

**TOWARDS THE URBAN RESTORATION
OF NEWCASTLE UPON TYNE**

Volume 1 of 2 - Chapters 1 - 3

ROBERT GIDDINGS BA BArch MA DMS RIBA MCIOB FFB

Doctor of Philosophy
University of York
Institute of Advanced Architectural Studies

January 1994

ABSTRACT

This research is based on a review of the theories and concepts of 19th and 20th Century pioneers, from which appropriate Urban Design Principles and Urban Typologies, are deduced. The development and change in Newcastle upon Tyne are examined, and two Study Areas established to represent 19th and 20th Century intervention. In addition, two European cities are selected as Exemplar Study Areas. All four Areas are tested against the Urban Design Principles and Urban Typologies. This creates the basis of the Possibilities for Urban Restoration, which include suggestions for future development of the city.

The essence of the thesis is that in elemental terms, the city is composed of solids and voids. Every part of city volume is either one or the other. The voids are represented by squares and streets, and the solids are buildings - which may be either focal or background types. There is an investigation of each of these four elements, ie, square, street, focal building, background building - and their interaction. The outcome is a Frame of Reference which offers parameters for appropriate development of the four elements, and thereby the appropriate development of Newcastle upon Tyne.

This work provides an unique and extensive inquiry into the evolution of Newcastle upon Tyne with particular respect to the Study Areas, and related to the planning history of the city. For the first time, an analysis of its spaces and buildings is undertaken and associated with data from two European cities to provide a comparative context for the Newcastle patterns. The application of principles and typologies is devised to illustrate an alternative city form to the existing situation. Finally, there are considerations about how the alternative approach might be enacted.

Intensive area studies in Amsterdam and Stuttgart are only achievable with the substantial co-operation offered by the University and Local Authority in each city.

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PREFACE

A sad thing about the tour wuz that se often 'e had t'point oot places that wazn't theor, cass the' had been demolished, an' summack else built ower the place

But theor - Aa'm an aad wife, an' Aa like aad-fashioned things. An' Aa suppose Newcassel eethor hez t'move with the times, or get left ahint.

Dorfy, Between Ye an' Me, Readings and Recitations in Tyneside Dialect 1969

I look at this out here, and I can't work out how we've turned it all, into that back there - where we've come from ... with precincts and motorways and takeaways

Where did we go wrong?

I'll tell you what went wrong ... people don't hear the music ... that's the sanity clause -

You only have to listen.

Alan Plater, The Beiderbecke Connection 1988

ACKNOWLEDGEMENTS

Professor Douglass Wise

Supervisor
Director
Institute of Advanced Architectural
Studies
University of York, 1975-1993

Newcastle upon Tyne

Mrs Hazel Dumpleton

Great, Great, Grand-daughter of John
Wardle

Mrs Ann Lippe

British Council

Mr Frank Manders

Local Studies Librarian
Central Library

Dr Lawrence Watson

Head of International Office
University of Northumbria

Staff

Members' Library
Newcastle City Council

Staff

Photographic Unit
Newcastle City Council

Amsterdam

Dr Cees Cortie

Department of Human Geography
University of Amsterdam

Dr Leon Deben

Director
Centre for Metropolitan Research
University of Amsterdam

Prof dr W F Heinemeyer

Professor Emeritus
University of Amsterdam

Mr Allard Jolles

Architectural Historian
Amsterdam Physical Planning Department

Mr Jaco Kalfsbeek

Designer
External Public Spaces
Amsterdam Physical Planning Department

Ms Trudy Kragtwijk

British Council

Drs Cilian Terwindt

Director
Inner City Research Group
Amsterdam Physical Planning Department

Stuttgart

Dr Helen Kearns	British Council
Herr Albrecht Klenk	Regional Planning and City Planning Co-ordinator Stuttgart Planning Department
Prof Antero Markelin	Head of the Stadtebauliches Institut University of Stuttgart
Herr Ulrich Seitz	Urban Designer Stadtebauliches Institut University of Stuttgart
Dr Bernard Sterra	Architectural Historian Stuttgart Planning Department
Herr Uwe Stuckenbroch	Head of City Centre Division Stuttgart Planning Department
Herr Matthias Thum	City Statistics Officer Stuttgart City Council

Mrs Jenny Millican for typing and advice about consistency

Francesca for general encouragement

INTRODUCTION

AIMS AND OBJECTIVES

The motivation for this study finds its origins on a September day in 1975. The author had just arrived in Newcastle upon Tyne from London. Setting out to explore the city, the search was on for streets and lanes, containing historical pubs and jazz clubs - which had become an integral part of the legend of the North East. College Street seemed like a promising start and there was much to admire in the buildings. The late 19th Century delights of the former Municipal College of Commerce, Burt Hall (the miners' headquarters) and the Dental Hospital (the first Medical School in the city)^x - were arrayed to either side. The street narrowed towards the end and opened out into ... a sea of tarmac. A dual-carriageway swept down to the left where it joined the motorway. To the right, was another dual-carriageway which disappeared under a deck. Ahead right was a temporary car park and ahead left, at some distance across the road, was a tall, undistinguished commercial building. If this was not sufficiently shattering in terms of dreams, the way ahead was barred by metal railings and there were strong indications that the Authorities' preferred route was up an ugly ramp to an overhead walkway. x S.W

In the years between 1975 and 1994, there has been a continuing realisation of the disruption caused to Newcastle's city centre by the great schemes of the 1960s. It has been postulated that the damage inflicted on the city was a product of that era and everybody has learnt the lessons. This is not so. Newcastle is still subjected to inappropriate road schemes such as the West Central Route and the Cradlewell Bypass. John Dobson Street has been extended rather than reduced, and favourite buildings continue to be lost. Amongst these, have been the Handyside Arcade and the Haymarket Hotel. Both were demolished to make way for two different kinds of car park. The Haymarket Area itself is continually threatened by redevelopment and the life has been drained

out of traditional shopping streets such as Grainger Street and Clayton Street by the Eldon Square Shopping Centre which has been growing like a cancer in the heart of the city.

Visits to other towns and cities confirmed the view that Newcastle does not have to be ugly to be functional. It became apparent that sensible accommodation could be made for motor vehicles, while the city centre can flourish as a fascinating place for pedestrians. The main aim therefore, became established as - how to undo the damage, and restore Newcastle as a fascinating and functional urban environment. This was followed by two further aims. The first was to evolve a Frame of Reference for Future Development in the city. Secondly was the investigation of Organisations, Groups and Mechanisms that could progress the Urban Restoration.

City design has too often been written-off as a matter of opinion or taste; and arguments about good city form have invariably degenerated into aesthetical considerations or the debate between traditionalists and modernists. The result has been a progressively less coherent urban environment as the 20th Century has unfolded. An important objective is not the provision of legislation as a means of generating consistency, but an awareness of the qualities that an urban environment should exhibit and the human needs it must fulfil. As a starting point it is essential to appreciate the underlying composition of the city - past and present. Thus, further objectives include the recording of Newcastle's evolution from the first available plans, over a period of about 300 years, to the early 20th Century. By following the morphological development of the city, the analysis of proposals for mid 20th Century Comprehensive Development Plans can be set in context. The focal period is 1960-1990, because it saw the most dramatic changes to Newcastle's urban fabric in the city's history. It is essential to assess the impact

of these changes on the city's Built Environment, Local Economy, Social Structures and Spiritual Well-being - as a means of evaluating the 20th Century plans, highlighting their deficiencies and providing positive suggestions for the future.

The objective involved in selecting the two Newcastle Study Areas is to limit geographical size, allowing for in-depth analysis. Two European Exemplars are also selected, with the objective of investigating Areas where -

- . Sensitive policies have been/are being formulated and realised on the ground
- . Coherent patterns are evident
- . Planning frameworks can be identified and the provision of quality is a clear aim

The objective of suggestions for the Newcastle Study Areas is to apply the derived Urban Design Principles, using Urban Typologies, to produce some Possibilities. It is a clear intention not to create a Master Plan. Also, comprehensive schemes for the Study Areas would be wholly inappropriate. Nor are Design Proposals within the scope of this thesis. Thus, a careful balance is being attempted, not to specify actual schemes, while offering sufficient illustration of the Possibilities.

In terms of suggestions for the City, there is a specific objective not to incorporate them into the planning system as some kind of restrictive, dictatorial piece of quasi-legislation. The intent is to generate material which will be encouraging and helpful to developers and their consultants, as well as Planning Departments. The information is categorised in three sections -

- | | | |
|------------|---|---------------------------|
| Objectives | - | What should be aimed for? |
| Principles | - | What could be done? |
| Criteria | - | How might it be done? |

The final objectives are the dissemination of a common vision for the city, and achievement of action based on that vision. *It should be noted that all the Suggestions relate to survey information which was collected in 1991. Some demolition and redevelopment have occurred since that time and therefore the Possibilities may not be totally representative of the city in 1994.*

METHODOLOGY

In considering how this Study might be carried out, it is interesting to review *Raymond Unwin's* Schema -

'Before any plan ... of town development can be commenced, a survey must be made of all existing conditions There can be no doubt about its importance, if the development is to grow healthily from past life and present needs of a town

In most towns, there exists already much material of the nature of an historical survey. In connection with this, there should be collected a series of maps, showing as completely as possible, the past development of the town There should also be available for the purpose of comparison and suggestion, good plans of ... towns ... abroad, similarly situated to the one under consideration. ... Where the town to be dealt with, is at all a large one, there should be a careful survey of general traffic Any marked tendencies of town growth should be noted, with the indications afforded by them as to the most natural lines for future development

Local requirements, customs or prejudices affecting the desirable size and shape of building plots for various purposes ... so influencing the distance apart of new streets, should be stated, and the widths, character, treatment of new streets suitable for the locality might be suggested. Conditions as to building materials and traditional method of building found in the locality ... and any other characteristics which go to make up the individuality - economic, historic and artistic, of the town, should be very carefully noted with a view to preserving and fostering such individuality Some estimate might well be made in the way of ... public buildings ... and open spaces, so that

suitable sites could be provided for them; with general suggestions as to special spots, historical or legendary associations attaching to buildings or places ... or views of beautiful buildings or groups of buildings

The city which seeks to design its future developments must first know itself thoroughly, and understand its own needs and capacities The sacrifice of this individuality is to a city, vastly more momentous loss than we are today apt to realise. ... Most of us know how some towns appeal to us, how we come to love them, with what affection we remember our visits and with what sense of joyful reunion we return to them, after long absence. All this springs from the individuality of a town and is intimately bound-up with the poetry of its existence

The selecting of suitable positions for central squares or places, round which may be grouped in some dignified order such public buildings as may be required for municipal, devotional, educational, or recreational purposes ... will require much thought. For such purposes, places must be chosen that will not only offer adequate architectural possibilities, but will also be suitable in character and position to form centre points in the plan, at which it may be reasonable to hope the common life of the city will find a focus.' (1)

The process, as set out by *Unwin*, forms much of the background to the methodology of this thesis. In this case, the work commences with an analytical flow chart for 'A Study in Replanning and Urban Renewal at Newcastle upon Tyne'. (See Figure 1) The original focus was the Burn's Plan (1967) of the same name. The objective of the chart is to outline the influences on the Burn's Plan and then to provide links between it and the city of today (1990). In this way, a number of strands of influence are identified. From the situation of 1990, it is evident that a Frame of Reference for Future Development is required. The first priority is to pursue an appropriate theoretical background. A Brief Resumé of 19th and 20th Century Pioneers establishes a model of pioneers and city typology. The nature of working within Newcastle upon Tyne means that Incremental Growth rather than the Grand

Plan, becomes the theoretical theme of this Study. Urban Design Principles and Urban Typologies are therefore based on the concepts of pioneers such as *Sitte, Unwin, Lynch, R Krier, McCluskey, Dunbar, Cullen, Alexander, Tibbalds, Lozano, Jacobs* and *Newman*. The rationale for this approach is clear. The study is about Urban Restoration within an existing post-Industrial City, rather than the creation of a new town or proposals for extension. Each aspect of the Principles and Typologies is analysed. The result is that information generated either makes direct contribution to the proposed Frame of Reference, or needs to be subjected to experimentation and further investigation.

Following *Unwin's* recommendations, substantial historical and contemporary survey work is undertaken in Newcastle upon Tyne, to gain a full appreciation of the city. Two Study Areas are selected in the city centre representing 19th and 20th Century intervention. Also, two European Exemplar Study Areas are chosen. All four Study Areas are explored in terms of the Principles and Typologies identified for experimentation and further investigation. The analysis reveals additional information, which can itself make direct contribution to the Possibilities and especially to the proposed Frame of Reference.

From the completed collection of information about Principles and Typologies, from both the theoretical background and the experimental application, suggestions for the Newcastle Study Areas are devised. With careful reference to data about Development and Change in Newcastle upon Tyne, generated from the survey work - the Study Area suggestions are extrapolated to produce suggestions for the city.

Thus the methodology is based on a firm theoretical background established by 19th and 20th Century pioneers working in this genre. In particular, it follows the recommendations of *Raymond Unwin*, who in turn pays tribute to *Camillo Sitte*. Experimental work is derived from this theoretical base and all knowledge gained is applied in the Possibilities.

REFERENCES: Introduction

1. UNWIN, R., Town Planning in Practice - An Introduction to the Art of Designing Cities and Suburbs, (London 1909, 2nd Ed., 1934) (New York: Benjamin Blom. Inc., reissued 1971) 141-150

TEXT BOUND INTO THE SPINE

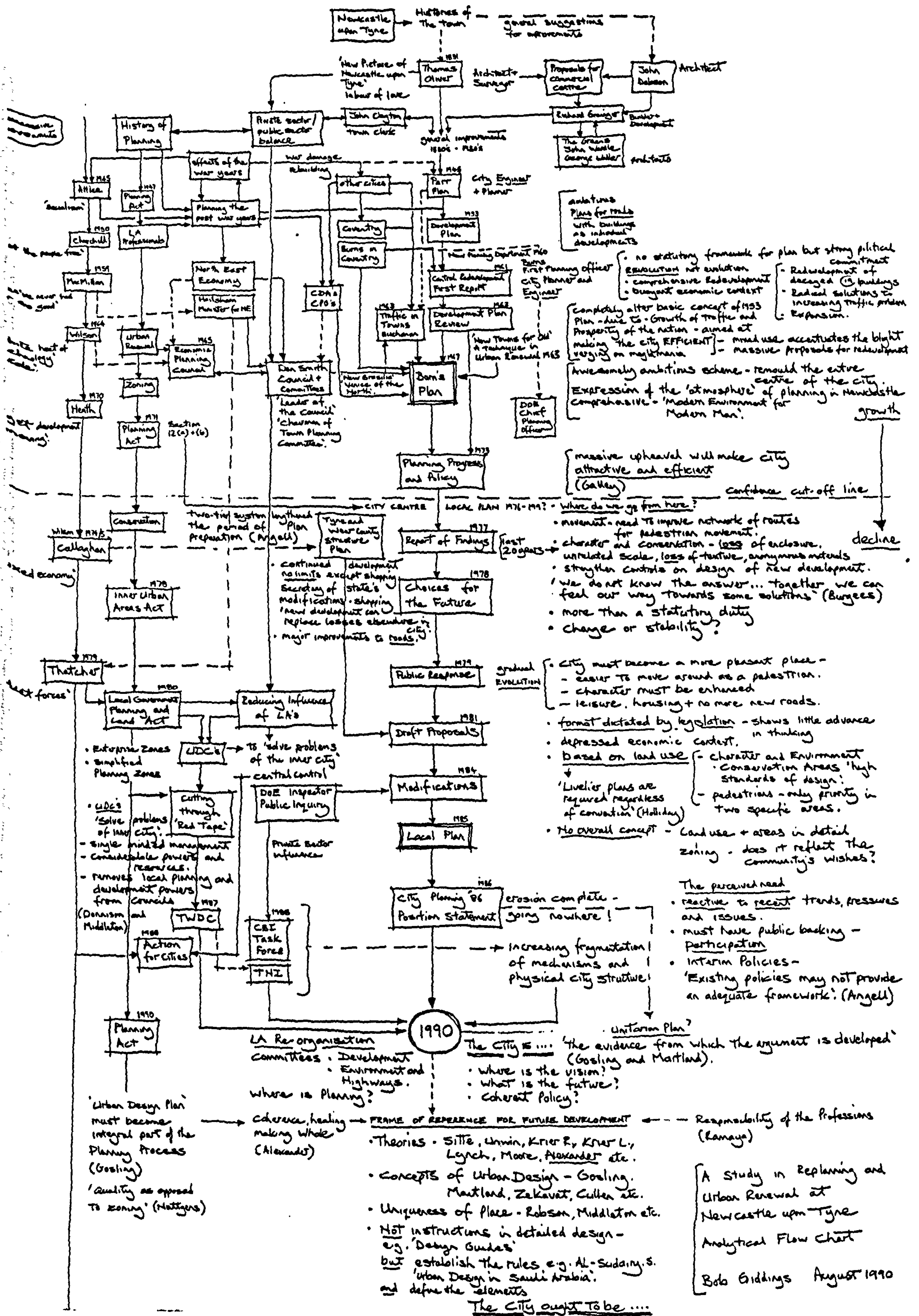
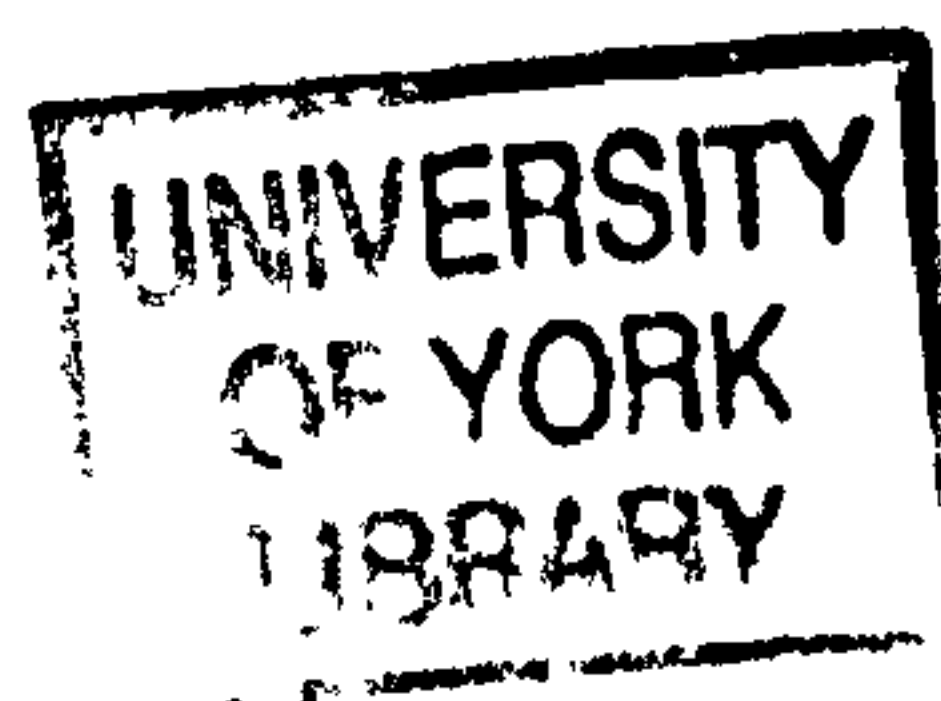


Figure 1. ANALYTICAL FLOW CHART: A STUDY IN REPLANNING AND URBAN RENEWAL AT NEWCASTLE UPON TYNE

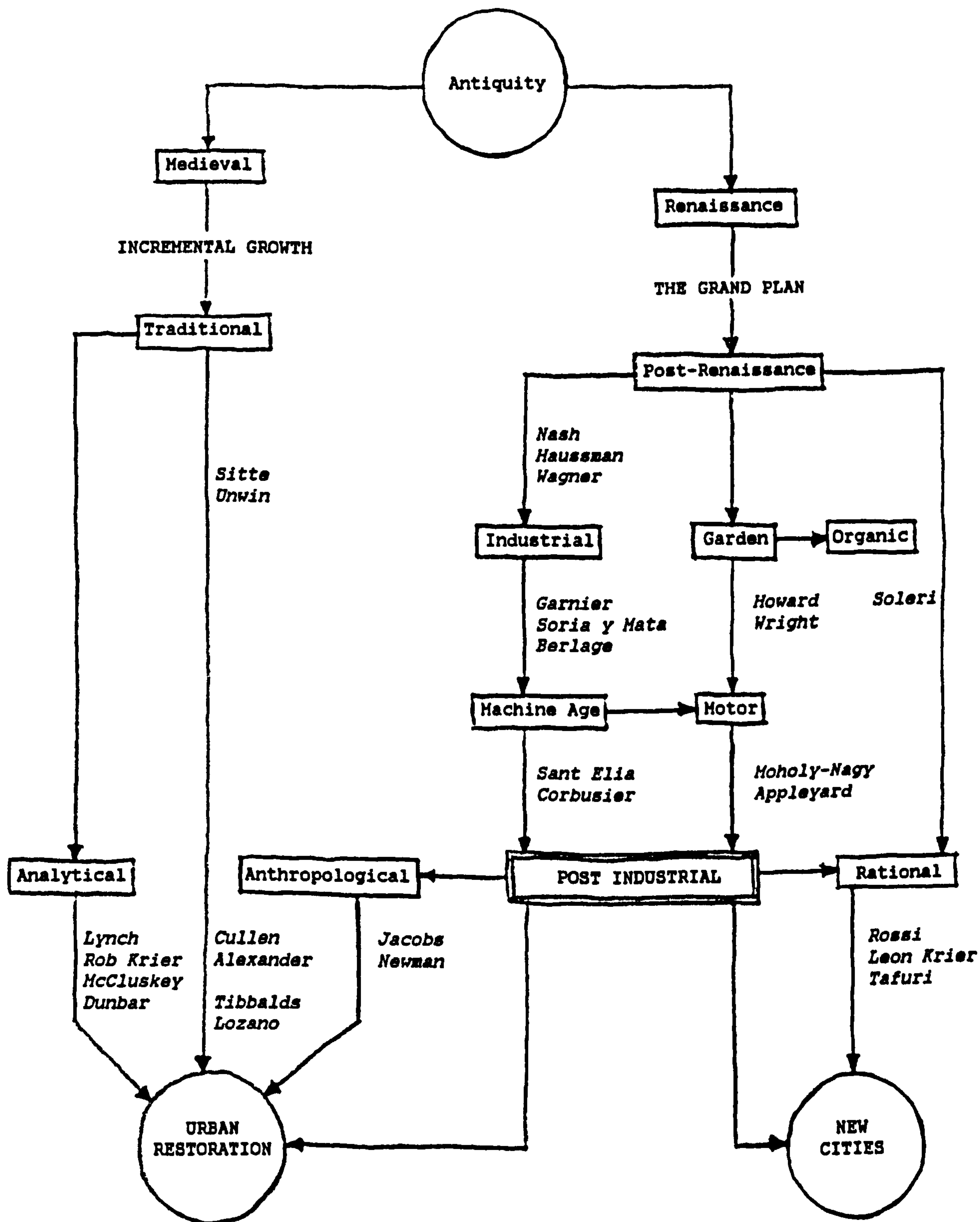
CHAPTER 1

THEORIES AND CONCEPTS OF URBAN DESIGN



1. BRIEF RESUME OF 19th AND 20th CENTURY PIONEERS

MODEL OF PIONEERS AND CITY TYPOLOGY



Exposition

INCREMENTAL GROWTH

Traditional

CAMILLO SITTE .

- Picturesque informal planning - promoted worthwhile irregularities in urban layouts, to overcome the banal and all-pervasive set square designs of the drawing board.
- . Primarily concerned with one element, ie the Square.
- . Interested in grouping squares to provide focal points throughout the city, and the enclosure achieved by disposition of buildings and streets.
- . Enormously influential, first in Germany, where many designers abandoned the *Hausmann* style of french axial layouts (which were considered as the sterile results of planning for traffic) in favour of irregular plans. As the work was translated, the movement became international.

'City Building According to Artistic Principles' 1889 (1)

RAYMOND UNWIN .

- Similar format to *Sitte* by much broader field - numerous models for other generic urban elements, eg edges, gateways.
- . Analysis of historical examples.
- . Distillation of principles.
- . Application to the design of towns - using case studies.

'Town Planning in Practice' 1909 (2)

- GORDON CULLEN . Examination of the fabric of towns,
the notion of place and serial vision
through general studies, town studies
and proposals.
- . Concentrates on sequential experience
of the moving observer but this may be
a disadvantage as the city is not a
controlled linear sequence.
- 'Townscape' 1961 (3)*
'A Town Called Alcan' 1964 (4)

- CHRISTOPHER . Observations that the venerable cities
ALEXANDER of the past convey a feeling of
wholeness at every scale from layout
to ornament.
- . Laments that wholeness is lacking in
the modern city and aims to recapture
the process by which cities can
develop organically.
- 'A Pattern Language' 1977 (5)*
'The Timeless Way of Building'
1979 (6)
- . *'A New Theory of Urban Design'*
1987 (7)

- FRANCIS . Promotion of the urban environment
TIBBALDS from perspectives of context and the
past, mixed uses, human scale,
legibility, small scale change and
visual delight - all from the
pedestrians' viewpoint.

- . Particularly views the need for a positive and enabling Local Public Sector, and Urban Design as a specific discipline.
'Ten Commandments for Urban Design'
1990 (8)
'Birmingham Urban Design Studies' 1990 (9)

- EDUARDO LOZANO* . Humane vision for community design.
- . Highlights relevant lessons from historical examples in order to rediscover the community design metier, forgotten after the Industrial Revolution.
'Community Design and the Culture of Cities' 1990 (10)

Analytical

- KEVIN LYNCH* . City as a cognitive map with legibility as the key.
- . Introduces the powerful and universally acceptable concepts of paths, nodes, landmarks, etc, although doubts have arisen as to whether the system identifies sufficient hierarchy and emphasis.
'Image of the City' 1960 (11)
'Good City Form' 1981 (12)

- ROB KRIER* . Analysis of urban typologies and morphological spatial series.

- . Illustrates the erosion of urban space in 20th Century town planning and the need to reconstruct devastated urban spaces.
- . Uses case studies of Stuttgart to show how space can be reconstructed.
'Urban Space' 1975 (13)

- JIM McCLUSKEY* . Perception of roads and streets, their morphology, and integration into the built environment.
- . Categorises types of roads and streets.
 - . Presents the objective of routes contributing to a coherent townscape.
'Road Form and Townscape' 1979 (14)

- MELVILLE* . Consideration of how to proceed in
DUNBAR situations where history does not provide the model for unity and coherence.
- . Attempts to create an appropriate grammar and comprehensive vocabulary of design.
'Essex Design Guide' 1973 (15)

Anthropological

- JANE JACOBS* . Demonstration that current city planning and rebuilding produce neither safe, interesting, alive urban environments nor good economics for cities.

- . Attacks the Garden City Movement and 'decentrists' like *Mumford, Stein and Bauer*.
- . Deplores planning utopias where the right to have plans of any significance belongs only to the planners in charge.
- . Promotes highly dense, active, centralised, and heterogeneous cities which are allowed to develop naturally.
'The Death and Life of Great American Cities' 1961 (16)

OSCAR NEWMAN

- . Protection of external space by building form providing natural surveillance.
- . Confirms and extends the arguments of Jane Jacobs.
- . Particularly related to housing, promotes sensitively designed environments and humanitarian values as a response to urban social problems.
'Defensible Space' 1972 (17)

THE GRAND PLAN

Post Renaissance

JOHN NASH

- . Combination of Neo-classical style and the principles of the picturesque, as a basis for great schemes of metropolitan improvement, at the end of the English Renaissance movement.

- . Presents aims as -
 - . maximising possible revenue to the Crown
 - . adding to the beauty of the metropolis
 - . studying health and convenience of the public
- Regent's Park 1812 (not carried out)*
- Regent's Street (the Quadrant) 1818-20*
- Regent's Park (the Terraces) 1821-30 (18)*

GEORGES-EUGENE .
HAUSSMANN

- Transformation of Paris by a demolition programme and the construction of new streets through closely packed quarters.
- . States aims as -
 - . Creation of a splendid framework for the great tradition preserved in Paris
 - . To make Paris the first city to be brought into conformity with the Industrial Age.
- . Considers traffic movement to be a major consideration - creating large boulevards to permit circulation not only of light and air but also of troops, and facilitating circulation to and from railway stations by penetrating lines to prevent delay, congestion and accidents.
 - Extension of Rue de Rivoli from Place de la Concorde to the Bastille (east-west communication route) 1854-55.*
 - Boulevard Sebastopol - Ile de la Cite - Boulevard Saint-Michel (north-south communication route) 1858-61*

*Place de l'Etoile, Champs-Elysees,
Avenue de l'Opera, etc, 1861-75
(19)*

- OTTO WAGNER . Principal concern was to ensure that the big city would be able to go on developing in the future.
- . Contemporary and opponent of *Camillo Sitte*.
- . Presents a rigidly classical view of city planning based on axes, long straight streets and formal planting - his conception of the city contains a series of rectangular blocks of apartments, broken at regular intervals by small parks and related to a central municipal area set in a large rectangular park. For him, only the practical can be beautiful and never the picturesque for its own sake.
- General Plan for the regulation of Vienna, 1893.*
- Die Grossstadt - A Study, Vienna, 1911*
- (20)

Industrial

- TONY GARNIER . Beginning of the separation of functions as the basis for planning the modern city. Work, residences, leisure, transport - all operate in clearly defined areas, with industry

set beyond a green belt. One objective of this segregation is to allow for future independent expansion of uses.

- . Recognises the attractions of classical layout but employs modern buildings interspersed with green open areas.
- . Lays out his ideal city on the old grid system but the buildings are placed in isolation, dissolving traditional urban form and creating a villa landscape.

'Cite Industrielle'

- *Concept Plan 1901*

- *Detailed Plan 1904*

(21)

ARTURO SORIA
Y MATA

- . Concept of the lineal city.
- . Illustrates the concept with a tramway or light rail system running out of a big city to give extraordinary linear accessibility.
- . Originally a planned Linear Garden City, and in reality a commuter suburb, the concept is more applicable of the development of the Industrial City into the Machine Age City.
- . Part of grander dreams for linear cities all over Europe, the principle was absorbed by *le Corbusier* in a number of his radical schemes.

'La Ciudad Lineal'

- *Magazine article 1882*

- *Detailed proposal 1892*

(22)

HENDRIK
BERLAGE

- . Principle that cities are shaped not merely by aesthetics, but mainly by idealistic and socialistic commitment.
- . Acts as a transitional figure in the development of modernism. Influenced by *Sitte, Howard* and *Garnier*, participated in the first CIAM Congress in 1928, but was concerned at the proposals of *Corbusier* and *Rohe*.
- . The plan for Amsterdam South is based on wide symmetrical extensions, rich with broad green avenues, squares and parks. The scale leads the way to the development of the Motor City.
Plan for Amsterdam South, 1902, 1915
'Voordrachten over bouwkiensst,
gehouden venevege het genootschap
Architectura et Amicitia VII'
Amsterdam 1908 (23)

Garden

EBENEZER
HOWARD

- . Development of the Garden City, related to J B Papworth's 'Rural Towns' 1827.
- . Writes that the old overcrowded cities have done their work and the great cities of the future will have to be constructed to a different pattern.
- . Proposes units of 'reasonable size,' located in the countryside, as an alternative to the unwieldy agglomerated cities of the past.
'Garden Cities of Tomorrow' 1902 (24)

FRANK LLOYD
WRIGHT

- . Ideal of a decentralised horizontal city in recognition of the vastness of the United States.
- . Aims to counteract 'the skyscraper by skyscraper dead wall of obstruction and the gravestone of capitalistic centralisation which more than anything create the unsolvable traffic problem of any busy big city.'
- . Promotes the idea of Broadacre City, where democracy is represented by decentralisation, and where free units develop strength as they learn to function and grow together in adequate space and mutual freedom.
- . In practice, these notions often manifest themselves in the expansion of motor car based suburbia.
'The Disappearing City' 1932
'When Democracy Builds' 1945
(25) (26)

Organic

PAOLO SOLERI

- . Archology (neo-nature) as the basis for city design.
- . Literally growing out of a fusion between Ecology and Architecture, the arguments are presented as a highly complex, structural analysis of urban forms, society and patterns of life.
- . Explains that there is an inherent logic in the structure and nature of organisms that have grown on this planet. Any urban design that violates that structure and nature is destructive of itself and us. Any

urban design or social order that is based upon organic principles is valid and will prove its own validity.

'The City in the Image of Man' 1969

(27)

Machine Age

ANTONIO SANT

ELIA

- . Concept of the Futurist City, which is like 'an immense and tumultuous shipyard - agile, dynamic, mobile.'
- . Promotes the characteristics of impermanence and transience - 'things will endure less than us. Every generation must build its own city, we fight without respite against traditionalist cowardice.'
- . Illustrates Ideal cities, and without building anything, produces a profound effect on every modern city in the world. Two particularly significant statements are -
 - . 'Modern construction materials and scientific concepts are absolutely incompatible with the disciplines of historical styles.'
 - . 'The street will no longer lie like a doormat at ground level but will plunge many storeys down into the earth, embracing metropolitan traffic.'

'Manifesto of Futurist Architecture'

1914

(28) (29)

- LE CORBUSIER* . Prophet of the machine and right angle, the most influential figure of the Modern City Movement.
- . Embraces the concepts of *Howard, Garnier, Perret* and *Sant Elia*. Attacks *Sitte* for lack of logical approach and for not dealing with the modern age.
- . Idealises about the complete rebuilding of cities according to a logical plan. Included in the plan is the rigid separation of functions, including skyscraper offices in a central business district, housing estates set in parkland, and industrialised zones. There are even satellite garden cities known as new towns, beyond a greatly extended green belt.
- . A major objective is to expunge the street, creating lanes of fast-moving traffic completely segregated from pedestrian activity.
- 'City of Tomorrow' 1924 (30)*
'The Radiant City' 1933 (31)

Motor

- LASZLO MOHOLY-NAGY* . Inquiry into space-time reality of modern man and his emotional existence - especially related to living with the motor car.
- . Pleas for the integration of art, technology and science.
- . Observes that the motor car can bring distant and unrelated landmarks into a spatial relationship unknown to the

pedestrian. The changed perception created by different speeds should be taken into account in the design of cities.

'Vision in Motion' 1947 (32)

DONALD

APPLEYARD

- . Recognition that the motor car has become an integral part of urban life.
- . Continues the theme of the moving observer but concentrates on perceptions of greater speed from motorised vehicles.
- . Accepts the limitations of his own work in that highways should be considered as a network or a system of movement rather than single linear sequences.

'The View From the Road' 1964 (33)

Rational

ALDO ROSSI

- . Use of urban space as the primary organising element of urban morphology.
- . Studies elements presented by the pre-pre-industrial city, arguing that historical city centres form 'desirable models of collective life.' Abstracts the information to seek out new generic types, in terms of the street, square and quarter.

'Architettura Razionale' 15th Milan Triennale 1974 (34)

LEON KRIER

- . Rediscovery of pre-industrial urban elements.
 - . Follows principles established by Rossi, but extends notions to be part of the wider struggle against capitalism by the re-integration of the public realm and its expression, in the re-interpretation of the street, square and quartier.
- 'Architecture Rationelle' 1978 (35)*

MANFREDO
TAFURI

- . Application of contemporary Marxist theory to the problems of architecture and planning.
 - . Analyses utopian themes and judges them as impotent and ineffectual myths, and rejects utopian solutions as irrelevant distractions.
 - . Concludes that urban design should be based on elemental analysis, rather than responding to the pressures of capitalism.
- 'Architecture and Utopia: Design and Capitalist Development' 1976 (36)*

Commentary

The objective has not been to present a definitive list of Pioneers. Those selected merely represent themes identified in the model. There are several possible categorisation systems, such as utopias, natural models, and so on. Essentially, the main categories established in this model are related to INCREMENTAL GROWTH and THE GRAND PLAN. The latter has been very influential on 20th Century planning, especially through the thread of Post-Renaissance → Industrial → Machine Age → Post-Industrial, and many would argue that dissatisfaction with the Post-Industrial city has been due to this succession.

The City today, is a combination of several themes and therefore the selected case studies will reflect various influences. However, the theme of INCREMENTAL GROWTH through the TRADITIONAL CITY is the theoretical focus of this thesis. The sections about URBAN DESIGN PRINCIPLES and URBAN TYPOLOGIES are based therefore, on the concepts of Pioneers working within the existing city rather than those wishing to start with a blank canvas. The rationale for this approach is clear - this study is concerned with Urban Restoration within an existing post-Industrial city, rather than the creation of a new town or proposals for extension.

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2. URBAN DESIGN PRINCIPLES

THE PICTURESQUE TRADITION AND MODERN PLANS

Eduardo Lozano reminds us that the latin word for city is 'civitas,' from which we have derived 'civilisation' and 'citizenship.' He considers that the realm of the city is one of dense human settlements with high levels of culture and linked with the most civilised expressions of social behaviour.(1) Clearly, this concept has broken down in the past and continues to be fragile today. Nevertheless, the principle is a fine objective, if not necessarily a total reality. The 'Urban Development Research' Leipzig Conference in 1988, identifies essential features of a city centre. In simple terms a city is a place where people live, work, shop and play. Often its attraction for visitors and tourists is as a result of a higher significance rating than other urban areas, as its buildings, facilities and urban spaces embody political and cultural functions as well as its historical landmarks of place and time. The links of past, present and future are familiar for local people and stimulating for visitors. The totality, intensity and integration of all socio-cultural, political, architectural, ecological, historical, aesthetic and emotional factors make the city centre the essence of urban culture and focus of intellectual life. However, each city differs considerably and this diversity needs to be preserved. It can be generated, enhanced or destroyed by the criteria for proposed development.(2) Yet, it is the words of *Raymond Unwin* that come echoing through the century. The truth is that we have neglected the amenities of life. It is the lack of beauty, more than anything else, which leads us to admit that our work in the city has not been well done. Beauty is an elusive quality and not easily defined. It is not a quality that can be applied from outside, but springs from the spirit infused into the work. Civic art is too often understood as filling our streets and squares with fountains and statues. In this

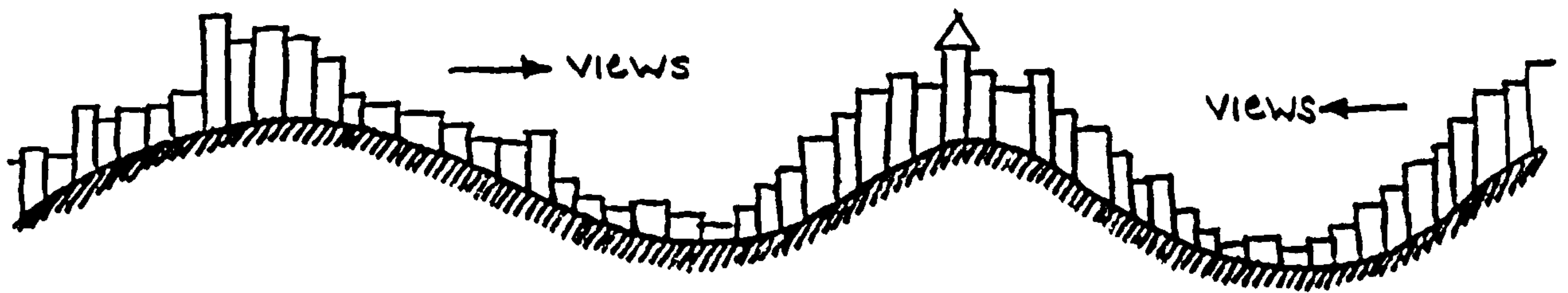
context, campaigns such as 'Per Cent for Art' have to be seriously examined. The danger is that we have become so used to living among surroundings in which beauty has little or no place that we do not realise what a remarkable and unique feature is the ugliness of modern life. It is important not to become nostalgic about the cities of the past. They were overcrowded, dirty, insanitary, unordered - but often they were beautiful as well. It is possibly a simplistic test, but nevertheless valid, to compare the visual satisfaction derived from areas of a city built prior to the GRAND PLANS of the early 20th Century with those resulting from them.(3) Many of the writers refer to the all-pervading instinct or tradition that guided builders in past times. Whether the language was that of recognised styles or the vernacular, these builders undoubtedly created PICTURESQUE street scenes. Modernist criticism of the PICTURESQUE TRADITION is usually centred on the nostalgic argument that people recognise familiarity and therefore feel comfortable with the past whereas society has to be progressive in order to meet future needs. There is also a notion that buildings gain character with age. However, the PICTURESQUE TRADITION is not confined to architecture, but embraces SQUARES and STREETS as well as minor details such as steps, entrance gates, walls, fences which often enhance the beauty of the picture.(4) *Camillo Sitte* suggests that even in his time, MODERN PLANNING labelled details like projections, porches, ornamental staircases, arcades and corner turrets, as unthinkable luxury. The parcelling of sites, based on purely economic considerations became such a factor in MODERN PLANS that their effects could not be avoided. In a rigidly uniform arrangement, there is no scope for PICTURESQUE street corners.(5) In traditional cities, while the cost was carefully considered, it was not legitimate to sacrifice proper construction, good design, or good finish in order to wring out the last drop of cheapness. How different is the spirit in which the modern city is developed. This is not to denigrate the

desirability of a proper system of planning. Indeed, the advantages of a plan, prepared with forethought and care to provide for the needs of the community, are self-evident. A problem is that the development of our cities has too often suffered from the greed of the private sector. In particular, there has been pressure to overdevelop every piece of land. Ironically, the laws which allowed overdevelopment have produced such dreary and ugly urban environments that many of the old unhealthy, overcrowded slums appear infinitely more attractive.(6) *Lozano* believes that no urban design variable has been maligned as much as high density. We have seen the suburbanisation of housing and more recently Local Governments and Development Corporations have zoned large parcels of land on the edge of city centres for low density business projects, eg office, industrial and business parks - guided by their own objective of expanding the local property tax base. Indeed, Local Authorities have generally pursued the aim of density reduction. Their purpose in establishing density ratios is not to encourage densities high enough to achieve urbanity, but rather to prevent densities from reaching certain maxima, supposedly for health and amenity reasons. The relationship between density and urbanity is based on variable thresholds, ie the number of people within a given area to generate the interactions needed to make urban activities viable. Clearly, the greater the number and variety of urban activities, the richer the life of a community - this urbanity is based on high density. Designing buildings in scale with the traditional pattern is a first step towards regaining an urban community without overcrowding.(7)

Francis Tibbalds believes that planning needs to shake off its rather tedious and negative image of a Local Authority regulatory function. It has to generate a positive and enabling role. Planning can have quite a high value in the market-place, as a natural part of the development

process, rather than being seen as a set of obstacles to be overcome. There is great opportunity in devising high quality, imaginative and appropriate components of the 'public realm.' The problem today is that there has been a great decline of the 'public realm.' We may be richer as individuals, but as citizens we are getting poorer. There is a retreat into the 'private realm' - with emphasis on privacy, personal comfort, consumption and security.(8) *Unwin* cannot accept that the desire for individual gain is the only basis for development in the city. He considers that citizens of urban places have a highly developed social instinct. So while planning cannot change the objectives of individualistic impulses, it can be an expression of the desires of the community. His approach is that the study of old towns is essential to any appreciation of this subject. Nevertheless, when it comes to proposals, we cannot reproduce the conditions under which they were created, as we must consider what is likely to lead to the best results under modern conditions. These require that development in areas of the city is guided by a planned FRAMEWORK. Development cannot be based on unconscious and accidental character and must come under the rules of conscious and ordered design.(9) *Sitte* cautions that in such an important matter it would not suffice to give a few rules in writing to the new owner of a site, because the strongest possible whims would be expressed in spite of the strictest regulations.(10) Nevertheless, the Leipzig Conference sets out a number of objectives for MODERN PLANNING. The long-term goal of development is to give each individual city centre its own appeal and atmosphere. The type and scope of future projects need to make greater allowances for specific political, economic and cultural functions of a city, the rate at which it is changing and its political ranking. There is also a proactive role needed in relation to leisure and tourism. Efforts must be made to

retain the layout of architecture in SQUARES and STREETS, which has taken centuries to evolve. Topography and other features which are unique to a particular place should be integrated and emphasized.(11)



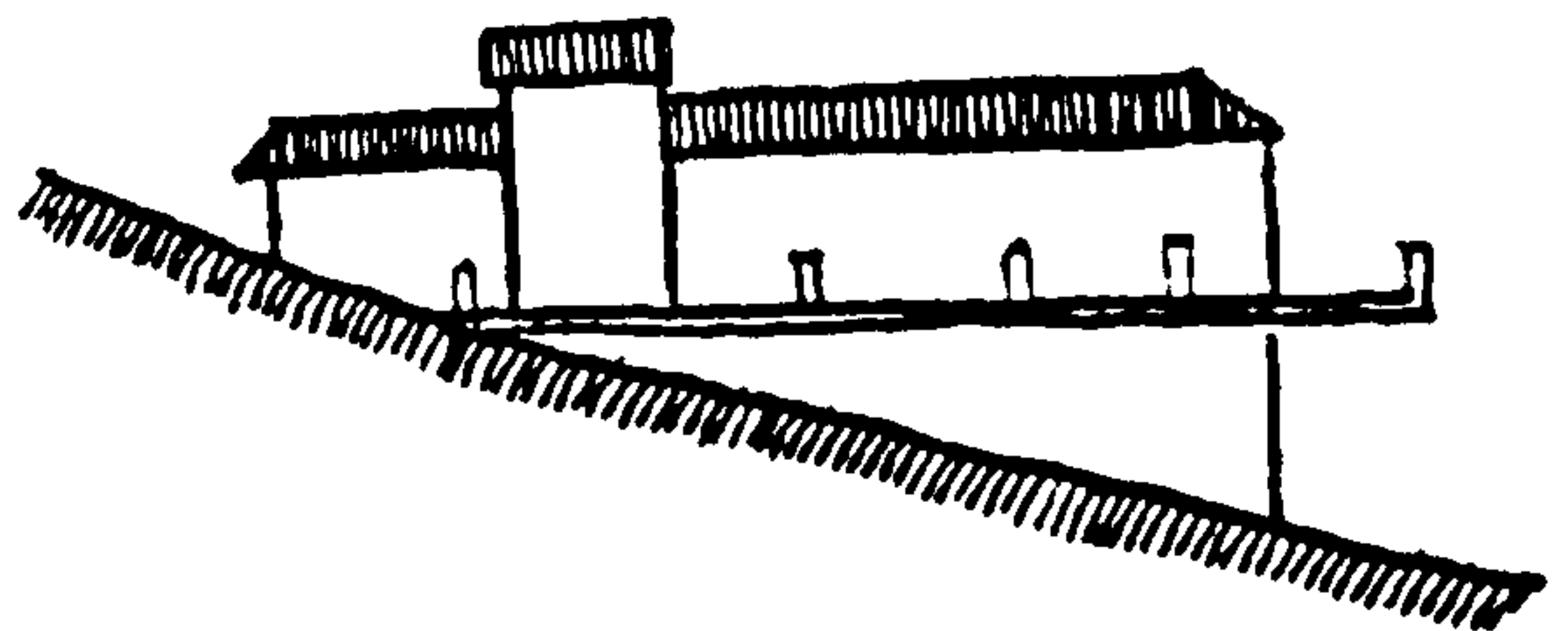
For example, keeping buildings at valley bottoms to a smaller scale and the converse at the tops of hills emphasises the topography. The contrast in response to topography is clearly evident.

PICTURESQUE TRADITION



Buildings related to topography - small units capable of stepping down a hill creates a varied and interesting streetscape.

MODERN PLANNING



Large boxes, incapable of dealing with the topography except by introducing artificial levels and ramps result in a monotonous streetscape. (12)

Sitte's proposal is that if the PICTURESQUE TRADITION is taken into account in MODERN PLANNING, a city plan would encourage the construction of groups of buildings, a few gardens, squares and streets - all contained by rows of buildings. Afterwards would come the determination of the major lines of communication, as well as other special problems. Since the arts also possess a social and economic significance, it might be that even hard-hearted building owners and city officials, will eventually discover that it would not be so bad to invest in the artistry of urban layouts in order to reap the rewards of

local civic pride, leisure and tourism.(13) *Tibbalds'* conclusion is that we still find it very difficult to achieve change without it being alienating, painful, lacking in richness, coherence and maturity. This is partly due to the fact that we try to jump from abstract master plan, policies or financial equations, straight into constructing roads and buildings. It all adds up to an opportunistic chaos - an architectural circus - with a sprinkling of gimmicks, ghastly megalumps and fairground trains. There is a necessary intermediate step, ie URBAN DESIGN.(14)

Information about the PICTURESQUE TRADITION and MODERN PLANS makes a number of direct contributions to the proposed FRAME OF REFERENCE -

1. Necessity for a FRAMEWORK - Development cannot be based on unconscious and accidental character, and must come under the rules of conscious and ordered design.
2. A CITY PLAN needs to encourage the construction of groups of buildings, a few gardens, squares and streets - all contained by rows of buildings. At the same time, the traditional layout of the town needs to be retained and each city centre must have its own individual atmosphere and appeal.

The information also identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Density of building - ratios in successful urban areas
- thresholds to achieve urbanity.
2. Topography - techniques employed to emphasise topography.

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PATTERNS AND LEGIBILITY

It is interesting to read *Lozano's* account of what constitutes the pattern of a traditional town -

'Walls encircle the town at the perimeter; the main streets originate at the town gates and lead to the main spaces or buildings - thus permitting immediate orientation. The maze of secondary streets and alleys that fill the interstices between the main streets offer diversity of all kinds - surprise, mystery, multiple options, alternative interpretations. An orientation landmark - sometimes a tower or dome visible above the rooftops - is always within a short distance of any place in the town, and no area in the maze is more than a few minutes' walk from a visual reference. It is possible for one to be immersed in a surprising, intriguing and mysterious environment and yet feel safe knowing that one can become re-orientated within minutes - an assurance that makes the experience more pleasurable.'(1)

Much of the detail in the above quotation is no longer applicable to late 20th Century cities, but it does contain information about universal principles. The importance of immediate orientation is clearly stated. This may be achieved by major spaces or by orientation landmarks. It is noted that main streets and secondary streets are different in nature, character and use. The former being direct means of communication, whilst the latter make up mysterious networks. Nevertheless, the scale of the networks means that a recognisable main street is always only a very short distance away. A statement attributed to Edward T Hall rather overstates the case when he says 'To be disorientated in space is to be psychotic'(2) - but it makes the point. The need to recognise and pattern our surroundings is particularly emphasised by *Alexander* and *Lynch*. Their belief is that LEGIBILITY is crucial, and this concept could be instrumental in the development of our cities. The ideas are based on a vivid and integrated physical setting which can provide the raw material for symbolic and collective community memory. *Lynch* explains that the sweet sense of home is strongest when home is not only familiar but distinctive as well. He considers that his work on 'The

City Image and its Elements' could serve as a broad FRAME OF REFERENCE for ordering the urban environment. There is also agreement between *Lynch* and *Lozano* that urban development needs to be well-organised, and that mystery and surprise should be relatively small aspects of the visible whole, occurring within an overall FRAMEWORK.(3)

Lynch sets out his elemental scheme as follows -

PATHS Channels along which we customarily, occasionally or potentially move, eg streets, walkways, transit lines, canals, railroads. These form the skeleton of city image and require a distinct visual hierarchy.

EDGES Boundaries, eg shores, railroad cuts, walls. These may be seams between different types or age of development. The real trouble with borders is that they can represent dead ends, and thus become BARRIERS. These may be physical in the sense of a railway line or urban motorway, or related to activities, especially where a policy of zoning is in operation. Both types create poor urban environmental quality.

NB We must observe different perspectives, eg. an urban motorway is a motorist's path but may be a pedestrian's edge, whereas a planned pedestrian street scheme can create formidable barriers for moving and parked cars around inherently weak and fragmentary preserves. Both can actually introduce more problems than they solve.

DISTRICTS

Medium to large areas of a city with homogeneous and identifiable character. These may be produced by physical attributes such as colour, texture, material, floorscape, scale, lighting, planting and/or silhouette, as well as by different kinds of activities. They need to be recognisable for being either inside or outside them, and the definition of boundaries certainly sharpens the perception.

NODES

Intensive foci and unforgettable 'places.' They can be junctions in the transportation system, crossing or converging paths, a street corner hang out or a SQUARE. A node can be the epitome of a district, or one of a series of events on a journey.

The frequency of nodes is a basic characteristic of the city and can be used as a means of identifying and proposing a coherent city scale.

Analysis of a great number of older towns suggests that an interval of about 200m commonly occurs.

