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GLASGOW : THE CITY CENTRE
OPPORTUNITY FOR CHANGE

Prepared by Nadia S Daoudi for M arch.
Degree in Urban Design at Glasgow
School of Art. Session 1985/86.

Tutor : A Wightman

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SUMMARY

After a brief introduction, this thesis begins by exploring the nature of the centre of Glasgow in both functional and physical terms in order to assess its prospects for change. This assessment is fairly general and includes a review of recent planning policies of Glasgow District Council, in its attempts to counteract the disastrous policies of the 1950's and 1960's a period where Glasgow was struggling to cope with slums clearance.

This part of the thesis concludes that Glasgow city centre has been trying to respond to the decline of its residential population and the loss of much of its original heavy industries. This resulted in changes to the form of the centre which has been identified mainly in respect to its component parts, namely the inner core of the city in which are concentrated the major economic activities as well as the physically structured fabric and the decaying and derelict fringes.

We then turn to one of the main reasons for the rapid loss of identity of many cities namely the failure to adopt and implement visual policies. A brief summary is then given to the Glasgow Action report and the work of Gordon Cullen. This study shows how powerfully influential is the combination of an economic strategy to a physical process of visual manipulation in the effort to re^vitalise the centre of a city.

The concluding chapter looks at the opportunities necessary to *achiev* an inclusive guided future development of the city centre. It focusses mainly on ideas and principles rather than on detailed proposals.

We believe that the principles and proposals emitted throughout this thesis can be relevant in any other city where opportunities are given in bringing a new identity to its centre.

ACKNOWLEDGEMENTS

I should like to express my thanks to Mr Alan Wightman for his advice and criticism throughout the preparation of this thesis.

In addition I owe thanks to :

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- John
- Mrs Nancy Wightman for her generous help
- Cath and Dick, at the basement, for their help
- Farida Se Houana^e, for being around
- Mrs Kennedy, for her blessings

N S Daoudi
16.08.1986

A PAPA, MAMA, ET LES MOMES

LIST OF ILLUSTRATIONS

- Plate 1 Topography
Source = Glasgow : The time machine. 1982
Garcia de Venessa
- Plate 2 Fig. a Glasgow in 1400
Source = Glasgow the time machine. G de Venessa
Fig. b Glasgow in 1451
Source = Glasgow : the time machine. G De Venessa
- Plate 3 The Cathedral On the Molendinar Burn
Source = Swann's Book of Picture
- Plate 4 Bridgegate and The Tolboth
Source = Swann's Book of Pictures
- Plate 5 Fig. a = Glasgow until 1775
Source = Glasgow the time machine. G De Venessa
Fig. b = Glasgow in 1778
Surveyor John MacArthur
Source = Glasgow : the time machine. G De Venessa
- Plate 6 Fig. a = Glasgow in 1782
Surveyor James Barry
Source = Glasgow the making of a city. A Gibb
Fig. b = The first new town
Source = Glasgow the time machine. G De Venessa
- Plate 7 Two Typical Tenement Blocks from The Eighteenth Century
Source = The tenement : a way of life, F Wordsdall
- Plate 8 The Growth of the City
Source = Glasgow the making of a city. A Gibb
- Plate 9 Fig. a = Glasgow in 1807
Surveyor Pater Fleming
Source = Glasgow : the time machine. G De Venessa
Fig. b = Glasgow in 1821
Surveyor Peter Fleming and David Smith
Source = Glasgow : the time machine. G De Venessa
- Plate 10 Fig. a = Glasgow in 1865
Source = Glasgow : the time machine. G De Venessa
Fig. b = Glasgow in 1910
Source = Glasgow : the time machine, G De Venessa
- Plate 11 The Gorbans before the CDA's
Source = Residential Renewal in Scottish Cities
National Building Agency

- Plate 12 The Gorbals after the CDA's
Source = Residential Renewal in Scottish cities
National Building Agency
- Plate 13 The Motorway and the Displacement of Accommodation
Source = Glasgow local plan 1968 - Glasgow District Council
- Plate 14 A Qui La Faute?
Source = unknown
- Plate 15 Glasgow City Centre Map
Source = Author
- Plate 16 Glasgow City Centre Aerial Photography
Source = Author
- Plate 17 River Clyde as the Southern Boundary
Source = Author
- Plate 18 The M8 Motorway = A Sample of the Northern and the
Western Boundary
Source = Author
- Plate 19 High Street as the Eastern Boundary
Source = *Author*
- Plate 20 Glasgow : The historical city centre
Source = Author
- Plate 21 Communications
Source = Author drawn from 1975 Central Area local plan.
Glasgow District Council
- Plate 22 Shopping Floorspace
Source = Author
- Plate 23 Shopping = Extension in Depth
Source = Author, drawn from 1975 Central area local plan.
Glasgow District Council
- Plate 24 Housing = Floorspace
Source = Author
- Plate 25 Housing = localisation
Source = Author, drawn from 1975 central area local plan.
Glasgow District Council
- Plate 26 Education = Floorspace
Source = Author
- Plate 27 Education = Localisation
Source = Author, drawn from 1975 Central area local plan.
Glasgow District Council

- Plate 28 Further and Higher Education = School Rolls
Source = Author
- Plate 29 Education (Further and Higher) = Localisation
Source = Author
- Plate 30 Manufacturing and Industry
Source = Author
- Plate 31 Office = Floorspace
Source = Author
- Plate 32 Office = Extension in Depth
Source = Author, drawn from 1975 Central Area local plan.
Glasgow District Council
- Plate 33 Community Services
Source = *Author*
- Plate 34 The Economic Centre
Source = Author
- Plate 35 View of the City Centre
Source = 1983 Glasgow Area local plan. Glasgow District
Council
- Plate 36 Glasgow City Centre = 3 Boundaries
Source = Author
- Plate 37 Glasgow City Centre = A Boundary - The River
Source = Author
- Plate 38 Glasgow City Centre = A Boundary - High Street
Source = Author
- Plate 39 Glasgow City Centre = A Boundary - The Motorway
Source = Author
- Plate 40 The General Townscape = Skyline
Source = Author drawn from Glasgow : the time machine.
G De Venessa
- Plate 41 The General Townscape = The fabric
Source = Author
- Plate 42 Conservation
Source = Author drawn from the 1983 Central Area local
plan. Glasgow District Council
- Plate 43 The General Townscape : Building of Architectural or
his torical interest in the City Centre
Source = Author drawn from 1975 Glasgow central area
local plan. Glasgow District Council

- Plate 44 Townscape : Focal Point. Corner.Accent
Source = Author
- Plate 45 Boundary and Identity Areas
Source : Author
- Plate 46 The Merchant City in the City Centre
Source = Author
- Plate 47 Merchant City : Built Form and Street Pattern
Source = Author
- Plate 48 The Merchant City : Open Space. Map
Source : Author
- Plate 49 The Merchant City = Open Space. View
Source = Author
- Plate 50 The Merchant City = George Square. The City Chambers
Source = F Settouane
- Plate 51 The Merchant City = Open Space. View
Source = Author
- Plate 52 The Merchant City = Special Features = Focal points
and Terminating Vistas
Source = Author drawn from 1984 Glasgow local plan.
Glasgow District Council
- Plate 53 The Victorian Business Centre in the City Centre
Source = Author
- Plate 54 Victorian Business Centre : Built Form and Street Pattern
Source = Author
- Plate 55 The Victorian Business Centre. Open Space. Map
Source = Author
- Plate 56 The Victorian Business Centre : Topography and Streetscape
Source = Author
- Plate 57 The Victorian Business Centre : Open Space.
View a = Buchanan Street looking North
View b = One of its street furniture
Source = Author
- Plate 58 The Victorian Business Centre - St George Church
Source = F Settouane
- Plate 59 *The Victorian Business Centre Open Space View*
Source = Author

- Plate 60 Blythswood New Town in the City Centre
Source = Author
- Plate 61 Blythswood New Town : Built Form and Street Pattern
Source = Author
- Plate 62 Blythswood New Town = Open Space. Map
Source = Author
- Plate 63 Blythswood New Town : Built Form.
Source = Author
- Plate 64 Blythswood New Town : Open Space. View The Green
Blythswood Square
Source = Author
- Plate 65 Charing Cross and Anderston Cross in the City Centre
Source = Author
- Plate 66 Anderston Cross and Charing Cross : Built Form and Street
Pattern
Source = Author
- Plate 67 Anderston Cross - Charing Cross : Open Space
Source = Author
- Plate 68 The Mitchell Library
Source = F Settousne
- Plate 69 Charing Cross : Before and After
Source = J House. Glasgow Old and New
- Plate 70 Anderston Cross : Idem
Source = Glasgow Old and New. J House
- Plate 71 Anderston Cross. View of the motorway
Source = Author
- Plate 72 The Broomielaw in the City Centre. Map
Source = Author
- Plate 73 The Broomielaw : Built Form and Street Pattern
Source = Author
- Plate 74 The Broomielaw : The Built Form. View.
Source = Author
- Plate 75 The Broomielaw : Open Space.
Source = Author
- Plate 76 The Broomielaw : View of Areas boundary
Source = Author
- Plate 77 St Enoch's in the City Centre
Source = Author
- Plate 78 St Enoch's : Built Form and Street Pattern
Source = Author

- Plate 79 St Enoch's : Open Space
Source = Author
- Plate 80 St Enoch's : Open Space and Natural Asset
Source : Author
- Plate 81 St Enoch's : Built Form
Source = Author
- Plate 82 Cowcaddens and Townhead in the City Centre
Source = Author
- Plate 83 Cowcaddens and Townhead : Built Form and Street Pattern
Source = Author
- Plate 84 Cowcaddens and Townhead. Open Space
Source = Author
- Plate 85 Garnethill in the City Centre
Source = Author
- Plate 86 Garnethill : Built Form and Street Pattern
Source = Author
- Plate 87 Garnethill : Open Space
Source = Author
- Plate 88 Garnethill : Built Form
Source = Author
- Plate 89 Garnethill : View
Source = Author
- Plate 90 Strathclyde University in the City Centre
Source = Author
- Plate 91 Strathclyde University : Built Form and Street Pattern
Source = Author
- Plate 92 Strathclyde University : Open Space
Source = Author
- Plate 93 The Cathedral Precinct in the City Centre
Source = Author
- Plate 94 The Cathedral Precinct : Built Form and Street Pattern
Source = Author
- Plate 95 The Cathedral Precinct : Open Space
Source = Author
- Plate 96 The Cathedral Precinct : Open Space and Built Form
Source = Author

- Plate 97 The Cathedral Precinct : The Cathedral
Source = F Settuane
- Plate 98 The Cohesive Centre
Source = Author
- Plate 99 1975 : City Centre Boundary. Source : 1975 Central area
local plan. Glasgow District Council
- Plate 100 1983 : City Centre Boundary
Source = 1983 Glasgow central area local plan. Glasgow
District Council
- Plate 101 1983 Local Plan Opportunities
Source = 1983 Glasgow Central area local plan. Glasgow
District Council
- Plate 102 1984 Local Plan : City Structure
Source = 1984 Glasgow local plan.. Glasgow District Council
- Plate 103 1984 Local Plan : Minimum Strategy
Source = 1984 Glasgōw local plan. Glasgow District Council
- Plate 104 1984 : The String of Pearls
Source = 1984 Glasgow local plan. Glasgow District Council
- Plate 105 Glasgow Action
Glasgow Herald Tuesday October 29, 1985
- Plate 106 Glasgow Action
Glasgow Herald Tuesday October 29, 1985
- Plate 107 Glasgow Action : Strategy
Source = The potential of Glasgow city centre. Scottish
Development Agency
- Plate 108 Glasgow Action : Buchanan Street
Source = The potential of Glasgow city centre. Scottish
Development Agency
- Plate 109 Glasgow Action : The New Square
Source = The potential of Glasgow city centre. Scottish
Development Agency
- Plate 110 Glasgow Action : The new square
Source = The potential of Glasgow city centre. Scottish
Development Agency
- Plate 111 Glasgow Action : St Enoch's
Source = The potential of Glasgow city centre. Scottish
Development Agency

- Plate 112 Glasgow Action : St Enoch's
Source = The potential of Glasgow city centre. Scottish
Development Agency
- Plate 113 Glasgow Action : The Riverside Chain
Source : The potential of Glasgow's city centre. Scottish
Development Agency
- * —
- Plate 115 The Road Form
Source = Author
- Plate 116 The Road Form : Views
Source = Author
- Plate 117 The Road Form : Views
Source = Author
- Plate 118 The 1975 Conditions
Source = Author
- Plate 119 The Ideal Solution : Principles : Technical Solution
Source = Author
- Plate 120 The Ideal Solution : Principles : Urban Design Solution
Source = Author
- Plate 121 The Ideal Solution : Principles : The Sequential Motorway
Source = Author
- Plate 122 The Contextual adjustment : Principles
Source = Author
- Plate 123 Displacement
Source = Author
- Plate 124 Severance : Pre motorway situation
Source = Author drawn from the environmental effects
of urban motorways. Brian H Watt
- Plate 125 Severance : Post motorway situation
Source = Author drawn from the environmental effects
of urban motorway. Brian H Watt
- Plate 126 Severance : View of Crossings
Source = Author
- Plate 127 Severance : view of crossings
Source = Author
- Plate 128 Visual intrusion
Source = Author
- Plate 129 Noise : Site readings
Source = Author drawn from the environmental effects
of urban motorway. Brian H Watt
- * Plate 114' Glasgow City Centre Opportunities for Change
Source = Author

- Plate 130 Noise
Source = Author
- Plate 131 Loss of Privacy : View
Source = Author
- Plate 132 Noise Reduction
Source = *Environmental Management , J Antoniou , Jarrold and sons, 1971*
- Plate 133 Noise Reduction
Source = *Environmental Management , J Antoniou, Jarrold - Sons, 197*
- Plate 134 Noise Reduction
Source = *Enviròmental Management , J Antoniou , Jarrold - Sons, 197.*

CONTENTS : INTRODUCTION

CHAPTER 1 : THE HISTORICAL BACKGROUND

- 1.1 : Pre-Union History
- 1.2 : The Merchant City
- 1.3 : Blythswood New Town
- 1.4 : Twentieth Century Glasgow
- 1.5 : Summary

CHAPTER 2 : THE CITY CENTRE : ITS FUNCTIONAL CHARACTERISTICS

- 2.1 : Introduction : Decline
- 2.2 : Definition and Description
- 2.3 : Activities
- 2.4 : Summary

CHAPTER 3 : THE CITY CENTRE : ITS PHYSICAL CHARACTERISTICS

- 3.1 : Introduction : Decay
- 3.2 : The General Townscape
- 3.3 : The Dissected Fabric
- 3.4 : Summary

CHAPTER 4 : PRESENT PRESCRIPTIONS

- 4.1 : Introduction : Official Policies
- 4.2 : Glasgow Action
- 4.3 : Summary

CHAPTER 5 : CONCLUSIONS : OPPORTUNITIES

- 5,1 : Introduction
- 5.2 : The General Assessment
- 5.3 : General Proposals
- 5.4 : The Localised Proposals
- 5.5 : Towards an Assimilation of the Urban Motorway
- 5.6 : General Conclusions : learning from Glasgow

INTRODUCTION

INTRODUCTION

1.1 Objectives

The City of Glasgow forms the centre of Scotland's only conurbation. It has a population of three quarters of a million people. This accounts for 32% of Strathclyde Region and 15% of Scotland's total population. The City is Scotland's principal commercial centre. Although it has lost some of its original prominence, it is still the business hub of the west of Scotland generating substantial investment and income which finances the ever present dynamics of change.

Glasgow typifies the present conditions of so many industrial and commercial cities. The process of change has brought stress and decay especially to the centre of the city. Neglect in dealing with change has, in the case of Glasgow, resulted in some of the worst slums of any city in Europe. Thus Glasgow acquired a poor image but it is changing, and with this psychological change, the potentials for revitalising the City has in the past two years become more generally appreciated.

The City centre has been chosen to illustrate new opportunities for change and this Thesis has been structured around the following key questions :-

1. What are the present assets in functional and physical terms?
2. What are the present intentions and policies for directing change?

3. What areas of decay or deficiency await new urban design initiatives?

These questions constitute the general theme which is essentially about new initiatives, complementary to some initiatives already in place, and which in urban design terms could make a contribution to the present efforts to, once again, make Glasgow flourish.

1.2 Method

Following a brief historical review of the growth of Glasgow, this Thesis will start by examining the nature of the city centre, the causes of decline and the recent failure to deal with blight, traffic congestion and bad housing. Some aspects of this complex subject will only be touched upon, and certain assumptions will be made as to the practicalities of achieving the kind of change and development that now seems to be desirable, however slowly the rate at which change can be achieved. Changes, not only in attitudes, but in physical terms are occurring and a new sense of purpose is evident. Like an ill body, Glasgow is now making strenuous efforts to find a cure and to restore its vitality, and in examining the diagnosis underlying these efforts, we will attempt to assess the present prescriptions and to put forward certain important ideas concerning open space and the boundary conditions.

The Thesis is presented in five Chapters :-

CHAPTER 1 : contains a brief account of the historical development of Glasgow and identifies the different forces that shaped the present city.

CHAPTER 2 : is a survey of the main functional characteristics of the city centre. Essentially it represents an assessment of the weakness and strength of the city centre as a place to live and work.

CHAPTER 3 : represents a visual assessment of the physical nature of the city centre and attempts to identify its principal assets and deficiencies.

CHAPTER 4 : reviews the post 1975 experiences leading to the present policies of Glasgow District Council. It will include a description and assessment of the important study known as Glasgow Action, and indicates how the concepts underlying Glasgow Action could be expanded and developed.

CHAPTER 5 : The conclusions discusses an approach to urban decay and the way in which urban design initiatives illustrate in more positive ways the potential for change. However deep seated the malaise of a city, whether Glasgow, Boston or Algiers, people will respond with imagination if they are given a clear picture not only of the economic opportunities and of improvements in the mechanism of the city, but of its future appearance, and architectural character.

Making the best of what is provided in terms of information is critical to the success of any piece of work and is the underlying principle for most people, me included. This Thesis will make the ^{best}~~what~~ possible contributions, complementary to other established decisions and with humility will plan for improvement. Therefore

it is reasonable and right for the reader to expect some new and
wise ideas to take account of. We hope to not fail that objective..

And here goes

CHAPTER ONE

GLASGOW CITY CENTRE
ITS HISTORICAL BACKGROUND



CHAPTER 1

HISTORICAL BACKGROUND

"It is knowledge of the past that constitutes the terms of the present and the measure of the future"

A Rossi

The Architecture of the City

- 1.1 Pre-Union History
- 1.2 The Merchant City
- 1.3 The New Towns - Westward Expansion
- 1.4 The Industrial City
- 1.5 Twentieth Century Glasgow
- 1.6 Summary

CHAPTER 1 HISTORICAL BACKGROUND

Who best to quote when starting a paper on the history of an urban form than Lewis Mumford. In the first chapter of his book, the 'City in History' he wrote :

"If we would lay a new foundation for urban life we must understand the historic nature of the city and distinguish between its original functions, those that have emerged from it and those that may be still called forth. Without a long running start in history, we shall not have the momentum needed in our consciousness to take a sufficiently bold leap into the future." ¹

To understand how Glasgow grew into a great industrial city we need to take a brief look at the Pre-Union history of Glasgow and the geography of the Clyde valley.

1.1 Pre-Union History

The site and setting of a city provide the physical framework within which a city develops. In the case of Glasgow, attention is naturally focussed upon the River Clyde which played the different roles of barrier, trade-route and, in later years, a symbol of Glasgow's industrial strength.

The River Clyde traverses the site from east to west providing fertile surfaces for agriculture. The lower lands of the Clyde valley towards the east and the south are very flat, whereas the north and the west lands are broken up by a series of small pear-shaped hills, known as drumlins, which rise sharply to heights varying from 100 feet (30 m) up to 250 feet (75 m). It is this collection of drumlins that gives the site of Glasgow some of its special qualities.

Thus there is a wide range of natural assets that awaited the exploiting mind of man and allowed him to lay the cultural foundations upon which the city arose. Plate 1 shows the topographical characteristics of the site of what was to become a great city.



Plate 1

— Topography —

It is difficult to identify the exact origin of the urban settlement in Glasgow but it can be said that from the moment the Cathedral was built on the hill near the Molendinar burn, the form of the medieval town began to take shape. About the same time, a Market Cross was erected nearby at the junction of the old Roman roads. As with all old Scottish burghs, the market cross marked the point where the entire trade was carried on. From then on, Glasgow grew steadily to a town of religious and commercial importance, dominated by the Cathedral, its centre remaining the Market Cross. This first stage of Glasgow urban development is shown on Plate 2 Fig. a, which represents Glasgow in 1400.

By 1420, the Market Cross shifted from the upper cross to the lower extremity of High Street at the junction of the present Gallowgate, Trongate and Bridgewater and closer to the crossing of the river. From that moment the centre of the town was divided in two; the upper Cross providing the focus of the religious and administrative functions, whereas the lower Cross was the focus of the trading activities. The High Street acted as the spine along which interactions between the two centres occurred, (see Plate 2, Fig. b) Half-way along the High Street was the University founded in 1451.

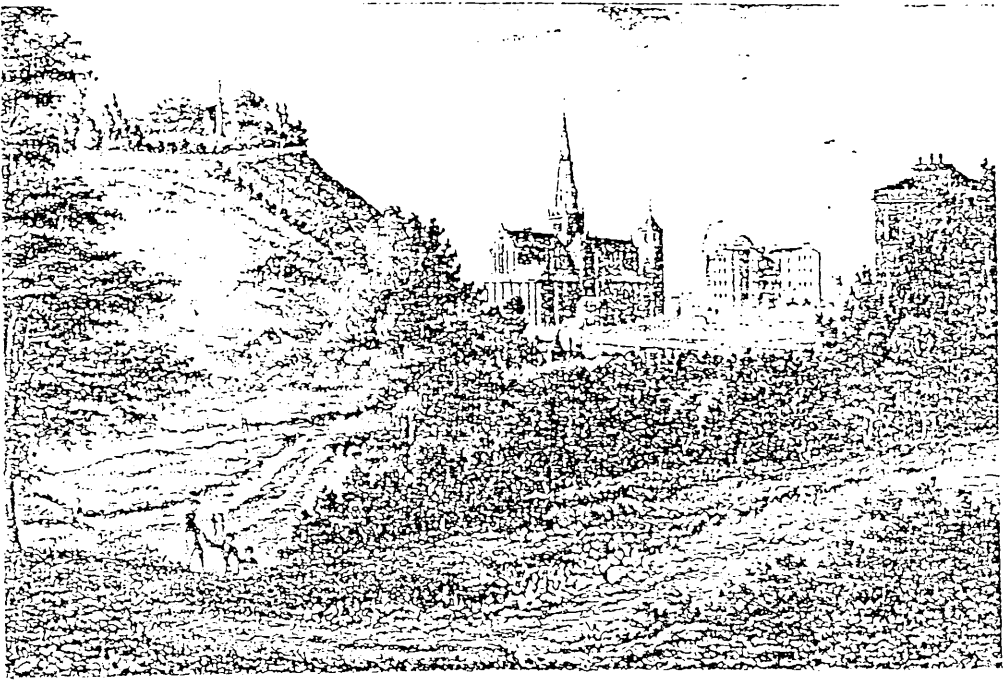
At the Reformation in 1560, the church lost most of its authority and the Bishops were replaced by the Merchants and the Traders as the new ruling class of the town. From now on, we will see how the development of wealth lead to the change and growth of a

mercantile city. As the centre of power had shifted from the upper cross to what is now called Glasgow Cross, the area around the Cathedral lost its prominence. The new city rulers confirmed this state when, in 1573, a new Tolbooth was erected at the junction of High Street and Gallowgate marking the new centre of power. The Tolbooth, erected in 1626, remains as one of the few architectural achievements of seventeenth century Glasgow. Two engravings, extracted from the Swann's book of pictures, show respectively in Plate 3 and Plate 4, the Cathedral and Bridgegate in the late seventeenth century. Noticeable are the position of the Cathedral and Tolbooth as landmarks.

Until the eighteenth century, Glasgow was a walled city. Each of its main entrances was closed by a stone barrier built across the streets, when they passed between the outermost houses. The centre of each barrier formed the entrance to the city, known as the yett or port. Their position can be seen in Fig. 2 of Plate 2. The port was locked at nightfall. As with many medieval cities, this defensive wall around the city constituted a major obstacle to the city's expansion. The subsequent phase of the city growth followed the expansion of trade but new development had to overcome these defensive barriers and create new formerly formed streets.

1.2 The Merchant City

Prior to the Union and the opening of trade with North-America, the commercial growth of Glasgow was limited to the extension of the built-up areas adjacent to High Street and the Trongate.



The Cathedral On The Molendinar Burn



VIEW OF BRIDGEGATE
FROM THE TOLBOOTH
Bridgegate and The Tolboth

Trade at that time was largely based on sugar refining and the export of herring. By 1700 the town had grown to the point where new streets and buildings were beginning to push beyond the Burgh boundaries in an effort to relieve overcrowding in the medieval city.

After the Treaty of Union in 1707, trade with the English colonies in North America started and Glasgow began to flourish with the tobacco profits. New streets were built and the medieval town was to some extent regularised. The flat ground between Trongate and the modern Ingram Street was laid out with a series of streets running north/south with a resulting plan much as we see it today (see Fig. b of Plate 5). Although the layout is more regular, the new developments did not envisage any significant commercial activity away from the core of the city as it then existed, especially that part between the Trongate and the river.

The Trongate was the principal commercial street of the city and it soon extended westwards beyond the West Port to a point where the new Buchanan Street was started. More than any of the other streets, these two streets reflected in their fine houses the growing wealth of the Merchant City. On a visit to the City in 1727, Daniel Defoe described the city thus :-

"It is a large stately and well-built city, standing on a Plain, in a manner foursquare, and the four Principal Streets are the fairest for breadth, and the finest built that I have ever seen in one City together. The Houses are all of stone and generally uniform in height as well as in front.

The Lower Storeys, for the most part, stand on vast square Doric columns with arches, which open into the Shops, adding to the strength as well as the beauty of the building. In a word, 'tis one of the cleaniest, most beautiful and best built Cities in Great Britain".

In the forty years following Daniel Defoe's visit, the pressures of commercial expansion became more evident in various ways. For example houses were being converted into business, professional and retail premises and the relatively low rents in the new buildings attracted many tradesmen to ^{or} move away from the High Street and the Market Cross. It was not long before Buchanan Street became Glasgow's most fashionable shopping street and promenade. By about 1760 a new era of civic consciousness and pride began, which was expressed not only in individual buildings, but in ideas for further expansion.

1.3 Westward Expansion - the 'New Towns'

The development of the land to the east of Buchanan Street dates back to 1772. The plan for the layout of the first 'New Towns' was prepared by James Barry, who was the most important land surveyor in Glasgow during the eighteenth century. Plan of the survey is shown in Fig. a of Plate 6 which represents Glasgow in 1782.

A straight forward gridiron plan was chosen to regularise the layout of the Merchant City. This new development was a logical extension of the street pattern north of the Trongate which represents a significant departure from the mediæval town; it saw the sense of symmetry and regularity implemented by the use of history's oldest known urban form regulator ie the grid iron plan.² The new layout, contrasting with the congested narrow closes of the eastern areas, provided more light, space and fresh air, attracted the wealthier classes and lead to a horizontal social distribution. Indeed it is with the building of the first New Town that the westward social movement became apparent. The grid was chosen as a practical generating



fig a Glasgow In 1782 Surveyor James Barry



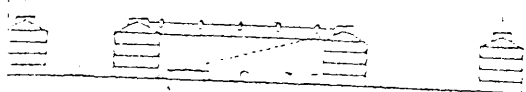
principle because of its efficiency in producing an equal division of land, its great adaptability, ease of land sales and of continuing expansion. This orthogonal gridiron was imposed on a modulating terrain adapted where necessary to the older topographical field roads emanating from the original High Street and the lowest bridging point on the River Clyde. Interaction between the grid-iron streets, the random roads and the topography, created unique opportunities, exploited by architects, to create subtle indicators of place ¹¹ which articulated the form of the city.

The grid generated a matrix of spaces, from which developed the characteristic building type - The Tenement. Indeed, this latter building form came to dominate Glasgow and some other Scottish towns. Its use caused Glasgow to be called the 'city of tenements' and links it with the main tradition of similar European towns. Plate 7 shows the lay-out of two typical tenement blocks.

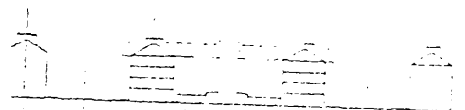
If the mercantile era witnessed a growing quality of civic design, the following industrial era has dramatically changed the urban form.

1.4 The Industrial City

The outbreak of the American War of Independence in 1792 interrupted the tobacco trade with England's American Colonies. Thereafter, from a stage of trading based on raw materials, Glasgow quickly responded to the Industrial Revolution and became less of a trading town and more of a manufacturing town. In 1790 the Forth



AREA (C)



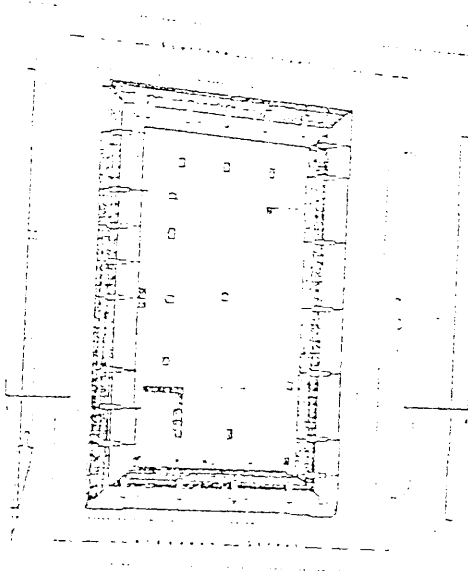
SECTION A-B

AREA	4444 ACRES
NO. OF DWELLING-HOUSES	1000
NO. OF STORES	100
NO. OF OTHER BUILDINGS	10
DENSITY	—
575 HOUSES PER ACRE	
POPULATION	1000
222 PERSONS PER ACRE	

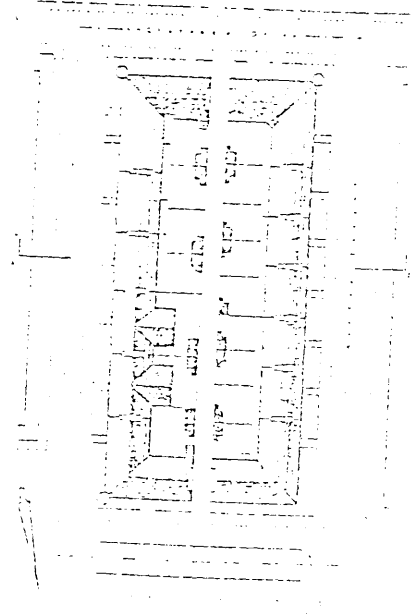
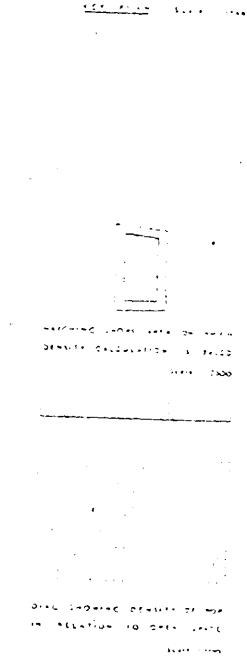


SECTION C-D

AREA	4444 ACRES
NO. OF DWELLING-HOUSES	1000
DENSITY	—
575 HOUSES PER ACRE	
POPULATION	1000
222 PERSONS PER ACRE	



PLAN OF TYPICAL BLOCK
 NO. OF HOUSES 100 Scale 1:120
 Population 1000
 Density 100 HOUSES PER ACRE
 222 PERSONS PER ACRE



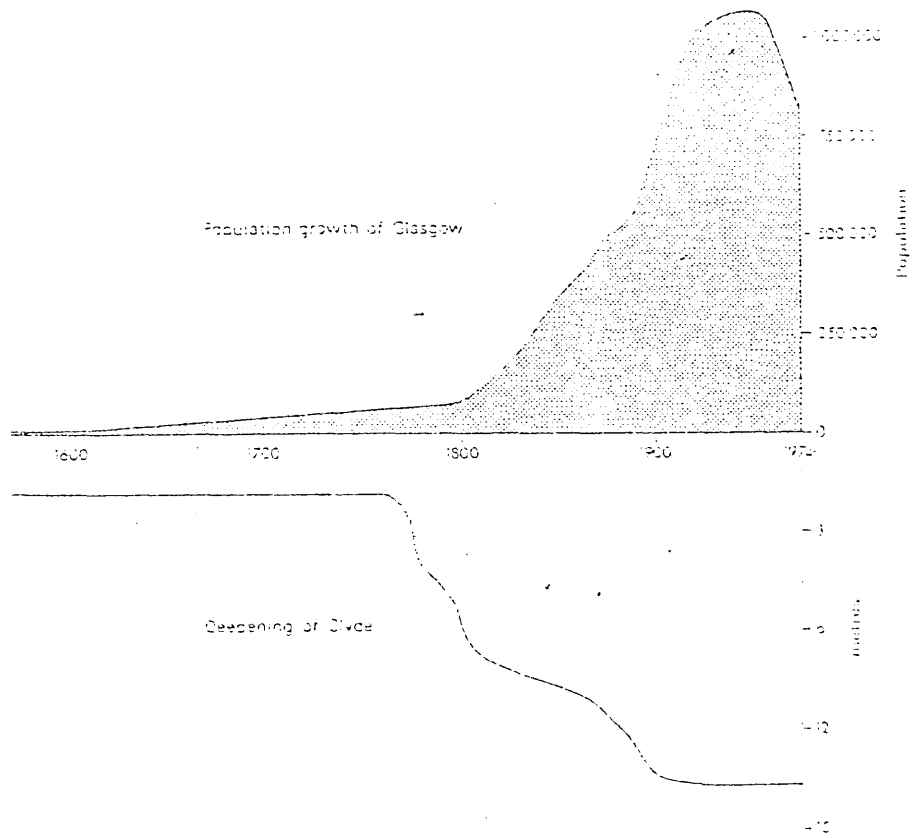
PLAN OF TYPICAL BLOCK
 NO. OF HOUSES 100 Scale 1:120
 Population 1000
 Density 100 HOUSES PER ACRE
 222 PERSONS PER ACRE

Two Typical Tenement Blocks
 From The Eighteenth Century

and Clyde canal was opened and good communications were seen as part of the indispensable infrastructure for the new Industrial economy. By the end of the eighteenth century, the Clyde had been the focus of numerous attempts of improvements, some more successful than others. From 1800 onward, the twin spurs of the mercantile opportunities and industrial demand goaded the Clyde Navigation Trustees to greater efforts. The deepening of the river down stream from the Broomielaw together with the uses of piles and blocks of whinstone rubble to secure the banks, permitted the more rapid passage of deep-draught vessels. Thus the full exploitation of the river as a navigable route as well as the use of its banks for industrial development was achieved. These developments of a navigable river had dramatic consequences for the growth of the city; Growth is illustrated by relating the rise of population to the gradual improvement in navigation (see graph in Plate 8). These improvements proceeded quickly with the creation of docks, wharfage facilities and the resulting commercial and manufacturing activities brought increasing wealth to the city. The state of rural depression in the Highlands, together with the famine in Ireland, provided the inexhaustible labour source which found the squalor of the slums less intolerable than starvation.

This industrial expansion together with the increase of population and poor housing led to social stress and environmental deterioration. By 1850 a broad division in the city was apparent: the eastern areas on both sides of the Clyde contained the factories and the workers' residences whereas the north west contained the business premises and the middle class dwellings.

GROWTH OF THE CITY



The Rise Of Population Paralleled The Gradual Improvement In Navigation, Illustrating The Growth Of The City.

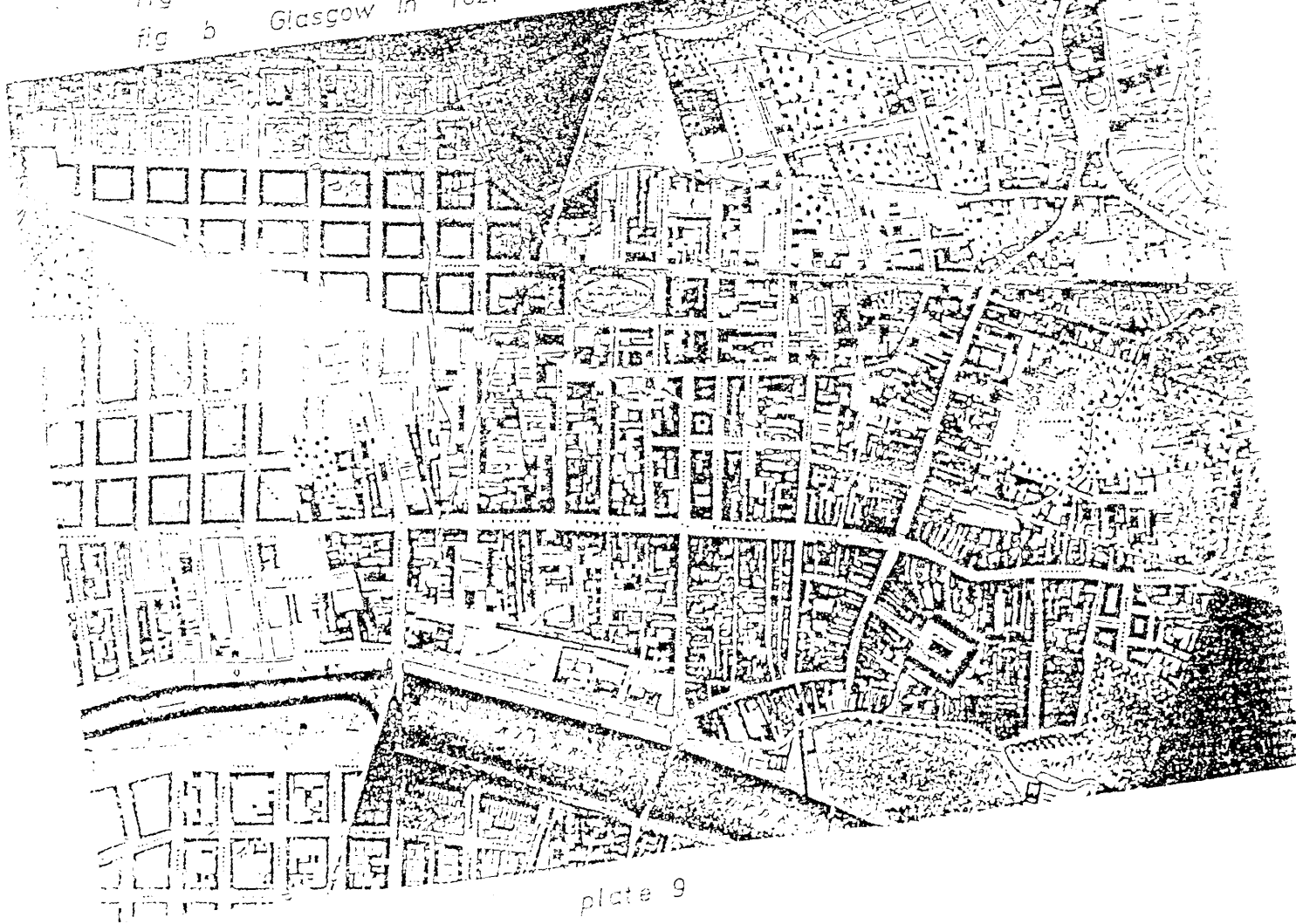
Some areas were a great proletarian sea where the tenements disposed their rigid squares and canyons, relieved by the busy life of the street, its many shops, public houses and community buildings, which helped to stabilise the district communities making up the fabric of the city. Certain areas eg the Saltmarket, soon became squalid slums and like other overcrowded industrial cities the general lack of sanitation and piped water supply prevented any hope of improvement. The famous cry of "Gardiloo"* symbolised the degeneration which gave Glasgow its reputation of the "biggest slum city in Europe" - a reputation that still lingers in the minds of some people to this day.

The density of the build-up areas and the east-west division of the city are shown in Plate 9. Despite these increasing problems, the arrival of the railways and the expansion of trade in a world hungry for the products of the great manufacturing cities sustained Glasgow and its centre for the whole of the Victorian era. It had become Scotland's commercial capital and the second city of the British Empire.⁵ By the end of the nineteenth century however, Glasgow's economy went into decline and it became one of the first great industrial cities to stop growing. It is said that "Great cities contain in their very greatness the seeds of premature and rapid decay."³ Industrial decline led to physical deterioration and areas such as the Gorbals, Bridgeton and Dennistoun became seriously decayed. In contrast to the decaying eastern areas, the western end of the city was still the place of great commercial architectural innovations, especially around Blythswood Square and later at the west end of Sauchiehall Street.

*"Garde de L'eau" - beware of the water



fig a Glasgow In 1807 Surveyor Peter Fleming
fig b Glasgow In 1821 Surveyor Peter Fleming and David Smith



Further west in the northern direction, the planning of the new streets such as Park Circus, became more relaxed and responsive to the topography, as it is shown in the two maps of Glasgow in 1865 and 1910, on Plate 10.

However, at the beginning of the twentieth century, few architectural or urban contributions were made to enhance Glasgow's townscape. On the contrary, here starts the era of 'les genies mauvais à l'oeuvre*.

1.5 Twentieth Century Glasgow

World War One ended the dynamism of the city. In the inter-war period, Glasgow like some other cities in Britain found itself with an outdated industry and a commercial stagnation. This period also saw an outward urban sprawl with beginning decay at the centre aggravated by the rising level of unemployment in the 1930s.

After World War Two, as in ^{any} other British cities, politicians and planners had adopted radical ideas for the rebuilding of war damaged towns and cities. These were based on a concept known as comprehensive redevelopment areas, in short, CDAs, by which means urban renewal could be tackled more effectively. These CDAs implied the large scale demolition, clearance and redevelopment of bomb damaged areas, or areas of severe deprivation. Powers were given for the wholesale clearance of decaying urban areas in an attempt to eradicate the three mutually reinforcing effects of :-

* the bad genius at work

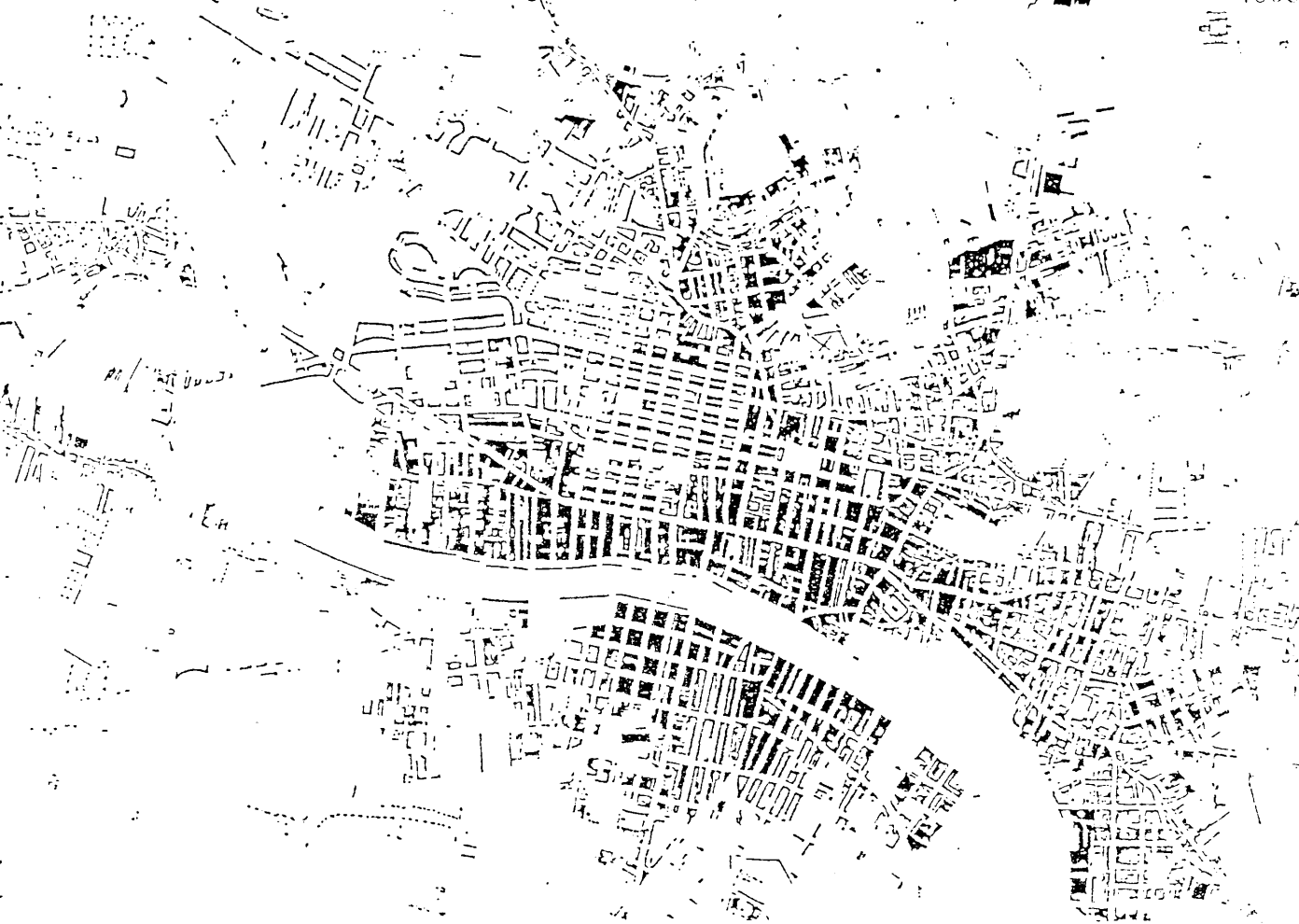


fig a Glasgow In 1865

fig b Glasgow In 1910

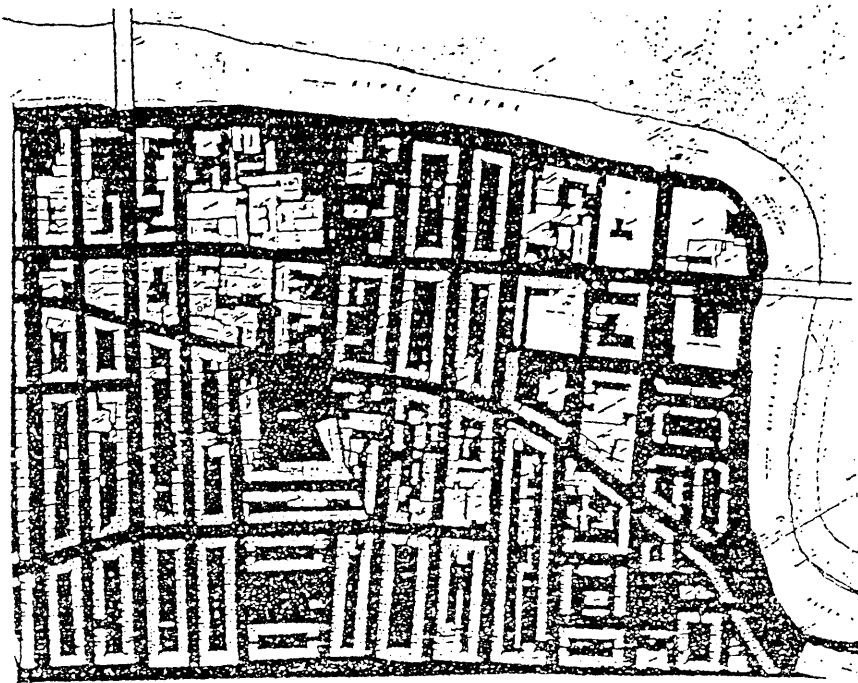


- economic decline
- housing decay
- and environmental degradation.

Cities like Glasgow embarked on this process of demolition and clearance in the belief that the early eradication of slum areas had to be tackled on a large scale.* The planners on the one hand meant to bring light, sunshine and green open space into the dense worn-out fabric of the city and on the other hand to tackle the increase of car ownership by creating a new road system, as the existing road space could not cope with the rapid growth of the motor traffic. Thus emerged the policy of combining CDAs with new road construction. These ideas were in tune with, and directly derived from, the authoritarian nature of the modernist prescription. However, this approach failed to recognise the inherent nature of Glasgow and its characteristic urban form based on the city block and the tenement. Historically, this later form accommodated every kind and degree of life and work. And in place of careful surgery and conservation, destruction began. (see Plates 11 and 12). The tenement became the synonym for slums and insanitary housing conditions, for which the politicians had only one answer - "ca' it doon" **

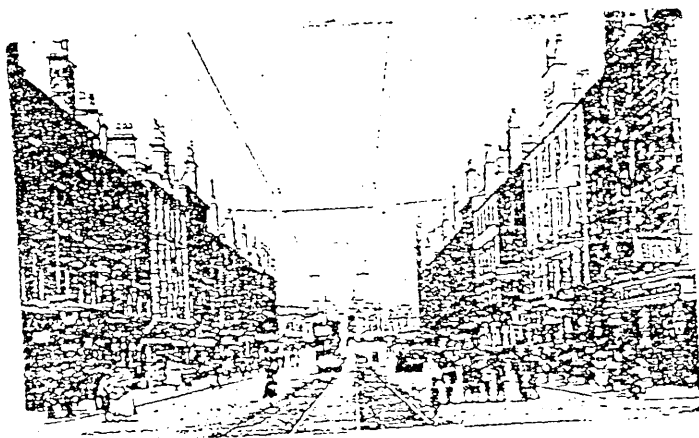
* A programme of 29 CDAs was announced in 1954. These contained many churches, industrial premises, shops, schools and some 118,500 houses¹² inhabiting some 300,000 persons.

** Demolish it.



THE OLD GORBALS

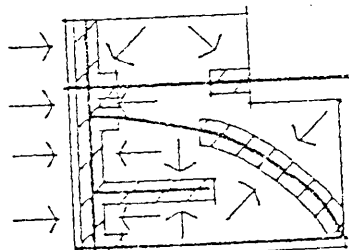
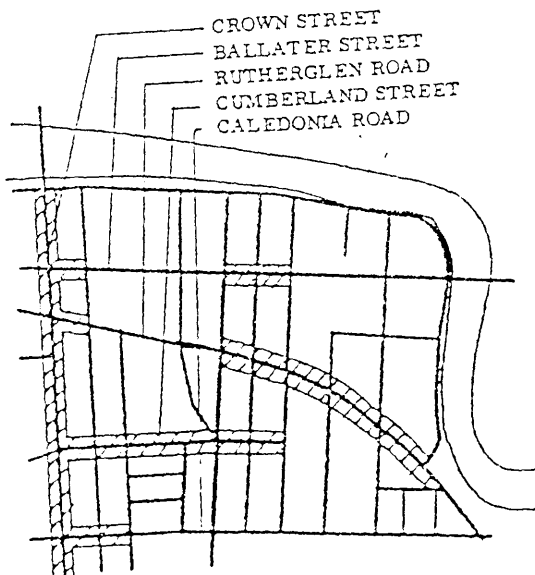
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BEFORE
CROWN STREET, GORBALS
Looking north from the Bailmer Street junction

S
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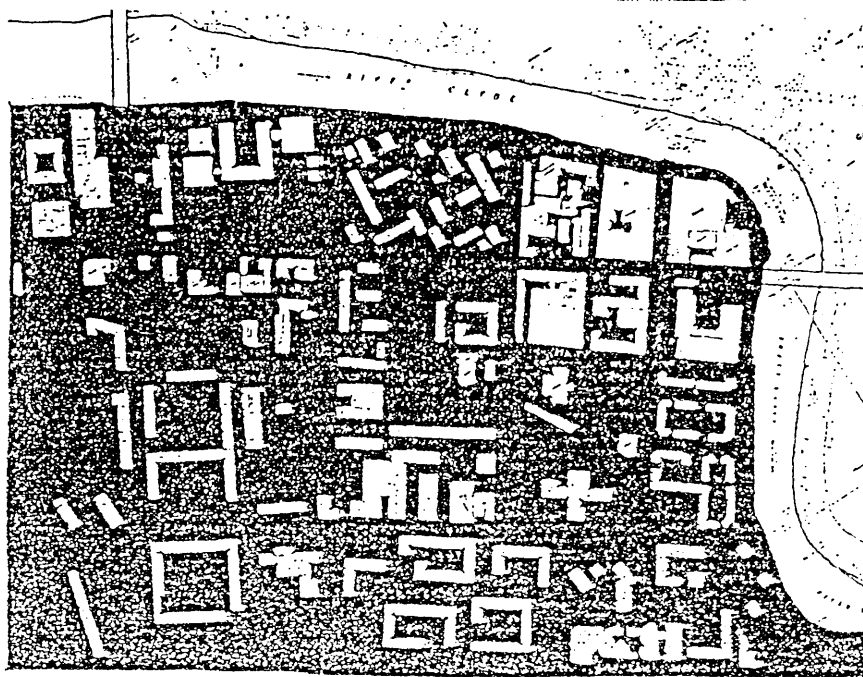
- CDA'S -



MAIN TRAFFIC ROUTES, MAIN
SHOPPING STREETS AND
PEDESTRIAN MOVEMENT BEFORE
REDEVELOPMENT

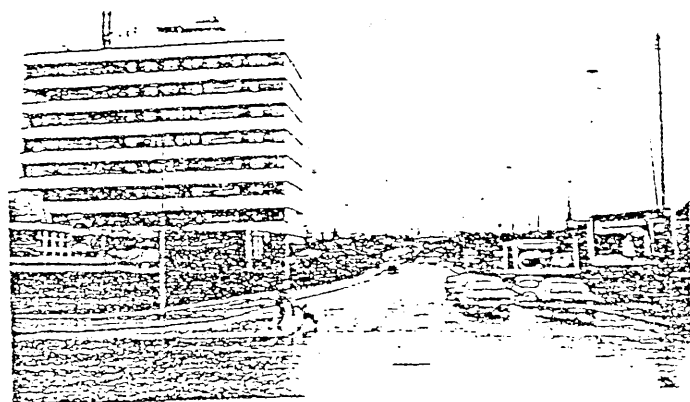
SHOPPING AREAS

THE OLD GORBALS STREET SYSTEM



THE NEW GORBALS

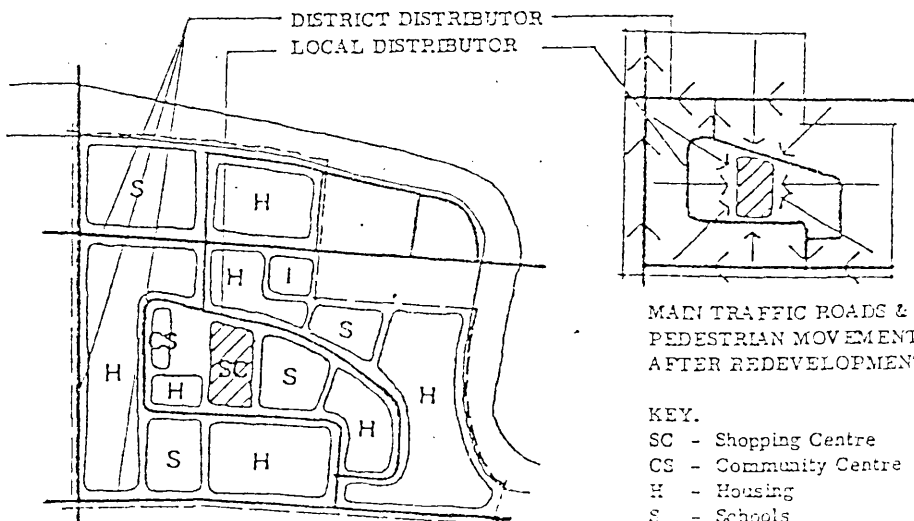
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AFTER

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- CDA'S -



MAIN TRAFFIC ROADS & PEDESTRIAN MOVEMENT AFTER REDEVELOPMENT

- KEY.
- SC - Shopping Centre
 - CS - Community Centre
 - H - Housing
 - S - Schools
 - I - Industry
 - - Boundary of CDA.

THE NEW GORBALS NEIGHBOURHOOD UNIT

The Gorbals were the first designed CDAs where full power was given to redevelopment. We can see that little attention was given to inherent characteristics of the street and block pattern, or to the distribution of the community patterns of movement. On the contrary, it attempted to apply new standards of light, air and sunshine which resulted in the drastic demolition of the old housing pattern and the implementation of new housing patterns, ie the tower blocks.

One of the key ideas of men like Corbusier was the high rise blocks or 'towers in the park'*. In 1950, Glasgow was proud to be the first in Europe to have embraced on a policy of building high-rise flats in response to problems of overcrowding and the acute shortage of land for housing. Such a policy depended on financial subsidies to meet the extra cost of high-rise building and increased residential densities. Thus the building boom in multi-storey and system-built housing was adopted almost as a political policy. However little thought was given to the social and urban consequences of this policy.**

There was a desire to create in Glasgow a better housing, quickly achieved to reduce the housing waiting lists and the demand, which was generated by the wholesale demolition of existing tenement areas. The familiar skyline of parts of the Glasgow inner city once dominated by the spires of Victorian churches and the roofs and chimney heads of the traditional tenement was rapidly and radically altered, as multi-storey towers and slabs pushed their way skywards.

* see Corbusier's writing on 'La Ville Radiuse'

** Numerous studies have been developed to demonstrate this argument among them is the outstandingly revealing book of Oscar Newman called 'Defensible Space'.

Although a high density standard of 165 ppa¹⁴ was adopted compared with 120 ppa¹⁴ recommended in the Abercrombie plan, only 120,000 persons were housed in the newly built inner housing areas leaving 180,000¹⁴ displaced to the new towns of East Kilbride and Cumbernauld. This policy coupled with the economic decline led to a significant drop in the population of Glasgow, especially of its central area.

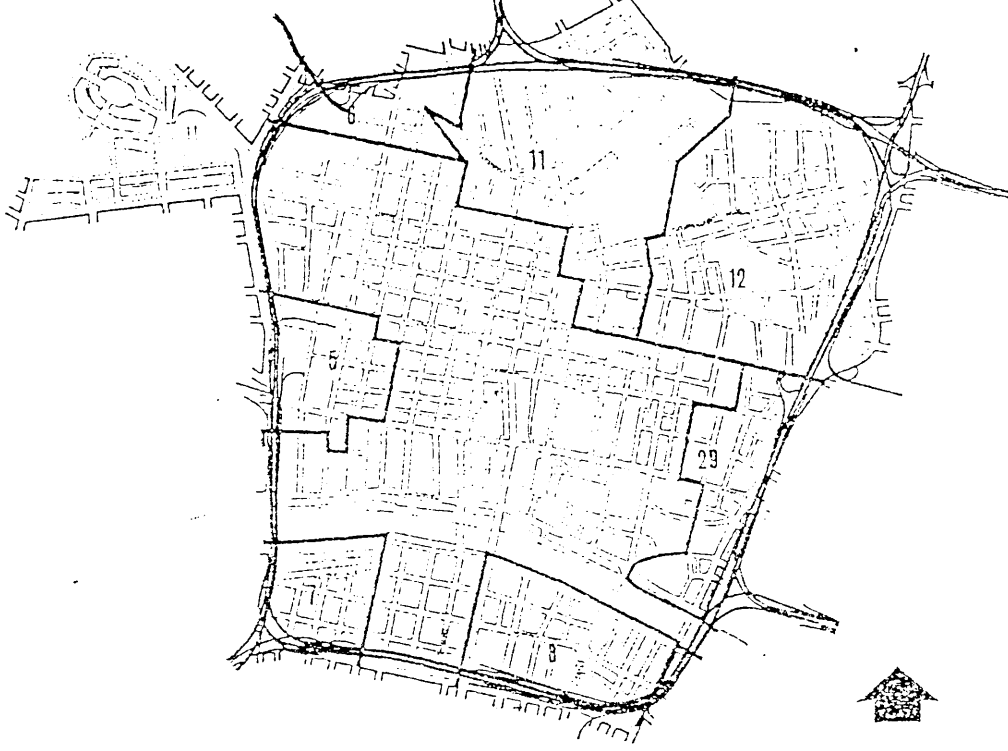
In the inner City areas, the policy of large scale clearance was often combined with piecemeal redevelopment to respond to new trends in central area shopping and office space. These trends were reflected in :-

- demands for more floor space per shopper and office worker
- improved working conditions in terms of lighting and heating
- better parking facilities
- separation of pedestrian and heavy road traffic

The response however was hardly seen in terms of a general concept for a high quality of urban design in the city centre and there were serious functional problems arising for example in the displacement of accommodation caused by the building of the urban motorway (see Plate 13).

The urban motorways were intended to have a dual role, namely, to carry through-traffic and to act as a stimulant to development in, and on the fringes of the city centre, by allowing better^{er} accessibility. The traffic engineers put forward the view that the inner

SURVEY AREA SHOWING PROPOSED INNER RING ROAD & ADJOINING C.D.As



The Building Of The Motorway Induced
The Displacement Of Accomodation.

Glasgow Central Area
Displacement of Accommodation Implicit in Corporation's Redevelopment Proposals

(a) Approved by Secretary of State. (b) Submitted to Secretary of State but not yet Approved. (c) Submitted in early state of preparation.

