Boudines
Mairie
Centre commercial
Château de Feuillasse
Parc de Planbosson
Jardin alpin
Ch. du Jardin-Alpin
Rue de la Golette
Rue de la Prulay
Prom. de Corzon
Av. de Feuillasse
Avenue
Route de Mategnin
Ch. de la Planche
Ch. de la Tour
Ch. du Grand-Puits
Ch. des Ceps
Ch. S.-Penay
Ch. E.-Bochat
Rue Virginio Malnati
Rue Alphonse
Home du 3e âge
Hôpital de la Tour
Ch. des Feuillus
R. des Entreprises
Rue du Bois-du-Lan
Scale
0
500m

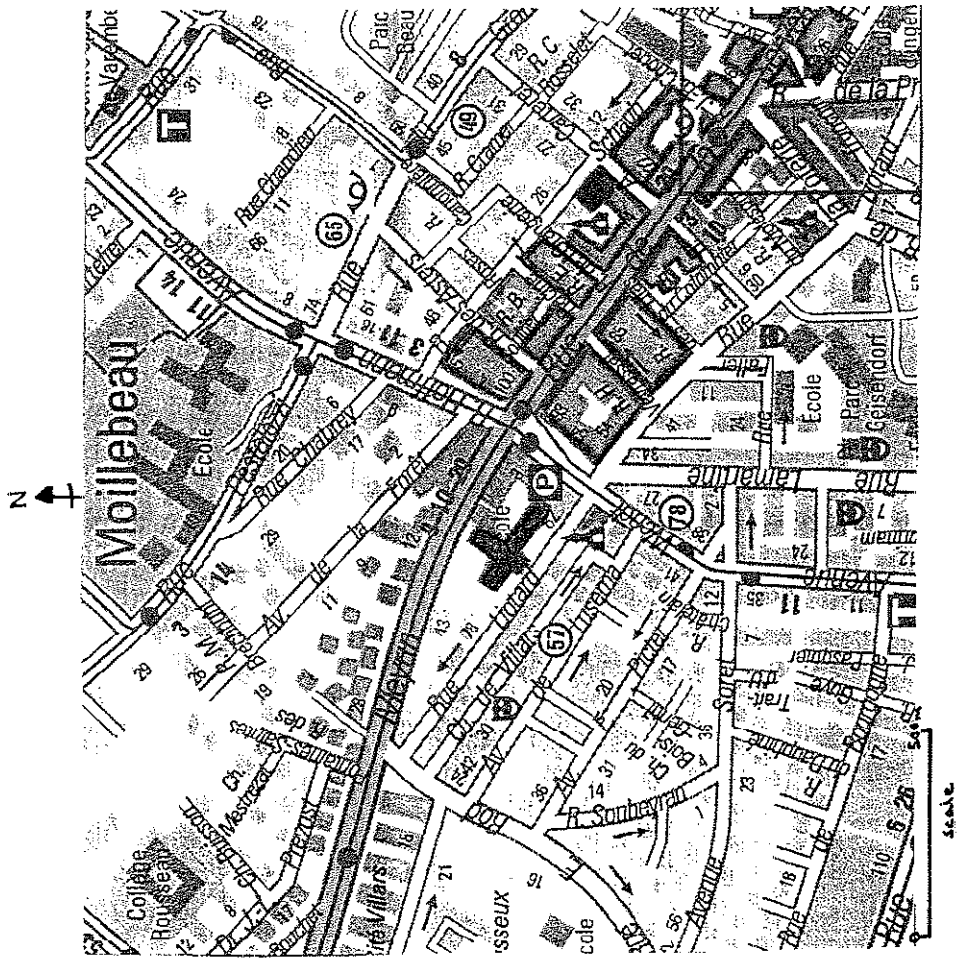
Section Three



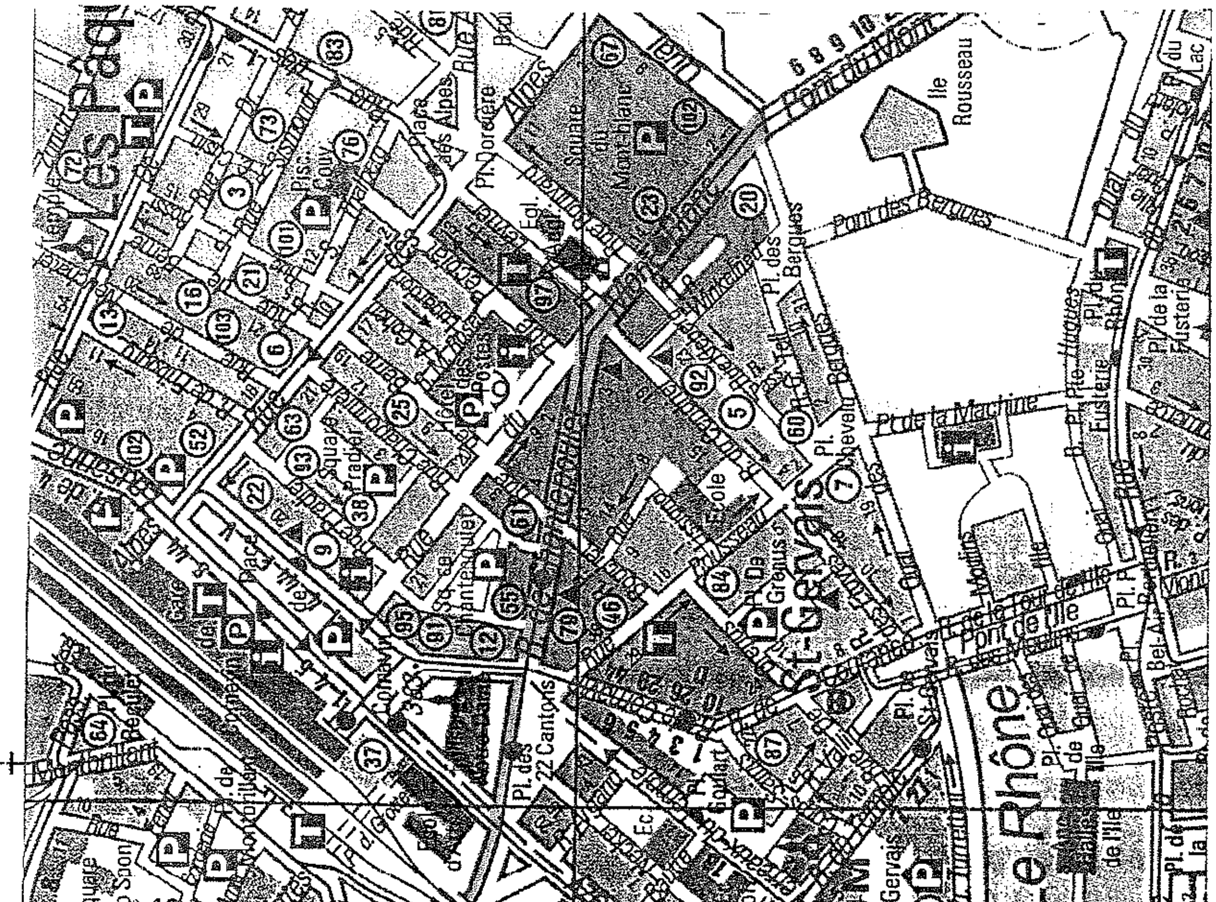
Section Four



Section Finie



Section Six

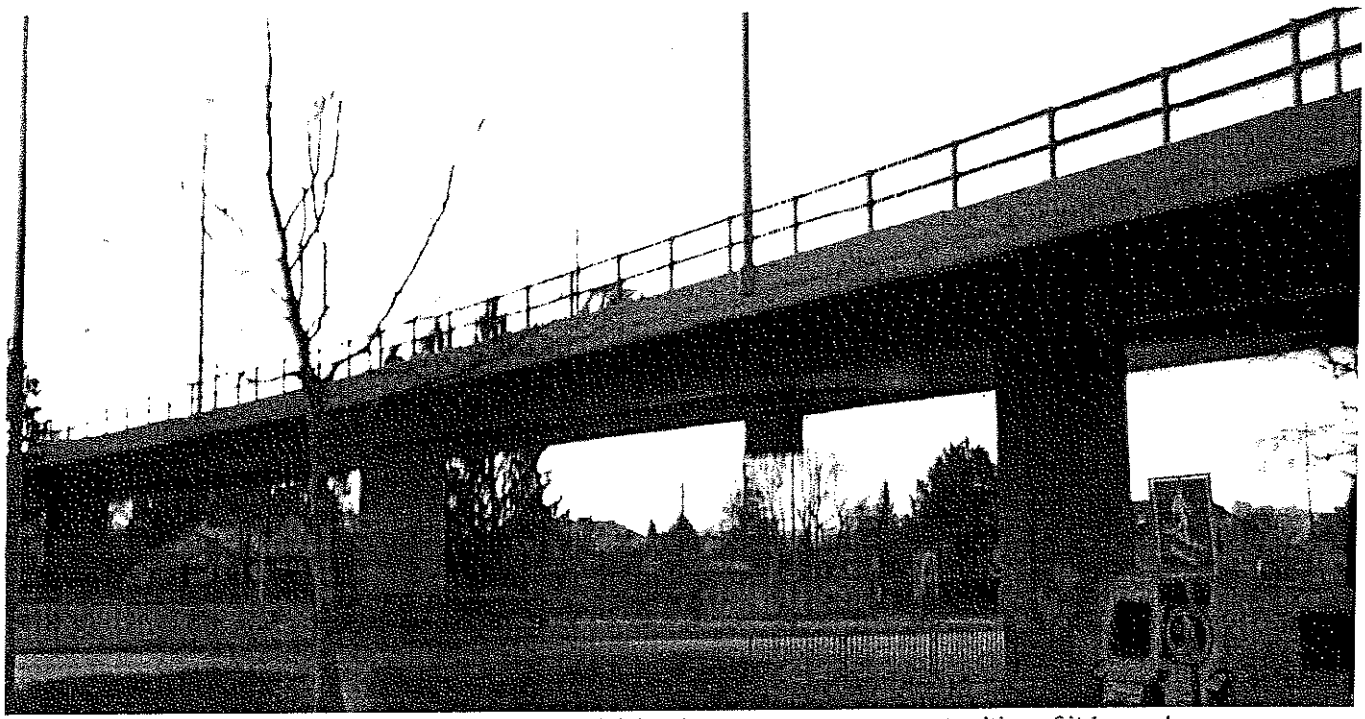


N
Le Rhône
St-Gervais
Les Grottes
Délices
Ile Rousseau
Pont des Bergues
Pont de la Machine
Pont de l'Ile
Pl. des 22 Cantons
Rue de la Prairie
Square Jacob Spon

Conclusion

What can easily be seen is that there is no urban model that the city of Geneva conforms to This could be because of the regulation and laws regarding buildings. The different uses of land are not are Burgess stated that they would be. The hypothesis is therefore rejected. For example, in section two of the map we can see low quality housing in the midst of medium quality housing located right next to industrial complexes. The surrounding buildings also give services to the area in which there is low quality housing but this can be found on arterial roads leading out of the city or at a crossroads to facilitate access and to possibly encourage impulse buying by motorists driving into the city. An example of this can be found on section three of the map. What can also be observed from section four of the map is the large out of town