In densely packed medieval towns 100m

Low density suburban areas 400m

LANDMARKS

Possibly a bridge, building, statue or sign. Indeed they can be details, but need to be individual, distinctive and clearly visible from varying distances and directions.(4)

Lozano articulates the feelings of many communities when they look around their cherished towns and cities. *Raymond Unwin* may have felt modern planning had not served us well, in the early part of this century. Yet by the late 20th Century, URBAN PATTERNS have been slashed by highways, leaving brutal wounds in the urban tissue, lacking any spatial definition. SQUARES, which have traditionally been at the apex of the urban hierarchy, have been destroyed by disjointed level changes, meaningless barriers and other obstructions, thrown in without any sense of order, LEGIBILITY or orientation. It is clear that our culture has been forgotten and fine URBAN SPACES have been destroyed by senseless redesigns. Radical changes in design came as a result of cultural, social and technological changes; and the contrast between traditional and contemporary PATTERNS is striking. Traditional values have been replaced by our age of single-minded economic objectives. Utilitarian designs lacking any cultural value, are brutally dropped into the urban environment in order to achieve 'efficient and economic' solutions. Morphological differences are eliminated as the hills are bulldozed away, and our climate has become sanitised and air-conditioned by mega-office developments and shopping malls. Traditional settlements worked with the climate, rather than against it. Arcades, covered walkways, markets, overhangs and other similar devices, not only protected people from the weather but also created powerful urban images. They were a civilised response to rainfall and a visual means of framing STREETS and unifying SQUARES. Writers from *Camillo Sitte* to *Eduardo Lozano* have celebrated these devices and the many variations of street arcades alone, indicate the richness with which the idea was developed. In the process of modernisation, urban communities have lost this richness, together with the rewards of an environment alive with the PATTERNS and symbols that fulfil our many psychological and spiritual needs. For example, the sense of enclosure and space definition

DEFINITION	Clear visual forms, the sharpness of boundaries, and sense of containment and contrast, all help the comprehension of a city PATTERN.
LEGIBILITY	Recognisable and understandable built form assists in producing an unambiguous city structure. Legibility can be related to scale - it is difficult to achieve in large enclosed developments like shopping malls. Materials should be selected for permanence, durability, mellowing and enduring qualities. Glimpses through to landmarks, linked and serial vistas, all increase the visual scope and provide orientation.
ACCESS	Urban environments need to be permeable, to encourage fine grain pedestrian movements through and between buildings. Arcades, passages and courtyards help whereas large new buildings tend to block pedestrian movement. Access should be for all sectors of the community, regardless of age, background or mobility. Also, citizens need to be properly consulted about the design of the physical environment in which they live, work, shop and play. This requires particularly careful consideration of the balance between public and private domains.
CONTINUITY	PATTERNS should allow for continuous interlinking movement. In particular 'dead-ends' should be avoided.

provided by city walls, satisfied more than just the need for physical protection - it provided psychological reassurance as well. Perhaps even more dramatic and disturbing has been the change of STREETS into ROADS, without SPATIAL PATTERN, scale or capacity to encourage urban activities around them - a true reversion of the civilisation process. In many places, the High Street is nothing more than a fading memory, and if we lose the concept of an URBAN PATTERN based on the SQUARE and STREET, we lose the whole concept of community.(5)

Therefore, it is necessary to set out some guidelines to counter these adverse trends and change direction towards restoring URBAN PATTERNS and LEGIBILITY.

- | | |
|------------|--|
| CONTEXT | Study of the past and respect for the context are important. Traditional urban environments have certain essential qualities, such as - <ul style="list-style-type: none">. recognisable PATTERNS. complexity within order. |
| TOPOGRAPHY | It helps the experience of a place to emphasis rather than smooth out sensations, especially in movement - <ul style="list-style-type: none">. uphill compared with downhill. slopes, curves, moving through, under, over, etc. progression of moving through an urban environment - rhythms and climax. |
| MEANING | The associations of social, historical, functional, economic and physical characteristics should be reinforced through the imagery of place names. |

- HIERARCHY It is important that different spaces display different emphasis, and that there should be clearly dominant and subordinate routes.
- JOY Intricacy, joy and visual delight are to be welcomed in the built environment. Buildings need to be enjoyable for ordinary people to use and look at. An environment is required which is not just well-organised but poetic and symbolic as well.
- SCALE Change of any kind is painful, especially at a comprehensive scale. If development can be achieved incrementally - healing and mending the edges as it goes - the more acceptable it is likely to be. Limits on site assembly may be important in this respect. (6)

Information about PATTERNS and LEGIBILITY makes a direct contribution to the proposed FRAME OF REFERENCE -

1. Orientation - provided by major spaces or landmarks
 - main streets and secondary streets are different in nature, character and use.
 Main streets - direct means of communications.
 Secondary street - make up mysterious network but with a recognisable main street always only a short distance away.

The information also identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Elemental Analysis - paths, edges, districts, nodes, landmarks.
2. Shelter from the climate without enclosing and sanitising public urban space.
3. Guidelines - context, topography, meaning, definition, legibility, access, continuity, hierarchy, joy, scale.

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UNITY AND INDIVIDUALITY
FORMALITY AND INFORMALITY

Unity

Raymond Unwin laments that during earlier periods of history, whatever buildings were to be erected in an urban setting, they would be generally harmonious. He reflects that no such harmony can be assured today. Buildings are being erected in all conceivable styles, and many unfortunately, have little or none. Except where there is some form of specific guidance or regulation, no harmony or consistency can be relied upon.(1) Clearly, the bewildering choice of modern technology has confused the situation. Also the change (some say decline) in the character of buildings has resulted from the transportation of materials. Previously, local materials were used in building. As well as the harmony achieved between buildings, the fact that the materials were natural and came out of the ground meant that in colour and tone, the buildings fitted into the surroundings. Thus great consistency of colour and style was achieved in each town, and there were also significant contrasts between towns in different districts. New technologies, artificial materials and their availability through national and international distribution, have upset all this. The differences between districts and the harmony of buildings within districts have been destroyed. The tendency has been to reduce all places to a similar jumble of colours and materials, uniformly distributed throughout the country. Those involved in the production of buildings need to consider, more deeply, their effect on the whole town or city. While each architect and client think only of their own building, the statement they are trying to make and how noticeable it will be, little progress in the total affect can be expected. The unity that binds buildings together and weaves the whole into a picture, is so much the most important consideration that it must take precedence. For example, the external

appearance of a building is so much more important to the public than it is to the individual occupant or owner.(2) There is a suggestion that detailed controls are required for the benefit of the community. Such controls would focus on the street picture and require that new developments complied, in order to maintain unity. To a certain extent, we have this approach already with the planning legislation. However, it has two basic flaws. First, it casts the public authority in the role of 'urban gatekeeper,' ie a restrictive mode. To achieve progress, the public body must be proactive on behalf of the community. Secondly, any control system will produce people who strive to circumvent it. The FRAMEWORK must therefore be seen as encouraging and helpful, rather than restrictive.

Individuality

Many writers have concluded that each urban place possesses UNIQUENESS in the properties of its physical, sensory, economic and social activity elements, as well as qualities and opportunities which result from their interaction in time and space. The essential fabric of a successful townscape is decorated by embellishments and idiosyncrasies of various kinds. Within the limits of an enclosing unity, there is plenty of scope for INDIVIDUALITY, without resorting to that type which destroys all harmony. To the lover of cities, INDIVIDUALITY is a very real quality. One of the dangers of planning is that it tends to efface this individuality and to drill all plans into a similar type. This can be avoided by a thorough appreciation of the personality of each district. There are in each, certain settled characteristics arising from the nature of the scenery, the colours of local building materials, the life of the

citizens, the character of industries in the area, and other circumstances, which taken all together go to make up that flavour which gives a district its INDIVIDUALITY.(3)

Synthesis

A successful townscape comprises a UNITY of spaces, buildings, surfaces, signs and street furniture. However, overlaid on the harmonious scene, is the need for UNIQUE places. Sense of place is the soul of the city. Unanimity almost breaks out between writers in the TRADITIONAL genre, regarding UNITY and INDIVIDUALITY. *Lozano* notes that human beings, whilst looking for patterns in the urban environment as a means of understanding, are seeking exceptions to these patterns to avoid monotony. He quotes from Plato who apparently called this condition 'Unity in Diversity.'(4) Although the converse, ie 'Diversity in Unity,' somehow seems more appropriate. *Whitehead* makes another good point -

'... the essence of rhythm is the fusion of sameness and novelty; so that the whole never loses the essential unity of the pattern, while the parts exhibit the contrast arising from the novelty of their detail. A mere recurrence kills rhythm as surely as does a mere confusion of details.'(5)

Lozano summarises the balance required as follows -

'WITHOUT DIVERSITY THERE IS MONOTONY
WITHOUT ORDER THERE IS CONFUSION.'(6)

and *Patton* concludes that an Urban Code should be based on 'DIVERSITY WITHIN A FRAMEWORK.'(7)

In architecture, *Herman Hertzberger* recognises the need to establish a framework for the purposes of UNITY, but to allow INDIVIDUAL contributions. On a housing project, he constructed the buildings but left out parts of the boundary walls, so that the residents could express themselves and finish the project in their own way. This approach hints at a vital aspect of urban development but

Hertzberger's example is problematic in at least two respects. First, it assumes that everybody is willing and able to make a contribution. Second, and more important, it overlooks the time factor. A character of urban places, derived from exceptions and idiosyncrasies, is much admired. However, this character has evolved over a long time period as the result of small contributions from many individuals. Idiosyncrasies cannot be designed-in, as part of a scheme. Such attempts look ridiculous and the designers feel very foolish. These observations support the principle of urban growth evolving INCREMENTALLY, as opposed to THE GRAND PLAN or comprehensive (re-) development. It can take generations for the visual wealth gained from all these minor contributions, to become established. Anyone proposing large scale (re-) development, clearly does not understand the significance that comes with the evolution of a place over time. Nevertheless, by carelessly denigrating the establishment of development guidelines, we have been our worst enemies. Traffic engineers have manufactured their rules and in the absence of an alternative, they have predominated. The traffic engineers have been much criticised for the damage they have caused to our towns and cities, but it is insufficient to merely complain about this situation, a strong alternative philosophy needs to be proposed.

Formality

It is interesting to note then when discussions regarding principles are involved, the various opposing groups resort to the use of metaphors. A common metaphor for urban growth is nature. The INFORMAL SCHOOL claim that beauty in nature results from the lack of constraints, whereas the FORMAL SCHOOL propose that nature is subject to the most complex interplay of laws. As with the metaphors of MACHINE and ORGANISM, it is unlikely that much progress is made by considering the laws of NATURE

when formulating a framework for urban development. Whether our sympathies lean towards the FORMAL or INFORMAL SCHOOL, the most important aspect is to avoid self-deception. Whatever objectives we choose, they must be carried out in the most simple and straight forward manner, and no action should be taken without a definite reason for doing it. The order imposed by certain FORMAL plans often produces dignity. Interest in irregular towns is mainly generated by idiosyncratic quirks. The fact is that such urban places are full of surprises, because of the lack of prearranged plan and people find them fascinating as a result. The same sort of PICTURESQUENESS which comes from old spontaneous and uncontrolled growth may never be achieved through planning. However, a different kind of PICTURESQUENESS is quite possible. In considering the FORMAL and the INFORMAL, we should not forget that we are actually dealing with different issues. The INFORMAL approach has little to do with THE GRAND PLAN. Its origins are in the gradual growth and adaption of a place, under changing circumstances, over a long period. FORMALITY, on the other hand, should be associated with planned proposals for relatively large scale development over a short timescale. The concern about this kind of development comes from the numerous unhappy examples produced in this century. A major contributory factor has been the lack of unanimity of style among architects and lack of a guiding tradition among builders. Large scale schemes need to be based on FORMALITY, and the rules need to be clear to all those involved. The most influential, and perhaps, most successful approach to these circumstances is based on the RENAISSANCE of classical learning which swept through Europe, predominantly in the 16th and 17th Centuries. The regularity and symmetry of the buildings soon spread to places which were laid out from this period. The Renaissance brought with it the power and courage to handle town planning on a large scale, and created what is often called THE GRAND MANNER. Nevertheless, most of the

great schemes with which we are familiar, date from the late 18th Century to the late 19th Century. There were a number of revivals during this period, of which the neo-classical revival was probably the strongest. Yet, magnificent schemes of huge consistency and charm come from this time, and to represent it as a jumble of revivals does not do it justice. Perhaps it should be regarded as the POST-RENAISSANCE era of plans, which introduced numerous squares, places, gardens and crescents resulting in the stateliness of orderly laying out of towns on generous lines.(8) The spirit and rules of the Renaissance were kept alive through writing and drawing. The works of the masters like Alberti, Palladio and Inigo Jones were available for all to see. Perhaps even more pervasive, were the books directed towards the growing number of master builders. The best known volumes are probably those by William Halfpenny and Batty Langley, but the influence of a whole range of 'pattern books' on particularly 19th Century post-Renaissance planning, should not be underestimated.

Camillo Sitte's study showed that the PICTURESQUE and BEAUTIFUL spring from irregularity. The difference between the instinct which made the best of irregularities, and the conscious artistic designing of those irregularities, may seem a small one, but it is important when examination of the claim that designs for modern town plans should be carried out on the same irregular lines, is based upon it. Irregularity in modern work often appears to be introduced for its own sake and if not aimlessly, it is at least without adequate reason. The result is that in many of the more recent plans, there is an overwhelming lack of framework or design concept at all.(9)

Informality

Testimony is legion to the PICTURESQUENESS and BEAUTY which have resulted from gradual development of a town on irregular lines. *Sitte's* view is that the irregularities appear as part of a system of art and therefore the participants must have been more conscious about planning, designing and laying out of towns than we are inclined to think. Whether that is true or whether they were responding to the unconscious influence of a guiding tradition, in which the whole building profession was steeped, it is very difficult to determine. Whichever is the case, it is nevertheless a fact that in many IRREGULAR traditional towns, SQUARES are arranged so that views opening into them from all STREETS are closed with PICTURESQUE groups of buildings. Also, the squares themselves are appropriate in size and shape to the main buildings overlooking them. Many beautiful pictures seem to have grown-up accidentally, but Urban Designers must guard against the supposition that it is easy to design accidents. While we must resist the temptation to produce aimless wandering lines, in the hope that happy accidents may result from them, it must not be forgotten that curves can be as formal as straight lines and irregularities which are derived from natural features, such as contours, are justifiable. Many of the German writers point to INFORMAL aspects like the varying width of streets in old Gothic towns, as the cause of the beauty of street pictures found in them; but as we have seen, variations in newly designed work need justification and irregularity for its own sake needs to be avoided.(10)

Interpretation

It is clear that development of urban places should be incremental in nature and based on the existing patterns within a particular settlement. Change needs to reinforce the planned UNITY but allow for gradual, individual

contributions over time. If large scale planned centres are unavoidable, then established rules need to be followed. It is often asked that while there are many memorable large scale urban developments from past eras, why are we unable to identify such schemes from our own time? One aspect is surely our inability to learn from past experience as to what gives human satisfaction and delight. Certainly, POST-RENAISSANCE plans can provide both FORMALITY and PICTURESQUENESS. However, this kind of approach relies on the retention of its UNITY for continued satisfaction. Thus, apparently there is little scope for evolution through individual contributions and consequently surprise, mystery and idiosyncrasies may be relatively rare. These kinds of street pictures could be regarded as being within a TIGHT FRAMEWORK, as opposed to a LOOSE FRAMEWORK, which allows for a constant process of small-scale renewal. Yet, the tight framework of post-Renaissance design, relates to the layout of the main streets and their building facades. Renewal can and does occur to buildings and spaces behind the facades. With all the attention focused on the front elevations, renewal of the buildings and treatment of spaces, other than the main streets, can happen in an ill-considered, haphazard and undesirable manner.

Information about UNITY AND INDIVIDUALITY, FORMALITY AND INFORMALITY, makes direct contributions to the proposed FRAME OF REFERENCE -

1. Principles

- 1.1 to be encouraging rather than restrictive
- 1.2 public bodies to be proactive on behalf of the community
- 1.3 owners and designers need to consider their buildings in relation to the whole picture

2. Urban Development

2.1 'Diversity within a Framework'

- . Reinforcement of planned unity
- . Diversity from individual contributions over time

2.2 If large scale schemes are unavoidable, they need to be formal and based on established rules.

2.3 Irregularity requires justification.

3. Types of Framework

3.1 TIGHT - formal - existing streets and facades to be retained

- renewal can take place to buildings and spaces behind

3.2 LOOSE - Informal - constant small-scale renewal

The information also identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Identification of existing patterns as a basis for incremental growth.

2. Methods of achieving unity - materials
- technology
- scale
- style
- spaces

3. Methods of achieving harmony and delight in large-scale schemes.

4. Development of buildings and spaces behind retained formal facades.

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HEALING AND COHERENCE

ZONING AND DIVERSITY

Healing

The seminal work in understanding needs to heal the ragged and incoherent city has been undertaken by *Christopher Alexander* and his team. From 'The Timeless Way of Building' to 'A New Theory of Urban Design,' *Alexander* elucidates a theme that has now become familiar to us. Like several other writers in this genre, he starts with the historical perspective that in the past each town grew under its own laws of wholeness. Moreover, this wholeness not only occurred at the large scale, but it was evident right down to the details and ornaments.(1) It is a major part of this study, that in order to achieve URBAN RESTORATION, we need to recreate the circumstances in which wholeness and coherence will once again be the natural result of development. Clearly, the traditional ways have been lost and therefore, we need to devise our own methods. As *Alexander* points out, current practice is counter-productive in this respect. Artificial controls such as policies, plans, schemes and zones, which have become such features of a succession of development documentation, have only produced unrelated parts of the city, totally lacking in coherence and never beginning to evoke any deep feelings. One important aspect is that the deterministic plan assumes a finite conclusion. *Alexander* suggests that a concept of this kind is contradictory to the notion of creating WHOLENESS, which can only be dealt with, as a PROCESS. The idea of a growing whole, is again consistent with a number of principles that have been investigated already. It relates to INCREMENTAL GROWTH, unpredictability, and a vision of coherence which expresses itself in surprising and inter-connected ways. The whole is full of feeling with a deep psychological aspect of completeness which affects us to a great extent.(2) *Alexander's* principles of growth, or as he puts it 'seven detailed rules of growth,' are as follows -

1. Piecemeal Growth

Once again, a reference to the principle of INCREMENTAL GROWTH - he suggests limits on the size of building increments with positive discrimination towards smaller projects to counteract the dominance of larger schemes.

2. The Growth of Larger Wholes

Whilst recognising the danger that the established system of planning can create order at the expense of any organic feeling, the greater concern is that modern plans have actually failed to produce large scale order. The suggestion is that a defined plan is insufficiently inspiring and too inflexible, and that greater success may be achievable without such a plan.

3. Visions

The content and character of incremental growth needs to arise from a vision of what is required to heal the existing urban structure, and this vision must be communicated to others. This demands an attitude to development which looks beyond the best solution for a particular piece of land to seeking the best for that part of the surrounding city.

3. Positive Urban Space

This theme will recur in 'The Creation of Urban Space.' It is generated from a realisation that in all cultures which have produced great cities and buildings, space was understood as a positive thing created by the buildings, whereas we tend to treat space negatively, ie the leftovers, after the buildings have been constructed.

5. Layout of Large Buildings

This is related to the permeability of large buildings. Essentially, the movement through a large building needs to be consistent with the surrounding urban fabric. In particular, consistency is dependent on understanding the GRAIN of that part of the city.

6. Construction

Especially in terms of details, the construction of individual buildings cannot be separated from the aim of wholeness for the city.

7. Formation of Centres

Rules of thumb need to be established to create centres - which can be entities such as a building, a street, a square, a garden, - or a combination of several of these, at the same time.

The last of these principles, contains the essence of Alexander's theory. In a process of development which heals the city, centres will emerge. Essentially, they take the form of PUBLIC SPACE and/or FOCAL BUILDINGS. The wholeness of an urban environment is formed by a very large number of centres, all interwoven, interlaced and overlapping, in the most intricate way.(3)

Other observers have been tempted to follow a non-interventionist approach. Their argument is that the absence of rules creates the most natural form of development. It is a highly democratic option, which most beautifully reflects the richness and multiplicity of human aspirations.(4) The problem with their viewpoint is that it results in power determining the weighting of outcomes. For example, road engineering always seems to predominate, despite endless public consultation exercises which state that it should receive less attention. The traffic engineers have an entirely unreasonable level of

power over decisions which are made in the city. So, interventions will happen regardless - thus it becomes a matter of how to guide them, so that some aspects do not become overemphasised while other considerations are left out altogether. Alexander's view is that existing planning law, the planning process and even present society, need correcting to allow his alternative process to take place.(5) While adjustments in attitude clearly need to occur if urban places are to be restored, it is unlikely that such sweeping changes could begin to be feasible.

Coherence

Lack of coherence is one of the most deplored aspects of our towns and cities. Many writers point out that it is current practice which actually causes incoherence rather than mitigating against it. There is certainly a fragmented approach, with individual developers making proposals for single sites. There is no overall positive perspective as the role of the Planning Authority is merely to accept or reject an unrelated series of proposals. The decisions are primarily made on established land use criteria. The lack of common objectives among the principal actors is also a source of incoherence. The developer is trying to maximise his or her short term profit; the architect is wanting to produce a statement which will, perhaps, be a monument to his or her work; development control is attempting to apply the criteria of the development plan, while the economic development office wishes to improve the employment profile of the city, and so on.

Coherence, therefore, appears to be a highly valued objective. Several observers have noted that historically, it has been the application of guiding laws or rules that has led to a coherent city. Siena is the most often quoted example of this approach and the theme

has recently been revived by *Leon Krier* and *Christopher Alexander*, amongst others. However, a system of rules is not without its critics. A group of modernists are particularly concerned that such an approach is a nostalgic and anachronistic attempt to return to the past. This viewpoint has mainly surfaced in the architectural debate. Yet as *Viren Sahai* explains, the visual chaos in our cities today, suggests a much deeper problem than nostalgic imagery versus futuristic visions. After all, buildings of different styles have existed alongside one another throughout history.(6) Sahai has joined the growing clamour for a shared language. This has developed from the debate in the architectural fraternity about the dilemma of style. A common language in urban form is equally desirable, but has a different kind of emphasis. The language of urban design is based on spaces and buildings. This leads to an analysis of URBAN TYPOLOGIES where SPACES are considered in terms of SQUARES and STREETS, and BUILDINGS as FOCAL or BACKGROUND in relation to their LAYOUT, FORM and CHARACTER. In this analysis, EXEMPLARS are crucial. They may be derived from other parts of a particular city and/or from other comparable cities. URBAN DESIGN PRINCIPLES also play an important role. The work of 19th and 20th Century pioneers can be directly applied to a certain situation, but it is more likely that the work will form the basis for further investigations. *Christopher Alexander* is a pioneer of COHERENT BUILDING. It is a major theme of all his publications and in particular, 'A Pattern Language' is dedicated to it. The Language identifies 253 patterns, which are a rich collection of hints on how to build at all scales, from regional planning to the ornament of details. Also, the patterns are taken from a variety of cultures. Alexander advises that the language is a matrix from which the designer can select his/her appropriate route.(7) Each pattern contains extremely valuable information, but the whole composition leaves one with a mild feeling of dissatisfaction. In view of the

comprehensive nature of this work and the value of the information, the cause of this dissatisfaction is not immediately apparent. It could be that as a process, it is not clear how to relate it to the current system. It could be that the scope is too great, ie region to ornament and various different cultures. It may be the case that the numerous examples actually detract from the analysis of typologies. Nevertheless, many of the patterns are well represented in this thesis.

Coherence derived from similarity of objectives between the principal players is not easily achievable. However, the first step could be to specify the objectives and identify any areas of overlap. The notion of INCREMENTAL GROWTH or incremental change would certainly help this situation, as would the implied longer-term view. A major aspect is the respective roles of the private and public sectors. By its nature, the private sector will promote the interests of the individual person or company. Currently, the public sector is almost exclusively in the role of 'urban gatekeeper' on behalf of the community. Only the public sector can take the broader view and act on behalf of the community. In this sense coherence may be dependent on the public sector taking a proactive role or at least creating a framework in which the private sector can perceive tangible benefits.

Zoning

For the major part of the 20th Century, zoning has been the perceived planning wisdom. *Jane Jacobs* notes that for example, a second category of uses is considered to be harmful by planners and zoners, if mingled into residential areas. This category might include bars, theatres, clinics, business and manufacturing.(8) *Francis Tibbalds* has no doubts about the negative aspects of zoning. He writes that zoned separation literally kills urban areas. *Tibbalds* feels that the most attractive

places offer a variety of experiences - living, working, trading, shopping and playing - all of which gain from being linked into lively and safe environments.(9)

Eduardo Lozano points out that one of the problems with zoning is that in parts of many city centres, life stops at the end of the working day because there are few city centre residences. Moreover, the residential areas are often socially homogeneous where people of the same social class and race live, segregated from the rest of the population.(10) *Lozano* is suggesting that zoning contributes to the phenomenon of the ghetto. The artificial separation of areas through zoning results in sterility, not in communities. In keeping residences and workplaces apart, children often grow up without seeing people at work. Meanwhile, in isolated offices and industrial parks, workers see only mirrors of themselves. In this way, urban areas can become parodies of themselves - a kind of human zoo with every 'species' segregated into its own zone.(11)

The tradition of land use planning and the relatively recent generation of master plans, have tended to create single-use areas of considerable size. In addition, zoning and master plans tend to be two-dimensional.(12) Uses need to be considered vertically and be time-related as well, so that use considerations are at least four-dimensional. Current practice tends to be that new commercial ventures assemble large parcels of land for the construction of segregated enclaves in urban centres. More often than not, these projects turn their backs on the street and pavement to create internal malls surrounded by shops, allowing functional activity without actually coming into contact with the city at all. This problem is compounded by the scale of the projects. Although land assembly creates a superficial image of autonomy, large size has an enormous negative impact on

the city. These projects are the urban analogue of a cancer in biology - they grow surprisingly quickly across the city, threatening the urban structure and eventually destroying the natural pattern.(13)

Thus, in the latter part of the 20th Century, we have become accustomed to thinking of cities as divided into functional uses - entertainment, offices, shopping, residences, etc. This approach can make whole areas vulnerable to decline, as a shift in the market can lead to rapid deterioration, with alternative uses not being considered.(14) *Lozano* points out that many single-use precincts built in the past few decades have in fact deteriorated and urges that reuse should be geared to the creation of islands of heterogeneity in metropolitan areas. Whereas, short-term consumerism and profitability spell the end for some of our finest urban facilities, initiating an early, rapid obsolescence involving enormous economic and social waste. We should learn that the over-specialisation of fitting a design perfectly to a present function, can be disastrous,(15) because the more closely a design is tailored to a particular function, the more quickly it becomes obsolete.(16) We should learn how to avoid the evolutionary disaster of pursuing one functional idea to the exclusion of all others. We need to learn how to provide a structure that will encourage rehabilitation, alteration, and other actions stemming decay. We have to rescue design from the grip of consumerism, greed and fashion, and learn again how to build for centuries.(17)

Diversity

Jane Jacobs writes that to understand cities, we have to deal outright with combinations or mixtures of uses and not separate uses, as the essential phenomena.(18)

Diversity has concerned modern planners, especially from the point of view of conflicting uses. However, change from an industrial to a post-industrial society has

significantly reduced that risk and in any case *Jacobs* believes that many of the concerns are based on myth. Suggestions that mixed uses look ugly, they cause traffic congestion and invite ruinous uses are behind many zoned development plans. *Jacobs* is not impressed by these arguments. She says that these notions imply that places stamped with homogeneity of uses look better. Whereas, in reality, they are at best monotonous. They also offer no direction, as hierarchy, emphasis and variety are minimised. Diversity, on the other hand, offers possibilities of displaying genuine differences in content.(19) Diversity expresses the interweaving of human patterns. Cities are full of people doing different activities, with different reasons and different ends in view. Urban form and content should reflect these differences. It is the richness of human variation that gives vitality and colour to the human setting. The most serious fault of zoning is that it permits an entire area to be devoted to a single use.(20)

On city diversity inviting ruinous uses *Jacobs* notes that deadening, space-taking, low economic uses proliferate in areas which are already uncultivated and unsuccessful. They occur in places of low pedestrian activity, too little surrounding magnetism and no high value competition for the space. Whereas, in dense, diversified city areas, people still walk. The more intensely various and close-grained the diversity in an area, the more walking takes place. Even people who come into a lively, diverse area from outside, whether by car or public transport, walk when they get there.(21) Unfortunately, as *Lozano* points out, current practice is creating a coarser texture of constituent elements. We need to promote a fine-grained pattern, where land uses are designed to increase their linkages - one activity produces what another needs and the grouping of some activities, generates others.(22) The main responsibility of city planning should be to develop cities that are congenial places in which a great

range of unofficial plans, ideas and opportunities can flourish. Thus, city centres will become economically and socially congenial places for diversity to generate itself, with good mixtures of primary uses, frequent STREETS and SQUARES, a close-grained mingling of different ages in their buildings, and high concentrations of people. Public and quasi-public bodies should establish buildings and facilities which add effectively to diversity, and stand strong against pressures to replace them by uses that merely duplicate the surroundings, ie public bodies should not mimic market forces but adopt a supra-economic stance.

Jane Jacobs sets out four conditions to generate diversity, which she says are the most important points that her book has to make -

- '1. A city district must serve more than one primary function, preferably more than two.
 2. Streets and opportunities to turn corners must be frequent.
 3. The district must mingle buildings that vary in age and condition, and to vary the economic yield they produce. The mingling must be fairly close-grained.
 4. There should be sufficiently dense concentrations of people - including a resident population.'
- (23)

Information about HEALING AND COHERENCE, ZONING AND DIVERSITY, makes direct contributions to the proposed FRAME OF REFERENCE -

1. Creation of wholeness can only occur as a process and therefore deterministic plans with finite conclusions should be avoided. To assist with the process, a great range of unofficial plans, ideas and opportunities should be encouraged to flourish.
2. Rules of thumb are required to help create centres, ie positive public space and focal buildings.

3. Public sector needs to adopt a supra-economic stance and a proactive role. It should at least create a situation in which the private sector can perceive tangible benefits.
4. Diversity, rather than zoning, is the objective. To create 'islands of heterogeneity,' use considerations for the city need to be four-dimensional.
5. New developments need to present a 'face' to the external public space.

The information also identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Establishing the grain for parts of the city, so that proposals can be related to it.
2. Identification of overlapping objectives of the principal players, and a means of communicating the vision, in a way that would be acceptable to them.
3. Defining appropriate urban typologies from various parts of the city and comparable cities.
4. Investigation of building design for rehabilitation as different functions.
5. Exploring conditions to create diversity -
 - . more than one/two primary functions
 - . opportunity to turn street corners frequently
 - . variety of age and economic yield of buildings
 - . dense concentrations, including resident population.

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3. URBAN TYPOLOGIES

SPACES

The Creation of Urban Space

Human beings have a fundamental psychological need for reference points, to establish their immediate position in the world. Questions such as -what day is it? what is the time? what is the weather doing? and where am I? - are all part of urban life. The last of the above questions is generally associated with urban patterns, but it is also related to the comprehension of urban spaces. These have deeper significance than merely functional attributes. They engender a range of human responses which can start with fear for one's safety at the negative end of the spectrum, right up to a spiritual experience at the positive end. Moreover, the success of a town or city can in part, be derived from the quality of its urban spaces. If the physical, psychological and spiritual well-being of the community and visitors is partially in response to the surroundings, then sociological factors such as crime as well as economic aspects like trade and the number of visitors, must also be affected.

Urban space has always been the place for the community rather than the individual and is therefore PUBLIC rather than PRIVATE in nature. Historically, activities which have occurred in urban spaces have been representative of that settlement. They were places where the framework of society has been debated and formulated, and where economic activity took place. Rob Krier believes that modern cities have lost sight of the traditionally understood importance of urban space. However, he considers that both residents and visitors still have feelings for it, and that they are sensitive enough to compare town planning achievements of the past and present.(1)

A common theme is that real urban systems are derived from BUILDINGS THAT CONTAIN SPACE, ie streets, squares, alleys, courts, and these make up the character of our towns and cities. This is in sharp contrast to recent developments which tend to be SPACE CONTAINING BUILDINGS. *Christopher Alexander* concurs with this approach in his *New Theory of Urban Design*. *Alexander* proposes that space should become the focus of attention, and buildings become merely tools with which this all-important space is created.

Unfortunately, his rules by which this is to be achieved appear rather imprecise and open to interpretation.




- '1. Each building increment is shaped and placed to create well-shaped pedestrian space.
2. The volume of building increment itself, is to be simple and well-shaped.
3. Often, the building will also be shaped to create a garden. The garden is to be compact and of simple shape, more intimate and quiet than the nearby pedestrian space.
4. The nearest road is to be extended to give direct access to the building - unless the building is already touching an existing road.
5. Parking needs to be adequate and must be placed so that buildings surround it - and its effect on the environment is reduced as far as possible.' (2)

These are fine sentiments, but clearly a more defined framework is needed.

In clarifying the concept of urban space, *Rob Krier* warns against imposing aesthetic criteria. He considers that we are compelled to designate the TYPES OF SPACE between buildings. According to *Krier*, the main problem with analyses based on aesthetics, is that they open up the debate about subjective questions of taste. He adds that the maturity of a society also might be an important aspect as the more conscious a society is of its history, the more effortlessly and thoroughly it handles historical elements of style.(3)

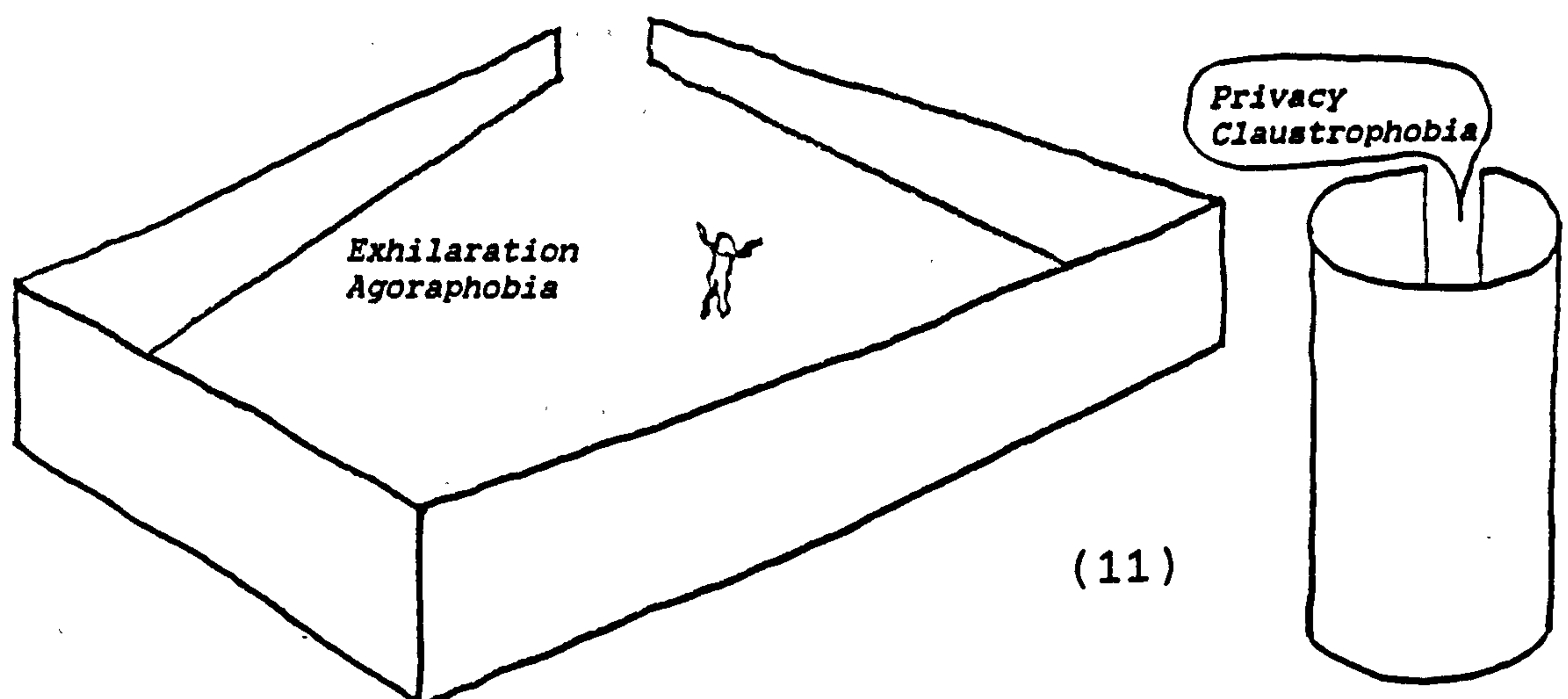
For most pioneers and commentators working in the PICTURESQUE TRADITION, historical settlements hold the key to successful urban spaces. *Camillo Sitte* suggests that beauty is inherent in irregularity.(4) Much more recently *Francis Tibbalds* takes a contrary viewpoint in suggesting that the scale and formality of buildings surrounding Georgian Squares and small parks have created many memorable places in our towns and cities.(5) However, even *Sitte* has to admit that modern town planning has not had much luck with irregular design.(6) *Krier* notes that there is a wealth of spatial forms in our town-planning heritage and criticises the view that irregular spaces and organic architecture are inherently more beautiful. He makes three distinct points about the geometrical shape of urban spaces. First, the great popularity of medieval squares with their fine enveloping architecture, is due to the fact that they cannot be imitated by modern towns. Secondly, simple four-sided squares with varieties of street intersections can provide an infinite variety of forms, and that the evidence is in our historic towns. Thirdly, geometric urban spaces require very precise architectural form, and any error is clearly evident. Alternatively, irregular spaces are best served by variety of form and consistency of architectural detailing is less important.(7)

Krier's TYPOLOGY OF URBAN SPACE is illustrated as follows:

- . The three basic geometric plan shapes   
- . Modulating factors - angling, segmentation, addition, merging, overlapping/ amalgamation, distortion
 - geometrically regular or irregular results on all spatial types
- . Building Section - influences quality of the spaces at all stages of modulation
- . Closed or open - completely or partially surrounded by buildings

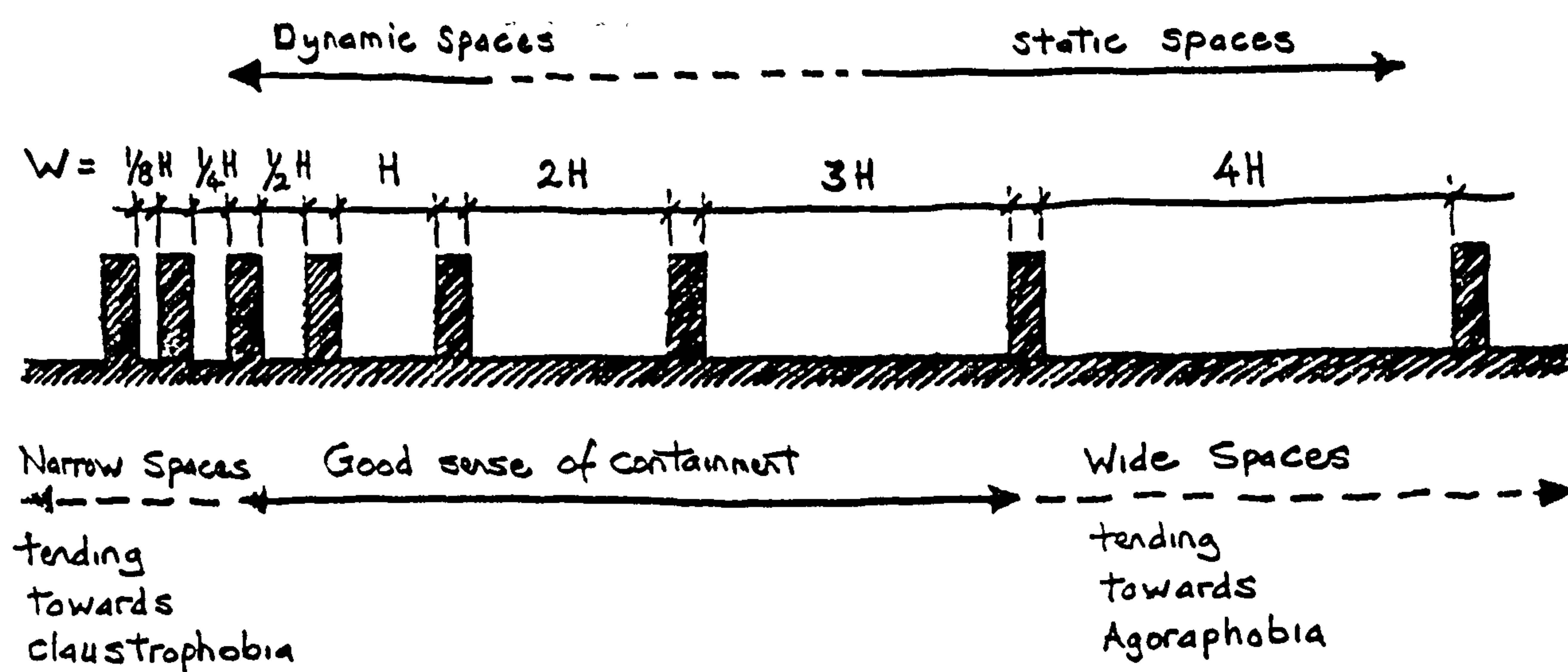
- . Scale
- . Architectural style (8)

Urban spaces can be further classified as STATIC or DYNAMIC. In simple terms, static spaces are associated with SQUARES and dynamic spaces are associated with STREETS. One of the psychological needs related to urban space is that its limits must be perceivable. This is achieved by definition of space. Some writers observe that if space is not satisfactorily enclosed, an attractive urban space cannot be achieved,(9) and that space enclosure results from unbroken building fronts.(10) whilst it seems that modern planning tends to separate out blocks of building, destroying any feeling for the limits of spaces, it is suggested here that DEFINITION and ENCLOSURE are not synonymous and the latter is not necessarily practised nor desirable. One of the experiments which will be carried out as part of this study concerns the proportional relationships of building fronts to openings that are necessary to maintain SPATIAL DEFINITION. The limits of containment are further identified by ABSOLUTE SIZE and by the HEIGHT TO WIDTH RATIO. Once again, psychological perception is the criterion. If a space is too large, there will be a loss of comfortable contact with the surroundings, and a tendency towards a feeling of agoraphobia. If too small, the reverse sensation, a feeling of oppression or claustrophobia.



In practice, the HEIGHT TO WIDTH RATIO is probably more applicable to urban spaces, than is absolute size. Because of their finite length, STATIC SPACES will be relatively more claustrophobic and will need to be compensated by less height to width. DYNAMIC SPACES, on the other hand, seem less claustrophobic due to the subconscious ease of escape. These spaces will demand greater height to width, if a harmonious situation is to be obtained.(12)

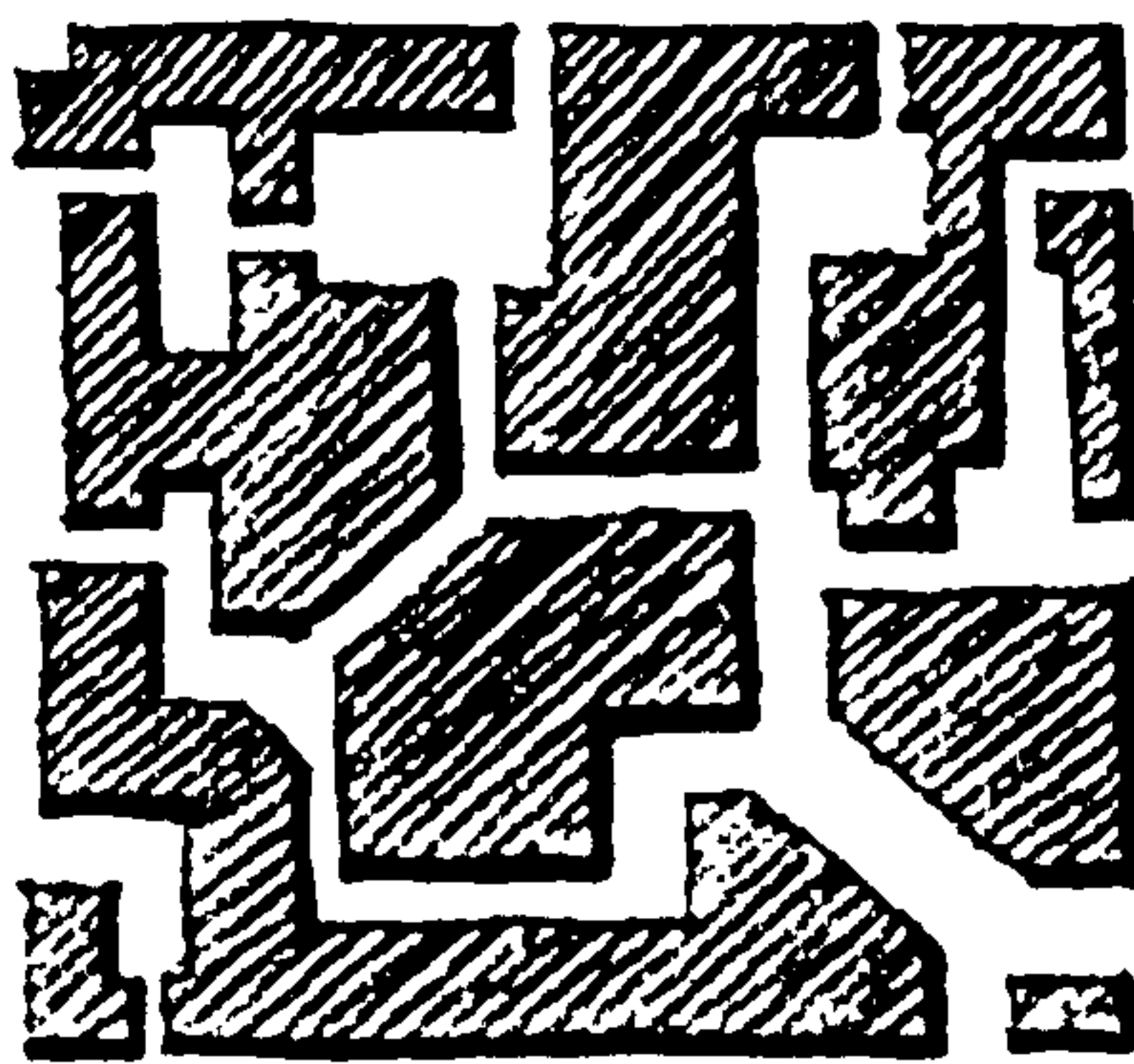
A possible structure for HEIGHT TO WIDTH RATIOS could be as follows -



(13)

If the LONG AXIS of a STATIC SPACE exceeds its short axis by notably more than 50%, it will be compromised to such an extent that it should be considered as a linear space with regard to its HEIGHT TO WIDTH RATIO, if containment is to be achieved. DYNAMIC SPACES can feel infinitely long. It is therefore important to introduce unfolding limits. This can be achieved by CURVES in the street, changes in the BUILDING LINE or CHANGES OF LEVEL. The length could also be related to the expected speed of movement along the communication route - the minimum length being for pedestrian routes and the maximum for vehicles. Long corridor spaces can be very daunting and monotonous at the pedestrian's speed of progress.(14)

The attributes of good townscape operate at many levels, from the superficial to the profound. They are all concerned with feelings and emotions. It may be a mild feeling of pleasure produced by the texture of a cobbled surface, or at the other extreme, it could be a deep spiritual feeling inspired by the symbolism of emerging from a dark narrow road into a light-filled square in front of a great church. At whatever level the surroundings act, it is always necessary for the designer to instil visual interest and variety into the outside spaces. For example -



It is also necessary for the designer of outside spaces to have a vocabulary of elements which can be used to evoke specific responses. Such elements should always be employed in a meaningful manner to attain a particular objective.(15) All this illustrates the enormous conflict of interests between investments for the demands of vehicles and investments for pedestrians. Additionally, it indicates that there is a price to be paid for the restoration of urban space, if our society is to improve the quality of life in the city.(16)

Information about the CREATION OF URBAN SPACE makes a number of direct contributions to the proposal FRAME OF REFERENCE -

1. Space rather than building should be the focus of future development, so that the urban system will be based on BUILDINGS CONTAINING SPACE rather than SPACE CONTAINING BUILDINGS.
2. A VOCABULARY OF ELEMENTS should be assembled, which is derived from TYPES OF SPACE, rather than aesthetical considerations.
3. GEOMETRIC SPACES require precise architectural form, ie a RECOGNISED STYLE, whereas IRREGULAR SPACES are best served by variety of form, ie the VERNACULAR TRADITION.
4. Urban space is essentially PUBLIC rather than PRIVATE and therefore a PUBLIC AUTHORITY is required to take a proactive role.

The information also identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Proportional relationships of building fronts and openings required to maintain SPATIAL DEFINITION.
2. DYNAMIC and STATIC SPACES
 - 2.1 Definitions
 - 2.2 Height to width ratios
 - 2.3 Lengths and length to width ratios.
3. Sequence of spaces and other factors needed to provide VISUAL INTEREST AND VARIETY.
4. The conflict of interests between VEHICLES and PEDESTRIANS, and how this conflict might be resolved.
5. Evidence of successful spaces from other cities, especially HISTORICAL URBAN SPACES.

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Squares

These are contained urban spaces within a town or city, provided as communal open space for the benefit of the public. The term SQUARE is the nearest english equivalent to the French PLACE, Italian PIAZZA or German PLATZ. It is important that there is not confusion with the geometrical shape of a square, although some SQUARES may be that shape.

Rob Krier reminds us that the SQUARE was probably the first way man discovered of using urban space. By providing groups of buildings around an open space, a high degree of control was achieved. Initially, this facilitated ready defence against external aggression, but the developing courtyard form offered more symbolic value. Of all types of urban space, the SQUARE is most representative of the values of the society that created, the Agora, Forum, cloister, mosque courtyard are examples.(1)

Even in *Camillo Sitte's* time, he feels that the public square had become synonymous with any empty space.(2) *Krier* agrees that in the public sphere, the square has gone into decline (3) and its loss of symbolism is described and lamented by *Sigfried Giedion* in *Space, Time and Architecture*.(4) *Krier* almost breaks into tearful nostalgia when he cites a great list of public squares from the past, which no contemporary square can match. However, he rightly concludes that the spatial type awaits rediscovery. This may require two conditions, at the very least -

1. Meaningful functions.
2. The right place with appropriate approaches within the overall town layout. (5)

he proposes that functions should generate activity 24 hours a day. Yet, there is more than a notion that Krier believes the future of the SQUARE lies in its relationship with the adjacent architecture. He offers the establishment of public administration offices, community halls, youth centres, libraries, theatres, concert halls, cafes and bars, as examples of such buildings.(9)

The functional justification and associated economic viability is the most difficult argument to overcome, when considering the creation of new squares. Many writers have recognised the changes in society from medieval times, which have brought such considerations to the fore. When this is coupled with the apparent decline of traditional outdoor activities, it is little wonder that the SQUARE as an urban form has become so neglected. However, this gives rise to two important questions. First, is the trend for transposition of outdoor activities to indoor arenas, really a response to community demands? The case for this transposition is usually made in terms of increased comfort and convenience for the public, especially in relation to protection from the climate. Economic and social arguments will be presented later in this work which suggests that such transposition could equally well find its source in the privatisation of public space and increased social control by the private sector. At the same time, collective outdoor activity is as much under threat from the reduction of suitable spaces, as the converse notion. Such activities as outdoor markets, concerts, political meetings, charitable collections, theatre, religious gatherings, sporting activities like road races and cycling, spectacles like firework celebrations, or laser shows, and many more functions - all have valid roles in late 20th Century society. They are only hampered by the lack of suitable space and the willingness of Authority to encourage them. Secondly, does the creation of urban space necessarily have to follow the rules of function and

Meaningful functions -

Raymond Unwin notes that it is not easy for us today, to realise how much of life in an ancient town was carried out in the open air.(6) *Krier* continues this theme by suggesting that market places, parade grounds, ceremonial squares, squares in front of churches and townhalls - are all relics of the Middle Ages, now robbed of their original functions and their symbolic context.(7) *J S French* spells out the traditional functions of a SQUARE. Its prime purpose was as a gathering place - to augment the following host of urban activities -

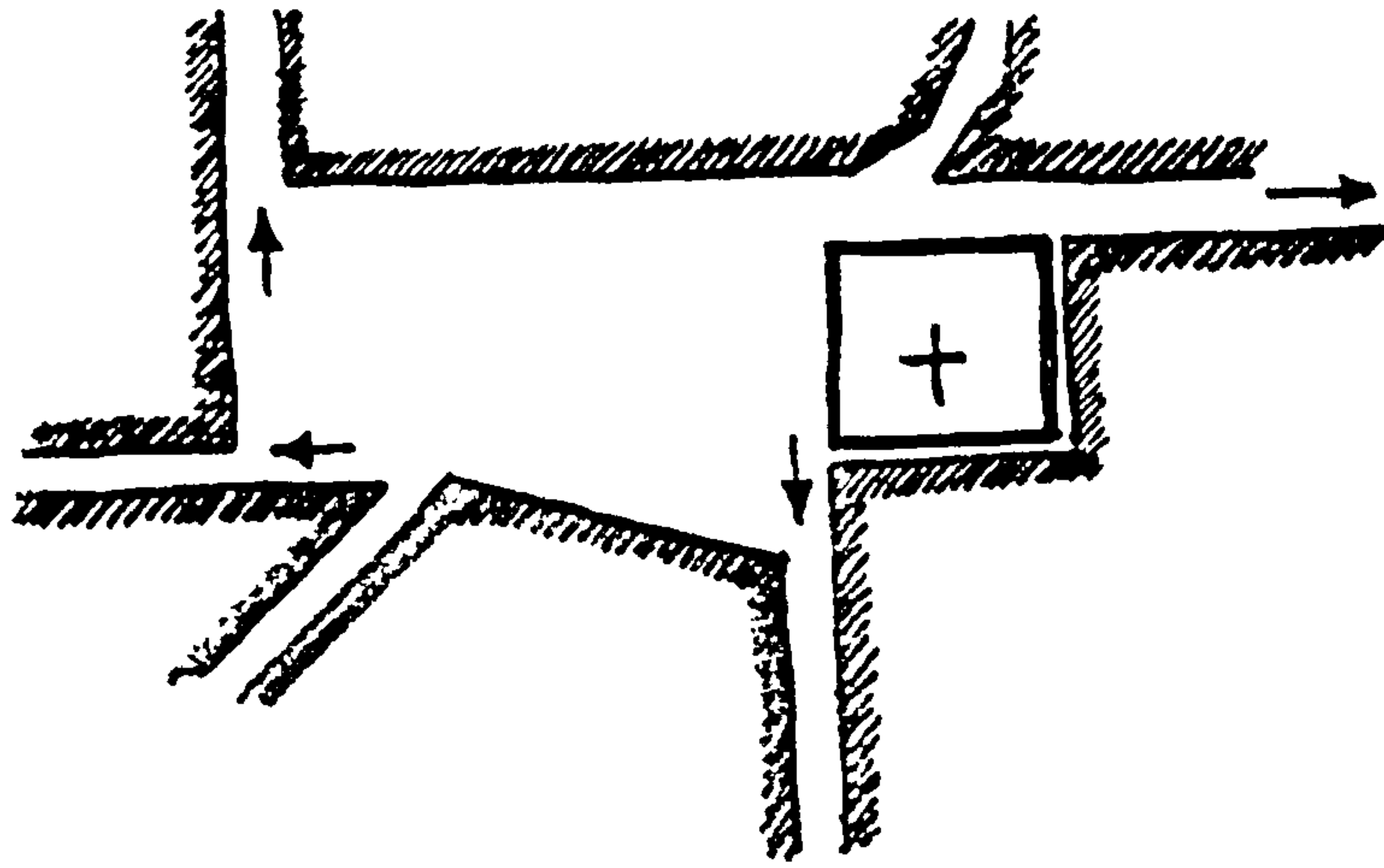
<i>Trade</i>	buying and selling, depository and manufacture
<i>Information</i>	place of social activity - news disseminated
<i>Recreation</i>	passive activities, games, teaching, lunch and conversation, sociability
<i>Protection</i>	in past times - preparing militia, training and drill, gathering in time of danger
<i>Piety</i>	open space before the church for worship, holy inspiration and prayer

French quotes *Alberti's* 'Ten Books of Architecture,' (p 173 about Florence C1475) to point out that there could be several squares in different parts of the city, performing different functions. In *Alberti's* terms - some for selling 'merchandises,' 'others for the exercises proper for youth' and further spaces 'for laying-up stores.' *French* tries to make suggestions for different kinds of squares in our own time. However, in truth it is difficult to discern an appreciable difference between this list and the traditional functions.(8) *Krier* adopts a kind of 'Space, Time, Architecture' approach, when he considers functions which are appropriate to the square. In terms of space, he makes rather a generalised statement about the functions being commercial (such as a market) but above all, activities of a cultural nature. In relation to time and especially regarding central squares,

economic viability? At least for part of the time, it is difficult to understand why a square cannot just exist for its own sake. Provided it acts as possibly a place for chance meetings, a focal point in the city, a recognisable landmark which offers orientation, the junction between various established routes, an entry position - especially when arriving in the centre by underground railway - a SQUARE is justified merely on these terms.