Accommodation Area within Central Area	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	Total	Total	
	Dwellings	Home, etc.	Education	Shops	Offices	Wholesale & Retail	Stores & Service	Public Buildings	Specialist Buildings	Industry	Specialist Industry	Public Buildings	Specialist Buildings	Public Buildings	Specialist Buildings	Public Buildings	Specialist Buildings	Public Buildings	Specialist Buildings	Public Buildings	Specialist Buildings	Public Buildings	Specialist Buildings	Total	Total
I. Total Existing Floor Area																									
(a) Proposed Ring Road	225 150	1 440	4 290	165 120	31 790	67 730	82 470	68 990	—	224 000	—	22 300	—	7 110	—	—	—	—	—	—	—	—	—	—	—
(b) Abandonment of C.D.A.	431 470	23 840	64 790	364 730	241 660	301 660	177 260	344 230	—	277 760	—	26 410	1 290	1 900	1 610	—	—	—	—	—	—	—	—	—	—
(c) Townward C.D.A.	3 782 360	101 120	1 747 990	334 730	743 450	236 500	643 420	330 360	12 210	1 190 960	5 540	305 860	27 730	16 250	350	—	—	—	—	—	—	—	—	—	—
(d) Commercial	1 277 240	146 530	146 790	1 033 860	344 000	349 540	923 090	1 331 000	1 390	941 920	74 040	329 120	38 000	8 810	200	—	—	—	—	—	—	—	—	—	—
(e) Warehouse	474 630	—	119 870	77 960	13 330	1 060	4 360	18 890	—	31 120	—	17 660	2 560	3 940	—	—	—	—	—	—	—	—	—	—	—
(f) Laminated: Corridor	1 262 220	—	100 370	561 600	143 780	322 070	323 370	462 300	—	360 830	14 210	18 250	2 260	2 370	—	—	—	—	—	—	—	—	—	—	—
(g) Glasgow Cross	133 690	30 940	—	487 430	160 190	1 810 370	123 860	379 440	—	331 260	27 270	1 630	—	54 740	3 960	—	—	—	—	—	—	—	—	—	—
(h) Shields Road	441 990	—	43 090	44 720	217 490	1 02 630	37 700	14 410	—	27 140	1 390	—	—	27 420	—	—	—	—	—	—	—	—	—	—	—
Total	6 182 770	323 910	2 279 460	2 211 810	1 492 240	4 003 630	2 507 390	3 692 220	14 290	4 733 130	148 610	730 730	64 130	120 230	3 760	2 490	—	—	—	—	—	—	—	—	—
II. Buildings to be Retained																									
(i) Inner Ring Road	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(j) Abandonment of C.D.A.	29 620	49 910	84 280	4 170	3 910	104 240	237 710	441 970	12 130	437 470	—	194 320	—	—	—	—	—	—	—	—	—	—	—	—	—
(k) Commercial	2 960	18 090	—	136 220	202 210	87 370	369 910	123 490	—	363 440	—	119 320	—	—	—	—	—	—	—	—	—	—	—	—	—
(l) Warehouse	—	—	—	103 370	—	87 320	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(m) Laminated: Corridor	73 730	—	—	117 320	70 290	123 910	28 760	133 460	—	87 120	3 740	5 330	—	2 310	—	—	—	—	—	—	—	—	—	—	—
(n) Glasgow Cross	15 730	—	—	80 060	23 810	450 120	31 330	214 230	—	315 430	24 100	—	—	4 270	—	—	—	—	—	—	—	—	—	—	—
(o) Shields Road	441 990	—	43 090	44 720	214 270	1 02 630	37 700	14 410	—	27 140	1 390	—	—	27 420	—	—	—	—	—	—	—	—	—	—	—
Total	124 630	64 000	127 370	273 930	263 070	1 233 700	619 910	1 297 090	12 130	1 278 470	27 640	227 660	—	2 320	—	—	—	—	—	—	—	—	—	—	—
III. Net Floor-space Loss																									
(p) Inner Ring Road	228 150	1 440	5 290	165 130	31 790	67 730	82 470	68 990	—	224 000	—	22 300	—	7 110	—	—	—	—	—	—	—	—	—	—	—
(q) Abandonment of C.D.A.	431 470	23 840	64 790	364 730	241 660	301 660	177 260	344 230	—	277 760	—	26 410	1 290	1 900	1 610	—	—	—	—	—	—	—	—	—	—
(r) Townward C.D.A.	3 222 740	81 270	1 662 420	330 360	741 340	244 260	548 210	309 270	90	1 190 960	5 540	305 860	27 730	16 250	350	—	—	—	—	—	—	—	—	—	—
(s) Commercial	1 274 240	146 530	146 790	1 033 860	344 000	349 540	923 090	1 331 000	1 390	941 920	74 040	329 120	38 000	8 810	200	—	—	—	—	—	—	—	—	—	—
(t) Warehouse	474 630	—	119 870	77 960	13 330	1 060	4 360	18 890	—	31 120	—	17 660	2 560	3 940	—	—	—	—	—	—	—	—	—	—	—
(u) Laminated: Corridor	1 256 470	—	100 810	561 600	143 780	322 070	323 370	462 300	—	357 710	14 210	18 250	2 260	2 370	—	—	—	—	—	—	—	—	—	—	—
(v) Glasgow Cross	117 990	30 940	—	467 370	160 340	1 810 450	142 330	381 090	—	315 770	24 100	—	—	50 470	3 960	—	—	—	—	—	—	—	—	—	—
(w) Shields Road	449 330	—	43 090	44 720	217 490	1 02 630	37 700	14 410	—	27 140	1 390	—	—	27 420	—	—	—	—	—	—	—	—	—	—	—
Total	6 049 140	223 940	1 278 930	2 427 660	719 170	2 230 030	1 247 260	2 403 260	2 240	4 476 740	148 750	502 770	64 130	113 910	3 760	2 490	—	—	—	—	—	—	—	—	—

Source: Floor-space Survey, 1934 Glasgow Corporation
1943 General Rev & Co.

* Total existing floor area does not include area of buildings and total land to Inner Ring Road.

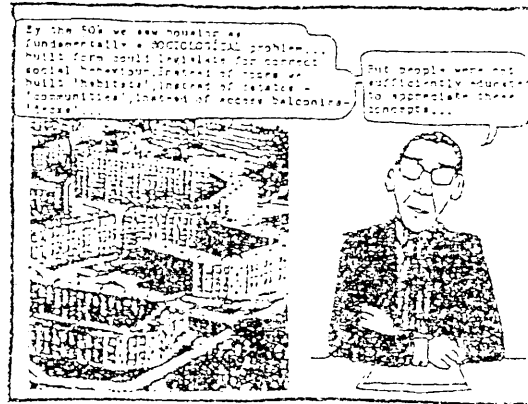
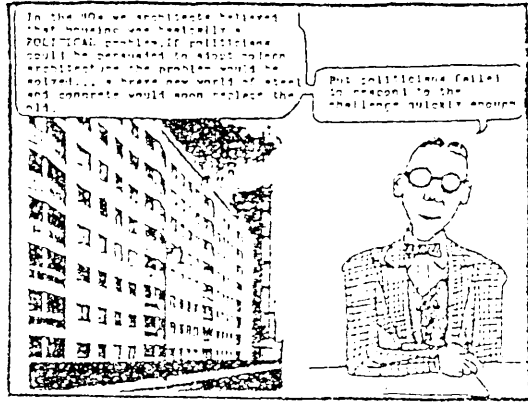
ring road and its connections would be an amenity in themselves, symbolising the renewal of the city centre and its freedom from congestion.

The politicians and planners did not see the motorway as an intrusion on the urban scene, but as a feature of the city, a city associated in the past with great engineering achievements. The environmental effects of the urban motorway will be examined in a later chapter.

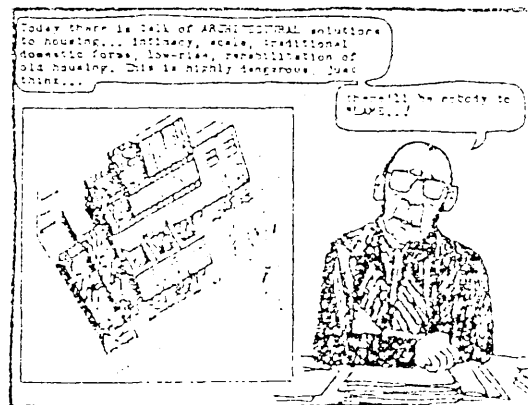
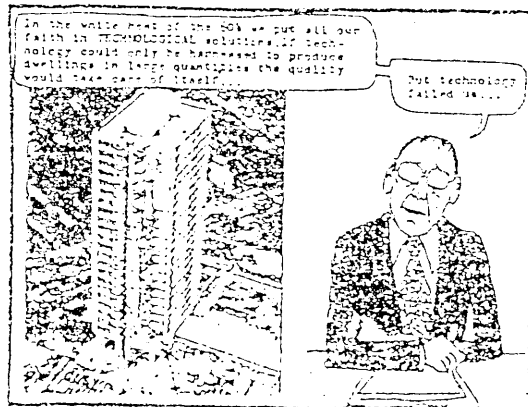
By 1960, the numerous unsightly, derelict and vacant lands led to the widespread disbelief in the effectiveness of the CDAs as an instrument of urban development. By 1970, the CDAs and mass housing programmes were arrested, firstly because of the lack of funds and secondly because of the public rejection of the planners policies.* The post-mortems (see Plate 14) on these policies are with us yet.

It became apparent that the main effect of these planning policies was the breaking up of local communities and the failure to assimilate the new developments into the fabric of the city (Plate 14). By 1975, the people of Glasgow had rejected these policies of wholesale clearance and turned over to more humane instruments such as gradual renewal combining sensible development with conservation. Thus planning became more responsive to people's needs and aspirations.

* The Ronan point disaster in 1968 reinforced this belief



"A QUI LA FAUTE?"



1.6 Summary

Like many another industrial city, Glasgow has suffered from the slow decline of the turn of this century and the virtual collapse of its heavy engineering industries. Attempts to cope with the environmental decay, especially bad housing which in the post-war years had become acute, were based on ill-considered ideas which left the city, especially its central core, greatly weakened. On the one hand the historical structure of the city has suffered, and on the other, the crisis of confidence had reduced the flow of investment vital to the heart of a great city.

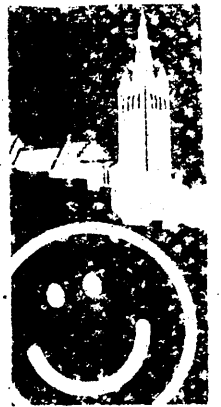
The response to this crisis can now be examined firstly by an assessment of the present functions of the city centre and secondly by an evaluation of its physical characteristics.

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CHAPTER TWO

GLASGOW CITY CENTRE
ITS FUNCTIONAL CHARACTERISTICS



CHAPTER 2

THE CITY CENTRE : ITS FUNCTIONAL CHARACTERISTICS

2.1 Introduction

2.2 Definitions

2.3 City Centre Functions

2.3.1 : Population and employment

2.3.2 : Transportation and accessibility

2.3.3 : Shopping

2.3.4 : Housing

2.3.5 : Education

2.3.6 : Industry

2.3.7 : Office

2.3.8 : Leisure

2.3.9 : Community Services

2.4 Summary



— GLASGOW CITY CENTRE 109. —

CHAPTER 2 THE CITY CENTRE : ITS FUNCTIONAL CHARACTERISTICS

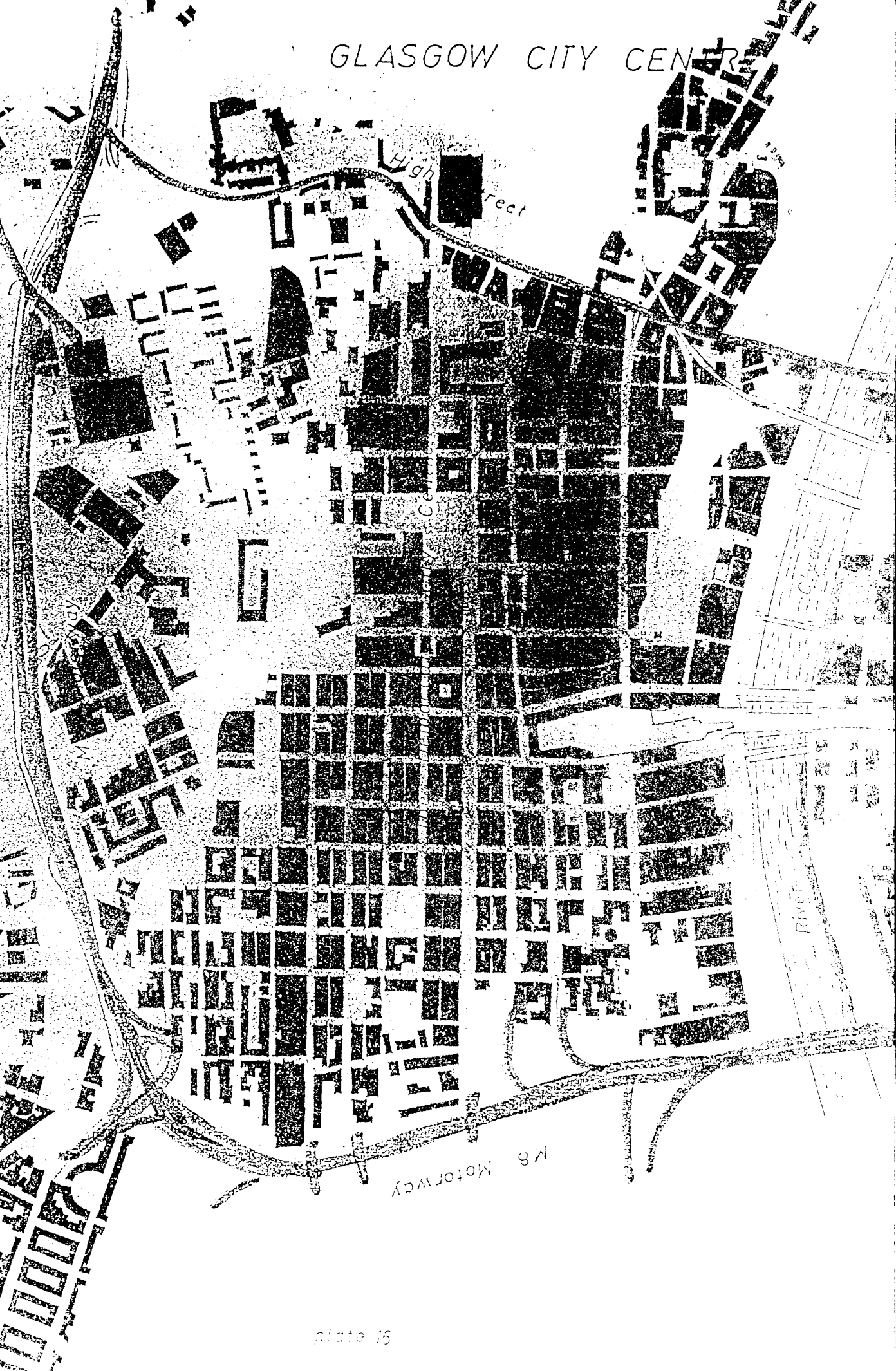
2.1 Introduction

It is in the heart of the city that one recognises those waves of energy that set in motion invigorating and regenerating policies and actions which ensure the continuing health of the city. To maintain the medical analogy, one can diagnose in it the ills of the city, like the human body, growing in youthful strength or suffering from injury or infirmity. As the saying goes - "A known illness is half cured" and Glasgow over the past 35 years or so has suffered from a chronic sickness, the diagnosis of which has proved to be inadequate, largely through lack of knowledge and insight. In this study of the heart of the city, we first examine those functional characteristics which identify the nature of Glasgow's city centre. In the following chapter we will discuss the physical characteristics of the city centre.

2.2 Definitions

What do we mean by the heart or centre of the city? One can recognise certain physical boundaries some of which relate to the historic structure of the city, and some to recent developments such as new roads or motorways. The key characteristics of the city centre however relate to activities, to the meeting of people and the exchange of goods and services, and the space within which these activities can take place without undue amounts of time and energy. A well functioning city should also give the individual a free choice between sociability and privacy, affording him the opportunity to express "his human gregariousness in meeting with others but also

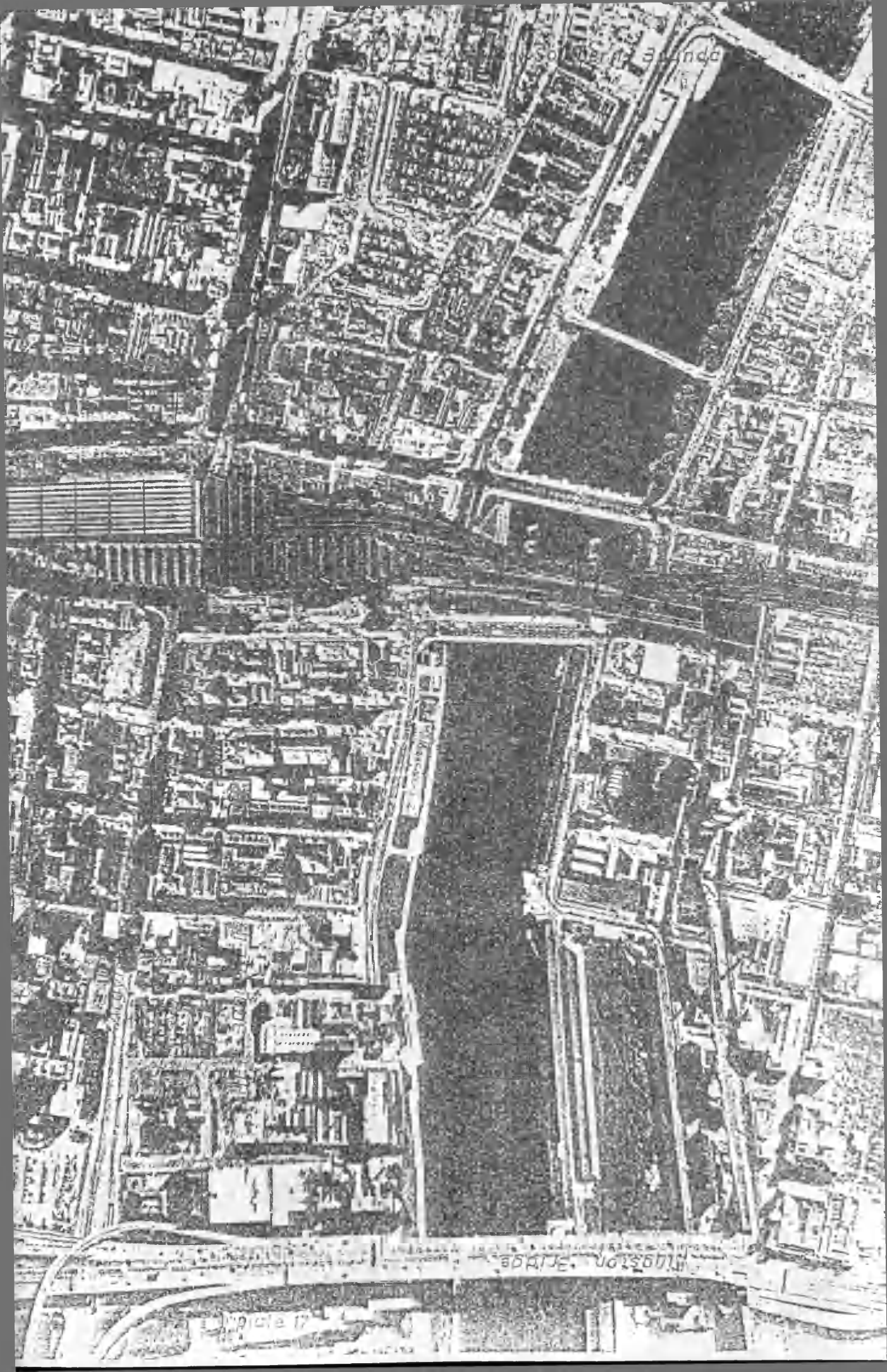
GLASGOW CITY CENTER



the chance to disappear if that is his desire."¹⁹ Thus, the city works as a mixing ground and its centre is the sum total of countless activities and interaction which find expression in the shops, offices, restaurants, the public spaces and the buildings that adorn them. One can thus define the heart of the city by reference to those key activities which are naturally city centred, by the historic structure of the city and by its physical boundaries. Taking these three aspects in reverse order we can illustrate different areas which could loosely be called the centre of Glasgow (see Plate 16).

2.2.1 Physical Boundaries :

- A The River : The River Clyde has for long formed a boundary to the Merchant City with the ships arriving at the Broomielaw and Custom House Quay. The fact that the river no longer serves as a traffic artery has not changed the feeling that the river forms the southern boundary to the city centre (see Plate 17).
- B The Motorway : The proposed motorway box (see Plate 18) will enclose an area of about 26 hectares. The area south of the river is unlikely to integrate with the area north of the river and will thus remain relatively isolated.
- C The High Street : This street has for long presented the feeling of the eastern boundary to the city centre, which as we have seen grew in a westerly direction from this street - the original spine of the medieval city (see Plate 19).





2.2.2 Historic Structure

The historic core of Glasgow is centred within the original merchant city with its focus on the High Street, the Trongate and its early expansion towards Buchanan Street. In broad terms, one can identify two periods of growth in the centre viz the 18th century (see Fig. a Plate 20) and the 19th century (Fig. b, Plate 20). The arrival of the railway and mass transportation with terminals at the north and south ends of Buchanan Street and close to Buchanan Street (Central and Queen Street) created in effect a new spine.

2.2.3 Functions

The Core of the city is most closely related to those functions which are recognisably part of the city centre and which to varying degrees express the *raison d'etre* of the place and the spirit of the people who live and work there. A definition of the city centre cannot therefore be given without an assessment of these functional characteristics.

2.3 City Centre Functions

Functional activities in the city centre of Glasgow can be briefly discussed under the following headings :-

- population and employment
- communications
- shopping
- housing
- education
- industry
- office

— HISTORIC STRUCTURE OF THE CITY CENTRE —

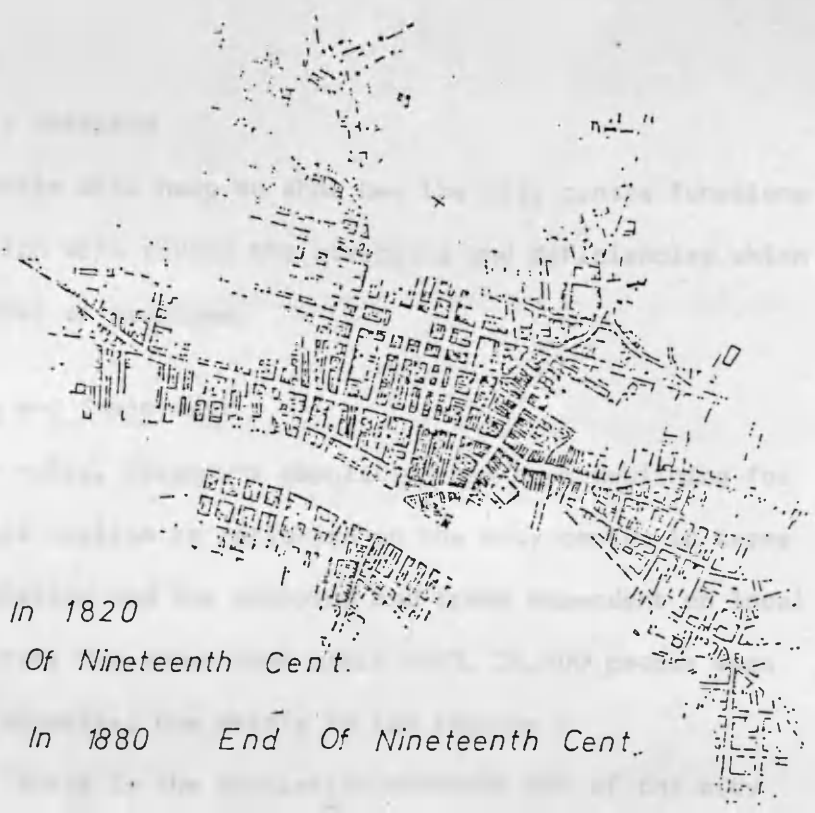


fig a Glasgow In 1820
Beginning Of Nineteenth Cent.

fig b Glasgow In 1880 End Of Nineteenth Cent.

0 100 1000m



- leisure
- community services

The above categories will help to show how the city centre functions and our examination will reveal the strengths and deficiencies which illustrate a number of problems.

2.3.1 Population and Employment

As already noted, Glasgow's population has been declining for some time and this decline is reflected in the city centre in terms of resident population and the shopping and trade dependent on local residents. A survey has shown that until 1983, 20,500 people were leaving Glasgow annually, due mainly to two factors :

- Firstly, there is the population movement out of the city centre to inner housing estates and to New Towns.
- Secondly, the changing technology has resulted in a major reduction of the previous industrial work forces, compensated partly by increased activities of the service sector.

Population decline and general unemployment are two complementary phenomena which indicate the general economic malaise of the city as a whole. Severe unemployment has of course occurred in most industrial cities whose traditional industries have been affected by new technology, but the hope is that the science-based industries and the service sectors will help to reverse the upward trend. At present, it is estimated that about 100,000¹⁶ people work in the centre of Glasgow, taking the centre as that area shown in Plate 15. Perhaps the greatest impact of the loss of population is to be seen in the slum clearance programme in which large numbers of people (see Plate 24) have been decanted to the peripheral housing schemes

or removed to East Kilbride or Cumbernauld, Glasgow satellite New Towns.

Although there is still a substantial number of people living in the central area, the city centre has become an empty container at certain hours of the day. Any city is not a city without a lively centre and it is self-evident that a new bold policy is required to attract people back to the heart of the city.

2.3.2 Transportation and Accessibility

Communications have always been closely related to the effective functioning of the city centre. As this is the focus for all forms of transportation within the region, the problem is essentially one of accessibility for large numbers of people.

a) Movement Generally

As an indication of the amount of movement in and out of the city centre, a survey, carried out in 1978 by Strathclyde transport planning unit demonstrates that a substantial proportion of all trips within Glasgow district are made to the Central area, as revealed by Table I.

	at peak hours				during 24 hours			
	person trips	by train %	by bus %	by car %	person trips	by train %	by bus %	by car %
central area	71,000	33	43	24	48,500	16	44	10
		76				60		
Remainder Glasgow abstract	65,500	24	15	61	37,200	12	16	72
		39				28		

The above table indicated firstly the importance of the city centre as a major destination of the trips and secondly, the high dependence on public transport for journeys to the central area.

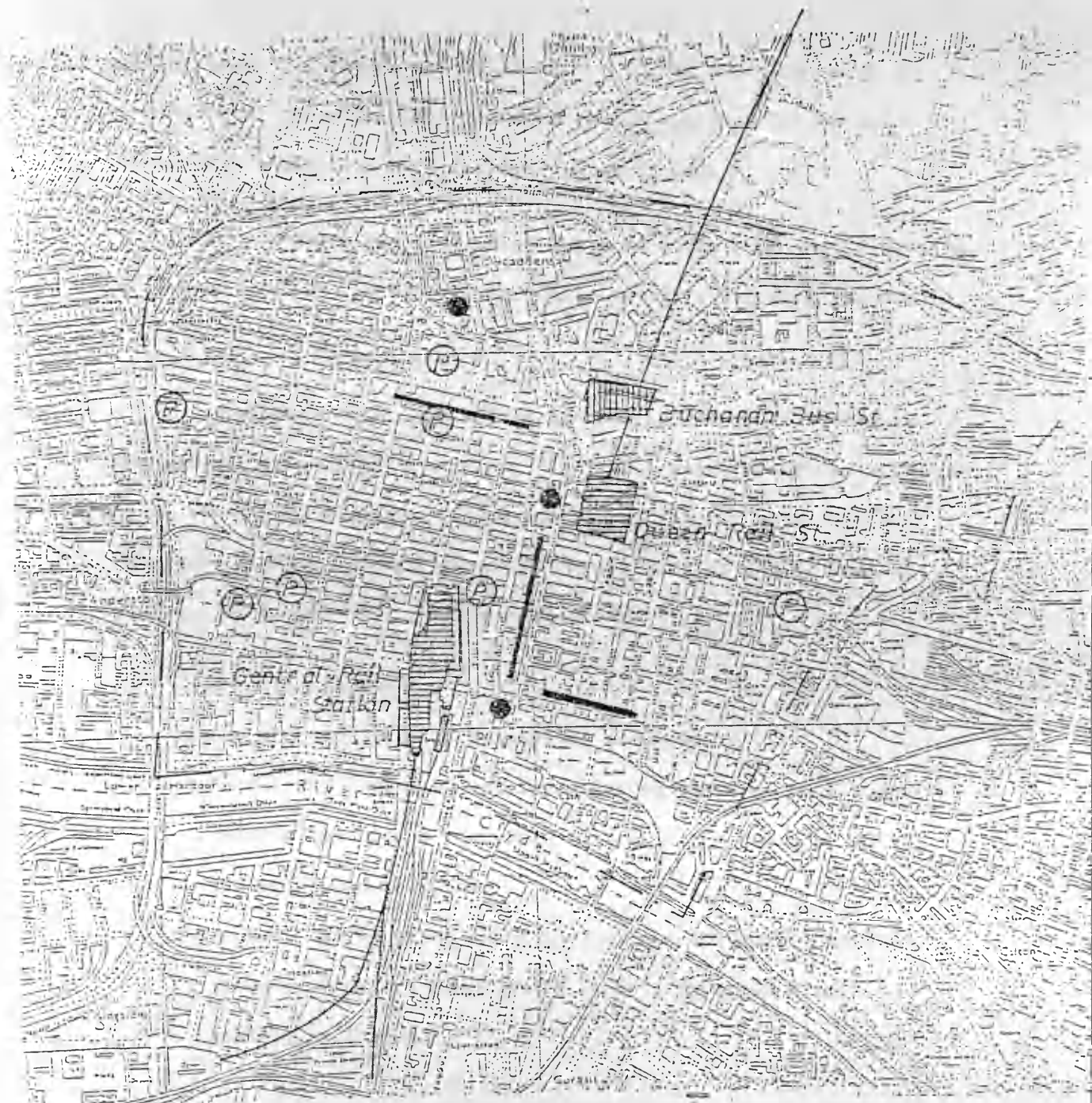
b) Motor Traffic

Although Table I indicates a minor use of the motor car in terms of person trips, the use of private cars in the city centre still presents major problems. Traffic management is a key element in the proper functioning of the heart of any city. In the case of Glasgow city centre, the flow of traffic through the existing grid iron street pattern is likely to be little affected by the completion of the urban motorway programme. Thus congestion will still remain a problem especially at peak hours and in busy streets such as St Vincent Street and Bath Street. New traffic management policies will be necessary if the volume of motor traffic entering the city continues to grow; and this raises questions of car parking policies, service access to buildings and public transport.

If the vitality of the centre is to be preserved, recent experience shows that there are difficult choices to be made between vast expenditure on the road improvements or developing suitable systems of rapid and convenient public transport.

c) Public Transport

Until a few years ago, the centre of Glasgow had four main-line Railway Stations with two of them linked to the suburban railway system. They gave Glasgow a particular importance in the public transport network of Scotland. The accessibility to the city spread its influence further. Recently two of the main lines



COMMUNICATIONS

The Centre Is Provided
 By Adequate Accesses
 Closely Related To
 Central Activities And
 Pedestrian Precincts

Key

- Multi-Storey Car Park
- Underground Stations
- Pedestrian Precincts

closed leaving Glasgow Central and Queen Street Stations, both in the heart of the city and from which people can walk to the main shopping streets, and many to their place of work.

The principal bus station at Buchanan Street has seen a growing amount of traffic carried by the public bus service, both regional and long distance.

Perhaps the main weakness in the public transport system is the underground electric service. It is not well integrated with the mainline railway stations or the focal point of the city centre. The three stations of the subway which are located in the central area are at Cowcaddens, Buchanan Street and St Enoch's.

d) Pedestrian Movement

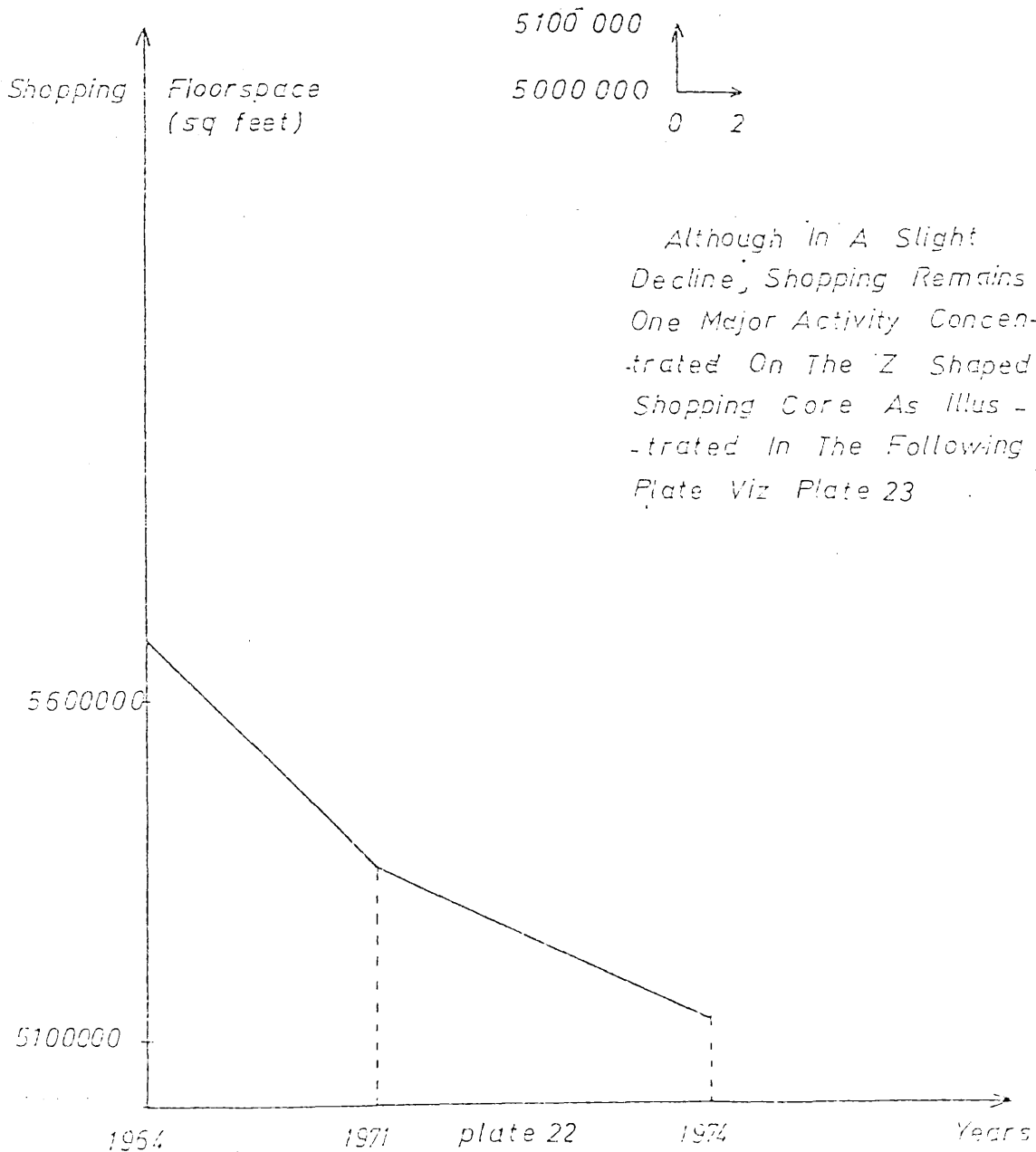
There are two types of pedestrian movement :

- first, the intensive and irregular movement at peak hours between the public transport terminals and areas of work, education and shopping
- second, the movement along and between the main shopping streets which are Sauchiehall Street, Buchanan Street and Argyle Street.

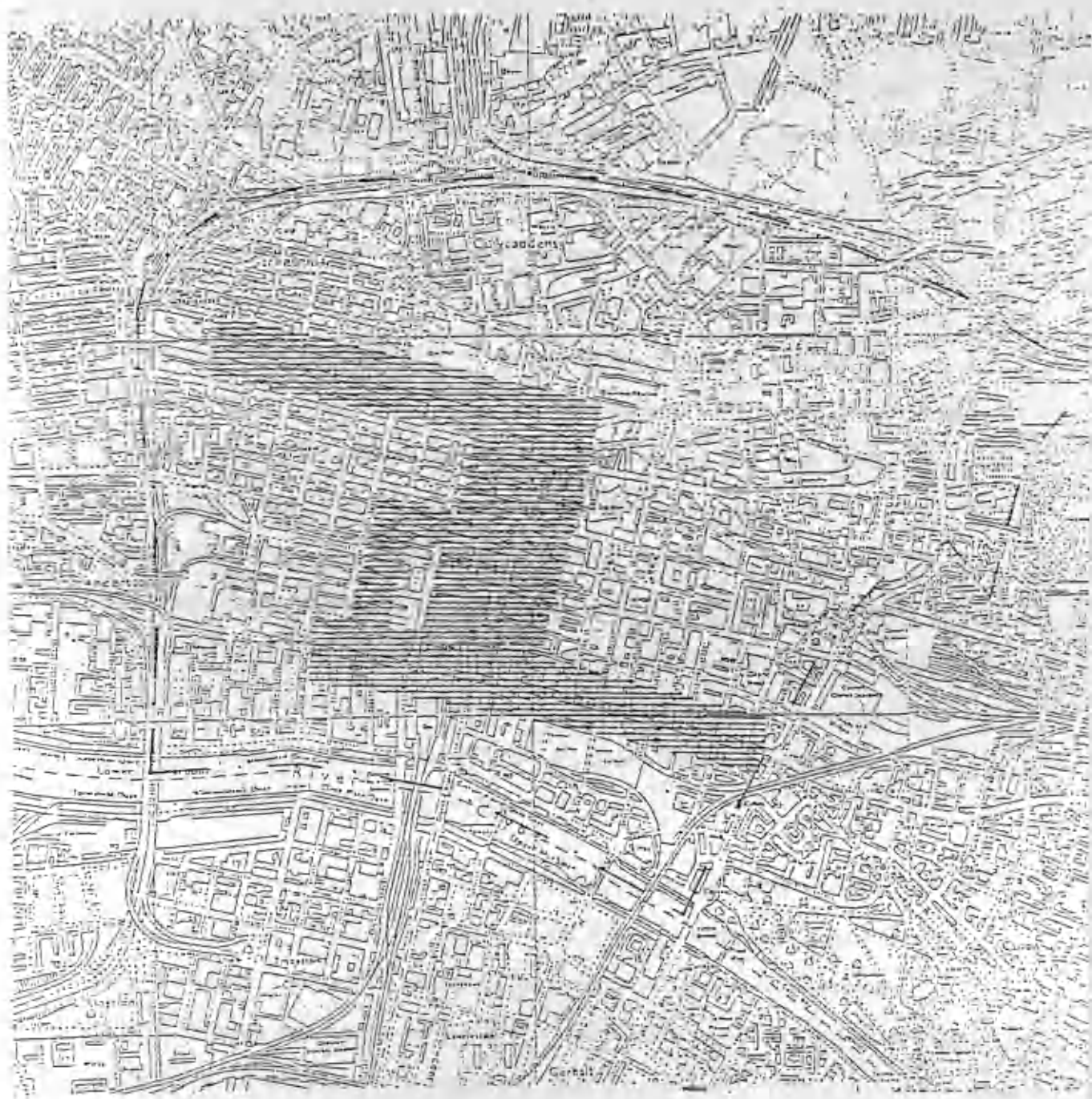
In the interests of safety and convenience for the pedestrian, some sections of these shopping streets have been pedestrianised and certain sections widened. The results are less than successful, mainly because they are not linked into one another to form a pedestrian core and their design is very poor.

SHOPPING

	1964	1971	1981
Gross Floorspace	5,690,674	5,357,642	5,127,642



Although in a slight decline, shopping remains one major activity concentrated on the Z shaped shopping core as illustrated in the following plate viz Plate 23



— SHOPPING — (Extention in Depth)

Pedestrianisation needs a wider concept of traffic management and high architectural standards if real urban quality is to be achieved.

2.3.3 Shopping

The central area of Glasgow is the principal shopping centre for west central Scotland¹⁵. There have been noticeable changes in the type and distribution of shops in the central area since 1960. Those largely serving day to day needs of the local population are now located elsewhere, within the new suburbs and many small shops have closed under competition from supermarkets. The department stores and shops however with a city-wide or regional catchment area retain their importance to the city centre. Measured by total floor area (refer to Plate 22), shopping provision could be said to be declining but measured by rental values for prime sites the pull of the centre for the bigger or more specialised shops is strong and growing stronger.

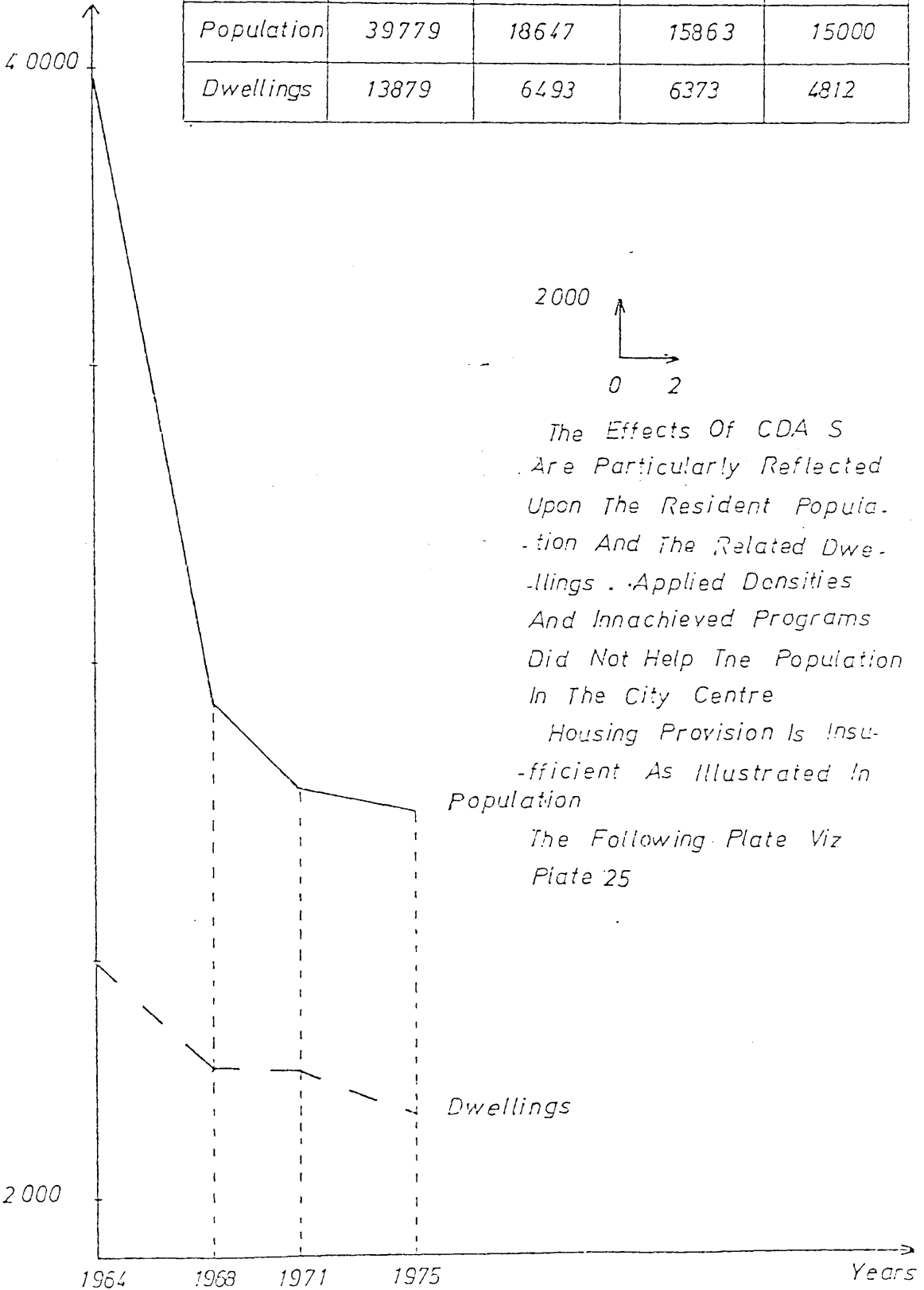
The prime shopping areas are concentrated in three streets (refer to Plate 23), namely Sauchiehall Street, Buchanan Street and Argyle Street. Thus the shopping core is bi-polar with Buchanan Street forming the north-south link. This core is likely to strengthen especially along the whole length of Buchanan Street, with a corresponding weakening on the fringes.

2.3.4 Housing

Because of the population movement ahead noted, the resident population within the central area and on its fringes has declined substantially (see Plates 24 and 25).

HOUSING

	1964	1968	1971	1975
Population	39779	18647	15863	15000
Dwellings	13879	6493	6373	4812



The Effects Of CDA S
 Are Particularly Reflected
 Upon The Resident Popula-
 tion And The Related Dwe-
 llings . Applied Densities
 And Innachieved Programs
 Did Not Help Tne Population
 In The City Centre



Housing Provision Is Insu-
 fficient As Illustrated In
 Population

The Following Plate Viz
 Plate 25

Dwellings



— HOUSING —

- | | | |
|-----|---|--------------------|
| Key |  | Tenemental Housing |
| |  | Slabs and Towers |

The remaining tenements and similar types of flatted accommodation in the centre are not fully occupied and the drift to newer accommodation within the city and elsewhere continues. The reasons for this change are to do with poor housing conditions, lack of open space and the general deterioration of environmental standards.

The effects of this decline in the resident population is of course to be seen in the closing down of local shops, primary schools and some places of entertainment, an adding to the emptiness and decay of certain parts of the city centre.

2.3.5 Education

Because of the decline in the resident population in the centre of Glasgow, it follows that the numbers of children of school age have also declined (see Plate 26). In the period between 1960 and 1974, 15 schools were closed. The remaining schools are concentrated in two areas along the northern fringe of the city centre, namely Garnethill and Cowcaddens (see Plate 27).

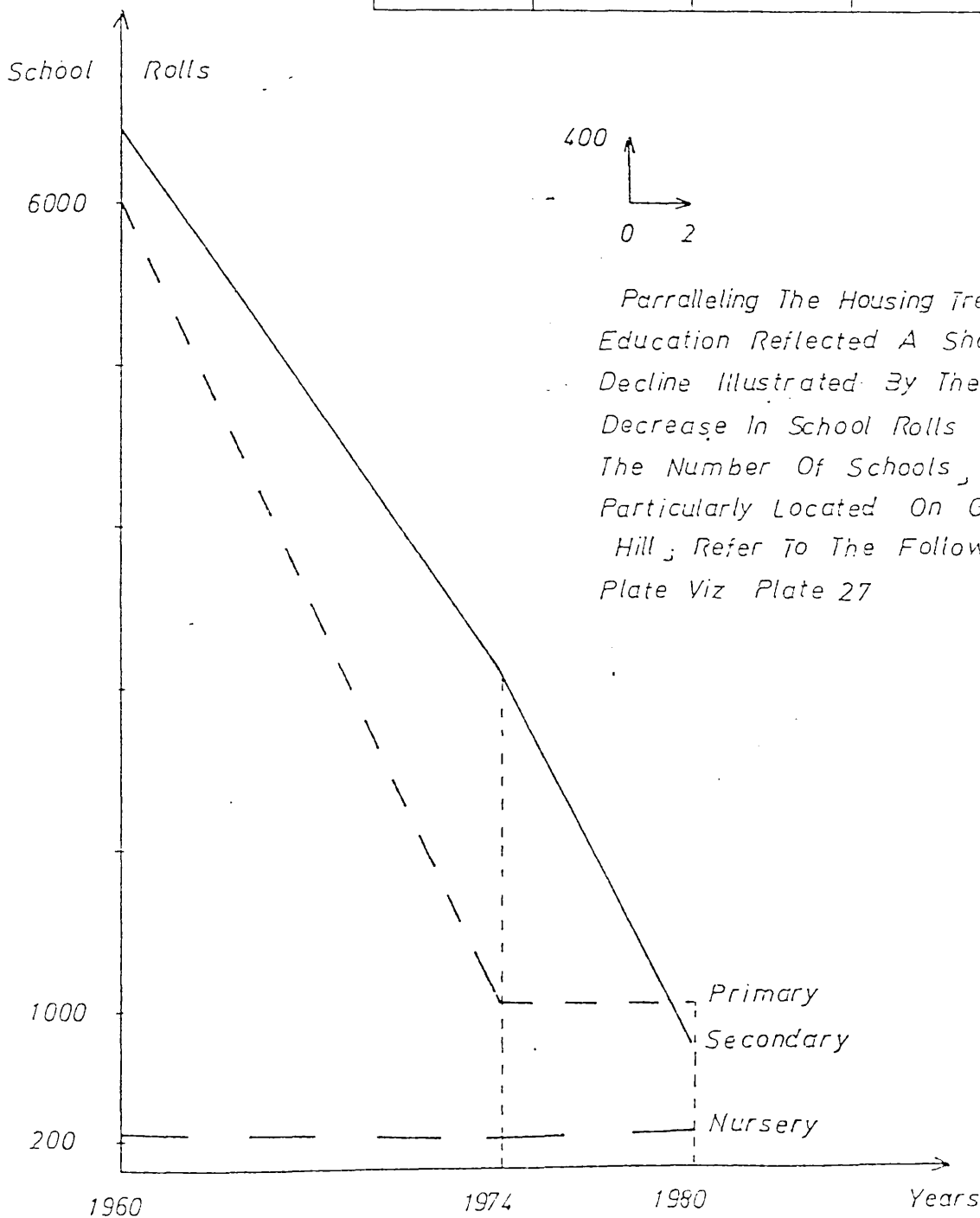
In the higher education sector there are 7 colleges located within the city centre (see Plate 29). Most of them were built between 1964 and 1973 and by their very nature, they fulfil an important role in sustaining the vitality of the city centre. (see Plate 28).

2.3.6 Industry

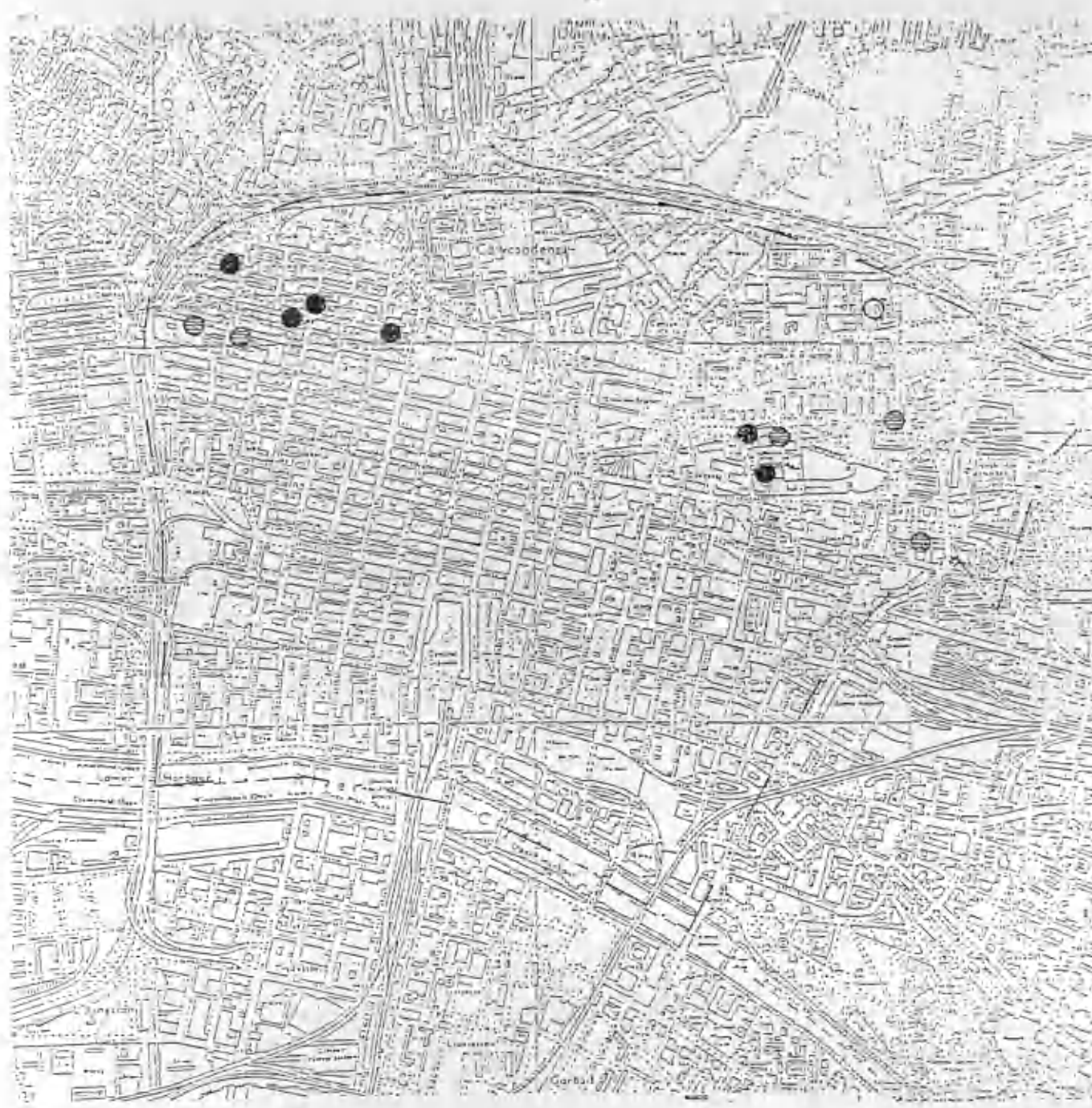
Against a background of almost continuous decline since 1900, in the industrial base of the city (see Plate 30), those industries which have played an important role in the city centre are

EDUCATION

Category	1950-51	1974-75	1980-81
Nursery	280	200	276
Primary	6062	1016	1076
Secondary	6431	3148	790



Parralleling The Housing Trends Education Reflected A Sharp Decline Illustrated By The Decrease In School Rolls And The Number Of Schools, Particularly Located On Garnet-Hill; Refer To The Following Plate Viz Plate 27

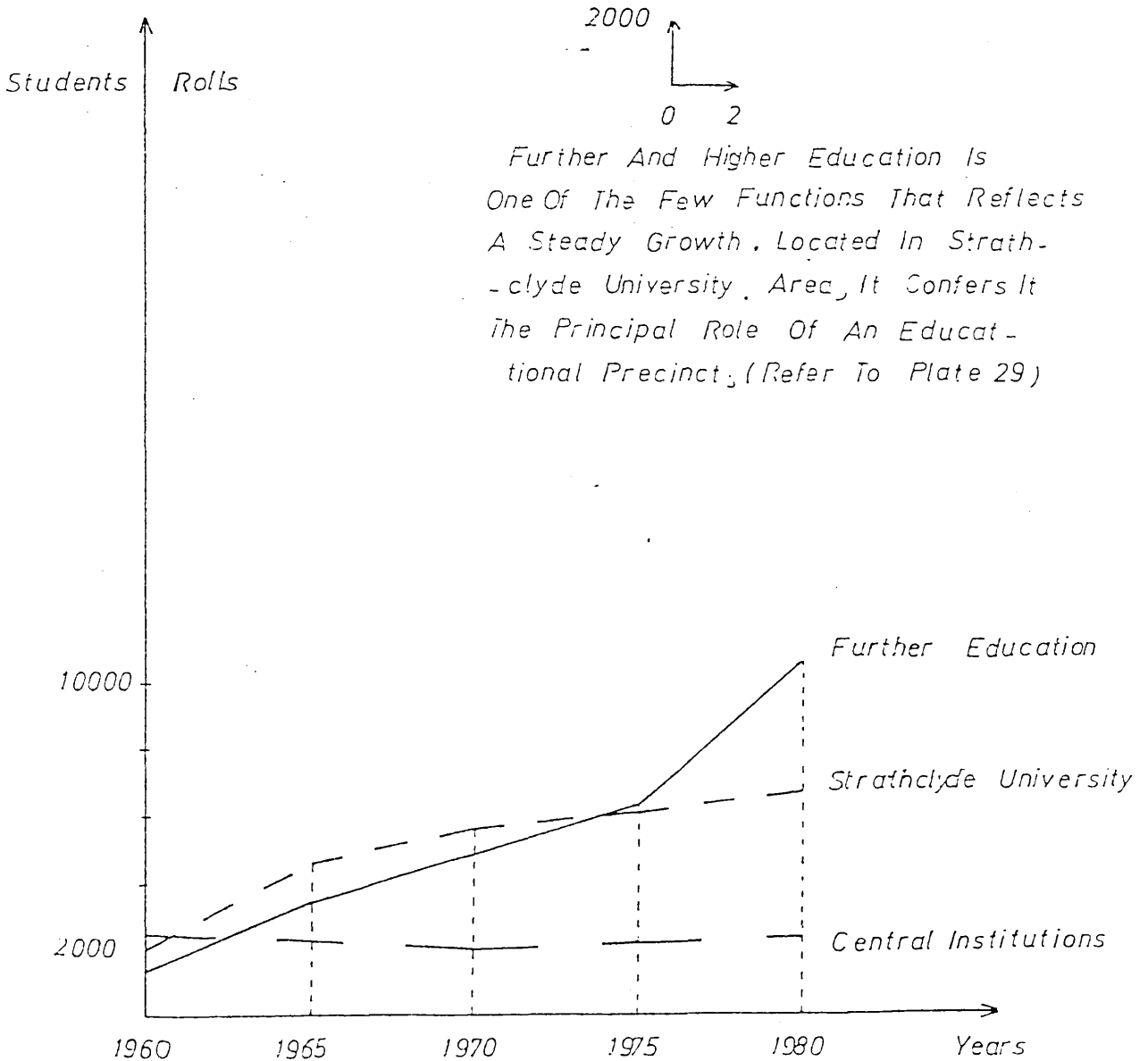


EDUCATION (Schools)

- Key
- Nursery
 - ◐ Primary
 - Secondary

FURTHER and HIGHER EDUCATION

Category	1960 61	1965 66	1970 71	1975 76	1980 81
Further educat.	1426	3407	4921	6363	10584
Central institut.	2452	2396	2016	2079	2294
Strathclyde univ.	2000	4600	5600	6160	6776





— EDUCATION — (Further and Higher)

Key

- ① — Stow College of Engineering
- ② — Glasgow School of Art
- ③ — Dental Hospital
- ④ — Glasgow College of Technology
- ⑤ — Royal College of Music - Drama
- ⑥ — Strathclyde University

surviving, although on a reducing scale and with great difficulty.

They include :

- printing and publishing
- clothing and footwear
- food, drink and tobacco
- small manufacturing

These trends are common to most industrial cities and the trend towards the service industries is slow and dependent on substantial environmental improvements in the city centre, including the redevelopment of derelict land vacated by the older industries and the railways.

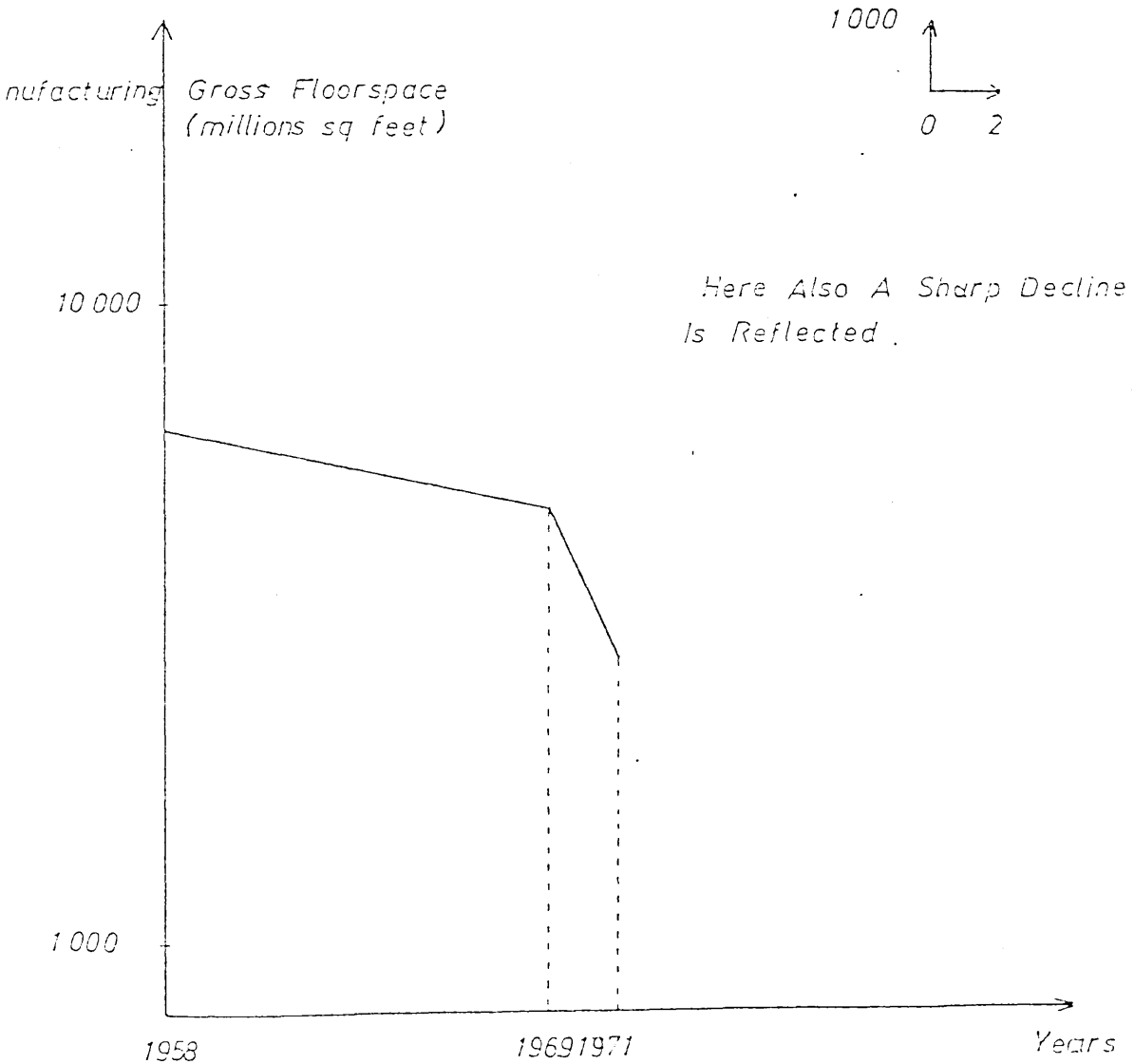
2.3.7 Office

The great bulk of the city's office floor space is contained within the city centre (62%)¹⁶ mainly in the area to the west of Buchanan Street and around Blythwood Square. (Refer to Plate 32).