shopping complex (Balexert). This type of shopping complex takes advantage of economies of scale lower rents and a well planned out shopping area to create a comfortable environment for the consumers. The price of land is cheaper according to the bid rent theory and so large hypermarkets can buy or rent a large area of land for immediate use and for future development such as larger parking facilities as expansion continues. In this case the parking is underground. This complex aims to catch a high threshold population, and so it is located next to main roads and motorways thereby increasing its accessibility to the consumer. This can be seen in the photography below **(Figure Fourteen)** showing the intersection and crossing of major transport links at the Balexert Complex

Figure Fourteen



This evidence rules out the Burgess model for the same reason as most critics of it have also done, this reason being that it presumes too much and is too simplistic. From the different sections of the map it is also clear that the sector model by Hoyt can also be dismissed as being to simplistic as the functions of the buildings located along the transect show no pattern that conforms to the sector model in any way. The multiple nuclei model after Harris and Ullman does not fit the pattern found as even though different land uses are situated in groups such as the industrial land use and the low quality housing (apart from the one found in

section two of the map) as medium quality housing can be found along most of the transect What can be seen is that there are no clear borders that determined the start or end of a zone that is used for a particular land use as they are all spread out within each other. From figures five and seven it can be seen that some urban poles can be found in the land protected by mountain law and that there is some development occurring albeit strictly controlled developed.

All that can be deduced from the analysis of the information provided by the data recorded is that even though communal authorities have powers to enforce the mountain law, which clearly discourages the set up of large industries throughout the territory in question, development still manages to take place albeit at a reduced rate.

The information collected was not sufficient in determining the acceptability of the hypothesis are its rejection as information into the direct costs of building along with the rules and regulations were not accessible to students. If this information could have been available for the area of Geneva this would have increased the validity of the conclusion reached. Information into the rent that building on the transect chosen pay annually could also not be used as only a handful of firms operating on the transect would divulge that information to students. The majority withheld the information. This information would have been extremely helpful in creating a more accurate reading of the prices of a square metre of land as distance increases from the CBD leading to a more credible bid rent theory graph which did not have to rely on the information collected by third party individuals or firms such the information in the tables and graphs presented

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