The right place with appropriate approaches within the overall town layout -

Raymond Unwin reminds us of the historical precedents in choosing 'the right place.' The first is topographical. The Greeks, for example, would seize upon any natural condition offered by their site to form a fitting centre.(10) *Francis Tibbalds* remarks that the strongest image of towns and cities is the way that they relate to physical features. He observes that post-war development tended to ignore the topography and impose artificial levels. In his view, cities need to regain their topography if they are to regain a positive image.(11) There is also an association with the major public buildings. *Unwin* offers examples of cathedral, town hall and railway station. On the last example, he suggests that there should be a large open space in front of the station, to give dignity to this main entrance to the town. Further, it should accommodate pedestrians as well as bustling traffic. In particular, a passenger emerging from the station should not be in danger from road traffic, immediately on emerging from the station.(12) Thirdly, 'the right place' is determined by through routes and preferably at the junction of a number of pedestrian routes. It is especially important not to locate a SQUARE in a cul-de-sac position. With regard to 'appropriate approaches' *Camillo Sitte* considers that the whole secret consists of the fact that the streets are laid out at an angle to our lines of sight, instead of parallel to them. His example is from the Piazza del Duomo, at Ravenna.



(13)

There seems to be no dissension from this proposal.

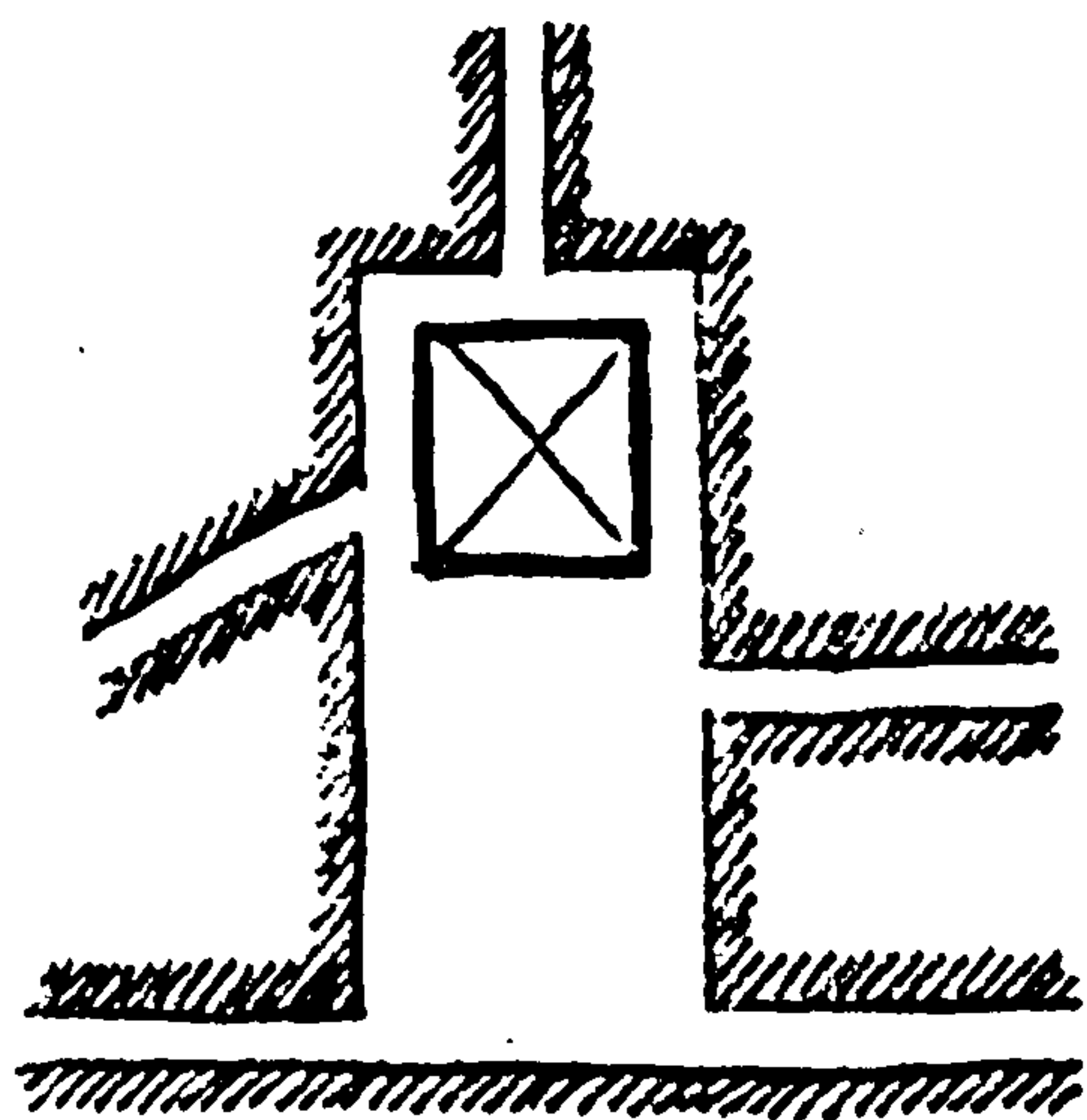
Size and Shape of Squares

Sitte notes that human perception of size and actual size are not directly related. He gives the slightly obtuse example of the maximum effect of a chorus which is achieved with about 400 voices. The addition of 200 more, would not increase the perceived intensity of sound. *Sitte* invites us to compare the measurements of the smaller squares in a city with the measurements of larger ones. He says that in every case, the apparent size would bear no relationship whatever with the actual measurement. Increasing street widths have meant that squares have grown in size. *Sitte* notes that as a rule, the larger the space, the less impressive as the effect of its buildings and monuments cannot prevail against it. He comments that agoraphobia might affect statues as well as people, but more importantly we feel very cosy in small, old squares and only in our memory do they loom gigantic - because in our imagination, the magnitude of the artistic effect takes the place of actual size. According to *Sitte*, the largest squares in ancient cities average only about 60 x 145 m (190 x 470 ft).(14)

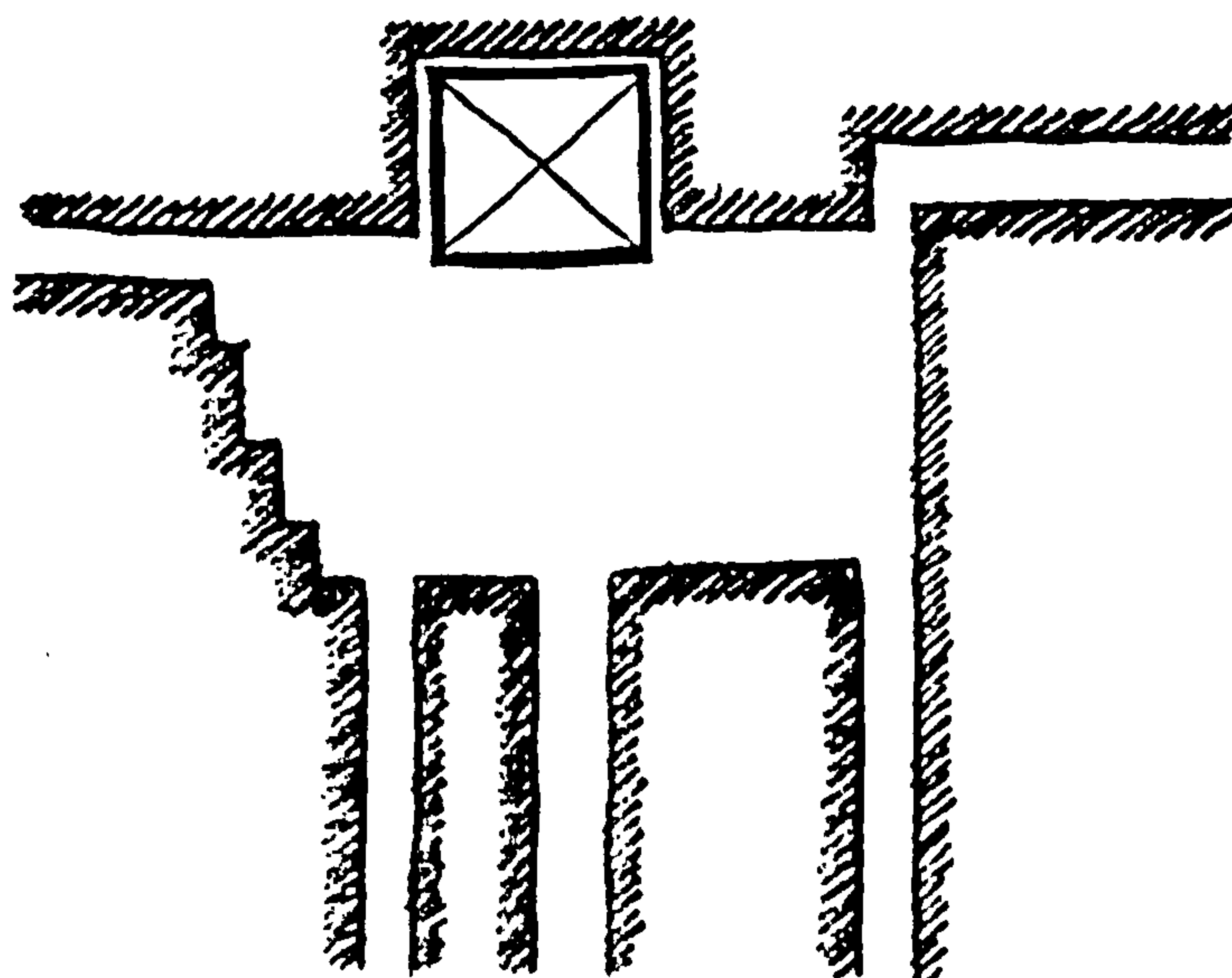
Raymond Unwin issues a very important warning. It must not be thought that any open space is a true SQUARE or that because successful squares are found of all kinds of

irregular shapes that therefore any shape will do. This is very far from being the case. Under the influence of the engineer town planners, although the word SQUARE was retained to designate the spaces formed at road junctions, the true idea of a SQUARE was quite lost.(15) *Sitte* considers it strange that the really wildly irregular squares of old towns often do not look bad at all, while an irregular corner in a modern layout invariably appears very unattractive. He is convinced of the fact that the irregularity of old planning is almost always of a kind that one notices only on paper, overlooking it in reality - because of course, this old planning was not conceived on a drawing board, but worked out on location.

Sitte proposed that SQUARES which are also square on plan are rare and do not look very good. Conversely when the length:width ratio starts to exceed 3:1, SQUARES begin to lose their charm. Thus *Sitte* felt that there are two basic forms of SQUARE -



Deep Plan



Wide Plan

The first aspect is that these squares demand the presence of a FOCAL BUILDING, and the proportion of the focal building needs to be related to the proportion of the square. In rather simplified terms he suggests that religious buildings have predominantly vertical form and therefore suit deep plan squares, whereas town halls have mainly broad layouts and therefore government squares should be generally wide plan. The height of the principal building is often the minimum dimension of the square, and double that height is the absolute maximum.(16)

Raymond Unwin comments on the sense of containment necessary in a SQUARE. He points out that continuous enclosure is not desired, but that breaks in the frame of buildings should be relatively small in size and number, and not too obvious. In the vast majority of successful squares, someone entering a square by one of the streets cannot see any extended view out of it, along another street. In some cases, great ingenuity has been displayed in masking the entrance of the streets. Undoubtedly, the definition of SQUARES was much more easily attained in medieval towns where the streets were so narrow that a very slight divergence from a straight line was sufficient to close the view. Nevertheless, much can be achieved with modern streets provided that engineering regulations with respect to minimum width restrictions and sight lines, are reconsidered. It should also be possible to make reasonable use of narrower streets and passages for cycle and pedestrian use, enabling SQUARES to be formed with fewer large openings, while providing smaller openings and archways for cyclists and pedestrians.(17)

Sitte also recommends that 'offending gaps' can be further eliminated by incorporating colonnades and open loggias into this 'mutual covering.'(18)

To DEFINE a SQUARE is not only important because it gives a sense of completeness and repose to the SQUARE itself, but also because of the importance of providing a proper frame and background to the FOCAL BUILDING. In many instances, it will be seen that although sufficient space is afforded for a good view of the focal building to be obtained on several sides, it should not appear to be isolated in the middle of an open space or detached from its fitting framework.(19) This concept was also a major part of *Sitte's* work and will be examined further, in the 'Buildings' section of this thesis.

Information about successful SQUARES identifies a number of issues, about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Sizes and shapes
2. Functions and time usage
3. Topographical situations
4. Through routes and provision for pedestrians and vehicles
5. Containment and openings
 - 5.1 Size
 - 5.2 Frequency
 - 5.3 Masking
6. Focal buildings
 - 6.1 Type
 - 6.2 Size
 - 6.3 Position

Due to the limitations of SQUARES in the study areas, the emphasis for this part of the work will be directed towards the European Exemplars.

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15. UNWIN, R. Op. Cit., 194

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16. SITTE, C. Op. Cit., 177-183
17. UNWIN, R. Op. Cit., 208, 220, 221
18. SITTE, C. Op. Cit., 175
19. UNWIN, R. Op. Cit., 198

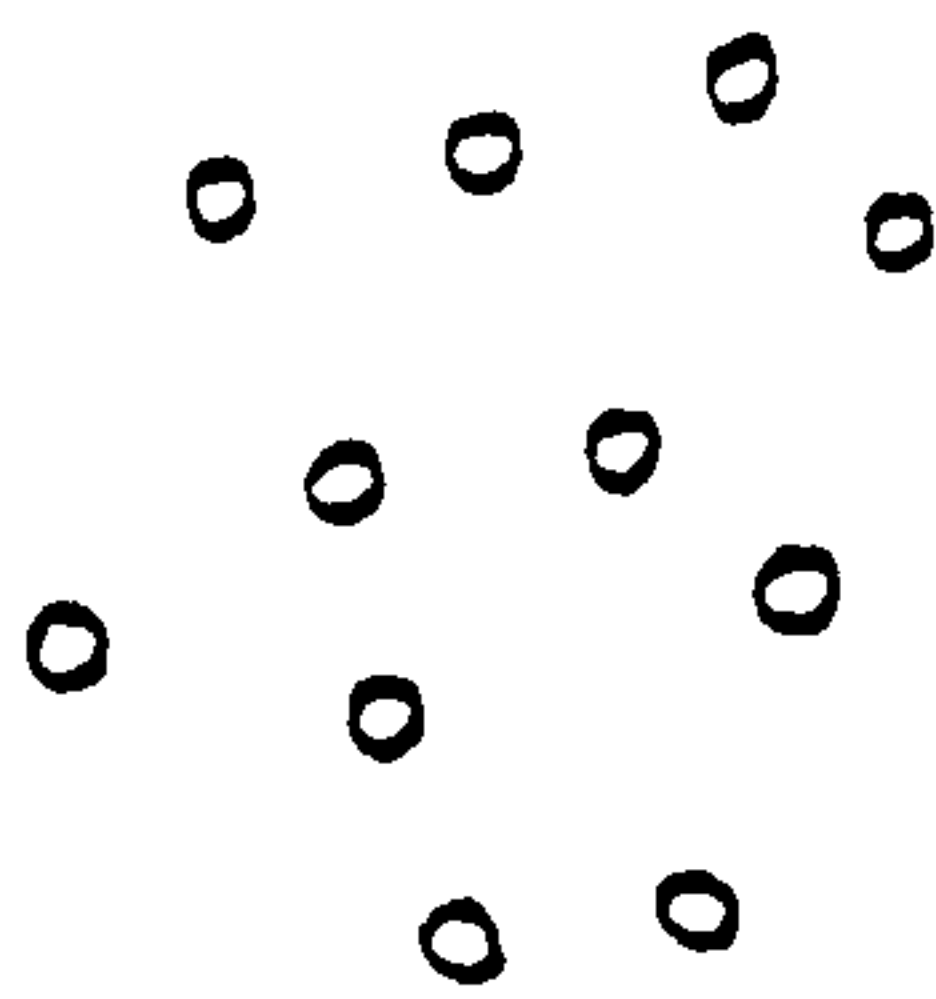
Streets

Originally STREETS were derived from the need to spread a settlement, once all available space around the central square had been built-on. They provide a framework for the distribution of land and give access to individual plots. STREETS have a more pronounced functional character than SQUARES, which should be more attractive places in which to pass the time. STREETS are more confined, directional and associated with movement. Thus, the architectural backdrop is only perceived in passing. However, street layouts can be devised for different functional purposes, ie pedestrians, cyclists, motor vehicles - and some may be unsuitable for motor vehicles while being totally appropriate for other uses. Yet, the separation of pedestrians and traffic carries with it, the danger of isolation of the pedestrian zone. Solutions therefore, must be carefully worked out which keep the irritation of traffic noise and exhaust fumes away from the pedestrian, without completely distancing one zone from another. Activities are also important to STREET space, especially travelling to work, shopping, selling goods, recreation, leisure, sporting events and deliveries. Although the asphalt carpet which serves as a channel for the movement of motor vehicles, is often called a STREET, it retains no connection with the significance of the term.(1) For the purposes of this thesis, a lineal space which is dedicated to motor vehicles is designated as a ROAD, to differentiate it from a considered urban distribution space which continues to be known as a STREET. Christopher Alexander proposes that road traffic should be taken into account, after pedestrian spaces and the location of buildings, instead of allowing ROADS to generate the building form, as is usually the case. He feels that this principle is extremely important.(2) All STREETS must be safe and all STREETS should be an integral part of the urban environment, enhancing it rather than detracting from it.

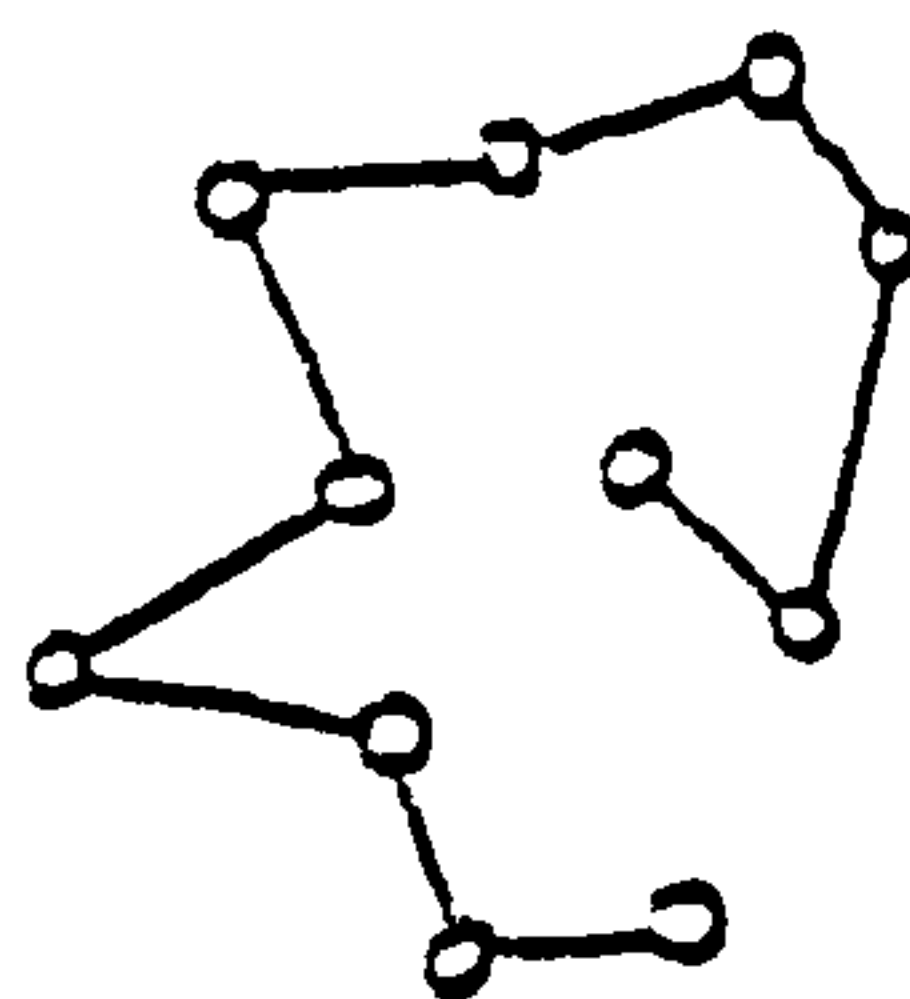
The need for STREETS to be enjoyable places as well as routes is a consequence of the fact that they constitute a large part of our outdoor URBAN SPACE.(3)

Street Patterns

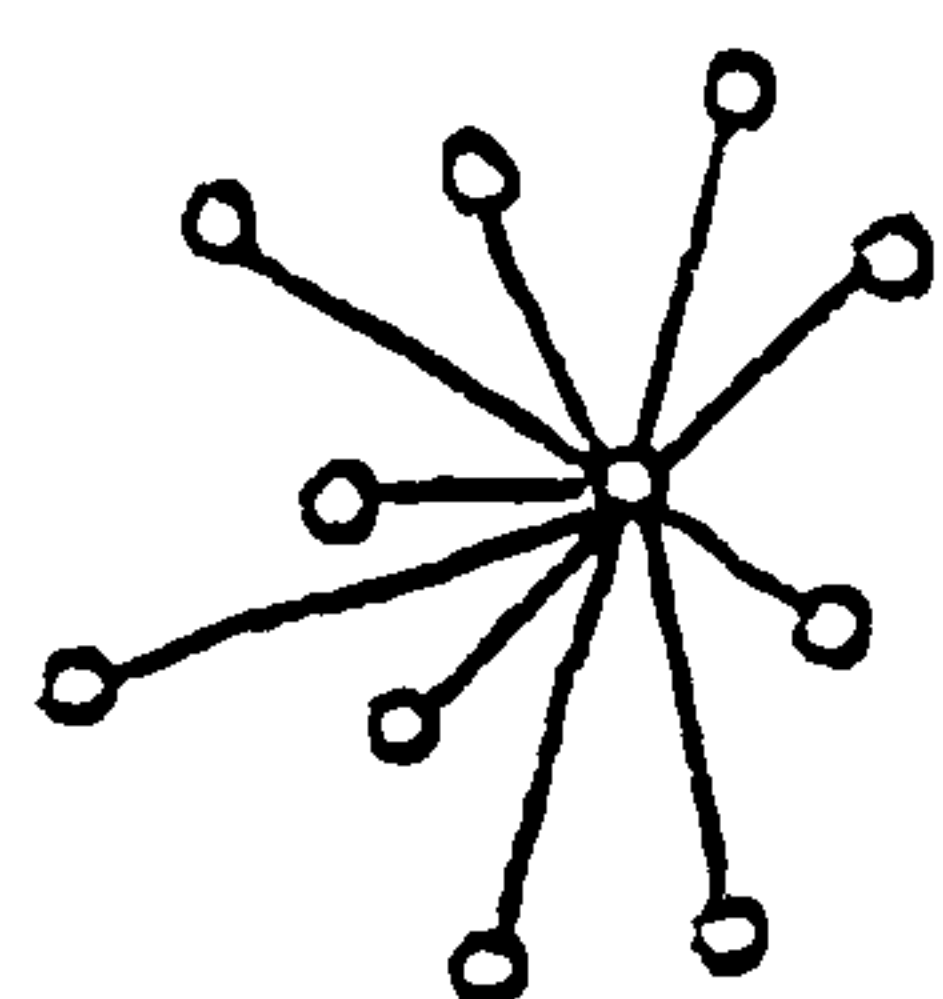
The objective is to link a number of places, in the most convenient arrangement, eg



Places

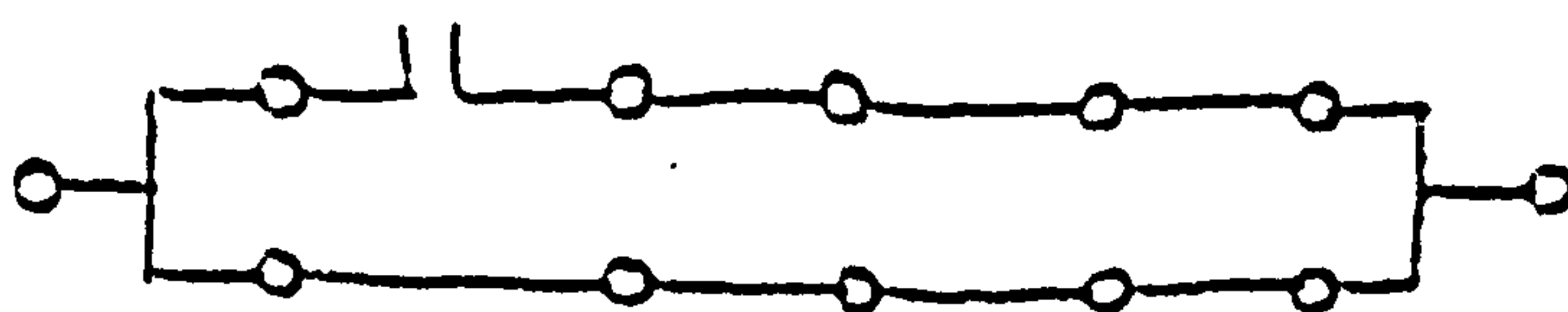


Serial Linkage

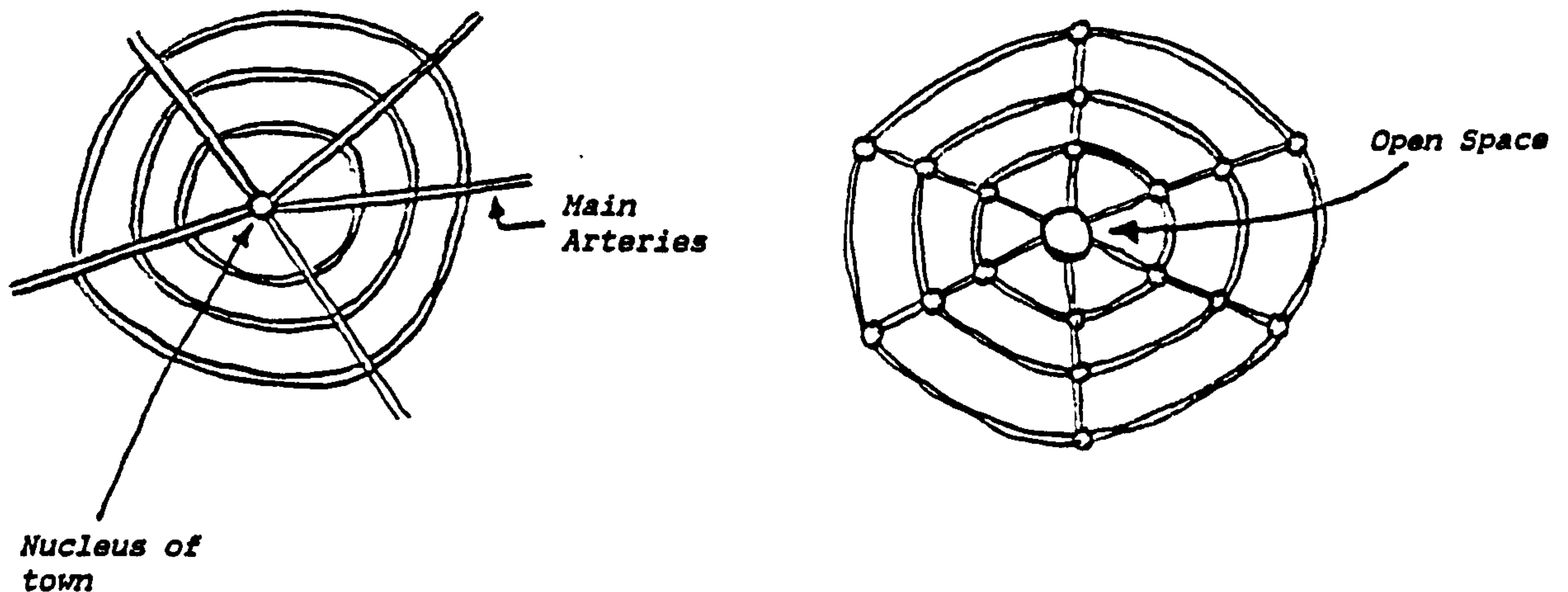


Radial Pattern

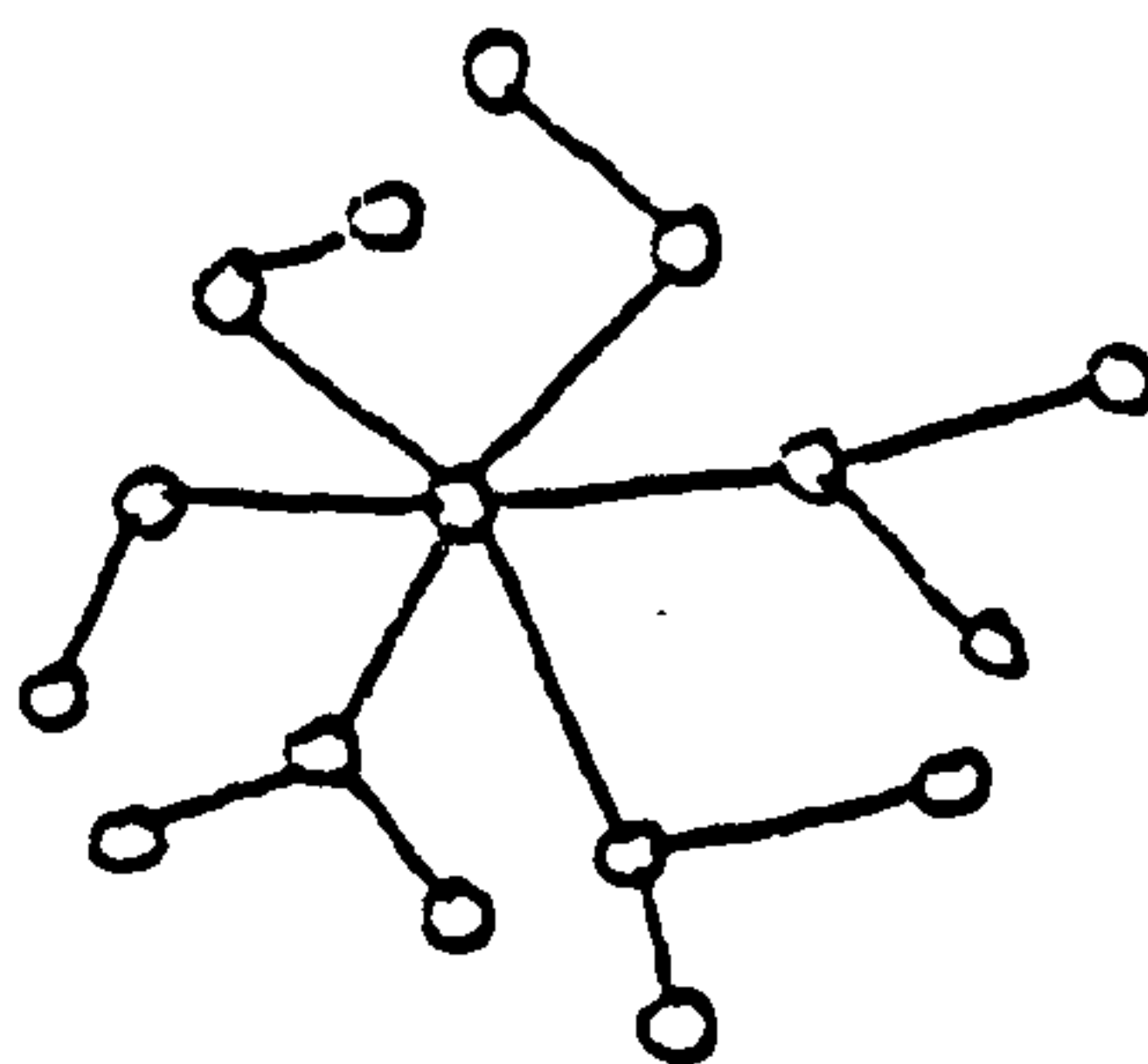
The advantage of Serial Linkage is that no more than two streets connect in one place, whereas the radial arrangement necessitates a multiple connection at the origin which could cause difficulties in practice. The Radial Pattern also requires a very strong focus. However, the Serial Linkage is sensitive to blockage, which is not true of the Radial Pattern, except in as much as each route into the centre could still be affected. Parallel Serial Systems can overcome the blockage problem, under certain circumstances, eg



Both *Unwin* and *McCluskey* cite the development of Serial Linkage and Radial Pattern, into the SPIDER'S WEB, and a number of ideal city plans have been based on this layout, eg



Another development has been the BRANCHING PATTERN, which is used in residential areas -

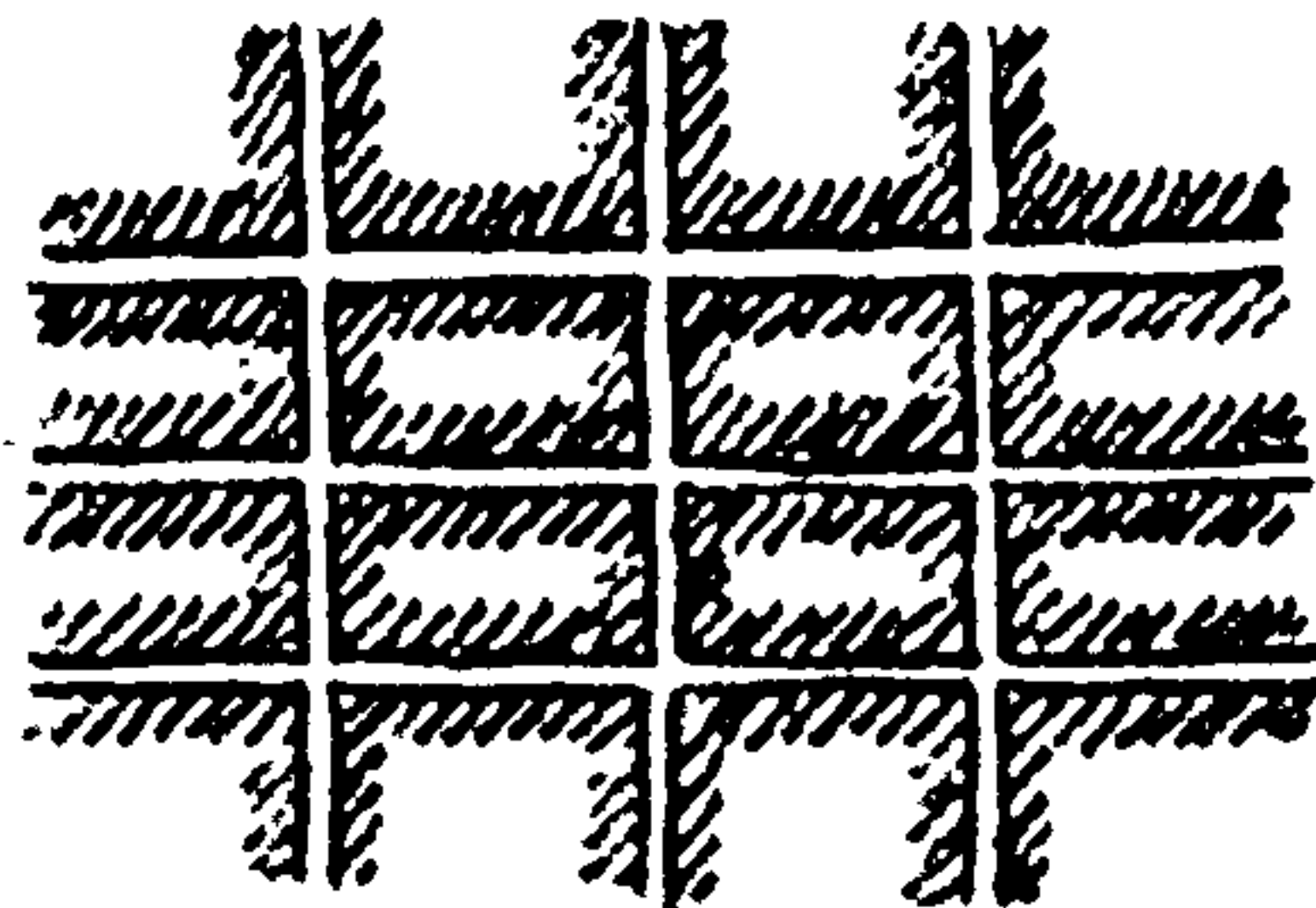


This is less applicable in city centres than the SPIDER'S WEB, because the notion of OPTIONAL ROUTES is so important to a city structure.(5)

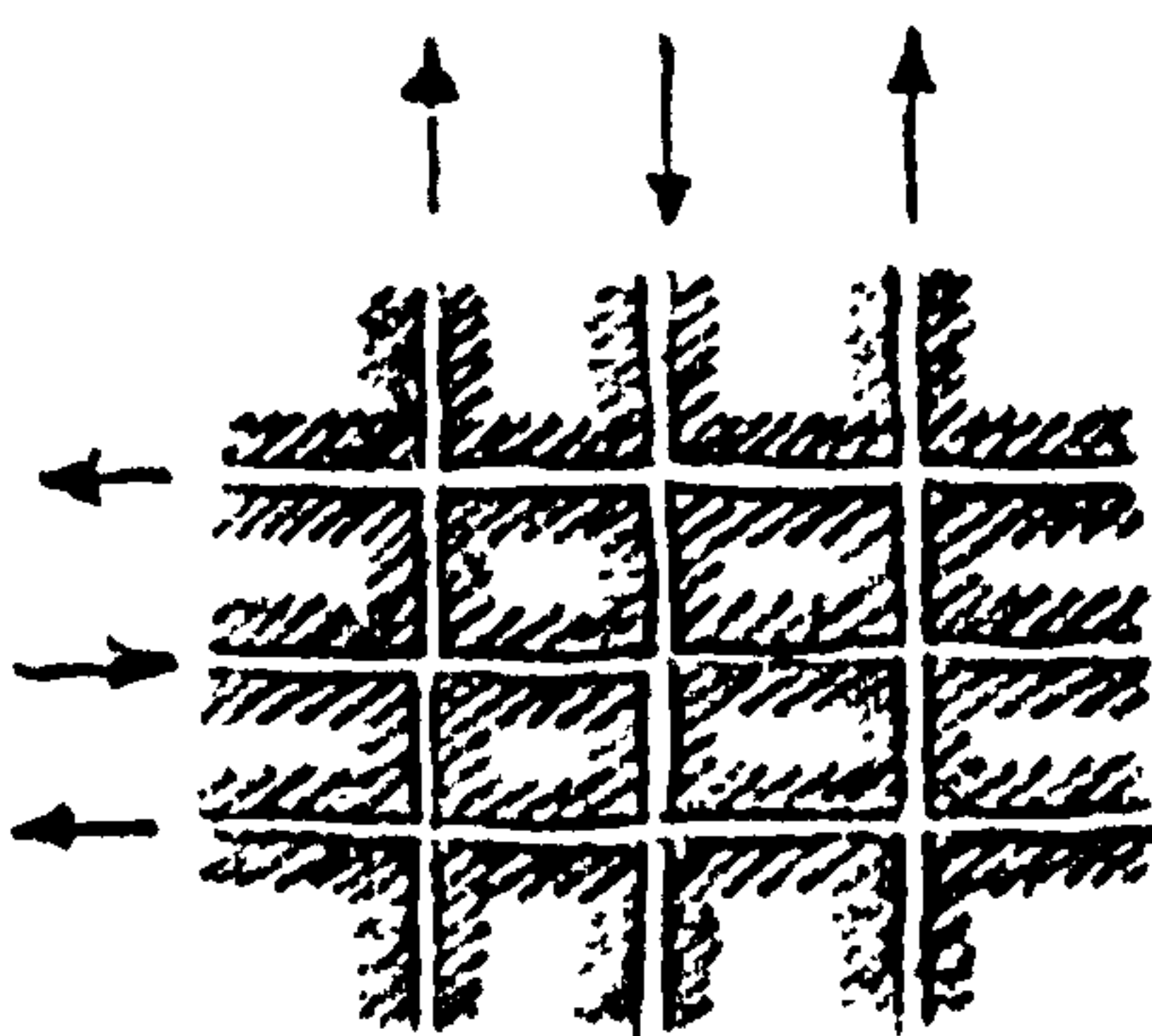
Sitte notes that modern street plans are based on three systems:

- . gridiron
- . radial
- . triangular (6)

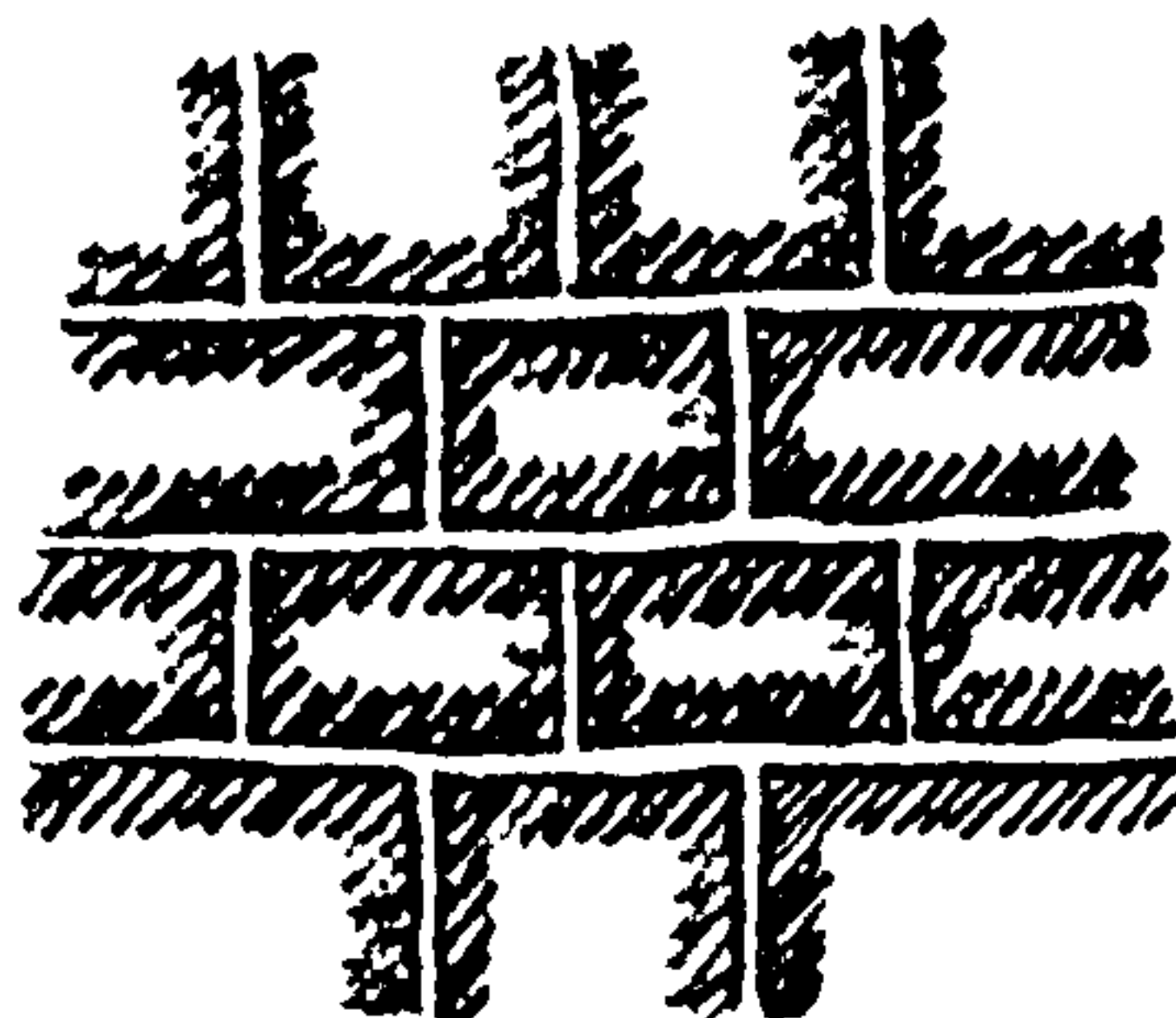
French states that the GRIDIRON is the oldest planned system of street layout, dating back 10000 years.(7) *Unwin* refers to this kind of layout as a TRELLIS. He feels that it is convenient and economical for building blocks, but is open to serious objections -



First, the arrangement produces a monotonous effect. Secondly, the street pictures are not closed and vistas wander off into an indefinite, vanishing perspective, often devoid of interest and variety. Thirdly, this method does not provide convenient streets for passing to and from the centre - except when going in two directions. All traffic must travel along two sides of a triangle to get from point to point.(8) *French* believes that the different forms of GRID have produced such an important trend in city planning that they should not be dismissed so readily. He considers junctions and topography, in particular, in demonstrating modifications to the GRIDIRON.



One way - common solution in American cities



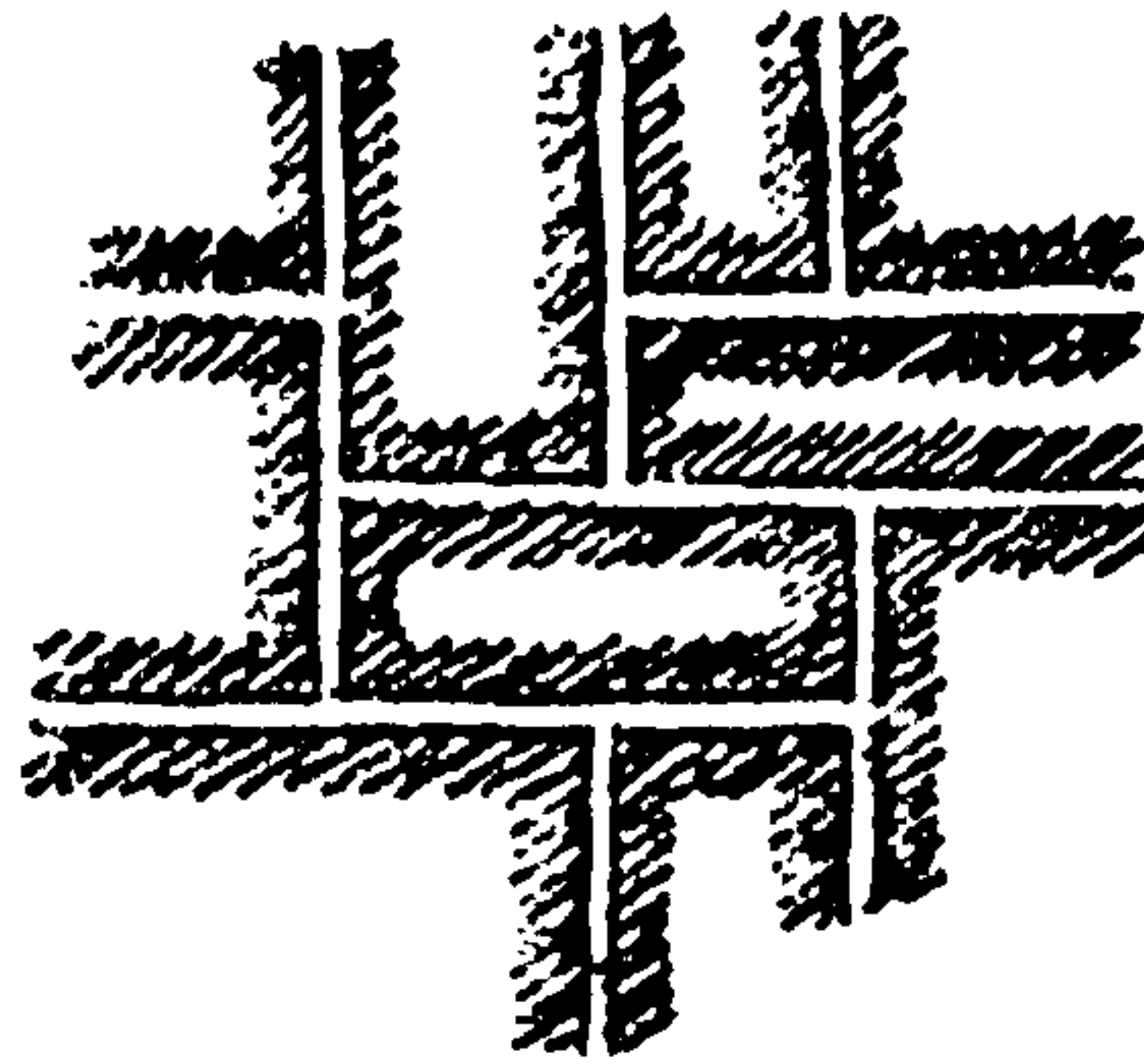
Possible solution to four routes meeting at one point



Grid adjusted to suit topography

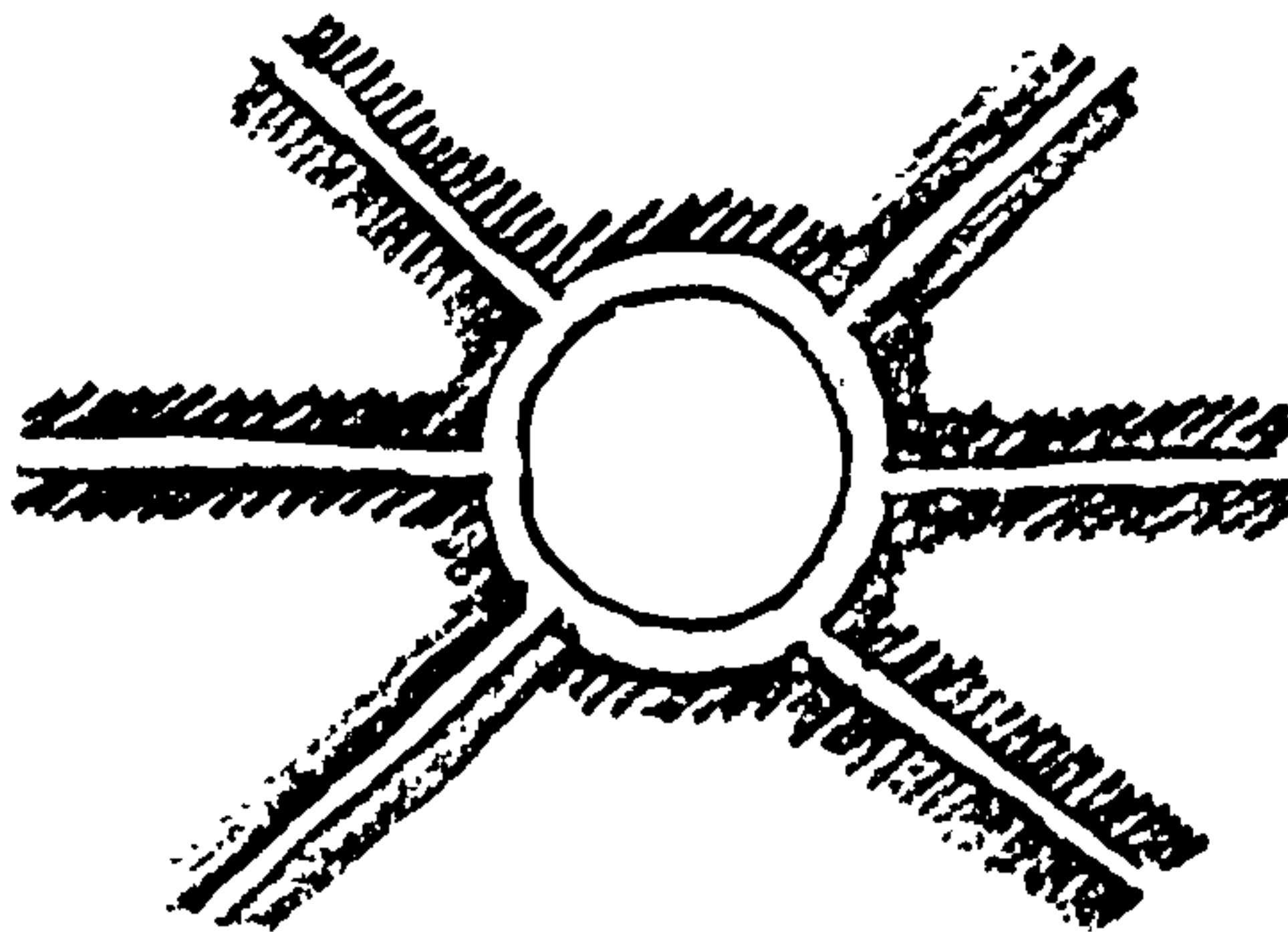
(9)

Even *Camillo Sitte* produced a modified layout of the GRID, to avoid the monotony of city blocks, to close the vistas and to prevent four routes meeting at one point.