As new commercial activity has developed along with a growing service sector, total office accommodation in the city centre has expanded (see Plate 31). The potential for further growth is considerable, and current surveys indicate that the demand is strong but it is for a much higher standard of office accommodation than that built over the past 20 years. The difficulties of meeting this demand are focussed on the problems of finding good, easily accessible sites and coping with the conservation policies relating to Glasgow's heritage of Victorian buildings of high architectural quality.

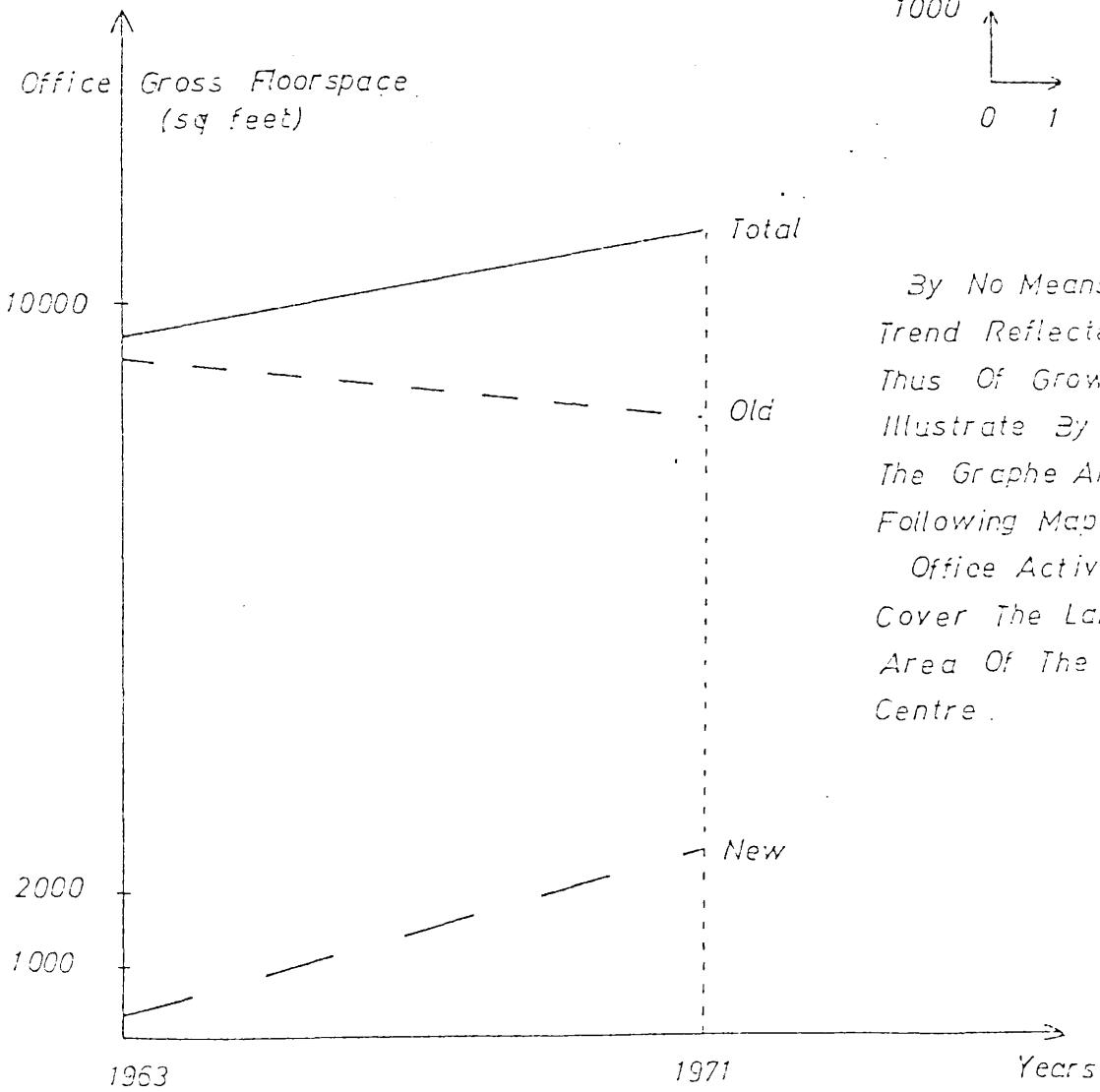
MANUFACTURING AND INDUSTRY

	1958	1969	1971
Gross F.space	8244	7065	4954



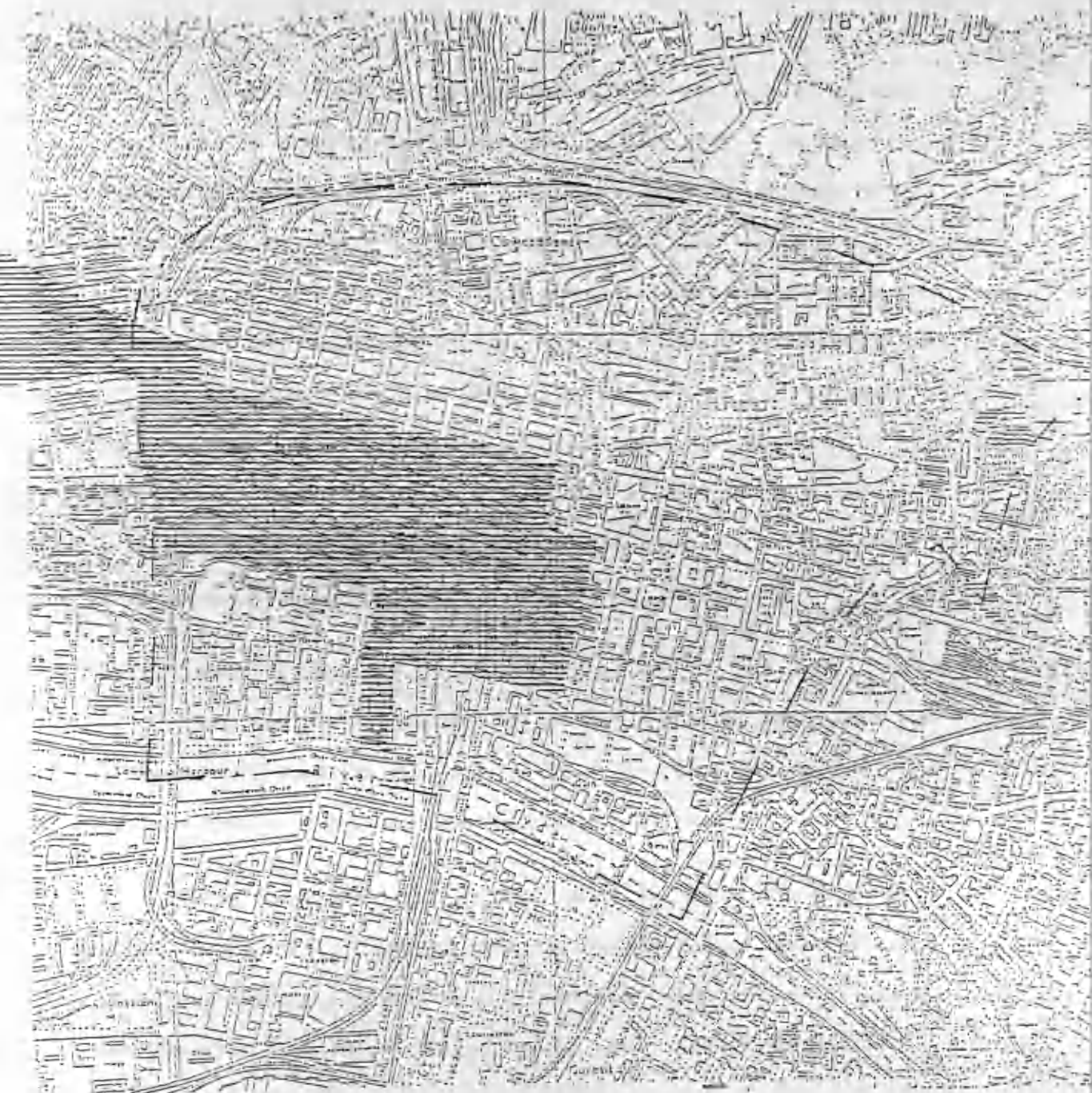
OFFICE

		1953	1971
Gross	Old	9247	8477
Floor-	New	376	2532
Space	Total	9623	11009



By No Means The Trend Reflected Is Thus Of Growth Illustrate By Both The Graphe And The Following Map

Office Activities Cover The Largest Area Of The City Centre .



— OFFICE — (Extention in Depth)

2.3.8 Leisure

As compared with the pre-war years, the provision of leisure facilities in the city centre has changed radically. The dance halls have disappeared and only two cinemas survive, largely as a result of television. Cultural facilities in the form of art galleries, concert halls and urban parks are important elements of cities, but in the case of Glasgow, and in contrast to Edinburgh most of them are outwith the city centre; to this extent the centre is impoverished. With leisure and cultural facilities assuming an increasingly significant role in the life of the community, there is a noticeable vacuum at the heart of Glasgow, especially in respect of an urban park and outdoor recreation.

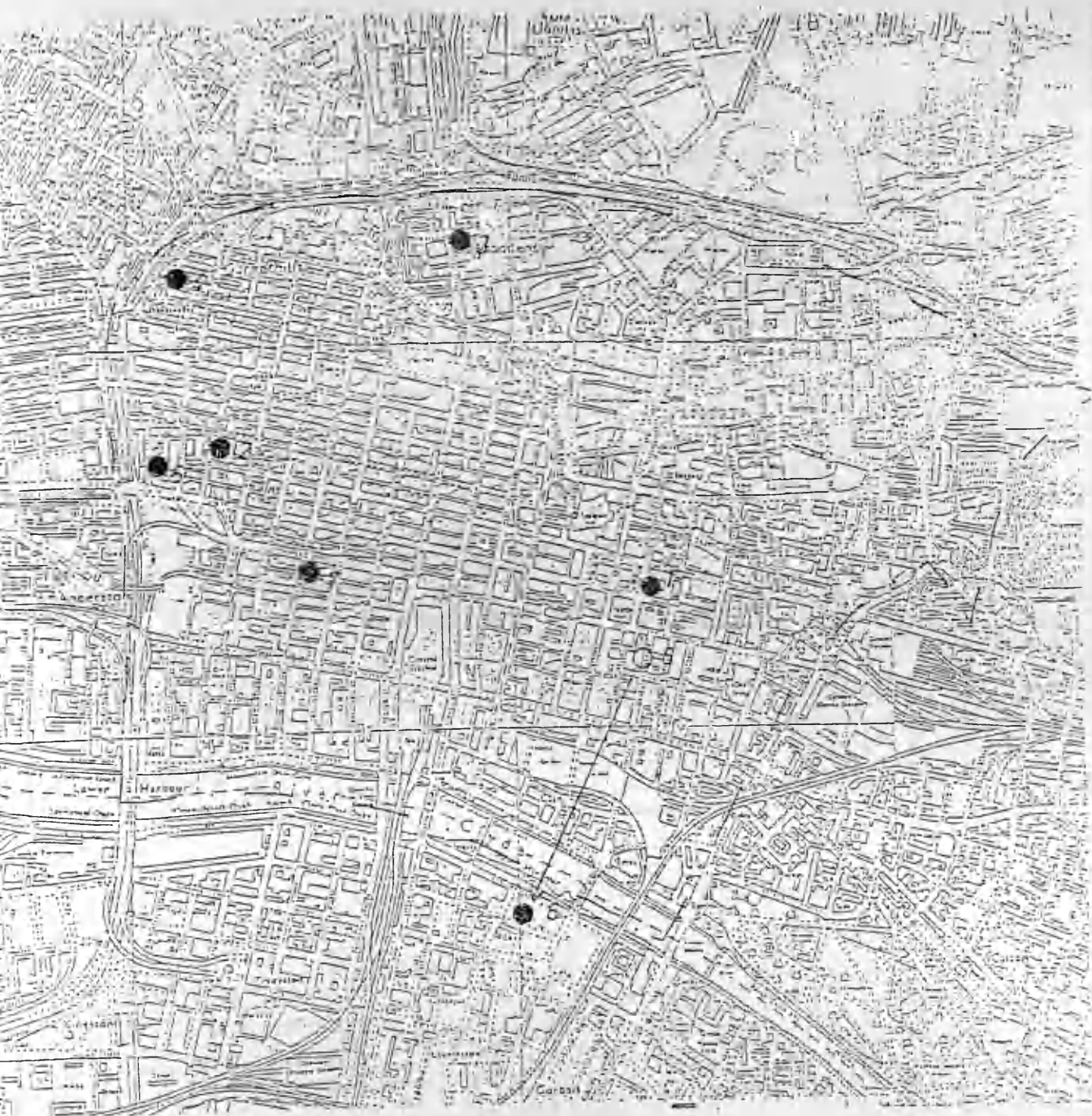
2.3.9 Community Services

These include the service of central and local government and of Government agencies such as the SDA. They also include the administration of the law and the health services.

These functions have a primary place in the city centre but apart from the City Chambers, the SDA and the Police Headquarters, they have largely migrated to the fringes. Even the Sheriff Court has departed from Ingram Street to the south side of the River. (refer to Plate 33).

2.4 Summary

We have noted the decrease in the resident population in the Centre and the relative weakness of the centre arising from the loss of important administrative functions. We have also noted that:



— COMUNITY SERVICES —

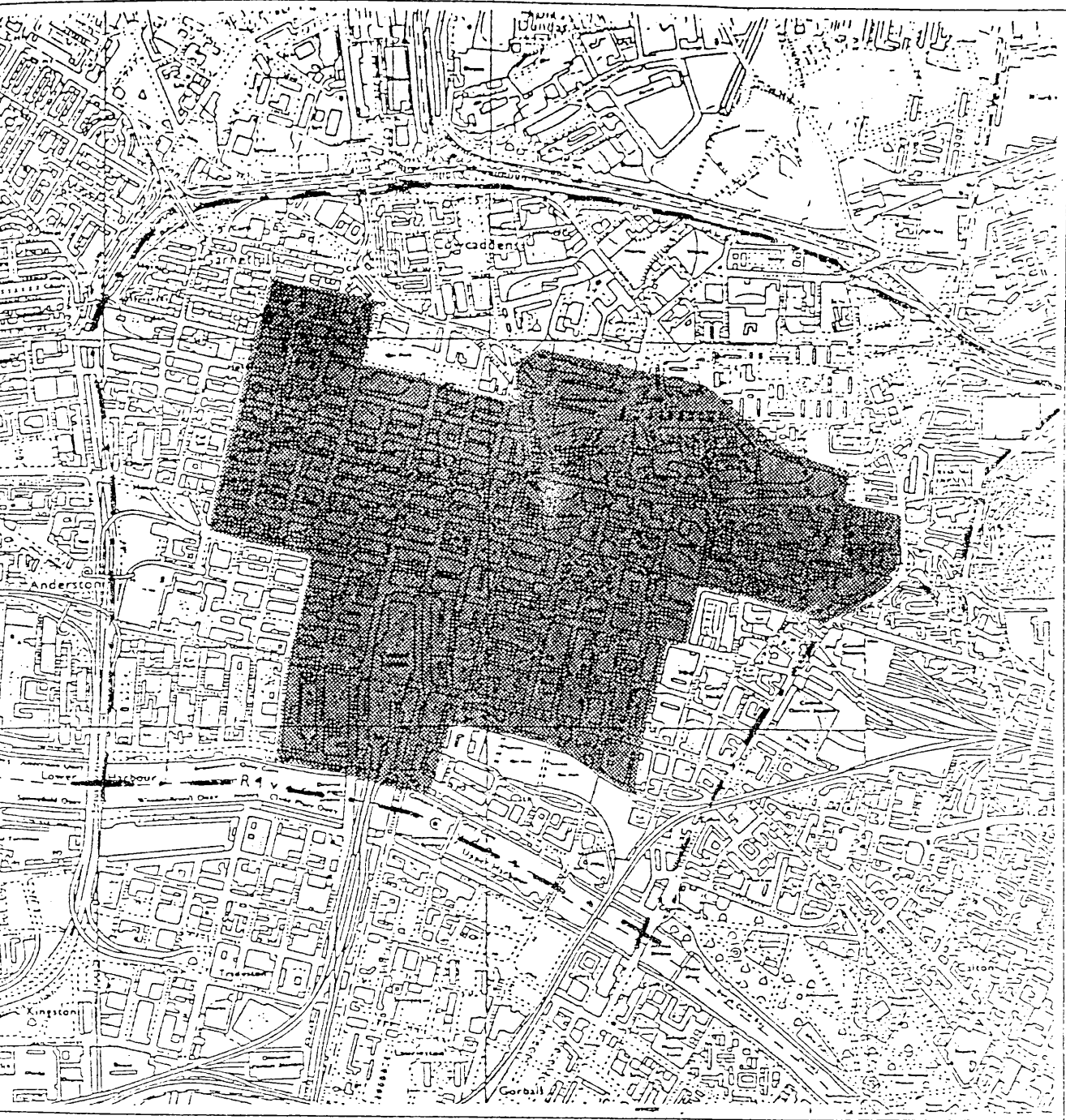
KEY

- 1 The City Chambers
- 2 Police Headquarters
- 3 Fire Headquarters
- 4 Beatson Hospital
- 5 ENT Hospital
- 6 Old and New Sheriff Court

—> Ligne Of Displacement

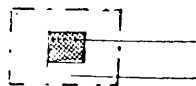
the commercial and shopping functions of the heart of Glasgow have been sustained and are growing in strength.

From this functional assessment of the Centre, we can draw an inner boundary of the centre which we can call the 'Core'. These two areas, the Centre as a whole, and the Core, are illustrated in Plate 34. The changes which have been taking place have to some degree resulted in a shrinking but more intense Core and one whose shape and direction is also changing, both at the very heart and at the decaying fringes. In the next Chapter we will examine the physical characteristics of the Centre and how these are likely to respond to the functional changes which are taking place.



THE ECONOMIC CENTRE

KEY



The Economic Inner Centre Or The Core
The Declining-Fringe Areas

REFERENCES

- 15 Glasgow District Council
1975 Glasgow Central Area Report
- 16 Glasgow District Council
1983 Glasgow Central Area Local Plan
- 17 National Building Agency
Residential Renewal in Scottish Cities

CHAPTER THREE

GLASGOW CITY CENTRE
ITS PHYSICAL CHARACTERISTICS



CHAPTER 3

THE CITY CENTRE : ITS PHYSICAL CHARACTERISTICS

3.1 Introduction

3.2 The General Townscape

3.3 The Dissected Fabric

3.3.1 : The Merchant City

3.3.2 : The Victorian Business Centre

3.3.3 : Blythswood New Town

3.3.4 : Charing Cross and Anderston Cross

3.3.5 : The Broomielaw

3.3.6 : St Enoch's

3.3.7 : Cowcaddens - Townhead

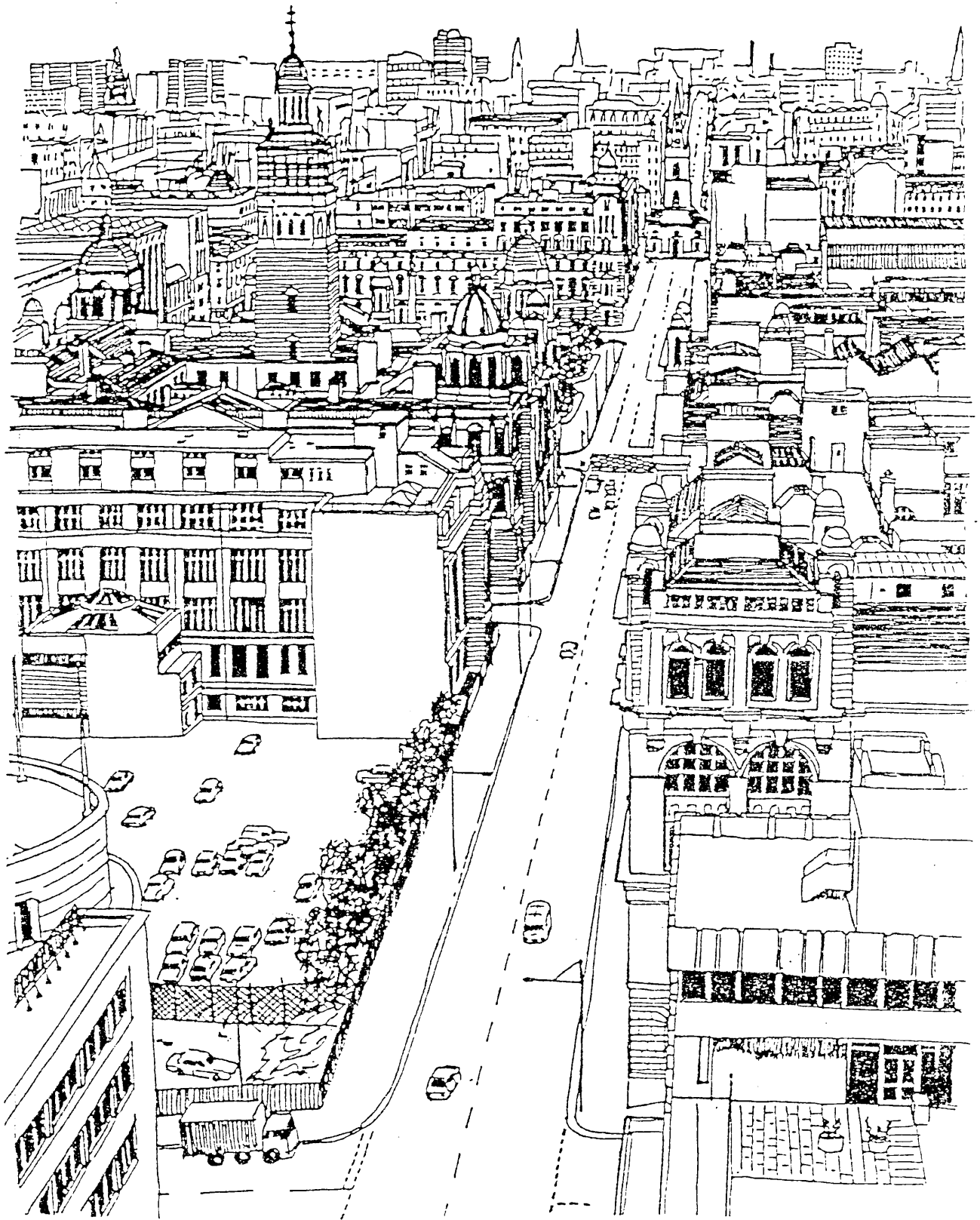
3.3.8 : Garnethill

3.3.9 : Strathclyde University

3.3.10 : The Cathedral Precinct

3.4 Summary

VIEW OF THE CITY CENTRE



The City Centre Looking East From The Motorway

CHAPTER 3 THE CITY CENTRE : ITS PHYSICAL CHARACTERISTICS

3.1 Introduction

The particular characteristics of the City Centre relate both to the concentration of activities and functions, which we have already noted and also to the topography and natural assets of the place. They also relate to the distinctive architectural and urban qualities which build up the image of the city. It is the special assessment of these physical qualities that this chapter is about.

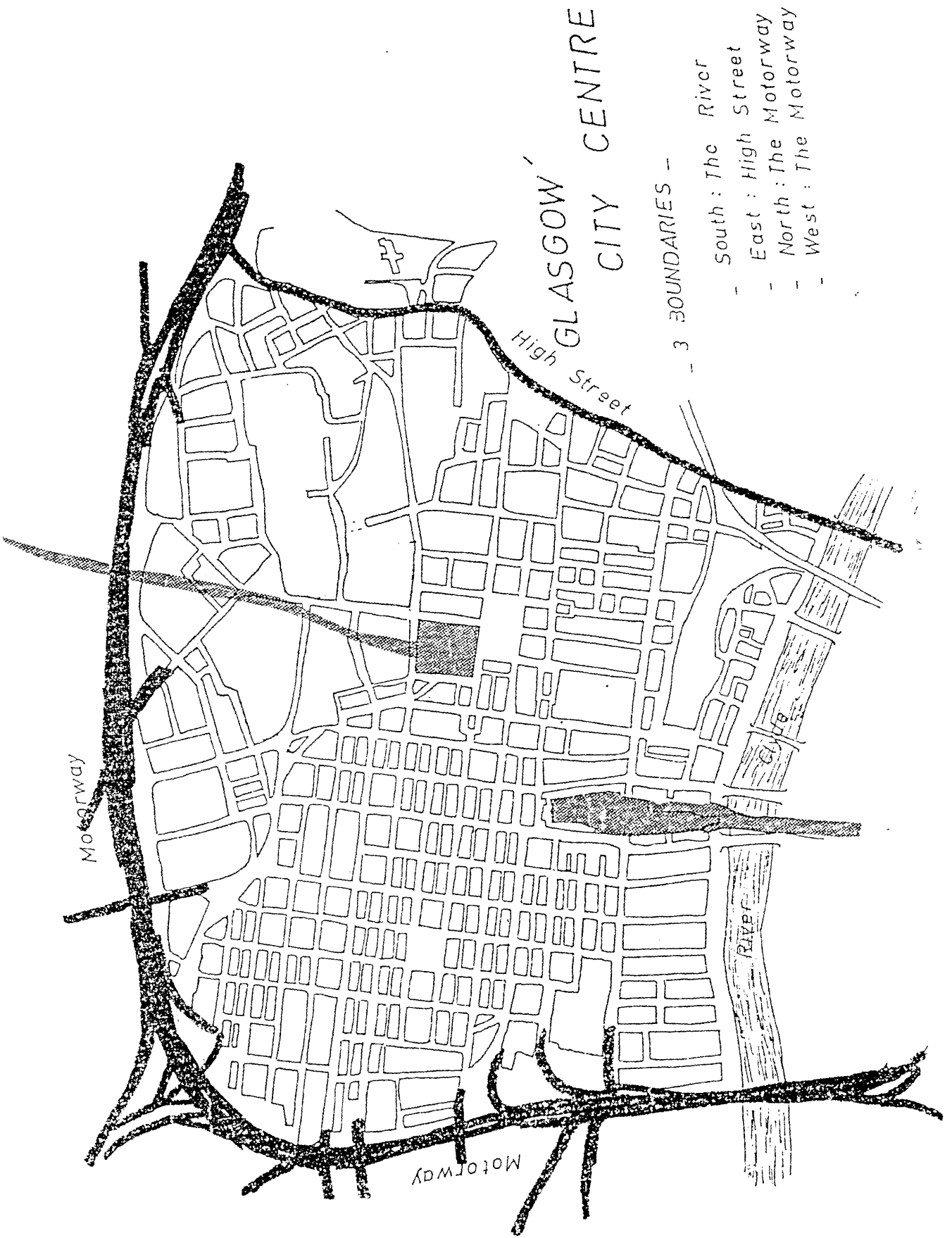
The assessment looks at the centre of Glasgow from three view points : the built form, open space and special features.

For convenience, the assessment divides the City centre in ten sectors or identity areas which can be regarded as having special characteristics or a particular identity (see plate ⁴⁵). One could use the medical analogy again and consider the process as being of dissection to arrive at a diagnosis of the parts of the urban fabric, whether they are ailing or thriving. The difference however is that this assessment can only take a broad sweep in order to understand the general conditions in visual terms of a city centre which has suffered much but which is showing signs of recovery.

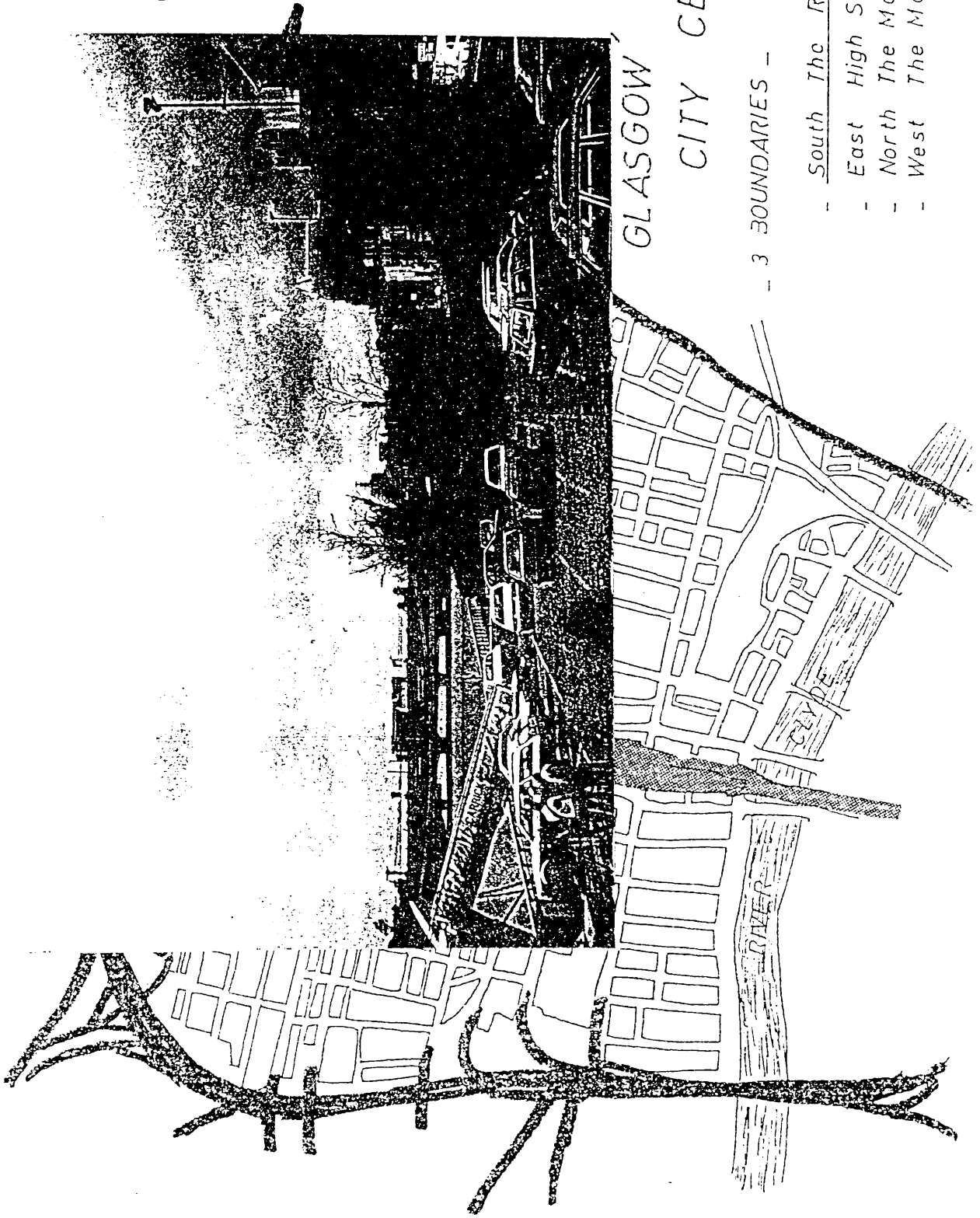
3.2 The General Townscape (see Plate 36)

The centre of Glasgow appears to be composed of a compact internal fabric encompassed by strong visual edges (as defined in 2.2.1, 2.2.2 and 2.2.3) they are :

- South, the River Clyde (see plate 37)
- East, High Street (see plate 38)



View : The Custom
House Looking
East .



GLASGOW
CITY CENTRE

- 3 BOUNDARIES -

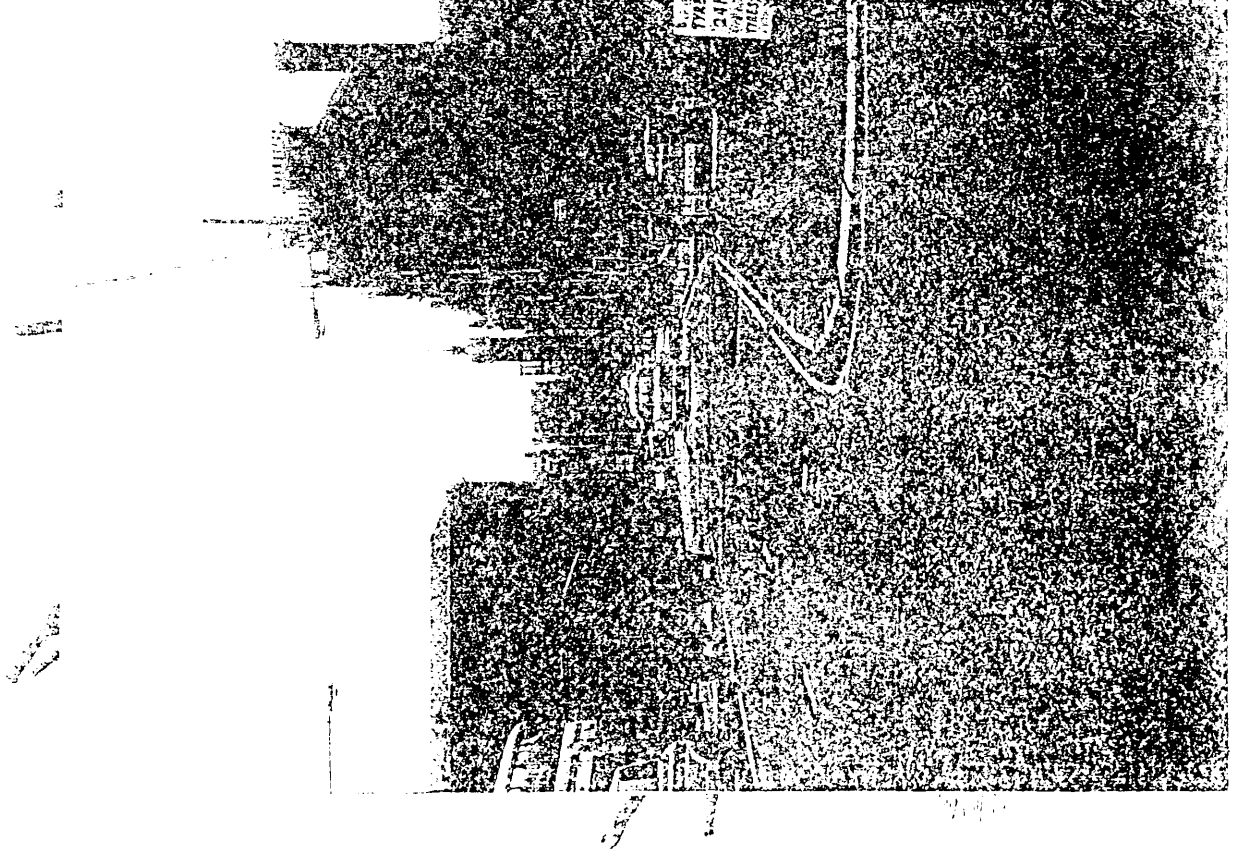
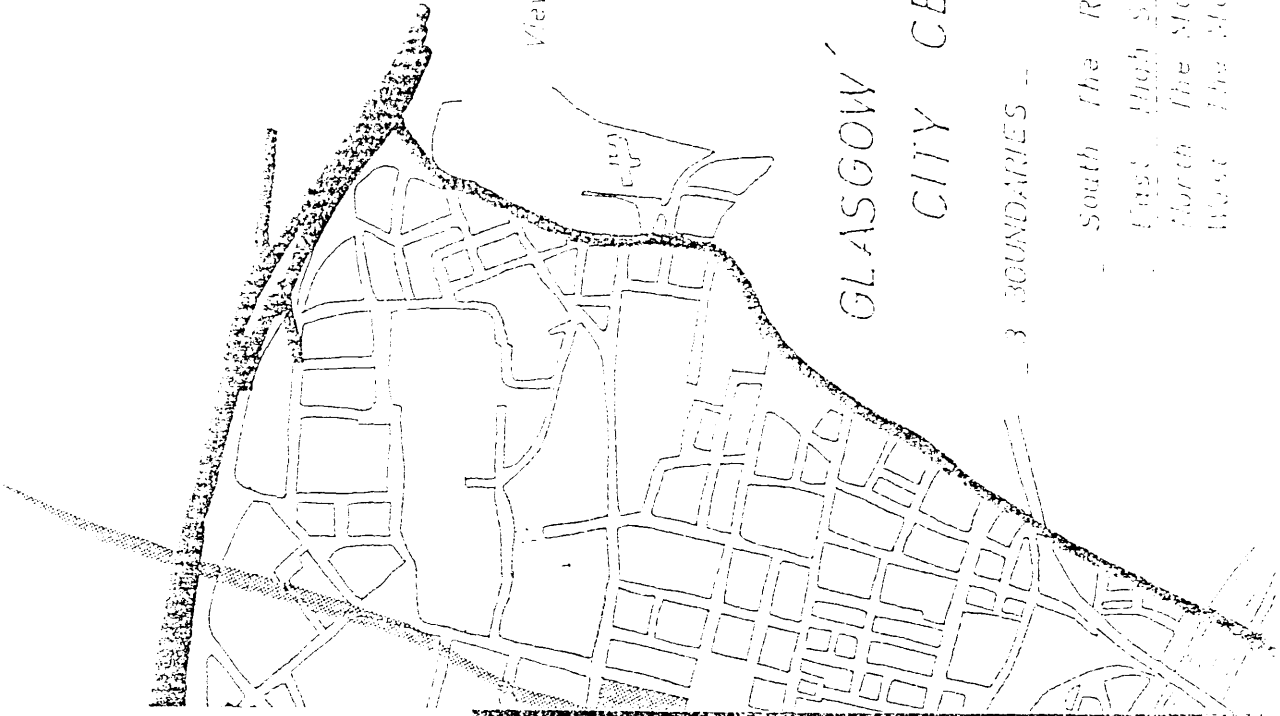
- South The River
- East High Street
- North The Motorway
- West The Motorway

View High Street
Looking South
Towards The
Tolboth

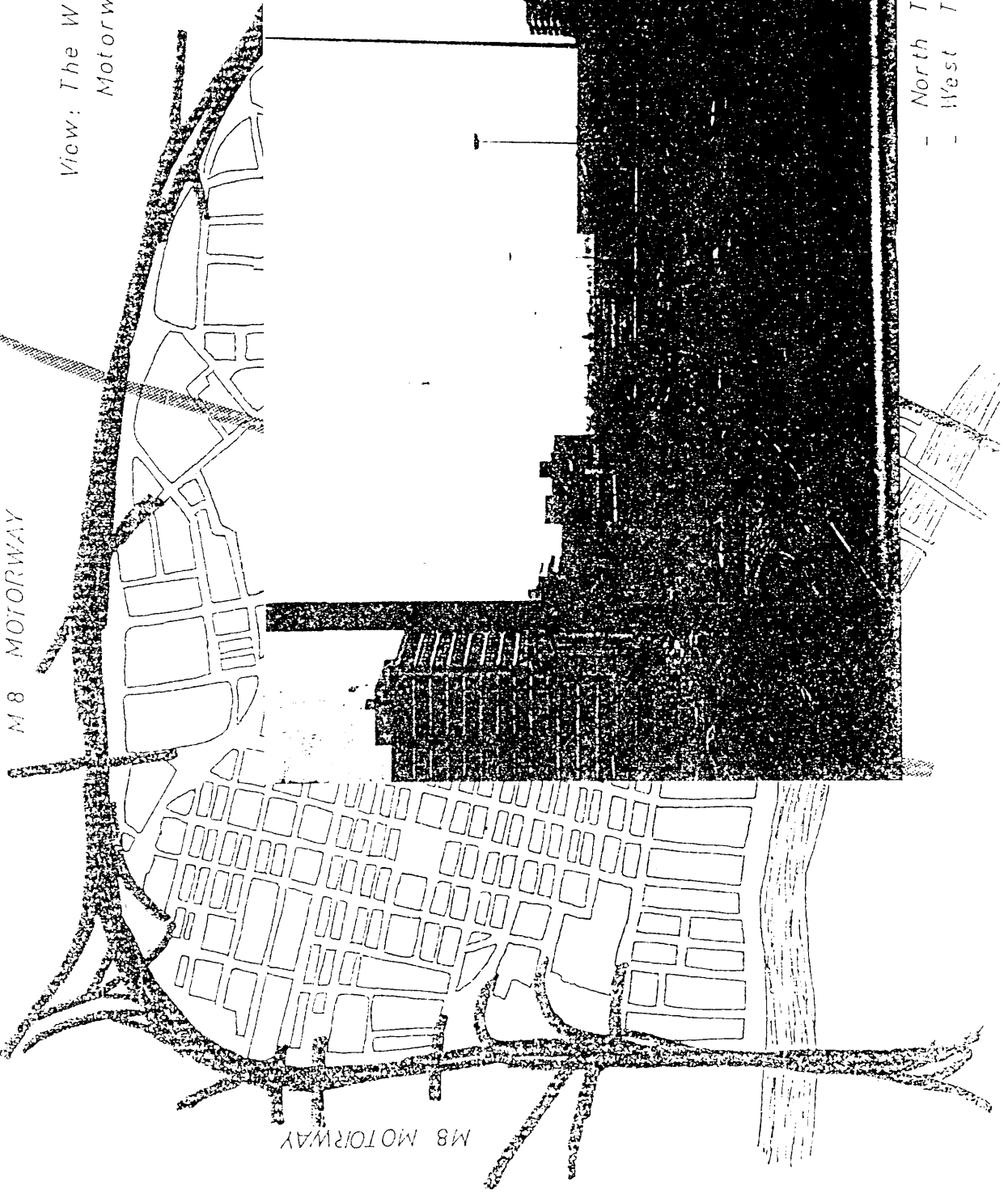
GLASGOW CITY CENTRE

BOUNDARIES

- South The River
- East High Street
- North The Motorway
- West The Motorway



View: The West Flank Of The M8
Motorway Looking South.



M8 MOTORWAY

M8 MOTORWAY

- North The Motorway
 - West The Motorway

RE

- and finally North and West the Motorway (see plate 39)

Important views in the City Centre are provided from the Necropolis at the North West corner, from the River Clyde south and from section of the elevated Motorway west. These all together build up the skyline of the City Centre. The skyline reflects the topographical nature of a modulating site and the variety of building height and style. A special appearance of the Victorian buildings and their use of high turrets punctuate the generated city centre skyline (see plate 40). Furthermore, the built form consists of a dense compact internal development built upon a grid layout, superimposed on a topography which varies from being flat in the east to steeply stepping ground to the west.

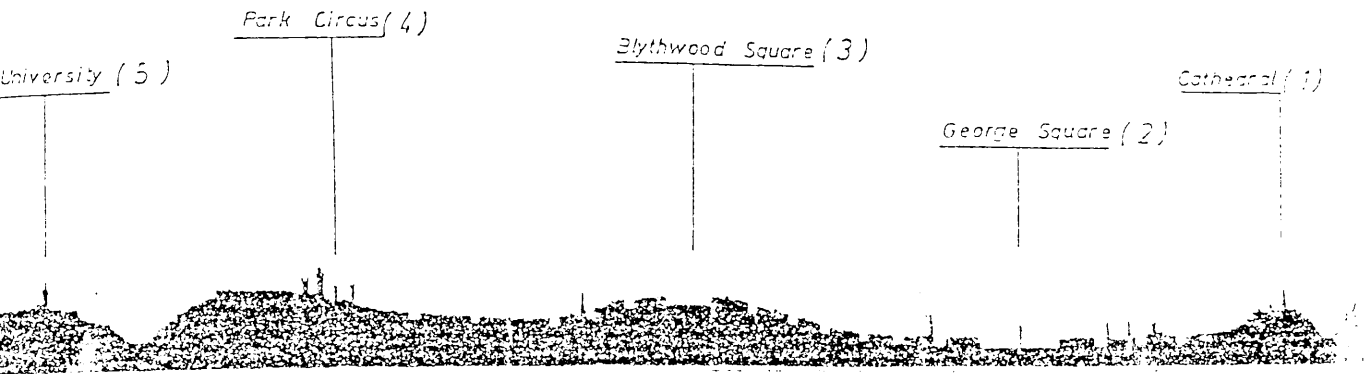
The cohesive form at the heart of the city centre gives way at the west, north and east parts to an amorphous fringe which contains a miscellaneous collection of decaying buildings and vacant lands; The urban fabric has become torn around the edges. The centre is also characterised by a strong sense of street frontage based on streets blocks of varying size and generally speaking of similar heights (see plate 41).

The Centre of Glasgow lacks any major open space or urban park. George Square provides a setting for the city chambers and is of ceremonial value (c.f. 3.3.1), the Merchant City.

The River which is potentially the most important open space, is underdeveloped and its presence is not felt and expressed as it should be (c.f. 3.3.5 and 3.3.6, respectively the Broomielaw and St Enoch's).

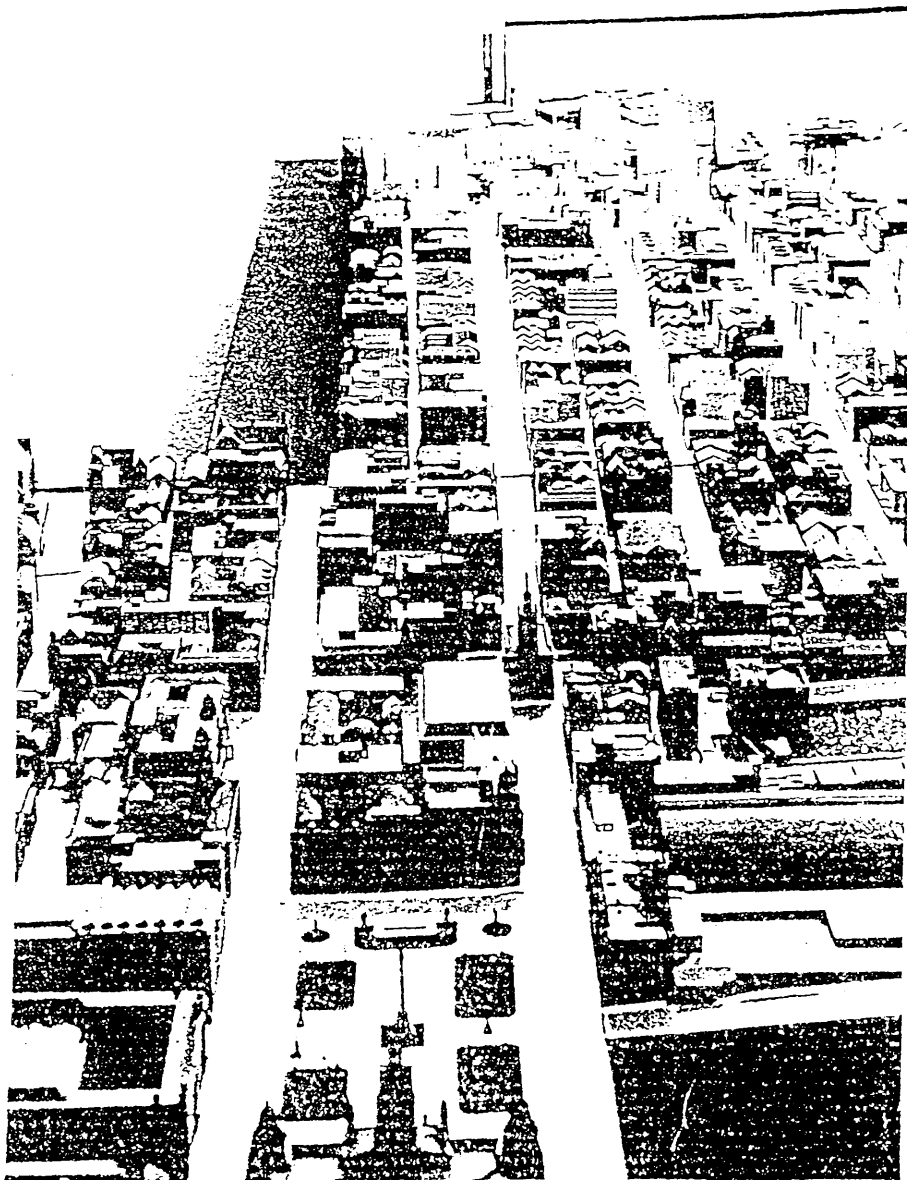
THE GENERAL TOWNSCAPE

- SKYLINE -



*The Above Section Shows The Close Relationship
Topography/Built Form, Resulting In A Rich
Townscape.*

THE GENERAL TOWNSCAPE
— THE FABRIC —



*The Internal Fabric Is Composed Of Periperal
Blocks Of Fairly Regular Size . Elements Such
As Open Space And Focal Point Break Up
The Uniform Fabric .*



CONSERVATION

THE GENERAL TOWNSCAPE



BUILDING OF ARCHITECTURAL OR HISTORICAL
INTEREST IN THE CITY CENTRE

Resulting from the growing awareness by the public of Glasgow's heritage, conservation policies have been adopted and about half of the city centre has been designated as conservation areas (see plate 42). Within this area, there are about 300 listed buildings of special architectural or historical interest (see plate 43). However the built form reflects a continuing struggle between Conservation and Redevelopment. In general, new buildings have tended to reflect an "international style" which is not always in sympathy with the character and scale of the city centre, especially in terms of materials, forms and building density. This has often resulted in an incoherent townscape and the scale of familiar street scene is changing.

The challenge is now to control the changes in a way which retains the general character and the genius locus; although excessive restrictions on good design lead often to the creation of a mere pastich of past styles of building.

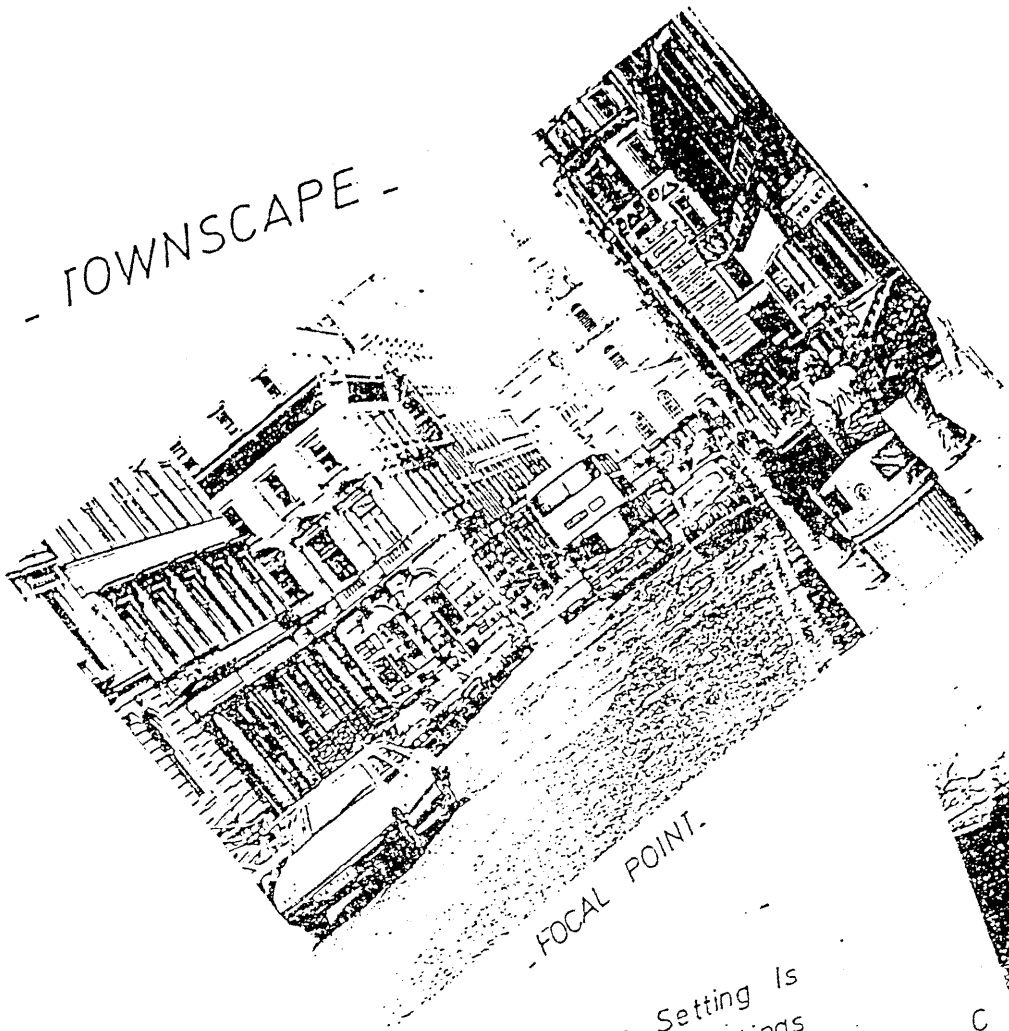
3.3 The Dissected Fabric

The objective is to examine the particular physical properties of each of the ten parts of the centre as illustrated in plate 45, beginning with the Merchant City (plate 46).

3.3.1 The Merchant City : plate 47

Occupying a flat area of ground, The Merchant City represents the first phase of Glasgow's westward expansion, from the old medieval town. The mainly 18th Century street layout comprises of a rectangular grid with streets of fairly short lengths, providing an

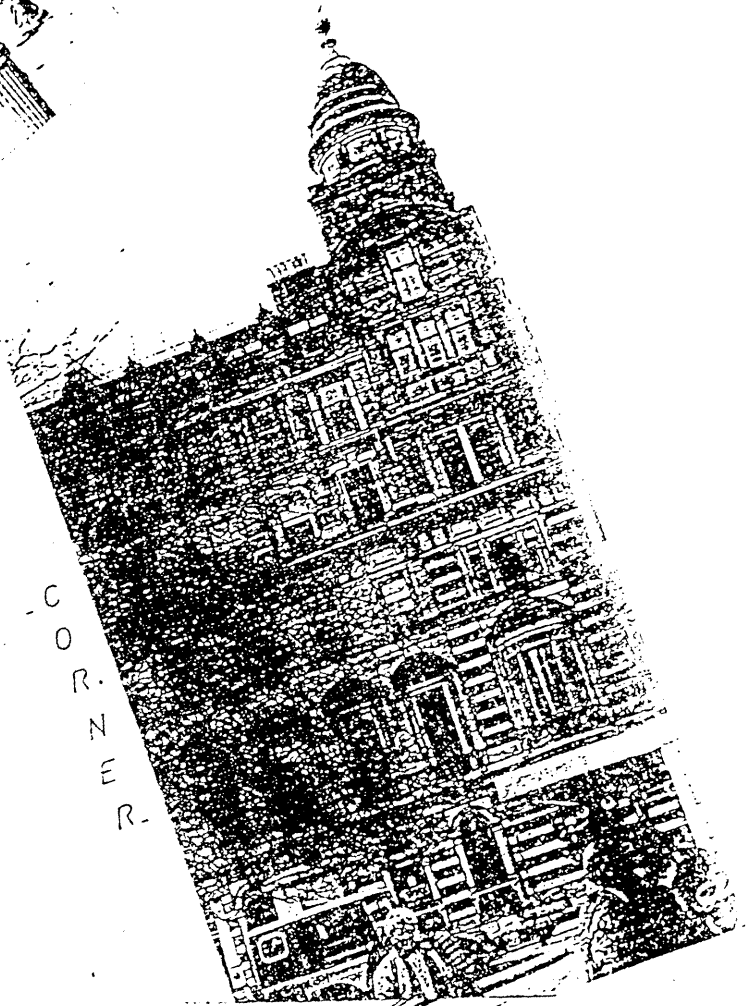
- TOWNSCAPE -



- FOCAL POINT -

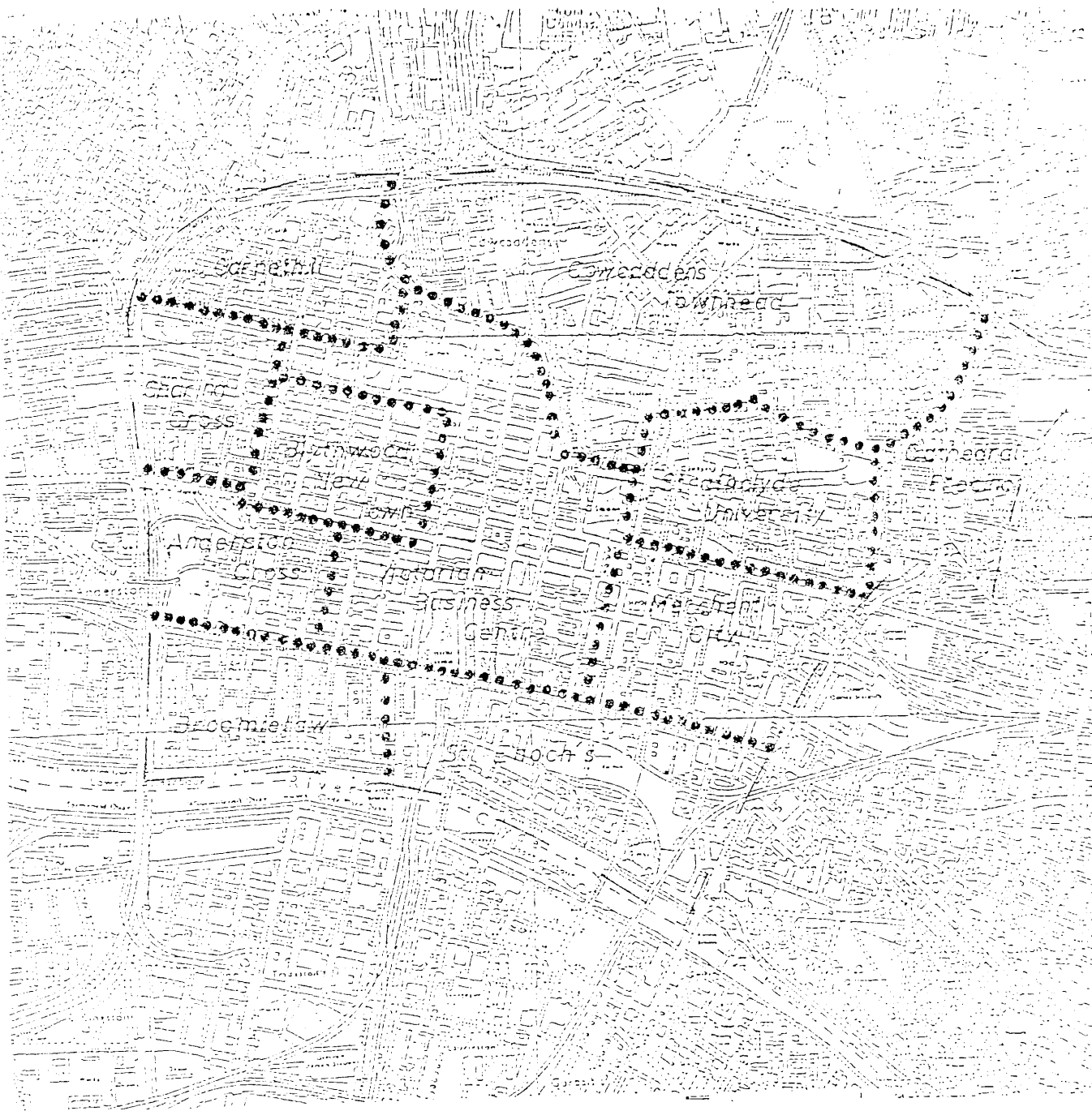
Often Particular Setting Is
Given To Public Buildings
To Punctuate The Townscape.

- CORNER -



- ACCENT -





BOUNDARY AND IDENTITY AREA

intimacy of scale in the external spaces. The fabric is dense and the built form presents a wide variety of building types. The buildings are characterised by the use of a multiplicity of materials and a variety in heights and style. There is however, a consistency of building line and a continuity of frontages which are often expressed by a rich texture of colours and shapes. Most of this area is incorporated in the conservation area, not so much for the quality of individual buildings but for the overall character of the place.

With regard to open spaces, (see plate 48), the area contains only one place of any significance viz George Square. It plays a particular role as a gathering space for civic occasions and provides a setting for some major public building especially the city chambers (see plates 49 and 50).

However the presence of some ⁰gate sites (some used as parking) for example at the end of George Street and Ingram Street (see plate 51), illustrates an imbalance between the structured western section of the area and its ill-defined eastern boundary situated at the edge of High Street.

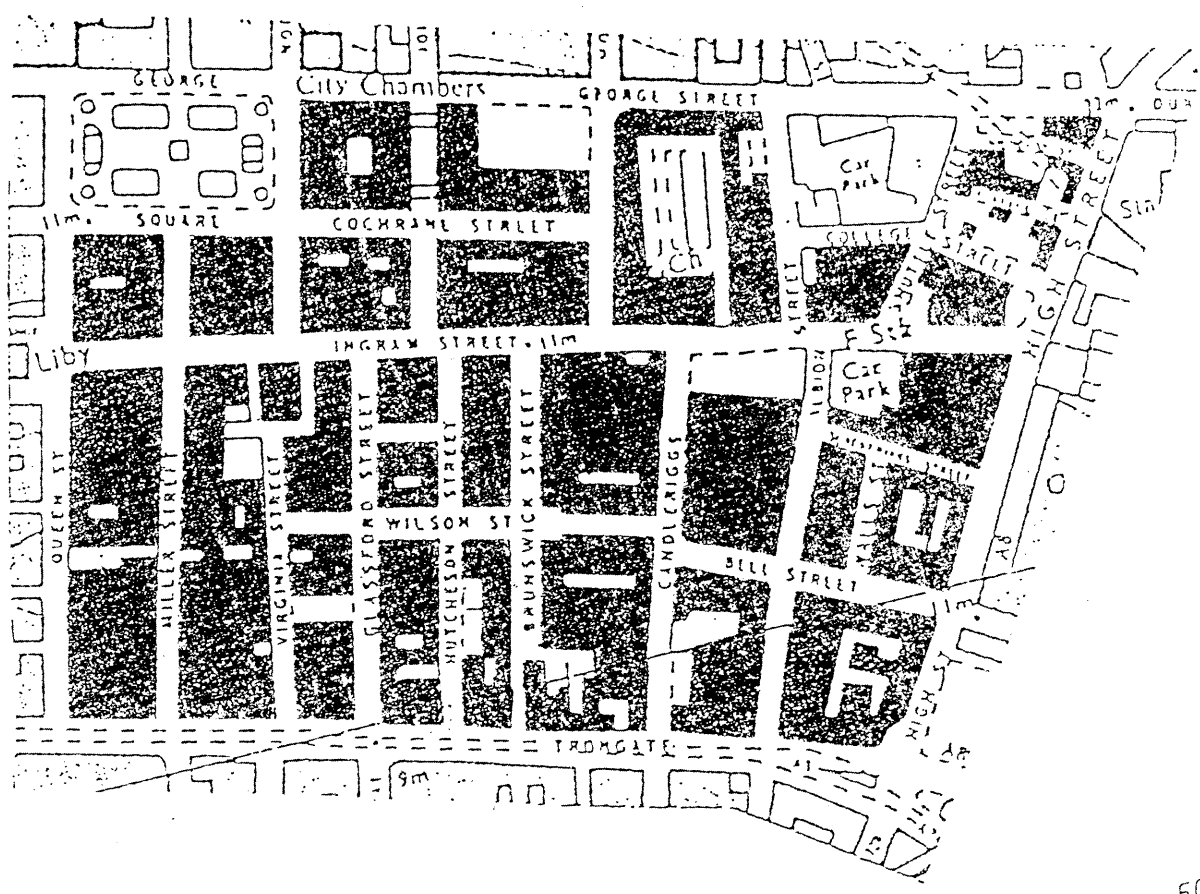
One of the characteristics of the Merchant City is the numerous terminating vistas or focal points created by major buildings or monuments which close the end of a street, ex the Hutcheson Hospital on Hutcheson Street and the Melville Monument on Miller Street (see plate 52).



THE MERCHANT CITY
IN
THE CITY CENTRE

MERCHANT CITY

BUILT FORM and STREET PATTERN

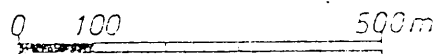


Densely Built Up, The Fabric Is Composed
Of Blocks Of Irregular Size And Is Crossed
By Short Length Streets.

THE MERCHANT CITY: OPEN SPACE



The Merchant City Is Characterised
By The Very Presence Of The Only
Gathering Space In Glasgow City
Centre, George Square.



KEY



Formal Open Space



Undeveloped Derelict Land

THE MERCHANT CITY: OPEN SPACE



A Formal Open Space: George Square.

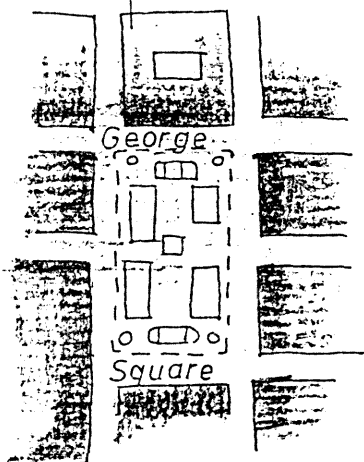
*View: George Square Looking East Towards
The City Chambers.*

THE MERCHANT CITY

GEORGE SQUARE

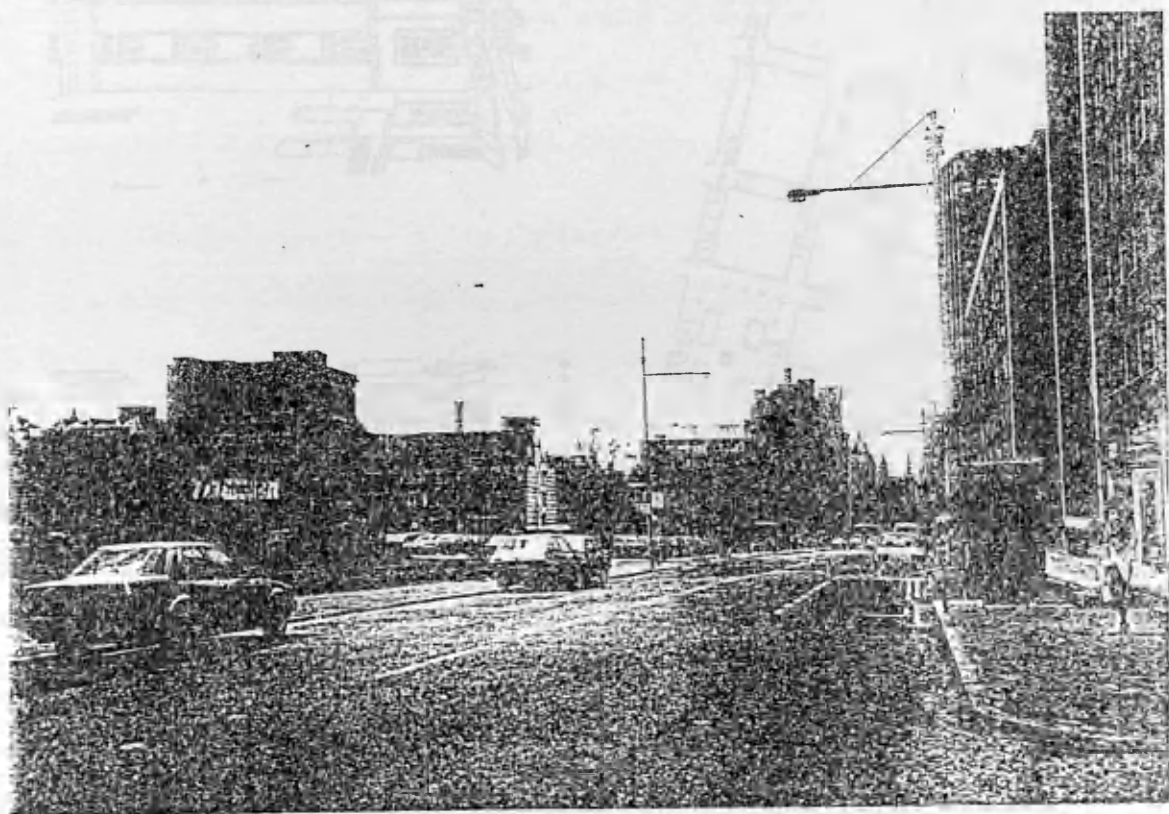


The City Chambers



George Square Provides Also
An Adequate Setting For The
City Chambers Which Confers
It, In Return, A Civic Quality.

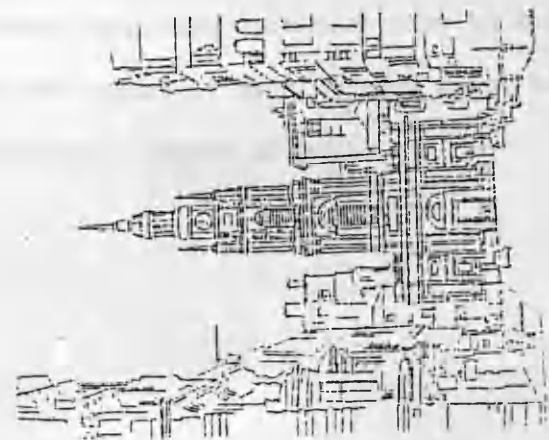
THE MERCHANT CITY: OPEN SPACE



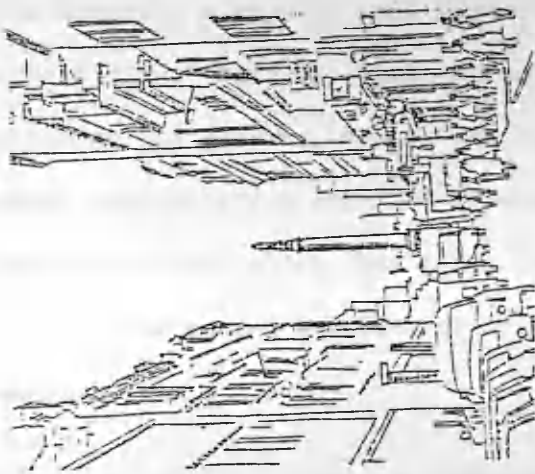
Undeveloped Land - At The East End Of Ingraham Street

THE MERCHANT CITY

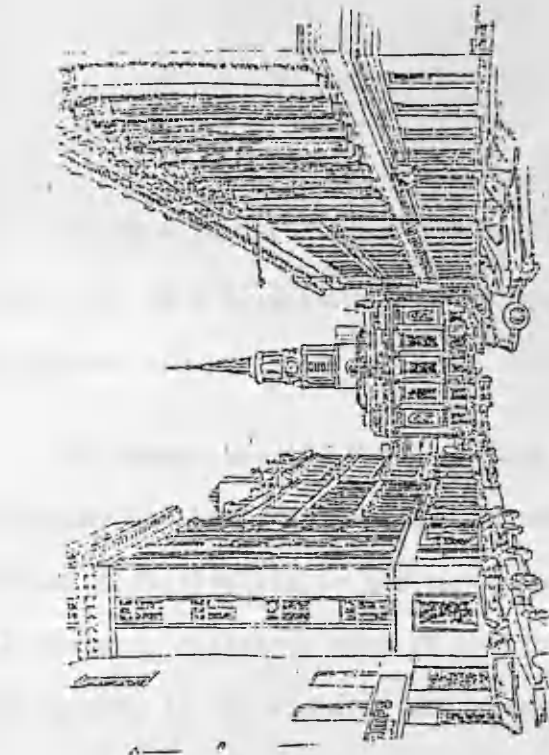
SPECIAL FEATURES : FOCAL POINTS and TERMINATING VISTAS



George Street

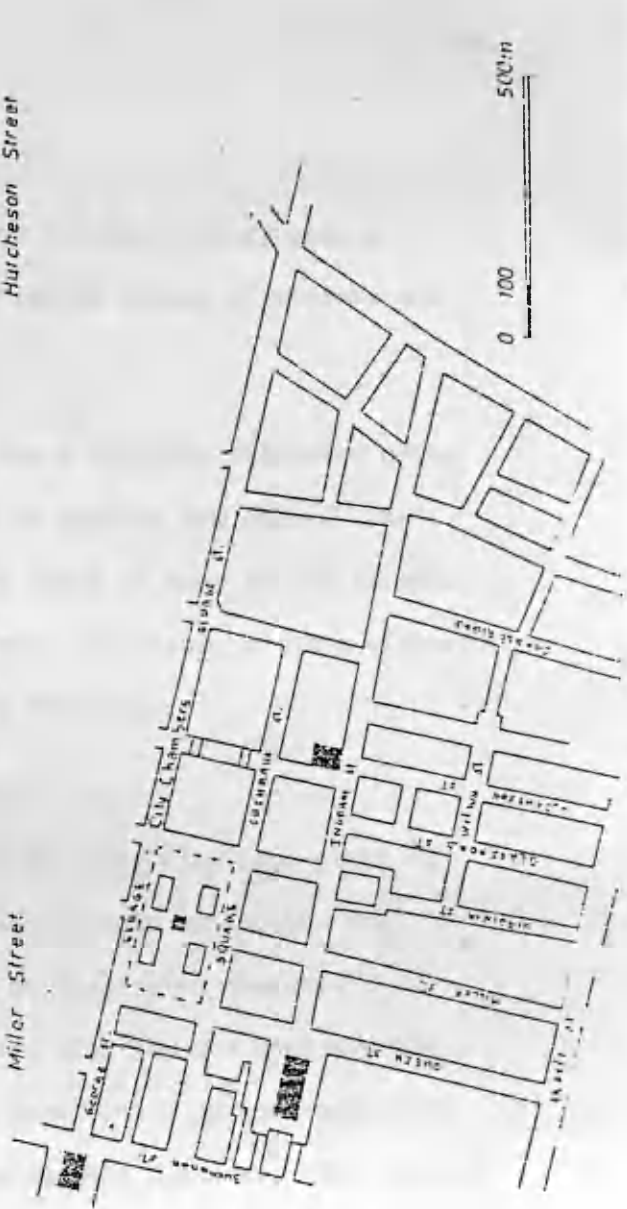
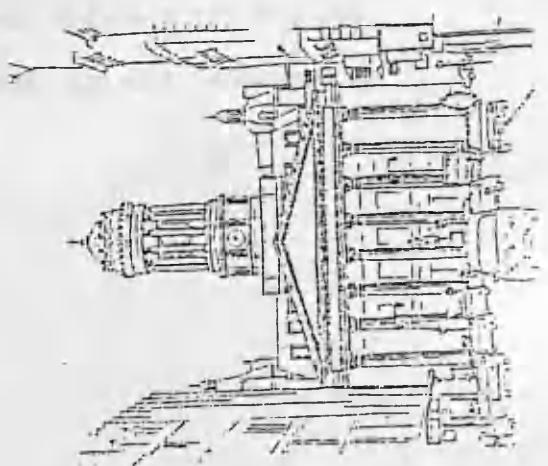


Miller Street



Hutcheson Street

Ingram Street



plate

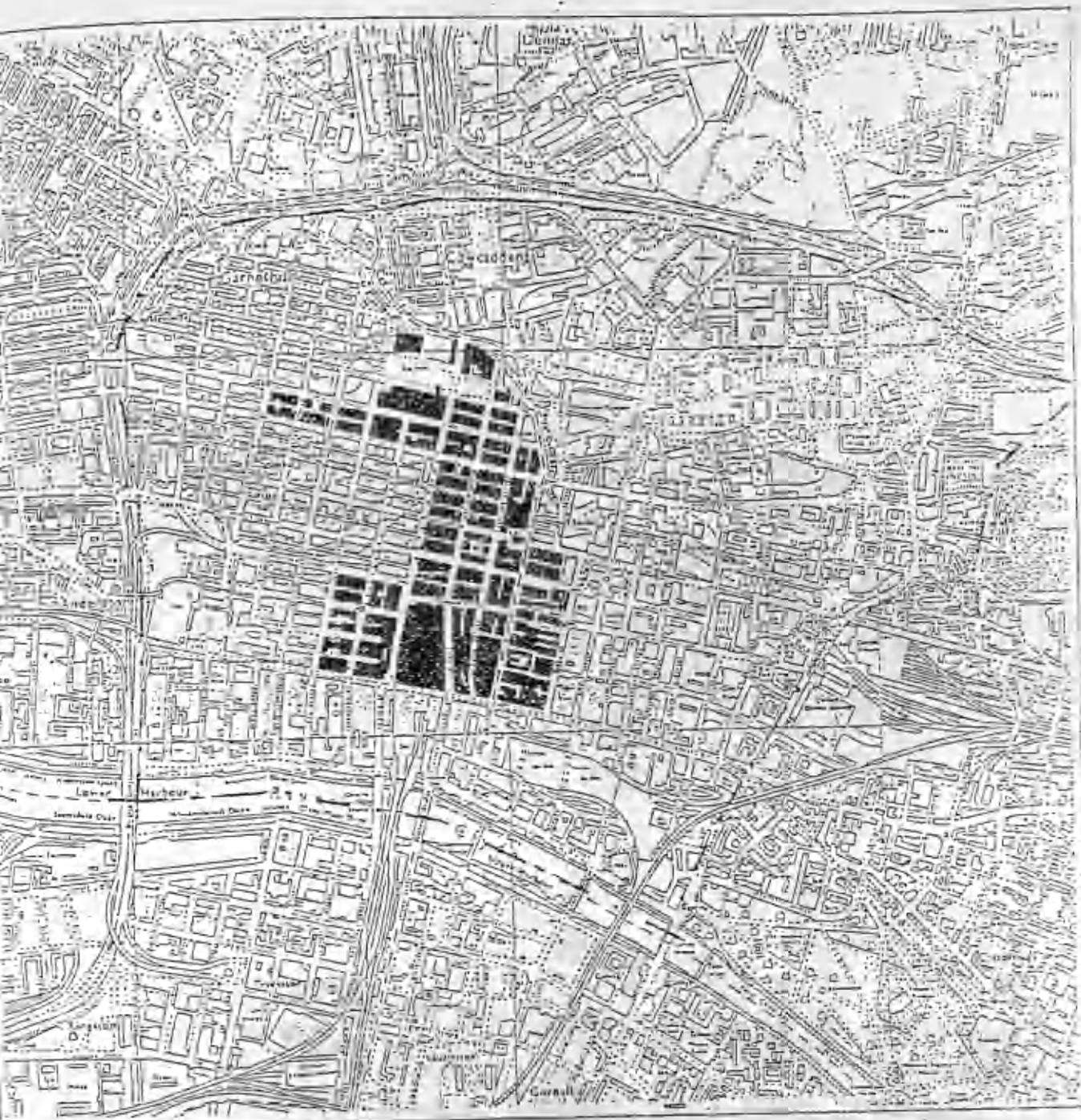
Along with particular features and landmarks, they give a legibility to a slightly irregular and varied layout of streets and buildings.

To summarise, the Merchant City has a strongly expressed urban character but one which shows evidence of neglect and decay. Its special qualities lie in the consistent scale of many of its streets, its historic buildings some of outstanding qualities, and the richness and variety in its elements and special features.

3.3.2 The Victorian Business Centre (plate 53)

This area is situated west of the Merchant City (see plate 53). It is based on a regular grid iron street pattern but unlike the Merchant city, there is little attempt at staggering the grid thus shortening the streets (see plates 54 and 55). On the contrary the streets generally run straight through providing a larger scale with interrupted views along them for a considerable distance. The varying slopes of the ground provides striking effects of infinity and immediacy (see plate 56).

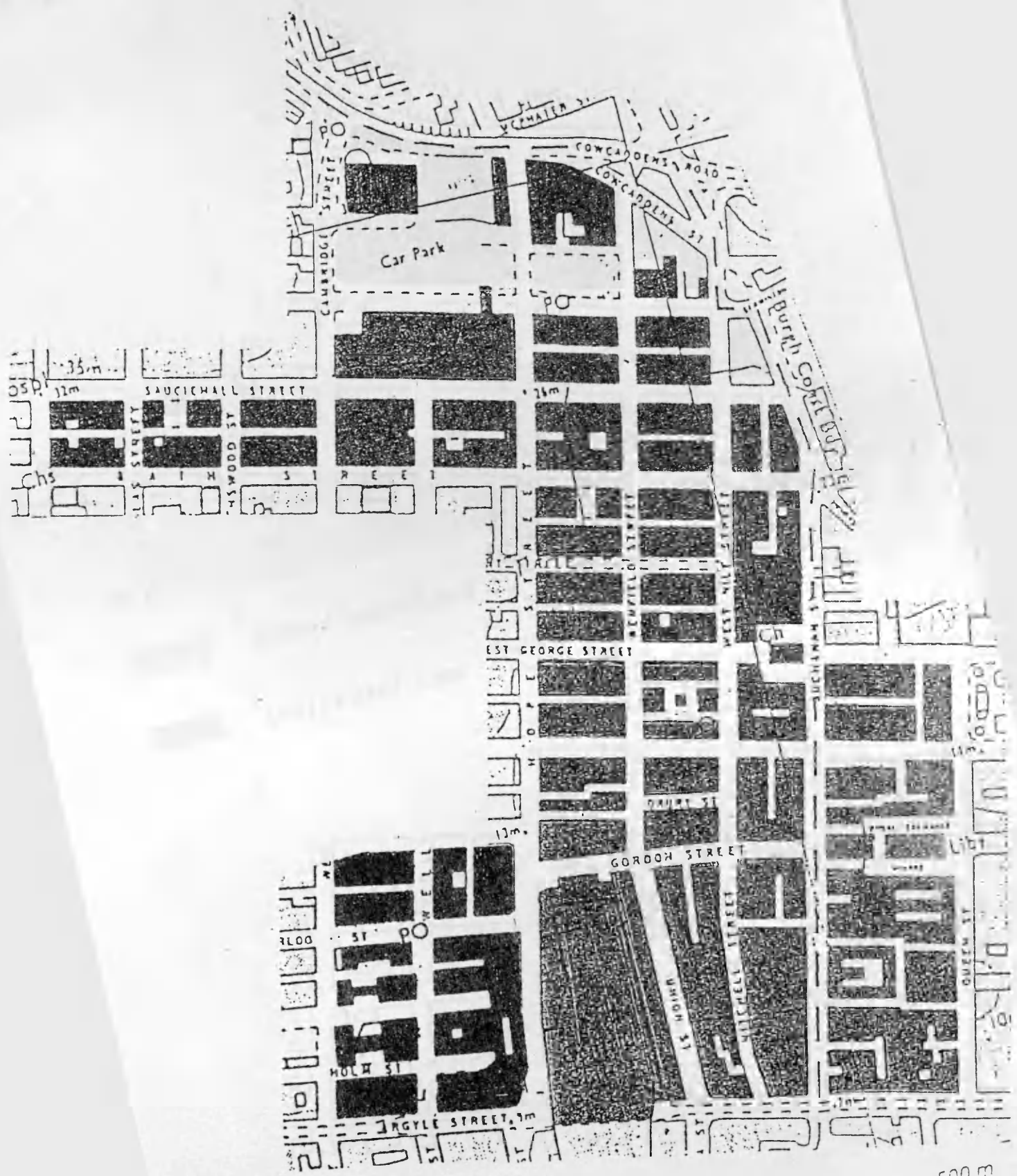
The built form derived essentially from large monumental buildings that rise sheer from the heel of the pavement. Dating from the Victorian period, they have given Glasgow the reputation of the finest remaining Victorian city in Britain. This era saw the use of new styles of architecture which although varied in appearance, achieved a degree of unity.



THE VICTORIAN BUSINESS CENTRE
IN
THE CITY CENTRE

VICTORIAN BUSINESS CENTRE

BUILT FORM and STREET PATTERN



THE VICTORIAN BUSINESS CENTRE

TOPOGRAPHY AND STREETScape



Topography Is One Special Characteristic Of Glasgow City Centre Especially When Related To The Streetscape . Here Added To The Street Length Results In An Infinity Effect.



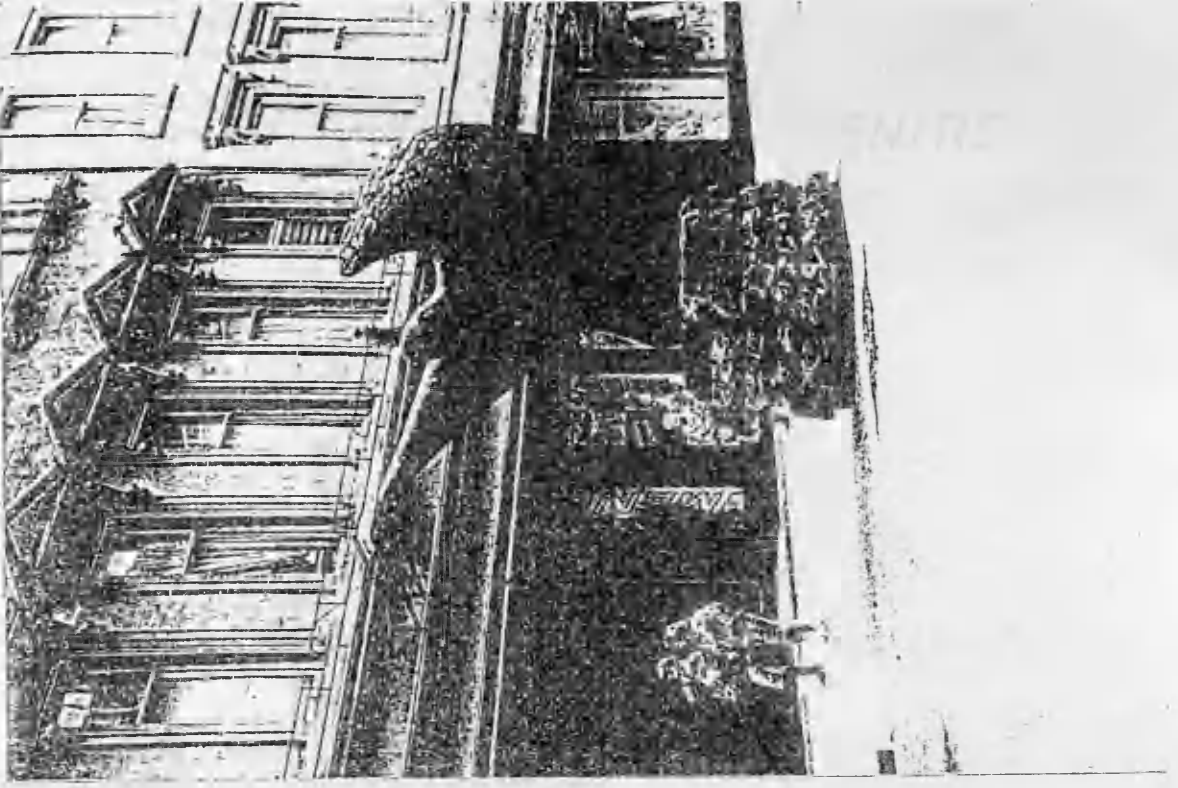
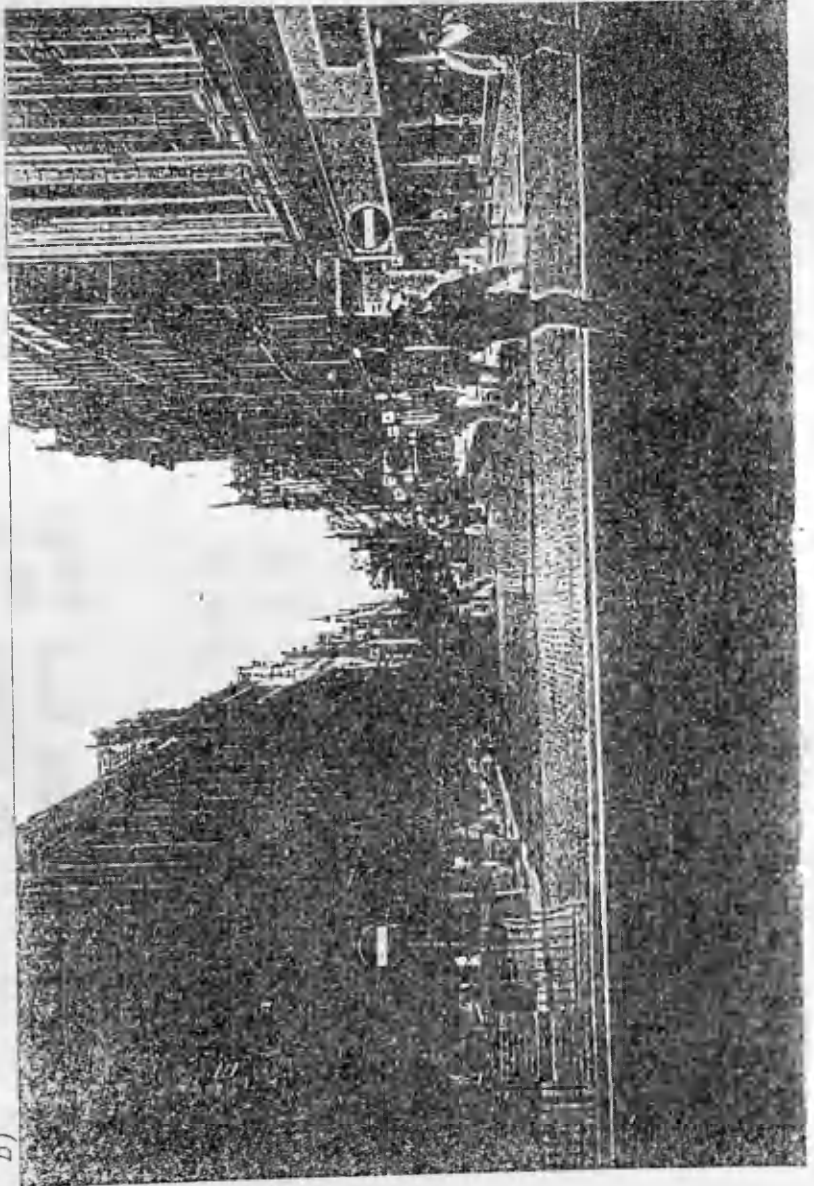
THE VICTORIAN BUSINESS CENTRE

OPEN SPACE

View a: Buchanan Street Looking North.

View b: One Of It's Street Furniture.

Buchanan Street Looking North

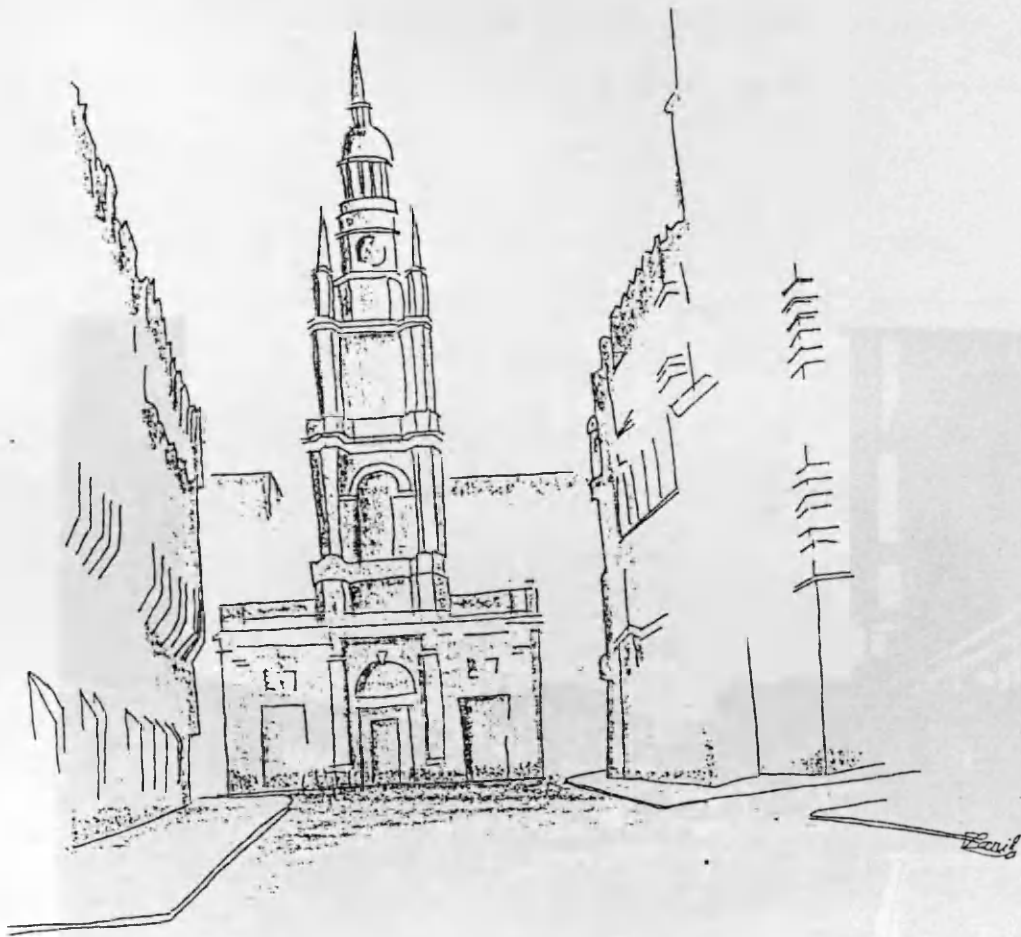


a)

b)

THE VICTORIAN BUSINESS CENTRE

ST GEORGE CHURCH



St George
Church



Already A Strong Area, The Victorian Business Centre Is Enhanced By The Only Public Building In The City Centre Standing On The Street Axis, St George Church, Which Terminates St George Street.

St George Church As

Special Feature Or Focal Point

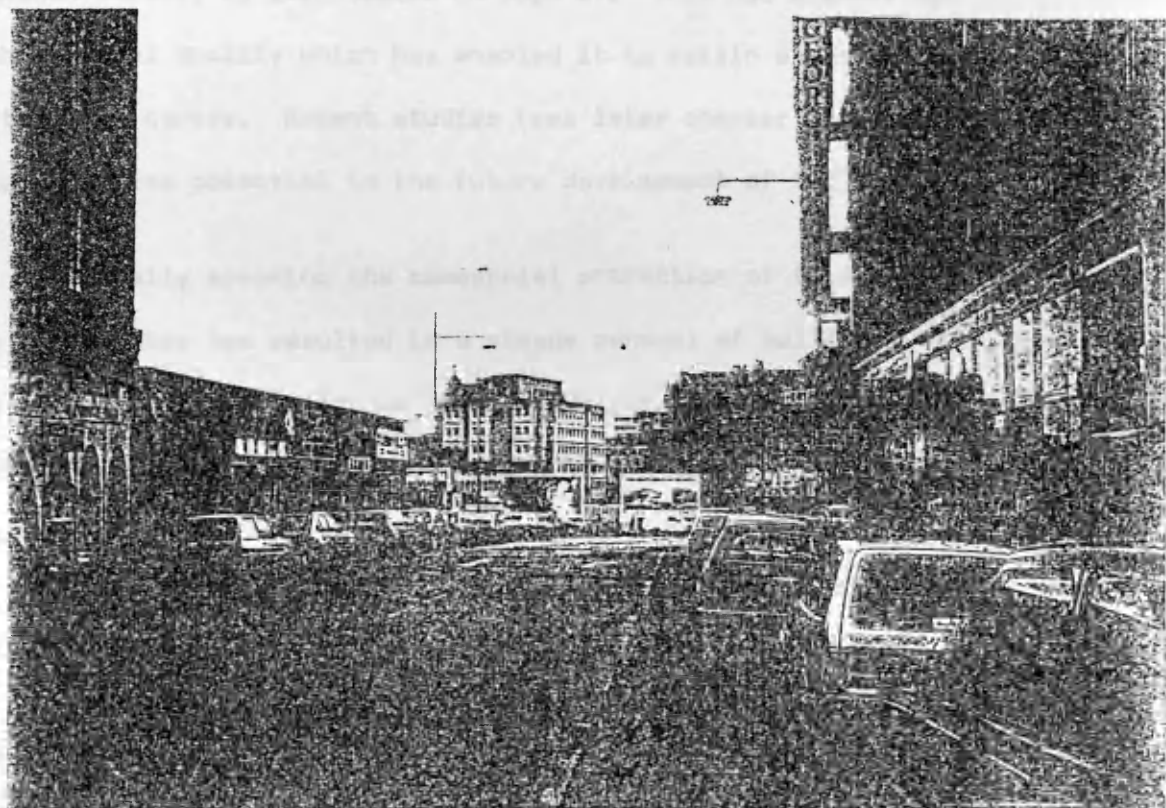
THE VICTORIAN BUSINESS CENTRE

Examining the Victorian buildings, a regular building pattern
with slight variations in building heights, the overall impression
is of well structured urban form with a strong sense of
level plateaus.

The area contains two of Glasgow's most elegant buildings
Buchanan Street, as illustrated on page 57. This has a strong

verticality which has enabled it to retain
its original form. Recent additions have later character
but the potential for the future development

is to maintain the existing structure of
the area and to provide a more modern form of



*View Northern Junction Of Buchanan Street With
Sauchiehall Street (Refer To Plate 55 For
Localisation)*

*Dereliction And Gaps Sites Are Another Vision Of The Victorian
Business Centre Especially At The Northern End Of Buchanan
Which Needs A Stronger Spatial Definition To Articulate The
The Commercial Core Of Glasgow City Centre*

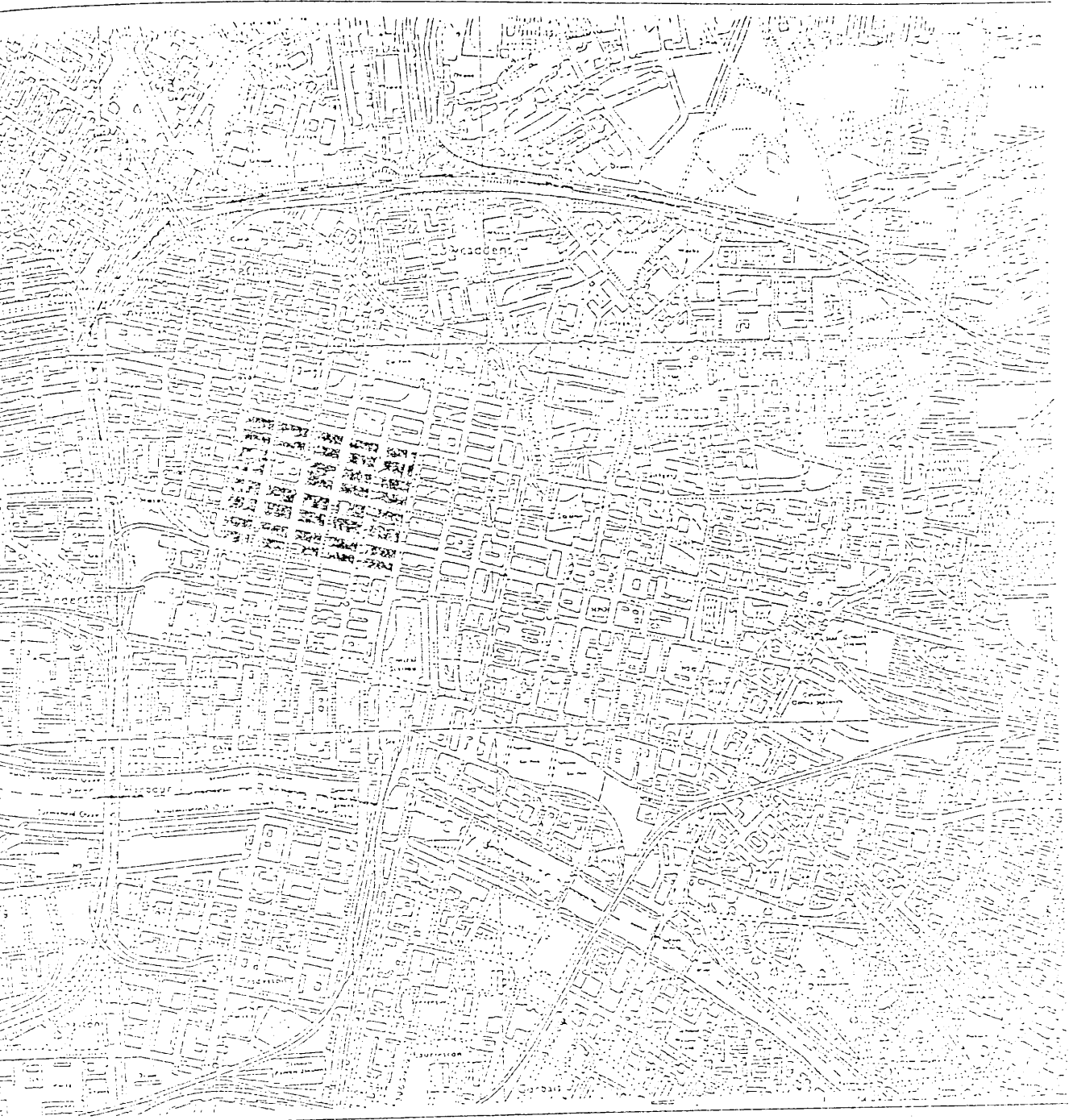
Resulting from vigorous modelling, a regular building line and only slight variation in building height, the overall impression is of well structured urban form with a strong sense of the street (see plate 56).

The area contains one of Glasgow's most elegant streets, Buchanan Street, as illustrated on ^{plate} page 57. This has a scale and architectural quality which has enabled it to retain a dominant role in the city centre. Recent studies (see later chapter) have recognised its potential in the future development of the centre.

Generally speaking the commercial attraction of this part of the city centre has resulted in a steady renewal of buildings and the erection of new buildings of high quality. The two main railway stations are in themselves magnificent monuments to the skill and exuberance of the railway age and something of their spirit is beginning to be ~~lost~~^{felt} as part of Glasgow's campaign to restore business confidence in the future.

3.3.3 Blythswood New Town (see plate 60)

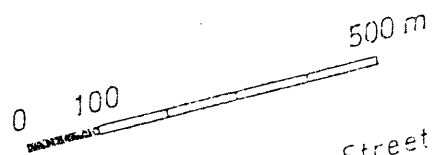
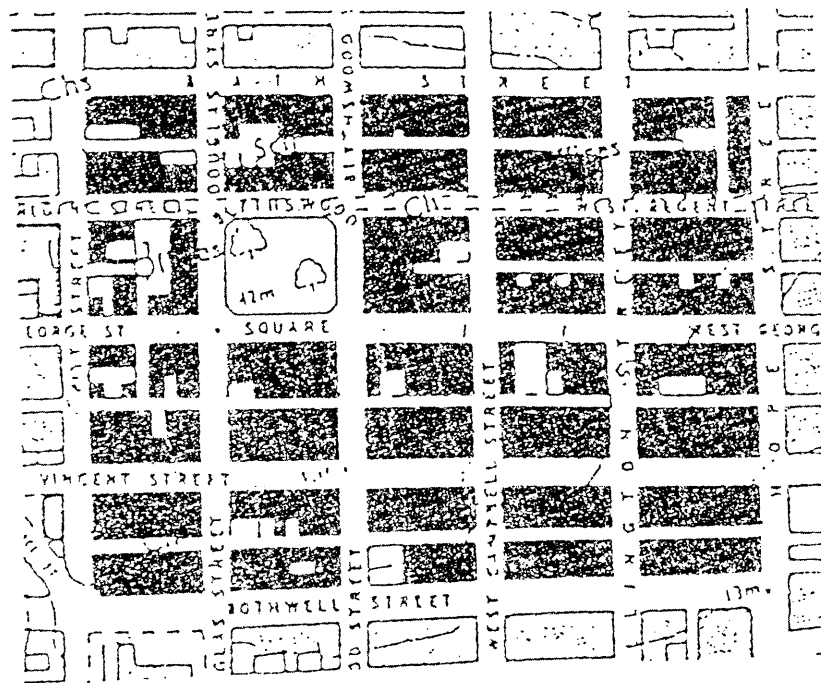
This area can be described as the culmination of the Georgian period in 1831 (see plates 61 and 62). The grid iron layout of earlier developments was continued, regularised and imposed on the slopes of the hill site. Blythswood Square (see plates 62 and 64), situated at its summit provides the only green park like square in the city centre and represents the main focus of this area.



BLYTHWOOD NEW TOWN
IN
THE CITY CENTRE

BLYTHWOOD NEW TOWN

BUILT FORM and STREET PATTERN



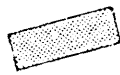
The Regularity Of The Imposed Grid Iron Street Pattern Induced The Building Of Regular Blocks Cut Through By Service Lanes.

BLYTHWOOD NEW TOWN: OPEN SPACE



Among The Formed Blocks One
 Was Developed As A Green Square
 Blythwood Square Presently Closed
 To Public Use

KEY

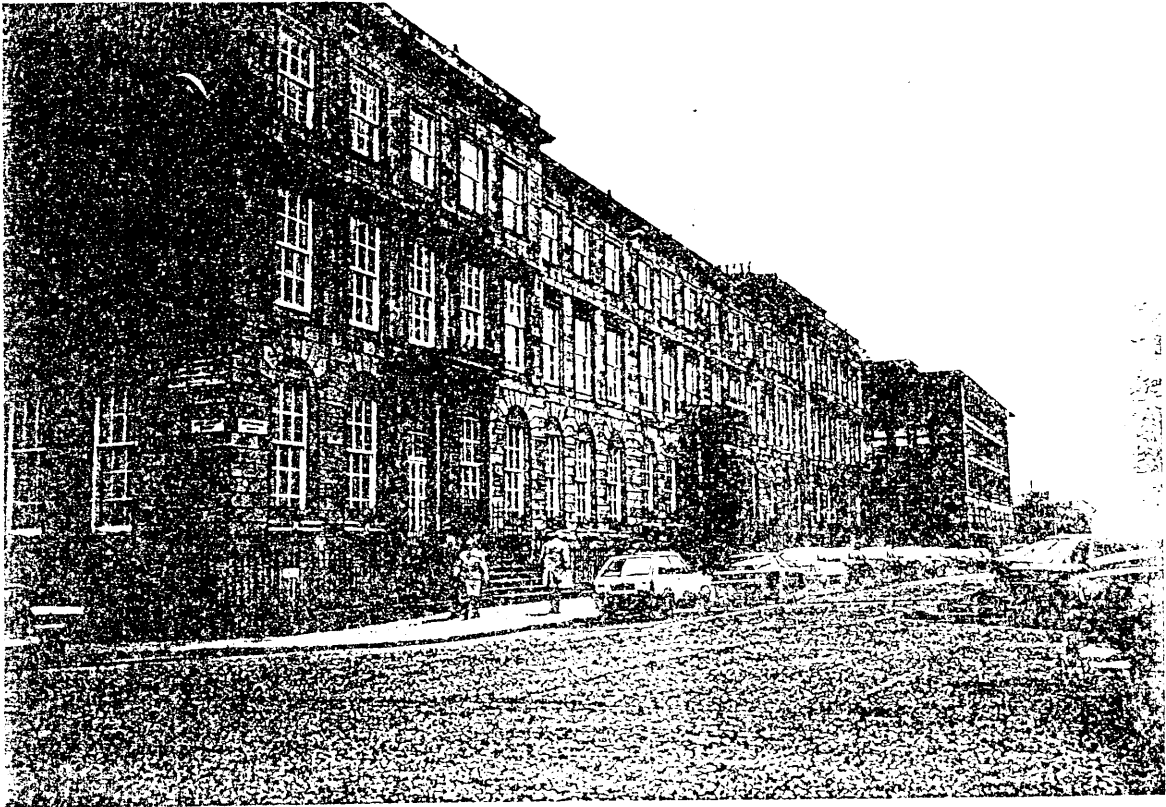


Formal Open Space



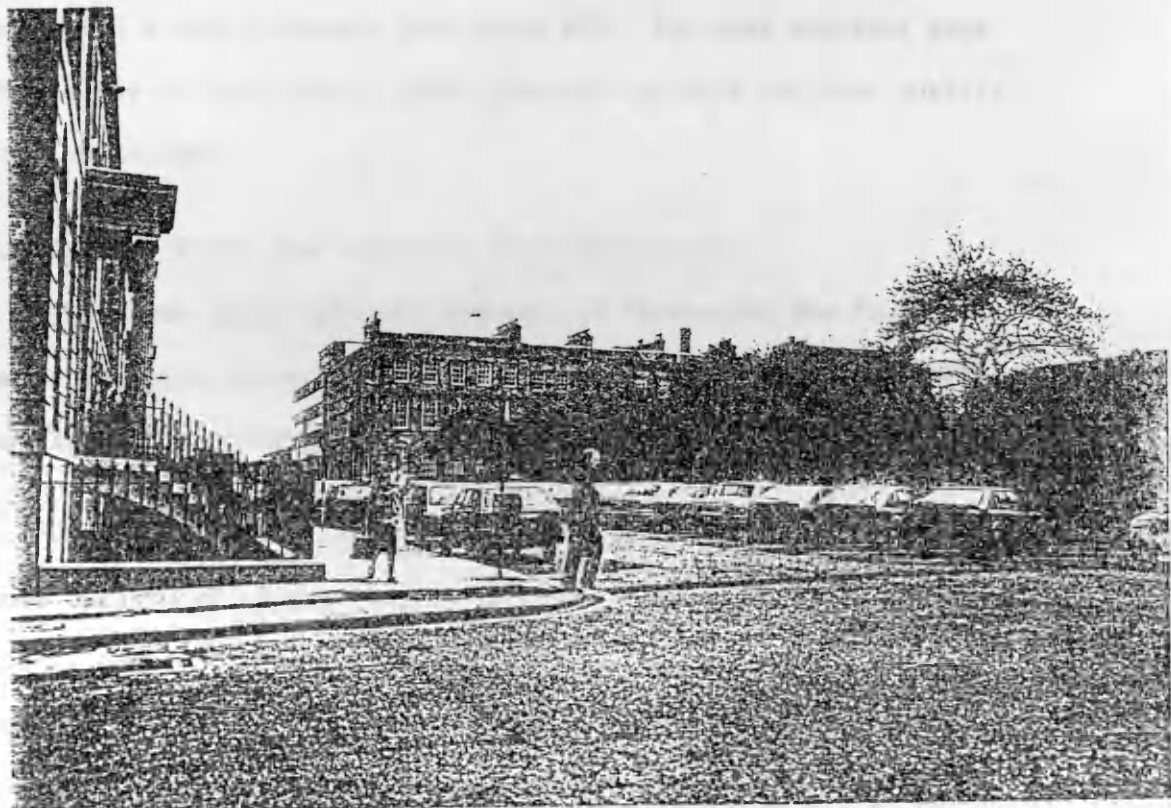
Undeveloped Derelict Land

BLYTHWOOD NEW TOWN : BUILT FORM



*Terraced Houses From The Georgian Era
View : The Northern Frontage Of Blythwood^w Square .*

BLYTHWOOD NEW TOWN : OPEN SPACE



A Formal Open Space : The Green Blythwood Square

This derives from the fact that it was built, rather like Edinburgh New Town at one time and in any interrupted sequence, thus the strong feeling of unity.

The built form is essentially composed by the succession of blocks of regular sizes, that are composed of three storeys terraced houses with a sunk basement (see plate 63). The area contains some high quality offices and is under pressure for more new high quality office buildings.

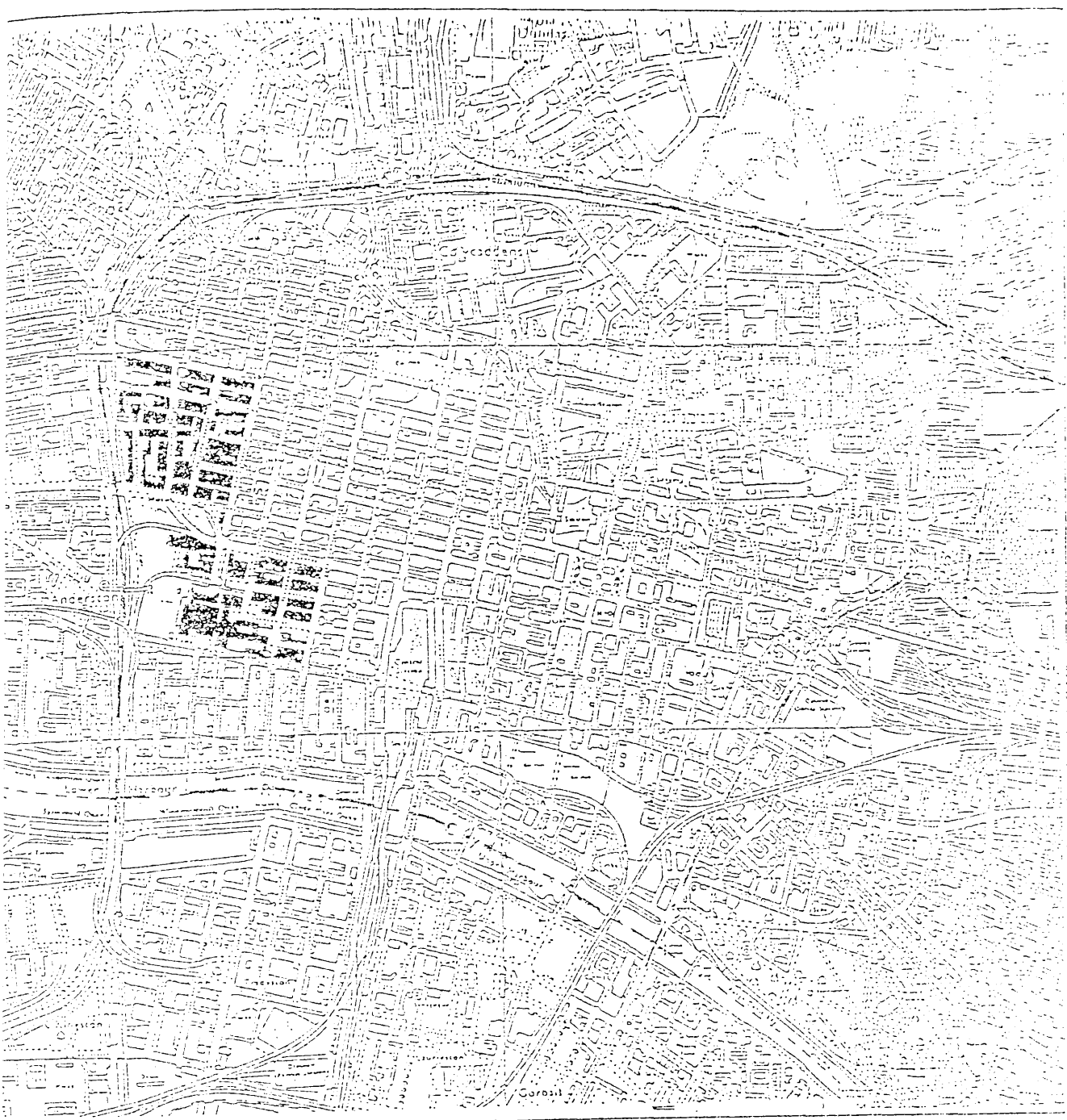
3.3.4 Charing Cross and Anderston Cross (plate 65)

These two areas lying at the west of Blythswood New Town have immense damaging changes along their western boundary to the motorway (see plates 66 and 67).

Charing Cross was until recently a focal point in the old street pattern of Glasgow and acted as an entry point or gateway to the city centre at the edge of Garnethill. It was a point of transition between the commercial centre laying on the premises of the east part of Sauchiehall Street and the residential elegance of its western end. Charing Cross Mansions and the Mitchell Library exemplify in their architectural quality the strategic importance of this part of the city centre (see plate 68).

Anderston Cross similarly was a strategic point in the western extension of Argyle Street but the area was undistinguished.

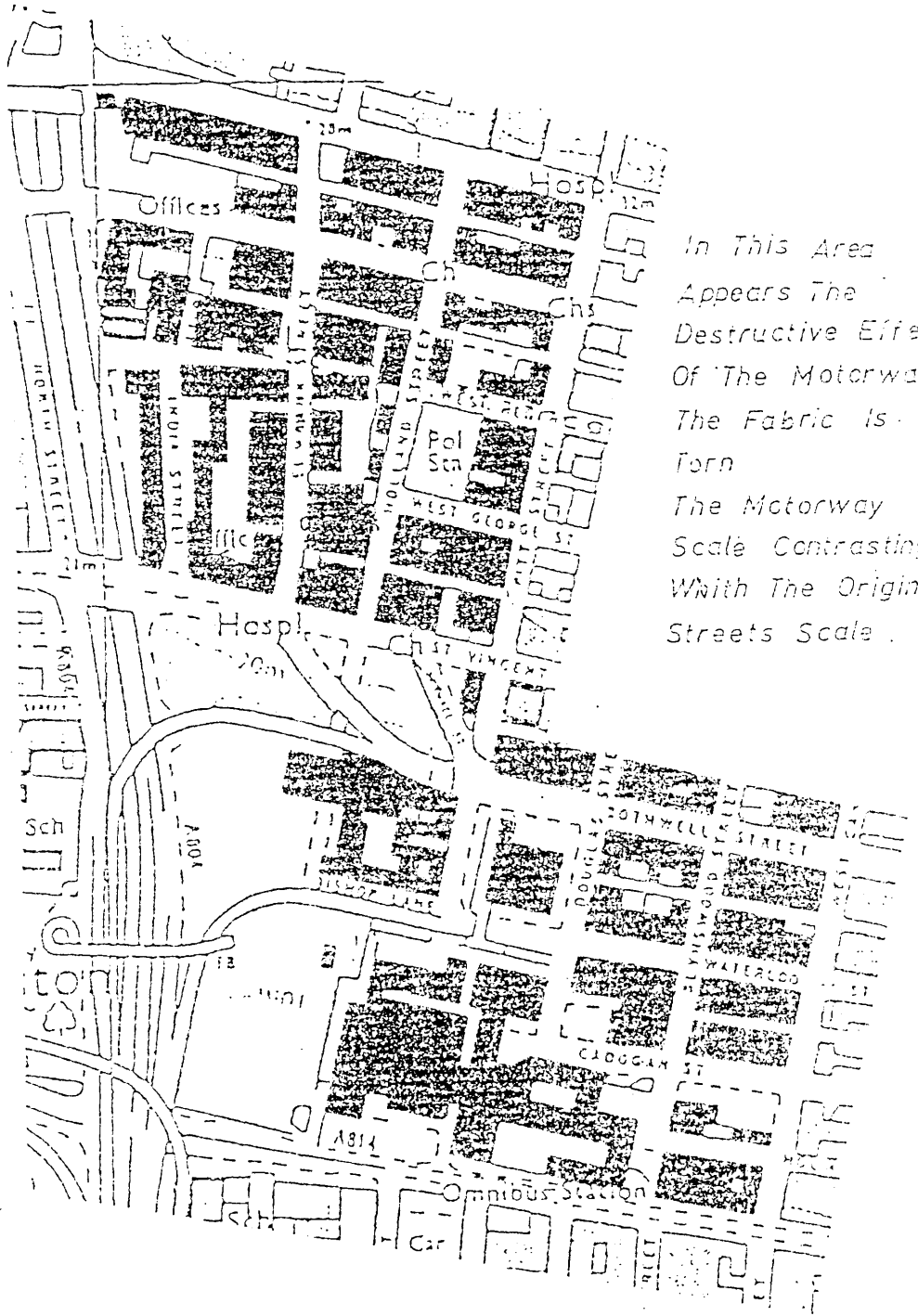
The building of the motorway has torn the fabric of those two areas apart (see plate 69 and 70).