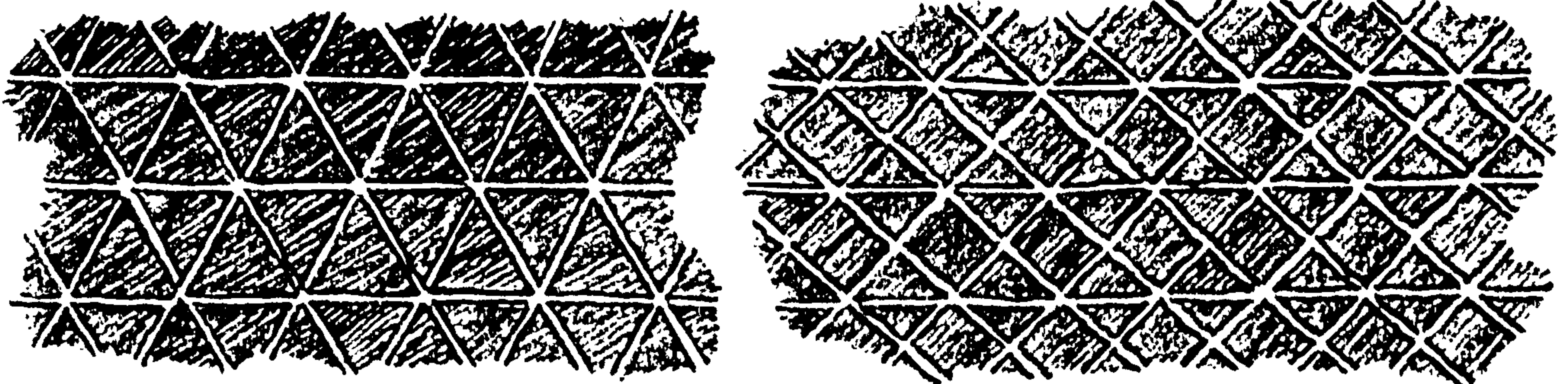
(10)

A RADIAL system provides focal points for traffic, with the nodes becoming totally sterile spaces or traffic roundabouts.(11)



French notes that such systems were introduced in response to the need for improving traffic flow in major cities such as Washington and Paris.(12)

Unwin agrees with *Sitte's* classifications, and explains that in many modern schemes, the GRID is overlaid with diagonal streets, resulting in triangular shapes which produce neither satisfactory buildings nor beautiful spaces.(13) *French* illustrates these arrangements as follows -



(14)

Sitte points out that all these systems only serve the purposes of transportation. In his view, a policy which follows an unwavering adherence to matters of transportation is erroneous and the demands of artistic interpretation do not necessarily run contrary to the dictates of modern living. Whereas, the continual breaching by wide cross-streets, so that on both sides nothing is left but a row of separated blocks of building, is the main reason why no unified impression can be attained. Historically, STREETS (and squares) were set out in the form of a unified entity of shapes calculated for their visual impact. In modern times, building sites are laid out as regularly closed forms and what is left over between them becomes the STREET (or square). Moreover, in old cities, streets grew as the result of gradual development of the main routes of communication, leading from the countryside to a natural centre. In the Middle Ages, most were surrounded by walls and their expansion was naturally impeded. So the traditional pattern of streets was in no way arbitrary, but resulted from events or orientation. To either side of the principal streets, a profusion of narrow alleys with less intense movement, made up the rest of the town plan. The restriction of the town within its girdling walls, and the small number of main routes, contributed in each case to the aesthetic character of the street. The ideal STREET must be an enclosed unit - one feels at ease in a space where the gaze cannot be lost in infinity.(15)

According to *French*, as early as the 15th Century, *Alberti* recognised that ORGANIC STREET PLANS were most applicable in cities with variable terrain and that planners have long appreciated aesthetic advantages of curving streets.(16) At first sight some of the irregular shapes seem to have no purpose nor meaning, but closer examination shows that they are cunningly devised to give enclosed views and set the scene for construction of irregular picturesque groups of buildings. Yet *Unwin*

considers that some of the German planners, in advocating the use of curved streets, have perhaps not done quite justice to advantages associated with straight streets, viz -

- . Directness from point to point
- . Symmetry and simplicity of the character of the street picture
- . Convenience of rectangular buildings and sites
- . Long vistas - terminated by a suitable building or view (17)

Most writers agree that straight streets are important to the urban vocabulary, provided they are relatively short in length and the space is sufficiently contained.

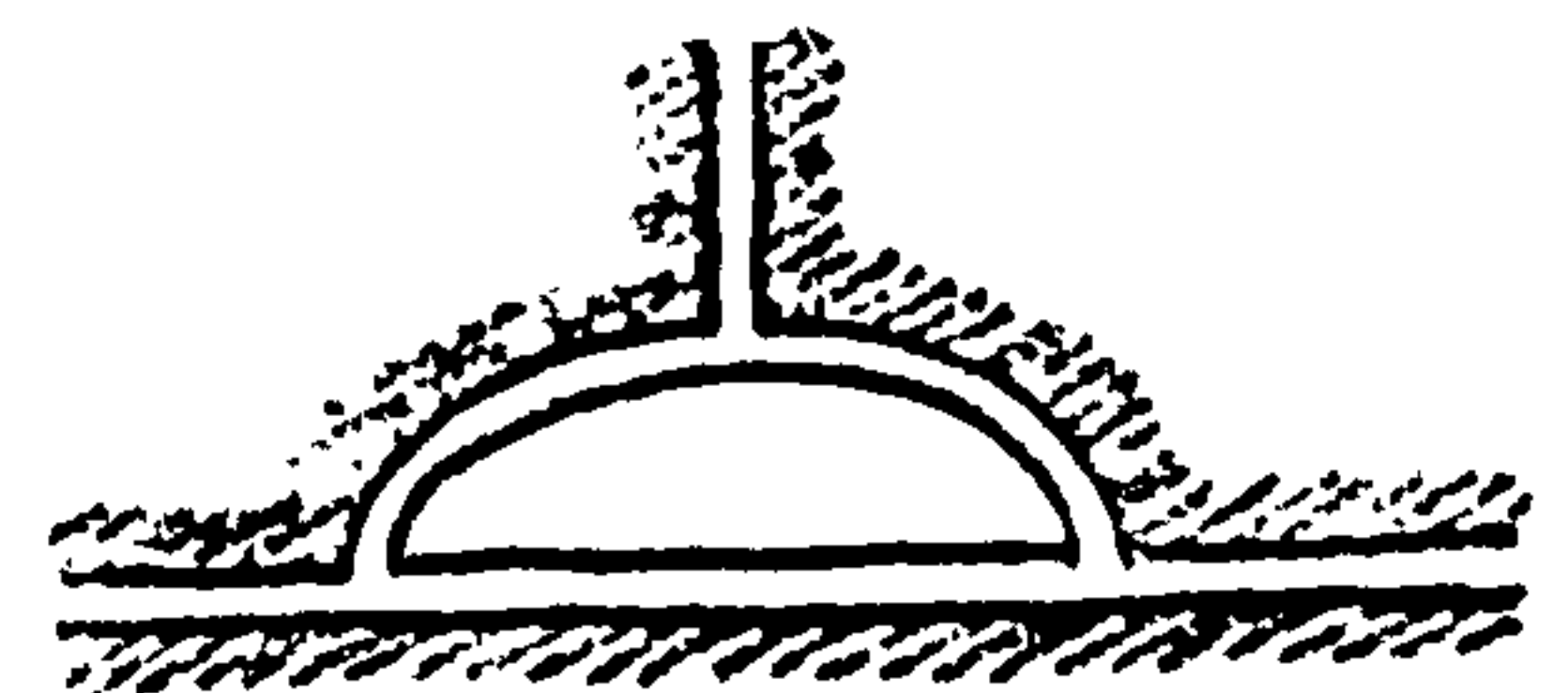
In his exploration of the CRESCENT form, *McCluskey* clearly shows that direct communication is only part of the role of URBAN STREETS. Crescents are often used as an element in a formal geometric arrangement of buildings - but not always. Nevertheless, the relationships involved with the CRESCENT form are most commonly one of the following -



*Crescent with
island segment
built-upon*

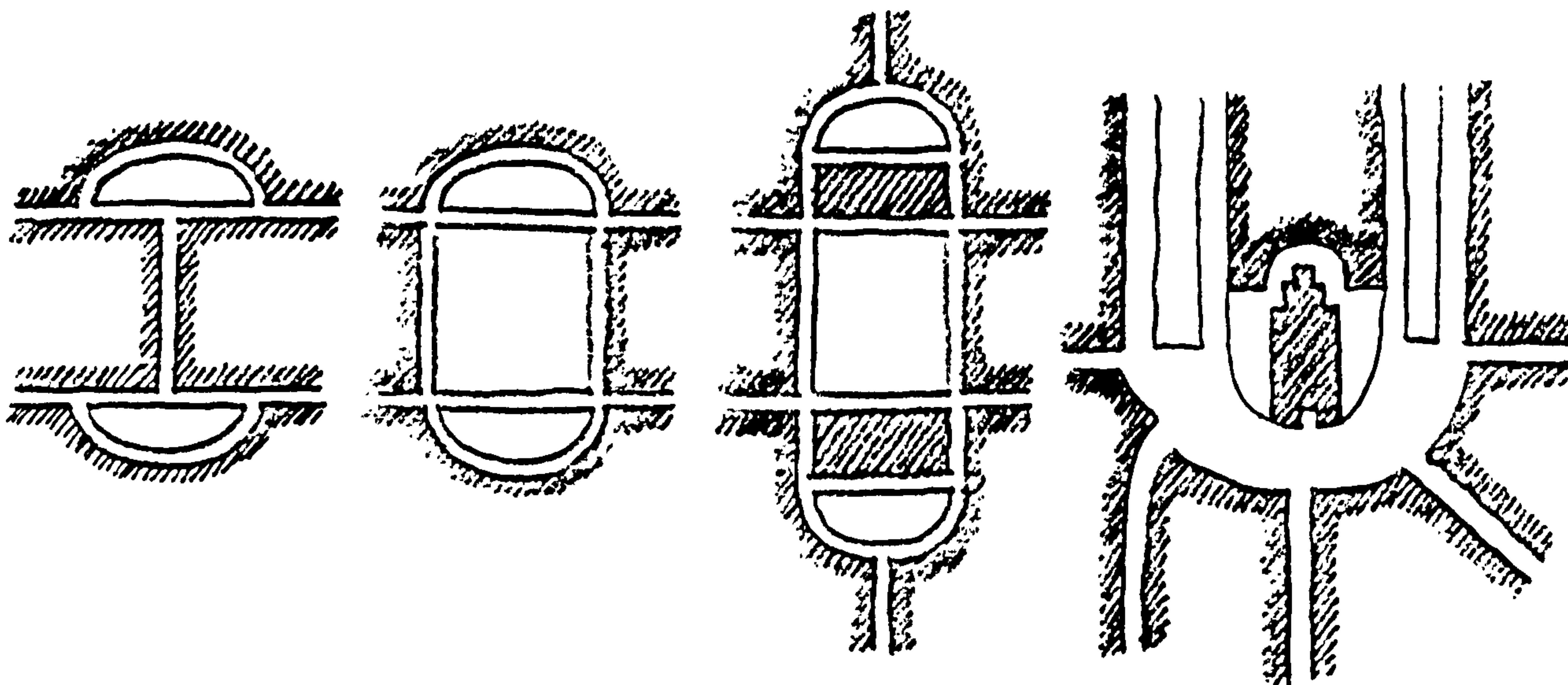


*Crescent with
island segment
used as garden*



*Crescent with
island segment
used as garden
and additional
incoming road*

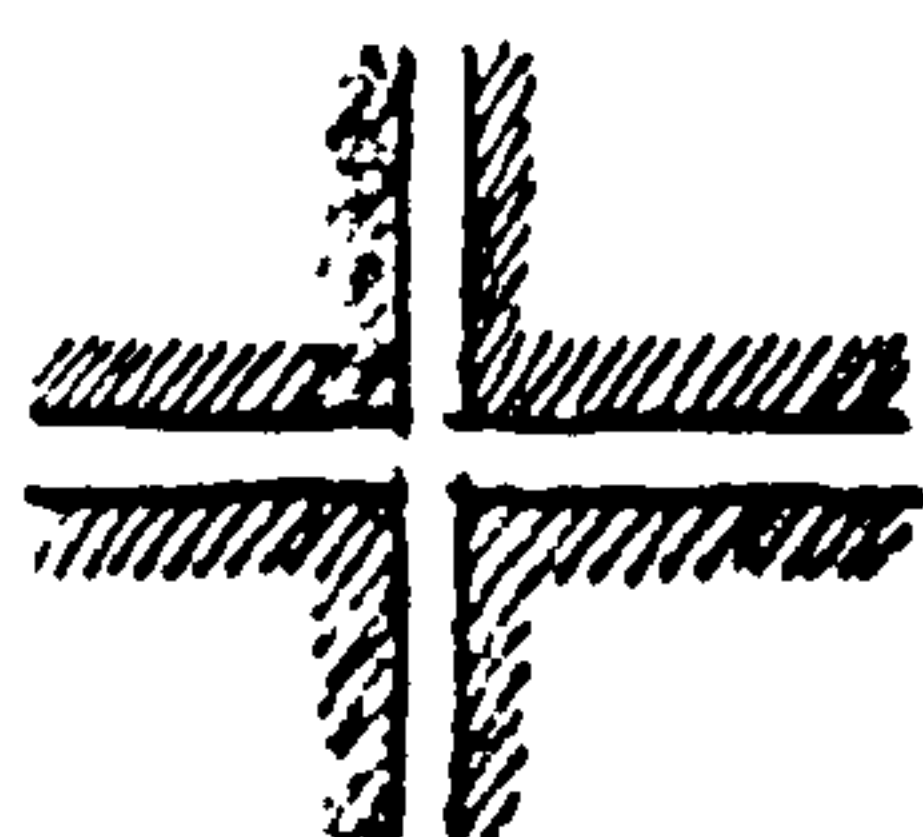
When used in simple combinations with straight streets and regular squares, the CRESCENT form can help provide urban patterns which extend from pleasant spatial arrangements up to the beginnings of Renaissance grandeur, eg



(18)

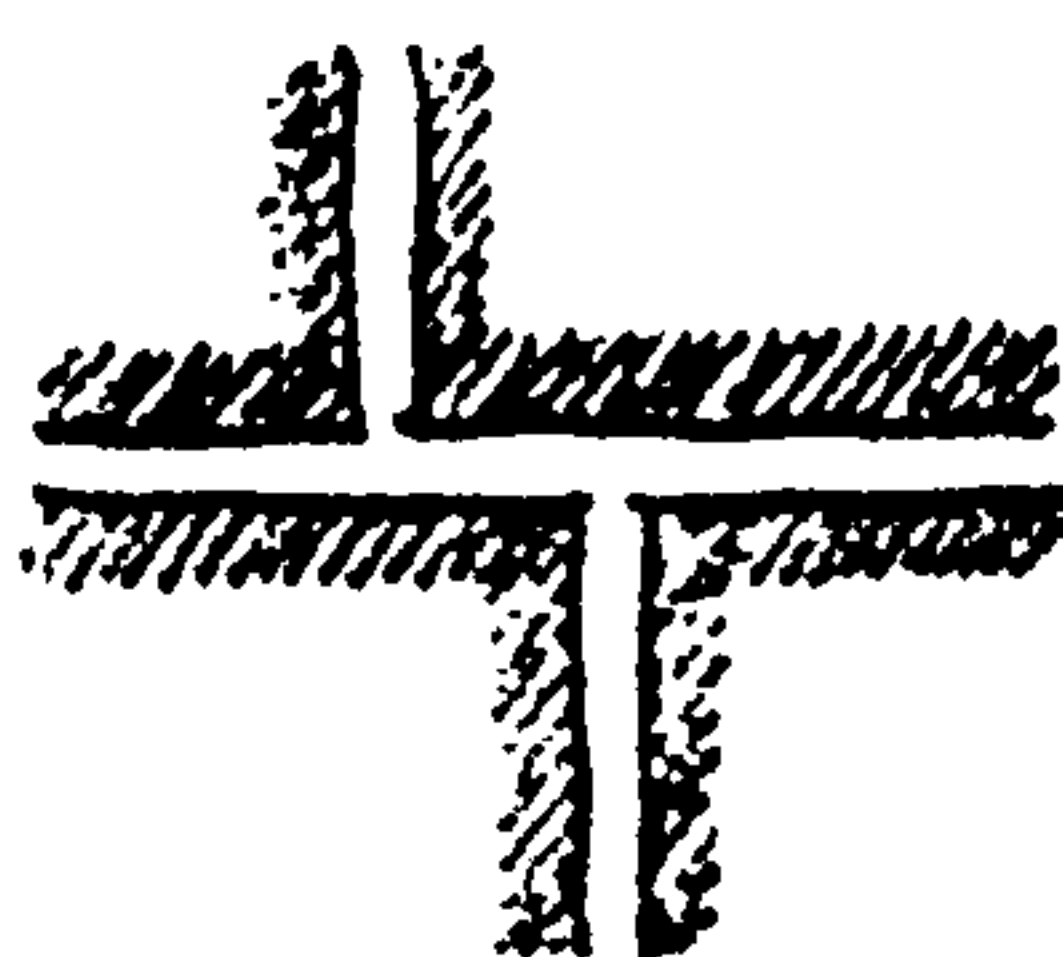
Junctions

The German School represented by *Camillo Sitte* and *Herr Stubber* propose that the number of streets coming into one junction should be kept to a small number. The Germans also generally break the direction of cross-roads, eg



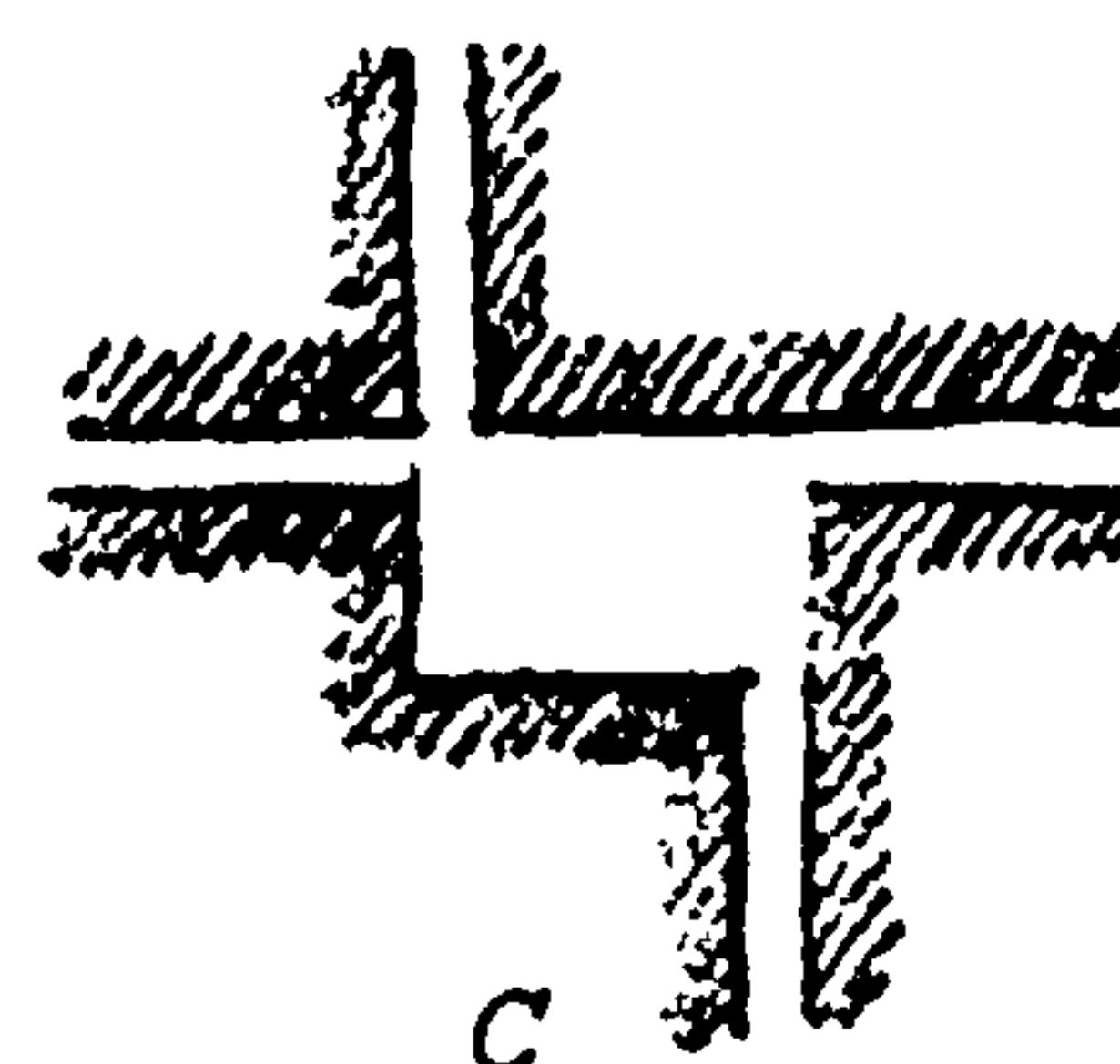
A

View up cross-street
is indefinitely
prolonged



B

View closed by
buildings opposite

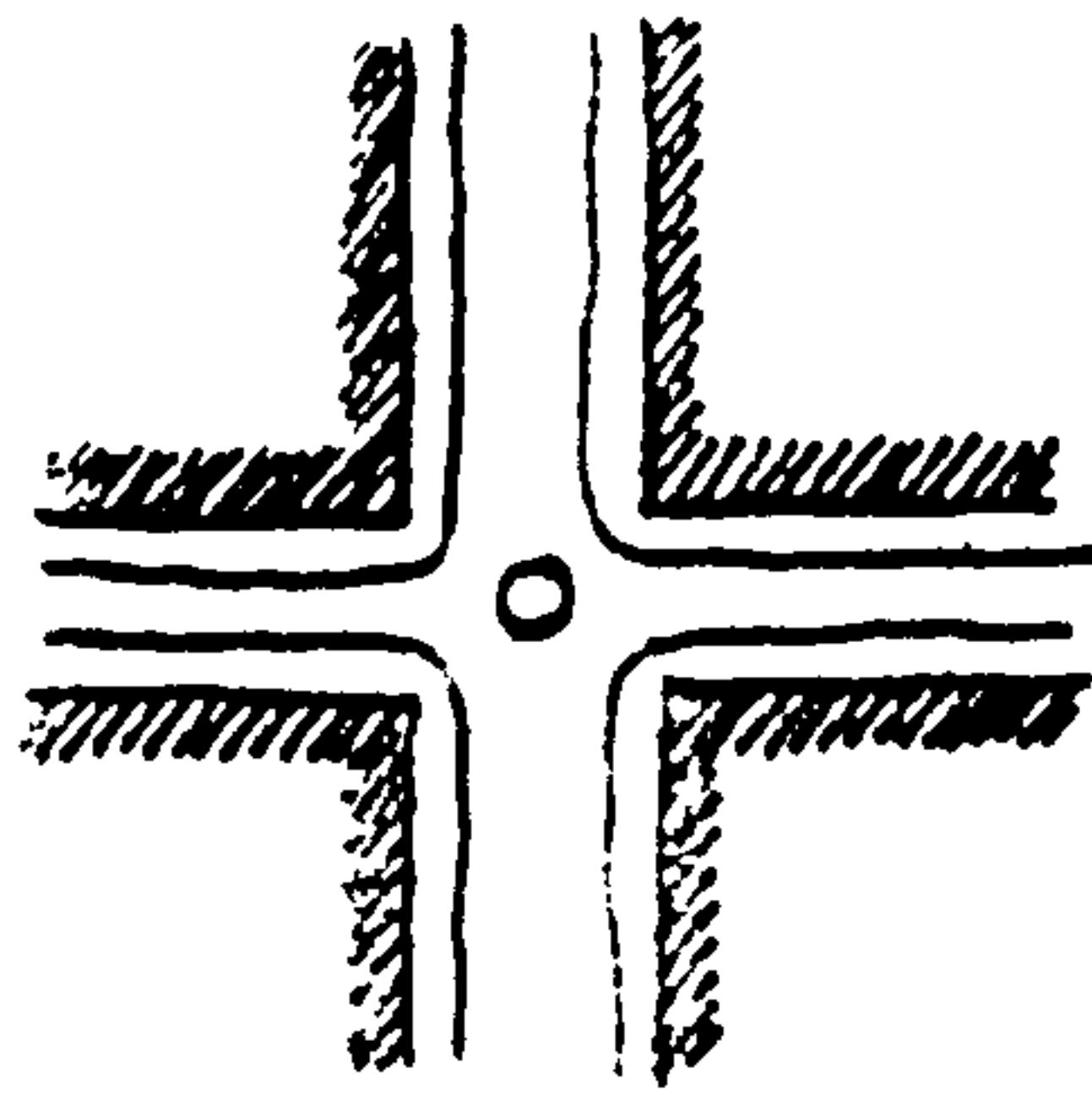


C

View closed by
buildings opposite,
and square formed

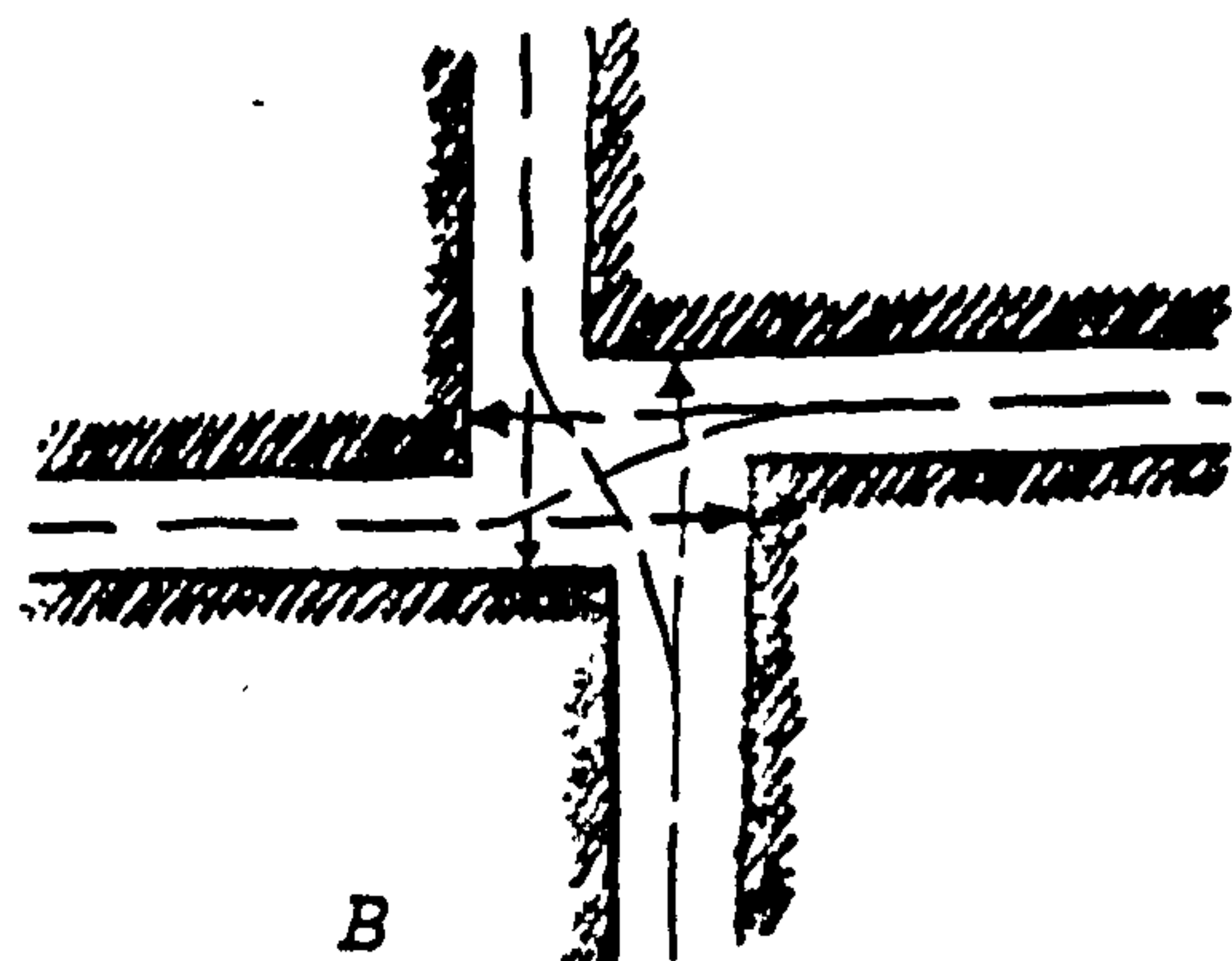
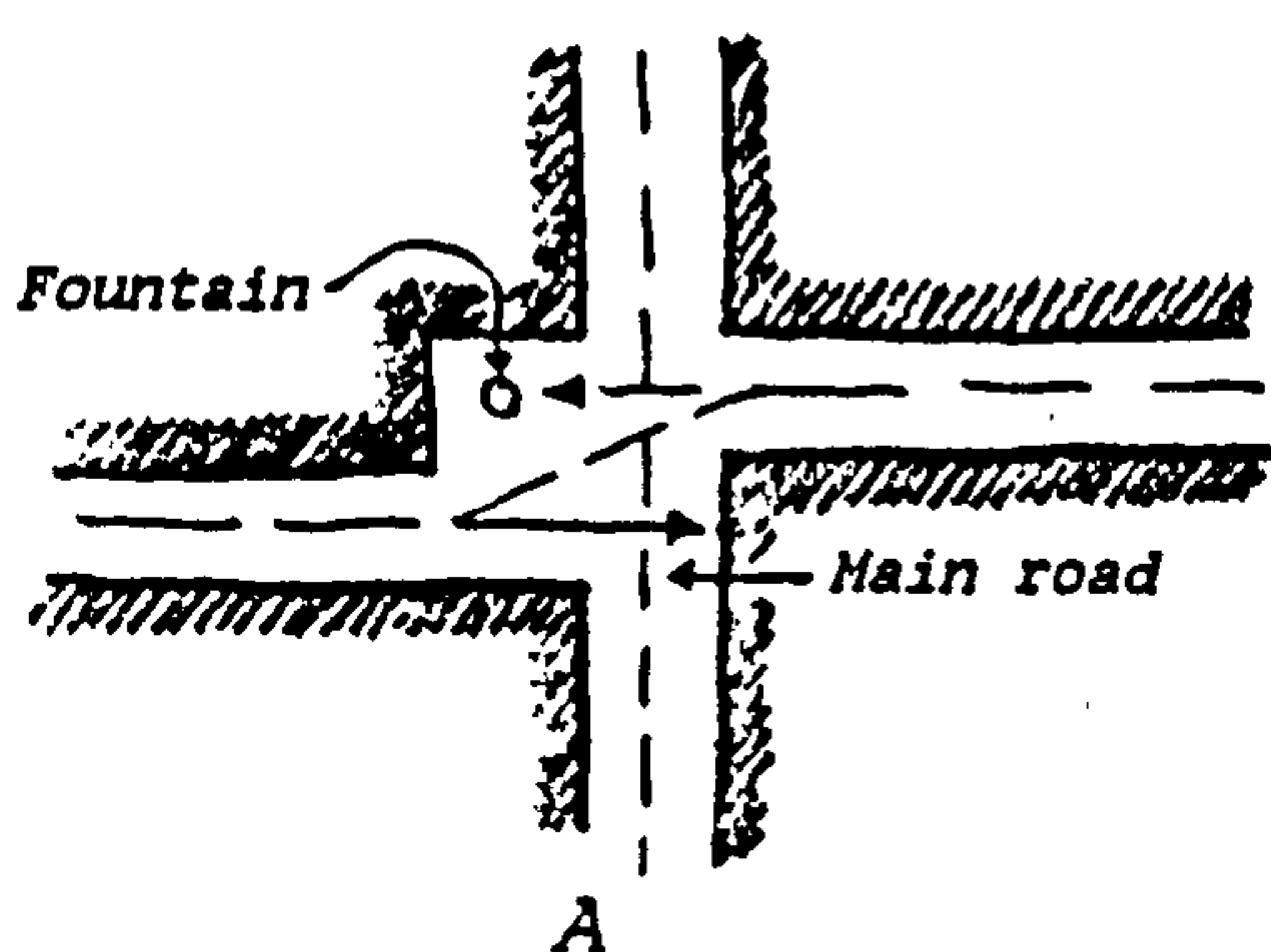
However, the French School consider that a number of streets should meet at one point, with ample provision for circulation. The problem with 'B' and 'C' above, is that there is potential confusion and delay - not to mention danger - in vehicles changing direction and it is obviously simpler to drive straight across a main street.

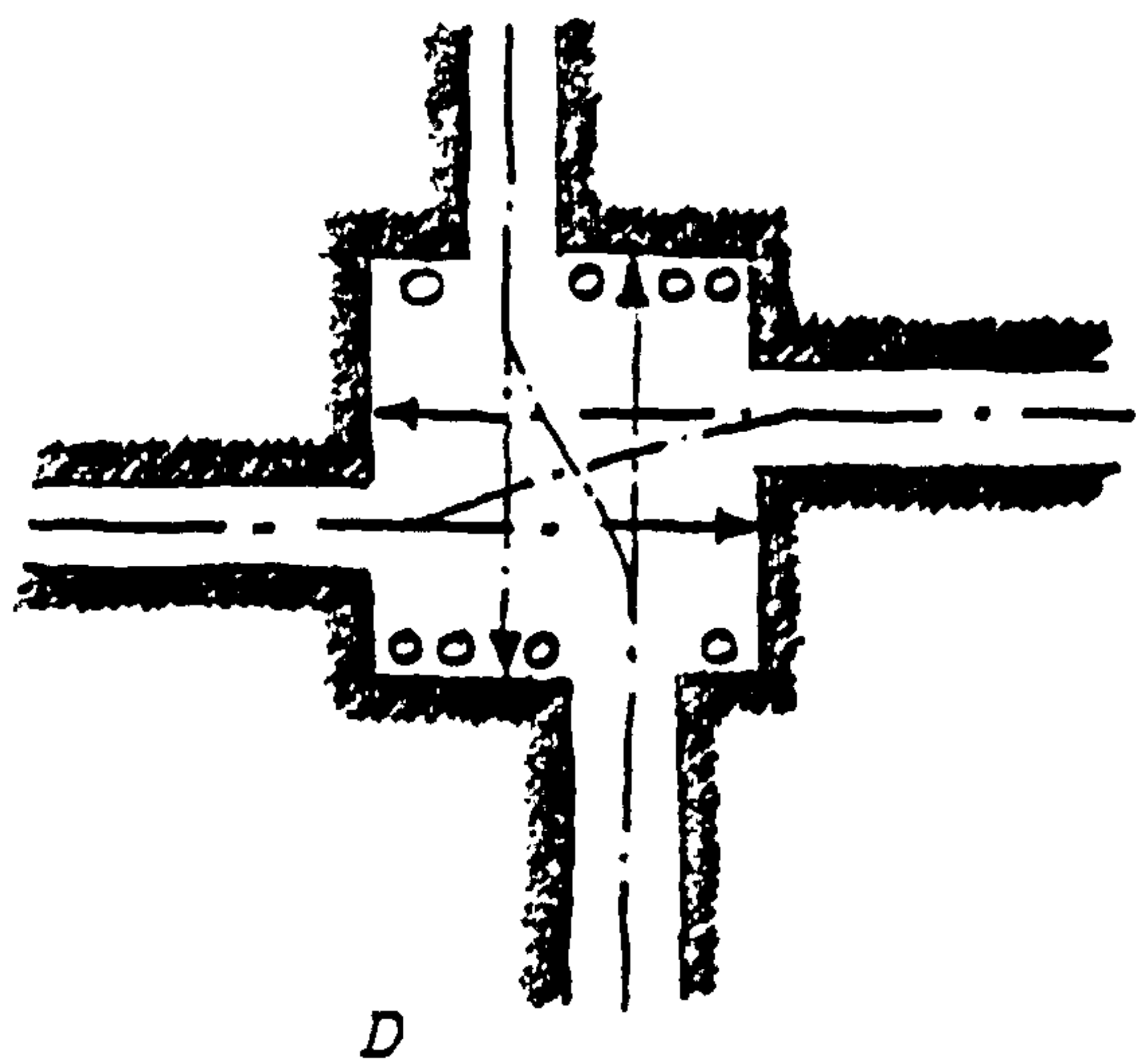
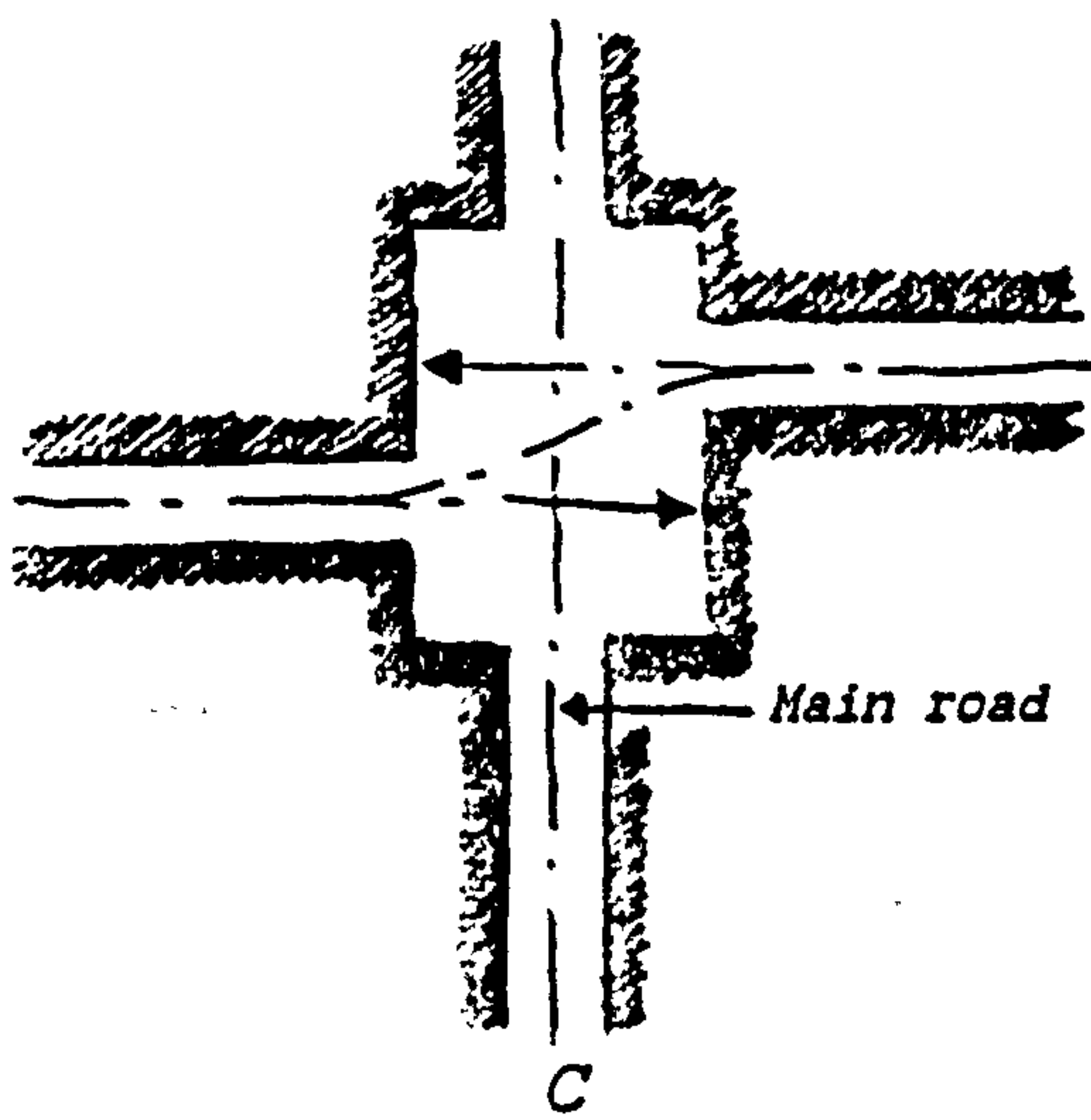
In '*Etudes sur le Transformation de Paris*,' *Eugene Henard* suggests that really busy centres where roads converge, are best handled by '*Carrefour a Giration-mouvement continu des voitures*,' ie roundabouts, with subways



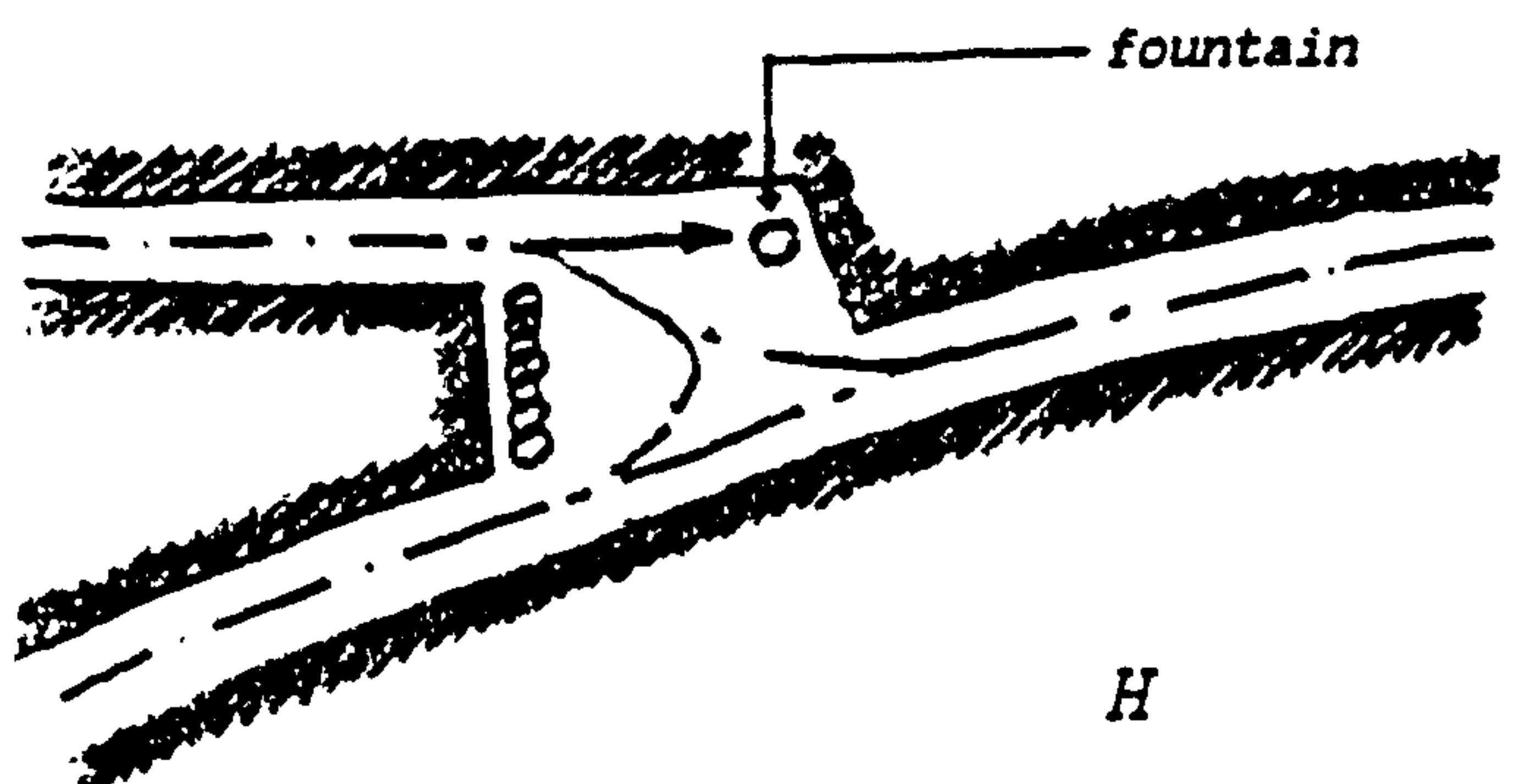
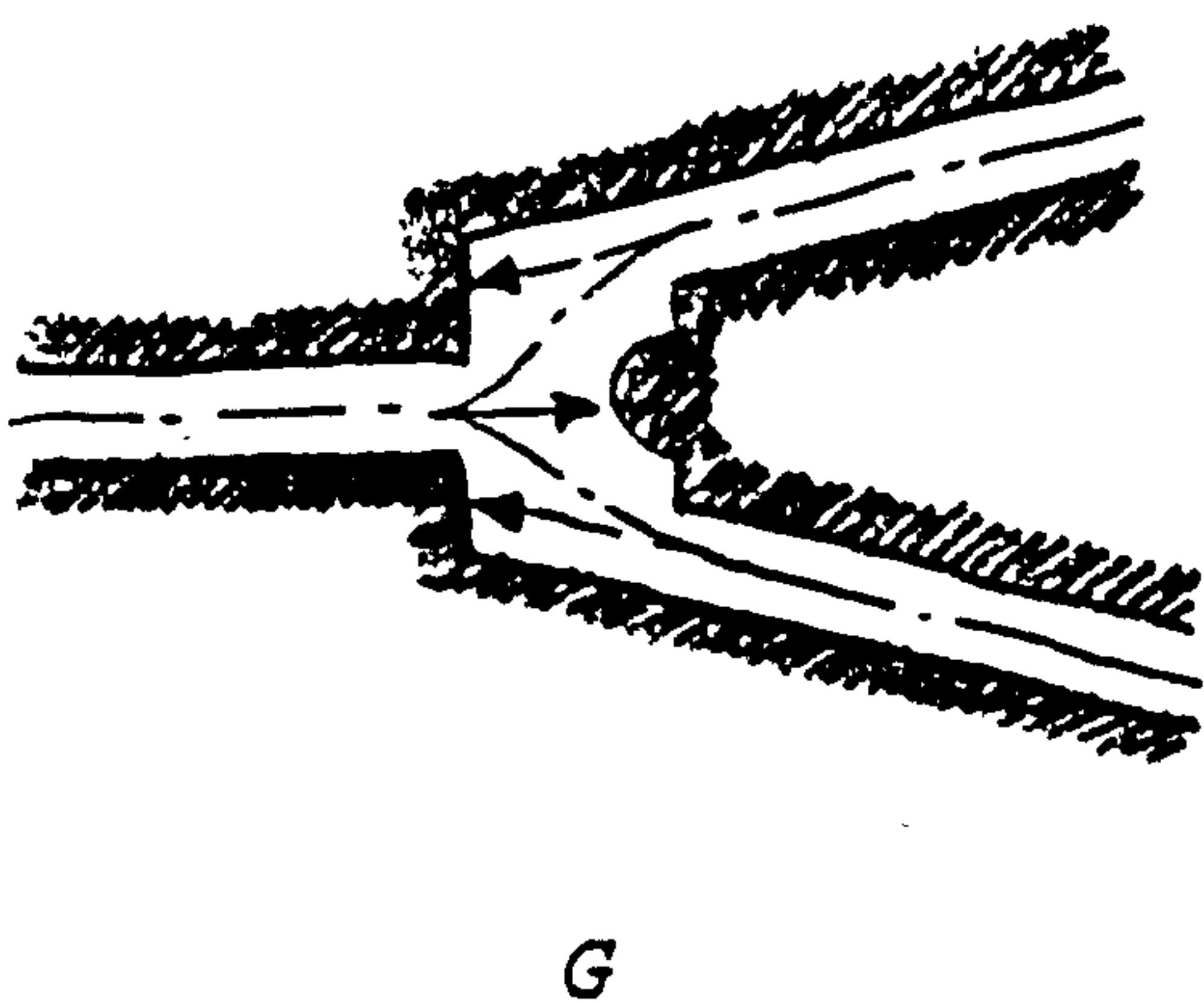
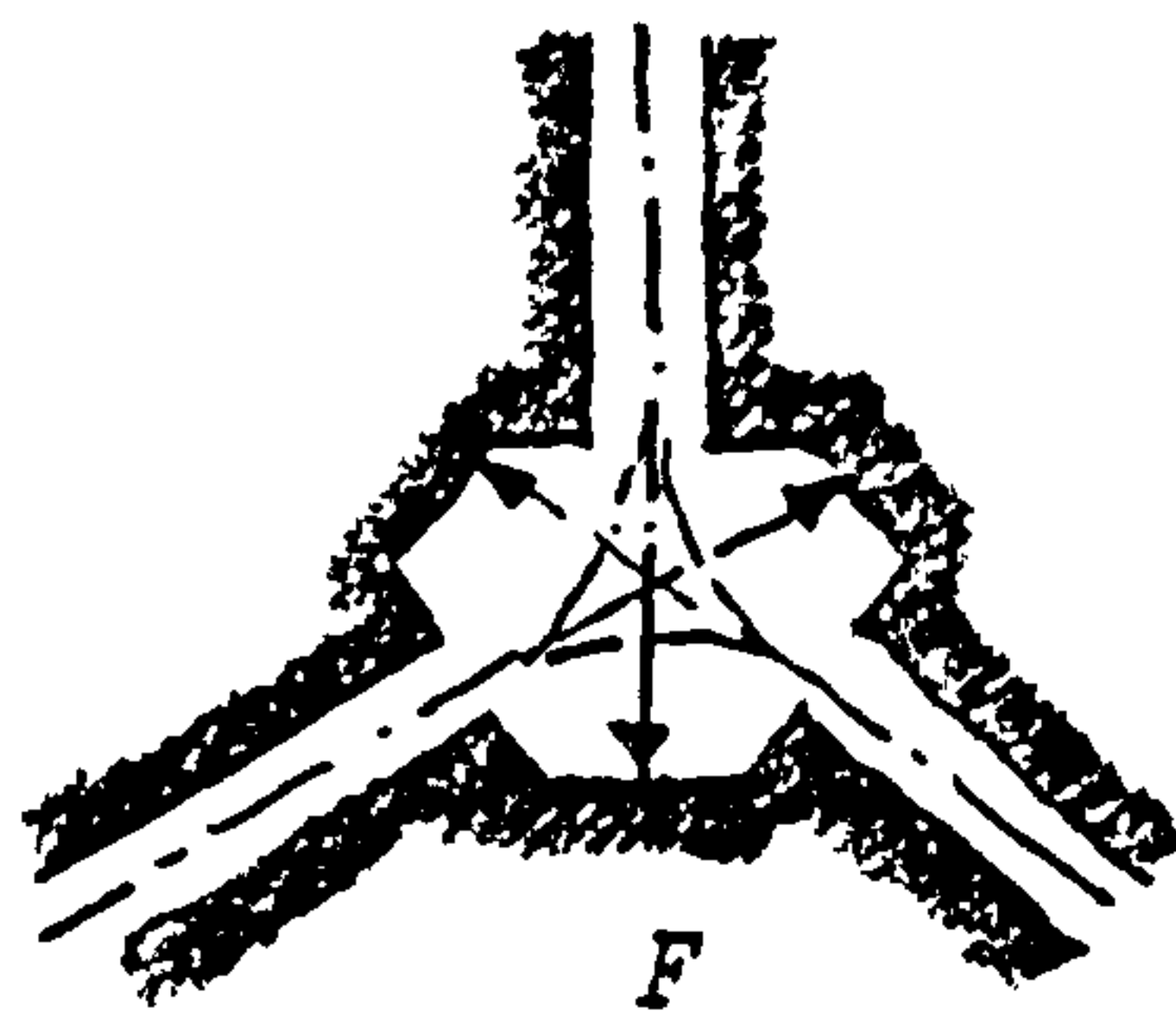
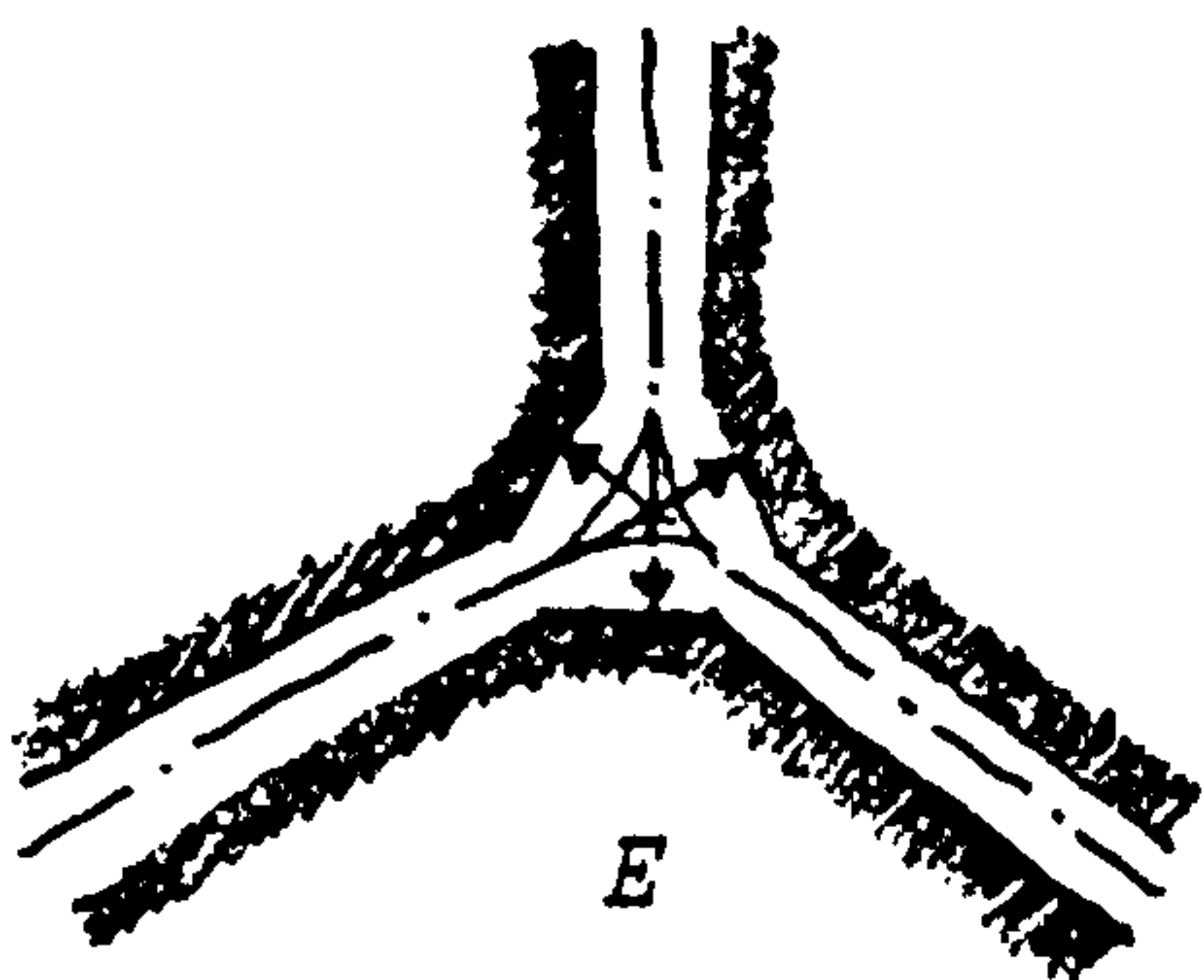
provided from all the footpaths leading to a space in the centre where pedestrians could sort themselves and depart along the subway towards their chosen street. Of course, no sense of containment can be achieved in a place of this sort, so it should be regarded as an undesirable solution except in cases where traffic conditions must be the all-important ones. Also, it rarely follows that the form of road junction most convenient for traffic, coincides with the best arrangement for buildings, or indeed provides the most beautiful grouping of buildings when erected. There seems no reason why a certain number of narrower streets and passages could not be usefully included, even in the modern parts of a city, to give access to buildings which do not require large amounts of open space.

It is upon the treatment of street junctions that much of the effect of a city will depend. The following diagrams show developments from the principles of the German School, illustrated previously. Where streets cross at right angles, and it is desired to close the vistas along one of the streets, a little square can be formed, as in 'A' below -



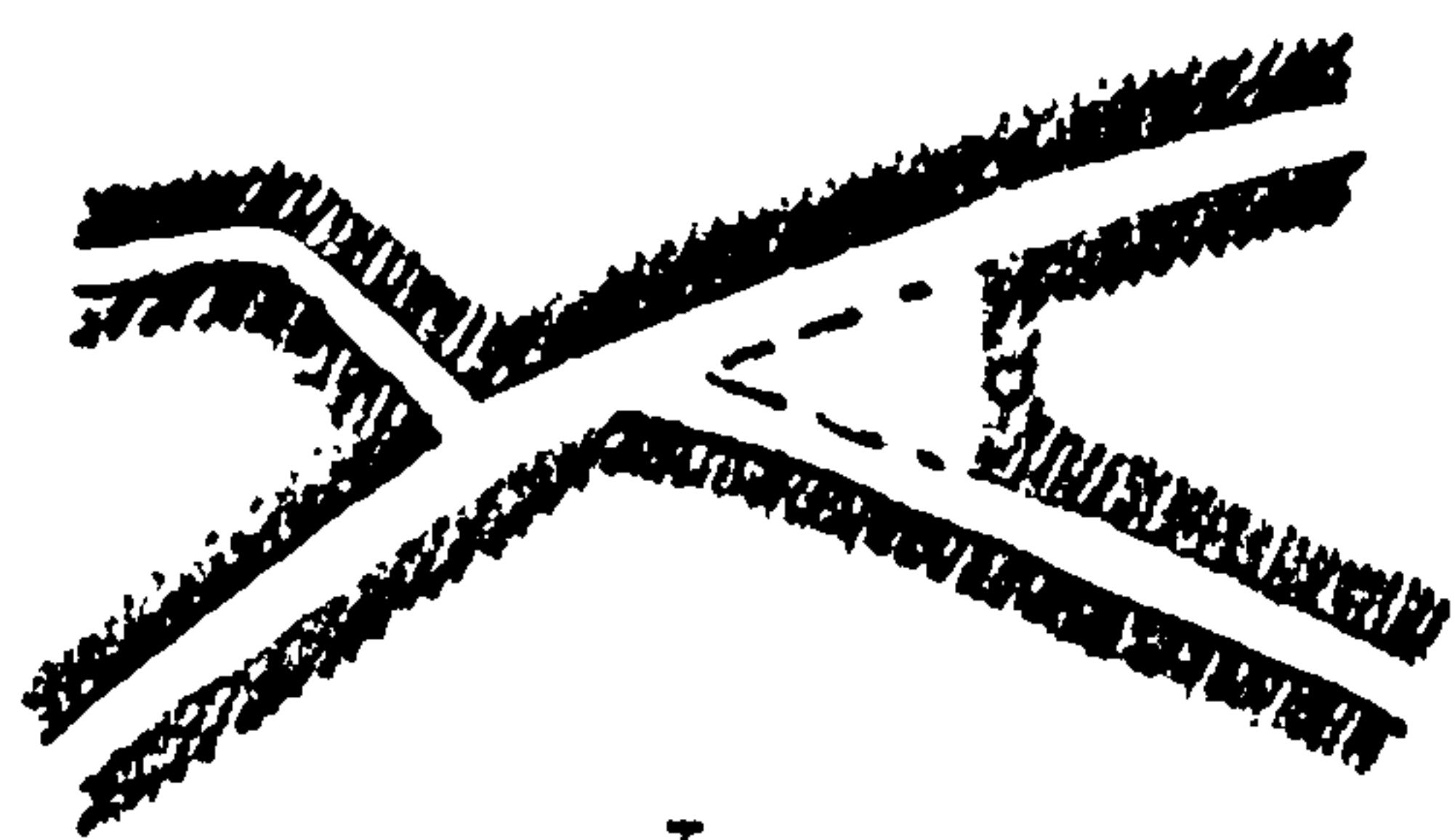


'B,' 'C' and 'D' then become self-explanatory and irregular junctions can be handled in a similar manner, eg -



(19)

Sitte concludes that one of the problems with the modern town is that these traditional methods of avoiding complicated intersections and creating squares have been corrupted. He explains that streets, even more than squares, have suffered from the fad for alignment so often perpetrated by modern engineers, eg -



J
traditional junction



J1 *J2*
modern interpretations

(20)

Streets and Building Line

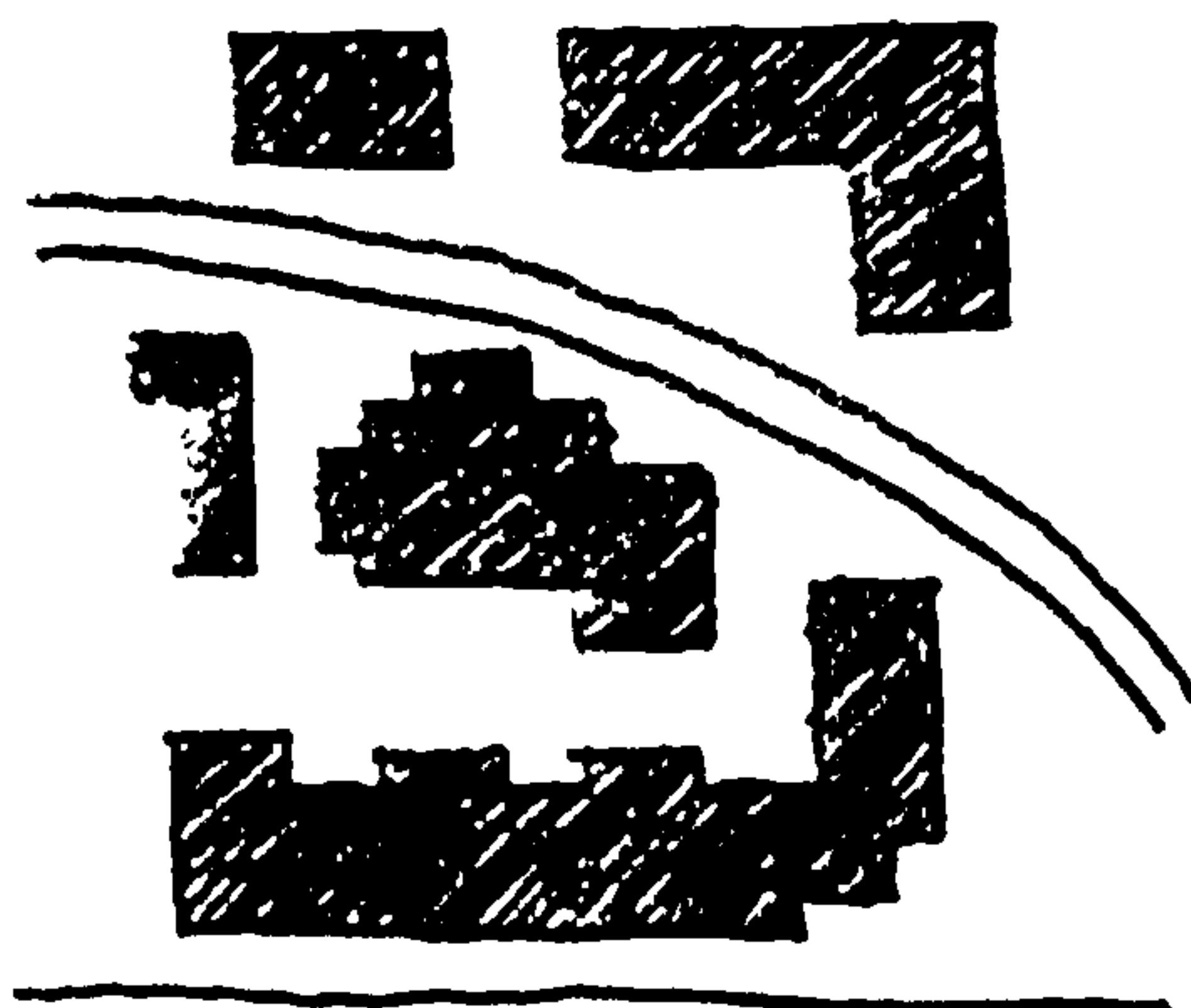
In recent times, the vocabulary of the urban motorway has discouraged development and the image is of empty sites, ugly car parks and buildings turning their backs on the source of noise and pollution. If traffic volumes can be redistributed and improvements to the urban environment generated at ground level with pedestrian crossings, tree planting etc, great opportunities for building sites can be realised, including -

- . high accessibility by public and private transport
- . visible and prominent building sites
- . easy walking distance between all city centre activities

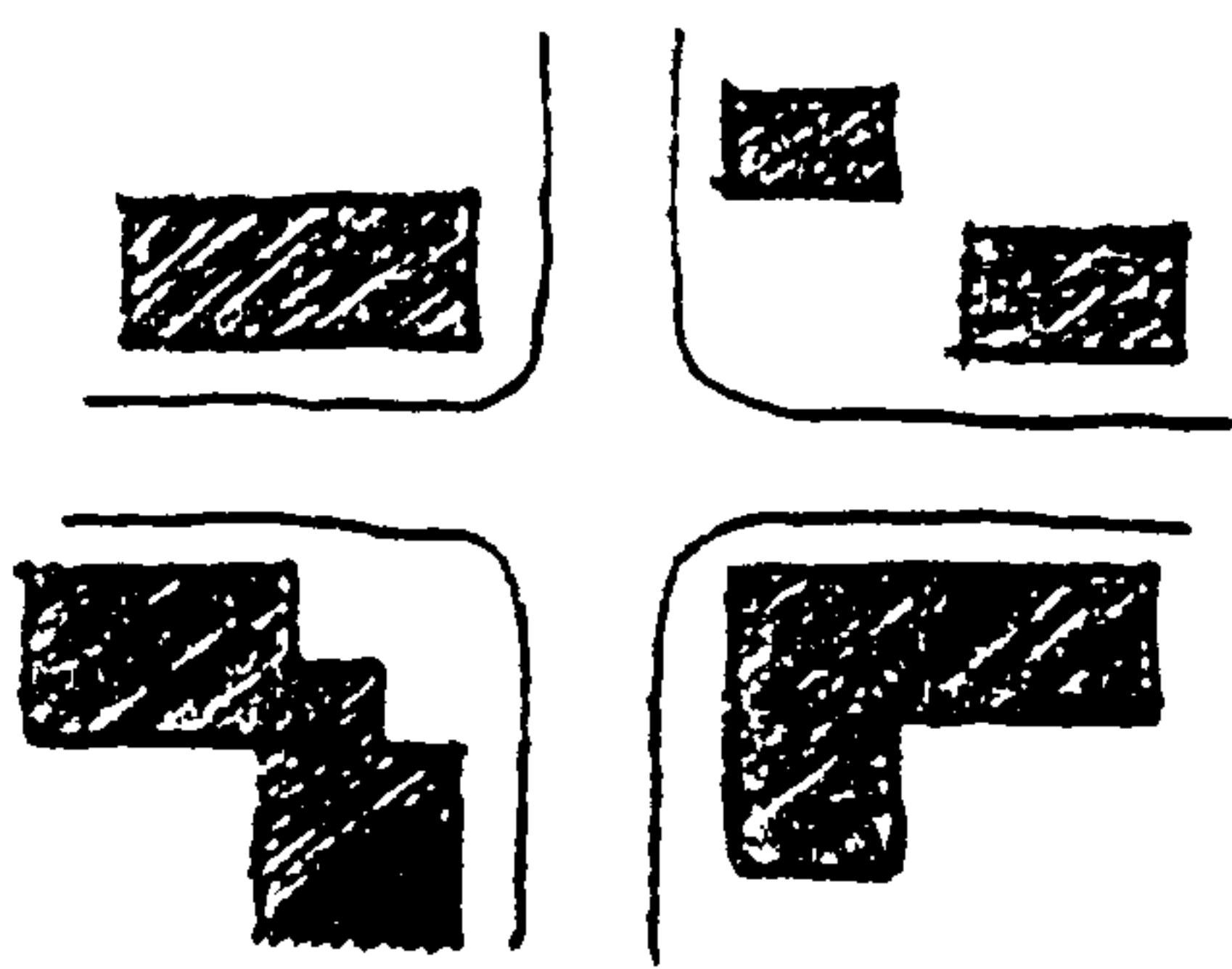
Modern developments have often ignored the importance of creating frontages with properly defined public and private space. *Francis Tibbalds* emphasises the importance of recreating building lines to define streets, viz-

- . all buildings forming edges to streets and squares
- . spaces are intentional, contained and well-defined
- . public and private areas, fronts and backs are easily recognisable

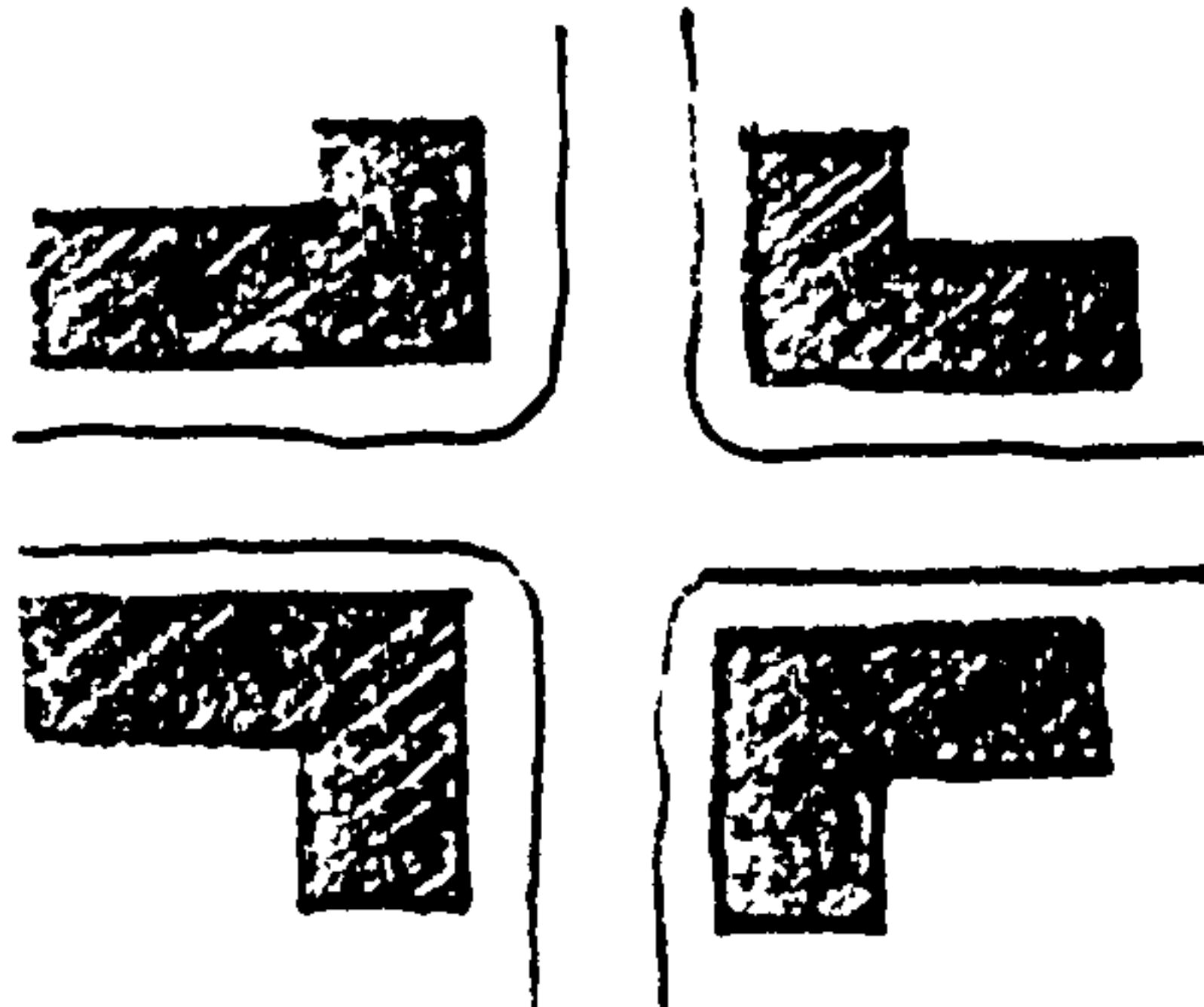
eg



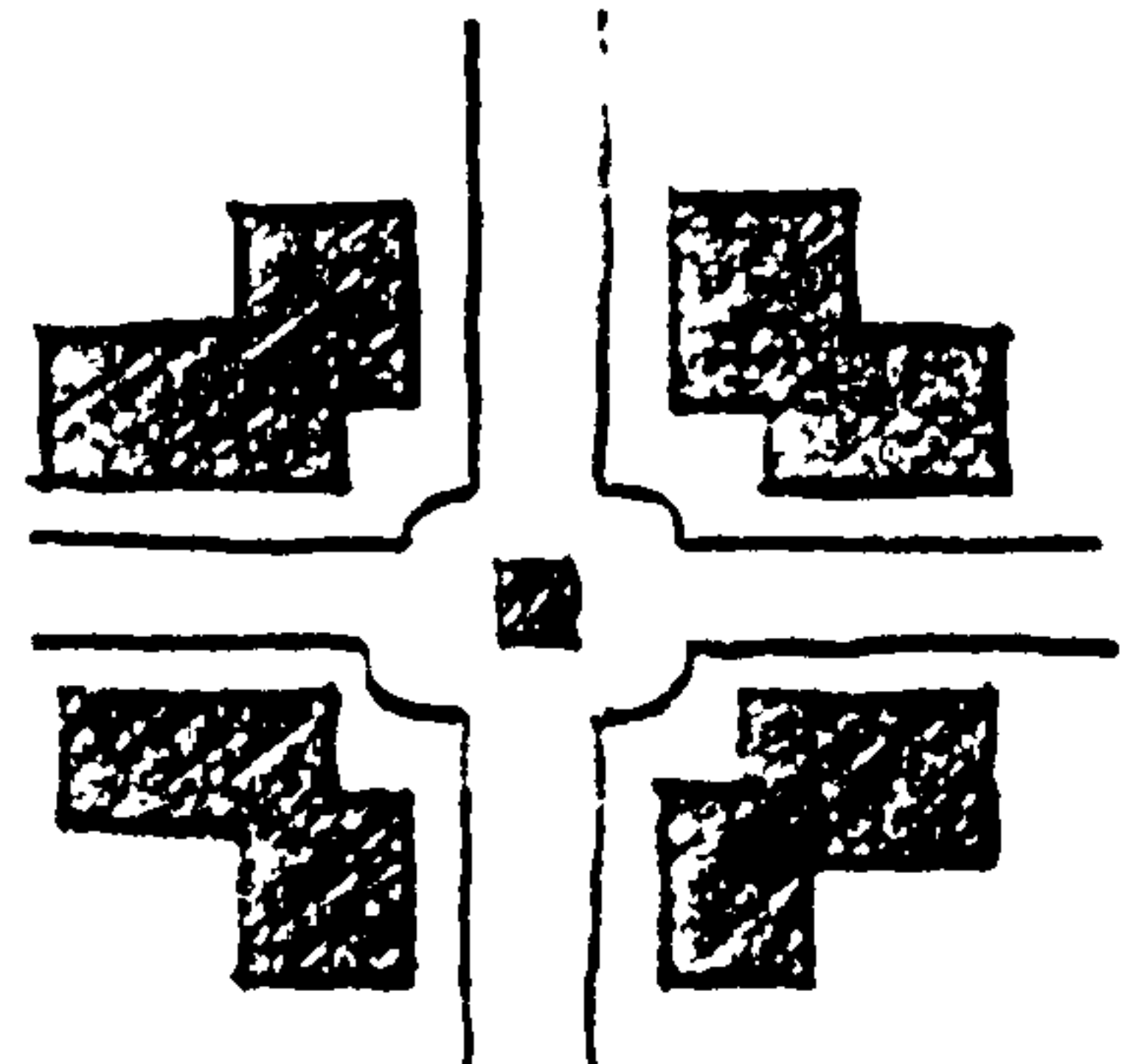
'Set square' design regardless of street shape, tends to leave undefined, useless and therefore often neglected space. Building lines at corners are particularly important in defining space -



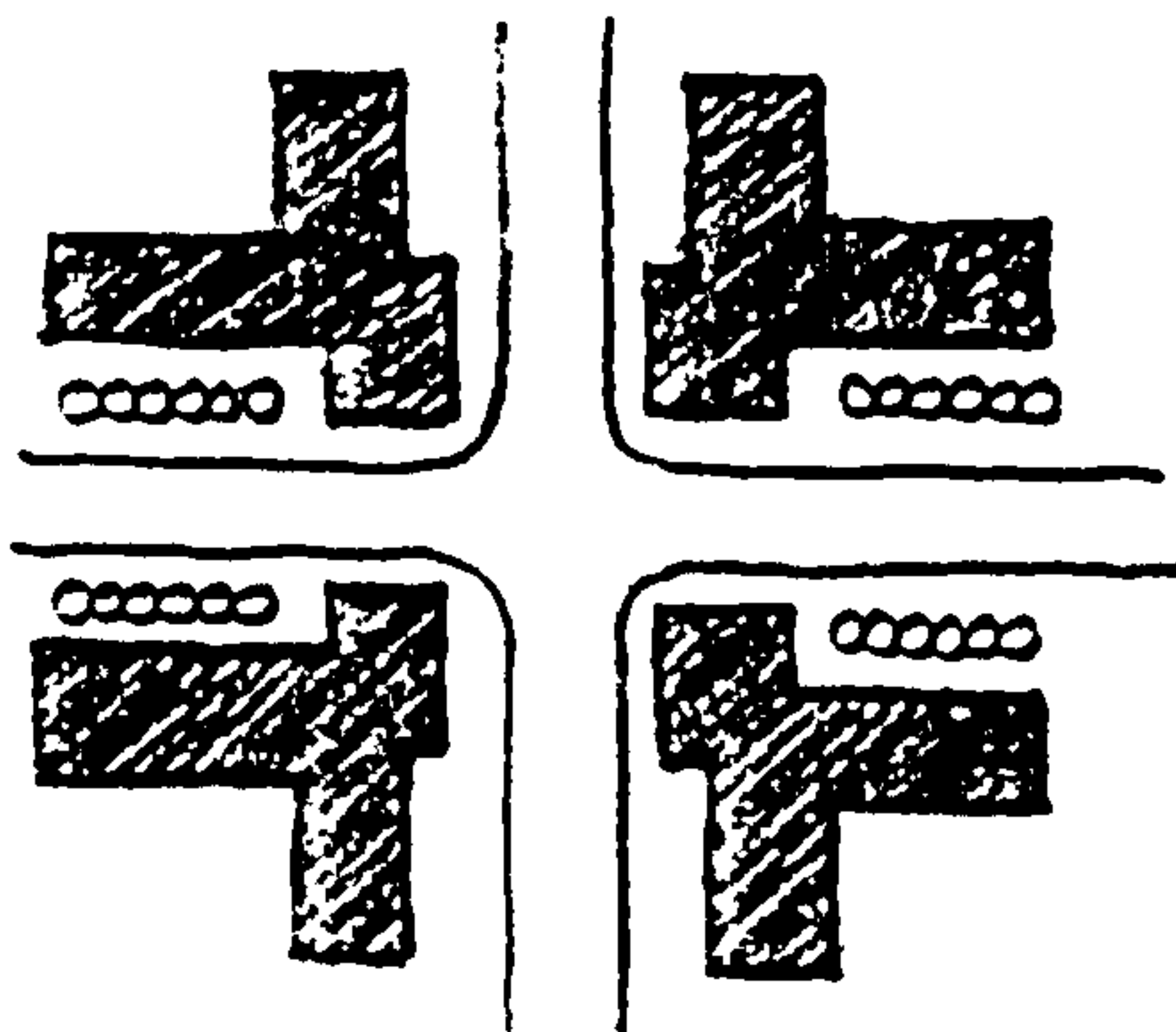
If building lines are neglected, corners dissolve and space leaks



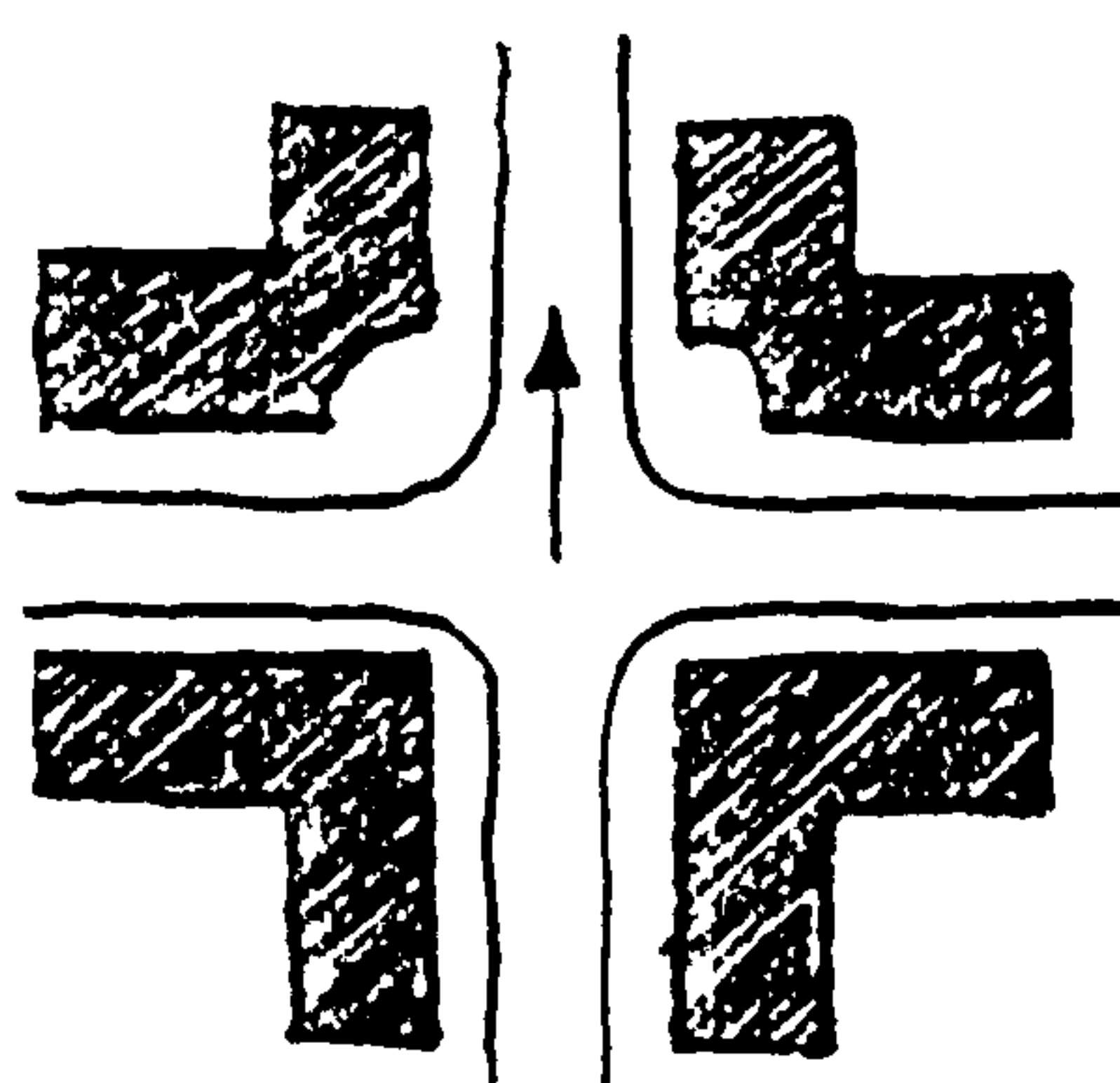
possible solution with simple completion of the building line



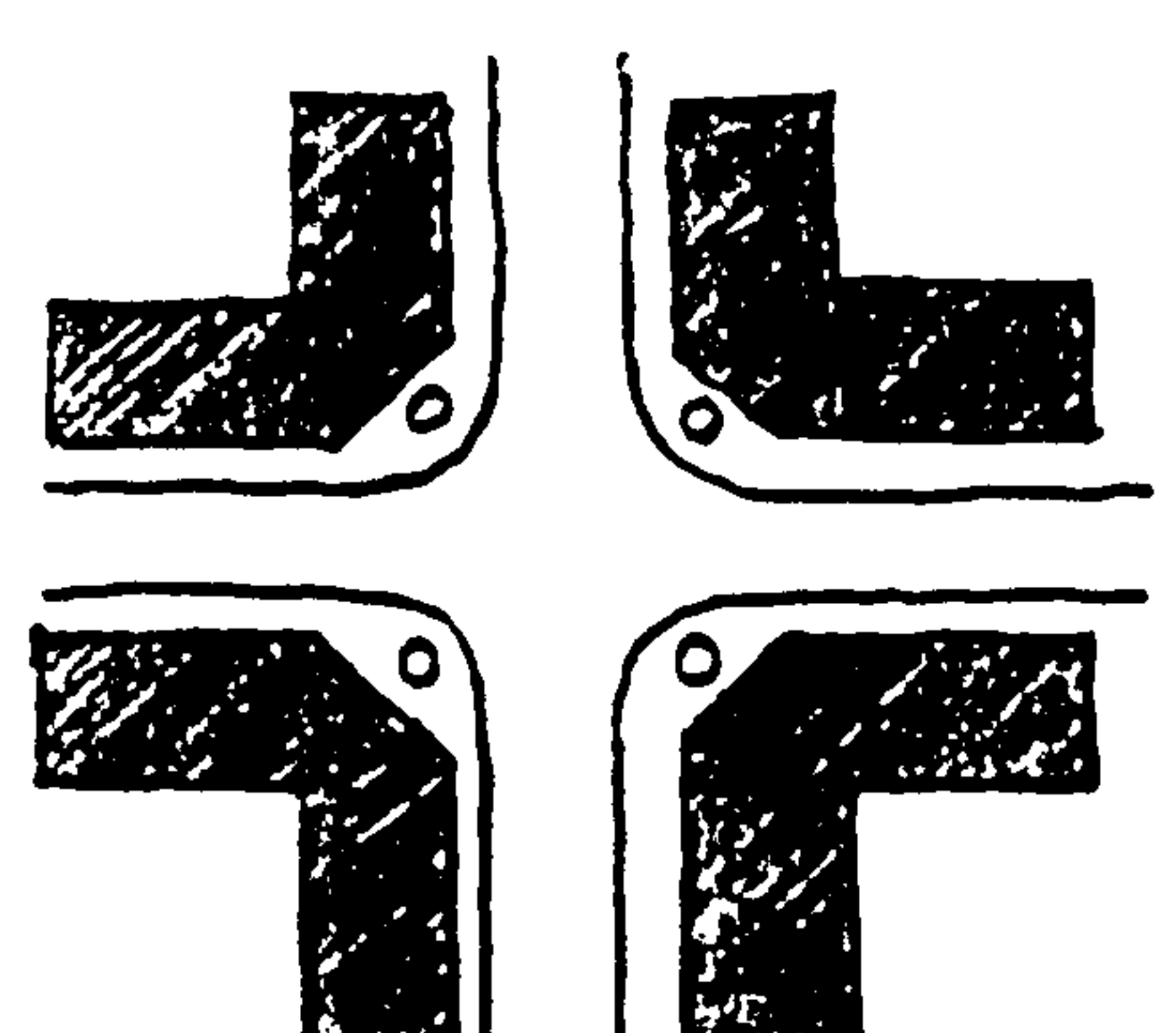
creating a square with setbacks allows for public uses



The buildings create a pinchpoint in a gateway

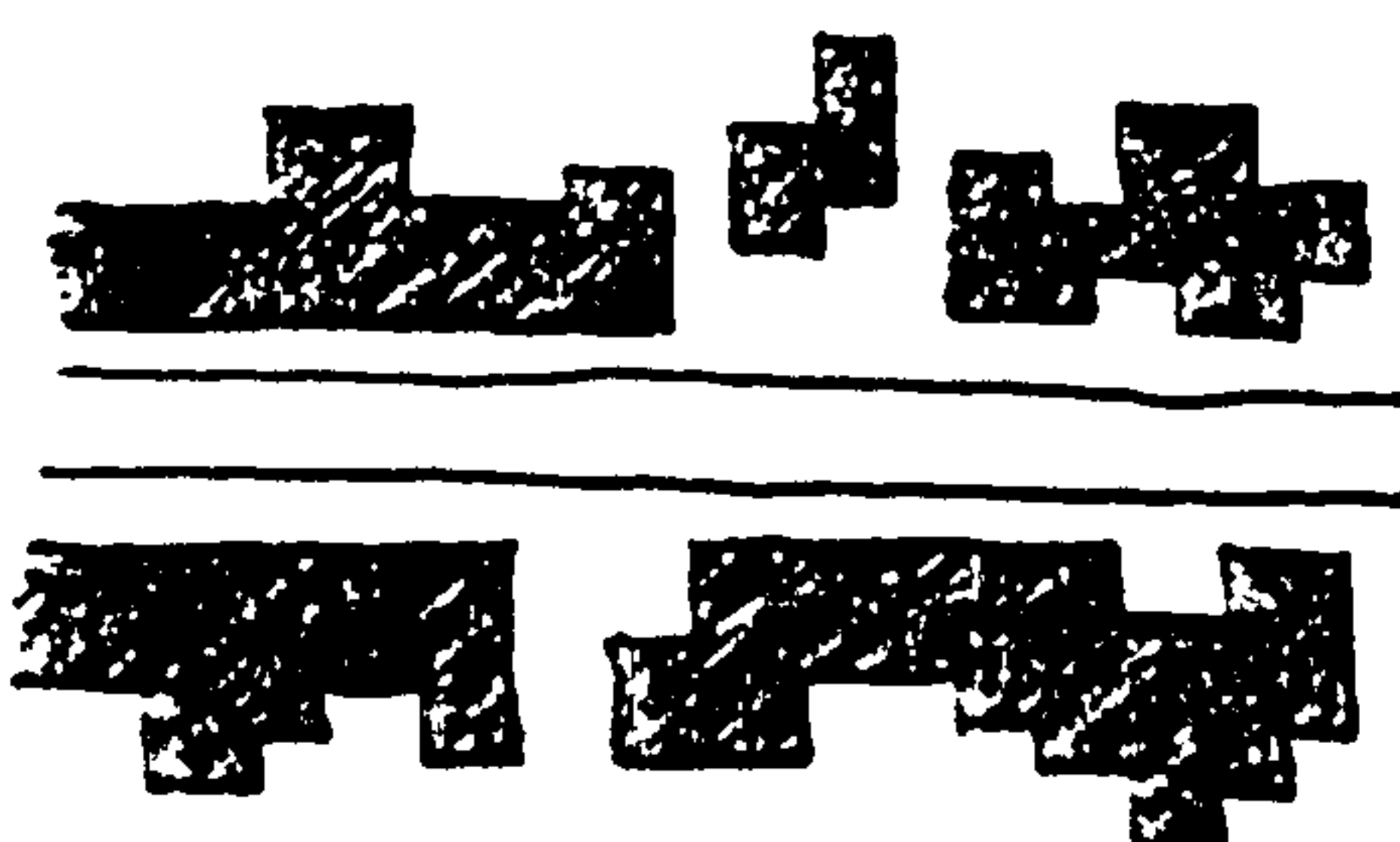


An asymmetrical solution, emphasises one direction

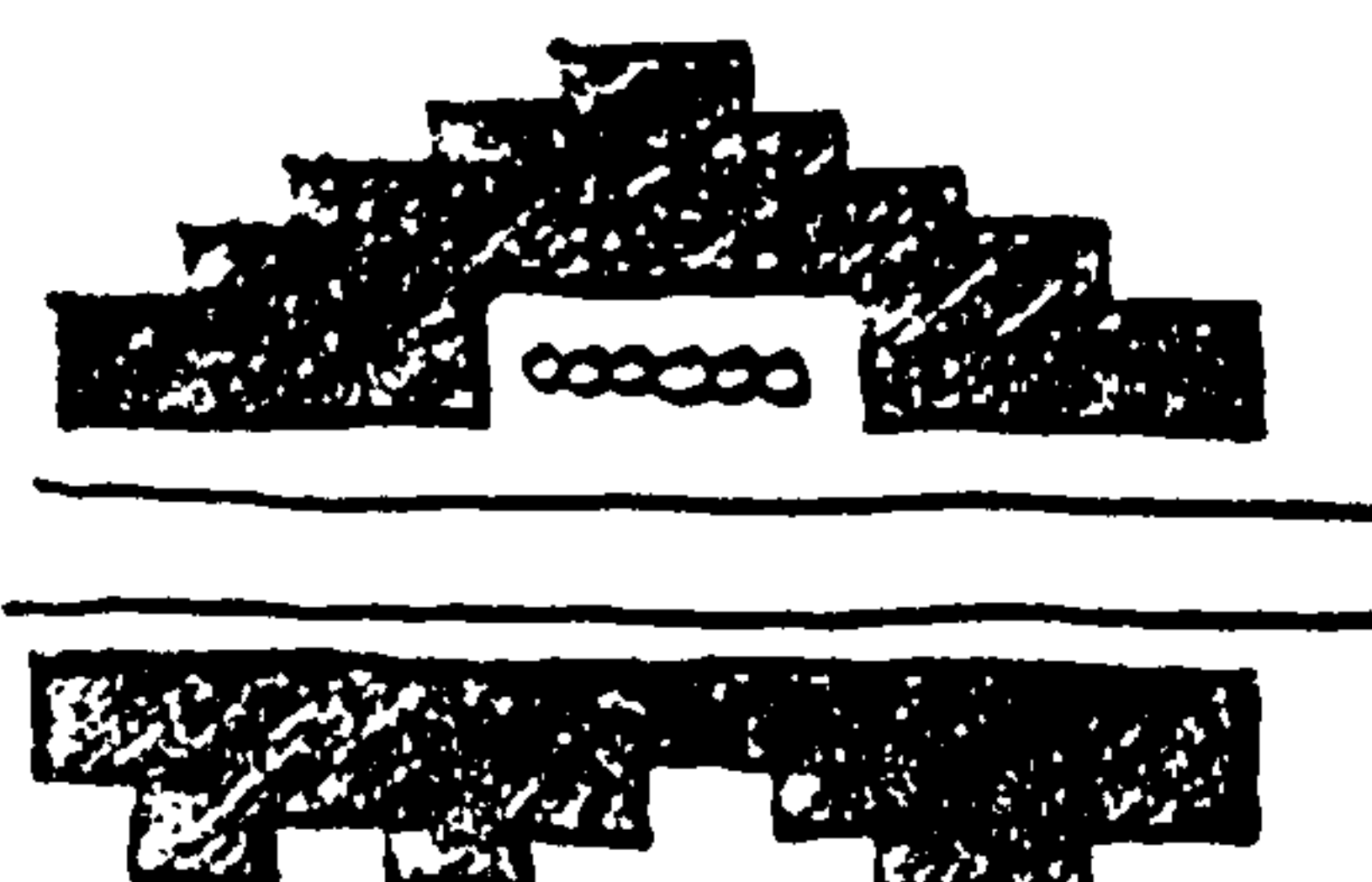


A square is created which is less formal than the one above

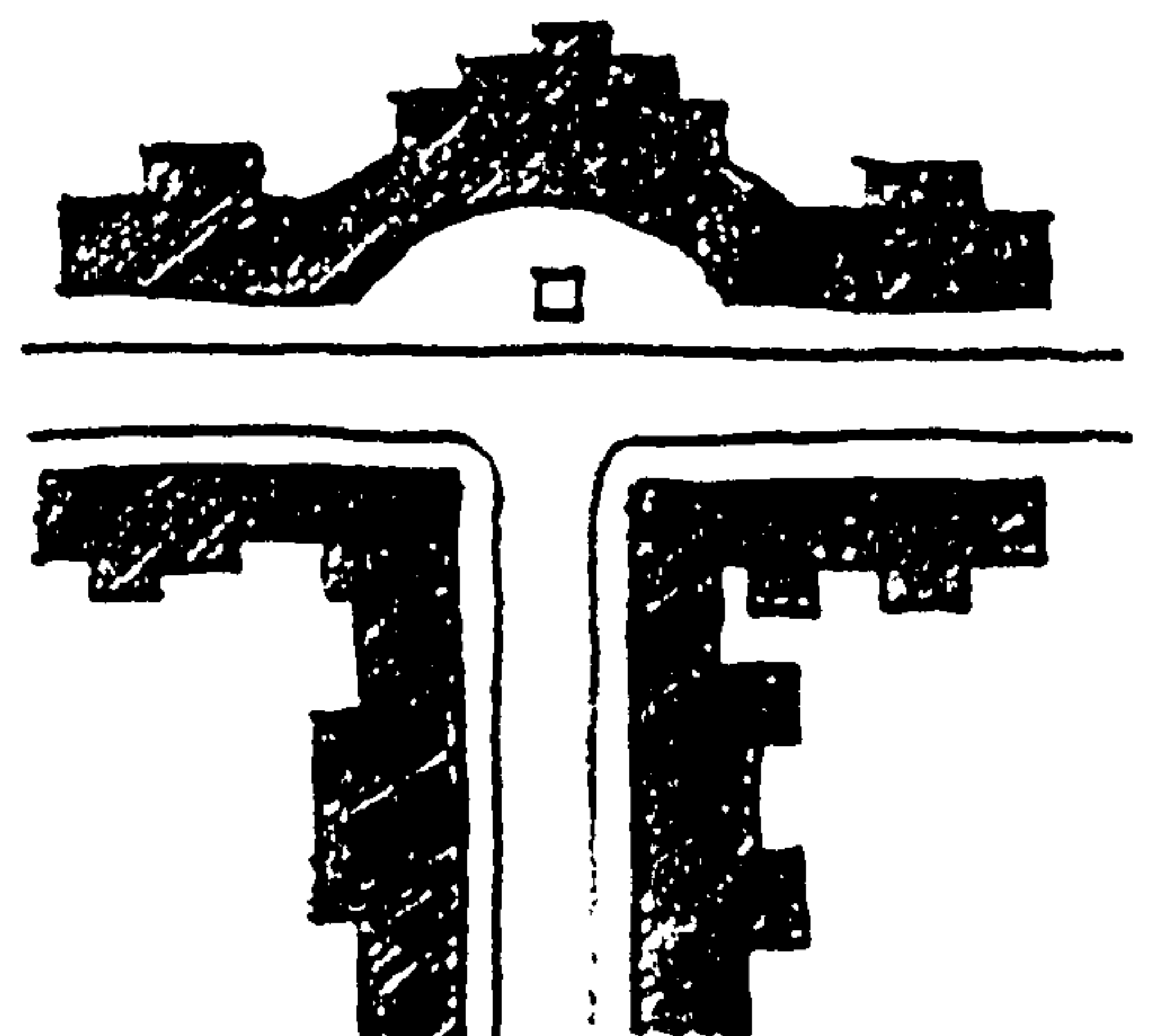
Set-backs from building lines also require careful consideration -



Where random set-backs are introduced the streetscape becomes incoherent



set-backs can enhance the streetscape if they denote focal buildings and create well defined space



set-backs can also enhance the streetscape where they have a townscape function such as marking a junction or view

(21)

The setting-back of some individual buildings in a street, not only has the effect of breaking-up a monotonous row, but may also afford an opportunity for the creation of forecourts, which suitably treated can be very charming in themselves and are a means of introducing foliage into the picture.(22)

Information about successful STREETS makes some direct contributions to the proposed FRAME OF REFERENCE -

1. Building lines should be used to define the street.
2. Building frontages are essential to good townscape, ie clear hierarchical relationship between the main street and front door.
3. Public and private space needs to be clearly identified and well defined.