CHARING CROSS AND ANDERSTON CROSS
IN
THE CITY CENTRE

ANDERSTON CROSS CHARING CROSS

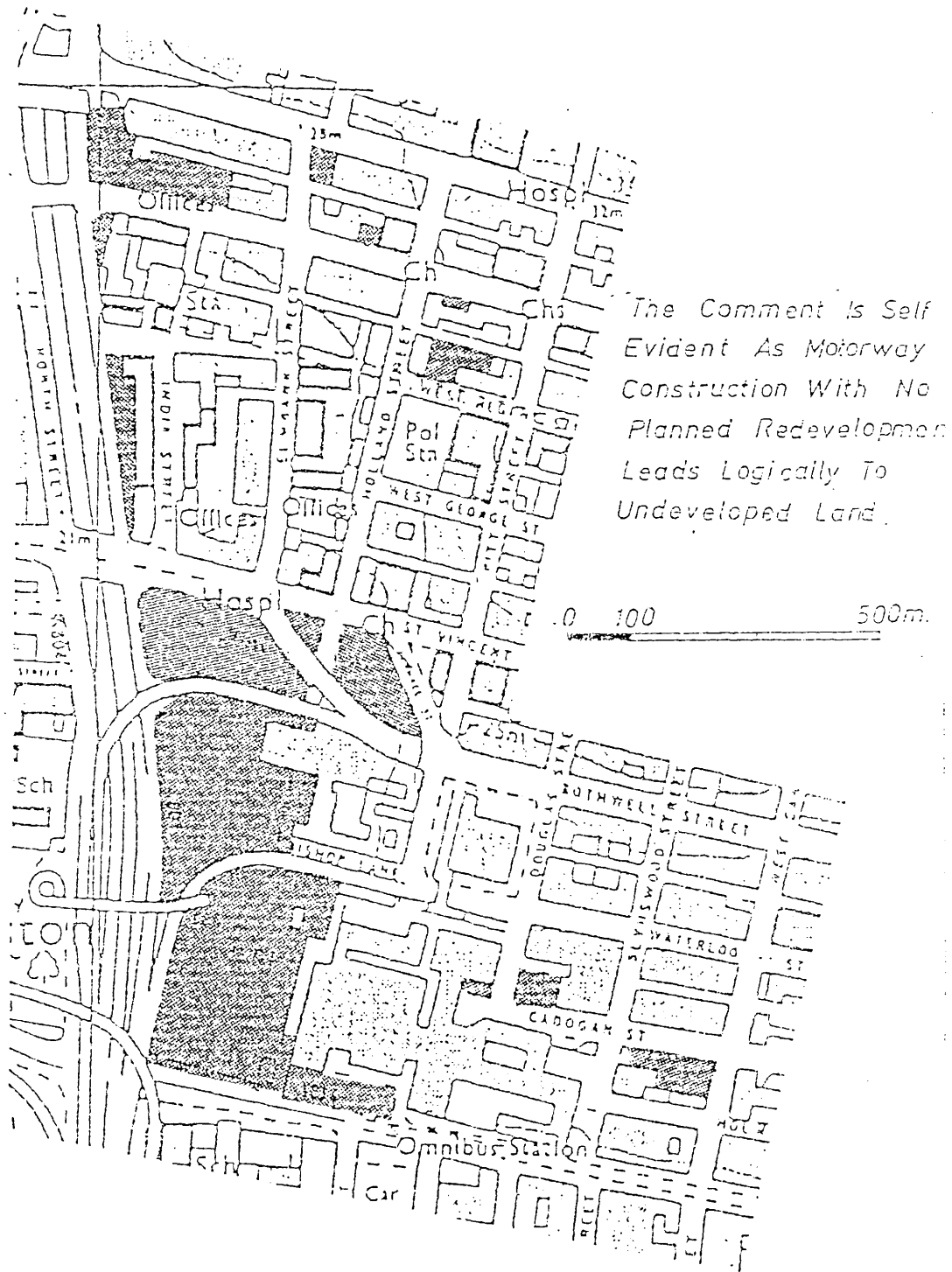
BUILT FORM and STREET PATTERN



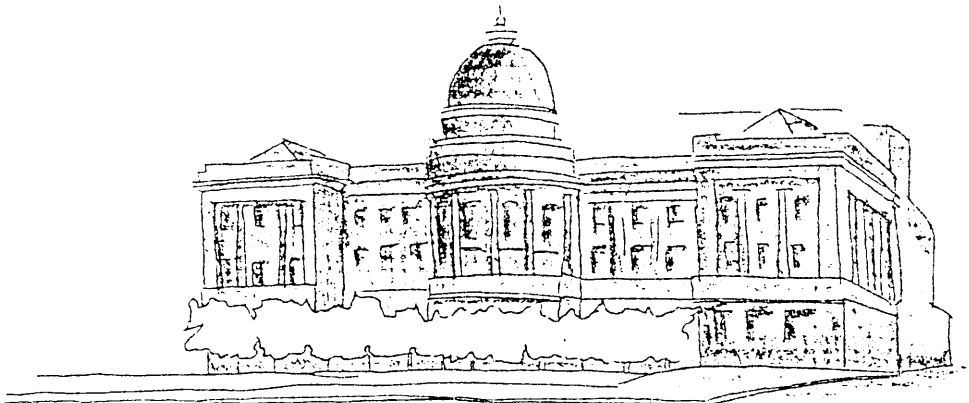
*In This Area
Appears The
Destructive Effect
Of The Motorway
The Fabric Is
Torn
The Motorway
Scale Contrasting
With The Original
Streets Scale .*

ANDERSTON CROSS - CHARING CROSS

OPEN SPACE



THE MITCHELL LIBRARY



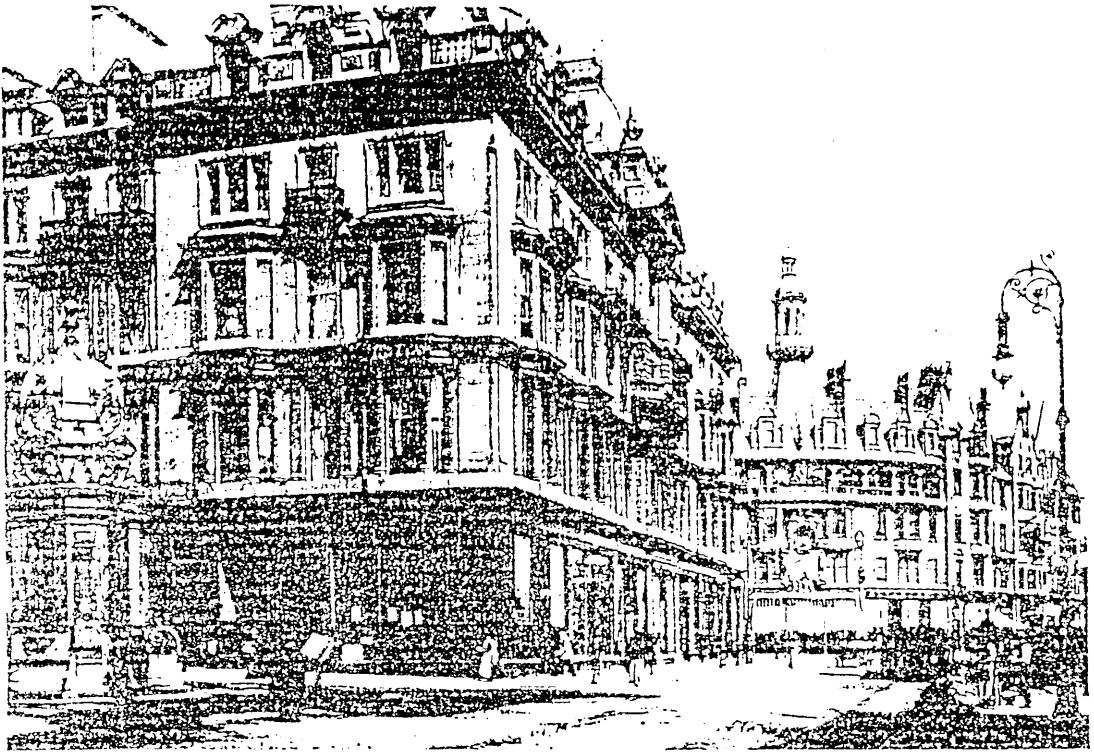
View



Destruction Has Altered The Setting Of The Mitchell Library. This Is Nevertheless A Major Potential To The Redefinition Of This Piece Of The Motorway.

CHARING CROSS

Before And After

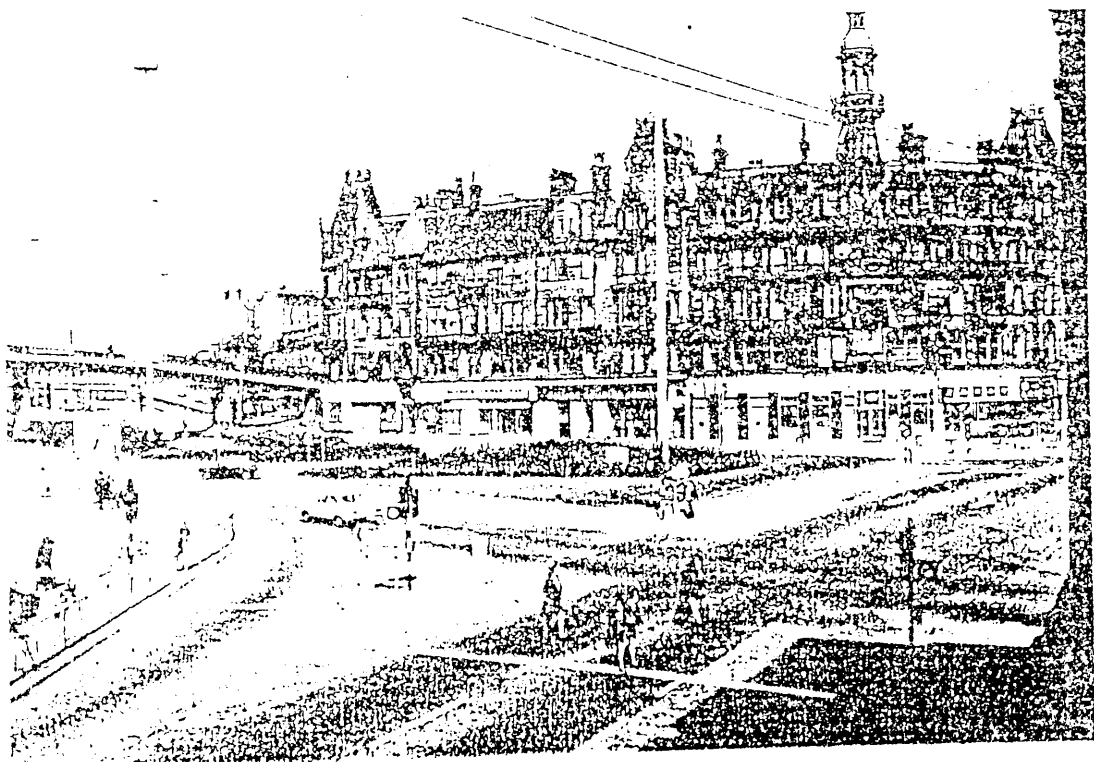


Charing Cross - 1901

Charing Cross Mansions have now obliterated Albany Place, but are still dominated by the Grand Hotel, which was regarded as the most fashionable hotel in Glasgow at that time. The Charing Cross Fountain actually worked in those days!

Before

*There Is Always A Before To A Situation
But What An After !*



Charing Cross - 1974

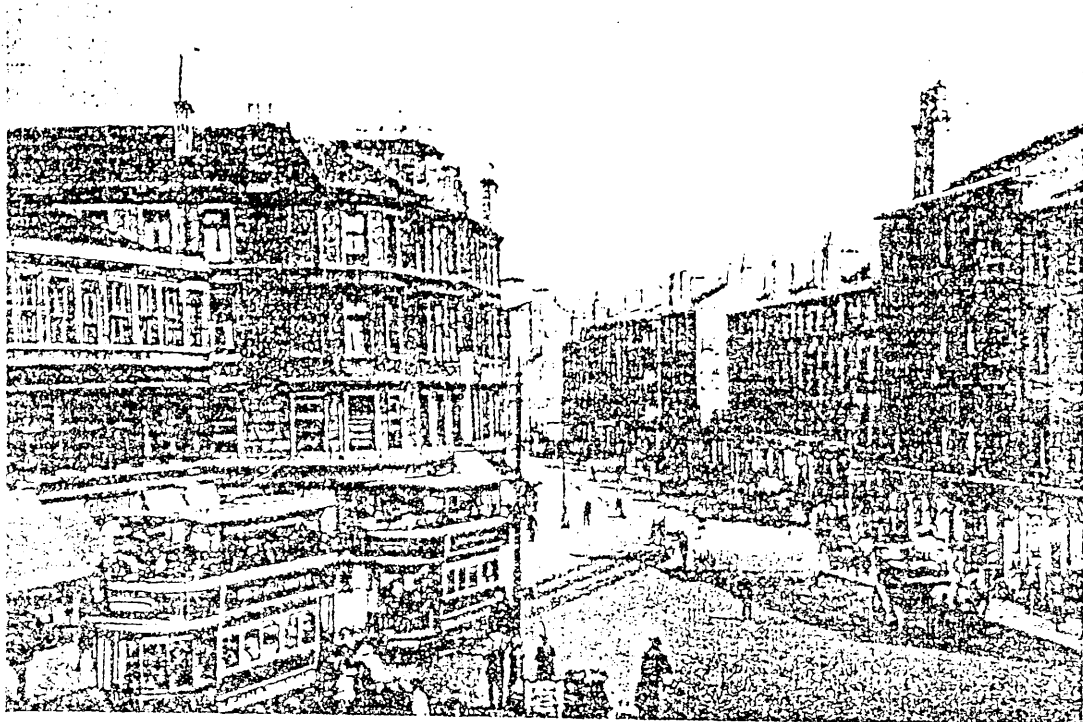
You may find difficulty in relating this picture to the one on the opposite page but it is the same scene taken from the same angle. The flower plots mark the place where the Grand Hotel once stood. Behind are Charing Cross Mansions, where Albany Place used to be. A motorway runs under Charing Cross now.

After

ANDERSTON CROSS

Avant Et Apres

The Cross, Anderston

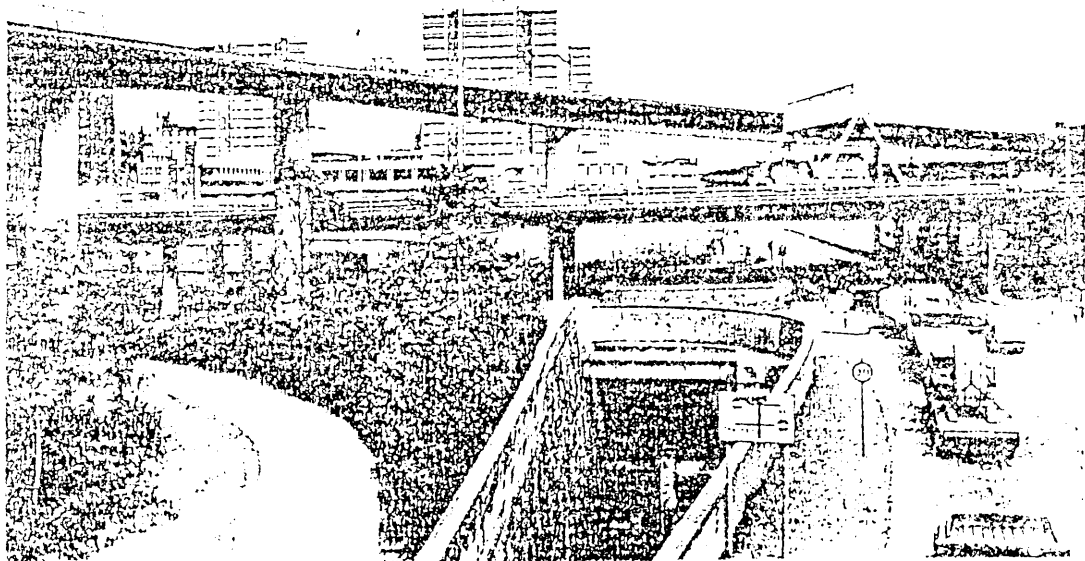


Anderston Cross, looking east - 1920

The village of Anderston was once a weaving place outside Glasgow. There was, until recent years, a boundary stone on the right hand side of Argye Street (seen here) which marked your entry into Anderston from Glasgow. The area, looking reasonably prosperous here, went down as the years went by.

Avant

Idem!



Anderston Cross, looking east - 1974

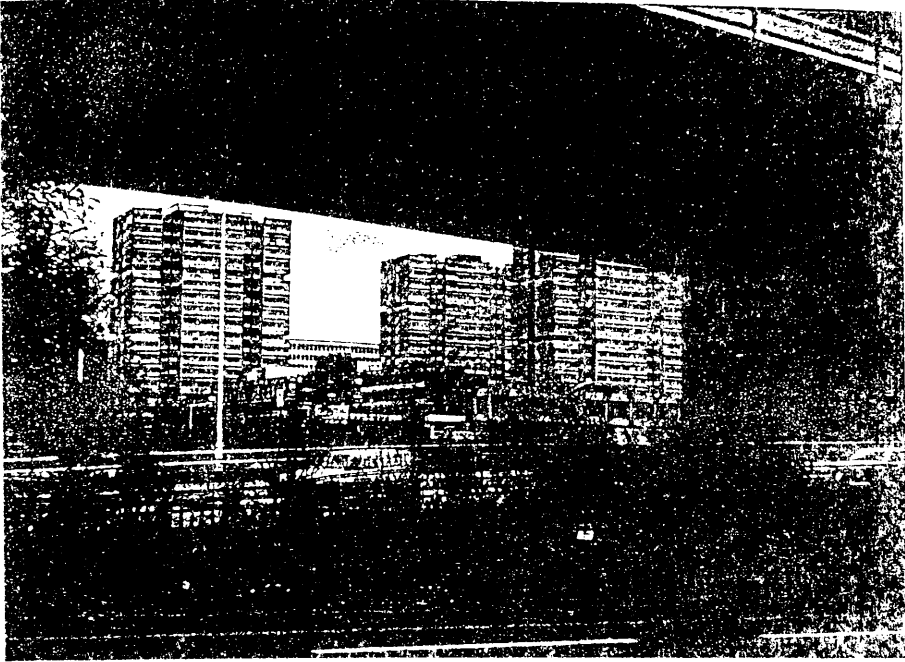
This, believe it or not, is the same scene from the same angle as the picture opposite. There was, as you will see opposite, a railway station at Anderston Cross and in the foreground you can still see the platform in a tunnel. This is now one of Glasgow's "spaghetti junctions". In the new buildings in the background is housed Radio Clyde.

Apres

plate 70

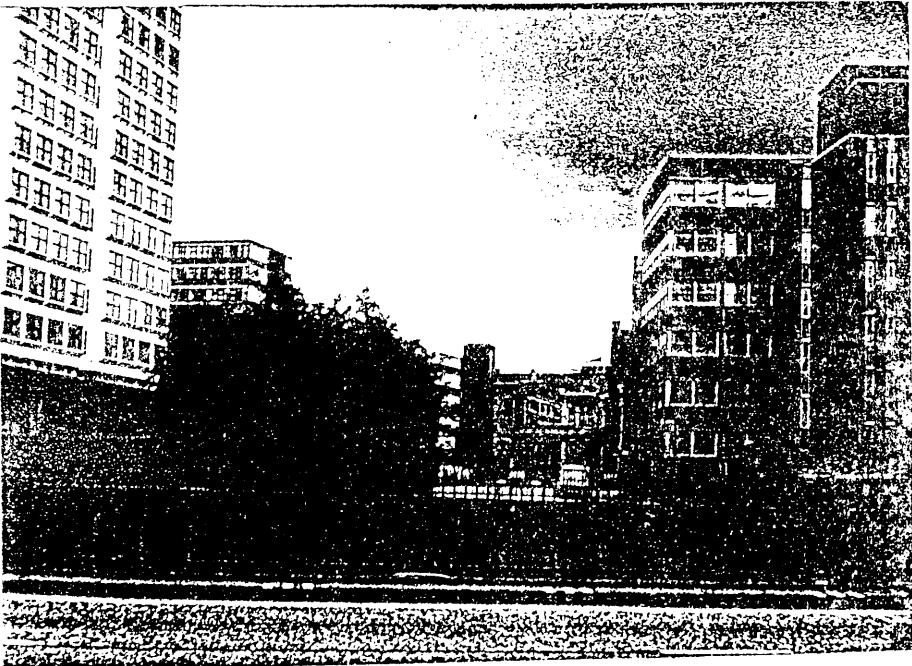
ANDERSTON CROSS

VIEW FROM THE MOTORWAY



View Anderston Cross Across An Elevated Junction

View Anderston Cross Across The Depressed Motorway



They are full holes and left over space with little attempt to repair the torn fabric of what is now not only an important frontage to the motorway but a western boundary of the city centre.

Prospects for the reversal depend on the careful siting of high quality buildings which did not occur so far. The reversal depends also on the reintegration of high quality buildings such as the above cited Mitchell Library (see plate 68).

As to commemorate the disastrous era of the motorway building, the unfinished section of a high level road stands at Charing Cross as a monument to the folly of traffic engineers at that time (plate 71).

3.3.5 The Broomielaw : plate 72

The Broomielaw is the area at the south west corner of the city centre between Argyle Street and the river (see plate 73). The built form is characterised ^{by} long narrow blocks explained by the former industrial and warehouse activities. With the des^ertitude of the river as the commercial artery of Glasgow, the remains of small business and workshops, the area presents a state of physical and economic decline witnessed in the vacant sites and buildings (see plate 74).

However a great potential is provided on the southern frontage of the area by the very presence of the River Clyde and the famous Broomielaw to free over to Rothesay or wherever (see plate 75).



THE BROOMIELAW
IN
THE CITY CENTRE

THE BROOMIELAW

BUILT FORM and STREET PATTERN



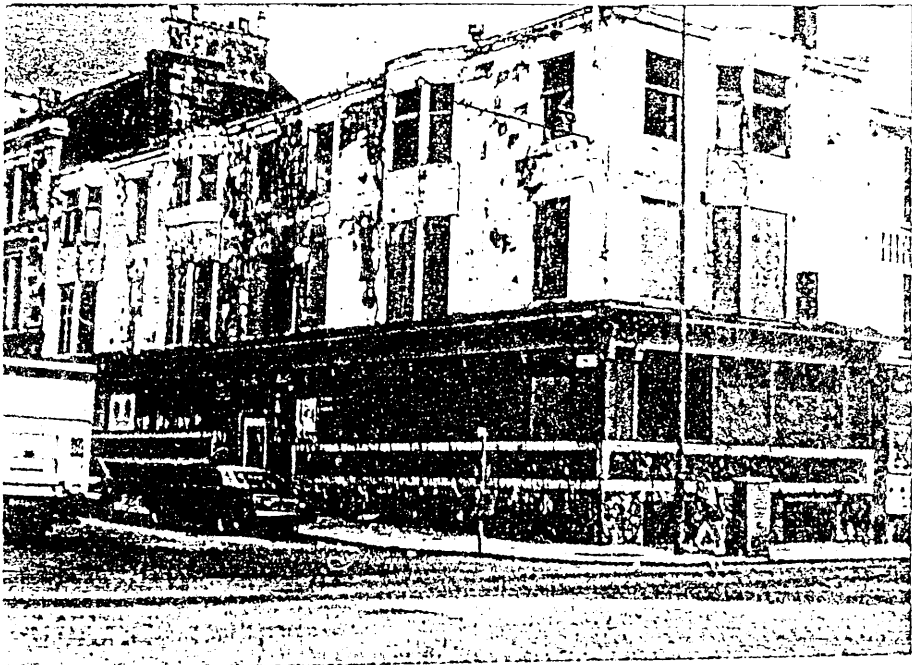
The Built Form Reflects The Original Industrial Activities The Blocks Are Narrow And Longitudinal

*THE BROOMIELAW : THE BUILT FORM
Dereliction In The Built Form Attests For The Decline Of
The Original Industrial Activities .*

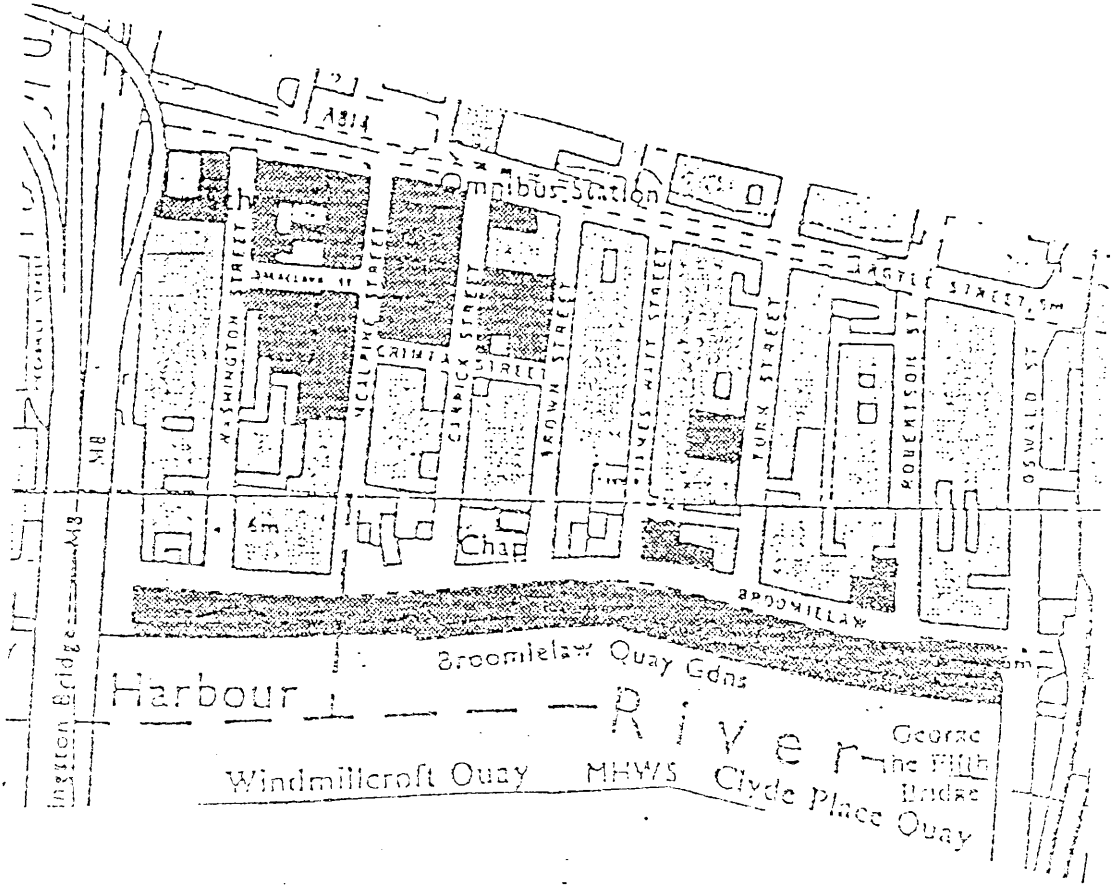


*View a The Broomielaw Quay Looking East Towards
Central Station.*



View b One Derelict Promise On The Broomielaw Quay



THE BROOMIELAW OPEN SPACE



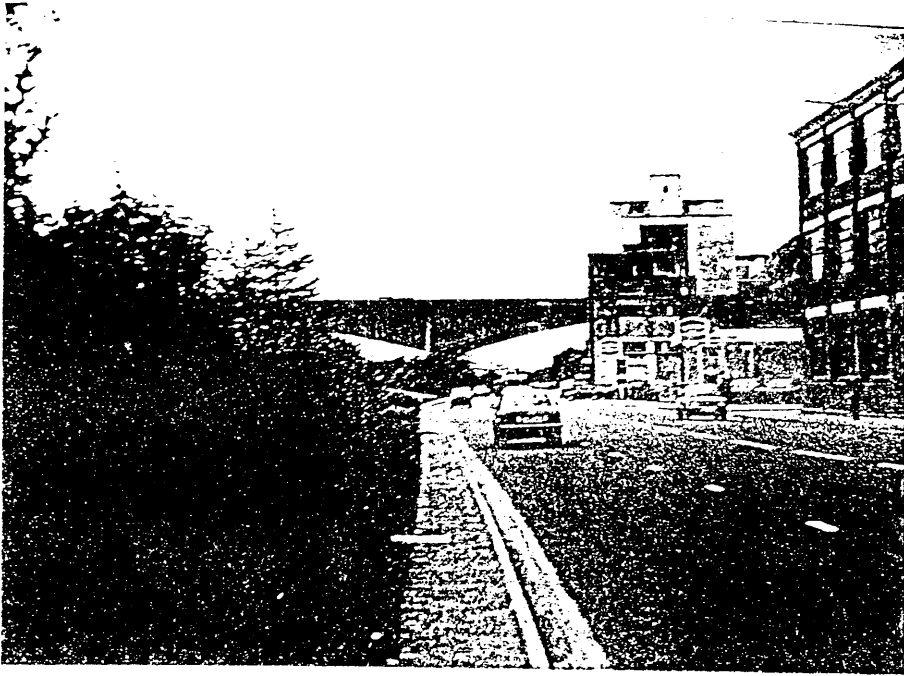
KEY

-  Formal Open Space
-  Undeveloped Land

*The River Potential As A Public Open Space
Is Still To Be Achieved.*

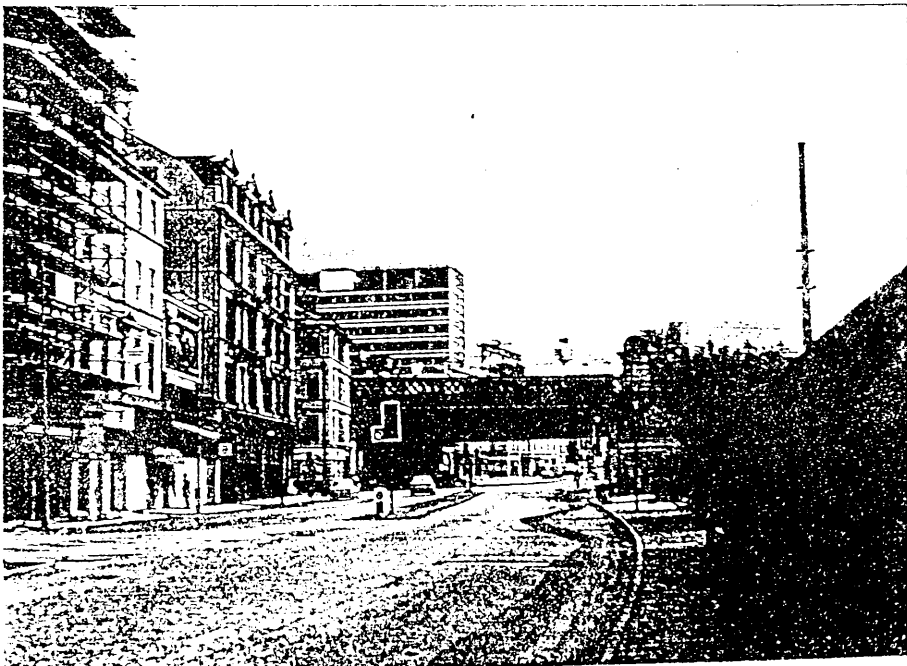
THE BROOMIELAW

VIEW OF THE AREA BOUNDARY



View Kingston Bridge As The Western Boundary

View The Overhead Railway Bridge As The Eastern Boundary



A great opportunity exists for new development and which would focus on the recreation of a fine river frontage in such a development, there is one feature which presents a problem viz the mass and bulk of the overhead railway lines leading ⁱⁿ into Glasgow Central Station east and the elevated structure of the motorway viz the Kingston Bridge, west (see plate 76).

3.3.6 St Enoch's :see plate 77

This area, at its eastern end, was formerly part of the medieval city and contained a mixture of small business warehouses, tenements and open space. The arrival of the railway at St Enoch's Station destroyed about half the area. The recent closure of the railway left a large area of vacant land now mostly used for car parking (plates 78 and 79).

The grid iron street pattern, so prevalent elsewhere in the city centre is almost entirely absent. However this area^a presents strong continuous frontage along its boundary streets such as Argyle Street, Saltmarket, Clyde Street and Jamaica Street (see plate 78).

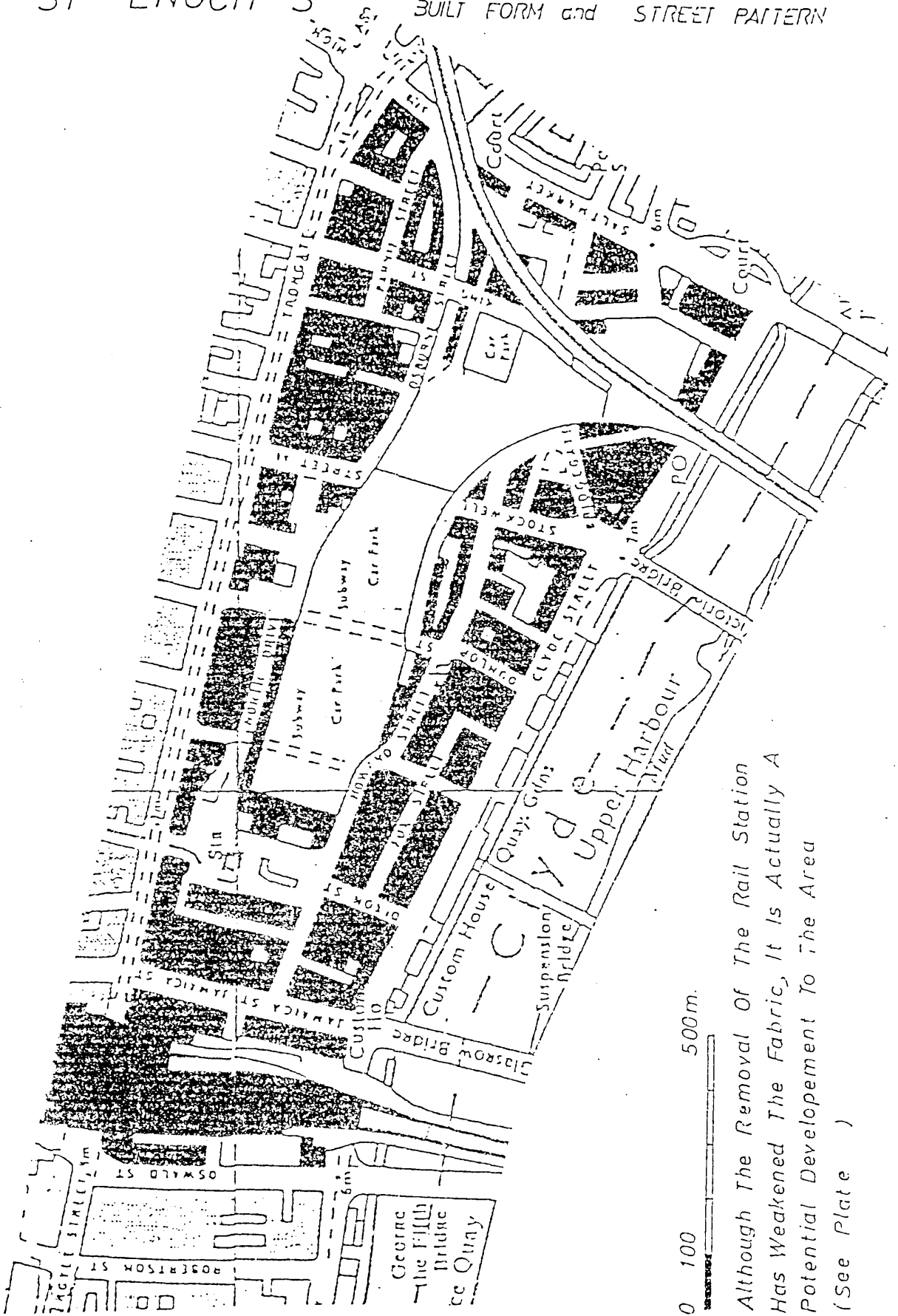
The area contains some fine buildings, for example, the old fishmarket, but much of the remaining built stock is in poor and deteriorating condition especially to the south of St Enoch's site. Despite its present appearance, this area is on the threshold of great improvement associated with St Enoch's site and the river frontage (see plates 80 and 81).



ST ENOCH'S
IN
THE CITY CENTRE

ST ENOCH'S

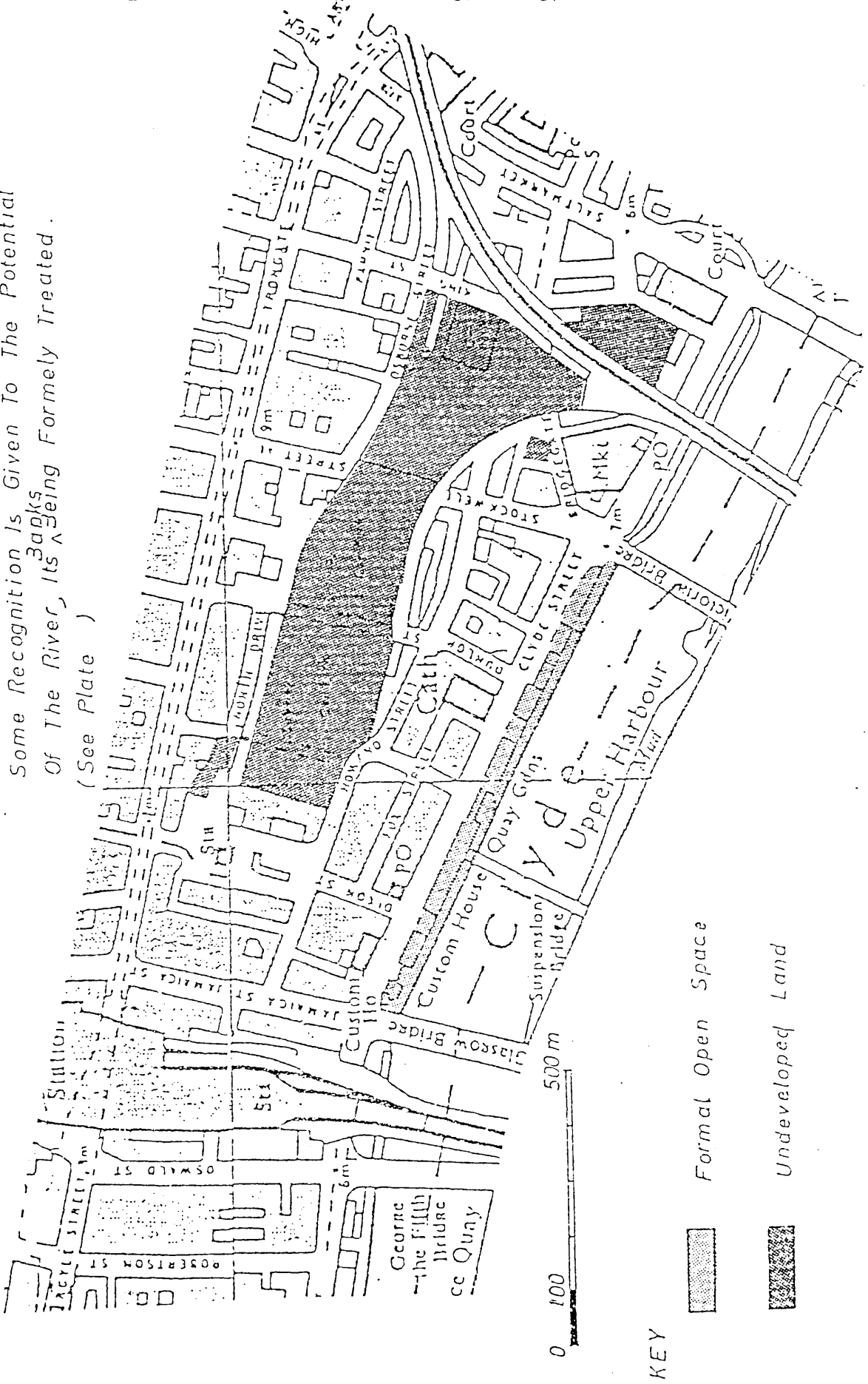
BUILT FORM and STREET PATTERN



Although The Removal Of The Rail Station
 Has Weakened The Fabric, It Is Actually A
 Potential Development To The Area
 (See Plate)

ST ENOCH'S OPEN SPACE

Some Recognition Is Given To The Potential
Of The River, Its Banks
(See Plate)



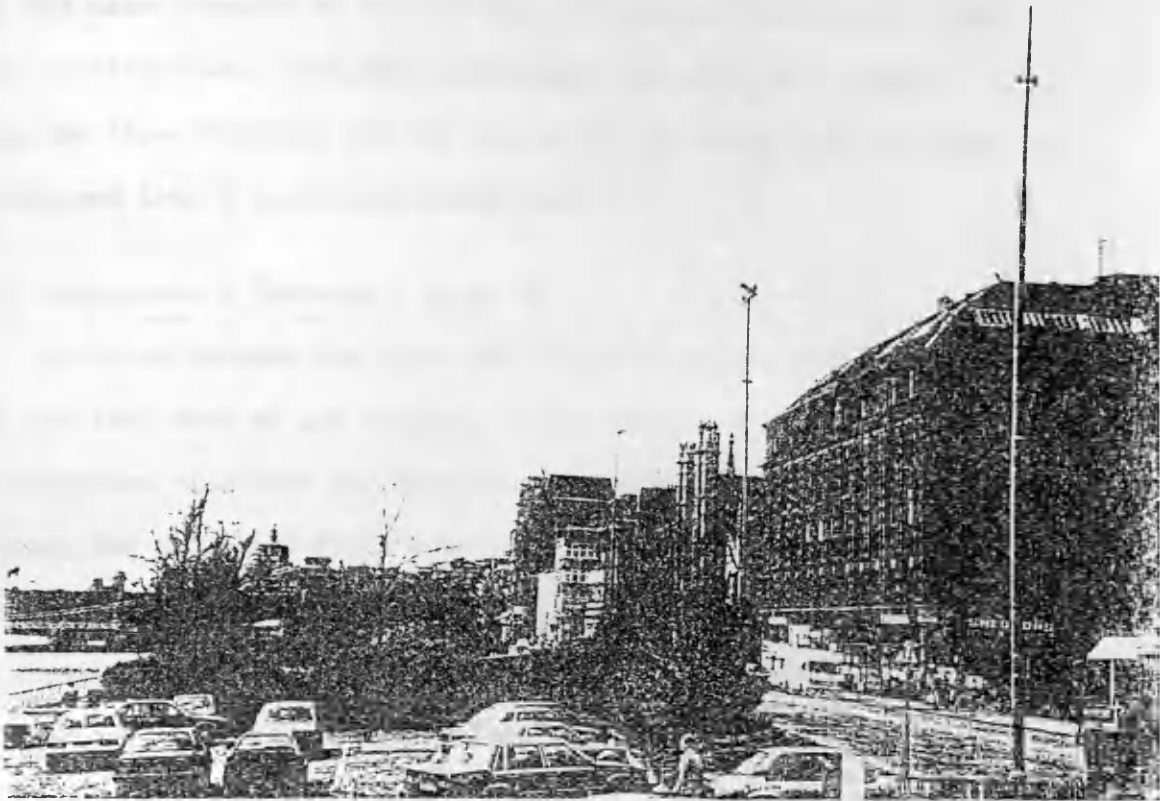
ST ENOCH'S OPEN SPACE and NATURAL ASSET



*St Enoch s Presents Two Major Assets ;
First , The River Clyde
Second , A Promenade , The Custom House Quay*



ST ENOCH'S BUILT FORM



St Enoch's Built Form Presents :
First A Continuously Built Up Outer Building Frontage
Second A Hollow Centre
(Refer To Respective Lay Out On Plate)



An imaginative scheme of redevelopment on the St Enoch's site has been promoted by the Scottish Development Agency and is now under construction. Important improvement has also taken place along the River frontage and the former Customs House Quay has been transformed into a landscaped promenade.

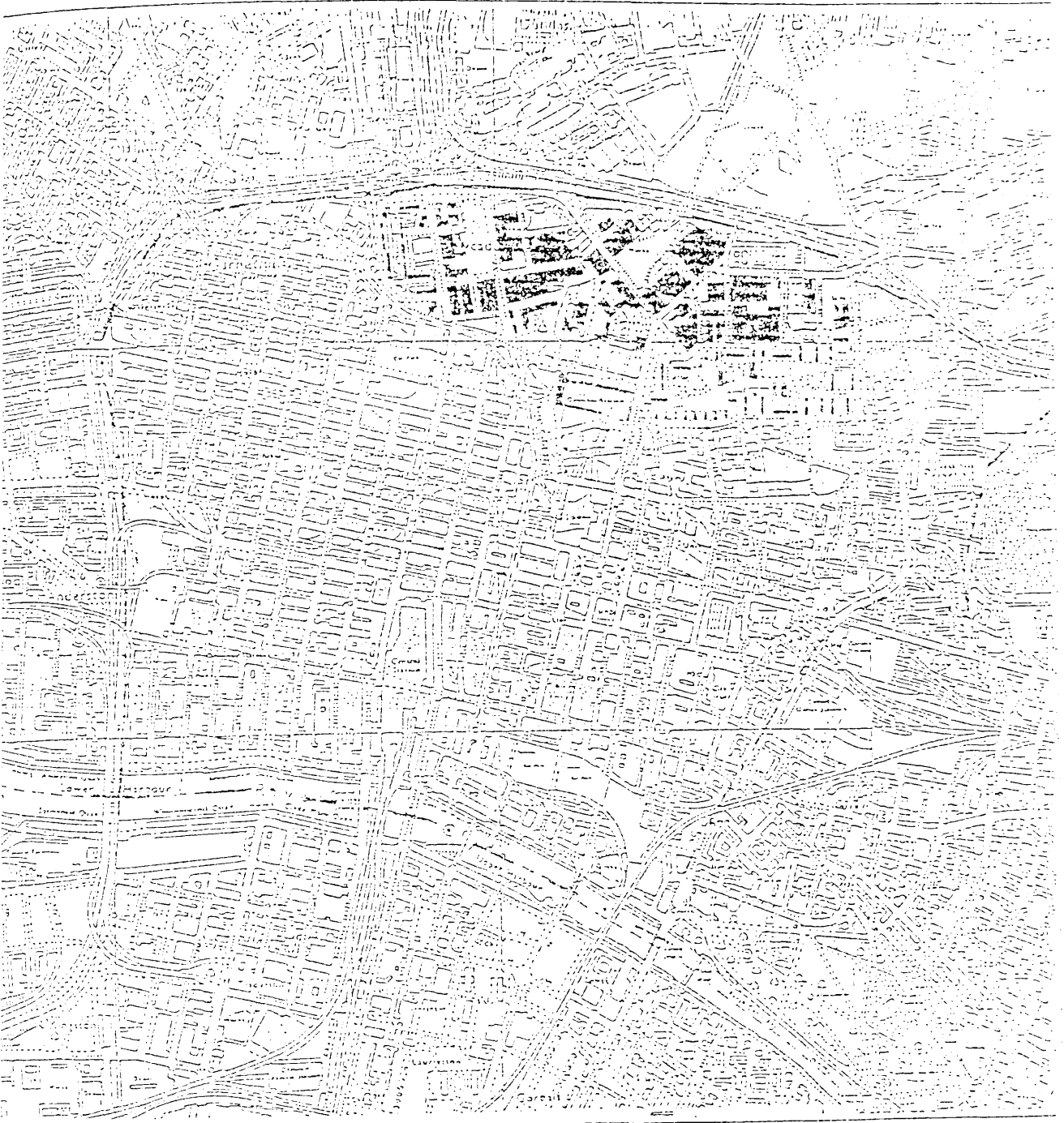
3.3.7 Cowcaddens & Townhead : plate 82

Situated between the university (3.3.9) and the motorway, the area has lost much of its original street pattern as a result of the extensive clearance and demolition to create space to the motorway and apply the CDA's policies (c.f. 1.4). The result is an amorphous collection of buildings and disused land with one or two exceptions. The buildings comprise small workshops and stores and new housing. (see plates 83 and 84).

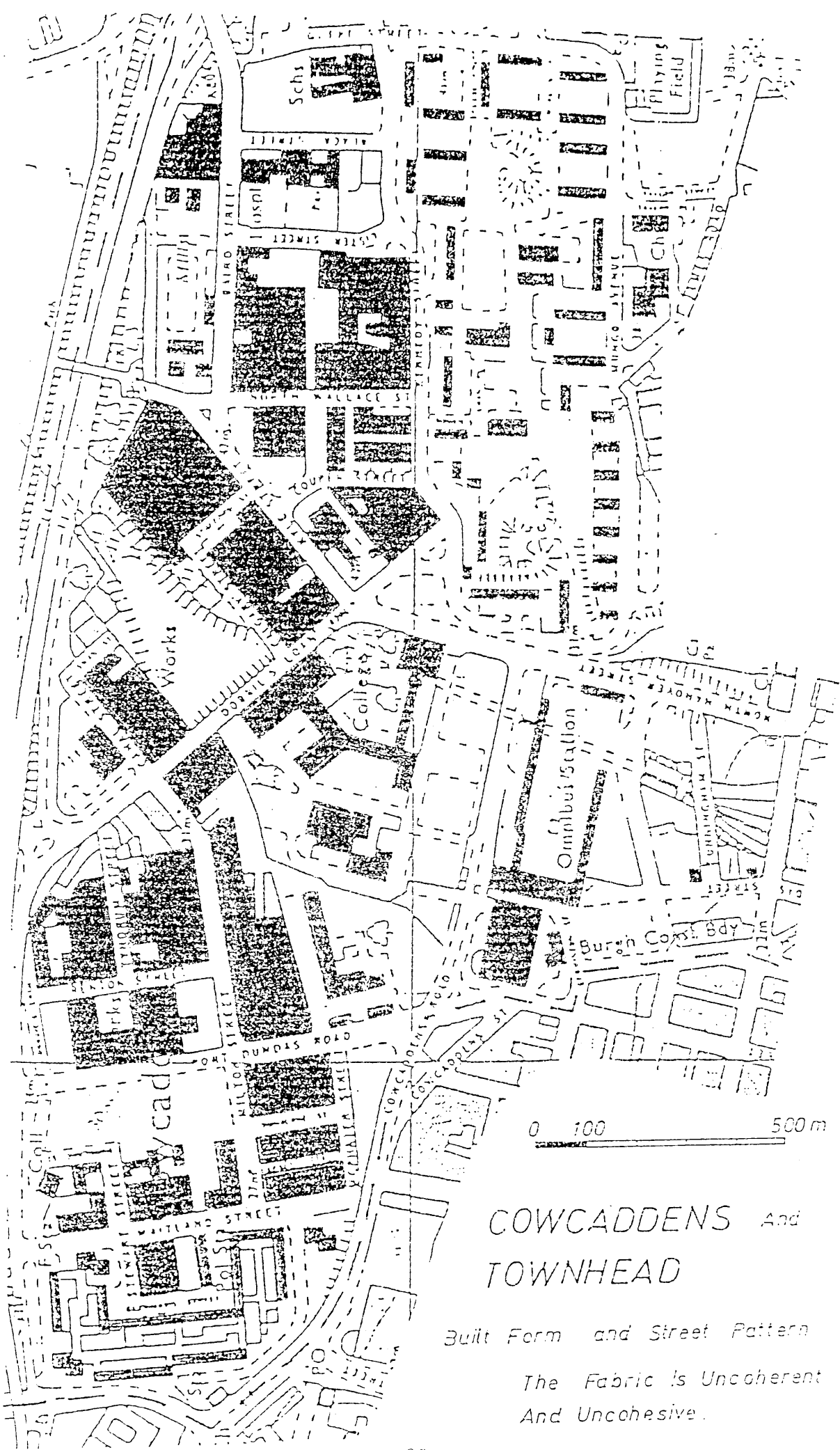
The general scene is almost that of a bleak wasteland with occasional patches of new windswept landscape. There is little of any real urban quality and certainly no feeling that this area is part of the city centre.

3.3.8 Garnethill : see plate 85)

This unique area lies between Sauchiehall Street and the motorway at the north west corner of the city centre. As its name implies, it is a hill with steep slopes on all sides and the superimposed street pattern follows the prevalent general grid (plates 86 and 87).



COWCADDENS AND TOWNHEAD
IN
THE CITY CENTRE



COWCADDENS And TOWNHEAD

Built Form and Street Pattern
The Fabric Is Uncoherent And Uncohesive.

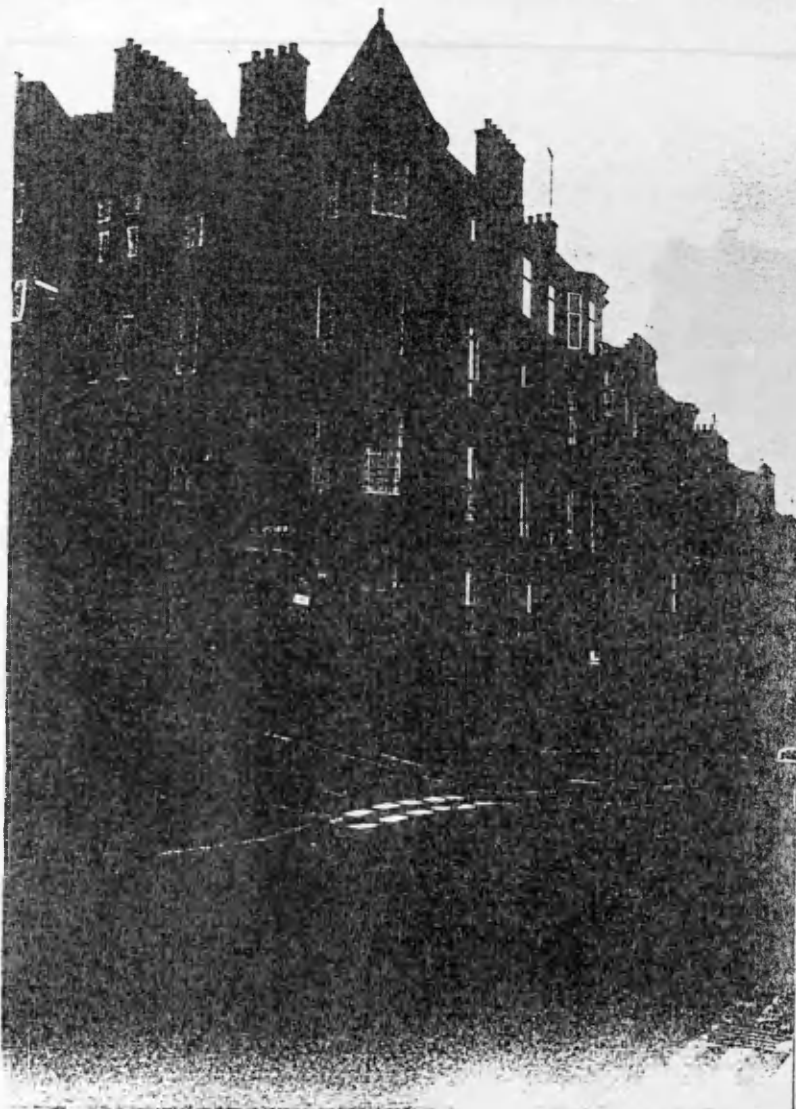


GARNETHILL
IN
THE CITY CENTRE

GARNETHILL

GARNETHILL : BUILT FORM

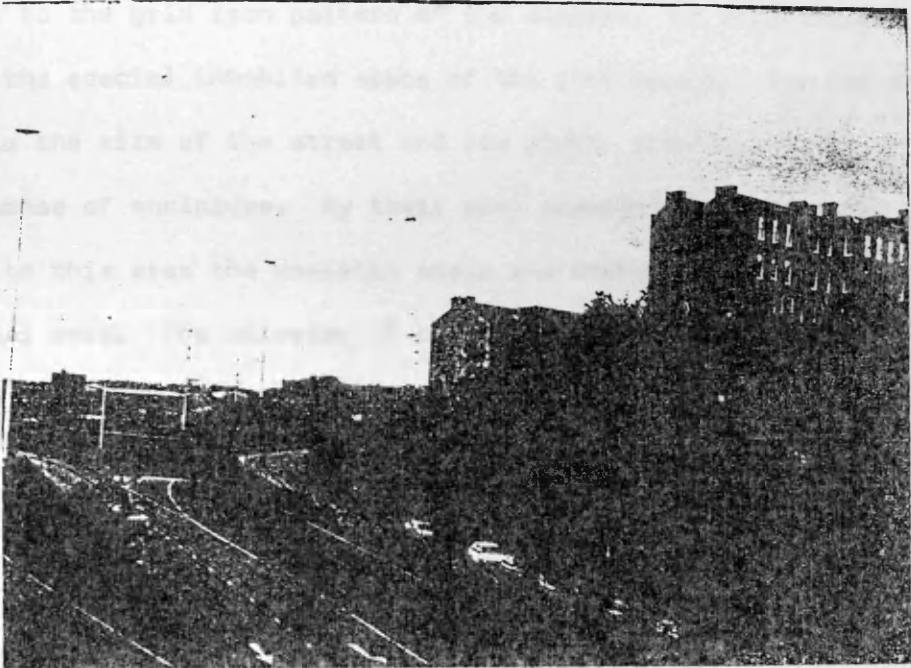
VIEW OF THE AREA FROM



*Garnethill Remains One Of
The Few Areas Of The
City Centre Which Built
Form Is Composed Of The
Tenement Block*

GARNETHILL

VIEW OF THE AREA EDGE



View Garnethill Termination On The Motorway

*Ragged Is The Fabric Torn Is The Built Form
Vivid Consequences Of The Motorway Construction*

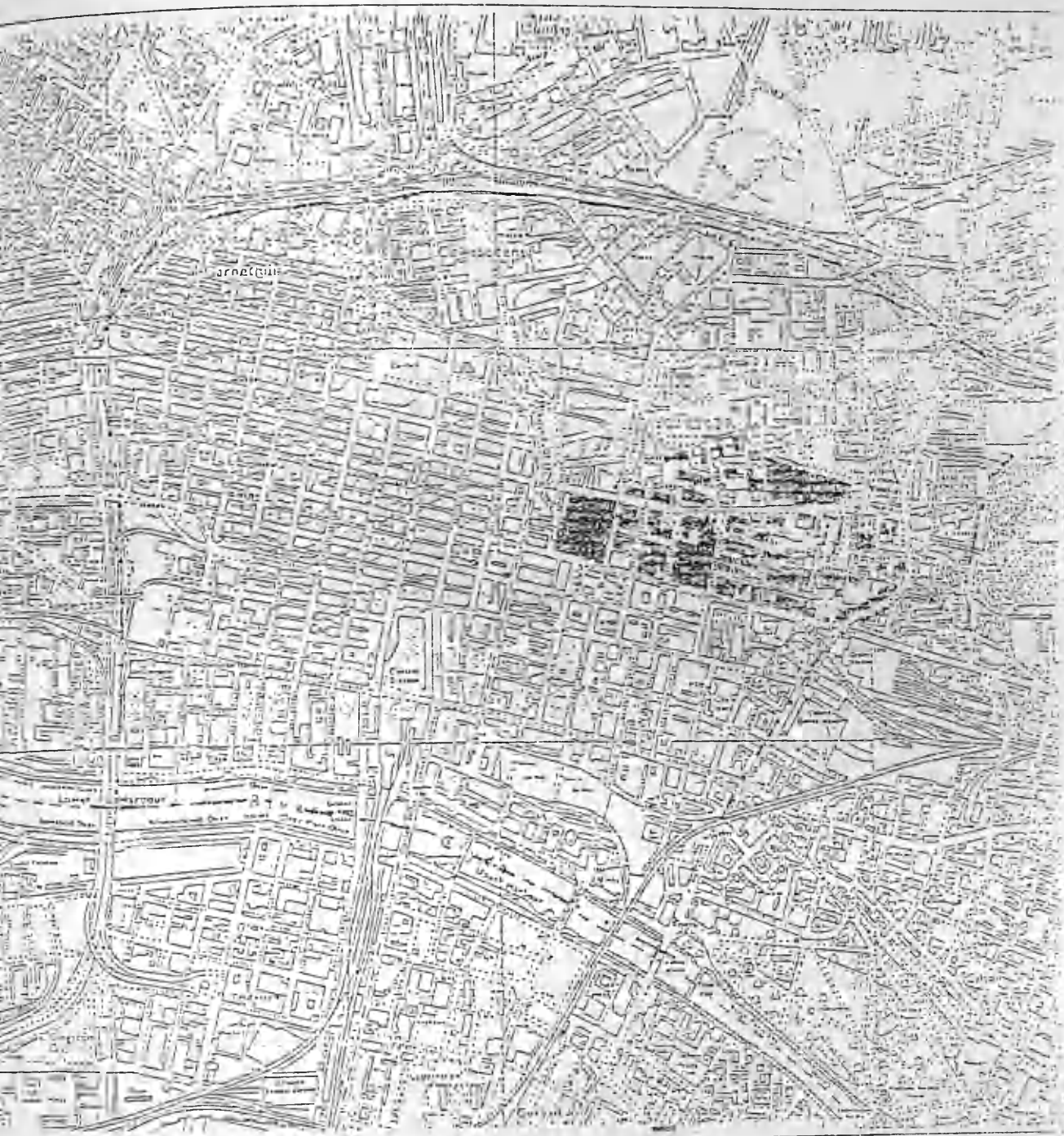
The area contains some of the finest buildings in central Glasgow such as the outstanding Mackintosh School of Art as well as several churches. It is also one of the city's centre last precious tenemental area (see plate 88). Of three or four storeys high sometimes with a sunk basement, the tenement offers a perfect representation of the urban housing block type. It provides varied housing spaces which the city life demands. It is the direct response to the grid iron pattern of the streets. It encloses and defines the special inhabited space of the city centre. Its facades relate to the size of the street and its width, resulting in a unique sense of enclosure. By their very presence, the tenements confere to this area the domestic scale and character of any tenemental area. The interior of one of these tenements on Garnathill has been preserved in all its authentic detail.

The physical weakness of this area is its promiscuity to the motorway and its ragged edge adjacent to the motorway (plate 89).

3.3.9 Strathclyde University : plate 90

This area lies on the north sides of St George Street viz on the northern edge of the Merchant City. Its identity derives essentially from the university and colleges which occupy most of the land (plates 91 and 92).

The area might be regarded as an educational precinct but there is little adhesion in the layout and too many holes in the varied shapes of disused or semi derelict land to have the physical qualities of a precinct.



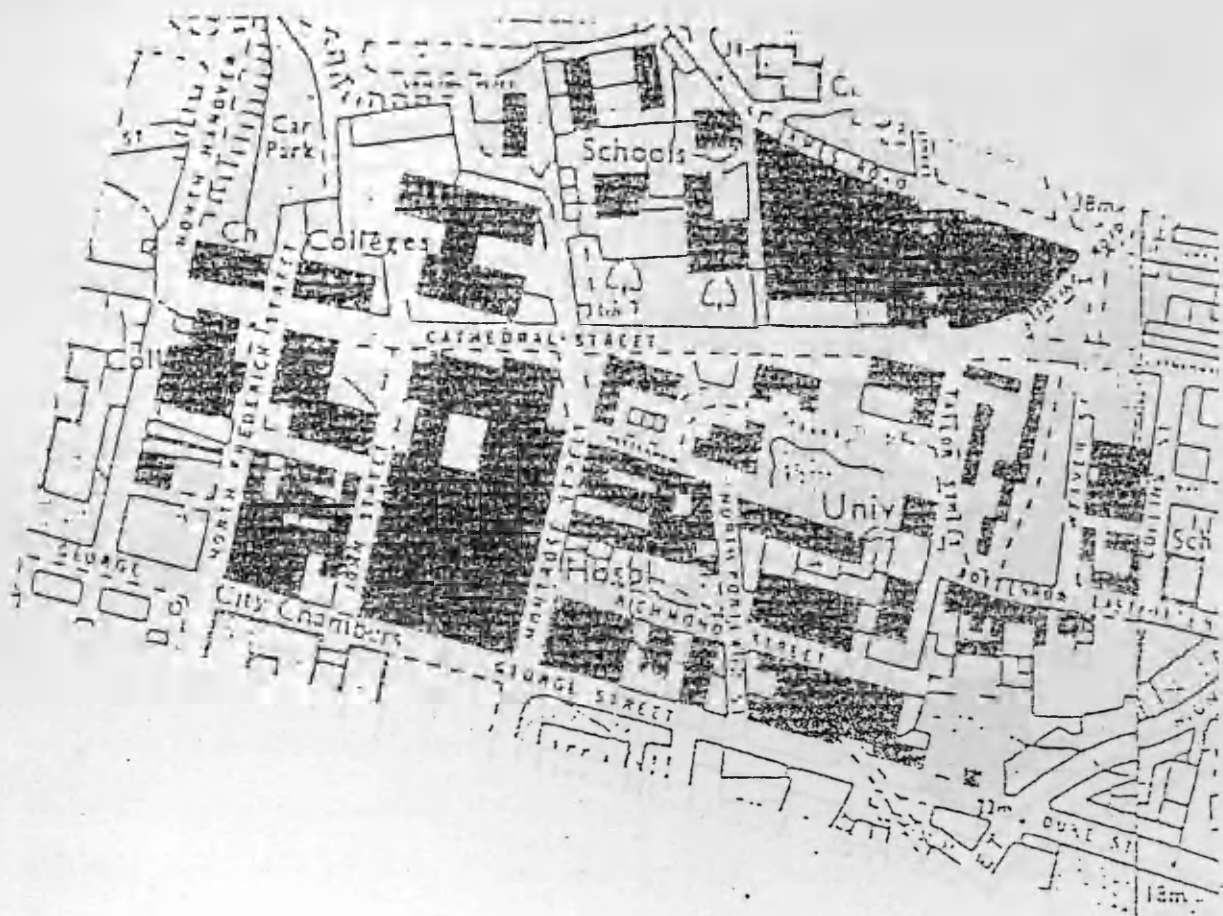
STRATHCLYDE UNIVERSITY

IN

THE CITY CENTRE

STRATHCLYDE UNIVERSITY

BUILT FORM and STREET PATTERN



0 100 500

An Irregular Street Pattern And A
Heterogeneous Built Form Are The
Characteristics Of This Area

STRATHCLYDE UNIVERSITY: OPEN SPACE



KEY



Formal Open Space



Undeveloped Land

The piecemeal nature by which the buildings responded to the rapid growth of higher education has allowed this important area to develop in an unconstructive and incoherent fashion. The buildings themselves are mostly of multi storey construction and constitute little if anything to such urban quality as remains. Their scale and character divorce them from the prevailing character of the city centre, south of this area. However because of the important role it plays in this pattern as an educational precinct, it nevertheless remains part of the city centre.