The information also identifies a number of issues about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Street patterns
 - 1.1 Organic - evolution of the settlement
- curved streets and irregular shapes
 - 1.2 Planned - grid, modified grid, spider's web, radial, triangular
2. Junctions
 - 2.1 Number of streets
 - 2.2 Cross-roads, off-sets, squares and places
 - 2.3 Regular or irregular
3. Building line - geometrical configurations which define space
 - 3.1 Along the street
 - 3.2 At corners
 - 3.3 In set-backs

REFERENCES: Streets

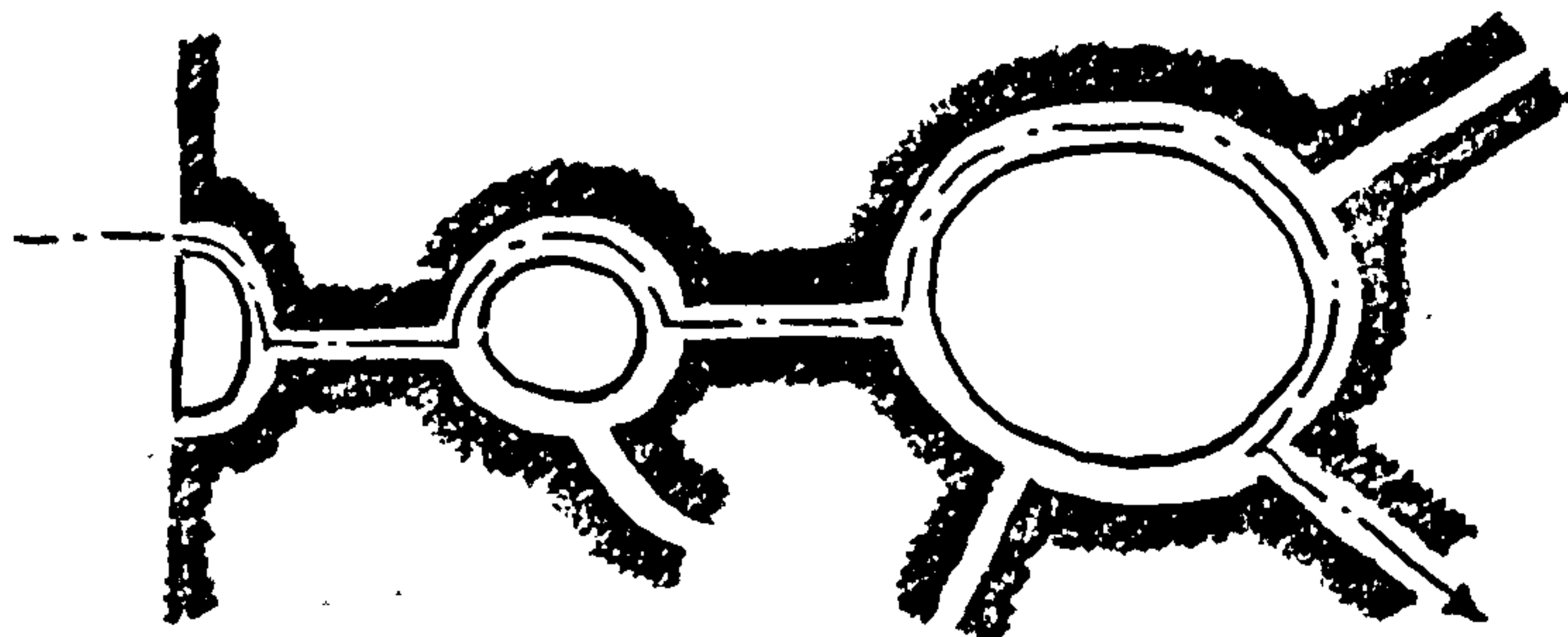
1. KRIER, R. Op. Cit., 17, 21
2. ALEXANDER, C. et al, A New Theory of Urban Design, 239
3. McCLUSKEY, J. Op. Cit., 8
4. Ibid., 13, 14
5. Ibid., 15
UNWIN, R. Op. Cit., 235
6. SITTE, C. Op. Cit., 229
7. FRENCH, J. S. Op. Cit., 15
8. UNWIN, R. Op. Cit., 235
9. FRENCH, J. S. Op. Cit., 17
10. SITTE, C. Op. Cit., 276
11. Ibid., 236
12. FRENCH, J. S. Op. Cit., 15
13. UNWIN, R. Op. Cit., 235
14. FRENCH, J. S. Op. Cit., 17
15. SITTE, C. Op. Cit., 198, 199, 224, 225, 230
16. FRENCH, J. S. Op. Cit., 16
17. UNWIN, R. Op. Cit., 249-253

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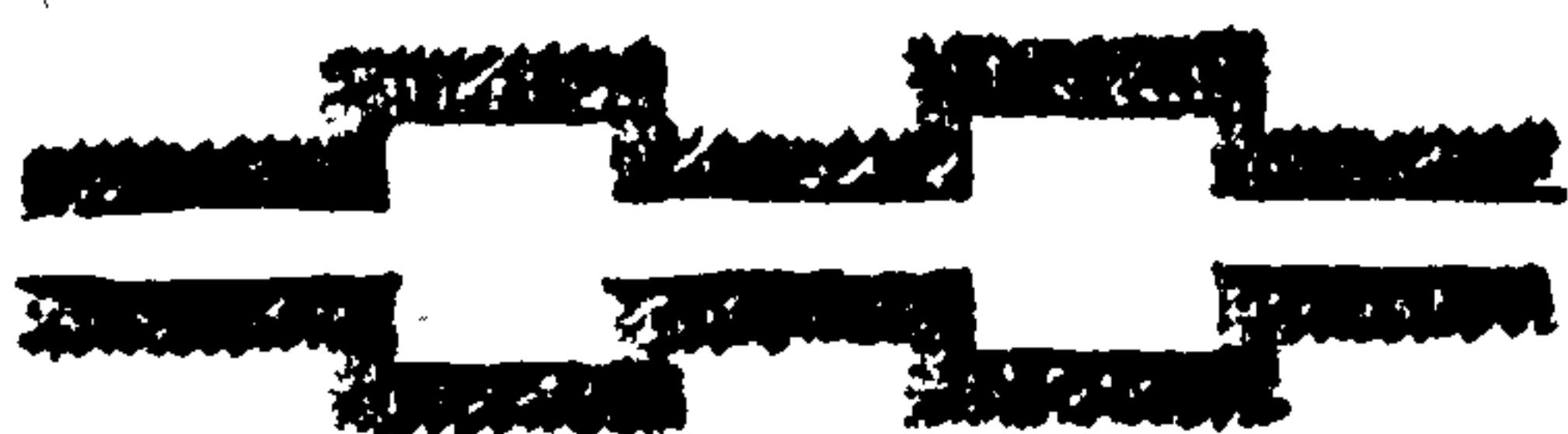
18. McCLUSKEY, J. Op. Cit., 74-77
19. UNWIN, R. Op. Cit., 238-249
20. SITTE, C. Op. Cit., 201-202
21. TIBBALDS, F. et al, Birmingham Urban Design Studies,
31, 34-36
22. UNWIN, R. Op.Cit., 254

Grouped Spaces and Central Places

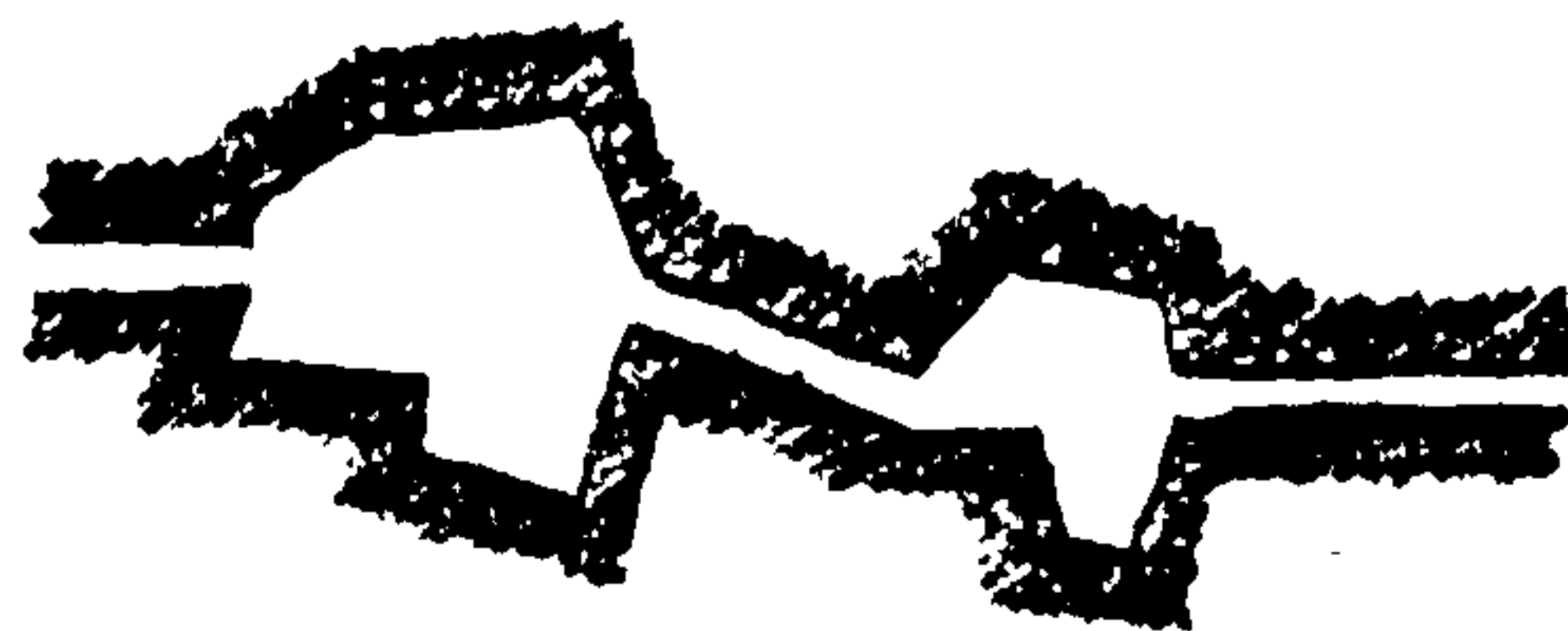
According to *Camillo Sitte*, clusters of URBAN SPACES have been sufficiently frequent phenomena that they should be considered as the rule and single public squares as the exception.(1) The objective therefore, is to create INTERCONNECTED SPACES rather than isolated statements. This may be achieved by a series of linked spaces, eg -



The arrangements may be formal or informal -

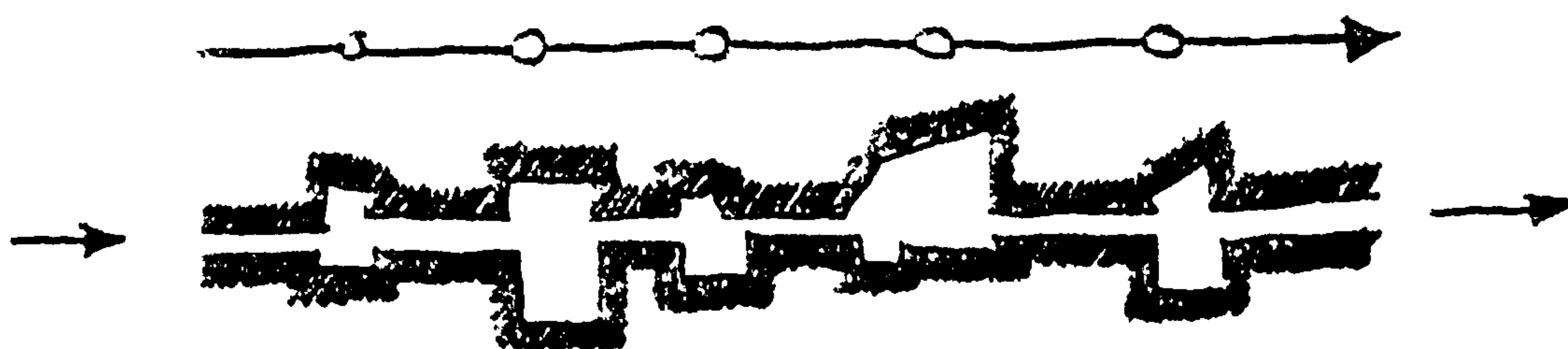


Formal

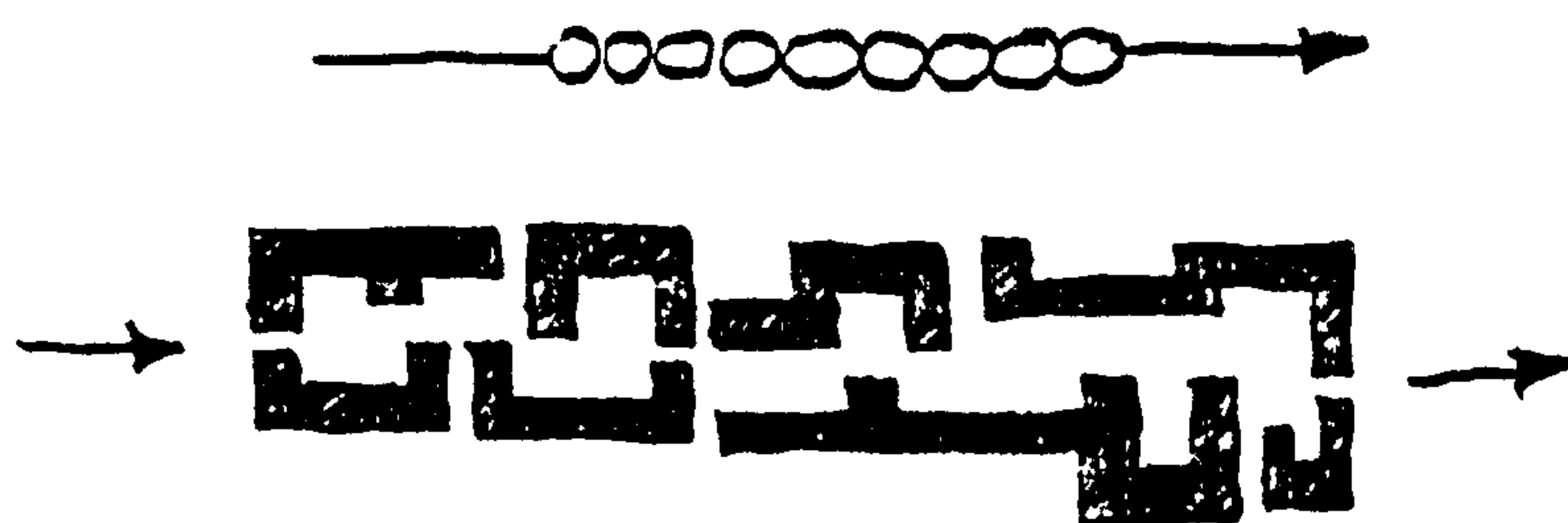


Informal

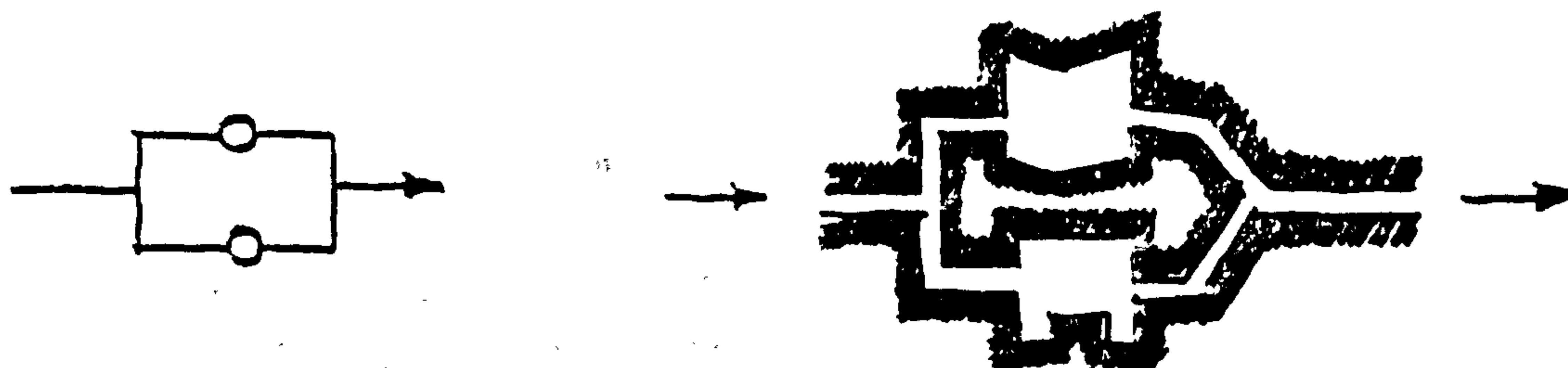
STATIC SPACES can be linked by DYNAMIC SPACES -



Alternatively, STATIC SPACES can be joined to one another -



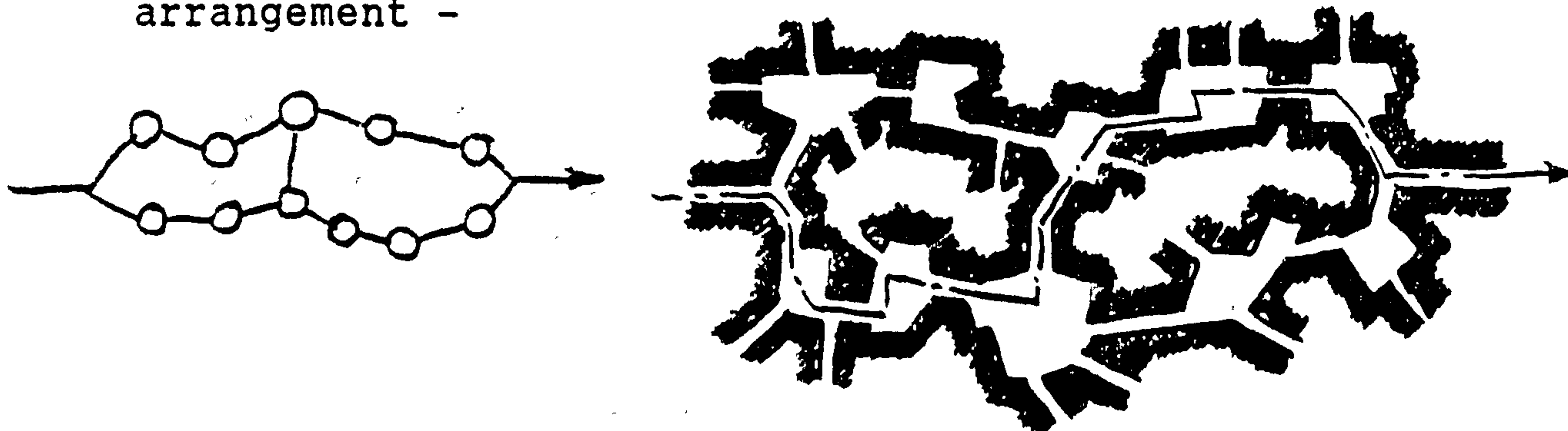
It has already been established that OPTIONAL ROUTES are fundamental to good city structure -



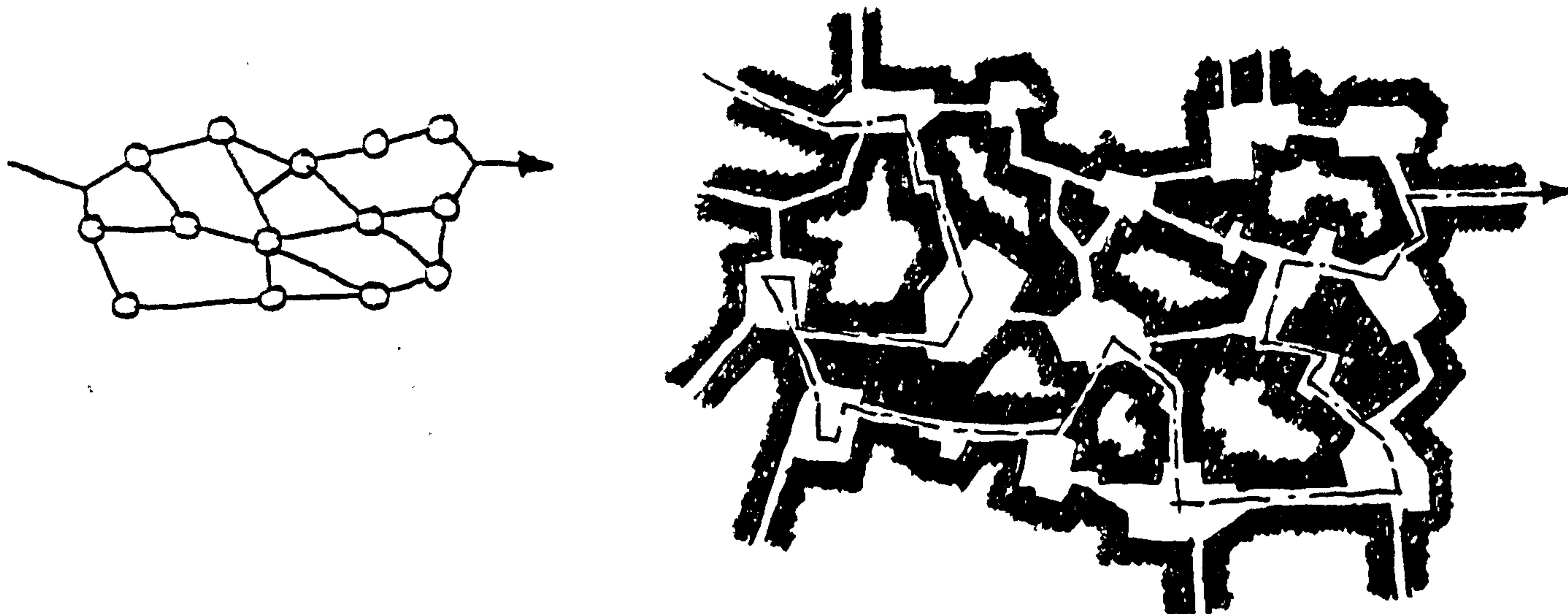
However, SERIAL and PARALLEL LINKAGE result in a limited choice of routes -



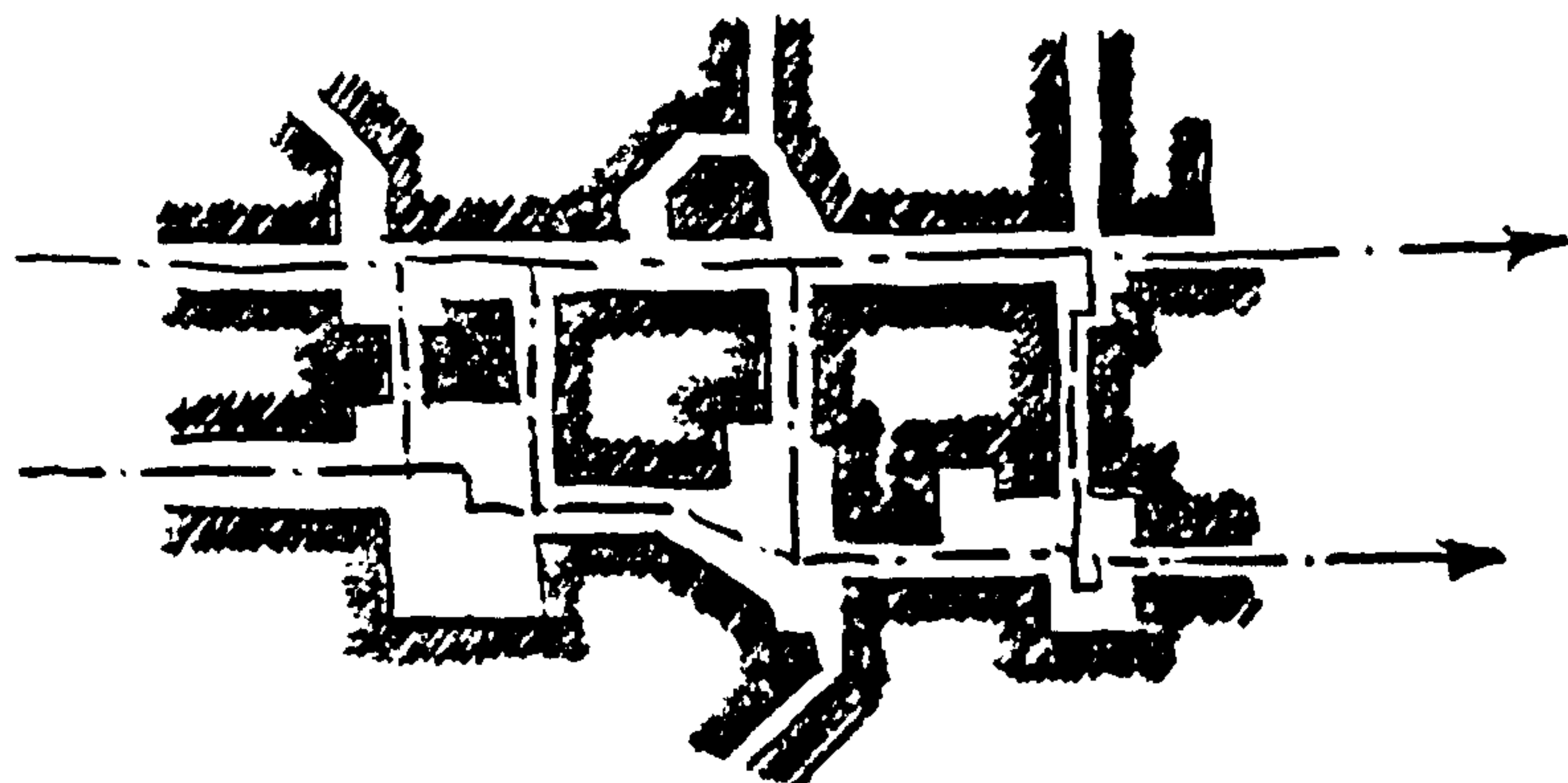
and spaces convey greater SENSE OF PLACE if they are not linked in a straight line, but have a more ORGANIC arrangement -



This type of layout can be enlarged indefinitely and complexity and multiple choice of route can result in stimulating and varied urban environments -

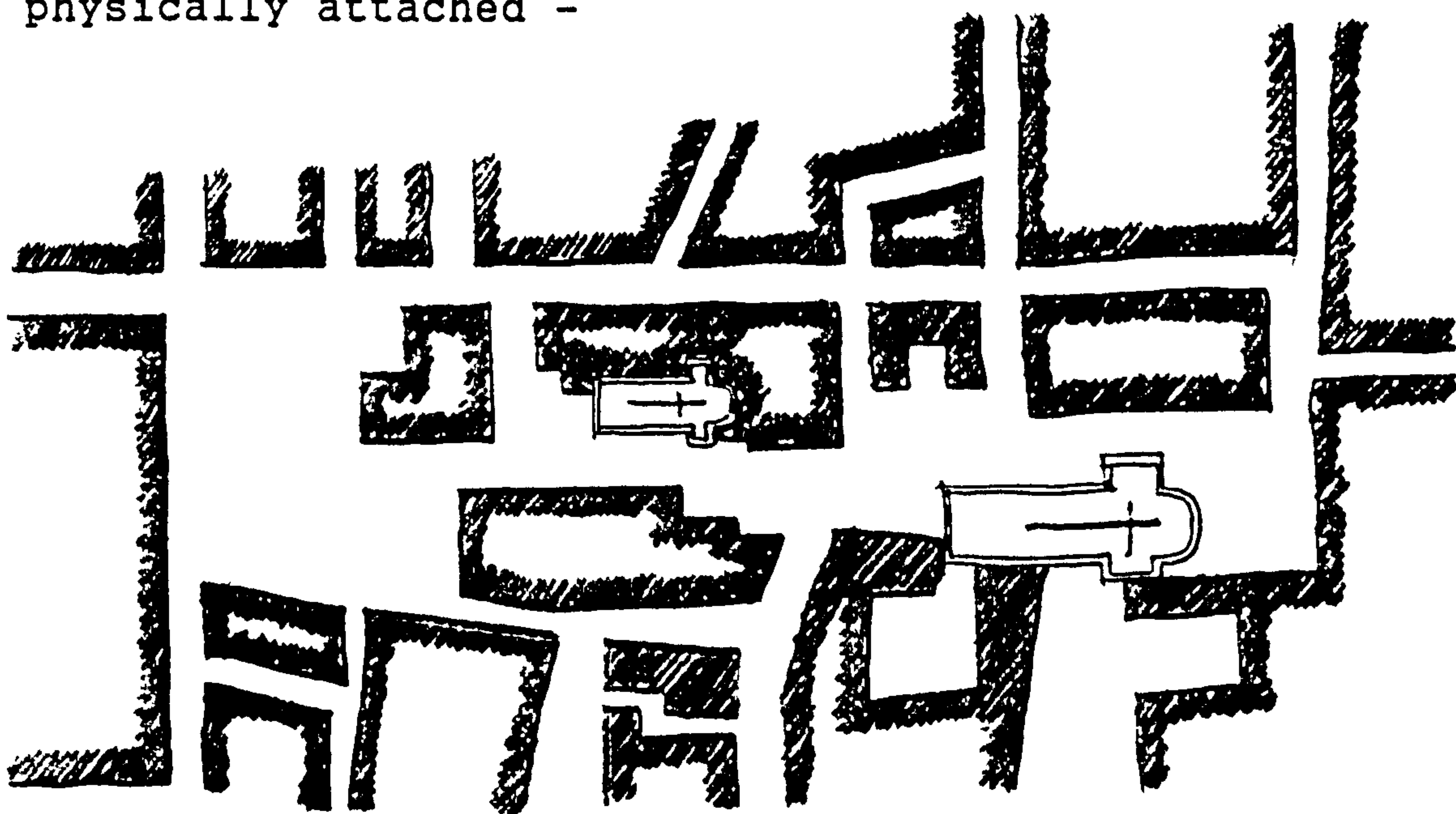


but people require different kinds of movement and therefore PARALLEL LINKAGES of different kinds might be appropriate, with a number of routes passing between the two -

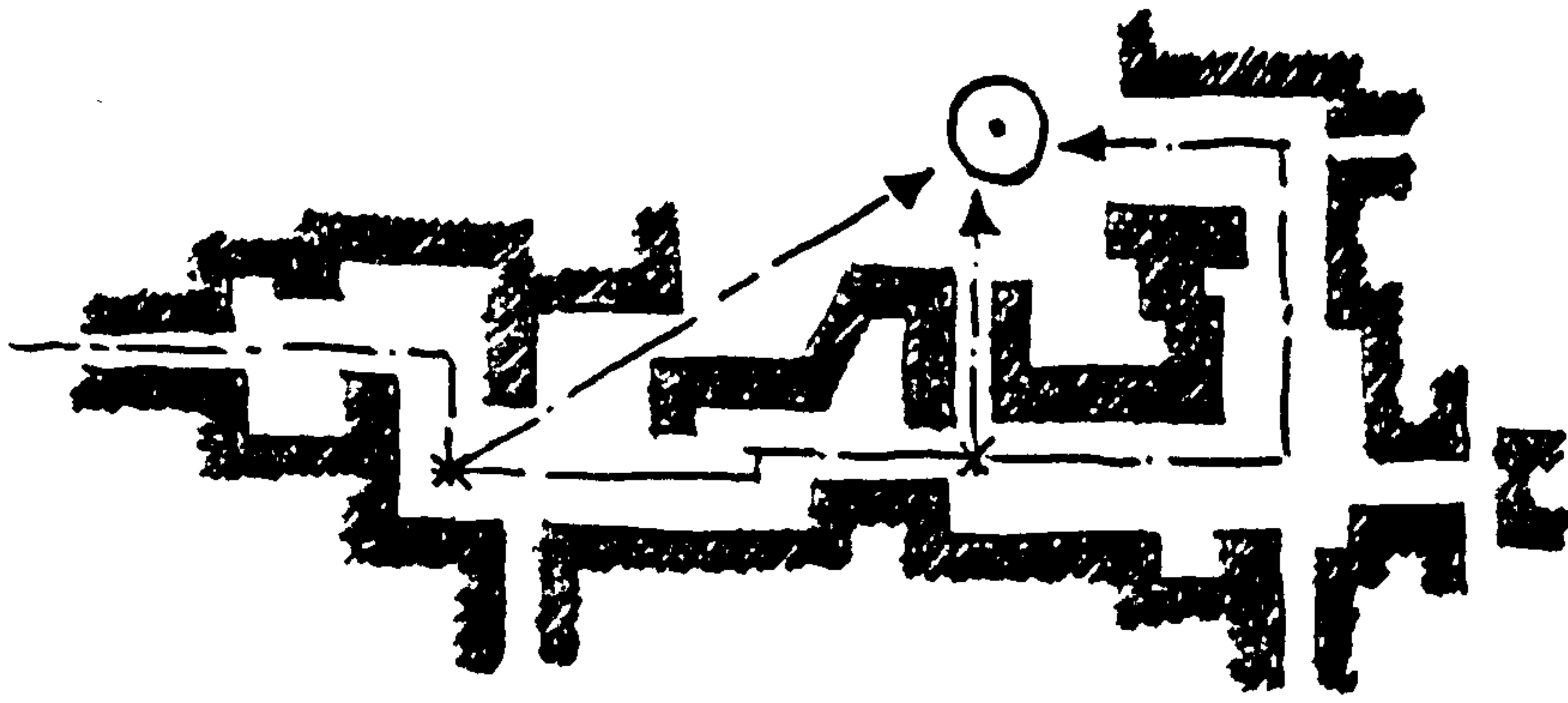


(2)

The success of grouped urban spaces is also related to perception of containment, and the basic idea of associating focal buildings with the background form. *Sitte* believes that the two types of building should be physically attached -



The special effect that results from walking about from one square to another in such a cleverly grouped sequence, is that our reference points change constantly, creating ever new impressions. This should be tried with modern spaces to see how many different views can be achieved.(3) Also, the recurring prospect of a landmark from different positions, achieves multiple value from that landmark -



An alternative could be a series of views into a linear park, or onto a river bank.(4) *Unwin* agrees that it is certainly desirable for views of a city's landmarks to be easily achieved, and that the main framework of the plan should clearly be evident to visitors in particular.(5) *Lozano* points out that in many towns and cities, there is an absence of any sense of CENTRE reflecting perhaps the social experience of the centres of power being removed from people's lives. Even in the better modern architectural efforts, there are no CENTRAL PLACES, but only a vacuum where buildings are located. Often, this approach is symptomatic of the bureaucratic non-city, where URBAN SPACES have been replaced by ROADS. In the urban jungle, open space is created by default. Office parks, campuses, business and science parks are no better, they are all nothing but ill-defined and un-related spaces with no sense of hierarchy or CENTRE.(6) By contrast, *Unwin* notes that in many medieval towns the great churches and cathedrals represented the important centres. In addition, we need to establish a proportional relationship between the different parts of the urban scene. We need to emphasise some parts and subordinate others, and the best way to do this, in city design, is to have definite CENTRES. The effect of our public buildings is lost if they are scattered indiscriminately about the city. They are seen imperfectly in ordinary streets, and no totality of effect is produced, such as may be obtained by grouping them in CENTRAL PLACES or SQUARES, or along river banks. If grouped in this way the buildings help one another, and the total result obtained is a character to impress the

imagination and form a genuine central feature in the design of a city. Of course, proposed CENTRES need to be places where people are likely to congregate, ie they must be the focal points of activity. In choosing a CENTRE for a city, it is desirable to use the existing topography, eg the summit of some rising ground where neither the height nor steepness of access are too great. Sometimes the most prominent position is found part-way up one of the slopes of a valley. Where there is a river front, the attractiveness of this, would suggest the advisability of locating a CENTRAL PLACE near or overlooking it. Each area should have its own special central feature or point of interest, around which its plan should be grouped, and up to which it should lead. Invariably this is associated with a SQUARE which forms part of a sequence containing a variety of urban spaces.(7)

Information about successful GROUPS SPACES and CENTRAL PLACES identifies a number of issues about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

1. Patterns of Grouped Spaces
 - 1.1 Parallel linkages
 - 1.2 Optional routes
 - 1.3 Landmarks - changing viewpoints
 - 1.4 Recognition of framework of plan
2. Identification of centres
 - 2.1 Topographical location
 - 2.2 Emphasis and subordination
 - 2.3 Location of public buildings
 - 2.4 Congregation of activities
 - 2.5 Differing characters of central places

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BUILDINGS

Focal and Background

Eduardo Lozano identifies two building traditions. The first, he associates with PROFESSIONAL DESIGN, and the second with the GENERATION OF HUMAN HABITATS. (See Figure 2) He points out that the buildings of the professional design tradition belong to recognised styles of high culture. They are generally PUBLIC and present unique uses for any particular community. For example -

<i>Government</i>	castles, palaces, parliaments, town halls
<i>Religion</i>	temples, cathedrals, churches, mosques
<i>Public Facilities</i>	museums, theatres, exhibition halls
<i>Law</i>	courtrooms
<i>Health</i>	hospitals
<i>Education</i>	universities

A few exclusive residences may also be included, but these are usually part of the political, social and economic power structure of the community. Design solutions in this tradition originate in the rules of style and are aimed at achieving masterpieces. Nevertheless, innovation is an essential part of this tradition. The buildings are representative of the wealth and power base of a civilisation and, at least in theory, are designed as a whole, ie fully determined from the beginning. The wealth associated with these buildings should reduce delays, thus permitting almost immediate satisfaction.(1)

The other tradition is more to do with context, harmony, unity, etc. For the most part it is what has become known as the VERNACULAR. If we follow *Lozano's* assertions, then these buildings would be essentially PRIVATE and present the more commonplace uses, such as -

Residence	Leisure
Employment	Shopping

This appears to be the basis of a sound framework for action, but there are difficulties with it. First, the vernacular tradition of some cities may be difficult to discern. Often, so much have been overlaid upon a place, the true tradition occupies minority space and is therefore of dubious relevance. Secondly, a recognised style of building may have subsumed the tradition. This raises questions as to whether other styles might also be legitimately included. Thirdly, there may be a problem where new uses demand a scale and/or type of space, not generated by the vernacular tradition. For example, shopping has tended to outgrow its traditional accommodation - with the advent of supermarkets, superstores, department stores, etc. However, these difficulties should not be allowed to nullify the fact that some important principles are emerging.

Concerns about the skyline of London have been expressed by a number of people, including Christopher Booker and HRH Prince Charles. Both refer to the Canaletto painting showing St Paul's Cathedral as a FOCAL BUILDING, against BACKGROUND BUILDINGS which, although not the same size and height as each other, nevertheless give an impression of uniformity. Both critics also compare the painting with the same view of London today. St Paul's is no longer dominant and it is surrounded by a jumble of confusion. Clearly with this scene in mind, Prince Charles asked some probing questions to Cesar Pelli, about his design for Canary Wharf.

Pelli replied -

'It needs to be done with assurance, I many times feel that occupying this space against the sky, it is a bit like being on stage - one cannot be fumbling on stage.'

HRH continued - 'But why does it need to be so high?'

Pelli answered -

'A certain space is required by modern institutions ... but there is also a need just to be high, so that the building has a certain prominence against the sky.'

HRH was not convinced -

'I just think that in this country things have been on a more intimate scale.'(2)

Sir Roy Strong's interjection is not recorded in Prince Charles' book, presumably to save the latter's blushes.

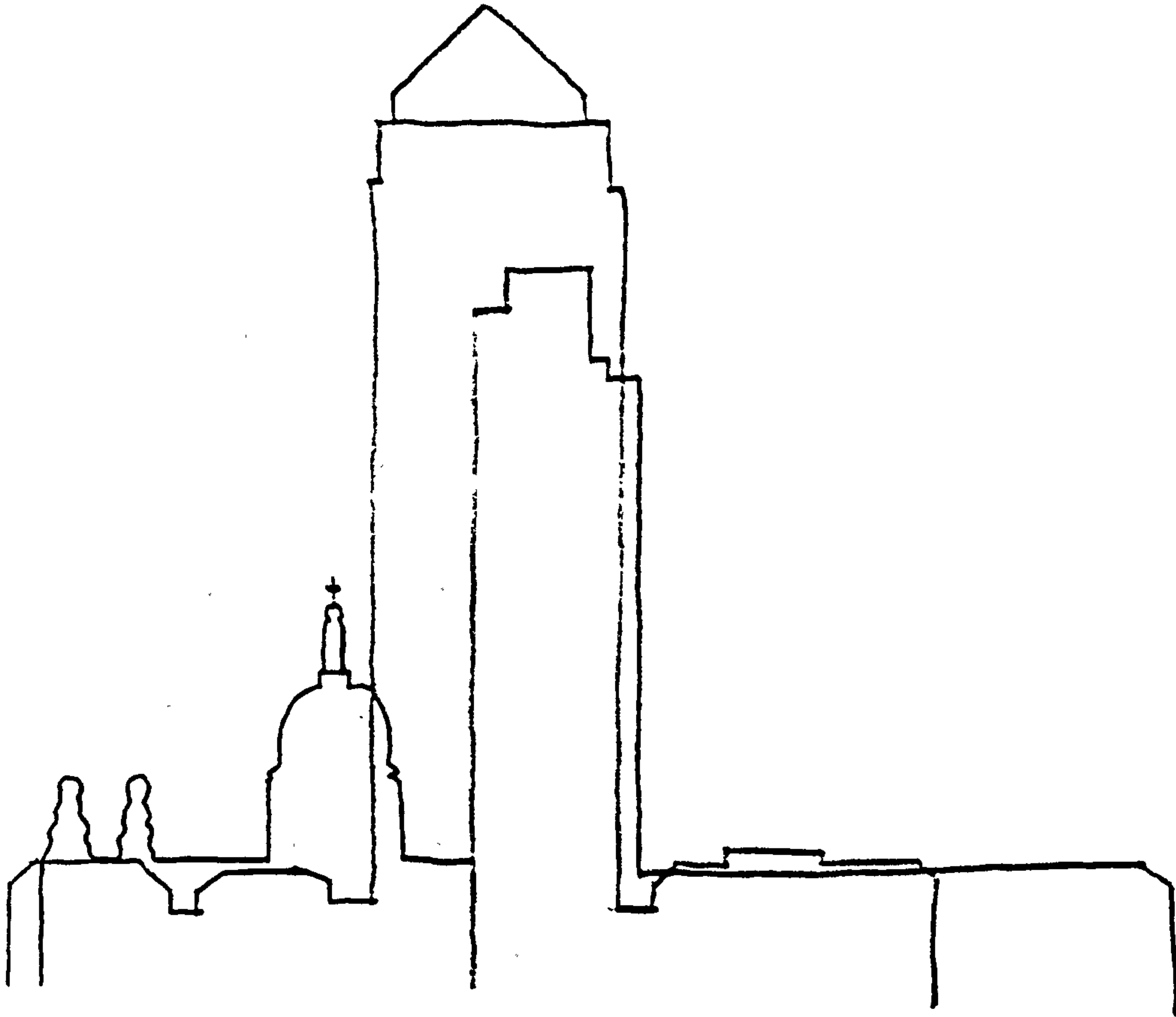
Strong -

'With all due respect Sir, no medieval cathedral would have been built if we had taken that line.'

HRH mumbled -

'No maybe not, but I personally would go mad if I had to work in a place like that.'(3)

In this exchange, Prince Charles is representing the views of many people, perhaps even the views of the community. Intuitively, he knows that the proposals are not sound, but when challenged by Roy Strong, cannot justify why that is. The architect seems obsessed with being centre stage and Roy Strong appears to misunderstand or misrepresent the notion of urban structure. Both centre stage and background buildings are essential elements of the urban fabric, but centre stage buildings need to be of a particular kind - special (perhaps unique), public, accessible, related to their external space. It is not for any office block to try to be such a FOCAL BUILDING. Office buildings occupy a BACKGROUND role. However, in establishing this principle, the absolute measure of scale should not be overlooked. The overlay of Canary Wharf and the National Westminster Tower onto St Paul's Cathedral, shows that both are a significant step-up in scale.



Even without the issue of FOCAL and BACKGROUND BUILDINGS, such enormous and sudden changes to the structure of the urban fabric are at least highly questionable and indeed negate Sir Roy Strong's argument.

Christopher Booker and Prince Charles encounter another building type when they view the Cascades Housing Development from the Thames -

HRH -

'To me it's inappropriate right on the edge of the river - the edge of the river should be more sacrosanct ... it's too aggressive.'(4)

On the film, Christopher Booker adds a poignant observation -

'It not only says look at me but I'm not going to let you look at anything else.'(5)

There is a place for buildings that will not let you look at anything else, but these FOCAL BUILDINGS must be integral parts of our society and perhaps only a few of a particular use in each city, eg cathedral, concert hall,

town hall. There is an imbalance and ambiguity created, if one housing development or one commercial development is pulled out from the others as a FOCAL BUILDING. It is important for this kind of building to touch the soul, or at least be symbolic of the society it represents, ie culturally and spiritually uplifting or socially, politically and economically significant.

There is a clear parallel between the above categorisation and *Lozano's* PROFESSIONAL TRADITION and GENERATION OF HUMAN HABITATS. Nevertheless, in our society, there is professional involvement in both FOCAL and BACKGROUND BUILDINGS. The professionals, therefore, need to understand the hierarchy of urban form and thus the proposed FRAME OF REFERENCE should contain the criteria and parameters for both categories of buildings.

Layout and Form

According to *Sitte*, buildings only achieve their full effect when they can be viewed from an adequate distance in a square that is not too large. In successful situations there is clearly a relationship between the height of the FOCAL BUILDING and the minimum dimension of the square. In addition, there should not be equal space around a FOCAL BUILDING as this tends to marginalise the space, and does not give proper emphasis to the front facade and entrance.

In deploring the modern practice of locating the FOCAL BUILDING in the middle of a square, *Sitte* also notes that any organic integration with the site is ruled out.(6) Thus, there is an argument, to which both *Sitte* and *Alexander* subscribe, that FOCAL BUILDINGS should not be freestanding but fused to other structures on one side or encased by them on two or three sides.(7) However, this can cause conflicts between FOCAL and BACKGROUND BUILDINGS, if attempts are made to link buildings of

different scales and types. The objective may be to create a situation where the FOCAL BUILDING is set within a surrounding frame without necessarily being physically attached to it. FOCAL BUILDINGS offer the opportunity for relatively free architectural expression and therefore the form of these buildings can be determined by the architect in each case.

BACKGROUND BUILDINGS occupy two roles. First, they define and contain urban space, and secondly, they provide the frame for the FOCAL BUILDING. Thus, there is a need for visual continuity, even if the buildings are not physically attached in a continuous manner. Modern planning tends to create a desire for regularly shaped closed-form buildings, with left-over space becoming a street or square. In this genre, there seems to be a fear of irregular shaped buildings which might result from streets and squares being set out first. However, as *Sitte* points out, when we look at existing groups, it is often the irregular shaped buildings which appear the most interesting.(8) *Alexander* expresses the view of a number of pioneers, in noting that building fronts should take on slightly uneven angles to accommodate the shape of the street.(9) Set backs should only be used where they are designed to create additional positive urban space, although most set backs are actually unsuccessful in this respect. Emphasis should be given to buildings in special situations, eg street corners and other junctions. These could be marked by a variation in building form and/or with a particular flourish. One aspect of the role of containing urban space, is that a group of buildings may be required to define two different spaces. Thus the notion of fronts and backs of the buildings, needs careful consideration. Often in city centres, the backs do not have recognised architectural form and appear chaotic. Similarly, there are numerous unpleasant spaces in our cities, resulting from ill-considered treatment of service accesses, etc.

As Rob Krier points out, building sections produce significant effects on urban space.(10) Essentially, these are determined by four factors - building depth, building height, roof form, and facade form.

Building Depth - Deep plans should be avoided unless specifically required for particular building types.(11) Such plans are generally associated with FOCAL BUILDINGS, such as theatres. BACKGROUND BUILDINGS are better conceived with more flexibility of use in mind. In modern planning, it is difficult to consider how a multi-storey car park or deep plan office, for example, could ever be used for anything else. On the other hand, one can recall Quinlan Terry discussing traditional architecture. In describing his own office, he explains that it has been a variety of shops, a house and now it is an office. This kind of flexibility extends the lifespan and economic viability of buildings. Alexander notes that natural light is one of the main criteria for flexibility, and therefore advocates that buildings should be long and narrow. The depth he specifies is no more than 8 metres.(12) This sort of depth certainly assists in forming buildings to achieve positive external space.

Building Height - In one of his experiments on two comparable housing projects, Oscar Newman discovered that the crime rate in a high-rise development was about twice that in a low-rise development.(13) Alexander continues this theme with very forthright comments about building height - 'there is abundant evidence to show that high buildings make people crazy.' Up to three or four storeys, there is still the possibility of social contact between buildings and the street. People can be seen at the windows and conversely they can see details in the street. Alexander believes that a four-storey limit is necessary, to maintain an appropriate harmony between distance from the ground and the health and well-being of the people. While admitting that five or six storeys

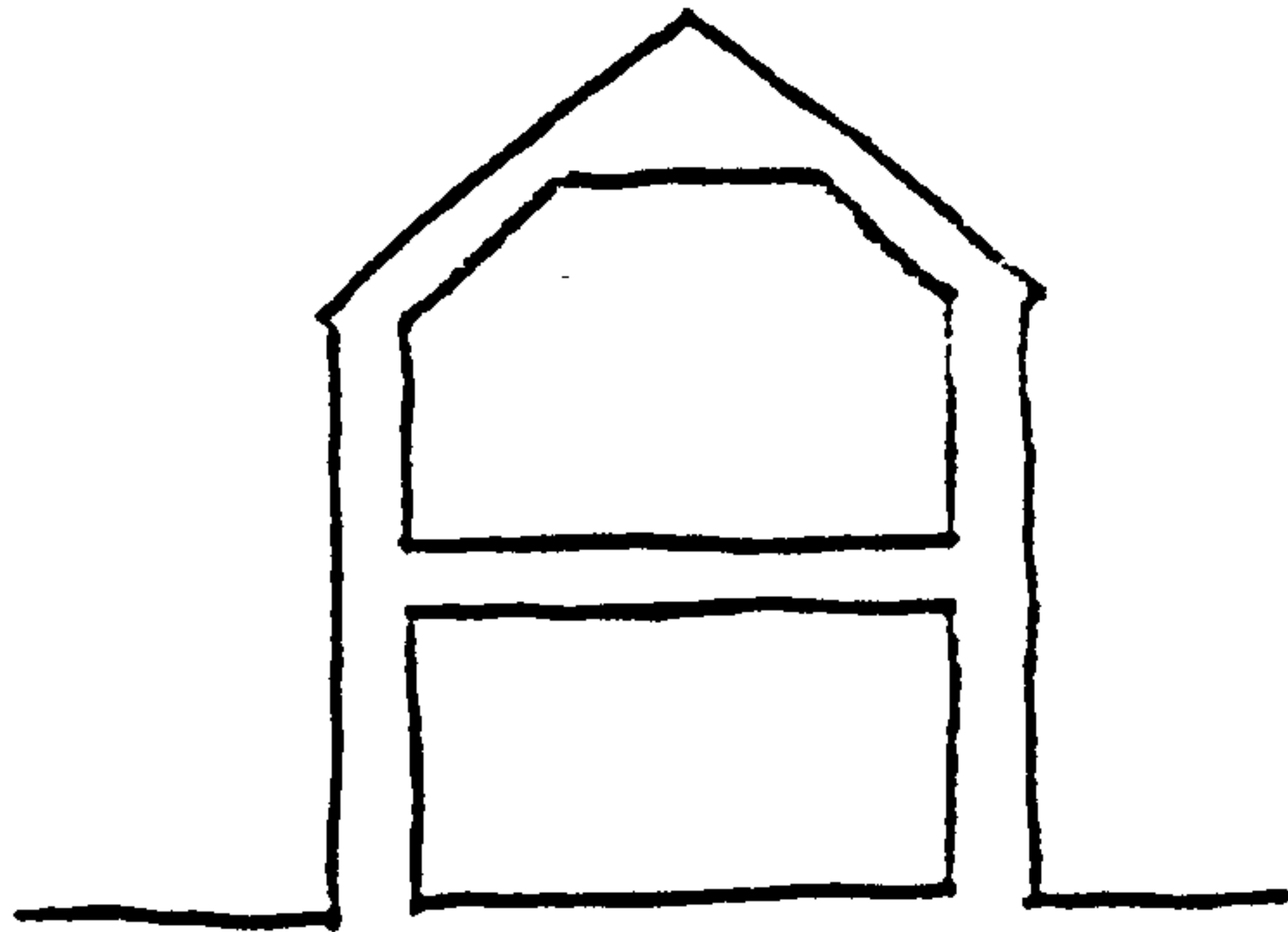
could be made to work, it becomes progressively more difficult. He concludes -

'In any urban area, no matter how dense, keep the majority of buildings four storeys high or less. It is possible that certain buildings should exceed this limit, but never be buildings for human habitation.'(14)

Variation of heights within a group of buildings, depends on the framework. A tight framework offers little or no opportunity for height variations whereas, with a loose framework, there is much greater scope. (See page 135)

Roof Form - Alexander observes that the most primitive building forms are exclusively roof. The more sophisticated buildings have become, the less evident has been the roof. If the roof is hidden, its presence cannot be felt around the building, or if it cannot be used then

people will lack a fundamental sense of shelter and well-being.(15)



In a general sense, many people remember the case presented by the great English Architects, CFA Voysey and Edwin Lutyens.

They felt that the enveloping nature of roofs, produces a comforting psychological effect on the occupants. More specifically, this is confirmed by the experiments of French Psychiatrist Menie Gregoire.(16) Some psychologists have associated this phenomenon with a desire to regress to the womb. Whatever the reason, expression of the roof does seem to be psychologically significant for both users and the public.

Facade Form - Rob Krier illustrates 24 types which can be used as the basis for an analysis. (See Figure 3)

1. 'Plain facade with traditional pitched roof'
2. 'Plain facade with flat roof'
3. 'Top floor set back' This device reduces the apparent height of the building.
4. 'Ground floor projection in the form of a solid structure or arcade' This device can 'distance' pedestrians from the main form of the building and may create a pleasing human scale. This type of section was applied by John Nash in Park Crescent, London.
5. 'Depth of building halved, at half the height of the building' This allows for extensive floor space at ground level with balconies at first floor level.
6. 'Random Terracing' It may be difficult to follow the logic of this arrangement.
7. 'Sloping elevation with vertical lower and upper floors' This is starting to indicate un-necessarily complex form.
8. 'Sloping elevation with protruding ground floor' Similar potential difficulties to the preceding type, and in addition, the ambiguity between roof and wall is increased.
9. 'Stepped section' This has possibilities for successful solutions, provided the number of set-backs does not dilute the containment of external space.

10. 'Sloping facade with moat' This illustrates a combination of complex form and difficulties of divorcing the urban space from the buildings by means of the moat.
11. 'Plain facade with moat' A more simplified form is shown, but the problems of a moat are still evident.
12. 'Building with ground floor arcade' This can be a useful and pleasant device, with careful architectural treatment.
13. 'Building on pilotis' This is one of the generic and much criticised forms of modern planning. The spaces leak away and unpleasant areas are created under the building.
14. 'Building on pilotis, with an intermediate floor similarly supported' This has similar deficiencies to the preceding example, with additional complexity.
15. 'Sloping ground in front of building' This is totally justified if suited to the natural topography of the place.
16. 'A free-standing low building placed in front of a higher one' This may produce a satisfactory effect on the urban space under consideration, but it raises serious questions about the quality of space under the building on pilotis and between the two buildings.
- 17./18. 'Buildings with a very shallow incline' This may be appropriate for arenas but unlikely to find a suitable application in the city centre.

19. 'Building with arcade above ground level and access to pedestrian level' This could provide an interesting and pleasant treatment to the building and urban space.
20. 'Building with access balcony' This is less successful than the preceding example, due to the reduced contact between the access balcony and urban space.
21. 'Inverted stepped section' This is an unnatural building form creating relatively unpleasant spaces close to the building. It has been demonstrated that overhanging structures can have adverse psychological effects on people.
22. 'Buildings with pitched projections' This can be an acceptable form, provided the spaces between the projections are considered and justifiable in their own right.
23. 'Buildings with projections' This places more emphasis on the spaces between the projections, but could be satisfactory in appropriate conditions.
24. 'Building with free-standing towers' An arrangement which tends to fragment the urban space. It may be a successful solution but the space between the towers and the building would need to be positively considered.(17)

It can therefore be seen that some facade forms have greater opportunity for enhancing the urban space than other types.

Architectural Character

One major difference between CHARACTER and LAYOUT AND FORM, is that in terms of CHARACTER, FOCAL BUILDINGS should stand out from the BACKGROUND. This is an expression of their significance. FOCAL BUILDINGS should also be designed in a clearly recognisable style which may reflect the age in which they were constructed. By contrast, BACKGROUND BUILDINGS need to closely adhere to the existing, without actually copying adjacent buildings. They need to be part of architecturally cohesive groups. These groups should provide sufficient visual interest and be unique to each particular urban space. Scope for variations within a group is determined by the architectural framework -

TIGHT (passive)

Formal
Limited number of building
styles
Limited range of materials
Simple elevations
Minimal changes in building line

Little skyline interest

LOOSE (assertive)

Informal
Greater variety of building
styles
Greater variety of materials
More elaborate facades
Emphatic changes in building
line
Raised skyline
Narrower frontages and bay
widths

(18)

The existing building grain, and vertical or horizontal emphasis, need to be followed, regardless of the type of framework.

The elevation is the public face of even private buildings. This public face should not hide behind anonymity but express that the building and its occupants are meeting the public and the public domain. Sitte suggests that elements such as steps, balconies, terraces, pulpits and arcades as means of achieving interest, enjoyment and greeting, and points out that the external use of interior architectural elements (staircases,

galleries, etc) is the most essential ingredient of traditional design.(19) Rob Krier illustrates 24 types of elevation, which can be used as a basis for analysis. (See Figure 4)

- 1.1 - 1.4 'Pierced facade: the lowest level is more generously glazed in each sketch, reducing the solid area to a simple load-bearing structure'
In BACKGROUND BUILDING, the human scale should be adopted. Windows are greatly indicative of scale. They should therefore, give messages about aspects such as the number of floors and the size of the building in relation to human beings.
- 2.1 - 2.4 'The glazed area within the load-bearing structure can be modified according to taste. The following three pictures show a reverse of the design process portrayed in 2.1 A solid base forms the glazed area upward.' Entrances seem to receive little attention in this series, although there is one illustrated in 2.3. In fact, the careful consideration of entrances is essential. They should be bold and easy to see, but also similar to each other in terms of elemental identification, eg all porches or all gates in a wall or all marked with a similar kind of doorway. A feature in the building form will also assist in clarifying the entrance. Some observers believe that buildings with graceful transitions between street and interior are more tranquil than those which open directly from the street. There is certainly a different psychological feeling about entering buildings through some kind of transition space. Intuitively, such buildings are treated with greater respect. Therefore, techniques such as small courtyards, steps, gardens, porches, etc,

are to be recommended. Alexander seems to be pursuing the line taken by Sitte, when he advocates open stairs and entrances, directly from upper storeys to the street as a means of increasing activity into the public space.(20)

3.1 - 3.4 'The window type can be modified horizontally and vertically according to the imagination of the designer' One objective of BACKGROUND BUILDINGS is to provide a harmonious group. This requires a level of consistency in the architectural elements. BACKGROUND BUILDINGS should not draw attention to themselves as individual pieces of construction. Whilst the designer's imagination is important, it must not conflict with the existing architectural framework.

4.1 - 4.4 'Faceless modular facade as a theoretical (abstract) way in which the building might be enclosed. The modular facade can be adapted to all variations in the shape of the building. Solid sections of the building can be combined with the grid.' The principle of windows providing scale has already been considered, as has the unsuitability of an anonymous facade for a building's public face. Modular elevations suggest ambiguity, confusion and disorientation. For example, they produce questions such as - is all that glass really window? Is it all one building? Where is the entrance? This sort of doubt seems totally contrary to the objective of a harmonious solution.

5.1 - 5.4 'Windowless buildings: windows are placed in niches etc and the process starts again from the beginning' It is doubtful whether windowless buildings have any place in the urban scene.

Culture flows through windows, from private to public spaces and vice versa. It may be a conspicuous claim that 'I have something to trade,' or simply that 'we have nothing to hide.' Through the window, the market displays its goods and forms of life other than one's own can be inspected, at least surreptitiously in passing.(21) It is easy to agree with *Jane Jacobs* and *Oscar Newman* that it is a two-way flow, for windows also allow you to keep an eye on the street scene.

6.1 - 6.4 'Exploration of different geometrics; a thematic interpretation of the elevation: lowest level = heavy; middle section = smooth with various perforations; upper part = light, transparent'
This is a logical approach which could be appropriate to a number of situations.

'Arcades placed in front of houses, different architectural styles juxtaposed' The latter is dependent on the architectural framework for appropriateness, but the former is a positive technique in assisting the interaction between people and buildings. Arcades create an intermediate space between the public and private domains, making buildings more friendly. The edge of an arcade needs to be kept low to produce the necessary effect.(22) (23)

It is important that an analysis of architectural character is not reduced to the subjectivity of arguments about taste, style and aesthetics. There is an infinite number of examples that could be presented, but it may be useful to consider some observations about *Mel Dunbar's* alternative architectural identities for a domestic group around a courtyard.(24) (See Figure 5) While this assertion has not been numerically tested, it is

considered that most people would find Alternative B more interesting and satisfying than Alternative A. It is suggested that it is not a matter of preference for a particular architectural style, but that the alternative compositions produce different psychological and physiological effects on the observer. The first is related to the eye line. Alternative A tends to focus attention downwards. This is due to the lack of roof detail, the horizontal emphasis and dark tone of the first floor treatment, and light tone and door projections to the ground floor. By contrast, Alternative B tends to raise the eye line. In particular, the dormer windows and chimneys seem to be reaching towards the sky. Alternative B is higher than the other option, but it is suggested that the different dimensions have little significance in this case. The psychological effect of 'up,' related to raised spirits, and 'down,' associated with depressed spirits, is fundamental. Also, the physiological effect of well-being related to 'head-up' and the converse, is universally known. In this respect, it is a reasonable assumption that different eye lines will produce contrasting psychological effects on the observer. The second aspect is clarity as opposed to ambiguity or even confusion. The assertion is that clarity produces a sympathetic response from the observer, whereas confusion does not. One part of this aspect concerns articulation. In Alternative B, the ground floor is separated from the ground, giving a clear differentiation between the building and its setting. Articulation also relates to the clarification of elements. In particular, the doors and windows are clearly separated out, and additionally identified by their surrounding details. The other part of the clarity aspect is emphasis of direction. It needs to be clear whether the building has horizontal or vertical emphasis. In Alternative A, the horizontal division of materials confuses the notion of emphasis. The vertical window divisions cut across the horizontal wall element. Moreover, there is not even consistency

with the wall material as it is variously horizontal and vertical, giving further contradictory messages. Other aspects, especially related to doors and windows will be evident from points raised previously in this section.

This is not an attempt to promote traditional architecture, nor to overstate psychological effects. Nevertheless, certain forms and character have given pleasure over a considerable period of time and therefore proof is necessary, that alternative proposals can provide equivalent satisfaction, before they are employed in the urban environment.

Information about successful BUILDINGS makes some direct contributions to the proposed FRAME OF REFERENCE -

There are two fundamental types of building - FOCAL and BACKGROUND, for which a series of criteria can be formulated.

The information also identifies a number of issues about which EXPERIMENTATION AND FURTHER INVESTIGATION is necessary -

Criteria for FOCAL and BACKGROUND BUILDINGS, including -

1. Uses (plus public/private)
2. Relationship with external space (street/square)
3. Relationship with adjacent buildings (plus focal with background)
4. Building depth
5. Building height
6. Roof form
7. Facade form
8. Architectural framework
9. Entrances and windows
10. Horizontal and vertical emphasis, eye line and articulation
11. Transitional spaces including steps and arcades

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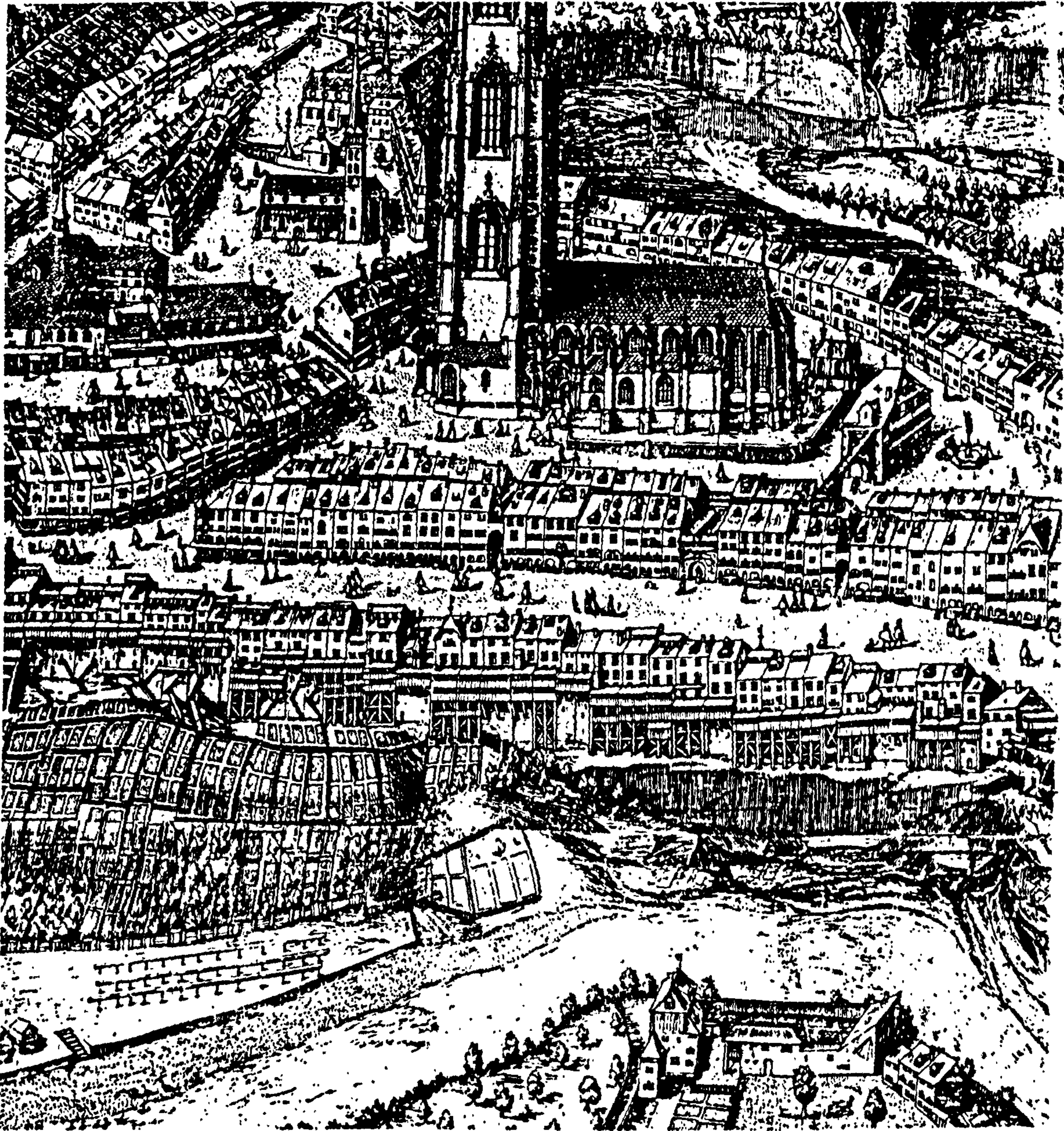


Figure 2: LOZANO'S TWO BUILDING TRADITIONS

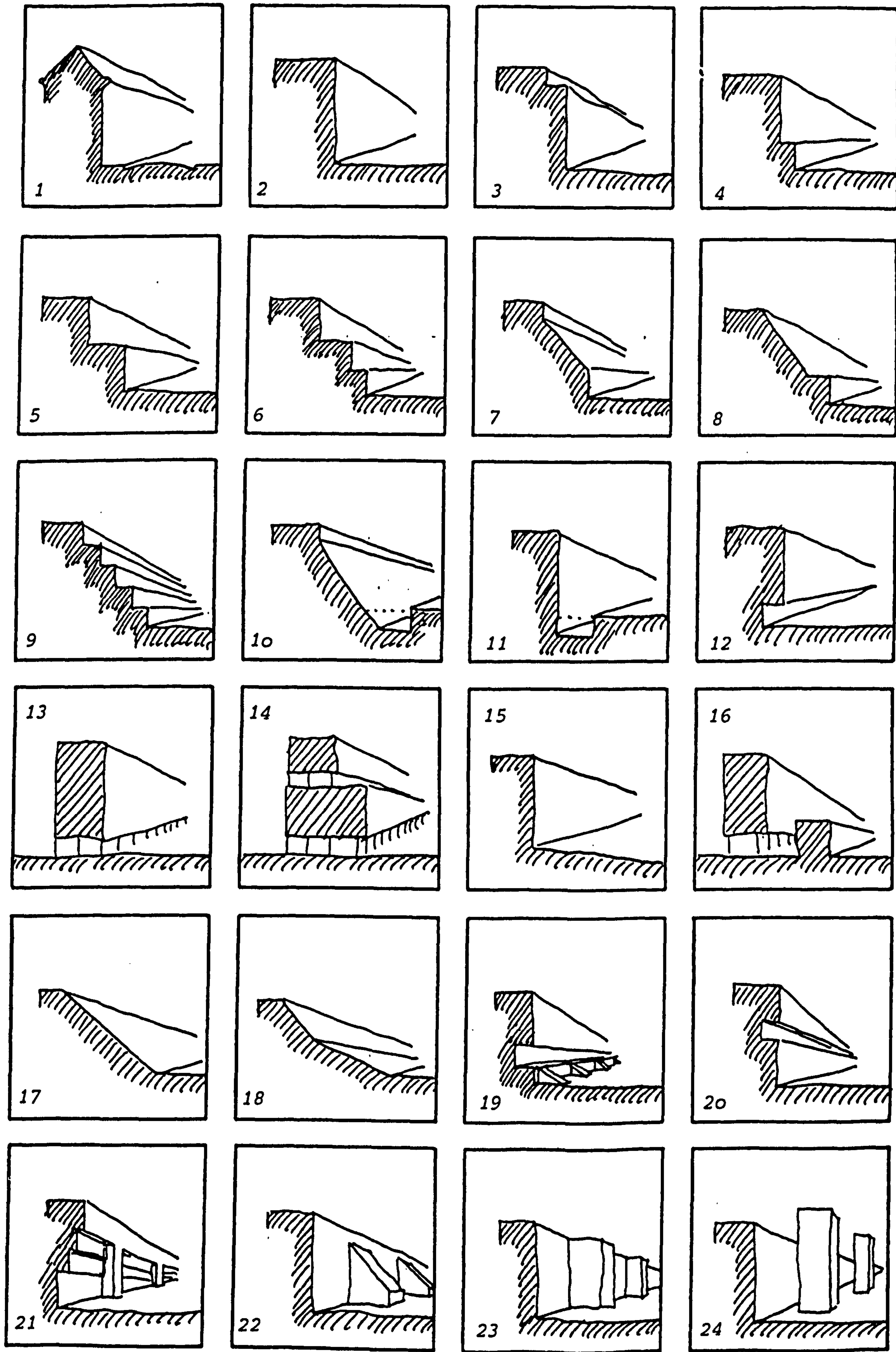


Figure 3 : KRIER'S FACADE FORMS

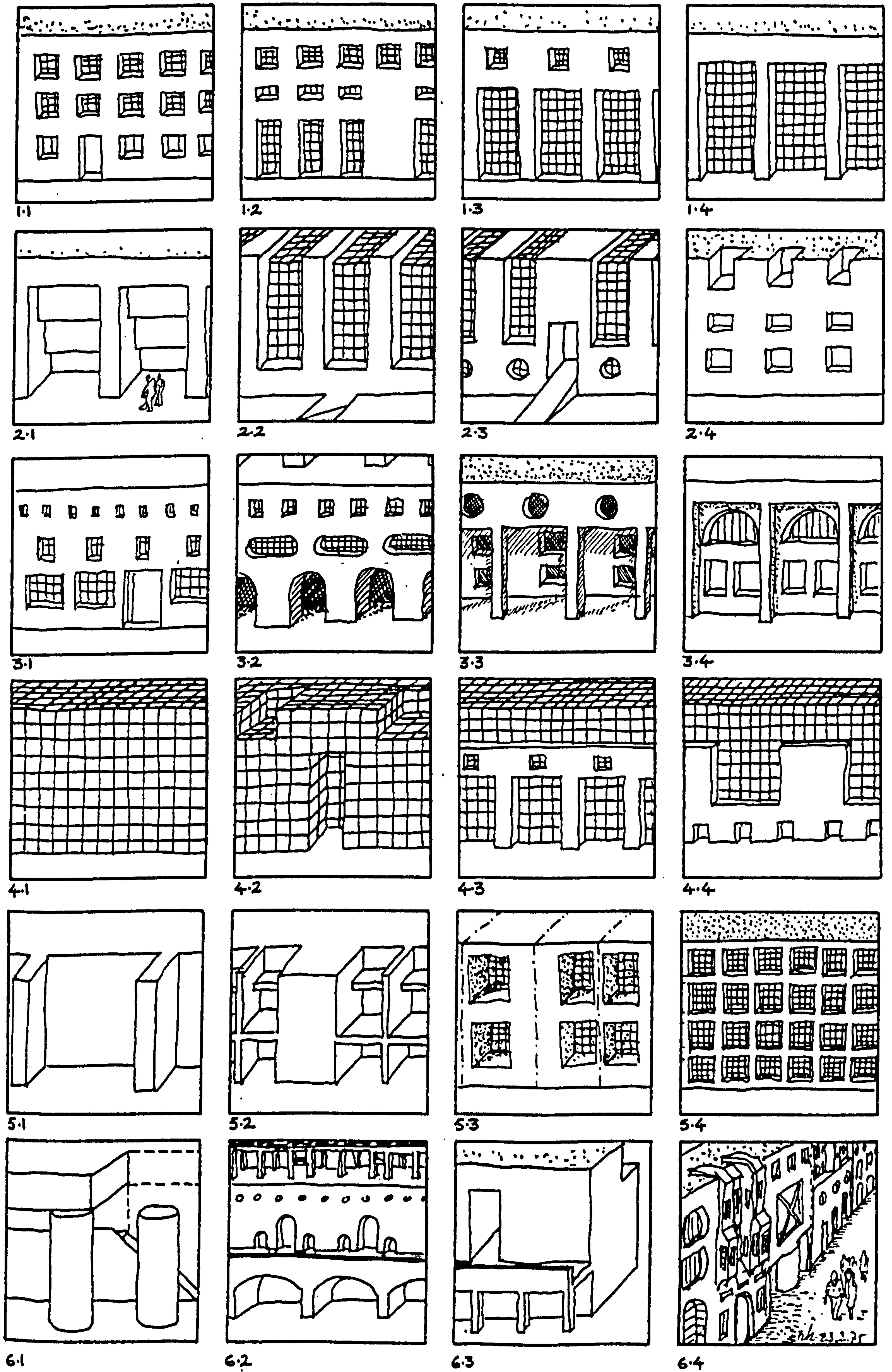
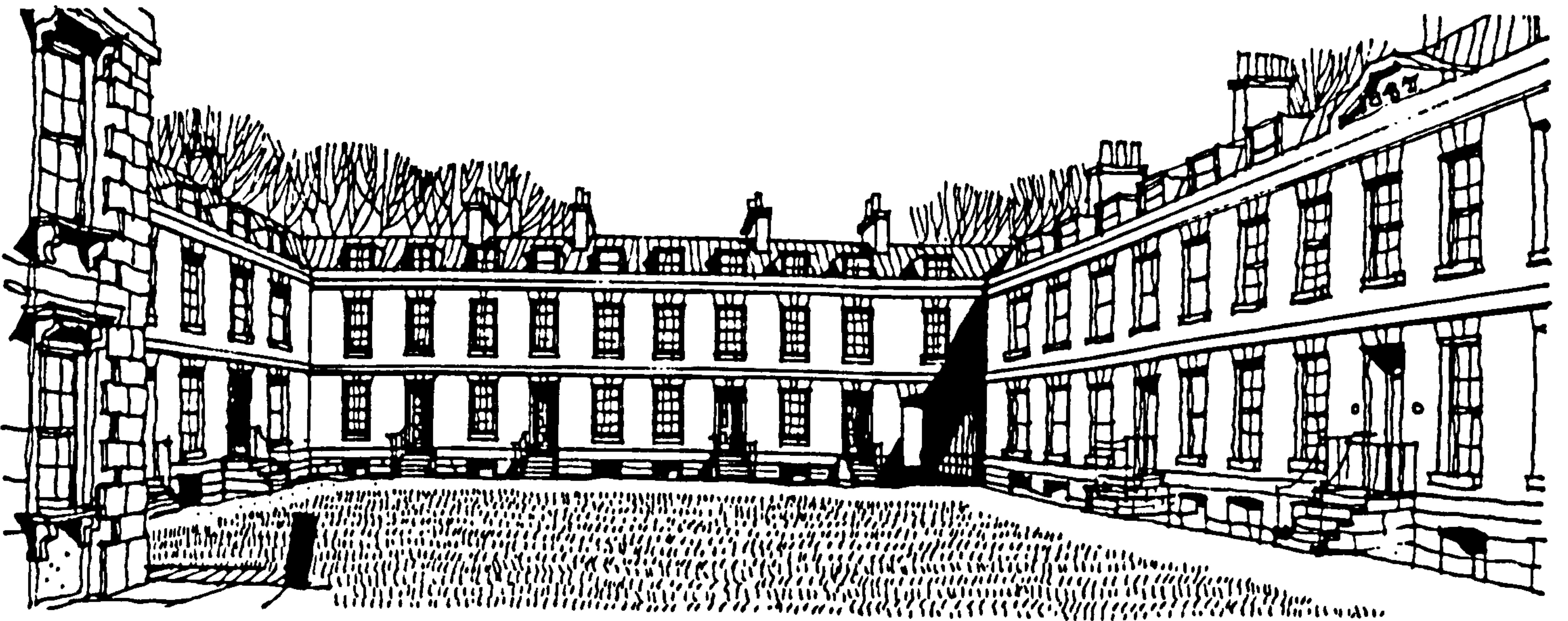


Figure 4 : KRIER'S ELEVATION TYPES



Alternative A



Alternative B

Figure 5: DUNBAR'S ALTERNATIVE ARCHITECTURAL IDENTITIES

CHAPTER 2

DEVELOPMENT AND CHANGE IN NEWCASTLE UPON TYNE

1. THE NATIONAL CONTEXT

SUCCESSIVE GOVERNMENTS

Although Liberal Governments supported the early development in Town Planning, major influence really started with the opportunities after the Second World War. The intent of this section is not to describe the contribution of each Government, but to highlight philosophies which had a significant effect on development and change in Newcastle upon Tyne.

1945 'Socialism'

Attlee's post war Government is probably best remembered for the Welfare State, and the nationalisation of credit, power and transport.(1) The size of Labour's majority was greater than even they could have anticipated. In an atmosphere of public idealism, egalitarianism and hope of radical social reform, it must have seemed to many Labour politicians that the creation of a new kind of society had actually become a practical possibility.(2) The key word was PLANNING. The peace was to be planned as the War had been planned. Local Authorities were to undertake the work on behalf of their communities. As a result of this philosophy, the public sector became pre-eminent.

1951 'Set the People Free'

While in principle, the country sought 'A People's Britain', it had disadvantages which were soon exposed. The population became tired of austerity and rationing, especially in the face of pictures from America. In terms of development, the betterment levy and other socialist instruments, acted as a great disincentive, and reconstruction was extremely slow. Churchill's Government set out to start development moving. Development value was 'denationalized', (3) and so great was the Government's aversion to planning, that it even tried to eradicate the

actual word. For example, the name was removed from the title of the central Government department that administered the system of land-use control.(4)

1959 'You've Never Had it So Good'

Prosperity increased throughout the 1950s and by 1960, the people of Britain realised that they were then living in an affluent society. They were also living through the greatest property boom ever known in the country's history. In this context, Lord Hailsham considered his commission to the North-East of England (including North Yorkshire, Durham and Northumberland), as a bizarre event.(5) In fact it was a kind of duty to Macmillan's first constituency, Stockton-on-Tees. Hailsham actually discovered chronic unemployment in the North East, as a result of obsolescence of the main traditional industries. He responded by producing a PLAN which concentrated on modernity - modern technology, new science like cryology, scientific research, housing, education, airfields, transport and port facilities.(6) The success of Hailsham's mission is debatable, but he certainly obtained funding for infrastructure developments. Hailsham also believes that he laid the foundations for Regional Policy under Ted Heath and the introduction of the Department of the Environment. In addition, he created the precedent for Heseltine's mission to Merseyside in 1981.(7)

1964 'White Heat of Technology' and 'Scale'

Wilson's Government was deeply committed to national modernisation, and the notion that it was to be achieved through technology, expertise and management by professional technocrats. The economy was buoyant and expanding. Local Authorities were given strong encouragement to take a leading role, which required them to employ even more staff.(8) This principle was given a boost in 1965, when the Economic Planning Council became established. In order to create a National Plan, Britain was divided into ten planning regions, each with its own

regional council. The scope was soon broadened beyond economic issues and a spatial dimension became part of the brief. There were echoes of Attlee's Government in the depth of public sector control. Partnerships were also devised with the private sector, and together they produced huge development schemes using the latest industrialised building techniques.

1970 'Need for Industrial Investment'

While there was a massive expansion in development during the 1960s, there was also great public sector control. National legislation such as the Land Commission Act, coupled with Local Authority Development Plans may have caused some opposition, but it was insignificant to the power exerted by the Labour Government at local and national level. Heath's Government moved the development machine into even higher gear. First, it repealed the Land Commission Act and ensured that land was subject to the free market. Secondly, despite Hailsham's reports of 1963 and Wilson's vision of a technological future, there had been comparatively little investment in Britain's declining industries. To try to arrest this decline, the Tory Government released a huge amount of credit into the economy. However, instead of being directed towards industrial investment, much greater profit was sought by speculation in property development. As prices spiralled upwards, it was clear that the property market was becoming unsustainable, and the inevitable crash occurred late in 1973.(9)

1976 'Mixed Economy'

Callaghan's success, in taking over from Wilson as Prime Minister, was viewed as defeat for the left-wing.(10) He inherited a programme which was more socialist than at any time since the mid-1940s.(11) Nevertheless, the economy was very unstable and the Government's claim to be synthesising the best of the public and private sectors into a mixed economy, seemed unconvincing. The beginnings

of a right-wing backlash to left-wing policies was polarising the factions, with the Labour Government caught in between. This was not helped by opposition to the new two-tier Local Government, which appeared to many people as yet another increase in state bureaucracy. As the conflicts between left and right became more pronounced, it became obvious that a radical change was on the horizon.

1979 'Market Forces' 'Cutting Through Red Tape'

The symbolic attack on the word PLANNING by the Thatcher Government was reminiscent of the 1951 Churchill Government's assault. Perhaps it is not such a coincidence as Thatcher's admiration of Churchill is well known. It is important to point out that the attack was really on bureaucracy, red tape and the inefficiencies of socialist state control.(12) In fact, central planning received quite a boost, through a series of circulars, ministerial pronouncements and legislative measures. Yet, at the same time, the Government could claim that it was reducing planning controls to a minimum by curbing the power of Local Authorities, and thus presenting a radical free market alternative to conventional interventionist policies.(13)

1990 'Steady as She Goes'

There is little evidence that the Major Government has any specific view of planning. In principle, it seems to be continuing with the Thatcherite measures. Despite rumours, Urban Development Corporation activities have not been curtailed. Indeed, in areas of further industrial decline, more Enterprise Zones have been declared and the Development Corporation budgets increased. The attack on Local Authority services continues unabated. Yet, recent local elections have been disastrous for the Conservative Party, indicating that the electorate may be turning against these policies.

HISTORY OF PLANNING

According to *Raymond* in *Burchall and Sternlieb*, widespread physical planning in this country, started as the 'city beautiful' movement.(14) However, it seems that the origins of planning lie in the selling of agricultural produce. The establishment of markets with convenient routes in and out, generated both the imprint of many places, and the beginnings of a spatial system based on streets and squares. Improved health and the benefits of industrialisation, rapidly increased the population during the 19th Century.(15) In response to this huge demand, local people from the public and private sectors offered plans for improvement and expansion. On the whole, the plans reinforced the existing patterns derived from the markets. The proposals were ratified by Acts of Parliament, but local people had a vested interest in ensuring that the results would be both functional and picturesque.

The Town Planning Movement became established on a national basis in the years around the turn of the 20th Century.(16) As *Reade* points out, it embraced many diverse strands - artistic, architectural, philanthropic as well as the social and economic 'attack on the landed classes'.(17) Out of this rather complex power struggle came the Liberal Government's support of a Housing and Town Planning Act in 1909. The Act was largely irrelevant to established city centres, for although it made provisions for Local Authorities to draw-up town planning schemes in their areas, the focus was neat, orderly, economic expansion into the suburbs.(18) This approach was confirmed by the Acts of 1925 and 1932, and by the 1919 legislation which concentrated on housing.(19) Yet the Act of 1932 allowed the inception of a phenomenon which would radically change our towns and cities. During the 1940s, concern had been growing about provision for the motor car. In *Raymond's* terms - from the 'city beautiful' movement, physical planning moved into a 'city

efficient' phase, dominated by the Civil Engineer and his slide-rule.(20) Faced with War damage - the powerful 1947 Town and Country Planning Act and the promise of post-war reform, enabled this phase to become slowly but firmly established.

In the 19th Century, there had almost been a mad rush to create professional institutes.(21) Planning in a national context, did not exist at that time. Nevertheless, the growth of the Town Planning Movement and the first Act of Parliament, led to the inevitable founding of the Town Planning Institute in 1914. According to *Clarke*, the practice of town planning developed further between the Wars, but it was during the Second World War that three important Government reports (from committees chaired by Sir Montague Barlow, Mr Justice Utheratt and Lord Justice Scott) prepared expert opinion for a more comprehensive town planning system.(22) The legislation that followed, introduced a growing army of Local Authority Planners, who slipped-in neatly behind the Engineers. The alliance of Engineers and Planners was sympathetic to the Abercrombie model of post-war rebuilding, ie the radical re-think. Once the mechanism for large scale post-war reconstruction became established, it was the professionals, rather than the communities, who began the clamour for a similar approach to Urban Renewal. As the 'Evangelistic Bureaucrats' (23) gained power and confidence, they progressively introduced their mentors' theories and concepts. Using Compulsory Purchase Powers, Local Authorities bought huge areas of towns and cities for Comprehensive Redevelopment. Among the most significant aspects of the proposals, were the movement separation of pedestrians and vehicles, and the strict zoning of land according to its function. *Raymond* considers the latter to be the signal for the third phase of Planning History - the move from the 'city efficient'

physical planning to broad scale land use arrangements, on the theory that land use patterns determine many other physical and functional characteristics.(24)

In the early 1970s, the new Act was less significant to Planning, than two other events. First, the great plans of the 1960s were dependent on large scale building activity. It has often been remarked that Planning in this country is a negative occupation, ie planners operate as 'urban gatekeepers' with the power to prevent development, but without the ability to make development happen. Therefore, up to 1973, the astonishing increase in demand for new building was well suited to this model of the planners' role, whereas, the collapse of the property market in 1973, left them rather impotent and inactive. The *raison d'etre* for the planning professionals had been that they were working on behalf of the community. In the 1970s, the public outcry at the products of their decisions, was not good for their confidence. Moreover, the conservation movement which sprang up in the wake of development inactivity and opposition to the redevelopment schemes, was popularist in nature. Not only was it not guided by professional planners, they were often not party to it. Indeed, some conservationist groups were openly hostile to the actual concept of professional planning.

In addition to the planners' problems, by the mid-1970s it was clear that inner cities were losing people and jobs at a massive rate.(25) The Government introduced the Inner Urban Areas Act in 1978, as a means of injecting a greatly extended Urban Programme of special aid, to arrest the economic and physical decline in many of Britains cities. During the 1980s, Thatcherite planning policy claimed to be strongly anti-interventionist. Behind the rhetoric it was evident that the non-intervention only applied to Local Authorities. Especially since 1945, the Planning Profession had used Local Authority departments as its

means of expression and employment. In the 1980s, Local Authorities began an unprecedented decline, both numerically and in terms of influence. In accordance with the spirit of the age, some planners privatised themselves and formed consultancies. However, Central Government itself was becoming increasingly interventionist. On the pretext of regenerating worn-out industrial cities, the Local Government and Planning Act 1980, assisted private sector development through the establishment of Enterprise Zones and Urban Development Corporations. As *Turok* points out in *Domison and Middleton*, the objective of solving the problems of the Inner City by establishing a single-minded management with considerable powers and resources at its disposal, seems laudable. Yet, the notion of replacing local democracy in those areas by appointed committees subsidising private companies - is far less convincing.(25) The 1990 Planning Act appears to be a consolidation of the 1971 legislation, dealing primarily with Development Control by Local Authorities. Structure Plans and Local Plans which Local Authorities had been using as the basis for their decisions, became suddenly criticised for unnecessary bureaucracy created by a two-tier system and the emphasis land use planning. The 1990s generation of Unitary Development Plans have certainly avoided those criticisms. Unfortunately, planning guidance for the cities is either missing or wrapped-up in bland, meaningless statements. Of equal, and almost contradictory concern, are the specific proposals for increased road development and suburbanisation in the form of green-belt encroachment. It is an unescapable conclusion that planning on behalf of the community is at an all-time low, while Central Government intervention seems to be the foreseeable future.

ROLES OF PUBLIC AND PRIVATE SECTORS

As *Hearnshaw* points out, at the end of the 18th Century, 'the advent of wheeled vehicles, the increase of traffic, and the growth of large-scale industries, made the interior of the old town hopelessly obstructive and inadequate.' (27)

This observation about Newcastle upon Tyne, was being repeated throughout the country and especially in the new industrial towns of the North. The common councils were generally oligarchic at this time, and in Newcastle much of the power was held by the Clayton dynasty. Great changes in towns were therefore commenced by apparently secretive deals between a very small number of officials and their entrepreneurial private sector friends. These kinds of arrangements had been unsatisfactory when the population was small and the enterprises limited, but from the turn of the 19th Century, the situation became intolerable as the vast influx of new inhabitants doubled and trebled the number of ratepayers. Comprehensive agitation and popular unrest, finally led to the Municipal Reform Act in 1832. In Newcastle, the Act made little difference but in 1835, anachronisms, anomalies and the common council were all swept away by the Municipal Corporations Act.(28)

The irony is that the old corrupt practices actually produced built environments, which have been much admired. It is open to speculation whether Grainger's eagerness to present his extensive scheme for Newcastle in 1834, was because he felt that future powers and procedures of a reformed council, may jeopardise his proposals. From this point, public sector income grew progressively. With legislative support, the new city councils gained considerable power in the latter part of the 19th Century and early 20th Century. As explained in the section about SUCCESSIVE GOVERNMENTS, Local Authorities became pre-eminent after 1945. Even periods of Conservative Government throughout the 1950s, did little to arrest this growth.

From the later 1950s, the media encouraged a new breed of glamorous Local Authority Politician superstars. Among these, were Frank Price of Birmingham, and T Dan Smith of Newcastle upon Tyne. Smith epitomised the spirit of the time. He considered that his city had been going through the architectural dark ages and there were echoes of the 1800s, when he declared that 'rebuilding the old town' (29) had become an urgent matter and development would make good existing deficiencies by creating a new central area redevelopment.(30) Smith notes that decisions about the kind of city centre, were debated in the council chamber, and from the principles established -

'Young architects became excited, and began to produce pictures of what Newcastle could look like. Our first big city plan got the front page story over the Russian astronauts' first space flight. ... the cost of our new city had been estimated at some £200 million One could not ... settle for other than the best in conceiving what was being referred to, as the NEW BRASILIA. This was why, when we turned our attention to city-centre Eldon Square, we aimed for the sky.' (31)

These local politicians also had significant national influence. T Dan Smith for example, was invited to join the steering group for a Government study on the future provisions for motor vehicles in British cities. The report was published in 1963. It was edited by Colin Buchanan and titled Traffic in Towns. In essence the report proposed that Central Government should sanction an extended urban road-building programme, and that traffic rather than buildings should be the focus of Development Plans.(32) This policy, which had been partly shaped by the local politicians themselves, was further encouragement for their grandiose schemes. Of course, the Local Authorities were not able to carry out the schemes. Thus, an alliance became established between the councils, property developers and large construction companies. The local politicians were so keen to see their plans turned into reality, that often they sacrificed high ideals for

development expediency and construction profit. Some of the impatience for action led to short cuts, from which corruption charges followed.

In the 1970s anxieties grew about the government or even the governability of England, as the country began a decade of economic stagnation, which started quite specifically in late 1973.(33) The developers evaporated, leaving the public sector in total control but with no possibility of expressing that control. It was the end of an era of personalities. While the councils had seemingly been dominated by a small number of glamorous individuals, so had the property companies. The era of Cotton, Clore, Hyams and Stern, suddenly passed away and slid from view. From the late 1970s, property development became dominated by wealthy corporations with anonymous managers.(34)

For radicals, 1979 represents a watershed, comparable in importance to 1945.(35) The Thatcher Government set out a policy of 'Rolling Back the State' as one of its main slogans. Its privatisation programme effected major change in the boundaries between the public and private sectors. During the 1980s Britain moved rapidly from having one of the largest nationalised sectors, to having one of the smallest.(36) The attack on Local Authorities, was as much a continuation of the assault on the Labour Party, as on the Authorities themselves. The 1983 Conservative Manifesto contained a specific commitment to abolish the Metropolitan Counties. *Finer in Minogue and Biddiss* believes that the most active councils were perceived by the Thatcher Government as 'ripening hothouses of Labour influence' and decided 'to do away with them'.(37) In the case of the Metropolitan Councils, the interpretation was literal, while the District and the City Councils were obliged to continue providing local services with reduced budgets and under vastly more control from Whitehall. Part of the Tories' objection to the Local Authorities, was the assertion that council's

negative bureaucratic lethargy was hampering economic growth, and that only unshackled private enterprise could lead to economic regeneration.(38) The Thatcher Government considered that the areas most in need of this radical solution were the industrial cities, which also incidentally constituted most of the Labour heartland. As regeneration became the 'buzz-word' of the 1980s, Central Government encouraged the private sector to by-pass Local Government with a number of development measures. Perhaps most significant, were the creation of two new mechanisms. Within Enterprise Zones, the private sector has not only been able to offset 100 per cent of their capital expenditure against tax but they have also been free from the Redevelopment Land Tax and from many planning controls. While Urban Development Corporations were given powers which enabled them to compulsorily purchase both public and private sector land for private development, pay for land reclamation and infrastructure costs out of the public budget and set their own planning controls, almost regardless of Local Authority Policy.(39)

In 1988, the role of the Local Authority seemed to be further usurped by a Confederation of British Industry Task Force, which proclaimed 'Business has a massive stake in the nation's cities'. Business leaders had heard the Prime Minister's remarks immediately following the 1987 General Election, identifying the problems of inner cities as a national priority.(40) Perhaps they foresaw the likelihood of more public sector investment by Central Government to generate even more private sector profit.

In retrospect, it is clear that the private sector enthusiasm for regenerating Britain's cities, occurred at the height of an economic boom. Such enthusiasm has not been so evident since the country moved into recession. Also, as pointed out in the section about SUCCESSIVE GOVERNMENTS, John Major has not pushed planning and development to the fore, as Margaret Thatcher had done.

Nevertheless, the mechanisms set up by Thatcher to undermine the Local Authorities and benefit the private sector are still in operation.

STATUS OF THE NORTH EAST

North Easterners have always been fiercely proud of their region. Newcastle upon Tyne continues to be perceived as the capital of the North East, and as such has been the focus of attention. Up to the end of the 19th Century, the city and the region were controlled by local people. As the 20th Century progressed, critical decisions were increasingly made in London, or even abroad.

In terms of the built environment, Newcastle has never attracted much careful attention from people outside the region. Even in the 18th Century, when the architects, Vangurgh, Hawksmore and Paine were working in Northumberland, the Georgian buildings in the city were designed and built by local men.(41) During the 19th Century, local people continued to develop the city from the profits of industrialisation. The North East has generally felt a long way from London in a number of senses. With a jealous look towards the more prosperous South, Northerners have often considered that they could overcome the legacy of the industrial revolution by 'modernisation', if only they had the money. Development companies have enthusiastically encouraged this view and local councils have tended to embrace alien architecture because they were told it was the modern fashion. Often, the modernisation drive was led by political or professional personalities with another of the region's characteristics - determination. The inhabitants have regularly displayed a measure of stoicism, trustingly accepting what was being done in their name. The appearance of many of the towns and cities in the North East is in great part, due to the determination of key personalities and lifelong loyalty to political leadership, particularly prevalent in Labour Party

circles.(42) There was almost a flavour of the Italian city states, in T Dan Smith's philosophy -

'So in Newcastle, I wanted to see the creation of a 20th Century equivalent of Dobson's masterpiece, and its integration into the historic framework of the city. If this could be achieved, I felt, then our regional capital would become the outstanding provincial city in the country.'(43)

Smith responded to the perceived neglect from London, by further overtones of internationalisation. It seems that he was trying to balance local pride, modernisation and the recognition of Newcastle on the international scene. The international aspect is witnessed by Smith's references to 'A New Brasilia' and 'Venice of the North' as well as his desire to bring le Corbusier and Arne Jacobsen into the city.(44)

This kind of ambition became diluted through the 1960s, and had vanished altogether by the mid 1970s. From 1980, economic recession closely followed by decline in the local public sector, greatly affected the North East. The Region had been a traditional supporter and beneficiary of public sector activity. The lack of a local history in large scale private sector business resulted in a slow response to the Thatcher revolution. Also, local people were sceptical about the real benefits of deregulation and rampant privatisation. The Region has a low density of population. Northumberland for example, is often quoted as England's least populated county in terms of its size. Newcastle has a large catchment area, but cannot enjoy the level of demand resulting from more densely populated conurbations such as those in Lancashire, Yorkshire, West Midlands or London. Nevertheless, there was more evidence of prosperity in the Region, during the late 1980s, although admittedly growth was slow when compared with the South of England. The advantage of a slower response was that the economic crash in the South, produced a more gradual decline in the North East.

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2. MORPHOLOGICAL DEVELOPMENT OF THE CITY

The first objective of this section is to record the evolution of Newcastle upon Tyne, from the earliest available plans over a period of about 300 years. This period commences in the early 17th Century and lasts until the early 20th Century. The second objective, is to follow the morphological development of the city, by analysing the proposals of mid 20th Century comprehensive Development Plans.

SURVEYS OF THE TOWN

The earliest known pictorial representation of the town is the 1590 Cotton Manuscript which is now in the British Museum. However, the first actual survey is the 1610 plan by Speed. (See Figure 6) It was clearly a rudimentary piece of measurement, although the drawing displays great charm. The part-plan, part-three dimensional quality, appears to make the lines lift from the paper. There is a quaint scale, which shows the unit of measurement to be 50 paces. The pictorial style is a useful attribute, as it enables the outline form of the buildings to be illustrated. Two types of form can be clearly seen. The first type comprises small, continuous rows of buildings of quite regular shape, which line the streets. The second type appears as larger, individual buildings. The second category includes the Nunnery (Anderson Place), Blackfriars, the Cathedral Church of St Nicholas and other churches such as All Hallows, St John's and St Andrew's. This arrangement conforms well, to the model of FOCAL and BACKGROUND BUILDINGS. The markets were fundamental to the town at this time, but it is only the White Cross that stands out as a CENTRAL PLACE. The Town Wall is shown in some detail as a strong element on the drawing. The shape of the Town within the wall, seems arbitrary and must have been related to land ownership as there is no relationship with spatial form. The notional entry and exit points are Closegate, Westgate, Newgate, Pilgrimgate, Sandgate and

the Tyne Bridge. However, it is interesting to note that only four of these, actually lead anywhere. The North-South route had already become well established. Entry to the town from the South, was via an embryonic Gateshead, over the Tyne Bridge, through some twists and turns which enabled ascent onto the plateau. Once the necessary height had been gained, Pilgrim Street was a direct route to the gate at the Northerly end, and beyond to what is now known as Northumberland Street. The 'A' configuration, which is still an important aspect of the city plan, is surprisingly evident on *Speed's* drawing, albeit rather distorted. The two legs of the 'A' are Northumberland Street and Percy Street. The latter can be seen on the 1610 plan, emerging from Newgate. This gate was obviously linked to Pilgrimage by the town wall, but also by a lineal space which forms the tie of the 'A' and is now known as Blackett Street. Another street leads out of Newgate, in a North Westerly direction. It was called Galligate, before becoming Gallowgate. The fourth 'useful gate' opens onto a street which heads in a Westerly direction. Not surprisingly, this was called Westgate Street.

Corbridge's Survey of 1723 (see Figure 7), is in distinct plan form, but the principal buildings are still illustrated. It is a considerably more accurate piece of work and some of the familiar shapes of the town are apparent. It is interesting that *Corbridge* shows little to the North and West. His focus is on the walled town and developments to the East. The disadvantage of the plan drawing is that it does not show the dramatic change in level between the river and the plateau. However, there are some good indications. To the West of Sandhill, there are three chares - a local word for alleyway or narrow lane. Each contains a vast number of steps. From Sandhill itself, the Side and Pilgrim Street make a 'Y' formation, in order to reduce the gradient. The chares produced a characteristic form in the Quayside area,

allowing goods transported by ships to be stored in warehouses beyond the narrow Quayside frontages. Patterns created by the chares can be seen on the Plan, in contemporary developments outside the town wall, and on the river edge to the East of Sandgate. The significance of the markets is demonstrated on *Corbridge's* survey. As well as the White Cross, there is the Cale Cross at the junction of Pilgrim Street and the Side. In addition, the Fish Market, Mason's Due and Herb Market are located at the Sandhill, the Wheat Market and the Butcher Bank towards the lower end of Pilgrim Street and the Weeli, Bigg, Groat, Iron, Poultry, Butter and Flesh Markets are shown close together - in what is now known as the Bigg Market area.

In 1746, *Isaac Thompson* took a much broader view. (See Figure 8) The Leazes and Town Moor can be seen to the North, Pandon Dean to the East and the Forth to the West. The Town Wall is still in evidence but seems to occupy a less significant role. Within the town, there are additional streets and buildings, but the essential patterns remain unaltered. *Bourne* produced a plan in 1736, but *Hutton's* survey of 1770 is the last to illustrate ships on the river. (See Figure 9) Perhaps this is indicative of a slight wane in the dominance of shipping for the transportation of people and goods, as the streets became more established. Certainly, streets, buildings and formal gardens have become very distinct - especially within the old town. It is noticeable that the Town Wall has been removed along the river edge. In 1802 and 1803, *Bielby* and *Cole* made drawings of the town. (See Figure 10) Little appeared to have changed, although some significant streets had been created. Possibly, the most important of these was Dean Street. Communication from the Quayside to the upper town had become inadequate for the developing transportation needs, and Dean Street provided the first direct link. This represented the early stages of the essential morphological change in

Newcastle's history. Known locally as the 'Northward Drift', it was the gradual but determined movement of focal activity, away from the Quayside in a Northerly direction. Dean Street terminated at the new Mosley Street, which was formed between Pilgrim Street and the old Flesh Market (now known as Cloth Market). A new purpose-built Flesh Market had been created between the old Flesh Market, Mosley Street, Pilgrim Street and High Bridge.

In 1824, *Thomas Oliver* produced his first survey. Arguably Newcastle's greatest surveyor, his later masterpiece of 1830 was updated in 1838, 1844, 1849, 1851 and 1857. *Oliver's* work will be used in this thesis, to demonstrate the changes in the Grey Street Study Area during the early 19th Century. His surveys have also often been used to chart the progress of railways in the town. Another early 19th Century survey was offered by *Wood* in 1827, but by 1842, the plan from the book by *Collard and Ross* shows the substantial developments from that period of the town's evolution. (See Figure 11) The most significant of these, was of course, Grainger's 1834 Central Area Development. Grey Street was the principal new thorough-fare in this scheme, and can be seen as a continuation of Dean Street, to the other side of Mosley Street. The development was bounded on the Northern side by Blackett Street which contained Newcastle's only 19th Century planned space - Eldon Square. Blackett Street had already been extended Eastwards, to form New Bridge Street and Ridley Villas. Immediately to the North of New Bridge Street, a small group of streets and buildings was springing up around Picton Place. Further North East, part of the Shield Field had been built upon, with rows of terraced houses. South of Ridley Villas, the new area of 'Gibson Town', can be seen growing around its focus - the triangular Victorian Bazaar. A proposal is shown on the plan for a direct Westerly route from Blackett Street. Although never constructed, this proposal adds to the

strong East-West line, centred on Eldon Square. To the North West of Percy Street, St Thomas' is shown in a tentative and rather inaccurate manner. More specific, is the magnificent Leazes Terrace which can be seen projecting out into the Castle Leazes. In the West End of the town, terraces of houses have been developed to both sides of Westgate Hill. The drawing by *Collard and Ross* is a clear block plan, containing much valuable information about the early 19th Century improvements, although in detail, it cannot match *Oliver's* series. His last survey in 1857, represents the end of an era. The Ordnance Survey had been founded and produced their version of Newcastle upon Tyne, only a year after *Oliver's* final edition. This may be seen as a relatively insignificant development in cartography. Yet, somehow it is indicative of fundamental changes that were occurring. The great individual local characters who had taken Newcastle upon Tyne from an agricultural centre to a major industrial city, were having to give way to local government procedures, state control and business decisions which were being made from far away. As is often the case, improvements in transportation, produced further threats to the individuality and autonomy of the city. *Oliver's* 1857 plan (see Figure 12) shows the dominating form of the Central Railway Station, linking together lines from North, South, East and West, which had previously terminated at separate stations on the fringes of the city. In a way, this survey represents the city, grown to maturity. The following era, which lasted for about one hundred years, was one in which there was substantial growth. Yet, the patterns had been established and would remain largely unaffected by subsequent developments until the advent of the mid 20th Century Comprehensive Development Plans.

The concluding series of 19th Century surveys, was produced by *Andrew Reid and Company*, and editions were published in 1878, 1885, 1889 and 1899. In fact, the

company continued well into the 20th Century, but by that time its surveys had degenerated into little more than crude street plans of the town, whereas, the 1878 plan is much in the style of *Oliver* himself. The city centre seems little altered on this Plan, but there has been considerable development in the suburbs and in Gateshead. To the North, Jesmond is beginning to emerge as an important residential area. The Town Moor and Castle Leazes, have managed to maintain their integrity as open spaces next to the city centre. Part of Castle Leazes, has been landscaped as a public park, with a band stand, croquet and bowls green, and a lake with its own island. Further development has taken place in the West End. In particular, the gridiron plan of rows of terraced houses, can be seen making their way across Arthur's Hill. Before the end of the century, another new suburb had grown-up at Spital Tongues. Yet, in truth, differences between *Reid's* plans of 1878, 1885 and 1899 are difficult to decipher. (See Figures 13, 14, 15)

In 1909, *Andrew Reid and Company* published a plan which was superimposed on *Oliver's* 1830 survey drawing, in order to compare the changes that had occurred in the town. (See Figure 16) New streets of houses now encircle the city. In the centre, there has been a number of street extensions and re-alignments, but two developments dominate all others. The first is *Grainger's* 1834 Central Area Development. This scheme has created a proliferation of buildings and a network of streets like no other in Newcastle's history. The second is the railway. Lines cross the river on *Stephenson's* High Level Bridge and circle round to the King Edward VII Railway Bridge. Trains plough across the old town, over the historic side and through the castle, narrowly missing the keep. The Central Railway Station appears as the largest building in the city. It is even bigger than the Grainger Market and certainly dwarfs the cathedral church of St Nicholas. Sections of the Town Wall had been obliterated because

they stood in the way of progress. Railway was king and did not need to compromise. These developments also unleashed the power of the engineer, whose ruthless logic would be turned towards provision for the next phase of mass transportation - the motor vehicle.

THE DEVELOPMENT PLANS

In 1945, City Engineer *Percy Parr* issued his plan for 'Reconstruction and City Planning in Newcastle upon Tyne'. (See Figure 17) The Ordnance Survey base plan, on which it was overlaid, illustrated the familiar form of the town. The Royal Victoria Infirmary had become established and the buildings around Armstrong College were showing signs of an embryonic University. Perhaps the railway was taking up more space, but essentially the evolution had continued without any more dramatic changes. However, there was one significant difference. A new Tyne Bridge had been constructed in 1928. Until this time, all motor vehicles needing to cross the river were obliged to descend either Dean Street or Pilgrim Street on the North bank, or alternatively Bottle Bank on the South side of the river, and cross over the Swing Bridge. The steepness of these routes, on both sides of the river, produced considerable difficulties for motor vehicles, especially in bad weather. An additional hold-up was created by the bridge itself, which opened periodically to allow vessels to pass along the Tyne. The new bridge was therefore seen as a great improvement and another triumph for engineering. By keeping the vehicles at an elevated level, it enabled direct passage from Gateshead onto the plateau of Newcastle city. Yet, there was an unfortunate by-product. Mercantile activity on the river had been in the early stages of terminal decline. A movement pattern which took vehicles, and more importantly their occupants, above and away from the Quayside - hastened its decline

and dereliction. Happily, Newcastle upon Tyne suffered extremely little damage during the Second World War, and so its predominantly 19th Century centre was essentially intact.

The basis of *Parr's Plan* is difficult to discern, as it seems to be unrelated to any existing patterns. The term reconstruction, also seems misplaced, as there is no indication about the form which the buildings would take. The Plan appears to be nothing other than a plethora of new, extended, enlarged and re-aligned roads. The layout seems to be generated by a proposed inner ring route, with roundabouts at almost every intersection. The ring commences at the Tyne Bridge with a large roundabout linking Pilgrim Street, Carliol Square and City Road. It then follows close to the railway, crossing over New Bridge Street, St Mary's Place, Jesmond Road, the Great North Road, Claremont Road and Richardson Road, before forming a double roundabout with Percy Street, Blakett Street and Gallowgate. Taking a line adjacent to Newgate Street, the ring meets Clayton Street and an extension to Market Street at another roundabout, from which it occupies a widened version of the Bigg Market to yet another roundabout at St Nicholas' Cathedral and back along Mosley Street to the end of the Tyne Bridge. Each of the streets and roads noted above, seems to be in dual-carriageway form. There is some re-alignment of streets outside the ring, although there are no proposals for the area between the Railway/City Road and the River. Within the ring, there are a number of new streets, mainly running North-South. At the Northern end of the city, a group of roads, vaguely following the line of the ring road, seems to cut arbitrarily across the existing street pattern. Towards the centre, are two large interlocking areas which could be proposed new squares. Apart from the emphasis on apparently large-scale new roads and lack of information about the intended buildings, this plan has at least two other aspects of potential concern. First, it

is totally unclear as to what would become of the existing streets. Some new roads appear to link with the existing, whereas others cut across them in a way which would seem to negate any opportunity for coexistence. Yet, it is impossible to ascertain which streets are intended to be retained. The suggested line of new streets and the enlargement of existing ones, were perhaps made on the assumption that Newcastle might have been destroyed during the Second World War. Otherwise, it is hard to imagine how a serious proposal could cut off the corner of the Grainger Market, slice through the building frontages in the Bigg Market, plough through the houses in St Thomas', affect almost every building around the Earl Grey Monument - or perpetrate any of the other apparently senseless examples of damage and demolition to Newcastle's city centre buildings. The inner ring route is understandable, even if its desirability is open to question - whereas the rest of the plan lacks all comprehension.

The 1953 Development Plan seems eminently more sensible. (See Figure 18) There are comparatively few major traffic routes, and most of those are based on existing streets. A main East-West route can be seen following the line of Barrack Road, Gallowgate, Blackett Street and New Bridge Street. A route North, is along Percy Street and the Great North Road. However, some aspects of the Parr Plan are retained. Part of the inner ring is clearly visible. Starting at the Central Station, it follows the railway, past junctions at the approaches to the High Level Bridge and Tyne Bridge and meets City Road, New Bridge Street, Jesmond Road and the Great North Road, before heading North West through Exhibition Park. A second new road links a new bridge (Redheugh Bridge) to the end of the inner ring, next to the Central Station. This new road then joins Westgate Road and Gallowgate in a kind of 'West Central Route'. In this way, the concept of traffic routes circulating around the city, is maintained. The other main feature of this Development Plan, is the

introduction of land zoning by function. Initially, it seems encouraging that the zones are relatively small in area, and appear to have a patchwork quality. However, closer inspection reveals more disturbing aspects which still affect the city today. First, with the exception of St Thomas' and Leazes Terrace & Crescent, all housing is pushed to the periphery of the city - mainly in existing 19th Century terraces. Secondly, the central area - from the Haymarket to Blckett Street and the vast majority of *Grainger's* scheme is zoned primarily for shopping. Thirdly, the East central area, Southwards to the river (including the Historical Core and Quayside) is labelled for business purposes, ie office and wholesale. The remaining river frontage is intended for industrial use and railway purposes. Other parts of the city appear as blocks of civic, cultural and institutional use. Unlike Parr's Plan, at least there was some consideration for the built fabric and how the city might function. Nevertheless, this Development Plan was a positive move away from the organic heterogeneous city, towards a policy of mechanical segregation of people as well as uses. In addition, it created a situation in which whole areas of the city became vulnerable, run-down and ripe for large scale redevelopment. By allocating single use functions, the Planners were proscribing applications for any other function. Thus, demand was limited and occupancy rates plummeted in many parts of the city. It also encouraged suburbanisation and a general movement away to less restricted places.

The 1953 Development Plan, in fact, did not encourage development at all. Even the proposals for new roads were not constructed. By the early 1960s, schemes were being drafted for a kind of revitalised version of Parr's inner ring road. Although not on the scale of the 1945 demolition scheme, intended major changes are evident from the sketches. It is possible to see how Ellison Place would be truncated, the way Jesmond Road was to be

dislocated and the first tentative steps towards the creation of John Dobson Street- all included amongst a number of radical alterations to the city centre. Land use and new road proposals were synthesised from all these post-Second World War schemes, and formalised into a Redevelopment Policy Map in 1962. (See Figure 19) This notional drawing was the basis for the 1963 Development Plan Review. The abstract nature of the presentation, is disturbing in itself - because at least the Parr Plan showed how the city fabric would be affected. Moreover, the key reveals that a significant number of the new roads shown around, through and under the city were, in reality, to be motorways.

As far as land use zoning is concerned, it is difficult to agree with the 1960s Planners that they were adopting a new and radical approach. The zones proposed on the 1962 Redevelopment Policy Map are in fact, crude versions of those shown on the 1953 Development Plan. For example, housing is pushed to the periphery - beyond the motorway system to the North, East and West. The central area is zoned for shopping and the East Central area southwards to the river is labelled as office accommodation. Industrial and warehouse zones occupy the remaining river frontage and the Western boundary. To the North, the Institutions of University, College and Hospital, can be found. These intentions were clearly derived from the earlier plan.