3.3.10 The Cathedral precinct : see plate 93

This area is the site of the original and earliest phase of the development of the city as a religious centre. Only two buildings from that age remain, the Cathedral of St Mungo and the Provand's Lordship, resulting from the extensive redevelopment during the 19th Century. At present the area is still subject to uncertainty and change because of major road building proposals (plates 94 and 95).

Actually the Cathedral and the Royal Infirmary form the two main built components which enclose the Cathedral precinct, undeveloped open space bound by a heavy traffic artery, High Street (96 and 97).

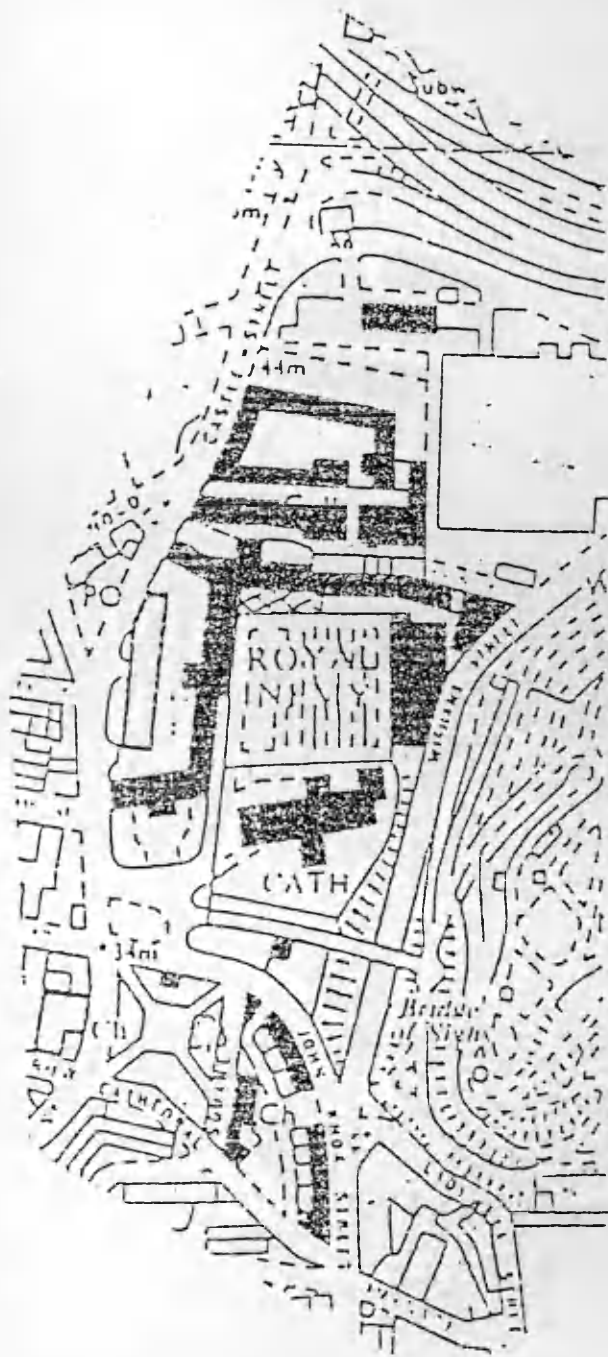
At present the District Council is studying a variety of issues including a pedestrianisation, future traffic flows in order to develop the precinct as a major place to visit. From being an area of change and uncertainty it will develop as a major tourist attraction.



THE CATHEDRAL PRECINCT
IN
THE CITY CENTRE

THE CATHEDRAL PRECINCT

BUILT FORM and STREET PATTERN



0 100 500m

THE CATHEDRAL PRECINCT

OF ...

THE CATHEDRAL PRECINCT

OPEN SPACE and BUILT FORM



The Royal Infirmary And The Cathedral Are the Principal Built Components, Also City Landmarks, Of The Cathedral Precinct.



plate 56

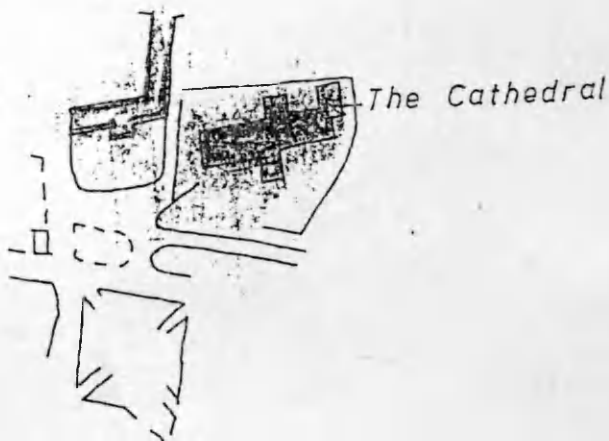
plate 57

THE CATHEDRAL PRECINCT

THE CATHEDRAL



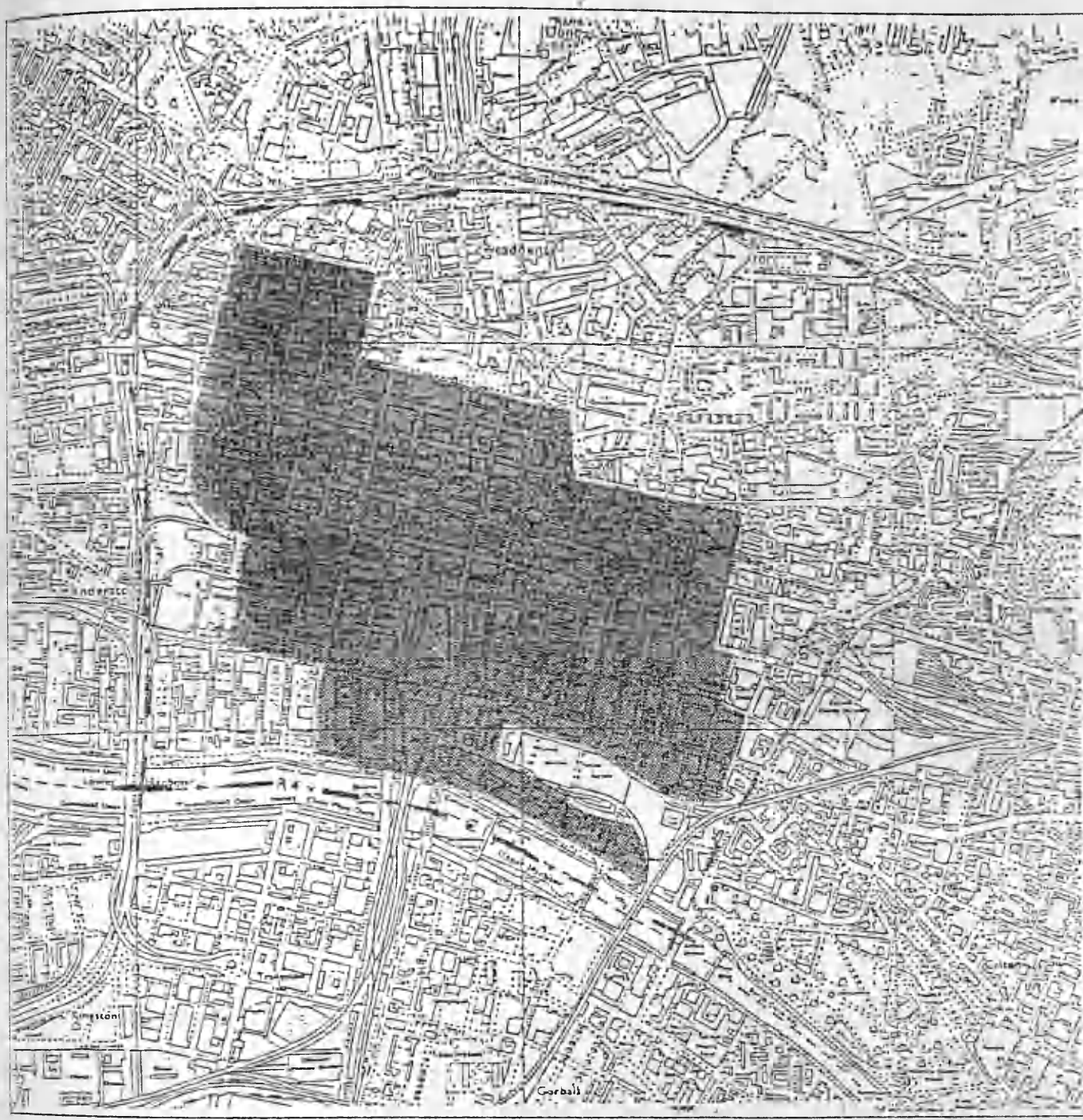
*Although Standing In An Uncohesive Area
The Cathedral Still Remains A Historical
Landmark To The City Centre And The
City As A Whole .*



3.4 Summary



In this assessment of the physical characteristics we have noted a number of qualities which help to sustain the life of the city centre, its small grained pattern of streets and small open spaces and reasonably consistent scale and the architectural quality that derives mainly from its great Victorian past. We also have noted some deficiencies or defects in the physical qualities, especially in respect to two factors, the destructive effects of the motorway and the neglect of the river. There is also one social factor of importance viz the considerable decrease in a resident population within the city centre.

Before considering positive ideas for the future development, we shall discuss in the next chapter recent policies on the part of Glasgow District Council for shaping the future of the city centre.



THE COHESIVE CENTRE

KEY

-  The Structured Inner Centre
-  The Decaying Fringe Areas

Compared With Those Of The Economic Core Of Plate 34 The Present Boundary Of The Structured Centre Encompasses More Of Glasgow City Centre Fabric.
 plate 98

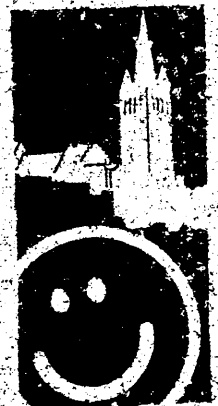
REFERENCES

- 18 Glasgow District Council
1983 Glasgow City Centre Local Plan
- 19 Glasgow District Council
1984 Glasgow District Plan

CHAPTER FOUR

GLASGOW CITY CENTRE

PRESENT PRESCRIPTIONS



CHAPTER 4 : PRESENT POLICIES AND ACTIONS

- 4.1 : Introduction
- 4.2 : 1975 - 1983 planning policies
 - 4.2.1 : The 1975 Glasgow Central Area Plan
 - 4.2.2 : The 1983 Glasgow Central Area Plan
 - 4.2.3 : Comment
- 4.3 : 1984 : Glasgow District Council Plan
 - 4.3.1 : Development
 - 4.3.2 : Comment
- 4.4 : 1985 : Glasgow Action
 - 4.4.1 : Development
 - 4.4.2 : Comment
- 4.5 : Summary

CHAPTER 4 : PRESENT POLICIES AND ACTIONS

4.1 Introduction

The preceding functional and physical assessments are intended to summarise the nature of Glasgow city centre and to identify areas of growth as well as areas of stress and decay. We now need to examine briefly official policies by the Planning Authority which have been adopted in response to its perception of the problems of the city centre. Recent policies can be summarised in three phases:-

- 1975 - 1983 planning policies
- 1984 central area plan
- 1985 Glasgow Action

4.2 1975 - 1983 Planning Policies

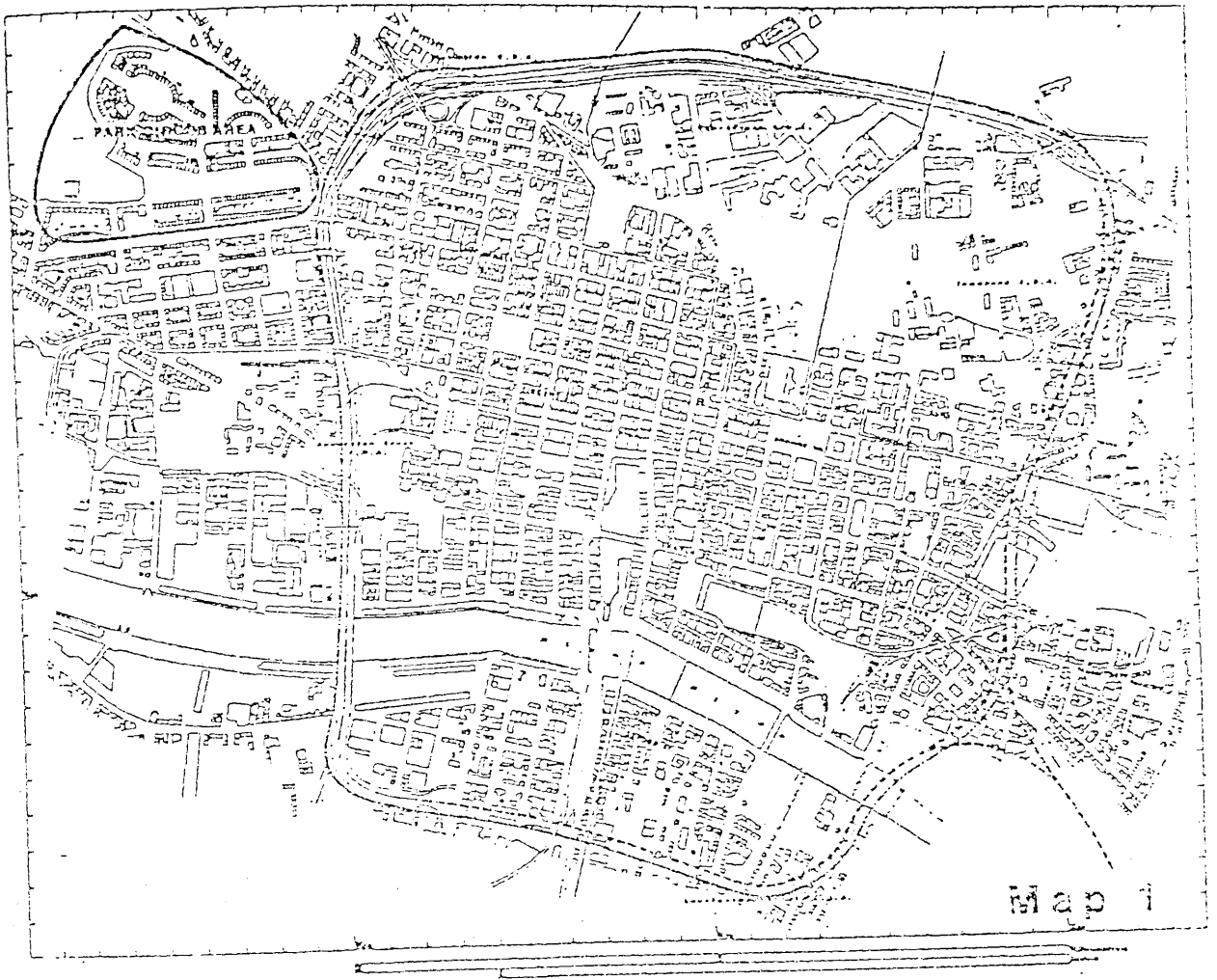
Planning policies in these past ten years have been concerned with three primary objectives :-

1. To reduce the increasing unemployment, ie more jobs
2. To tackle urban deprivation and environmental decay.
3. To encourage more people to live in the city centre.

These policies are reflected in two official documents published by Glasgow District Council viz the Glasgow Central Area Plan of 1975 and the revised Plan of 1983.

4.2.1 The 1975 Glasgow Central Area Plan

This plan was prepared at a time when a major reorganisation of local government in Scotland was taking effect. It was published at the time of discovery of North Sea oil which was expected to create an economic boom from which industry, especially in the west of Scotland would benefit.



THE 1975 CITY CENTRE BOUNDARY

The City Centre Is Enclosed By The Motorway Box - This Letter
Encompasses Also The Area South Of The River

In this Plan an attempt was made to reconcile the conflicting demands on parts of the central area while recognising that other parts were falling into disuse. The latter were called "areas of need" and were the subject of a separate Report which was submitted to the Secretary of State in January 1974; this special Report was prepared in response to a fear that the situation in Glasgow was so serious that there could be an upsurge of social and physical unrest and further unplanned migration would occur unless positive action was taken.

The 1975 Report covered the area illustrated in plate 99 its essential features can be summarised as follows :-

- a) Transportation and Accessibility : to improve traffic flow by means of major road-works as well as promoting the segregation, where possible, between pedestrians and vehicular traffic. It is indeed in this local plan that appeared proposals for the motorway box (refer to plate 84).
- b) Variety of Activities : these to be maintained or developed in the city centre, aimed at promoting not only as full and varied a range of employment as possible, but the general activity and attractiveness of the centre.
- c) Conservation and Townscape : care and protection of the existing heritage not only in respect to the archeological quality but to the whole townscape of the central area.
- d) Comprehensive Redevelopment : these policies to be scaled down but work within the Anderston, Cowcaddens and Townhead CDAs to be continued.

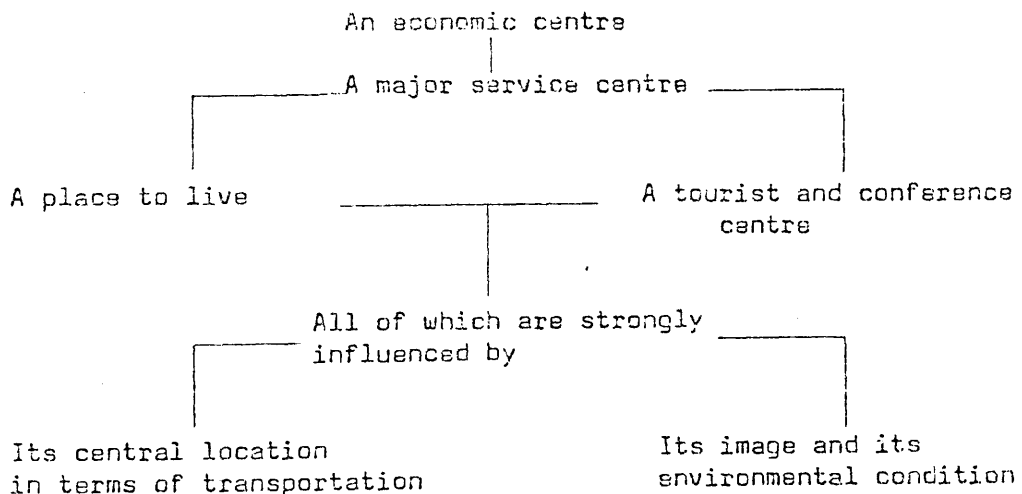
In this 1975 Plan, it can be seen that the planners were working in a mood of optimism in the being that the situation would be changing for the better. It was thought that industrial decline could be relatively easily arrested by the new source of wealth emanating from North Sea Oil. Thus these policies were reflected in an "ambitious" plan for the whole of the central area of the city, combining conservation for the inner parts and redevelopment for the outer parts. However, cuts in the public expenditure came^e soon to slacken their enthusiasm.

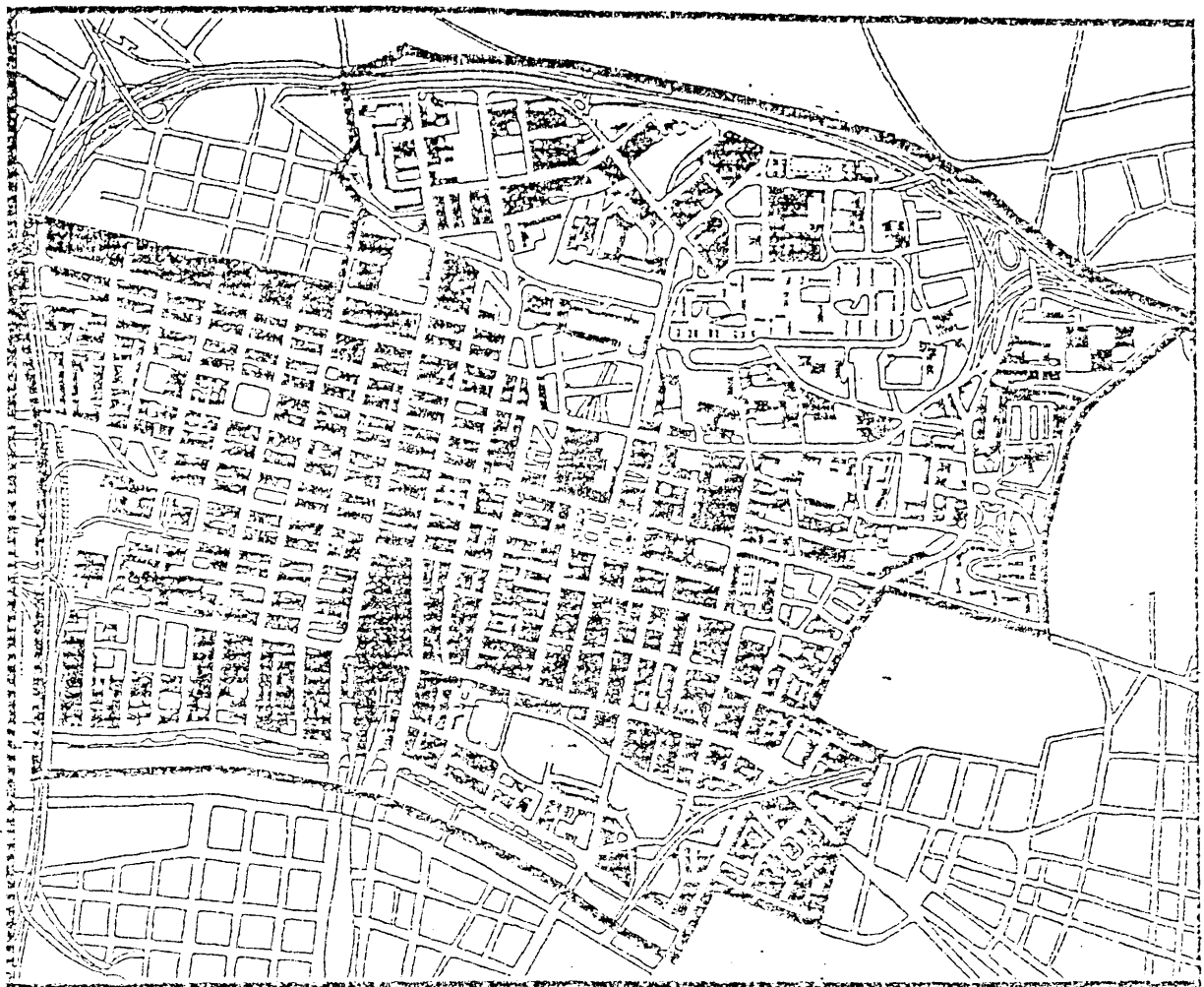
4.2.2 The 1983 Glasgow Central Area Plan (plate 100.)

This revised Plan for the central area focussed on two major problems :-

- social and economic
- physical and environmental

The main objectives can be illustrated in the following chart :-





THE 1984 CITY CENTRE BOUNDARY

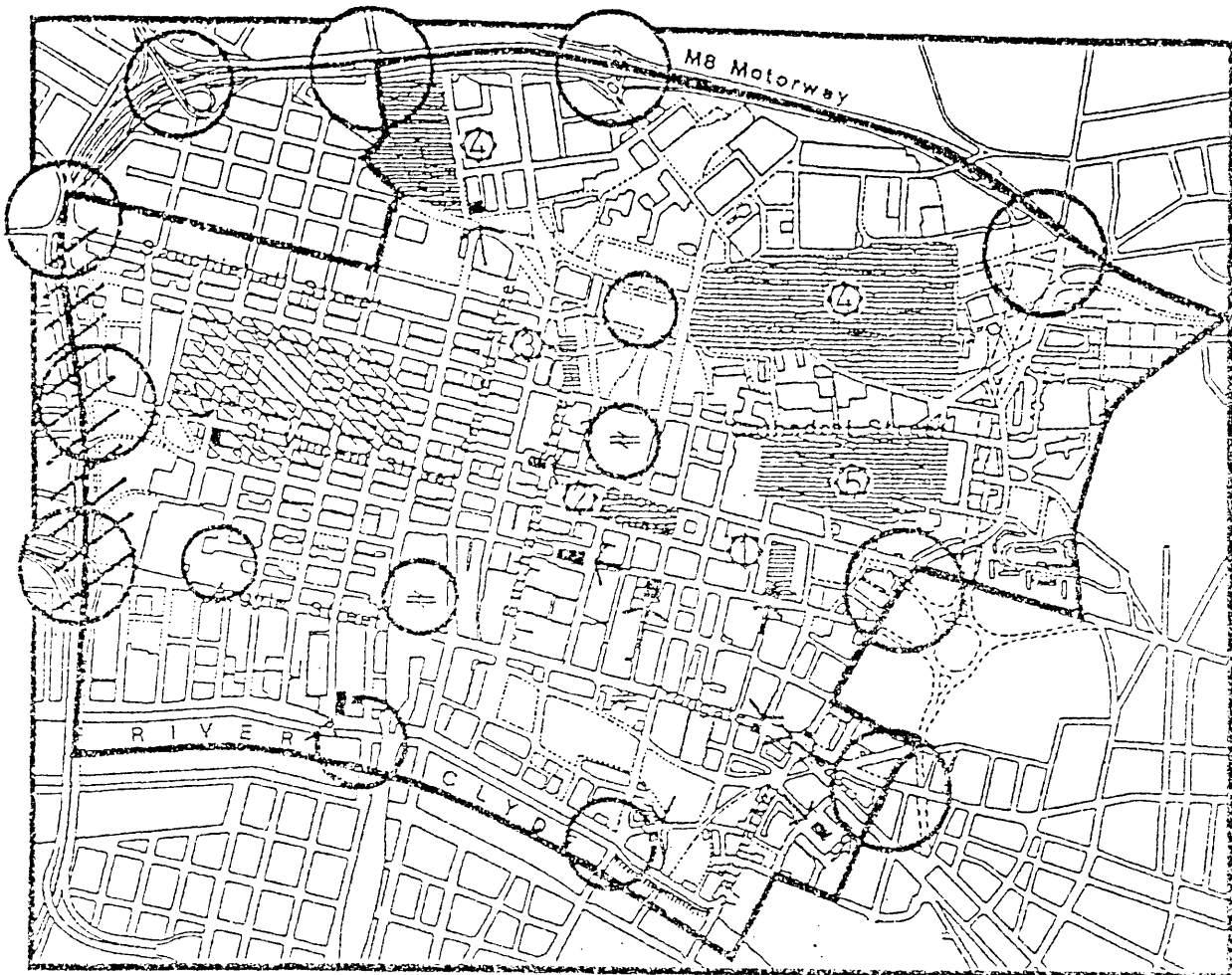
*This Boundary Excludes The Area South Of The River
As Well As Garnethill In The Northern Corner .
In Both Local Plans , 1975(cf plate 99) Or The Above 1984 ,
No Reasons Are Provided , Either Related To The Functional
Or The Physical Characteristics Of The City Centre , To
Explain The Designation Of The Boundary.*

Whilst this Report thus concentrates on economic objectives, it attempts to link them to an assessment of the major urban and architectural qualities from which the image of the city derives. The objectives can be summarised as follows :-

- Policy 1 : A programme of environmental improvement to be drawn up geared to supporting job creation and investment in the public and private sectors.
- Policy 2 : Promotion of the city for office location especially the "headquarters" type of development.
- Policy 3 : Manufacturing activities linked or dependent on major offices/business services and shopping to be encouraged to remain in the central area.
- Policy 4 : Improvement of shopping environment and promotion of the city as a high quality shopping centre
- Policy 5 : The Broomielaw area to be designated as a commercial improvement area, new housing.

With regard to the first of these objectives (Policy 1), the following areas were considered as special project areas where an intensive and comprehensive approach to their improvement or development is necessary, they are :-

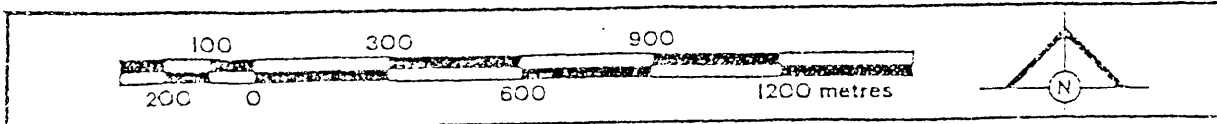
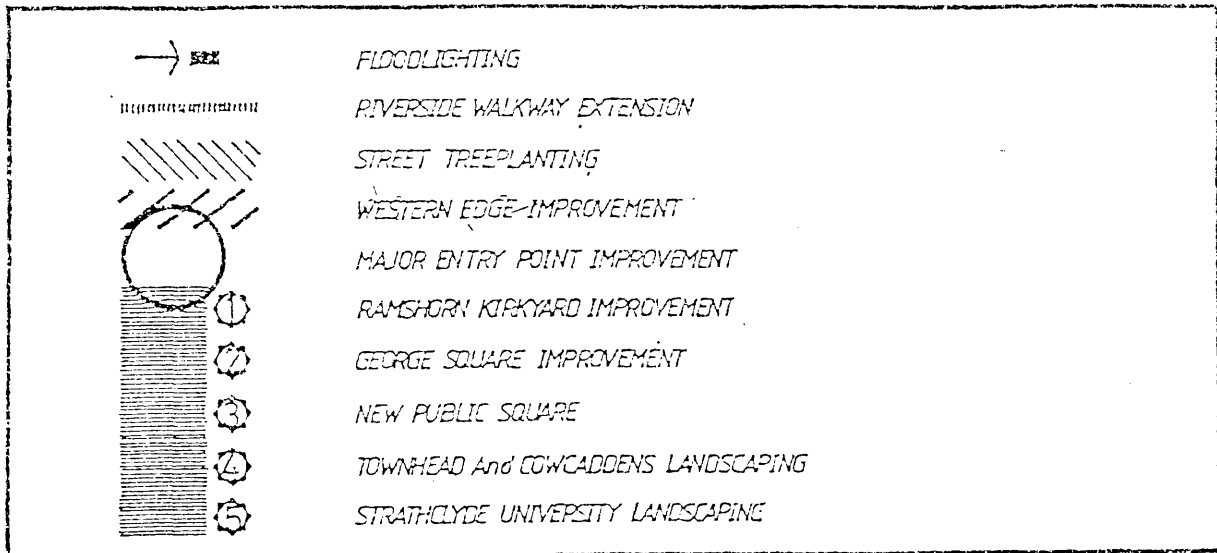
- The Broomielaw
- St Enoch's
- Merchant City
- Cathedral precinct



LOCAL PLAN BOUNDARY

Year 1983

OPPORTUNITIES



These environmental improvement policies were to be supported by the publication of broad design guides or opportunities to secure the quality of environment within the central area especially

- a) the retention of the scale and character of the existing street pattern, building line, continuity of frontage and the basic character of the street facades.
- b) encouragement of sensitive development of infill and gap sites with particular regard to the scale of buildings, treatment of exposed gable walls, screen planting and boundary improvement. (see plate 101).

4.2.3 Comments

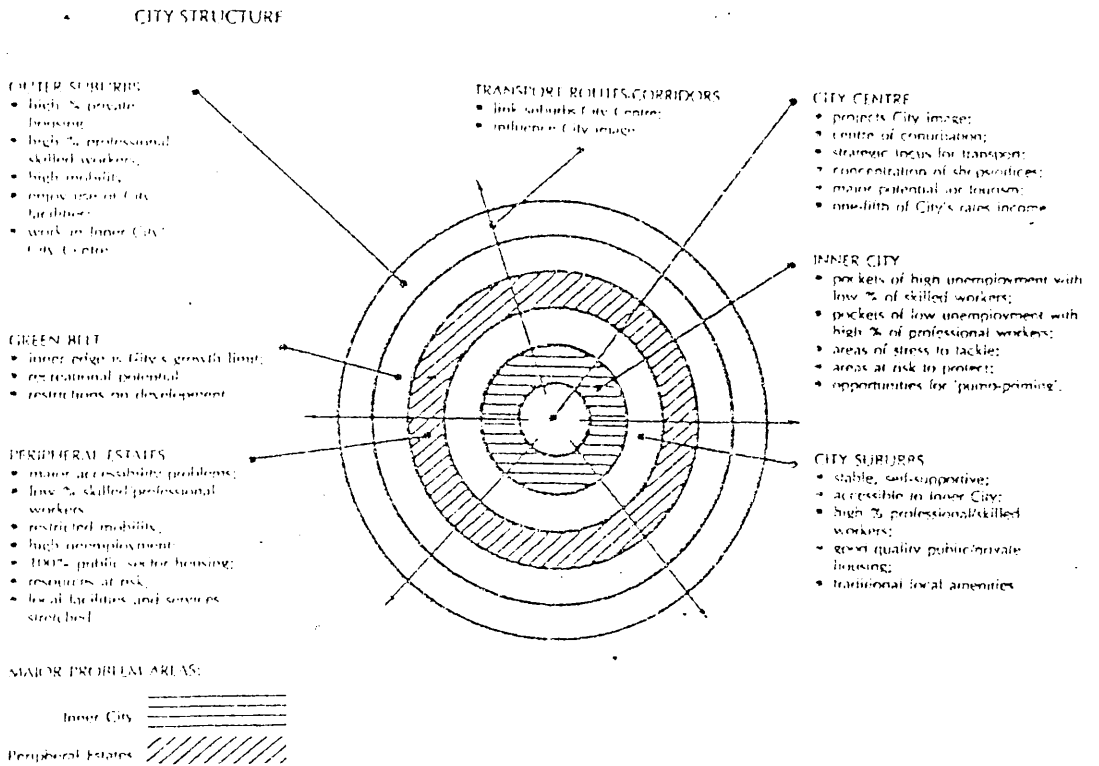
As in so many planning reports, ideas and policies are seen almost exclusively in two dimensions. Little or no consideration was given to the visual qualities to be achieved in implementing the plan. Most noticeable is the absence of any recommendation for the Charing Cross/Anderston Cross area which to this day remains in great need of an urban design policy. In making these comments it should be said that the 1983 Report is much more specific and positive than the previous Report of 1975.

4.3 The 1984 Plan

This Plan covers a wider area than the city centre -- see plate 102. However, it discussed the city centre in the following terms :-

"It is the area of maximum accessibility by both public and private transport, to the greatest number of people of Glasgow and Strathclyde Region. The city centre has developed as a major service centre for west central Scotland providing the largest concentration and variety of shops, three quarters of the office floorspace within the Strathclyde Region, a complete range of further educational establishments, a variety of major medical facilities, theatres and many leisure facilities."

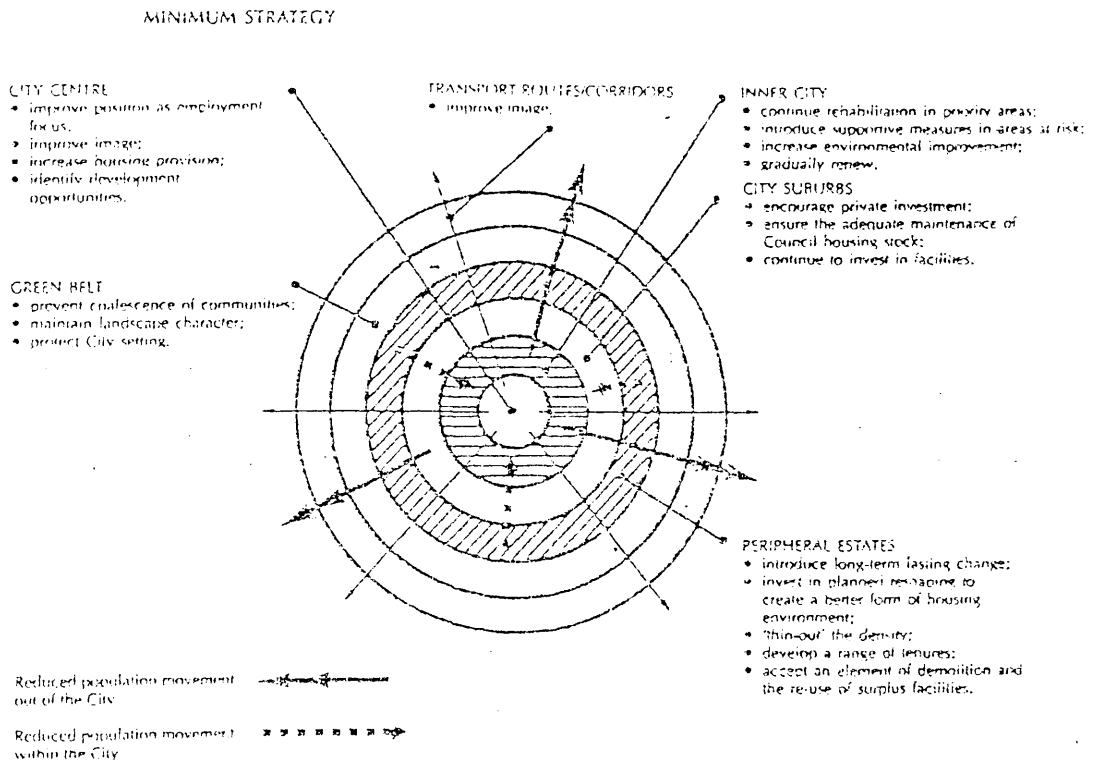
1984 Glasgow District Local Plan
 — CITY STRUCTURE —



*It Recognises The City Centre Potentials
 As Focus Of Any Action To Slacken
 Economic Decline And Physical Decay*

1984 Glasgow District Local Plan

_ STRATEGY _



This Strategy Combines Both Economic And Physical Actions But With No Highlights Concerning The Visual Aspects Of The Latter

The Report adopted a minimum strategy (Refer to plate 103). It recognised that the large areas of vacant sites are difficult to develop and costly to maintain as open space. It also acknowledged that whilst the fabric of the city is deteriorating, there is insufficient finance to maintain or improve existing properties let alone develop new ones. The Report thus concluded that resources should be concentrated on supporting the 'good' parts in Glasgow and to capitalise on their attractiveness. The main recommendations are therefore concentrated on the city centre (see plate 104), and specifically on an idea of linear development which is referred to as a 'string of pearls'. There are three lines in this idea:-
(see Plate 104)

- Line A : Along the River Clyde from Queen's Dock to Glasgow Green.
- Line B : Along Buchanan Street from the site of the proposed commercial/conference centre at Buchanan Street/ Sauchiehall Street to the site of the other proposed commercial/cultural centre at the site of St Enoch's station.
- Line C : From the Cathedral precinct to Glasgow Green.

4.3.2 Comment

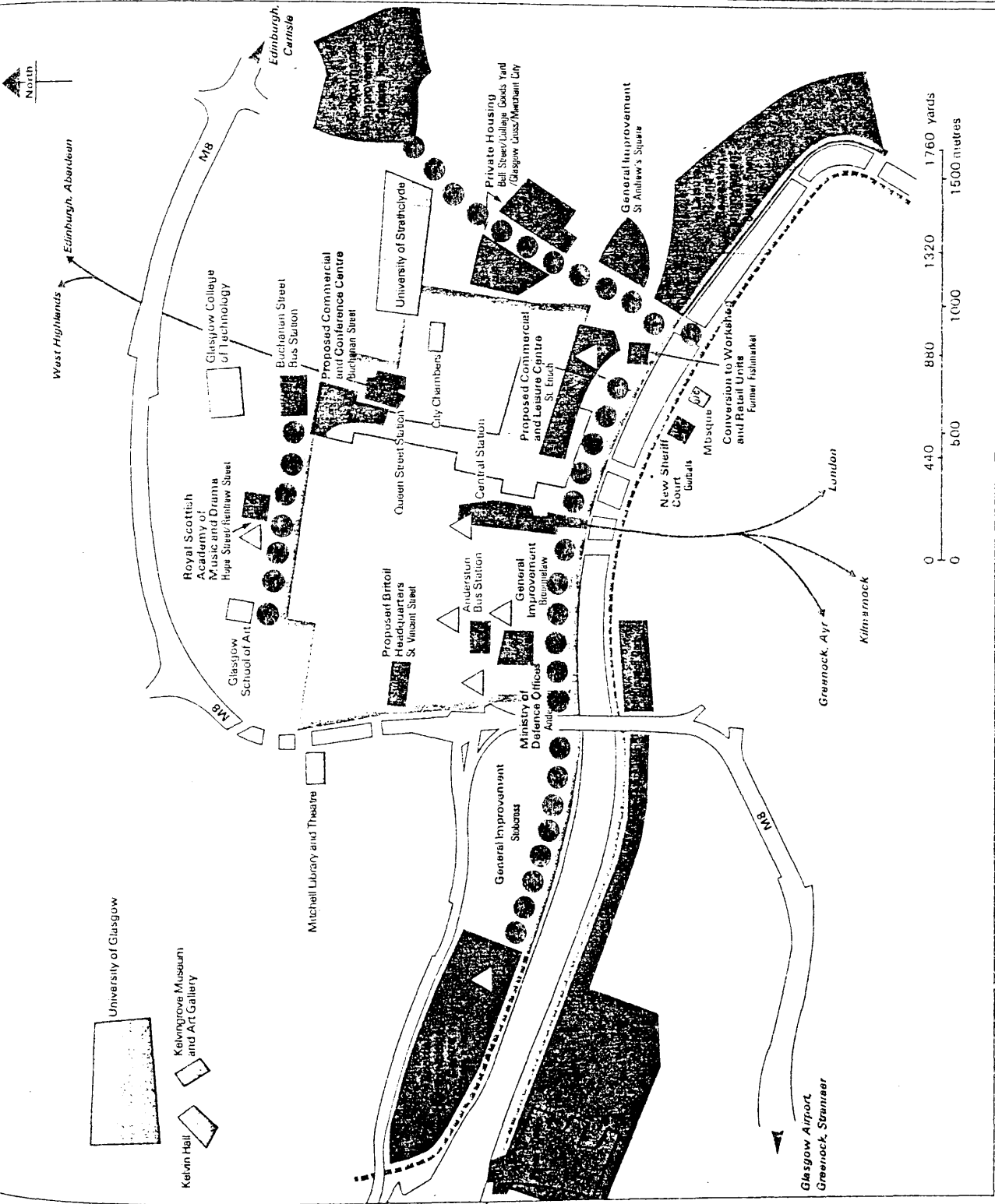
The idea of a 'string of pearls' concentrated mainly onto the eastern and southern parts of the city centre, tackling some areas of need and leaving the western parts, especially the motorway untouched.

THE CITY CENTRE

String of pearls development strategy

- Key lines of development
- Main development sites
- ▨ Main commercial area
- Principal shopping core
- ▨ Prime office area
- Key public, educational buildings
- ▲ Major hotels
- △ Existing
- △ Proposed
- Clyde walkways
- Existing
- - - Proposed
- Bus stations, Rail termini
- Rail links
- Under Construction
- u c

DISTRICT PLAN 1984
 City of Glasgow
 District Council
 Planning Department



It capitalises mainly on the potential development of the north/south spine, i.e. Buchanan Street, the part which is considered to have the greatest potential for development of high quality.

4.4 Glasgow Action

4.4.1 In October 1985 the Scottish Development Agency published a Report entitled 'The Potential of Glasgow City Centre' which describes the outcome of a study concerning the City centre and the development of its service industries. To quote

"The programme of initiatives outlined in this Summary Report will not only help build Glasgow's service sector and revitalise the city centre, but will provide the basis for a sustainable economic role for the city"

The SDA Report put forward four objectives to achieve "fundamental, self-sustaining change in service industry :-

1. Make Glasgow more attractive as a business base, eg by drawing more Headquarter functions to the city.
2. Make Glasgow more attractive to people to live and work in.
3. Create an entrepreneurial environment by concentrating on sectors in which Glasgow has basic strengths.
4. Promote Glasgow by giving it a new vision especially for those groups of people at senior management level. (plates 105 and 106).

The Report is unusual as it is a combination of an economic strategy related to studies by a firm of management consultants and an urban design strategy by Gordon Cullen which seeks to achieve a revitalised city centre. The strategy proposed is "to be achieved by a process of emphasis and manipulation rather than drastic surgery". (plate 107)

Consortium plans a £300m rebirth for Glasgow

BY ANDREW McCALLUM
Chief Reporter

PLANS unveiled for a £300m rebirth of Glasgow's Victorian inner city would turn it, among other things, into a new pop centre it was predicted yesterday.

The pop industry is seen as a wealth and employment creating source which could be exploited successfully.

The plans are the idea of Glasgow Action, a consortium of prominent business men and civic leaders headed by millionaire Sir Norman Macfarlane.

To promote the growth of the

pop industry in the city the consortium wants recording equipment for community centres, business training for promising young musicians, the establishment of management and marketing capabilities, and adequate live venues.

Mr David Macdonald, Glasgow Action director, is determined that what Liverpool did by accident through the Beatles in the sixties, Glasgow can do by design in the eighties.

Pop star Midge Ure, who belongs to the city, said: "This is one of the most exciting developments to take place in the UK pop scene in the past 20 years. Although it has a long

way to go yet I believe Glasgow Action can and will make it happen."

Mr Macdonald, 34, emphasised that the pop plans were only part of the ambitious scheme for the city.

More companies were being sought to set up headquarters in Glasgow as Britoil had done. Its new headquarters were being built in the city centre near the Greek Thomson church in St Vincent Street.

Sir Norman revealed yesterday that Britoil would give up to £1m for the restoration of the splendid, but crumbling, church.

The company's gift would be

matched by the Historic Buildings Council. A future role for the church could be as a concert and conference centre seating 600. Britoil wants its extensive basement as a sports centre for its employees.

Under the plan the city's other Greek Thomson church, in the Gorbals, will be saved from destruction and moved to the north end of Buchanan Street, which is to be given a new identity.

Sir Norman is hopeful that the Guinness conglomerate which recently took over Bells will establish a base in Glasgow. It has said it will have an office in Scotland but has yet to decide

between Glasgow and Edinburgh.

A new inner city is the idea of the Scottish Development Agency. The idea led to the formation of the 12-member Glasgow Action board, which also includes the Labour group leaders of Glasgow district and Strathclyde regional councils, Mrs Jean McFadden and Mr Dick Stewart.

Plans include developments at St Enoch Square, the Broomielaw, the much heralded merchant city centred around Ingram Street and the arching over with glass of the Buchanan Street precinct.

Dr Gordon Cullen, an expert

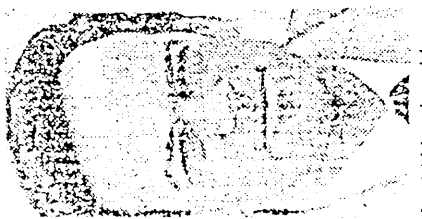
in urban design, who commissioned by the Scottish Government a "walled" bounded on the west and north by the M8, on the south by the river Clyde and stretching as far east as High Street.

"All too often development is just a synonym for destruction," he says. "However, in the case of Glasgow Action, the prospect of change will creatively build on existing strengths."

Under the plan Broomielaw will be part of a riverside chain of pleasure squares, new houses, shops, and amenities.

Editorial Comment — Page

*Mass Media And Marketing Are Two Instruments
Glasgow Action Uses To Promote Its Campaign
Possibly To Attract New Investments.
Not So Praising Is The Architectural Press Especially
Thus Concerning Dr Cullen Proposals*



David Macdonald



GLASGOW HERALD

ESTABLISHED 1783

SCOTLAND'S NEWSPAPER

An act of faith

BELIEVING in Glasgow Action, the main proposals for which were announced yesterday, is an act of faith. There exists a fund of good will for the venture but not too much in the way of money up front. Yesterday's publicity launch was not the greatest exercise in public persuasion. An example was the promise in writing (in a press release) by the SDA, progenitors of Glasgow Action, that the much-debated demolition of the Gorbals "Greek" Thomson church and its subsequent rebuilding at the top of Buchanan Street will, indeed, go ahead. This is not just a publicity eye-catcher. The SDA and most Glaswegians will know well that such a radical and exciting venture represents the sort of cavalier spirit which Glasgow has lacked for years and which is all the more welcome for that reason. In a sense the Greek Thomson church, transplanted to the top of Buchanan Street, could yet become a symbol of the resurgent Glasgow heart. Alas, there are already doubts. When questions were asked at the launch yesterday the answers were not as categorical as the SDA's confident PR pronouncements. All depends, it is said, on getting a contractor, or on the costs, or who will stump up. In other words it is a great idea and it will probably happen. Give it a chance. Something will turn up. Keep faith. At this

point the fund of good will begins to become ever so slightly depleted and the act of faith becomes tested.

Other questions begin to nag. How committed is the private sector which is expected to stump up most of the money for this spectacular transformation of the inner city? How much trust might be placed in private enterprise's philanthropy? Are we too late campaigning for immigrant head offices now that the days of the Britoils are gone? If the symbolically shifting Greek Thomson church turns out to be a bluff then how severely must the faith be tested thereafter?

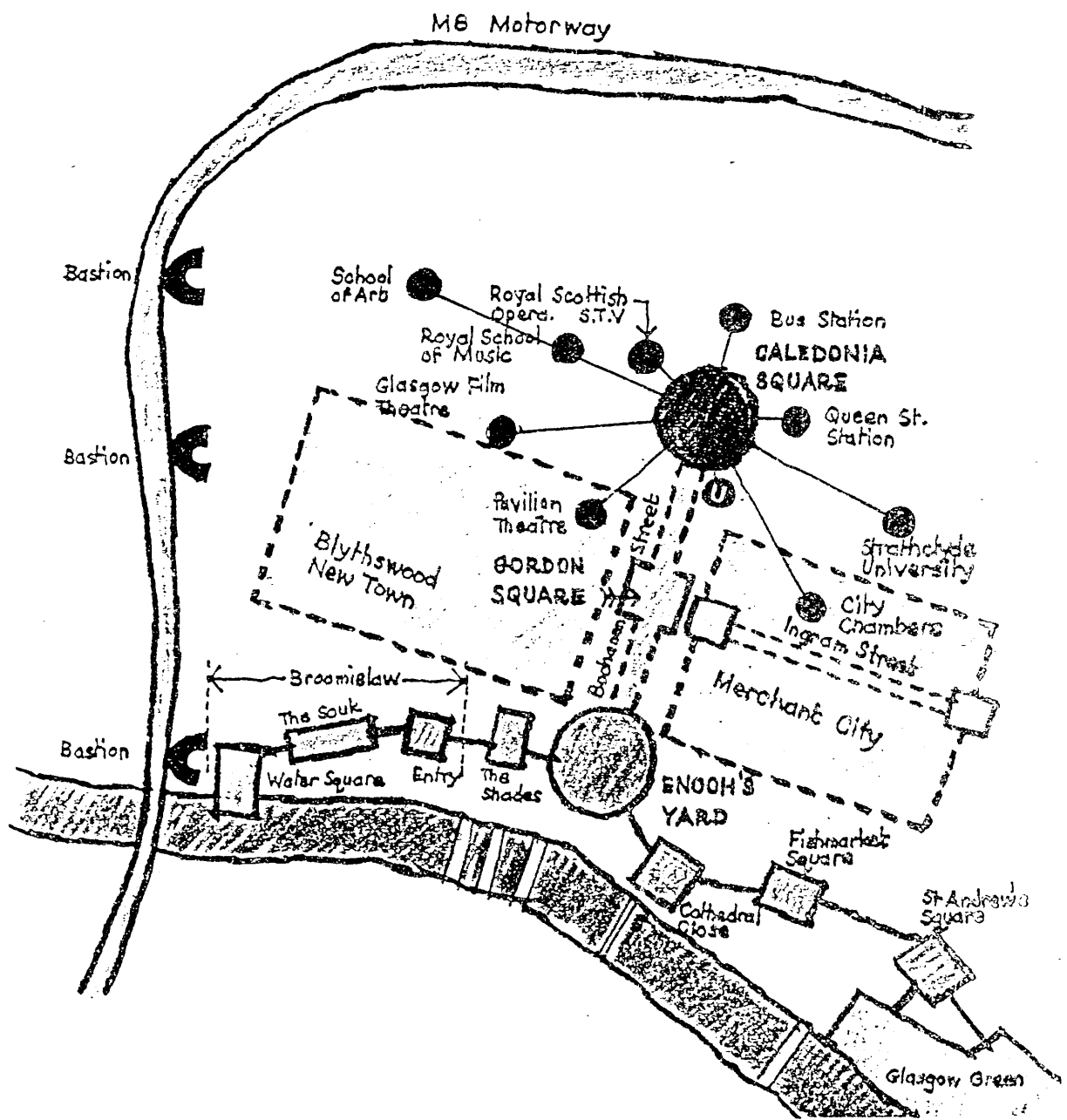
Some encouragement has already been found, notably in Britoil's offer to fund much of the restoration of the city's principal Thompson church in St Vincent Street. This is an act of great generosity and deserves public gratitude. Some of the regeneration process has begun already with creditable private housing developments and small business starts, mostly in the service sector. For the moment the good will is preserved and the faith intact. Glasgow Action will be in the news for years to come and it deserves a happy launch and public support in an age when Scots, with their expectations battered these past 20 years, can be excused a touch of scepticism.

The central theme of the design proposals is that of "a live-wire - an axis that will epitomise the city" - and the study revealed that Buchanan Street is the only street that has this potential. The concept of this axial street (plate 108) is that of a cultural civic centre created mainly out of the wasteland at the North end (plate 109 and 110) and a lively new shopping complex at the South end, at St Enoch's (plate 111 and 112). This theme is thus not that of ¹¹ a "single civic gesture, it is both ends of a single spectrum; they need each other and that is the spark".

A second theme is that of the riverside, a "counterpoint to the vitality of Buchanan Street". Gordon Cullen illustrates the potential development of the riverside, not as a continuous walkway but as a sequence of places each of which epitomises a facet of riverside life with a 3 minute stroll between each to make a riverside chain" (see Fig. 113). It represents a major achievement not only in bringing the river into the ambience of the city centre but in providing a pedestrian route of human scale and multiple interests.

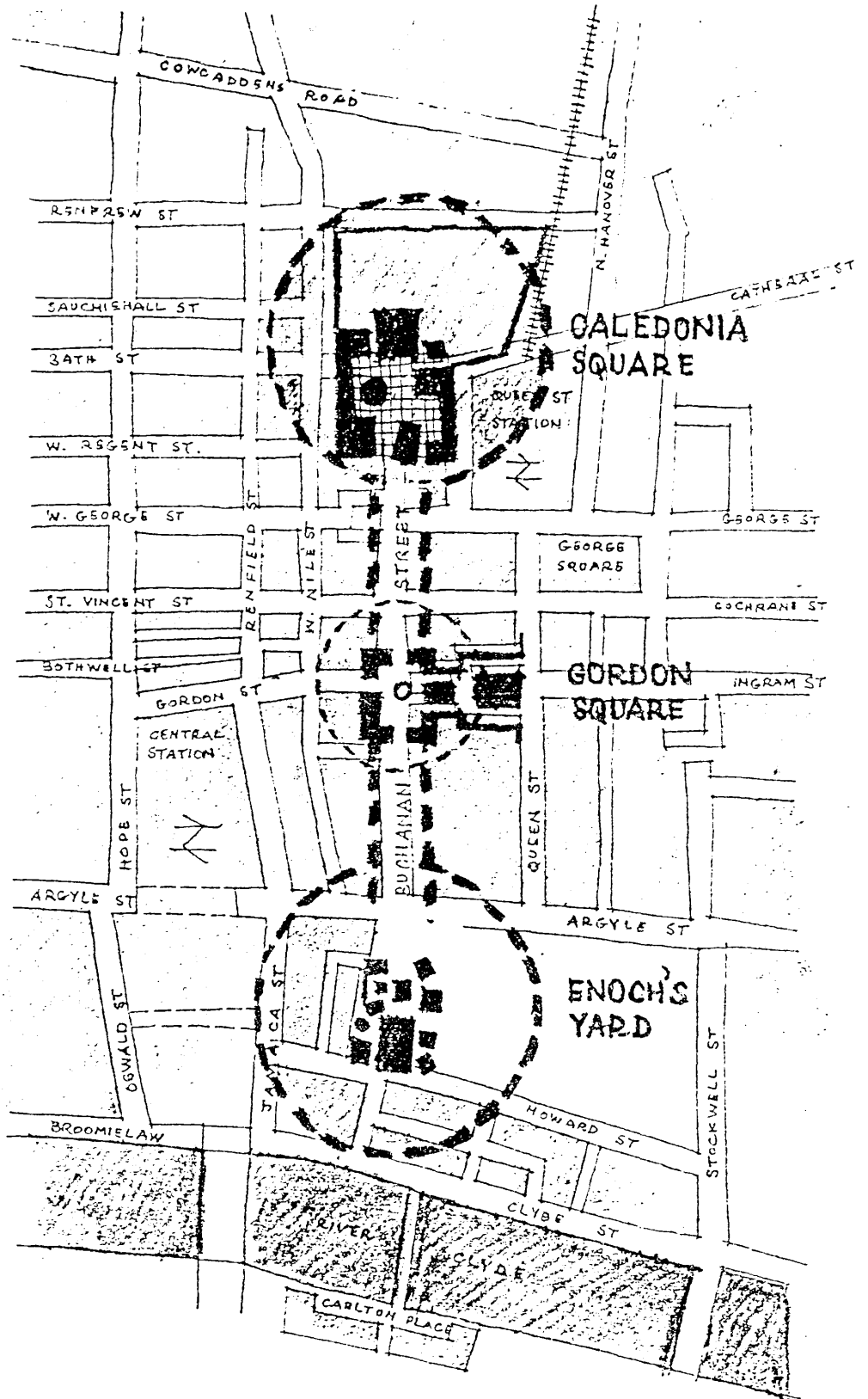
A third theme concerns the motorway boundary of the central area and the image of the walled city. The Report illustrates three key locations on the western boundary which act as entry points to the city centre (see plate 114) and suggests that new office developments in the form of bastions should emphasise these points; they would become the new gateways.

— GLASGOW ACTION STRATEGY —



The underlying principle is not expansion by snapping up the soft options but, through implosion, forming a compact city centre that comes alive. Beyond that nothing matters, nor will it ever matter if Glasgow's centre does not capture the imagination.

— GLASGOW ACTION BUCHANAN STREET —

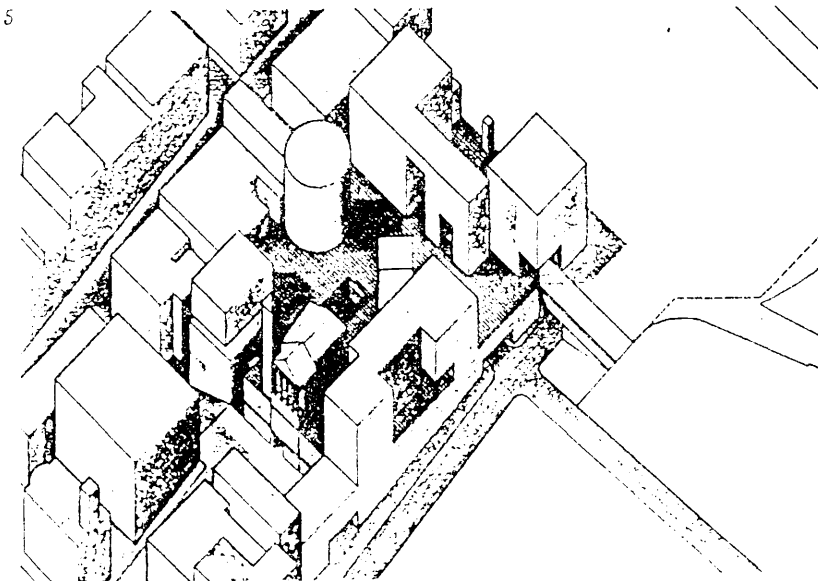
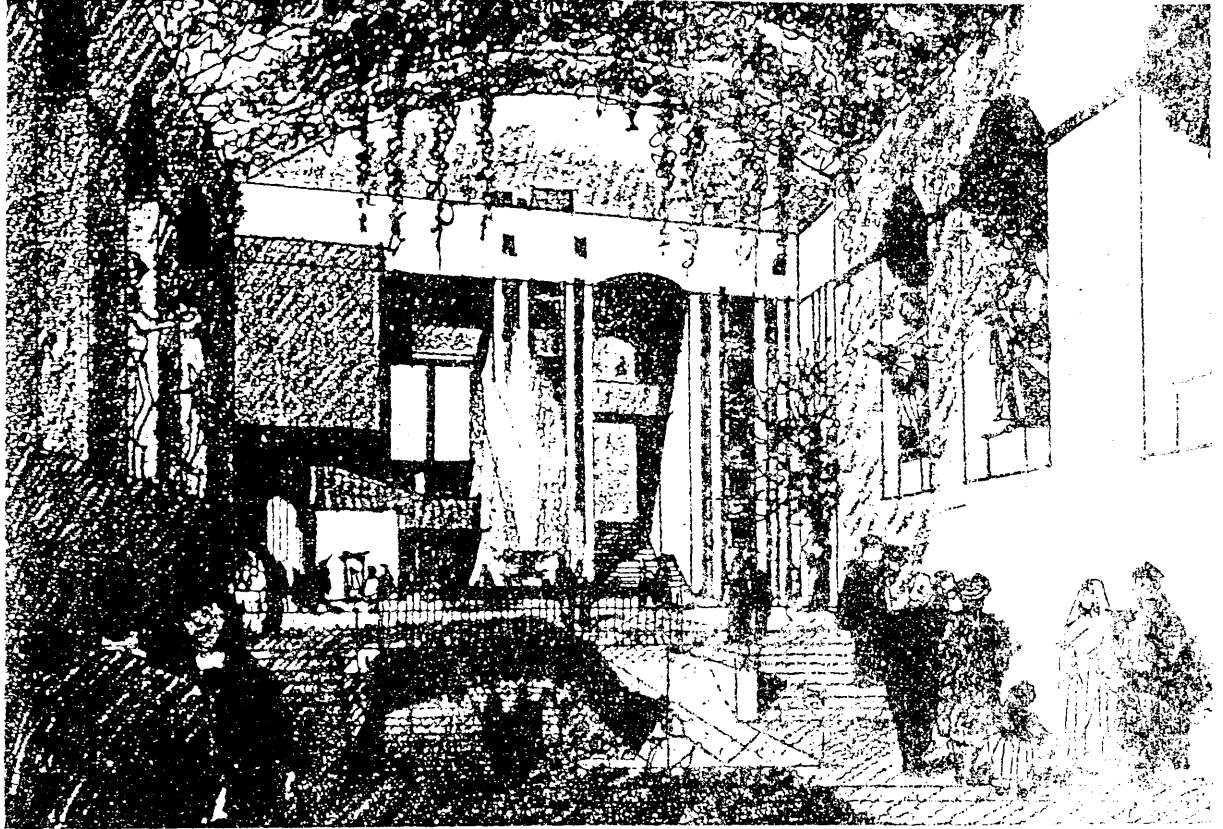


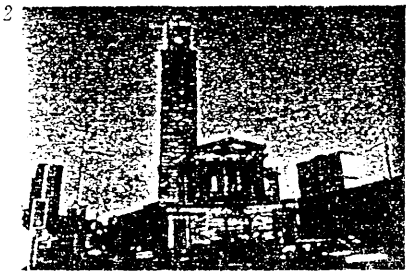
BUCHANAN STREET

The polarization of Buchanan Street - critical to the whole strategy - is achieved by the creation of new developments at either end, which will define the spectrum of activity and atmosphere that a great city generates. The street slopes up towards its northern end where a new civic space commanding the street is suggested. At the lower end, where Buchanan Street meets the riverside chain, the creation of a popular focus in the shape of Enoch's Yard is proposed.

- 1 *The Caledonia Road Church moved to the new square - the distant signal that reminds the city of its capital*
- 2 *Caledonia Road Church by Alexander "Greek" Thompson, 1856*
- 3 *Caledonia Square - enclosure and geometry*
- 4 *Caledonia Square - the interior*
- 5 *Caledonia Square - authority, enclosure and geometry. The buildings on the podium are serviced from below, and the pedestrian has a choice of routes to the different parts and levels of the square*

— GLASGOW ACTION THE NEW SQUARE —





— GLASGOW ACTION THE NEW SQUARE —

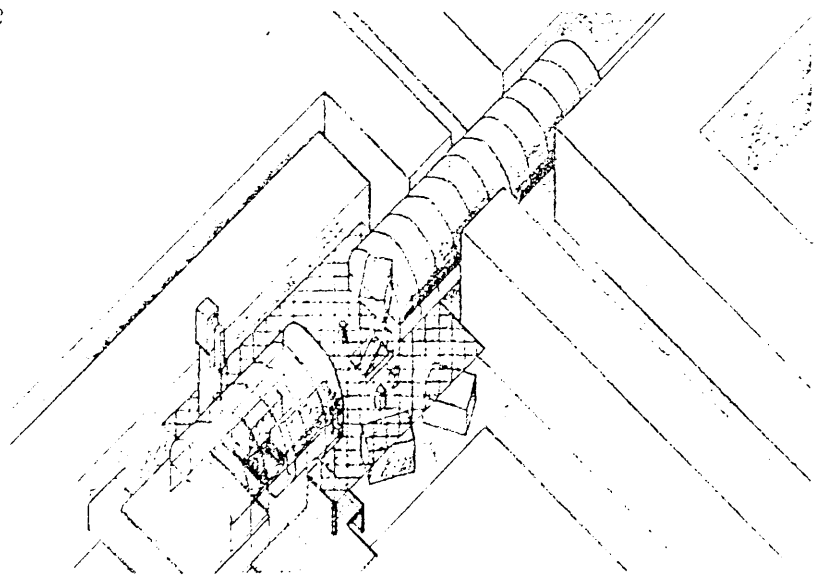
- 1 Enoch's Yard - the urban village
- 2 Enoch's Yard links Buchanan Street with the Riverside Chain and the St Enoch's Centre

— GLASGOW ACTION ST ENOCH 5 —

1



2



4.4.2 Comment

Against a background of increasing realism in recent plans and proposals by Glasgow District Council, the SDA report and the studies by Gordon Cullen have added a new even if incomplete dimension to the prospects of change and physical improvements to the centre of Glasgow.

By means of a well illustrated report and a well marketed campaign, Glasgow Action is already showing some signs of success : St Enoch's square is already developing as a vast glass covered shopping complex.

4.5 Summary

Through the study of the four planning reports, we have noticed a change of approach by the local authorities to how to handle the problem of Glasgow city centre decline and decay. The change recognises the potential of urban design as an instrument of urban change, attesting for this argument, is the late Glasgow Action report.

The Glasgow Action report was prepared in co-operation with the Glasgow District Council and its strategy concentrates on one particular idea, Buchanan Street, recognised as one of the strong areas in the city centre. The ideas illustrated in the report represent not a master plan but a series of related projects, which could be the basis for complementary studies and urban design projects.

In the next concluding chapter we will sum up the information, assessed^d in the preceding chapters, by setting out our own contribution to provide opportunity for change in Glasgow City Centre. These matters will be implemented under the form

- First of general proposals related to the general fabric of the city centre
- Second of localised proposals related to each component part of the dissected fabric (cf 3.3)

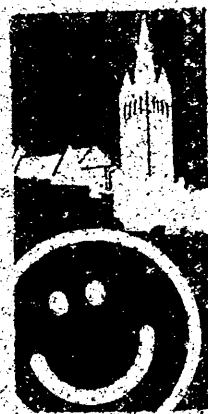
In the next chapter we ^{also} put forward ideas concerning the motorway, one boundary area of the city centre which has been superficially dealt with in the report and still shows signs of no urban definition in relation to the city centre. It represents in our view a major potential for the new identity of Glasgow city centre.

REFERENCES

- 20 Glasgow District Council
1975 Glasgow Central Area Report
- 21 Glasgow District Council
1983 Glasgow Central Area Local Plan
- 22 Glasgow District Council
1984 Glasgow District Plan
- 23 Scottish Development Agency
1985 Glasgow Action Report

CHAPTER FIVE GENERAL CONCLUSIONS

GLASGOW CITY CENTRE
OPPORTUNITIES FOR CHANGE



CHAPTER 5 : CONCLUSION : OPPORTUNITIES

- 5.1 : Introduction
- 5.2 : The General Assessment
 - 5.2.1 : The economic assessment
 - 5.2.2 : The physical assessment
- 5.3 : General Proposals
 - 5.3.1 : The general city centre fabric
 - 5.3.2 : The grid
 - 5.3.3 : Parking
 - 5.3.4 : Townscape details
 - 5.3.5 : Conservation
 - 5.3.6 : Land use
- 5.4 : The localised proposals
 - 5.4.1 : The merchant city
 - 5.4.2 : The victorian business centre
 - 5.4.3 : Blythswood New Town
 - 5.4.4 : Charing Cross and Anderston Cross
 - 5.4.5 : The Brodmielaw
 - 5.4.6 : St Enoch's
 - 5.4.7 : Cowcaddens/Townhead
 - 5.4.8 : Garnethill
 - 5.4.9 : Strathclyde University
 - 5.4.10 : The Cathedral Precinct
- 5.5 : Towards an assimilation of the urban motorway
 - 5.5.1 : Introduction
 - 5.5.2 : The road form
 - 5.5.3 : The ideal solution
 - 5.5.4 : Summary
- 5.6 : General Conclusions : Learning From Glasgow

CHAPTER 5 : GENERAL CONCLUSIONS : OPPORTUNITIES

5.1 Introduction

The preceding chapters have indicated the forces of change which have shaped the functions and physical appearance of the city centre as we see today. They have also indicated the different policies, often not concluding the local planning authorities have implemented upon Glasgow city centre to counteract the economic decline and the general decay.

The aim of this concluding chapter of the thesis is to draw the lessons and the conclusions learnt from our assessment of Glasgow city centre mechanisms and propose opportunities, that, in our opinion, will promote and develop the city centre particular qualities and assets in order to improve the economic and physical environments. The subject will be discussed under four headings :

- A concluding assessment of the economic and physical characteristics of Glasgow city centre.
- The production of general proposals in order to improve the city centre physical environment and strengthen its inherent qualities and assets.
- The production of localised urban design policies related to the component parts areas assessed in 3.3, the dissected fabric.
- An urban design solution which applies some of the proposals emitted earlier, especially related to the fringes area, ie the west flank of the motorway, of the city centre.

The aim of this concluding chapter is thus to provide a framework for economic and physical initiatives and related opportunities. It does, not seek to provide a specific list of matters related to a detailed and defined economic strategy.

5.2 The General Assessment

Undoubtedly, Glasgow city centre is the focus of Glasgow's economy, wealth and investment. The variety of uses generates the city's atmosphere whilst in physical terms, it provides much of Glasgow's identity. However, through the preceding assessments, we have identified the weaknesses and strengths it presents today. These latter will be summarised under two sub-headings :

- the economic assessment
- the physical assessment

5.2.1 The economic assessment

The economic role of the demarcated city centre has been gradually changing and this has been reflected in the employment and activities trends (c.f. 2.3 Activities). The main functions to be found in the city centre relate primarily to retailing and wholesale distribution (c.f. 2.3.3.), financial and business services (c.f. 2.3.7), public administrations (c.f. 2.3.9), transport and communications (c.f. 2.3.2) and finally a weak element of manufacturing and industry (c.f. 2.3.6). ^{However} over the last twenty years, as a result of population movement out of the centre, changing technology and accommodation requirements, a clear shift has been taking place in terms of industrial structure, resulting in a reduction of the overall employment, but with an increased emphasis on the service sector.

Thus the strength of the present economic basis of Glasgow city centre derives from the retention and expansion of the different business and finance services. If this trend is to be maintained, the city fathers, should, in our opinion, concentrate their efforts in dealing adequately with the deterrent factors to the continuation of more of these activities, without lessening the others : the factors referred to are mainly the built form constraints, the car parking/traffic congestion problems and above all the poor image that shadows Glasgow's reputation. Other economic assets assessed are the very presence into the city centre of education of establishments (c.f. 2.3.5) which show a steady expansion.

Despite these strong assets there has been a steady economic decline and a shrinking boundary of the economic core (c.f. 2.4). The latest and official report ie Glasgow Action (c.f. 4.4) has adequately highlighted these deficiencies and put forward the different actions and initiatives of development necessary to build on the economic strength of the city centre.

5.2.2 The physical assessment

Glasgow city centre reflects the economic decline assessed earlier by means of a general decay. Its built form consists of an internal dense compact commercial development on a grid iron layout of canyon like streets, superimposed on an undulating topography. This gives way on its northern and western parts, towards the motorway, to an amorphous mixture of land use together with a considerable amount of undeveloped land and deteriorating buildings. (Refer to 3.2 The General Townscape).

Although acclaimed to be the finest surviving example of a great victorian city, with its particular concentration of valuable architecture at its centre, Glasgow city centre lacks the memorable features that could articulate its existing assets. These *latters* in terms of major public buildings and open space such as squares and pedestrian precincts, are either scattered throughout the centre or poorly designed and articulated to form a strong, easily reached public space maze.

However, the existing strong assets, developed above, could easily be strengthened by minor improvements. What is really in need of major urban development are the boundary areas. They are the area problems of Glasgow city centre. Their boundary position is strongly defined but what is more appalling is their decaying present situation, illustrated either by the slashes ^{cut by} the motorway construction (North and West), the dereliction of the fabric (east) and demolition (south). This brutally formed boundary are the potential areas for any future development and if anything is due to happen, it will happen there.

To sum up, Glasgow city centre is isolated by vacant sites and full of holes. Filling up these holes is only possible if we accept the reality Glasgow city centre presents in terms of existing assets and existing order thus knitting in adequately the new. Thus the general proposals.

5.3 General Proposals

These proposals arise directly from the general assessment carried out in chapters 2 and 3 and summarised above. They will put

forward ideas and principles, in order to deal adequately with the problems highlighted above in 5.2.2.

5.3.1 The general city centre fabric

This first proposal relates to the city centre fabric in general. We accept the grid as being one successful tool of land development especially in the fringe areas. This means the extension as much as possible of the grid prevalent in the central structured core onto these ill defined areas in order to discipline any new developments and recreate some of the urban order and urban design qualities found in the core.

We also accept Gordon Cullen's strategy (c.f. 4.4.1) of an internal axis implemented by a southern counterpart, the riverside chain. However, we reserve our opinion concerning the motorway section, as we will develop later.

We also propose as much as possible open space to develop in the Townhead/Cowcaddens sections (c.f. 3.3.7) providing the development of the special activities that find no room in the dense fabric of the core, as it will be referred to later.

5.3.2. The grid

The grid presents no special differentiated character in its main streets, such as the pedestrian commercial Z (c.f. 2.3.3), as opposed to the ordinary streets. To promote a differentiation, we impose a "green grid" i.e. row of trees, onto the grey grid i.e. the existing street canyons, with a special emphasis on :

- High Street, due to its historical importance

- the pedestrian Z , formed by Sauchiehall Street, North Argyle Street south and Buchanan Street as the linking North/South spine.
- the Riverside because of its natural asset.
- Along the motorway edge to permit a green heading process of the wounds generated by the motorway construction, as it will be developed later.
- The new developed linking road/Boulevard between Buchanan Street and the motorway on the premises of Cowcaddens Road, boundary between Garnethill (3.3.4) and Cowcaddens/Townhead (3.3.7).

5.3.3 Parking

At present parking in the city centre is of two forms

- road side parking
- or in multi-storey garages.

The deficiencies of these latter /ay in their weak association with the motorway, thus the remaining problem of congestion in the city centre. We propose, as a possible solution, the concentration of future parking garages nearby the motorway and its access roads particularly in the Cowcaddens/Townhead area where plenty of undeveloped land is provided. Concerning the road side parking, it is essentially concentrated in the grided streets of the centre. A possible solution towards the removal of the road side parking is to apply a planning decision that encourages by fiscal policies, the development of the typical block core from shabby spaces to attractive 3.4 storeys high shedded garages or ground level parking area. Thus the participating role of the block as part of a general planned parking structure.

5.3.4 Townscape details

It deals essentially with the environment of the pedestrian precincts and the riverside walkways, Walkways which quality depends upon the provision of well designed street furniture, adequate landscaping and well maintained pavement surfaces. At present these are very poor in their quality and quantity.

For example taking the case of Sauchiehall Street, a more permanent surface treatment is required as well as an imaginative scheme to consolidate its character as a pedestrian precinct. This scheme can include road narrowing by allowing light structures such as arcades or longitudinal malls in the middle of the street to provide enclosed sitting areas as well as sheltered independent retailing stands.

5.3.5 Conservation

This policy has been comparatively successful but at the expense of a running battle with new developments, which are being forced to the periphery and usually into unattractive environments. This situation is not to encourage the company headquarters type developments as encouraged in 4.4.1. Therefore a new area for large prestige office blocks is required. It is suggested that the boulevard mentioned in 5.3.2 be developed for this purpose.

5.3.6 Land use

The image of the city centre is largely a direct reflection of the prevalent land use within it. Accordingly, it is appropriate to consider the whole of the city centre as a mixed use area as

Within The Green Fringes Buildings Of Good Quality Are Maintained

The Order Of The Grid Has To Be Maintained
The New Buildings Have To Be Cohered Into Some Kind Of Order
A Place Of Identity Within The Centre
A Sense Of Identity Within The Centre
The New Buildings Have To Be Cohered Into Some Kind Of Order
A Place Of Identity Within The Centre
A Sense Of Identity Within The Centre

This Motorway Fringe Will Display Sequences Of The City Centre Fabric

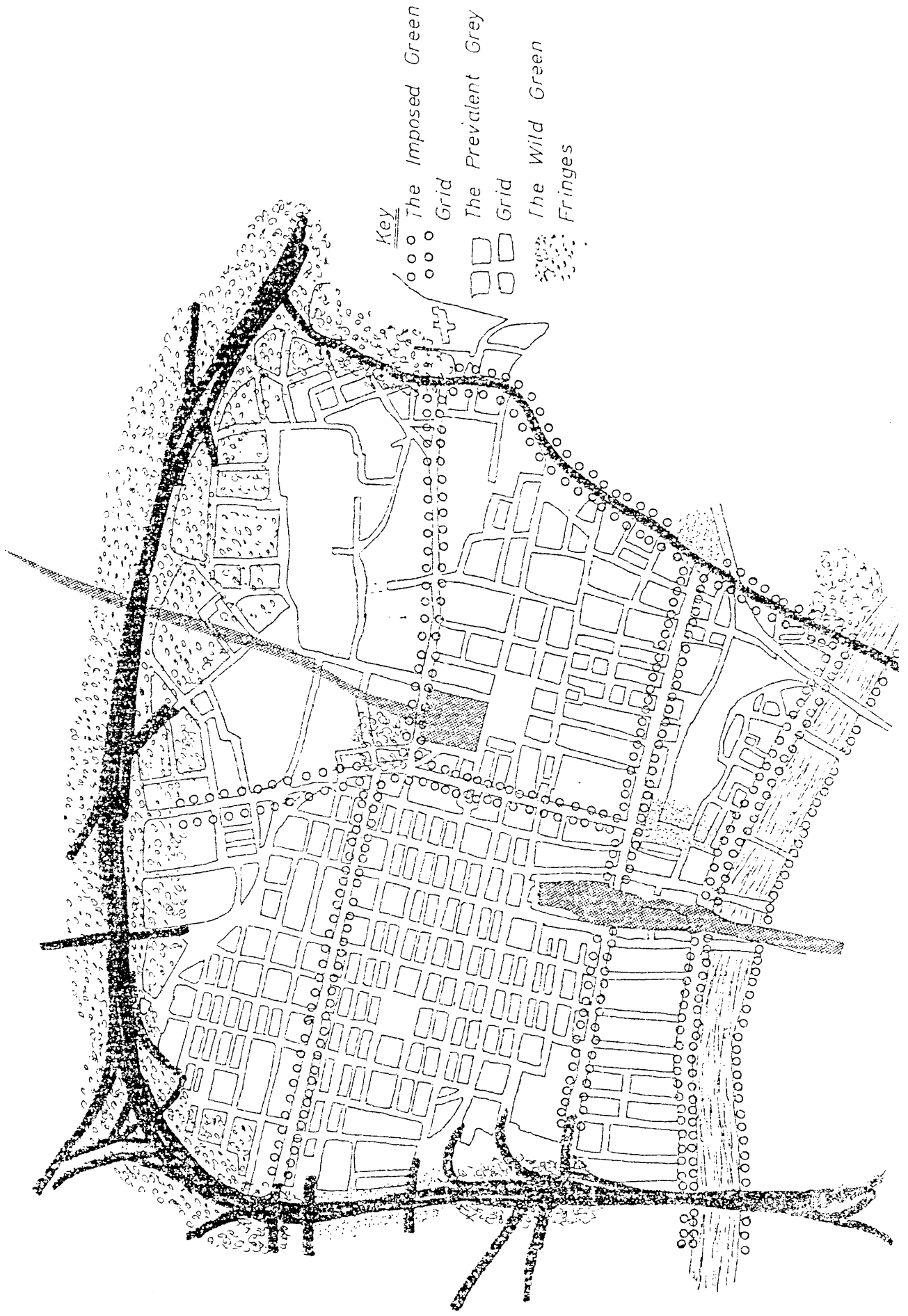
The Road Scale And The Sense Of Order To Be Enhanced The Infill Should Match The Prevalent Urban Scale Whether It Is A Building Or An Open Space Of Urban Character

The River Banks Develop As A Promenade

GLASGOW CITY CENTRE

— OPPORTUNITIES FOR CHANGE —
— AND DEVELOPMENT —

High Street Is The Historic Cord Of Glasgow Buildings Screen Walls To Rebuild Its Historical Prominence
Rows Of Trees Are Essential Elements



assessed in 2.3. However implementation of new uses required some exception to be made e.g. to not integrate new light industry into new office development .

These are the general proposals summarised in Plate 114 . They deal mainly with the key problems of the city centre. When related to the different local areas assessed in 3.3 they take the form of localised proposals or policies, developed as follows :

5.4 The Localised Proposals

Each area assessed in 3.3 has come out with qualities as well as deficiencies. It is the aim of this section to reinforce the *formers* and "~~weed~~^B out" the *latters*, by means of policies and proposals of development. As the assessment started with the Merchant City, the first area to look at is therefore :

5.4.1 The merchant city

It is important that the urban design qualities identified in 3.3.1, should be maintained. Whilst it is desirable that as many of the existing buildings as possible should remain, where demolition is unavoidable and where gap sites already exist, new development should maintain the existing street pattern and building lines and where appropriate take account of the *role* of terminating vistas.

Although new buildings should be of a high quality design, they should not necessarily attempt to match the existing buildings in terms of height and materials.

Parking/congestion problems should be dealt with by allowing the proposed block parking policy introduced above in 5.3.3 as well

as the building of high quality multistorey garages on the eastern boundary of the Merchant city i.e. High Street.

5.4.2 The Victorian business centre

Assessed as being a strong area of the city centre, it is therefore the provision of reinforced urban design policies that will help maintain, reinforce and enhance the characteristics identified in 3.3.2.

This can be achieved either by the refurbishment and reuse of older buildings or the incorporation of the existing fascades into any new development or ⁱⁿfacially by sensible infill. These should not try to imitate the older neighbours but respect the unifying factors of buildings lines and street containment as identified in 3.3.2. As introduced earlier, the Z ^ashopped shopping core is in need of strong articulation to strengthen the structure of the bi-polar core. It is considered that the transition between the two pedestrianised streets, Sauchiehall and Buchanan Street, should be reinforced and punctuated by a formal open space, situated at the junction of the two above cited streets with the boulevard introduced in 5.3.2 and Cathedral Street, all elements of the green grid introduced earlier in 5.3.2. Therefore the square becomes a focal feature with a strong element of tree planting, prestige office blocks, permitting a vista down Buchanan Street.

5.4.3 Blythswood new town

The strong individual character of this area in 3.3.3, should be preserved entirely through conservation and every effort should be made to preserve the surviving original buildings and to ensure

that any new development, where permitted, respects the original Georgian character of the area. Blythswood square gardens could be usefully opened to public use.

5.4.4 Charing Cross and Anderston Cross

With those two areas start the decaying fringes of the city centre.

As it will be developed later, Charing Cross is the area where it is necessary to maintain the street pattern, continuity of frontages, building scale and sense of enclosure. The definition of the town western edge (assessed in 3.3.4) should be improved by the tunnelling of this section of the motorway, from St Vincent Street to Sauchishall Street, to permit a grand plaza to take place, adorned by the very presence of the Mitchell Library as developed later.

Anderston Cross is the area of the west flank of the motorway route where destruction has been the more intensive (c.f. 3.3.4). It is now an area of no grand concern, where multilevel junctions push their way skyward. To balance the dominance of the motorway, we propose that multi-storey prestige office blocks develop in between the junctions with regularity and symmetry with a strong element of landscaping. These two areas need a powerful remedy to knit the fabric together, as developed in a later section.

5.4.5 The Broomielaw

This area is essentially characterised by the proximity of the river as a major natural asset, (c.f. 3.3.5). We should thus take the opportunity to give back the river its potential use, not as an

industrial route but as a fully developed recreational open space. Although already being tackled, the river banks are in need of more qualification than the mere existing walking and sitting areas.

Concerning the built form we accept Gordon Cullen's proposals of the riverside chain (c.f. 4.4.1).

5.4.6 St Enoch's

The development of the St Enoch's station will revitalise this area and determine its essential character. It is already undergoing works for a mixed commercial/leisure development. As suggested in the above area, the new development should tackle the river banks and we also accept Gordon Cullen's proposals of the riverside chain. However, the only problem is the removal of the original car parking, on the site of the new development. We suggest that parking should be integrated below the new centre.

5.4.7 Cowcaddens/Townhead

It is the area of the city centre with the greatest potential. It is here where any new development will occur. It will provide the city centre all the activities it lacks (c.f. 2.3), in terms of large recreational grounds for outdoor sporting activities, open space, car parking and above all else the setting for the needed prestige blocks. (c.f. both 4.4.1 and 5.3.2). The amorphous street pattern should ^{be strengthened or reinforced by definite frontage} either by new buildings or in the case of the boulevard by landscaping and tree planting. The motorway, under the form of the northern linear parkland will provide the outer green edge to the area.

5.4.8 Garnethill

As it exists, this area presents strong urban design qualities (c.f. 3.3.8). However its main weakness is its edge position to the motorway and its shortage of parking space. We suggest that the edge conditions should be dealt with, as introduced earlier, by means of a gridded parkland setting that will provide locations to humane/ess/buildings such as sheltered or engraved parking areas.

5.4.9 Strathclyde University

The educational environment, ^{the university} intensity provides is of very poor quality (c.f. 3.3.9) mainly characterised by scattered buildings, undeveloped open space, ^{and} not street enclosure. To develop it as a qualified precinct we suggest to create a clearly defined and structure sequences of spaces to ^{link} park with the buildings, create also a softer more *humane* environment to offset the rather harsh overscaled appearance of the buildings as existing and try as much as possible to develop a continuous street frontage.

5.4.10 The Cathedral precinct

Of historical importance, this precinct's already the focus of good intentions which did not achieve so far. The attractiveness of this historic place of the city as a place to visit is already felt by the local authorities and we hope that the work on its premises begin^s soon.

Approaching each assessed area with its respecting localised proposals together with the general proposals, will permit the

localisation on some opportunities which we think are vital to the revitalisation of Glasgow city centre. Although general, they are positive suggestions, as they relate solely to the context and insert themselves in some of the local planning policies for future development, especially thus of ^{the} Glasgow Action Report.

At present, the city centre presents three major potential areas for new developments. The edge along the river which is already undergoing changes and it can be expected that the ideas illustrated by Gordon Cullen in the Glasgow Action Report will be brought to fruition and the river Clyde will once again assert itself as a major asset to the city.

The Northern area ie Cowcaddens/Townhead is one other potential area. Ideas have been emitted above to guide its development and we hope that they will achieve positive actions.

The Western broken edge ~~which~~ still remains a witness to destructive way in which high speed roads are forced through the fabric of the city. As an urban design exercise, we propose to take the west flank of the urban motorway as an example of a design approach to some proposals emitted ^{above} related to this area (c.f. 5.4.7).

5.5 Towards an Assimilation of the Urban Motorway

5.5.1 Introduction

The urban motorway is the main subject of this section of the concluding Chapter of the thesis, concentrating on those urban design problems which are exemplified along the west flank, i^e that

section from St. George's Cross to the Kingston Bridge. The subject will be discussed under *two* headings :-

1. A possible modification of the motorway route with regrouped junctions and reduced feeder roads as well as a visual solution to the modified motorway in relation to the proposals emitted above, in 5.4.4.
2. A new idea for the section of the presently constructed motorway which is better assimilated into the urban fabric.

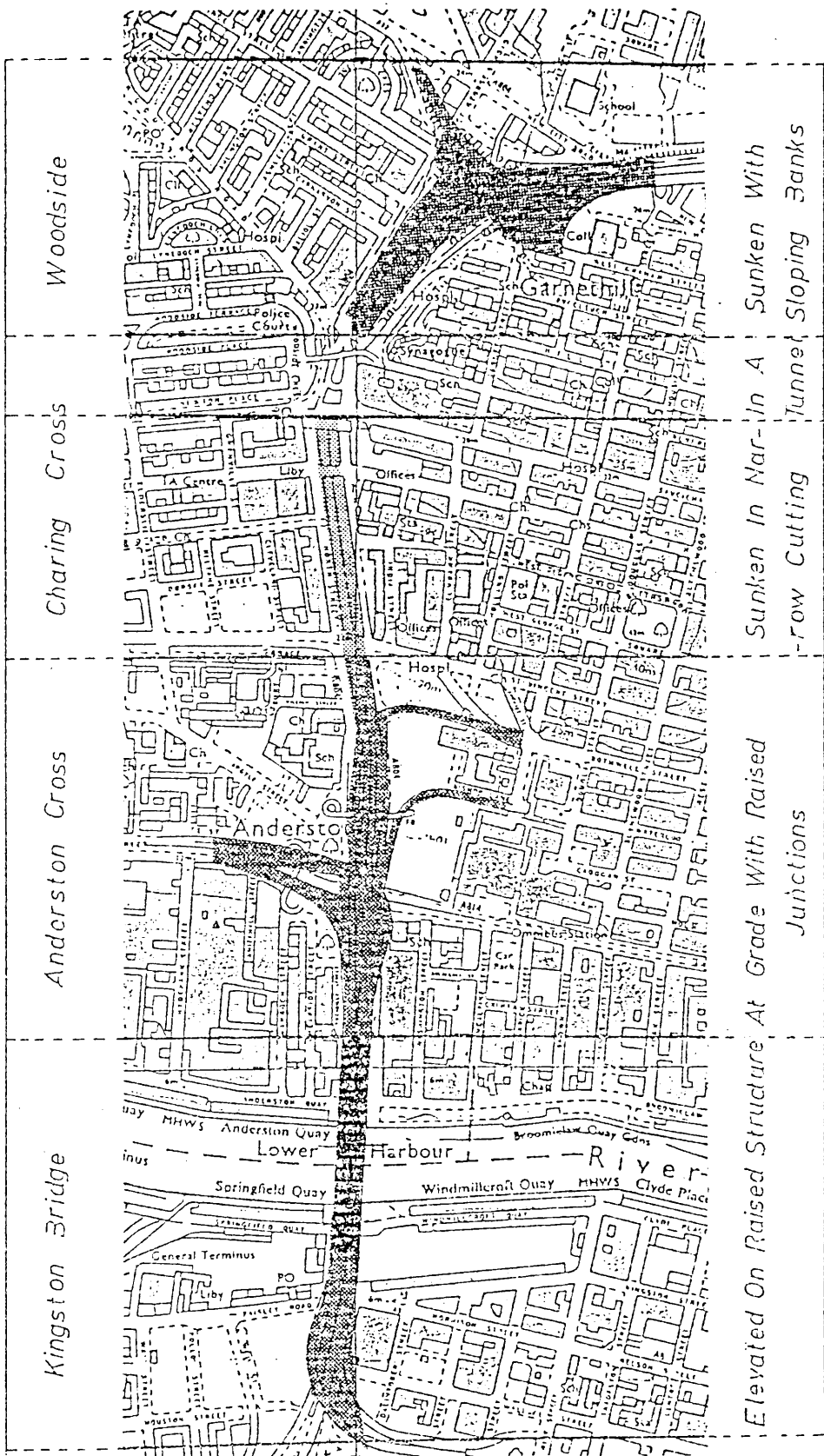
5.5.2 The Road Form

The M8 Motorway was pushed through Glasgow along the easiest route in areas where large scale demolition was in progress (see plate 115). Contrary to what was planned the engineers paid not apparent regard to minimal environmental standards such as :

- scale and visual qualities
- repairing the torn fabric of the city
- protection against noise and pollution

The motorway proposals ignored the potential of providing a positive new element in the city, one that was sufficiently well integrated into the fabric of the city. This may have been due to two factors namely a failure to recognise the motorway as an essential piece of urban design and secondly an inadequate budget for its construction and landscaping.

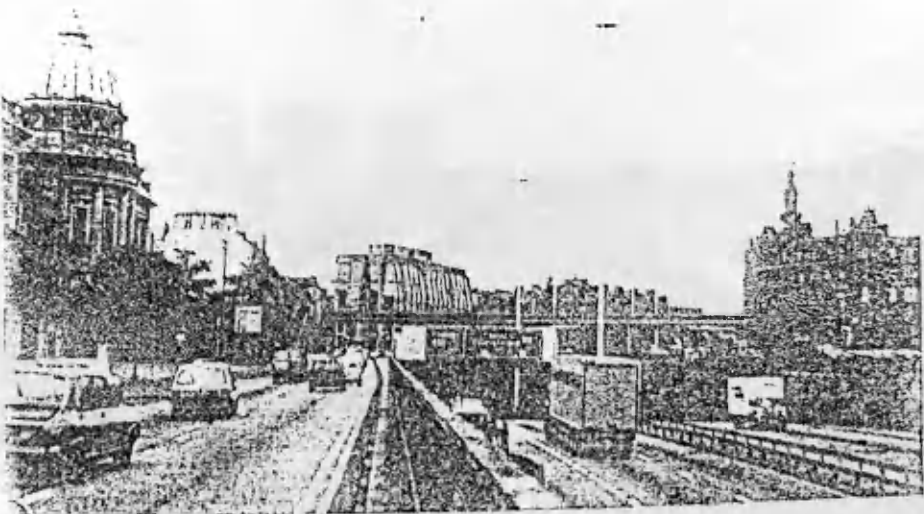
— THE ROAD FORM —





View Multi Level Motorway Anderston Cross Looking South

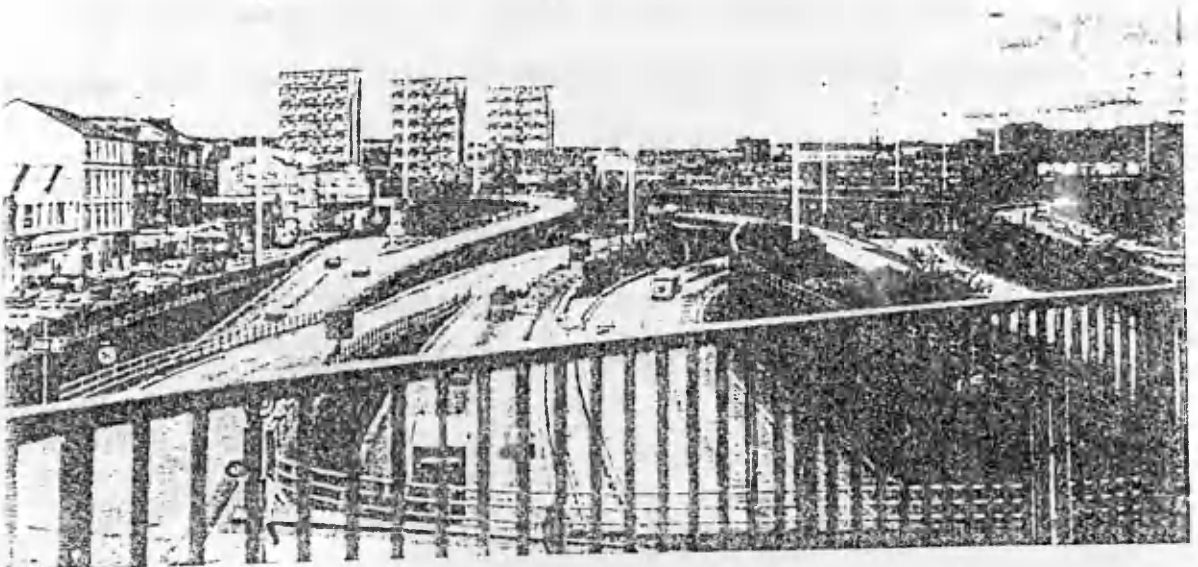
View Sunken Motorway Charing Cross Looking North





View Tunneled Motorway Charing Cross Looking South

View Sunken Motorway Woodside Looking North



5.5.3 The Ideal Solution

This section of the chapter puts itself back in time, in 1975, before the motorway construction. It is an attempt to propose a new motorway setting that will emerge from the 1975 conditions viz.

- a strong grid iron street pattern
- a dense fabric plus a natural asset, the river, and
- a motorway route designed by road engineers

This new motorway setting relates also to the discussed environmental ^e effects, ^(c f Appendix one) in order to prevent or to minimise their impacts. To do so, objectives are emitted. They are :

- the regrouping of the elevated junctions to concentrate the unavoidable fabric destruction necessary for the construction, on some key areas
- the reduction of the feeder roads therefore the reduction of their noise intrusion
- and above all else, the retaining as much as possible of the existing fabric.

It is in this order that this solution is called ideal, ideal as defined by the dictionary as being "existing only in the imagination or as an idea not likely to be achieved". We will approach this ideal solution by looking first at the 1975 conditions.

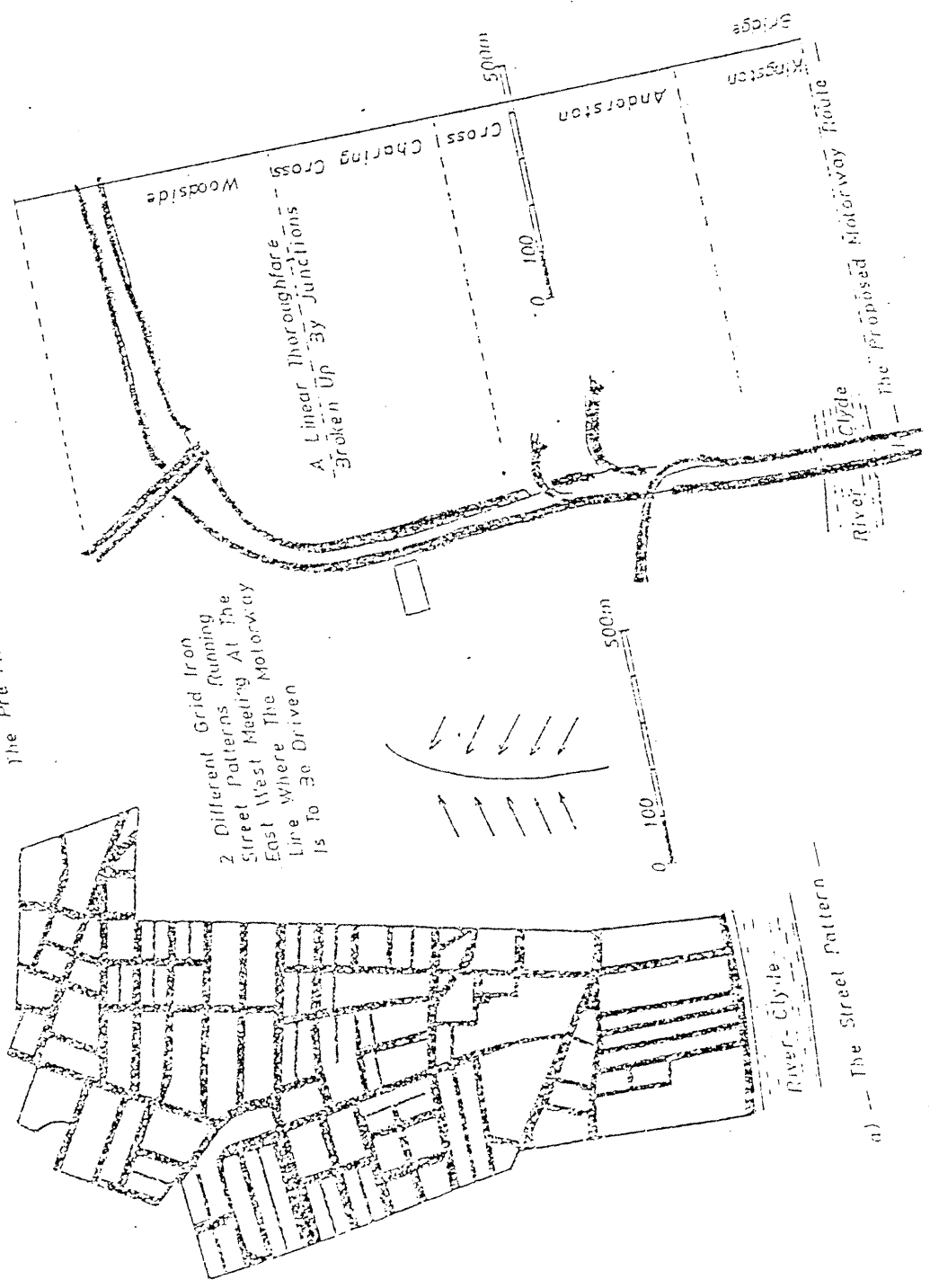
The 1975 conditions were

- a) A grid iron street pattern deriving from the westward expansion of the grid. It is composed of 2 differentiated angled grids ^{ds} that meet at the line where the motorway route is to be driven (see Fig a on plate 118).

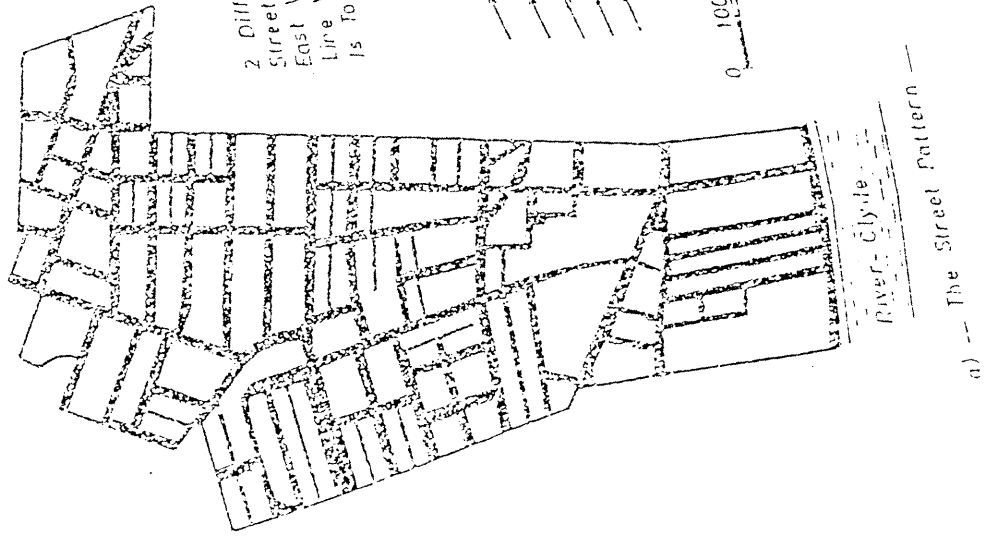


c) — The fabric — Composed Of
 A Dense Built Form Blocks .
 Irregular Fabric Are
 Parts Of The Fabric
 Designated As CDAS .

THE IDEAL SOLUTION :
 The Pre Motorway Situation Elements



2 Different Grid Iron
 Street Patterns Running
 East West Meeting At The
 Line Where The Motorway
 Is To Be Driven



a) — The Street Pattern —
 River Clyde

Their potential lies into their ability to permit the free flowing of the traffic from the mother source into the fabric of the city.

b) A dense built form composed of irregular peripheral blocks, some of them inhabiting some major public buildings such as the Mitchell Library. Although parts of the fabric are in a state of decay already undergoing comprehensive redevelopment, south Anderston Cross and Woodside North, the area in between viz Charing Cross, represents one major junction between the city centre and Park Circus which represents one important satellite area by its very function, an educational precinct and its architectural and urban character (Refer to fig b on plate 118).

c) A motorway route. We assume that its direction and curvature have been adequately and carefully determined by the exact calculations. Although we take the opportunity to suggest some modification to its form (Refer to fig. c on plate 118).

The Ideal Solution

It essentially relates the three above discussed elements in order to verify the objectives emitted earlier thus to value the existing fabric and minimise the environmental effects. It will be discussed under two sub-headings :

- the technical solution
- the urban design solution

with the objective to cover ideas and principles rather than detailed proposals.

a) the technical solution :

It is technical as it deals only with the form of the motorway. It stands essentially on the hypothesis that the grid iron streets are adequate successful channels to distribute the motor traffic from the mother source i.e. the motorway, onto the city centre. The motorway will therefore be divided into four sections. (Refer to plate 119).

- Section one : when entering the city centre from the south, the motorway flies over the river under the form of a slender linear raised structure until reaching Anderston Cross viz.

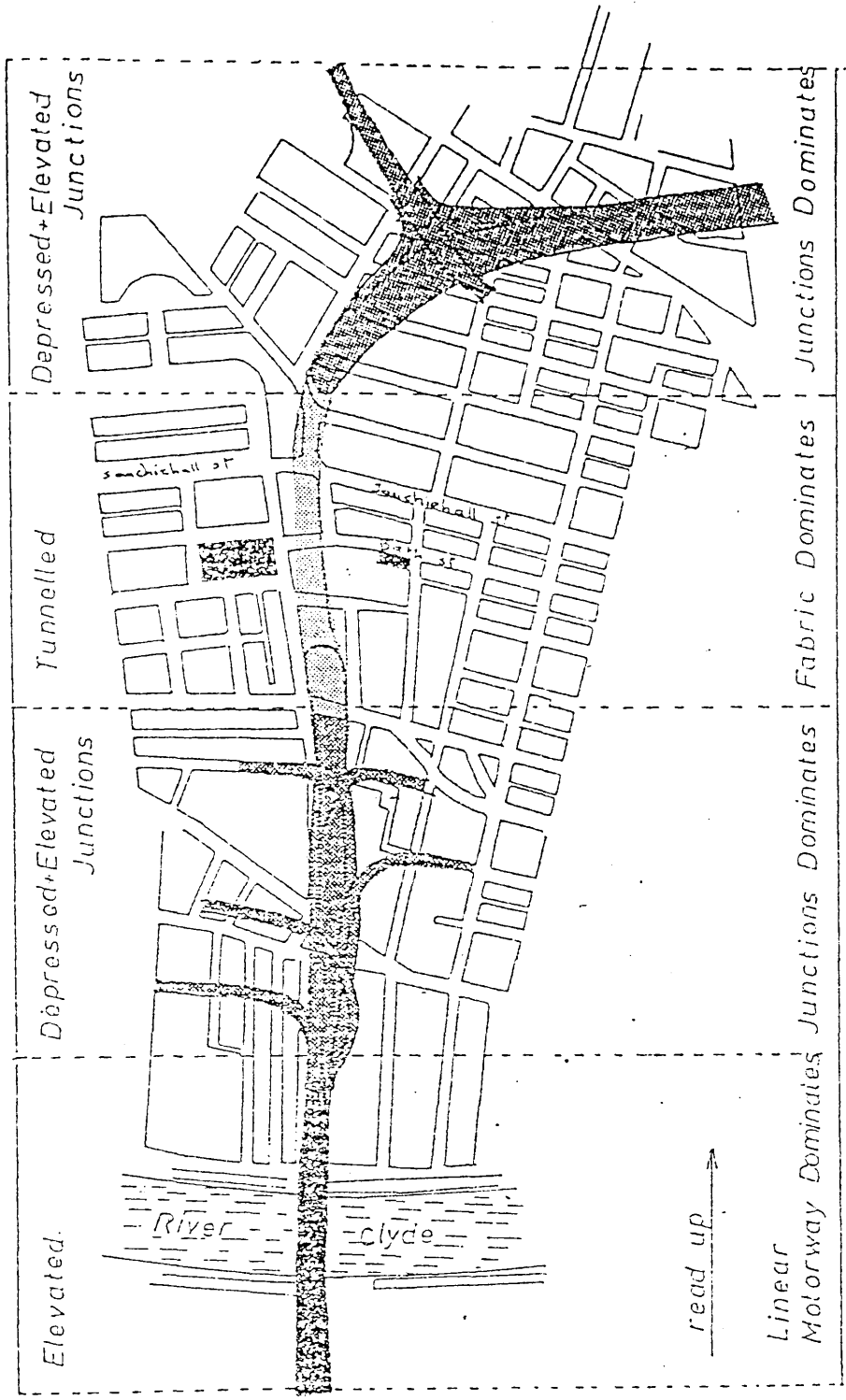
- Section two : here the motorway is composed of a liner section varying from elevated, at grade to depressed

and of elevated junctions. Being the entry points to the city centre, these are related to the adjoining street pattern to permit a free flowing of the traffic. As much as possible junctions will be permitted in order to *eliminate* any feeder road into the *junction at* Charing Cross section viz :

- Section three : here the motorway is entirely tunnelled to permit the preservation of the entire fabric, until it reaches the Woodside area which is :

- section four : this *section* is composed of a depressed motorway with elevated junctions, other entry points to the city centre. Situated at a change of direction in the curvature of the motorway, the junctions are difficult to integrate with the existing street pattern thus the destruction of the existing fabric is unavoidable.

KINGSTON BRIDGE ANDERSTON CROSS CHARING CROSS WOODSIDE



A Technical Solution To
 THE IDEAL SOLUTION

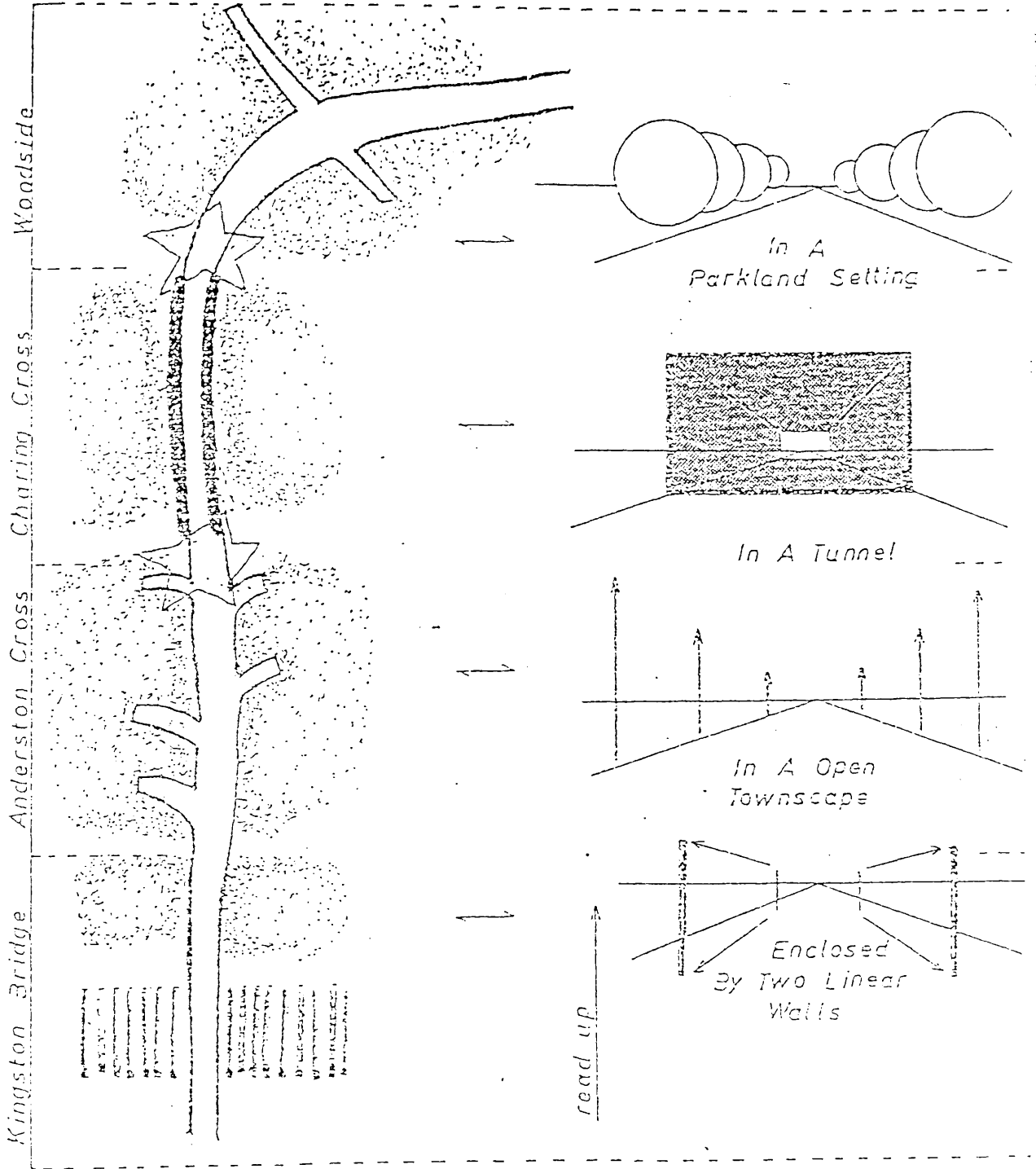
By no means, certain environmental effects cannot be avoided such as displacement and visual intrusion especially in Anderston Cross and Woodside where the elevated functions are concentrated. However, the different sections of the motorway, generate respective dominance which in urban design terms induce a special visual solution related or in proportion to each section of the motorway setting. They are related as follows :

- Kingston Bridge - linear elevated structure - linear motorway dominance
 - Anderston Cross - elevated junctions - junctions dominance
 - Charing Cross - tunnelled - fabric dominance
 - Woodside - elevated junctions - junctions dominance
- thus the urban design solution

b) The urban design solution

From the technical viewpoint the motorway displays principles of what will be the engineering work sections. On the same basis from the urban design viewpoint, the generated built form displays sequences of the city image. Thus the urban design principle of the sequential motorway.

Each sequence is responding to the proper setting of the motorway itself and the grade of dominance as discussed above. Each sequence is an united element which expresses its own motion of objects and space. The succession of the different sequences

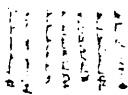


The Technical Solution

— THE IDEAL SOLUTION —

The Urban Design Solution

Key :



River



Sequence



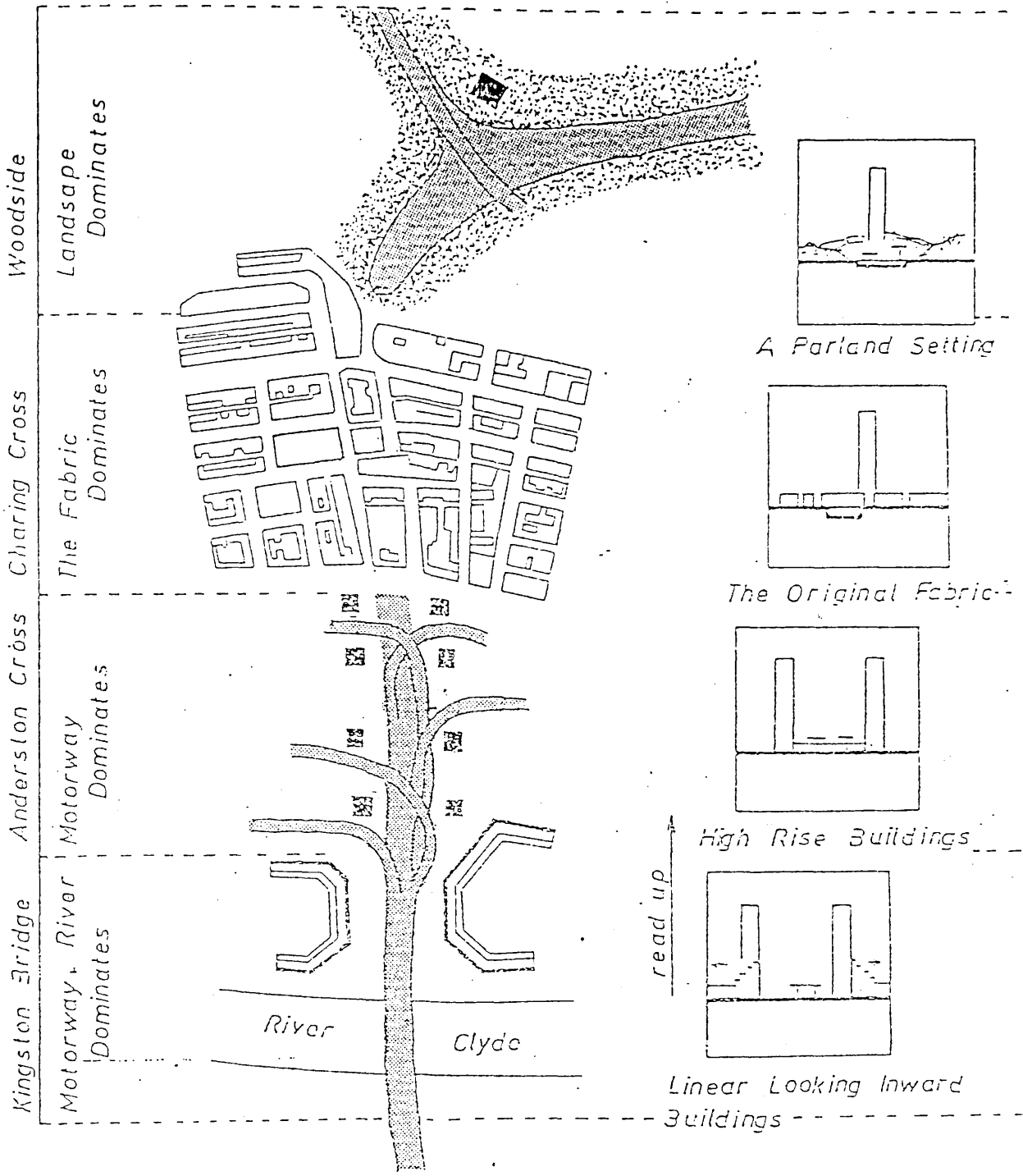
Articulation

achieves a visual progression where the continuity of movement, as being the essence of the motorway is broken up by successive dramas, characterised by sharp change in the alignment of the built form. Inevitably the progression takes the form of four sequences (Refer to plate 120 and 121).

- sequence one : when entering the city from the south, the motorist is met by two linear buildings, running alongside the linear motorway. Inward looking they build up two continuous walls that enclose the "motorway space" responding to its scale and intrusion ("blind" and soundproof walls). The enclosed motorway continues until it reaches Anderston Cross viz.

- sequence two - here the motorist is surprised by the opened although structured townscape as high quality high rise buildings are positioned regularly and symmetrically, like a succession of twin towers, on each side of the motorway as the very presence of the elevated junctions does not allow any continuous building frontage. If he chooses to continue his ride on the motorway, the motorist reaches Charing Cross viz.

- sequences three - where he is trapped in a tunnel. Although he is not able to see much of the fabric, he will be fully aware of its presence above him. Retaining its urban character, the area in question will be preserved with one modification, the Mitchell plaza



An Urban Design Solution :
 THE SEQUENTIAL MOTORWAY

contribution of the urban designer to strengthen the very concept of preserving this piece of the fabric. This will take the form of a formal open space set to enhance the setting of the Mitchell Library. Out of the tunnel at Woodside viz in

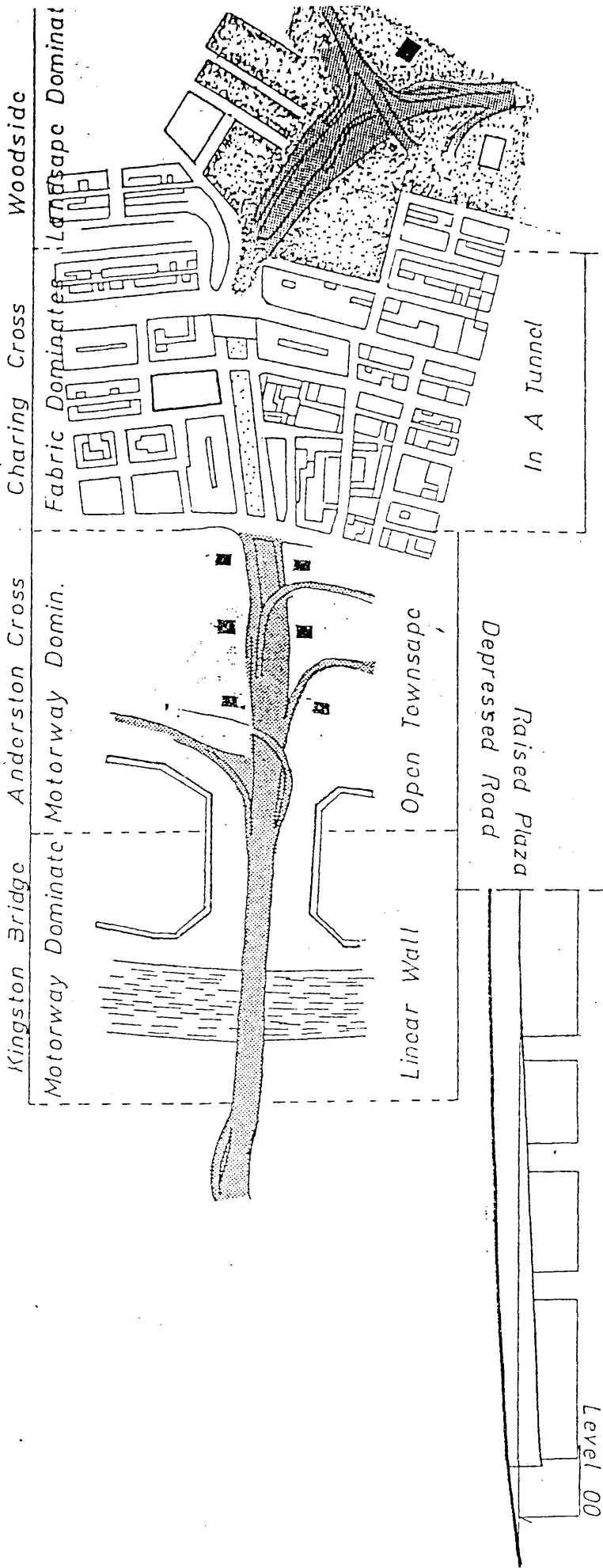
- sequence four, the motorist is struck by the bright vision of light and greenery, the densely landscaped motorway parkland displays. During most of his ride, the motorist is directed by one object, "the tower in the park" which he reaches when approaching the Woodside interchange.

This succession of sequences visualises one of the many approaches towards an assimilation of the motorway into the fabric. It also explores the Gordon Cullen's approach of "Bastion's" to the city centre, that takes here the form of sequential of the motorway territory (refer to the strength of this approach is that it emitted principles that can be applied to any constructed motorway, as verified into the contextual adjustment (plate 121).

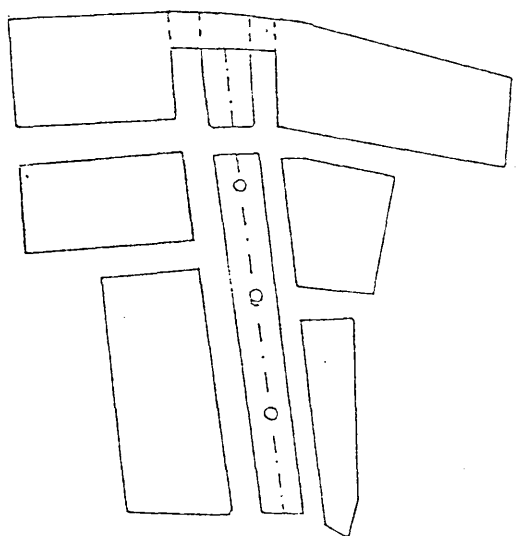
c) The Contextual adjustment

As opposed to the ideal solution, the contextual adjustment arises from the verification of the ideal solution onto the present existing context formed by the west flank of the motorway. Briefly the conditions are

- a structure of streets that debouch harshly on the motorway route with no transition in the traffic flow.
- a fabric where the motorway construction applied plainful scare reflected into its ragged edges and shredded built form (c.f. 3.9).



In The Context The Third Motorway Facet Or Sequence Sees A Modification
 First To Enable The Tunnel - Second To Meet The Road Gradient
 The Plaza On Charing Cross Is Raised.



In between rise objects that stay as a reminder of a past, such as the Mitchell Library.

- a motorway route composed of 5 main sections (c.f. 5.5.2) ranging from elevated to depressed, "agremented" by the same elevated junctions. Thus when applied the technical principles see one modification, viz. in the vicinity of Charing Cross. Although a tunnelled solution is possible, providing it deals adequately with the technical problems (as illustrated on plate 121), it is the unavoidable retention of the feeder roads that *make* the difference.

Indeed this technical modification influences greatly the urban design solution. As instead of being entirely preserved, the fabric regains some of its dominance *by* the form^{ation} of a grand Plaza which runs above the motorway. Nevertheless, the namely Mitchell Plaza scores in favour of the fabric in its battle against the motorway. It takes the form of a longitudinal enclosed open space in front of the Mitchell library, that knits together the fabric and articulates the city centre to the *Park Circus* areas.

This brief account verifies that the principles ^{suggested} in the ideal solution can be applied providing they answer the very nature of the area *as existing*.

5.5.4 Summary

From the very beginning of this chapter, we emphasised the dominance the motorway exerts upon the fabric, especially through the study of its environmental ^e affects. ^{cf appendix one} As an urban design exercise,

we wanted to reverse the trends or at least find a positive solution towards the assimilation of the motorway into the fabric. To do so we put forward principles and ideas that dealt solely with the built form in the vicinity of the motorway, implementing the concept of a sequential motorway,

Setting our work as a complimentary contribution to Gordon Cullen's in Glasgow Action (c.f. 4.4), we applied a similar strategy of "implosion", to use his word, onto the motorway territory, by proposing sequences of places each of which epitomizes a facet of the motorway. Thus two "fires", again his word, may start to burn with the resulting climax of bringing a New Identity to Glasgow city centre.

5.6 Conclusions : "Learning from Glasgow"

This last part of the concluding chapter is mainly related to the lessons taught by Glasgow experiences over the past decade.

Glasgow, as a pioneer city, especially its centre, have been the site of numerous planning policies which drastic results are still prevalent in its present fabric. A centre isolated by vacant sites and full of holes. It is mostly due to the city fathers taking too literally every planning notion since the Garden City. Gaping holes in the fabric and slashes cut by new roads have followed after a policy, for reasons of public health, of the removal of the dense compact fabric of previous epochs.

The leading principles of the recent monastic philosophy were of course the direct applications of functionalism to the design of the city. The CDA'S was the chosen instrument implemented to apply the four functions dictated in the 1933 Athen Chart as being

- Home
- Work
- Circulation
- Recreation

Thus the application of slum clearance as a primary means to achieve urban renewal, resulting in the ⁰last of the urban intensity as said in Asplund's¹ words "Urban intensity is lost like a fire which dies down when the logs are separated." It was only in the 1960's that these short sighted policies were arrested, the city fathers learning that it was easier to destroy than to rebuild, the economic decline being a major factor in their non achievement.

Of course another important agent of destruction and disintegration was the motor vehicle and its consequent motorway building. After having cut drastically the fabric, it invaded every bit of the centre with no result of traffic decongestion.

We can now see how the city fathers' optimism was ^{far} from achieving urban renewal. It in fact led to the dismantlement of parts of the traditional fabric with little adequate replacement. They did not realise that the city fabric regenerates itself over a span of time longer than the times allowed to the achievement of each local plan. Densities and traffic were the two main concerns which "unsuccessful" results are ^{still} reflected in the ^lilfitted housing development of Cowcaddens, Townhead and above all else the insensitive motorway construction.

These actions have also lead to in human terms, a depopulation of the city centre and the city as a whole and above all else to a psychological climate where lack of trust, lack of responsibility and lack of hope were the general prevalent feelings. It was learnt also that if an individual or collective responsibility was to be regained, it was through the implementation of positive policies such as the "Glasgow miles better" campaign and also through an incremental renewal that combines selective redevelopment and preservation and we believe in these policies, to achieve a better future to Glasgow City Centre.

- End -

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APPENDIX ONE

Environmental Effects of the Motorway

The environmental effects of the motorway can be examined under seven headings :- a) Displacement

b) Severance

c) Visual intrusion

d) Noise

e) Pollution fumes and dirt

f) Loss of privacy

g) Vibration

The basis of comparison is a Survey of 1978 which used questionnaires and technical investigations in order to assess the environmental effects of the motorway.

a) Displacement : Displacement represents a serious upheaval, although a short term one, arising from the location and construction of the motorway. The nature of the upheaval is illustrated in :

Plate 123 Fig A - the west flank before completion in 1975

Plate 123 Fig B - " " " after completion in 1984

The scale of the operation is illustrated by the fact that in the section of the motorway between Townhead and the Kingston Bridge it occupies/sterilises about 36 hectares of land.

b) Severance : Severance is the interruption of movement across the line of the motorway and is a measure of the barrier effect of the motorway. Plate 124 shows the main locations of schools and public buildings and the lines of movement across the line of the future motorway. Plate 125 shows the greatly reduced crossing

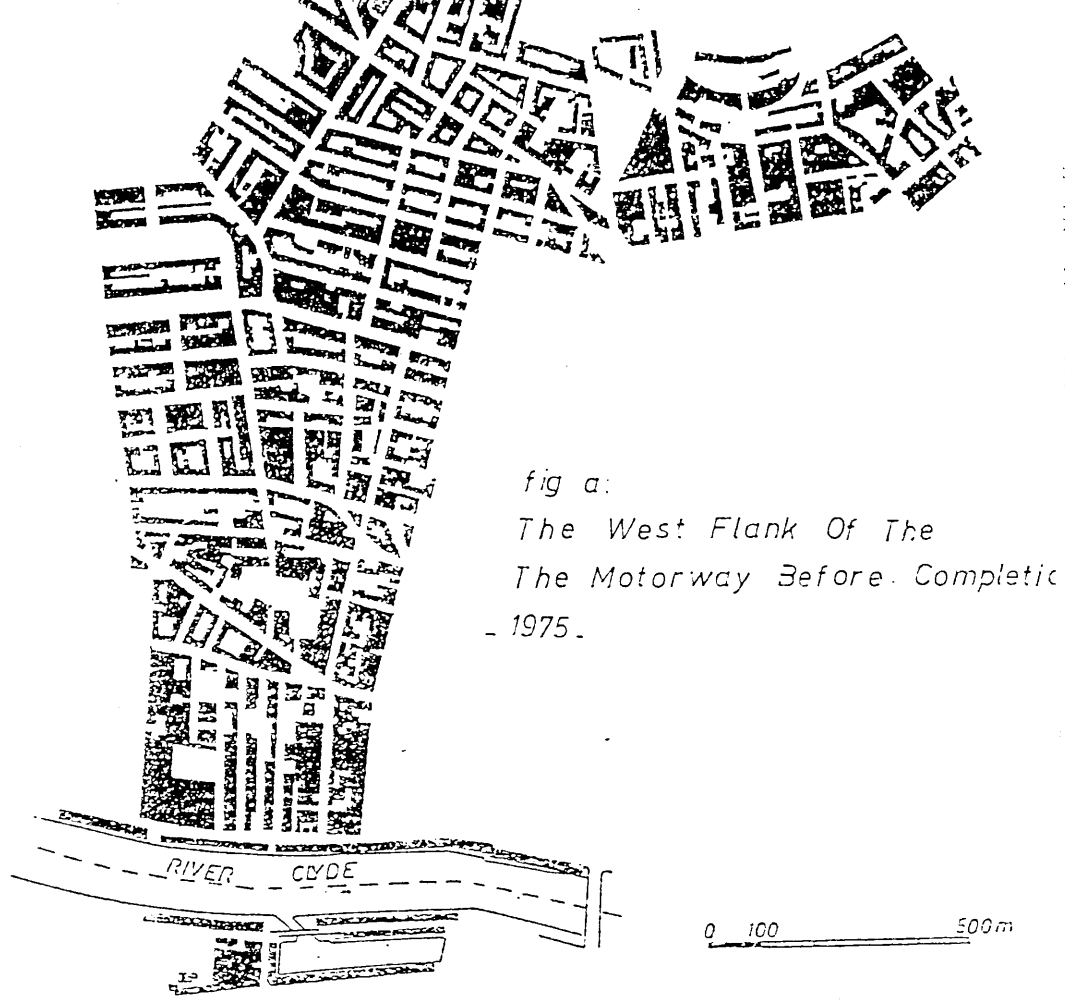


fig a:
 The West Flank Of The
 The Motorway Before Completion
 - 1975 -

..... DISPLACEMENT

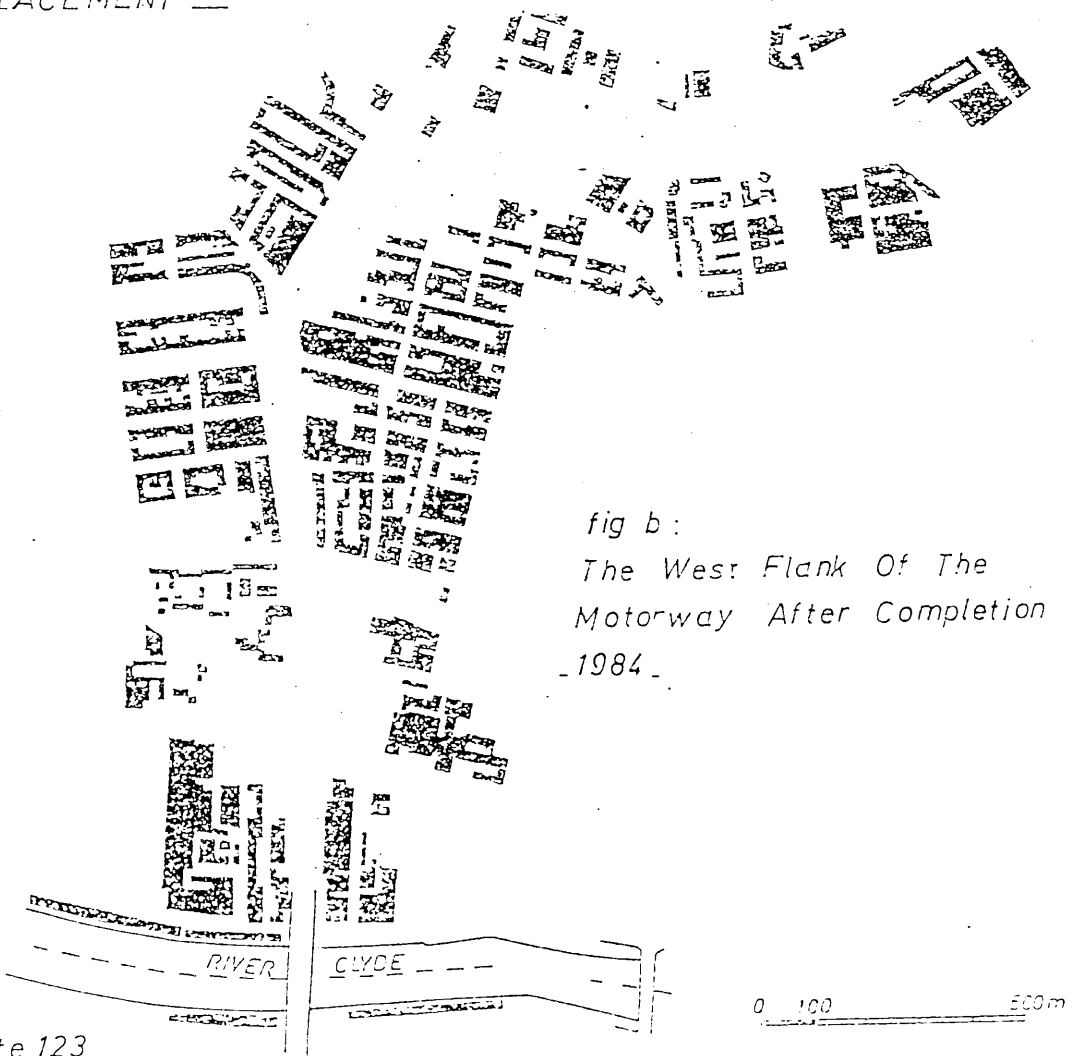
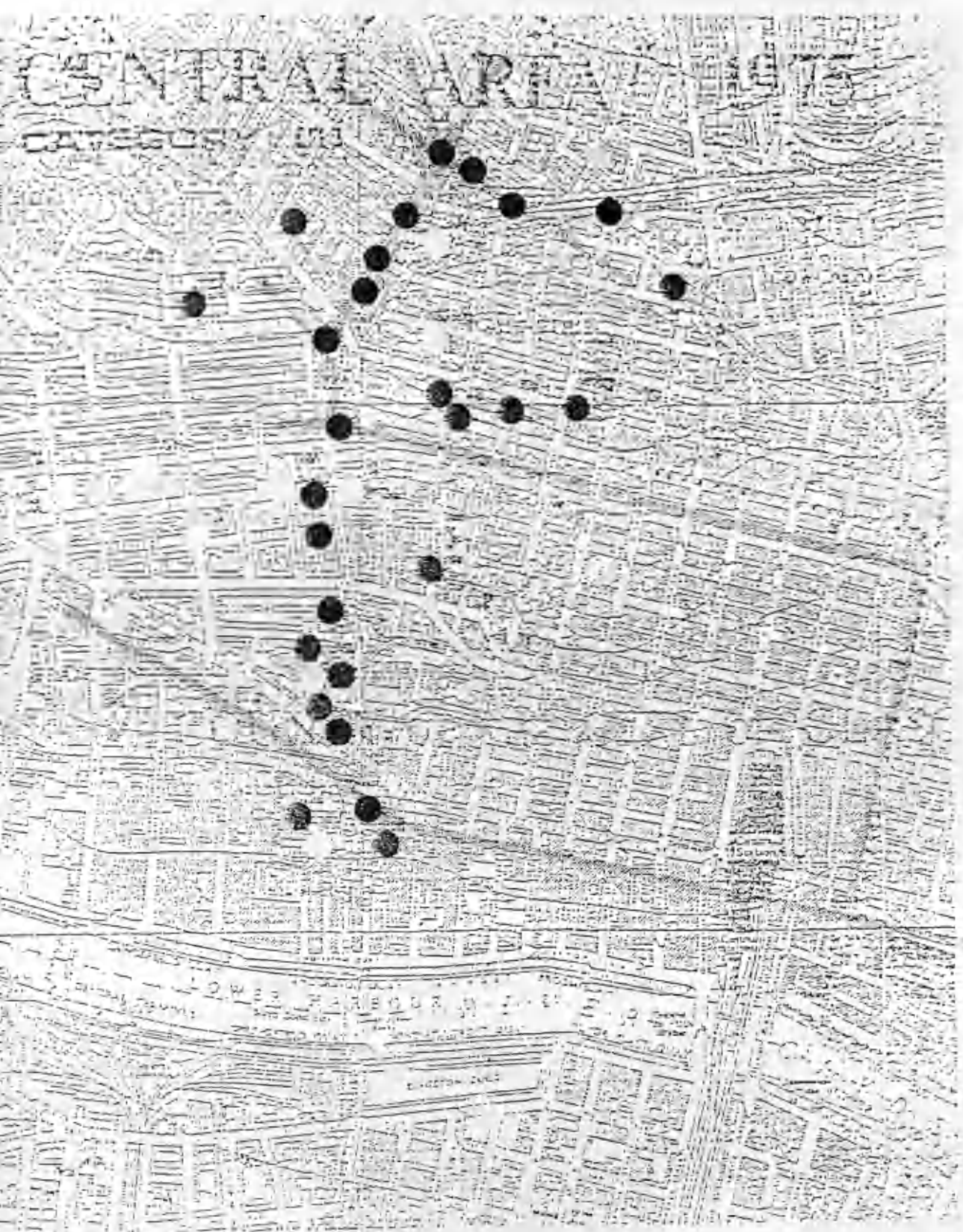


fig b:
 The West Flank Of The
 Motorway After Completion
 - 1984 -

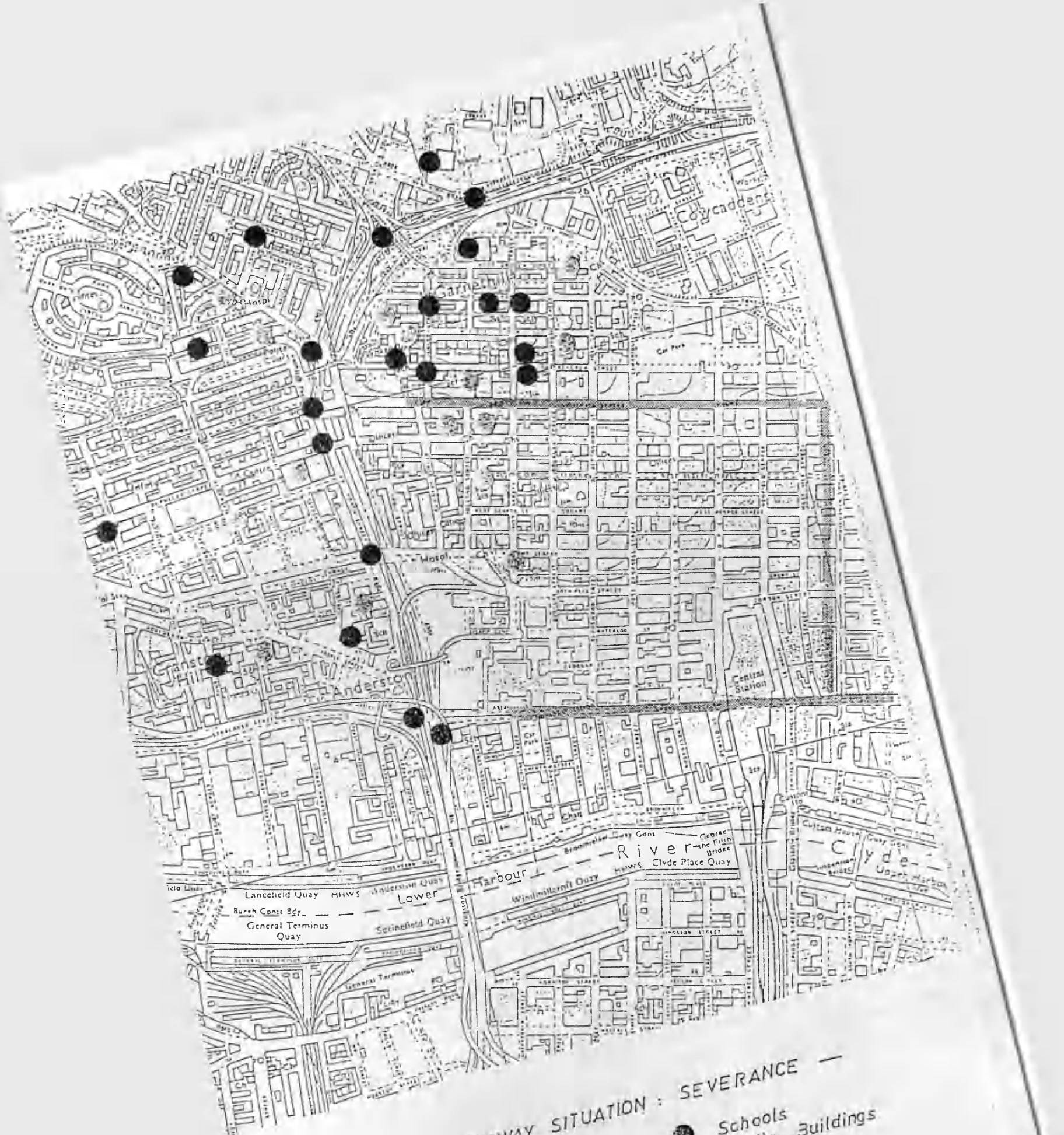
CENTRAL AREA

CATSON, WA



— PRE MOTORWAY SITUATION : SEVERANCE —

- Key :
-  Schools
 -  Public Buildings
 -  Crossings
 -  Shopping Streets

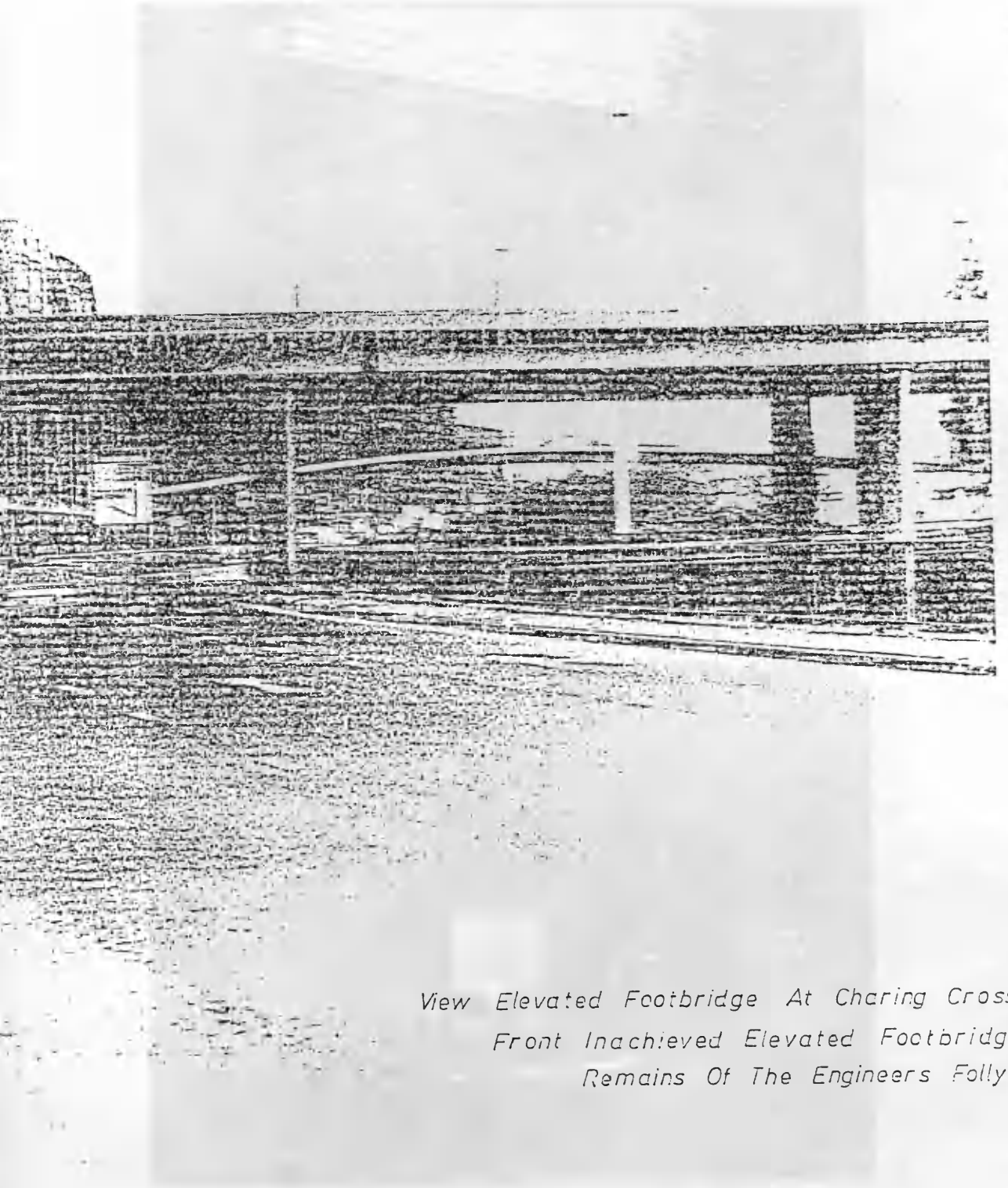


— POST MOTORWAY SITUATION : SEVERANCE —

Key:

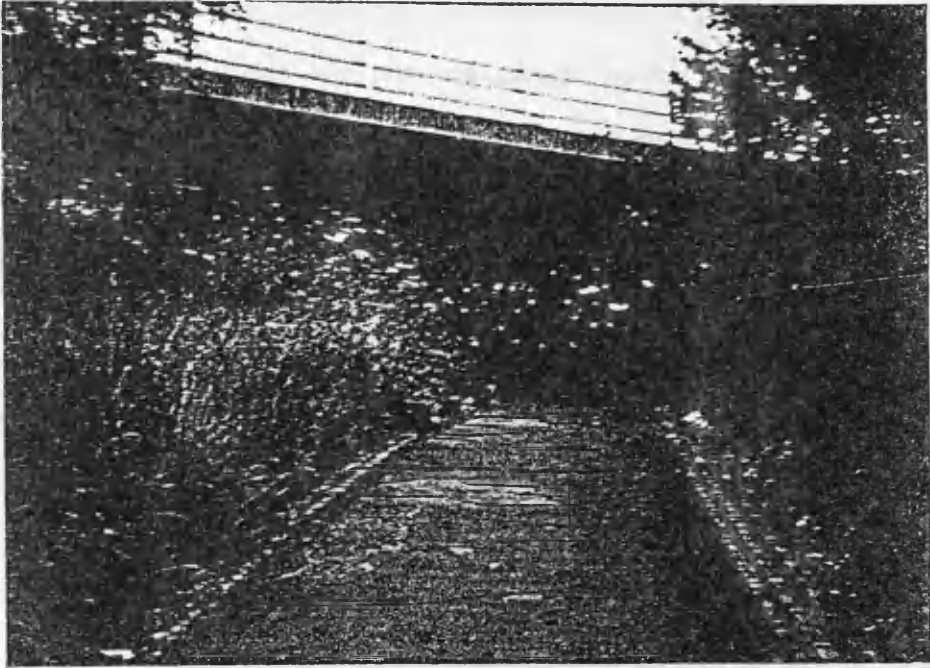
- Schools
- Public Buildings
- Crossings
- ▨ Shopping Streets

SEVERANCE Crossings

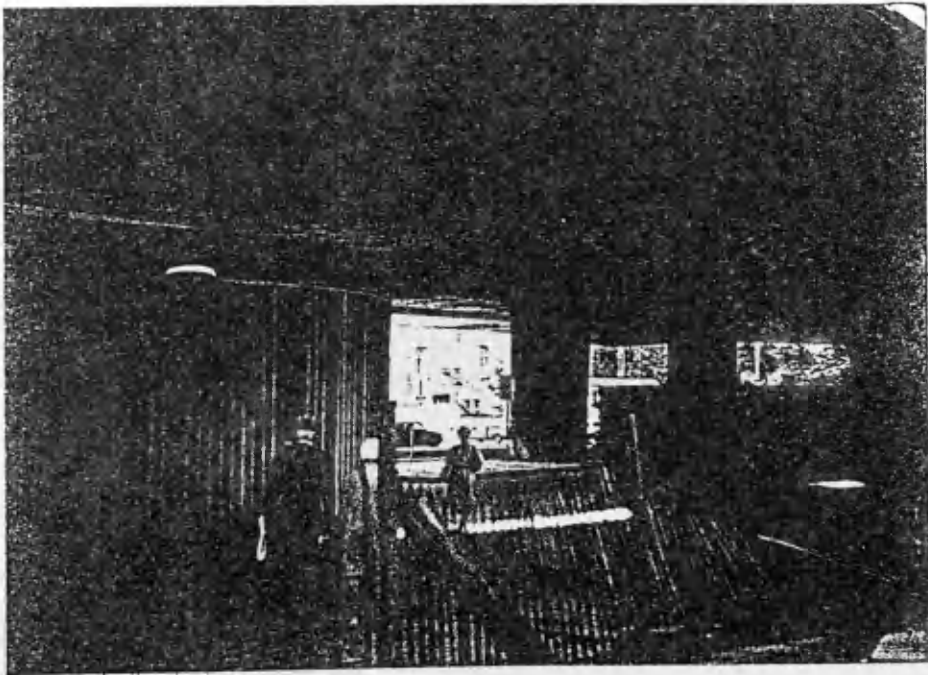


*View Elevated Footbridge At Charing Cross
Front Inachieved Elevated Footbridge
Remains Of The Engineers Folly.*

— SEVERANCE Crossings —



View Crossing Below Elevated Junction At Woodside
View " " " " At Anderston Cross

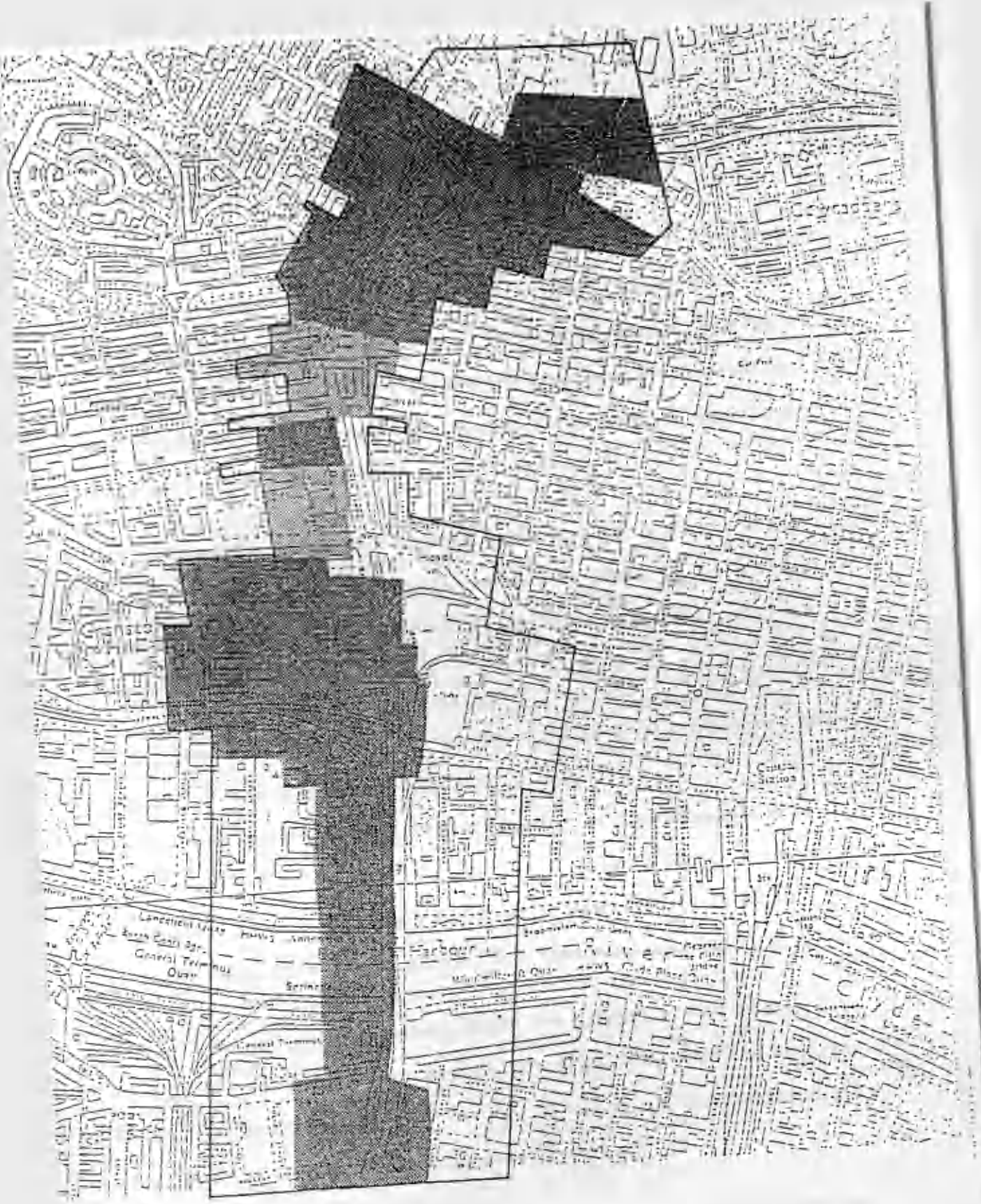


points after completion of the motorway. In visual and functional terms the pedestrian usually comes out worst in the design of the crossing: he is either pushed through a narrow, often dirty and potentially dangerous tunnel or is elevated on a pedestrian bridge to brave the high winds and the horizontal rain (plate 126). Alternatively he has to negotiate brutal and empty spaces below the structure of an elevated section of the motorway (plate 127).

c) Visual Intrusion : To a large degree this is a subjective matter but useful comparison can be made on the basis of three categories of intrusion:-

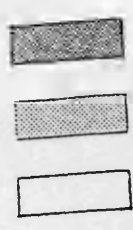
- i) high impact - resulting in feelings of oppression and disturbance and upsetting the architectural character of a place
- ii) some impact - resulting in some distraction and disturbance and a lack of blending into the general scene
- iii) low impact - not immediately disturbing but is visually apparent

Based on the 1978 survey, the map in plate 128 illustrates these three categories of intrusion. It is clear that the locations of high impact are at the Woodlands interchange, the Mitchell Library and at the Kingston bridge approach. A common feature of the motorway in each of these three locations is the dominance of the motorway structure and its access ramps and the lack of adequate space within which the motorway could be assimilated. The setting of the Mitchell Library, a major building of public importance, has suffered badly from the motorway; it is a building which demands



— VISUAL INTRUSION —

Key



High Impact

Some Impact

Area From Which The
Motorway Is Visible

more space to give it the scale and urban setting in keeping with its character.

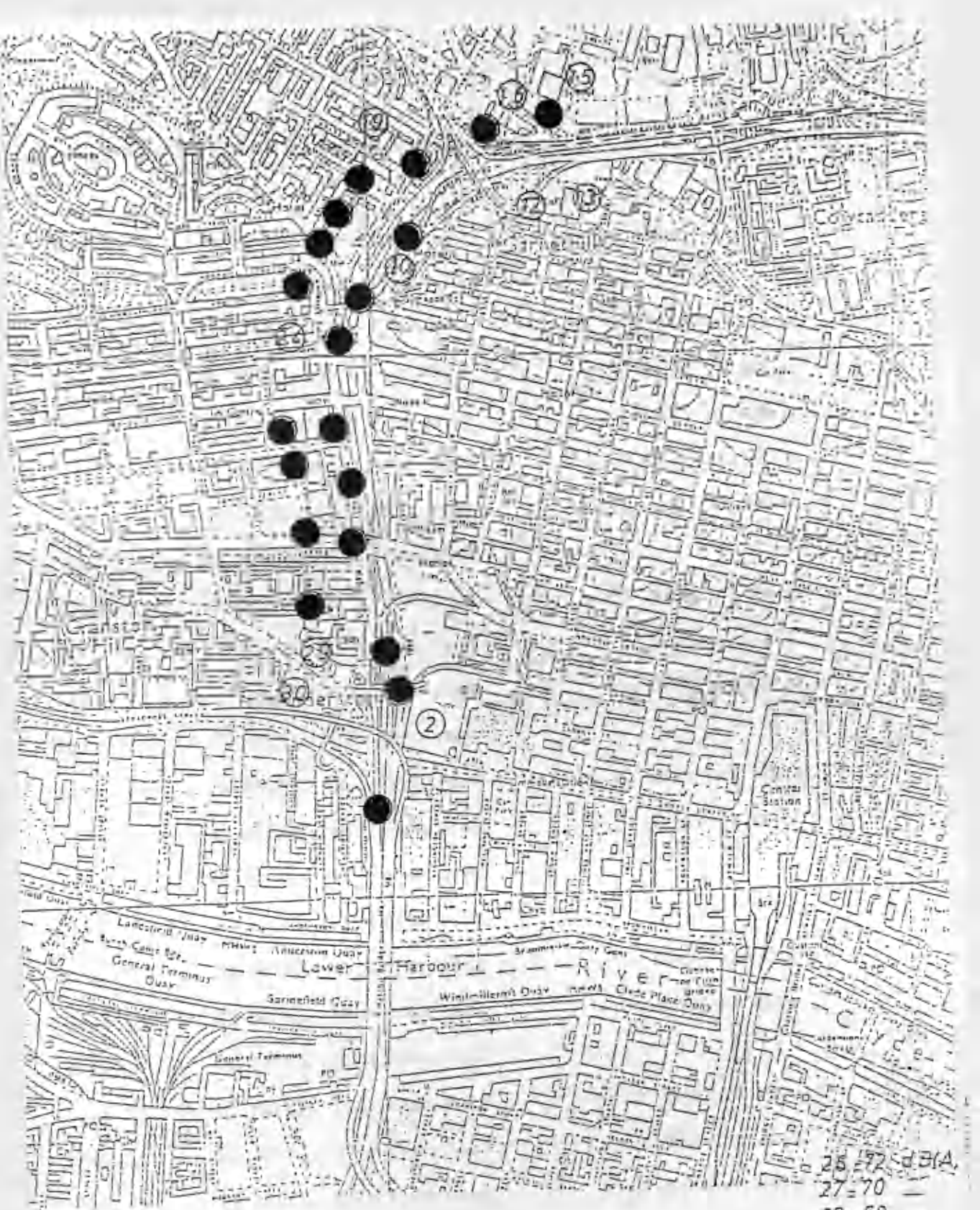
d) Noise : By its nature, an urban motorway tends to create more noise than any other form of road. This is partly because of the volume and type of traffic (a high percentage of lorries and trucks) running day and night. Noise levels are of course exacerbated by road gradients and the amount of reverberation from the many hard surfaces adjacent to the motorway.

To assess the impact of road noise onto the adjacent areas of the motorway, we carried out a calculation based on the different sites for noise readings (plate 129) and their respective distance from the noise source.

The formula which says "the noise falls by a 6 dB(A) for each doubling of the distance from the noise source" and the knowledge that 70 dB(A) is regarded as the threshold of noise reduction and a further reduction of about 3 dB(A) is needed to achieve an audible comfort viz a noise reduction of 67 dB(A) or less. e.g. Site 1 : 70 dB(A), 30 m from road = 66 dB(A) at 90 m.

The results of the calculation are printed. They enable us to draw the boundary of the audibly intrusive area from the motorway (plate 130) and conclude that the feeder roads, in the Charing Cross area, are the most disturbing sources of noise.

e) Pollution : Apparently the designers of the motorway took the view that pollution from the motorway would not present a problem.



25 = 72 d3(A)
 27 = 70 —
 28 = 68 —
 29 = 64 —
 30 = 66 —

— SITES FOR NOISE READINGS —

Noise Readings :				
1 = 72 d3(A)	6 = 74 d3(A)	11 = 70 d3(A)	16 = 64 d3(A)	21 = 76 d3(A)
2 = 65 —	7 = 74 —	12 = 67 —	17 = 70 —	22 = 74 —
3 = 70 —	8 = 68 —	13 = 69 —	18 = 80 —	23 = 76 —
4 = 69 —	9 = 72 —	14 = 70 —	19 = 68 —	24 = 66 —
5 = 75 —	10 = 64 —	15 = 55 —	20 = 72 —	25 = 70 —

The results of the calculation are as follows :

Site 1	70 dB(A), 30 m from road	= 66 dB(A) at 90 m
Site 2	65 dB(A), 140 m from road	
Site 3	70 dB(A), 50 m from road	= 64 dB(A) at 150 m
Site 4	69 dB(A), 80 m from road	= 63 dB(A) at 240 m
Site 5	75 dB(A), 70 m from road	= 63 dB(A) at 490 m
Site 6	74 dB(A), 50 m from road	= 68 dB(A) at 180 m
Site 7	74 dB(A), 60 m from road	= 68 dB(A) at 180 m
Site 8	68 dB(A), 40 m from road	=
Site 9	72 dB(A), 50 m from road	= 66 dB(A) at 150 m
Site 10	64 dB(A), 60 m from road	
Site 11	70 dB(A), 50 m from road	= 64 dB(A) at 150 m
Site 12	67 dB(A), 40 m from road	
Site 13	69 dB(A), 40 m from road	= 63 dB(A) at 120 m
Site 14	70 dB(A), 30 m from road	= 64 dB(A) at 90 m
Site 15	55 dB(A), 70 m from road	
Site 16	64 dB(A), 40 m from road	
Site 17	70 dB(A), 20 m from road	= 64 dB(A) at 60 m
Site 18	80 dB(A), 10 m from road	= 64 dB(A) at 90 m
Site 19	68 dB(A), 20 m from road	
Site 20	72 dB(A), 10 m from road,	= 66 dB(A) at 30 m
Site 21	76 dB(A), 10 m from road	= 64 dB(A) at 90 m
Site 22	74 dB(A), 20 m from road	= 68 dB(A) at 60 m
Site 23	76 dB(A), 20 m from road	= 64 dB(A) at 180 m
Site 24	66 dB(A), 10 m from road	
Site 25	70 dB(A), 61 m from road	= 64 dB(A) at 183 m

Site 26	72 dB(A), 50 m from road	= 66 dB(A) at 150 m
Site 27	70 dB(A), 40 m from road	= 64 dB(A) at 120 m
Site 28	68 dB(A), 60 m from road	
Site 29	64 dB(A), 60 m from road	
Site 30	66 dB(A), 100 m from road	

*The Formula Saying "The Noise Falls By 6 dB A For Each Doubling Of The Distance From The Noise Source" Is Extracted From Calculation Of Road Traffic Noise ,
Department Of The Environment ;
HM SO London 1975 -*



— NOISE —
 Evaluation Of The Noise Climate Around The Motorway
 Key: — Boundary Of The Noisily Intrusive Area
 (1) New Noise Reading Sites
 For Method Of Evaluation, See Texte (Cf. 5.2.5)

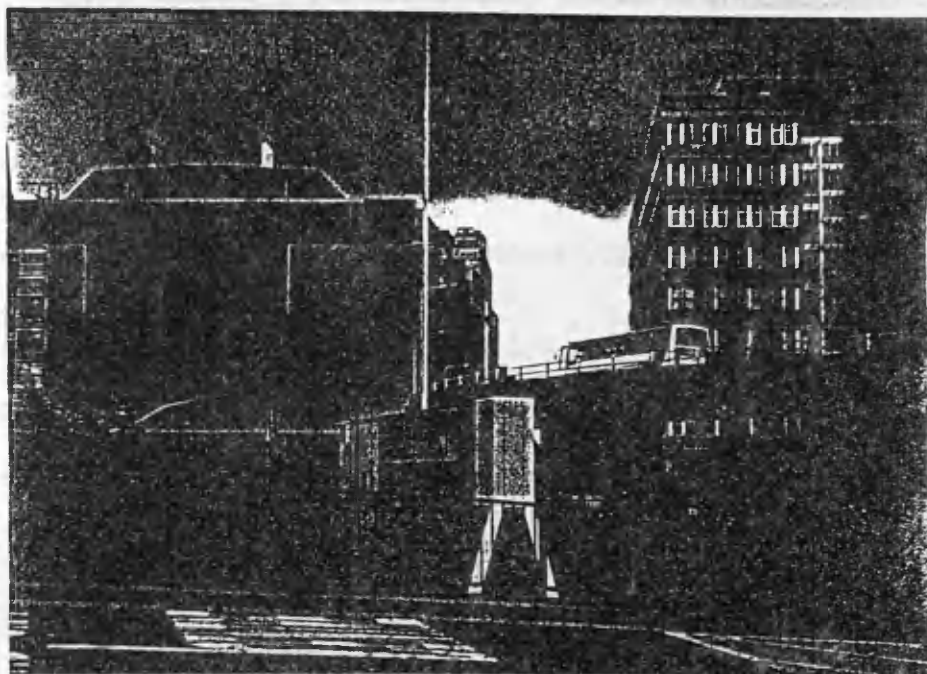
0 100 500m.

No actual measurements have been taken since its completion to find the level of air pollution and it appears that, if there is a problem, it is probably much less than one would find in a street carrying dense traffic in the city centre. The reason for this is the amount of space occupied by the motorway and the local climate - relatively higher wind speeds and rainfall. This is not to say that exhaust fumes in the sunken area of the motorway are insignificant; almost certainly they affect the micro-climate alongside the motorway in which living plants and trees are growing.

f) **Obtrusion and Loss of Privacy** : This is a serious problem along elevated sections of a motorway close to buildings (see plate 131). It is one of those 'crimes' against the established scale and urban qualities that designers of motorways either ignore or accept on the grounds that the cost of acquiring more space in which to site the motorway would be excessive.

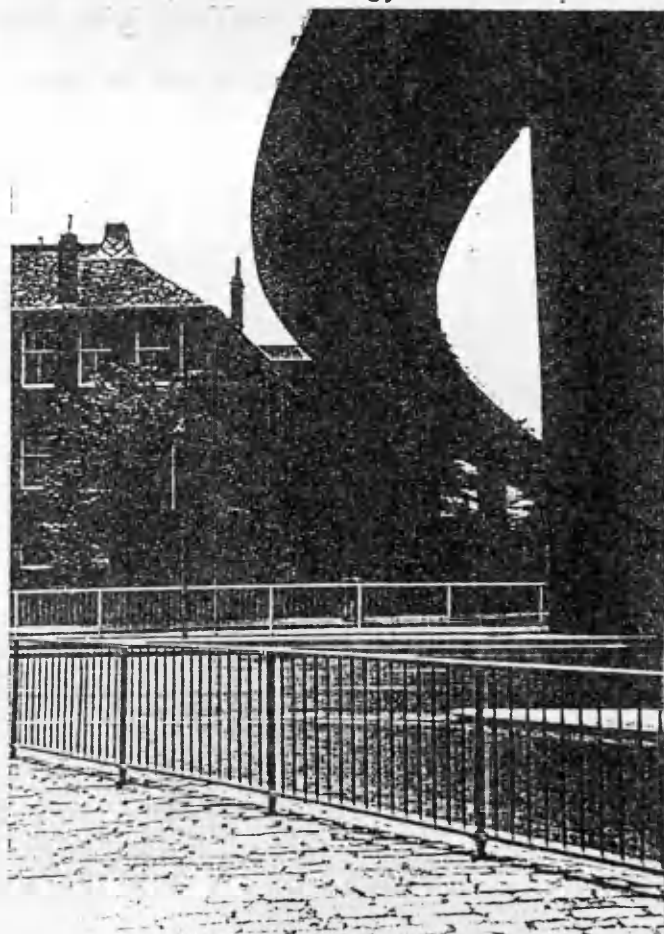
g) **Vibration** : This represents a growing threat to nearby buildings and underground services, but is not of course confined to motorways. One building which has been identified as suffering from vibration caused by heavy, high-speed traffic on the motorway, is the Mitchell Library - a type of building especially sensitive to both noise and vibration.

In summing up the environmental effects of the motorway, one can refer to the 1978 Survey in which the number of complaints out of 40 responses were noted against each of the following categories :-



*View a : One Elevated Road Entering The City Centre
Via Anderston Cross .*

*View b : The Glasgow Art Centre Overlooked By An
Elevated Road At Argyle Street .*

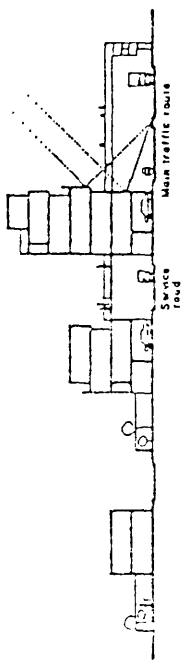


Severance	32	complaints
Visual intrusion	30	"
Noise	35	"
Pollution	25	"
Loss of privacy	1	"
Vibration	10	"

The limited nature of this Survey makes it difficult to credit it with any significant degree of objectivity.

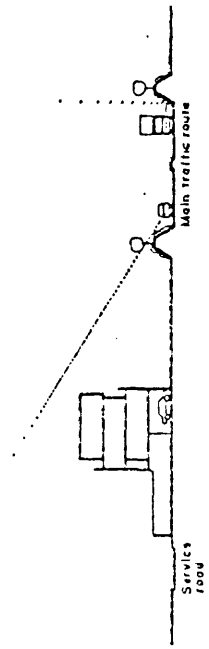
However, it helped us identify the different environmental impacts and assess how much of the area around the motorway has been qualitatively and quantitatively damaged.

Several publications have attempted to find solutions to counterattack these impacts, in an urban design term. Appendix 2 shows some of the solutions that can be applied. Landscape is another proposed solution. Even if limited in terms of noise reduction it plays a considerable role to achieve a reduction in pollution as well as annihilate the visual intrusion. In Appendix 3 we suggest some of the planting that could be applied to motorway environment.

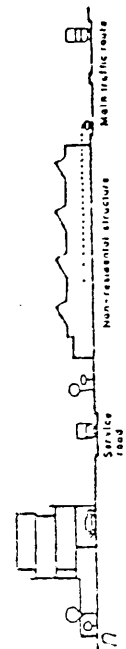


Continuous buildings: increase noise at the face overlooking the source and reduce it on the other side.

Screening

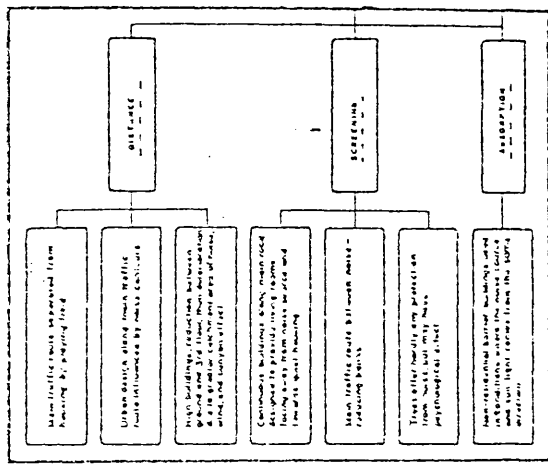


Screening



Non-residential barriers: absorb traffic noise to screen more

Absorption



NOISE

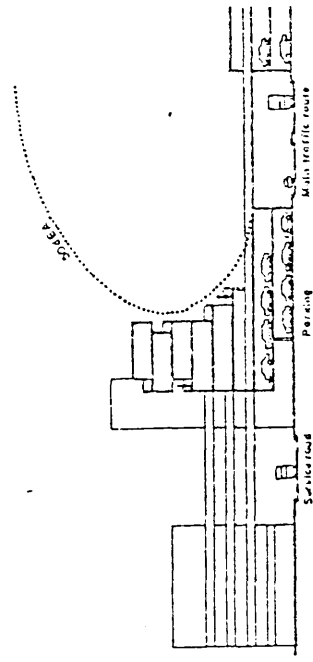
Effects Of Traffic Noise On Urban Design With Distance, Screening And Absorption. As Solutions To Achieve Noise Reduction For All Types Of Motorways.

Scale 1:10 50m



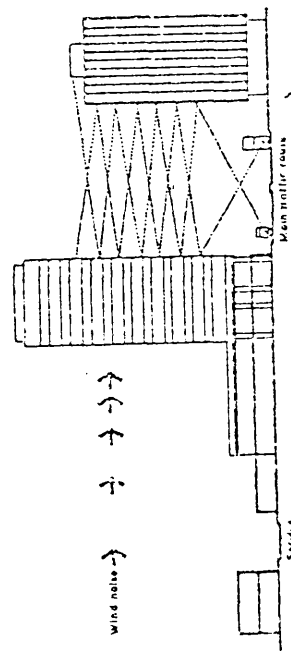
Distance as an attenuator of noise: a means of physically separating the road from buildings.

Distance



Noise contours: a means of controlling noise levels by urban design.

Distance

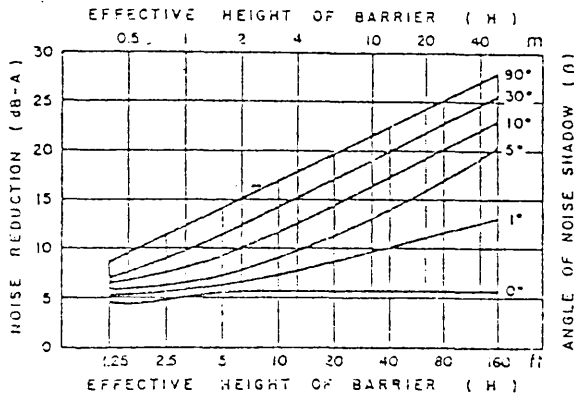
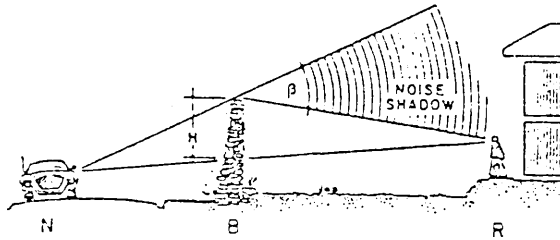


High buildings: reduction between ground level and third floor, then deterioration occurs due to greater catchment area of noise, wind, and canyon effect.

Distance

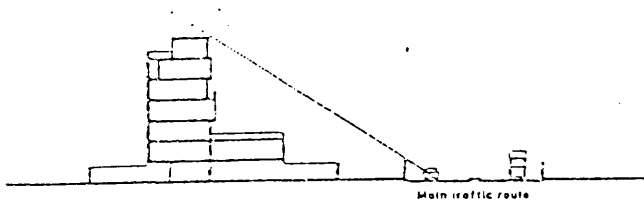
— NOISE —

Noise Reduction Solution: Screening



Noise reduction by barriers placed between noise source and receiver: N, noise source; B, barrier; R, receiver.

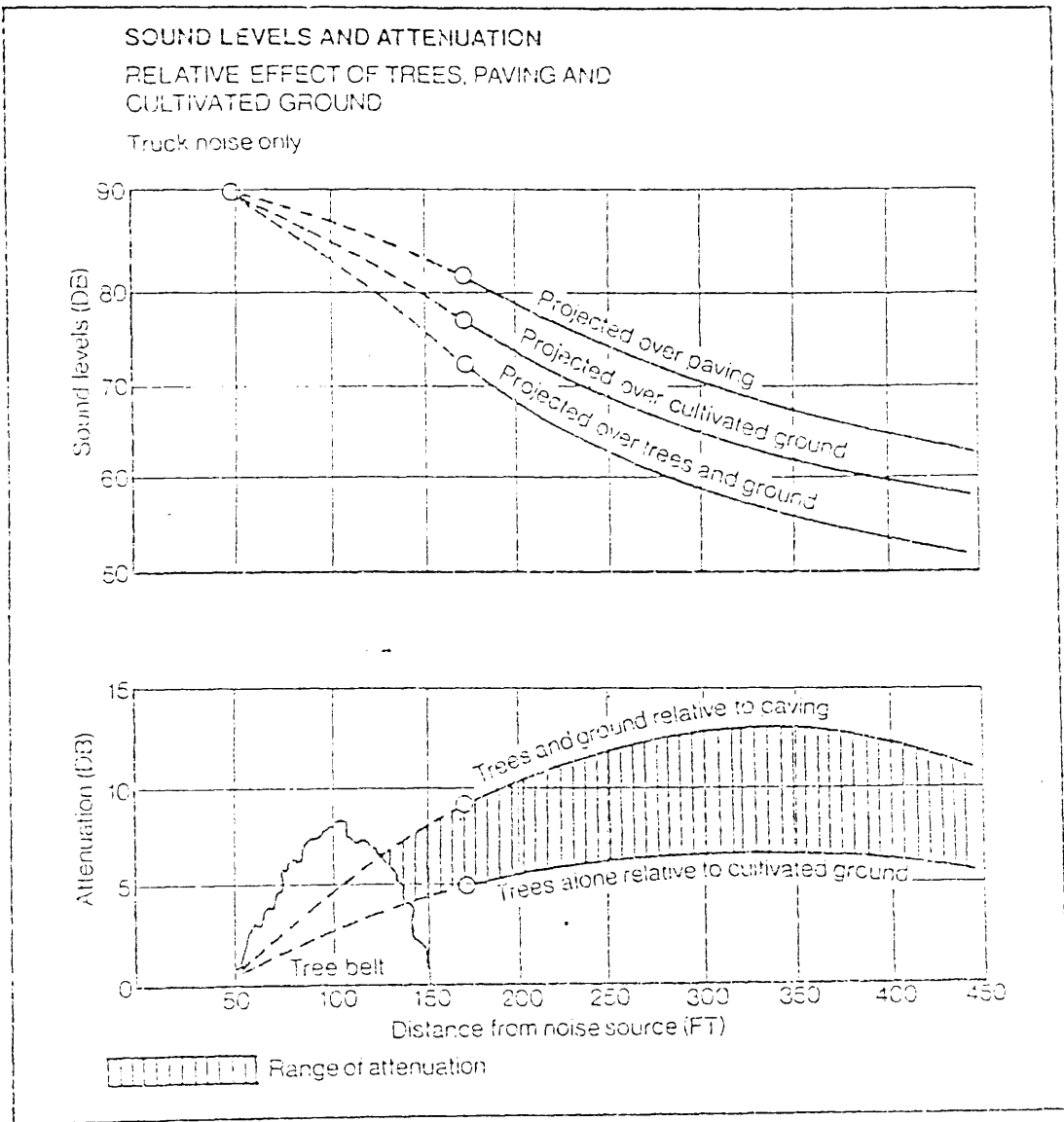
Use Of A Soundproof Barrier As A Noise Reduction Solution To Achieve Screening From The Noise Source.



Screening noise: an effective means of controlling traffic noise, provided visual aspects can be adequately dealt with.

A Masonry Wall Of 3m High Achieves A Noise Reduction Of 20 dB(A)

Trees And Landscpe As Noise Reduction Solutions



Trees Are Weak As A Noise Reduction Solution
 A Belt Of Trees Of 30m Wide Achieves
 A Noise Reduction Of 1.5 To 3 dBA!
 Yet They Are Effective As Screen To
 Visual Intrusion From The Psychological
 View Point
 A Earth Embankment Of 10m Wide Achieves
 A Noise Reduction Of 18 dBA! Thus They Are
 More Effective Than Trees In This Respect

Trees and noise reduction. Whilst not effective in screening of all sounds, plants do seem to screen out sound levels sensitive to human ears. They do this by modifying climatic conditions and by absorption, deflection, refraction and reflection of noise. In spite of the weakness of their sound absorption trees are effective in scattering or diffusing sound and thereby add to the effectiveness of grass. The foliage, because of its flexibility and softness absorbs sound, the trunks and heavier branches deflect it.

Motorway Planting

Appendix 3

A basic 'recipe' for use in typical situations taking account of local climate and low maintenance

Low planting : dense cover planting with each particular area having one dominant species, for example

Cotoneaster buxifolia	- evergreen
Symphoricarpus 'Magic Berry'	- evergreen
Vinca minor 'Bowles Variety'	- evergreen

Steep embankments : dense cover planting as before

Cotoneaster damerii	- evergreen
Berberis hybrido-gagnepainii	- evergreen

Concrete walls

Vitis coignetiae	- deciduous
------------------	-------------

Trees

Grouped and treated almost as ground cover eg

Hornbeam	- Carpinus betulus
Elder	- Sambucus racemosa
Birch	- Betula pendula
Holly	- Ilex Aquifolium 'Green Pillar'

*Source From Discussions With A. Wightman BSc.
Department Of Forestry
ABERDEEN Universty.*

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