The intended motorway system may have appeared over-ambitious on the 1962-63 scheme. However, by 1966, it had become even more extensive. (See Figure 20) There is the Central Motorway East, which follows the line of the former inner ring proposal, from the Tyne Bridge to the Great North Road, before heading North West along a Claremont Road Motorway. The Central Motorway West, crosses the river on a new Redheugh Bridge, cuts through the West End of the city before submerging Percy Street and the Haymarket, and passing out of the city along the

Great North Road. In addition, there is a Coast Road Motorway and an underground East-West link, but perhaps most surprising is the inclusion of a Central Motorway East By-Pass, which was to cross over the river on a new structure to the East of the Tyne Bridge. Amongst all this provision for motor vehicles, the question of pedestrian access must have been raised. A slightly more sophisticated version of the motorway plan hints at streets and buildings, under and over the new concrete megaliths. This is confirmed by a 1966 Pedestrian Level Plan (see figure 21), which completely divorces pedestrian activity from the street, road and motorway arrangement. Pedestrians were to arrive in the city centre from multi-storey bus stations and car parks and move around on bridges and elevated decks while traffic below, sped along its channels. It was a machine-age image of mechanised efficiency which paid little attention to the psyche of human beings or the realities of urban development. In looking at the Parr Plan and its successors, the traditional patterns of the city are not easy to identify. The twin threats of motorway madness and zoning by function, could have completely destroyed the gradual evolution of a fine city.

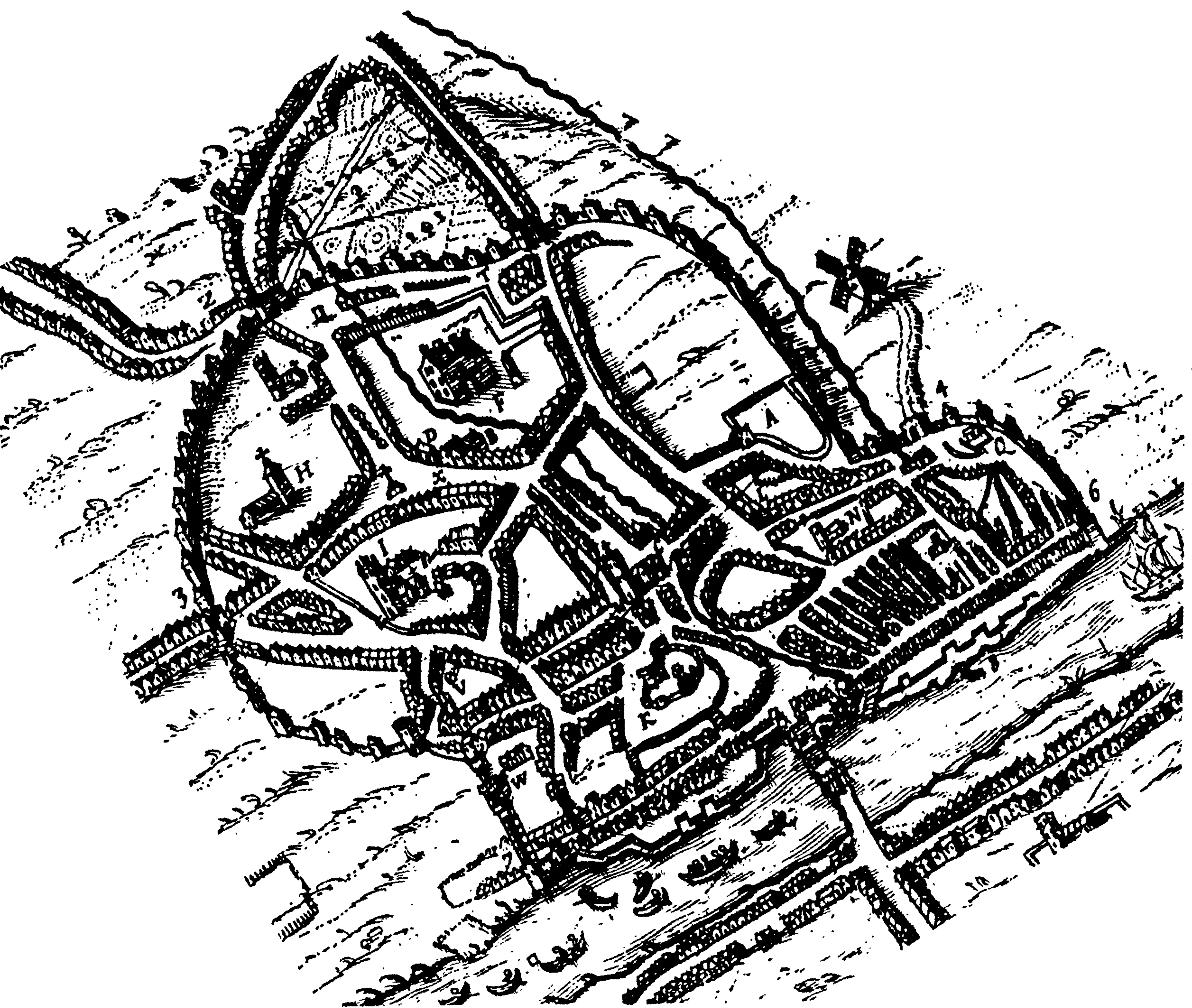


Figure 6: SPEED'S SURVEY OF NEWCASTLE UPON TYNE 1610
scale approx. 1:10000



Figure 7: CORBRIDGE'S SURVEY OF NEWCASTLE UPON TYNE 1723
on 1984 OS Plan Scale 1:10000

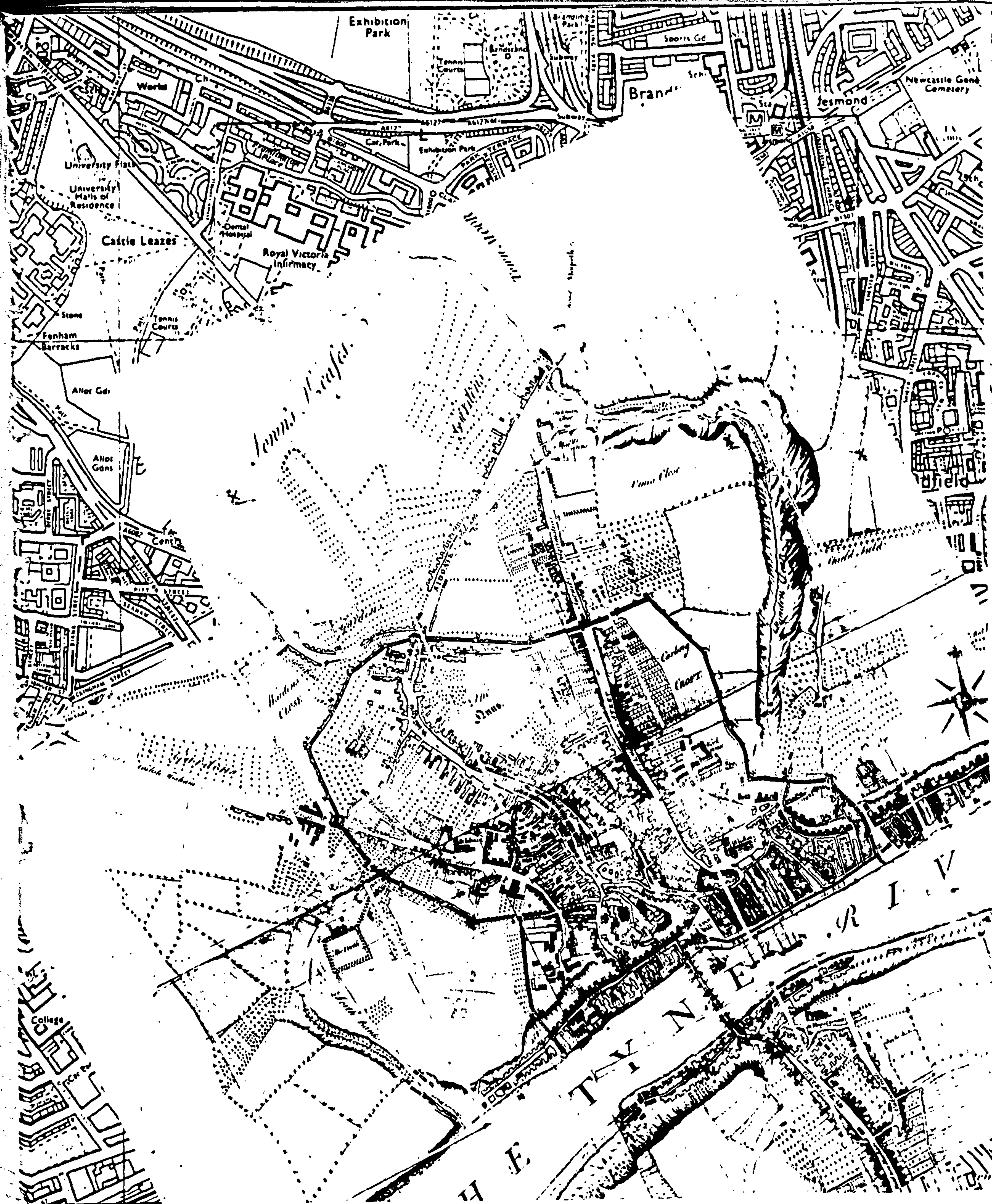


Figure 8 : THOMPSON'S SURVEY OF NEWCASTLE UPON TYNE 1746
on 1984 OS Plan Scale 1:10000



Figure 9: HUTTON'S SURVEY OF NEWCASTLE UPON TYNE 1770
on 1984 OS Plan Scale 1:10000



Figure 10 : COLE'S SURVEY OF NEWCASTLE UPON TYNE 1803
on 1984 OS Plan Scale 1:10000

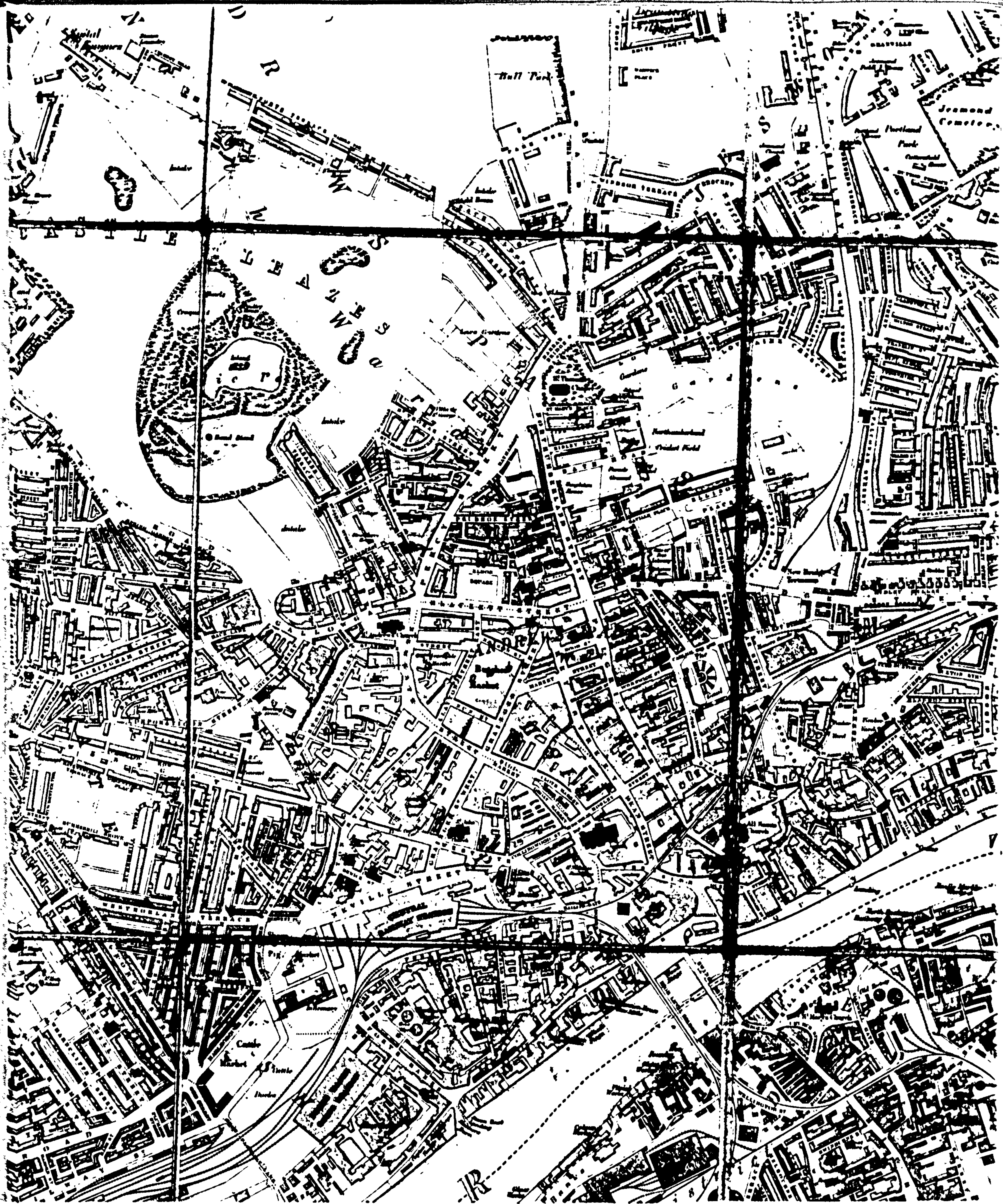


Figure 13: REID'S SURVEY OF NEWCASTLE UPON TYNE 1878
Scale 1:10000



Figure 14: REID'S SURVEY OF NEWCASTLE UPON TYNE 1885
Scale 1:10000

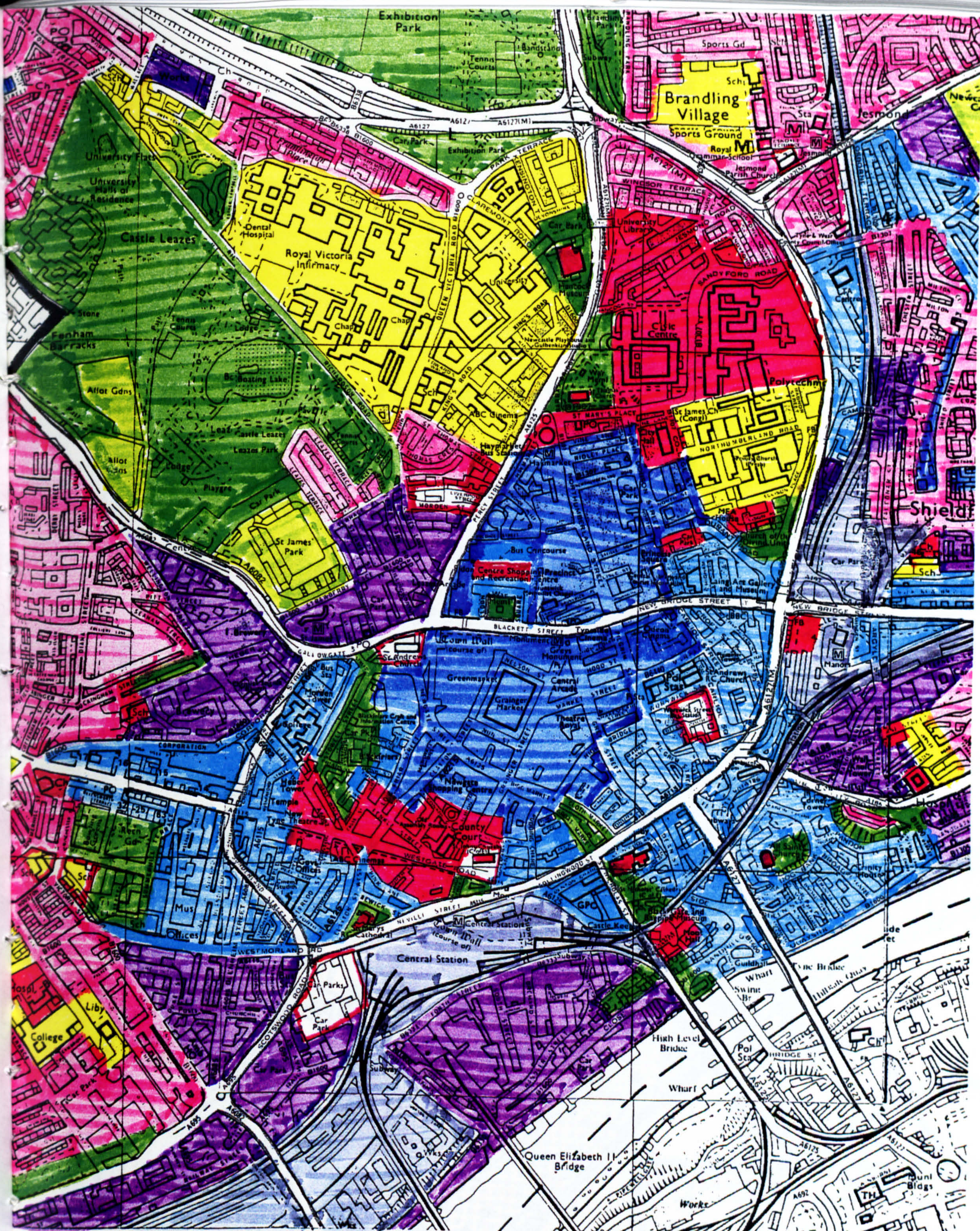


Figure 15: REID'S SURVEY OF NEWCASTLE UPON TYNE 1899

Scale 1:10000



Figure 17 : PARR DEVELOPMENT PLAN FOR NEWCASTLE UPON TYNE 1945
on 1984 OS Plan Scale 1:10000



original in Colour

Figure 18: DEVELOPMENT PLAN FOR NEWCASTLE UPON TYNE 1953
on 1984 OS Plan Scale 1:10000

Key

- | | |
|---|---|
| Retail | Car Parking |
| Commercial | Educational / Medical |
| Residential | Railway |
| Industrial | Public Open Space |
| Cultural | Non-Public Open Space |

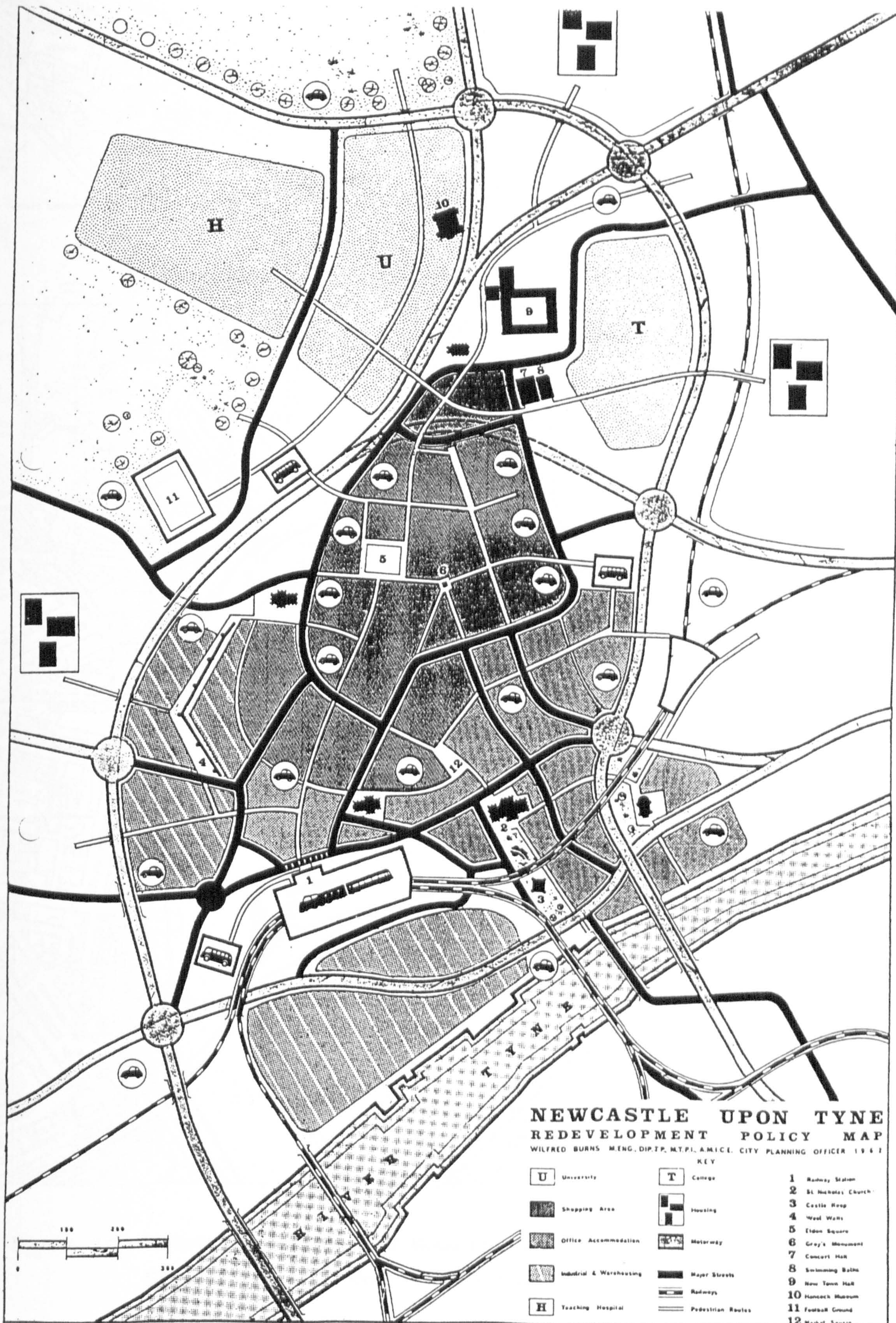


Figure 19 : REDEVELOPMENT POLICY MAP FOR NEWCASTLE UPON TYNE 1962
Scale 1:10000

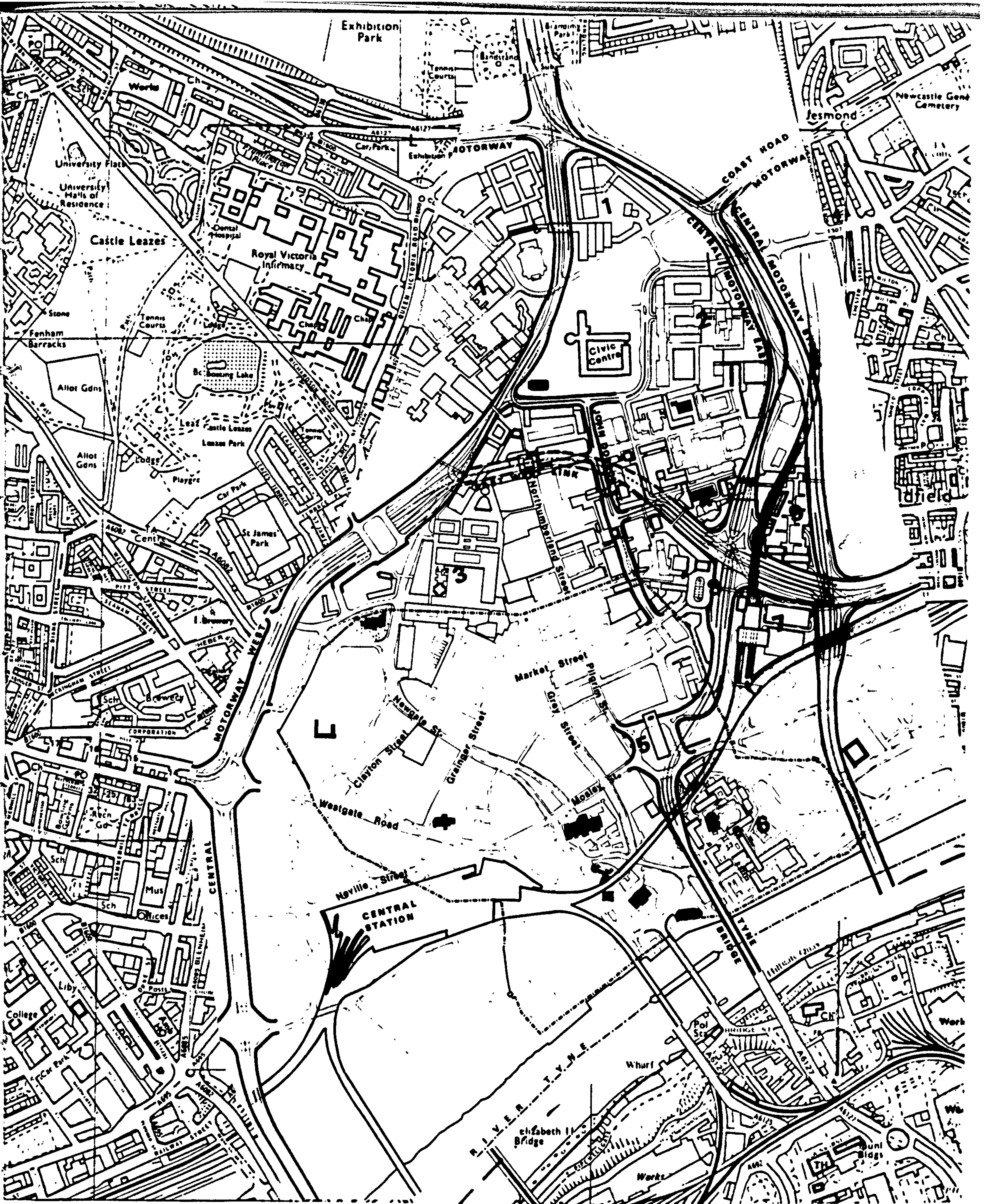


Figure 20 : MOTORWAY DEVELOPMENT PLAN FOR NEWCASTLE UPON TYNE 1966
Scale 1:10000 on 1984 OS Plan

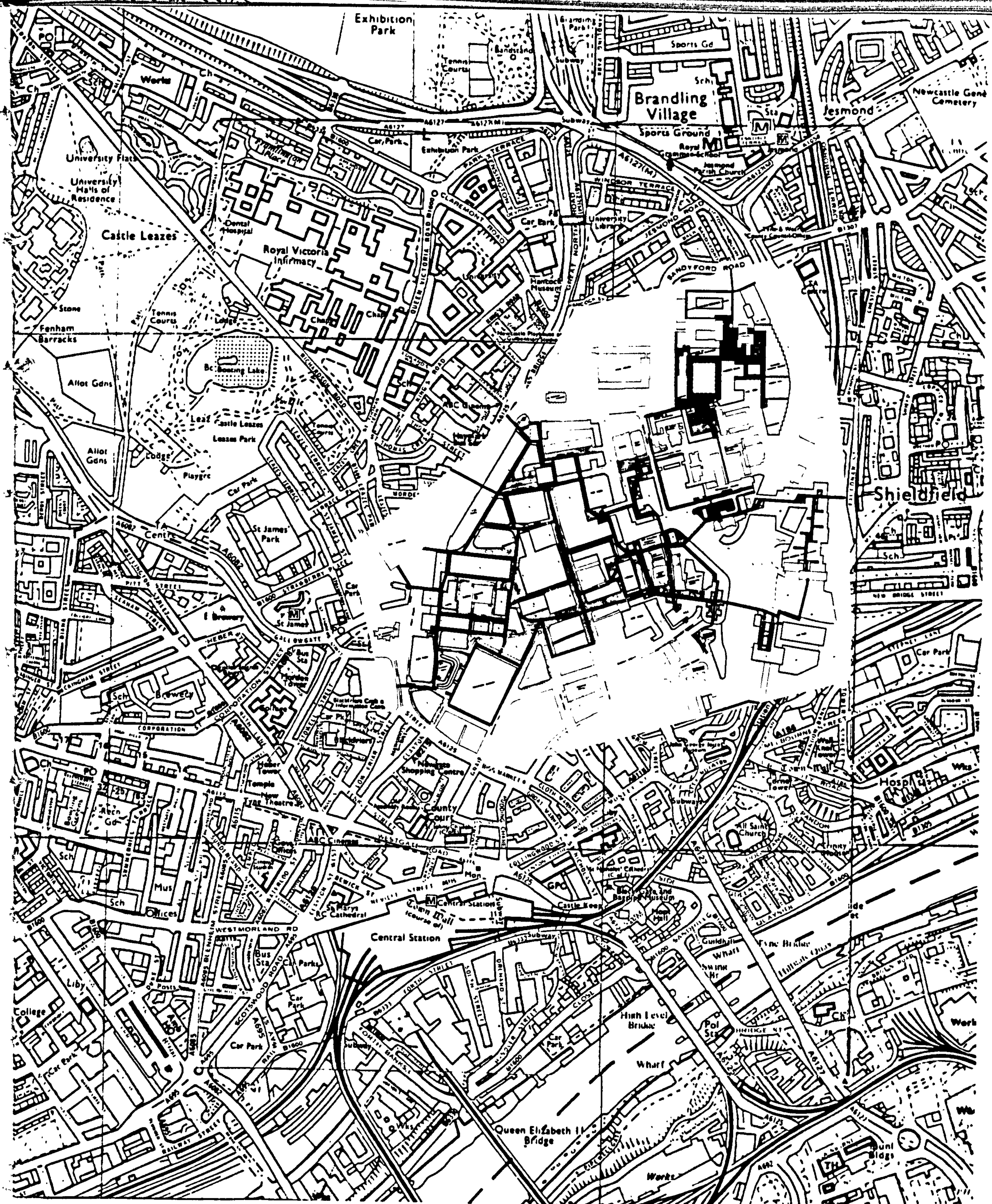


Figure 21 : PEDESTRIAN LEVEL PLAN FOR NEWCASTLE UPON TYNE 1966

Scale 1:10000 on 1984 OS Plan

3. BURNS AND AFTER (1960-1990)

The notion that the history of a city and its development has a starting point and finishing point is clearly difficult to sustain. Planning is part of a continuous process and it has already been shown that the formal plans for Newcastle upon Tyne have a hereditary quality about them. As Cyril Winskell explained to Dick Godfrey (1) 'it's almost like an Old Testament line of descent', the way in which 'the proposals for the city overlay each other'. Nevertheless, the period from 1960 to 1990 saw the most dramatic changes to Newcastle's urban fabric in the city's history, and thus demands particular attention.

Wilfred Burns (1923-1984) came to Newcastle in 1960 as the first Planning Officer for the city. Within six months of the formation of the new City Planning Department, his team had produced a document entitled 'Central Redevelopment, First Report'. This was essentially a scene-setting document for a series of redevelopment proposals and the forerunner of recommendations regarding several Comprehensive Redevelopment Areas. At that time, there was no statutory framework for a document of this nature. It was, however, a clear statement of general intentions (rather than specific proposals) backed by a strong political commitment.(2) *Burns* had been a Civil Engineer by training, before qualifying as a Town Planner and working on the comprehensive redevelopment of war-torn Coventry. As previously noted, post War planning in Newcastle had been in the hands of City Engineer *Percy Parr*, whose 1945 Plan was based on complete rebuilding, with emphasis on a new network of roads. This was followed by the 1953 Development Plan, but by the time of *Burns*' appointment '... in the central Area, few of the proposals have been achieved...'.(3) In the 1960's, the Local Authority had a single-minded determination to turn plans into reality. With almost evangelical zeal, the 1961 Plan states 'the process of redevelopment will be one

almost of central area *revolution rather than evolution*'(4) - and so it was. The three main intentions behind this plan were -

1. Redevelopment of areas of decayed 19th Century buildings
2. Radical solutions to increasing traffic problems
3. Expansion

The Department's first major work was the Development Plan Review 1963 which claimed to be based on -

1. Making the city as efficient as possible
2. Providing for the widest range of social, recreational and cultural amenities
3. Providing the greatest variety possible, whether it be in environmental provision or in any aspect of city life.
4. Further development of the city's personality by preserving where possible the good, eliminating the bad and constantly being aware in new development, of the need to extend the city's character.

These seem an unlikely collection of statements and much less convincing as to the real purpose than -

'The two main changes which *completely alter* the basic concept of the 1953 Development Plan are -

1. Growth of traffic
2. Prosperity of the nation - the need for and possibilities of redevelopment and environmental improvement which were not contemplated in earlier days.'

The Development Plan Review went on to spell out the elements which we now recognise as the essential ingredients of 1960s Comprehensive Redevelopment. It stated that as a majority of buildings in the city centre were built in the 19th Century, many of them were in a state where redevelopment had become a matter of considerable urgency. It noted that mixed uses occurred in many areas and that they actually accentuated blight.

This was a clear reference to the perceived wisdom that 'zoning in planning' was essential. The separation of pedestrians from vehicles became a basic principle in all major redevelopment schemes and the basis of the plan for the centre of the city. It is small comfort to reflect that 'the central motorway system would not need to have roads of more than three lanes in width in each direction'.(5)

Burns synthesised his previous experience in Coventry, his growing knowledge of Newcastle and the various post-war plans into arguably the most complete planning thesis every seen in this city when he published *Newcastle: A Study in Replanning at Newcastle upon Tyne*, in 1967. Extracts from the Intent are worth quoting as they truly represent the spirit of the age -

'In Newcastle ... a vigorous and successful programme of renovation and rebuilding is under way. An awesomely ambitious scheme, it will remould the entire centre of the city into a unique blend of the best of the older buildings and of the many stylishly modern structures now rising alongside them.

This book is a discussion of the basic plan and a report on its present progress. It will be of great interest to town-planners and architects the world over; for many of the problems faced and already overcome are of a universal nature.'

Unshakeable confidence in Comprehensive Redevelopment, the planning process, the significant role of the Local Authority in managing the built environment, and that success would be the inevitable result - are evident throughout. The whole tone is based on a comprehensive scale to provide a 'modern environment for modern man'. Unlike *Parr*, *Burns* did recognise that some existing buildings may have some value. He called it - 'keeping the best of the old'. However, this was a long way from what has become known as conservation. With the exception of the 1834 commercial centre based around Grey Street,

only a few isolated buildings were considered worth keeping. They tended to be already listed and often looked lost among the large scale development proposals. As Prince Charles would put it 'pathetic refugees'.

With 'the ball rolling'(6) as *Burns* described the situation in Newcastle, he left in 1968 to become Chief Planning Officer at the Department of the Environment.

Planning Progress and Policy 1973 came out of the next era, with *Kenneth Galley* as City Planning Officer. It is slightly defensive in nature - as if trying to convince the community that everything was under control and on track. This flavour is epitomised by the following quotation -

'The purpose of the massive upheaval at the centre of Newcastle is to restore the dignity of its existing character, to slough off the dereliction, and to build it up in its role as the regional centre The aim in short is to make the city centre attractive and prosperous, efficient to work in, and convenient to use. Both the enjoyment and the efficiency will depend upon well-organised traffic, with leisurely spaces for pedestrians, easy access for service vehicles and an efficient public transport system.'(7)

The Policy was actually unchanged from that established by *Burns*. (See Figure 22)

1973 represented a watershed, not only for the history of Newcastle, nor even just that of planning, but for the whole psyche of the nation. Late 1973 became a time of frenzied national and international political activity. Out of all the turmoil, it is suggested here, that two events directly affected the development of Newcastle upon Tyne in the most fundamental way. The first was the three-day week. This struck deeply into the minds and souls of the people in this country. It was as if the whole way of life of Western society was being threatened. People had taken most of the post-war reconstruction of their lives on trust. There was a general belief that the politicians and officials knew best. This view had

lingered on from the War years, and the euphoria of the 1960s seemed to be an expression that everything was turning out alright. Although individuals and small groups were already questioning what was happening in this country, the shock of 1973 turned it into a national pastime. The second event was the property market crash. During the 1960s, public sector/private sector partnerships in development had come into vogue. With the backing of *T Dan Smith, Burns* introduced this arrangement into Newcastle. When the crash came, not only were large development schemes abandoned like the major phases of the All Saints Office Complex or cancelled as in the case of the Haymarket Redevelopment, but the fortunes of the planners and politicians were inextricably linked with their demise. The ambition evaporated almost overnight.

Looking back, there is almost a sense of naivety that pervades planning in the 1960s - or at least a gross underestimation of how deeply the changes would be felt. The disruption to the city affected people greatly. They became disorientated as the place began to lose its familiarity. Perhaps even more apparent was the reality that the Plan had been flawed in an operational sense. Because the Plan was not organic nor incremental in nature, its only chance of success was based on completion. Once the work had commenced, abandonment before completion would result in 'neither nowt nor owt'. As we have seen the public sector/private sector partnership mechanism required a steady expansion in the economy. It became almost like a race to complete the schemes - a race which Newcastle lost. The Planners had been in an exalted position - in all the balances of power, whether it was private/public, local/central government or officer/member - Local Authority officers were riding on the crest of a wave of new professionalism. The Planners were at the forefront of this movement - with their emphasis on logic and efficiency, reliance on new technology and their obsession with the motor car - as the

fundamental bases of planning decisions. The events of 1973 produced a series of crushing blows to their status and confidence, perhaps only matched by the speed with which they fell from grace.

Comprehensive Redevelopment did come late to Newcastle because there was little need for rebuilding as a result of War damage. In hindsight, especially when viewed in relation to the events of 1973, it is easy to observe that the Plan was outdated before it started. Unfortunately for them, the Planners were unaware at the time, that the crash would have such profound consequences and that the link with the disillusionment of the people would be so deep. In a sense, the Burns' Plan was both deterministic and reactive. It was deterministic in the drive for efficiency, logic, modernism, zoning, separation of pedestrians from vehicles - and all the other attributes of Comprehensive Redevelopment. Yet, it was also reactive - not to the people - but in terms of its lineage. There was a clear reaction to the 1953 Development Plan and its resulting inability to fundamentally 'remould the entire centre of the city'.

City Centre Local Plan 1985

The sequence of the process was as follows -

Public Participation Questionnaire	1976
Report of Findings	August 1977
Choices for the Future: Public Response	July 1979
Draft Proposals	May 1981
Proposals on Deposit	April 1983
Public Local Inquiry	November 1983
Modifications	November 1984
City Centre Local Plan	July 1985
(See Figure 23)	

In 1976, when the Planning Department sent out their initial public participation questionnaire 'Where do we go from here?' they really meant it. In fact, they were beginning a nine year process which would result in The City Centre Local Plan. (See Figure 24) Section 12 of the 1971 Planning Act required all Local Authorities to produce a series of Local Plans for their area. Newcastle was more enthusiastic than many, in getting the process underway. The Report of Findings, August 1977 was interesting for the topics which were of most concern to the participants. These were as follows -

1. Movement
 - improvement of public transport system
 - improvement of conditions for pedestrians in the city centre
 - too much vehicular movement in city centre and such movement badly handled
 - too few parking spaces in city centre
2. Character and Conservation
 - city centre's principal historic buildings and streets must be conserved
 - more public open space should be provided in the city centre
 - greater care must be exercised in the design and location of new buildings, if the city centre's character is not to be damaged in the future

It may have been surprising that aspects such as shopping, amenities and public services, housing, leisure and recreation, and employment attracted little comment.(8)

The whole Local Plan story is full of contradiction. In retrospect, it becomes clear that the Planning Department officers were not united in their views. They produced a series of background papers for internal use, which tend to have the flavour of a curate's egg, and of these, The Character and Environmental Technical Paper (July 1977) certainly tastes the best. This thoughtful and sensitive paper stands out like a beacon of shining light when compared with anything produced by the city's Planning Department in the whole thirty year period. The

introduction goes straight to the heart of why careful planning is absolutely vital -

'Perhaps the essential justification for preserving the distinctiveness of our cities is that we all share a feeling that life would be poorer without it. An attractive and unique town is a more pleasant place in which to live and work, visitors will return and recommend it to their friends, the conference organiser will place it on his list, and the industrialist looking for a new site will remember it when other places have been forgotten.'

This technical paper is particularly important for the way that it articulated some very deep concerns that were felt by the community. The following is extracted from the section about The Social Context -

'There are three trends that many people find regrettable -

- . First, the pursuit of purely economic goals without reference to other considerations.
- . Secondly, the pursuit of technological efficiency (one of the articles of faith of the modern movement in architecture).
- . Thirdly, the shift towards a situation in which many of the decisions which critically effect our cities are taken at national, rather than local level.

People look around them and feel ... that the wrong thing is happening'

The Paper acknowledged that changed attitudes and drastically straitened economic circumstances had at least temporarily halted the road building programme, shopping schemes and office developments, but noted that the next upturn in the economy may well produce additional problems for the older areas of the city centre. The conclusions were set out in terms of What Should be Done? -

- '1. There is a need to strengthen controls of the design of new development ... without stultifying innovation.

2. ... oppose in the strongest possible terms any suggestion that permitted development under the General Development Orders should be generally widened, or that elevational control should be relaxed
3. ... there is no room for the rigid application of textbook capacity standards or other similar regulations. It is both unreasonable and unrealistic to expect an ancient city to provide sight-lines, turning radii and junction standards, for example, which are found in the new towns of the sixties and seventies.
4. The rehabilitation of older buildings of quality should be encouraged in every way possible More important ... is the vision to transcend narrow professionalisms and to embrace a broader perspective.'

The process moved on to its next phase - a full public consultation exercise under the banner 'Choices for the Future': the introduction by *Roy Burgess*, Chairman of the City Council's Development, Planning and Highways Committee, stressed that the invitation to the public was more than a statutory duty and that it really was a request for help -

'We do not know the answers ... and perhaps you feel as unsure as we do, but ... together we can feel our way towards some solutions.'

No further proof is really needed that Planning in Newcastle had completely lost its way. Nevertheless, it should be pointed out that the format of the exercise emphasised the lack of vision. It is true that the fragmentation into topics and areas was partly framed by legislation but the Local Authority could have added their own principles. Two of the most surprising aspects were that the City Council seemed to believe different plans were required according to the state of the economy, and that there were substantial conflicts of opinion. In fact, the Planning Department's own statement - *Main Points to Emerge from the Public Participation Exercise* appears to set out very clearly what the public wanted -

- '1. The City Centre must be made a more pleasant place. It must be easier to move around as a pedestrian. There must be less conflict with vehicles. Character must be retained and enhanced. New developments must be on a scale that 'fits in'. Respondents want a familiar, pleasant, congenial place in which to work, shop, live and find recreation.
2. The City Centre's character and environment is highly valued. Modern development is seen as having caused extensive damage and added little of value. Older buildings and areas must be retained and where necessary restored.
3. Further development of the City Centre's commercial life should be encouraged. Not by way of large scale, or dramatic expansion, but by allowing the gradual and varied evolution of the centre's office, industrial and shopping functions.
4. The City Centre should increasingly be a place for leisure and recreation, tourists should be welcomed and catered for.
5. More people should be enabled to live within the City Centre
6. Movement needs to be reorganised ... in favour of pedestrians.
7. New road construction is not welcomed as a means of diverting traffic from the heart of the City Centre The potential environmental effects of new road construction is a matter of concern, particularly in the more sensitive parts of the centre.
8. There is a need for more parking on the edge of the centre and within.' (10)

The reaction of the public appears strikingly similar to the main aspects of the Character and Environment Technical Paper.

The City Centre Local Plan Draft Proposals first appeared in May 1981. The objectives are so overwhelmingly bland that they do not even justify comment. The scene was set in terms of -

'... a depressed economic context, a situation which could well continue for much of the period of the Plan's implementation'

The Local Plan was turning out to be little more than a land use statement. It was set out under various topics eg offices, industry, shopping, housing, which were applied to very specific locations. This resulted in a strong emphasis on zoning, which had already been discredited by most observers as a planning tool. Of the aspects which had been so prominent in the early stages, character and environment was relegated to a discussion about the boundaries of conservation areas and pedestrian movement was dealt with, by a proposal to pave-over two small pieces of road. The conclusion saw the role of the Plan as a means of consolidating the progress of renewal and improvement. This did not in any way represent a fresh view of the city. Despite the City Planning Officer's claim, it is difficult to see how the Plan responded to the priorities of the public consultation exercise; and the excellent Character and Environment Technical Paper was apparently ignored. It was nothing short of depressing to read that Eldon Square Shopping Centre and the Central Motorway East were considered as major successes of the planning system. Both had caused huge disruption to the city pattern and as pieces of city fabric are outstandingly unpopular with both residents and visitors. The task of devising the new plan was not made easier by the advent of the Tyne and Wear County Council Structure Plan 1981. Its proposals were required to be incorporated into the Local Plan and they were almost diametrically opposed to the community's wishes. Offices and housing were not subject to any limits in floor area and after the Secretary of State's intervention, new development in shopping was acceptable as replacement for losses elsewhere within the city centre. The County Council would also carry out major improvements to the strategic road networks.(11) On the last two points, the former was an open invitation to extend the cancerous Eldon Square to the severe detriment of other parts of the

city and the latter was confirmation of the determination to proceed with a debased version of the Central Motorway West and other orphans from the Burns' Plan.

Following a Public Local Inquiry in November 1983, Modifications to the Local Plan were published in November 1984. The City Council had accepted all but one of the recommendations in the Inspector's report. They were area specific and relatively minor. The Inspector's proposal for limits on shopping floor space was rejected.(12)

Nine years after Councillor *Roy Burgess* had set the process in motion, the City Centre Local Plan was finally published in July 1985. It was little altered from the draft proposals. There was no overall concept for the structure of the city nor any statement of intent regarding its townscape. It was a collection of details about particular land uses and owed more to Estate Management than Planning.

In June 1986 the Planning Department issued City Planning '86: Position Statement, following the abolition of Tyne & Wear County Council, whose functions were now to be re-assigned to the District Councils in the conurbation. In the context of the recent history of the city and its plans, the statement contained the most amazing proclamation -

'In view of the important contribution of the city's built environment to the quality of life and image of the city, there is a need to re-appraise the current condition, quality and approach to the conservation and enhancement of Newcastle's 'cityscape' and to prepare an assessment of the likely future situation Existing policies may not provide an adequate framework' (13)

The Planning Department had the 'headless chicken' look about it. However, before the City Council could even think about a Unitary Development Plan, the Government began to make life even more difficult for them. Local Authorities did not fit in with the Thatcherite perception

of resource allocation by market forces. They were seen as inefficient, bureaucratic and binding the aspirations of good private enterprise with red tape. In a general sense, the centre was attacking local politics - but in terms of Planning its actions were most direct. The Local Government, Planning and Land Act 1980 introduced Urban Development Corporations. They were to be bodies appointed by the Government, modelled on the New Town Development Corporations, with special powers and resources to promote land development. The Government considered that UDCs would bring single-minded management to the task of regenerating derelict dock land areas. In 1987, *The Tyne and Wear Development Corporation* came into being. (See Figure 25) Its operational area is along both banks of the rivers Tyne and Wear, and includes the prestigious Newcastle Quayside. (See Figure 26) The City Council had made great efforts during the 1980s to promote the Quayside, which it anticipated would become 'the jewel in the crown' of 21st Century Newcastle. Its loss was a severe blow. Moreover the powers and considerable resources given to TWDC enables a degree of control over land use and development that was previously denied to the Local Authority. TWDC is able to buy and sell land, prepare sites for commercial and residential development, establish basic infrastructure, and provide loans and grants for building work and more cosmetic environmental improvements. Its concept is the greatest Central Government intervention in urban renewal ever seen in England.(14) The effect on the City Planners was further demoralisation. TWDC essentially removed local planning and development powers from the Council within the historic core of the city. As the Development Corporation began to recruit staff, City Council Planning Officers submitted their applications. Before the end of the decade even Roy Angell had left to pursue a career in private practice.

The Government attempted to tighten the grip of central control in 1988 with the Action for Cities campaign -

'The Government is determined that inner cities should be given a chance to share in the nation's prosperity. They should be made attractive places to invest in, work in and live in.'

This statement sounds like an echo from the people of Newcastle's response to Choices for the Future (1979) and as the City Council pointed out, Action for Cities -

'contains very little in the way of genuinely new initiatives for the regeneration of the inner cities It does, however, represent a brief summary of those ideas which have been in operation for some time, and is probably the first time all of these have been listed in one publication.' (15)

Nevertheless, it directs any would-be participants in the regeneration process to Central Government agencies rather than to the Local Authority.

Encouraged by the Government's lead, the *Confederation of British Industry* established a *National Task Force* to explore the role that business could play in urban regeneration. One of its pilot schemes was *The Newcastle Initiative* launched in June 1988. The stated aim is -

'... to influence and mobilise forces within the community through the work of project taskforces directing major flagship schemes -

- . The Grey Street Renaissance
- . The Theatre Village
- . Where East Meets West
- . Business in the Community
- . Newcastle Publicity' (16)

Plans have been produced for both 'The Grey Street Renaissance' (see Figures 27, 28, 29) and 'The Theatre Village' (see Figures 30, 31, 32). It is too early to assess the impact of these plans but it is disturbing that they have been produced by an organisation with no public accountability. Whilst the quality and presentation of ideas are certainly preferable to The City Centre Local Plan 1985, both CBI inspired documents still adhere to zoned land use and rather simplistic responses. Grey

Street is perceived as the location of the financial sector and the essential proposals are to demolish existing buildings behind retained facades and to rebuild on the available land, office space suited to banks and financial services. 'The Theatre Village' study accepts that the dregs of the Central Motorway West (renamed West Central Route) will be constructed and tries to concoct a 'community of arts, leisure and housing' around it.

The City has probably never experienced less direction than at the present time. There is a total lack of an overall concept, vision and framework in which to operate. The City Planners are demoralised and their once considerable power eroded, while Central Government agencies and private sector 'hit-squads' are carving up ripe parts of the city for their own benefit. Perhaps the final epitaph is that 'Planning' has been omitted from committee structure of the City Council as part of the recent reorganisation. In one form or another a *Town Planning Committee* has been an integral part of local government since before the time of Clayton, Grainger, Oliver and Dobson. The Planning Department has since been downgraded to a division of the Development Department.

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Clarendon Rd. (P)

Jesmond Rd.

Northumberland Road

John Dobson St.

Market St.

City Rd.

Westgate Rd.

Clayton St.

Grainger St.

Blackett St.

Galloway St.

Scotswood Rd.

RIVER TYNE

RIVER CLOSE

Shopping

Offices

Warehousing & Industry

Education & Government Buildings

Conservation Areas

(P) Parking

Railways

Rapid Transport Route

Pedestrian

original in Colour



City of
Newcastle
upon Tyne

City Centre Local Plan

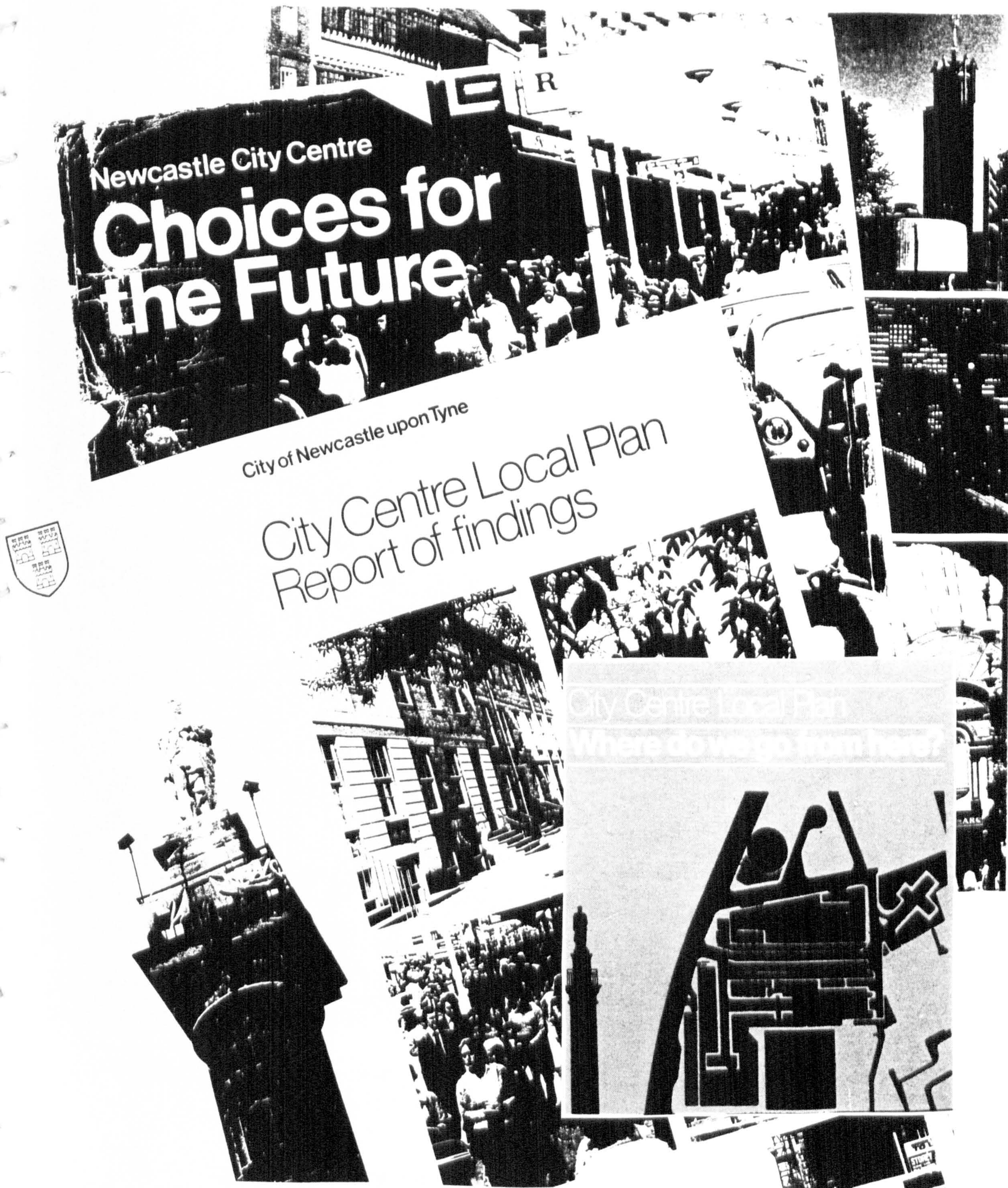
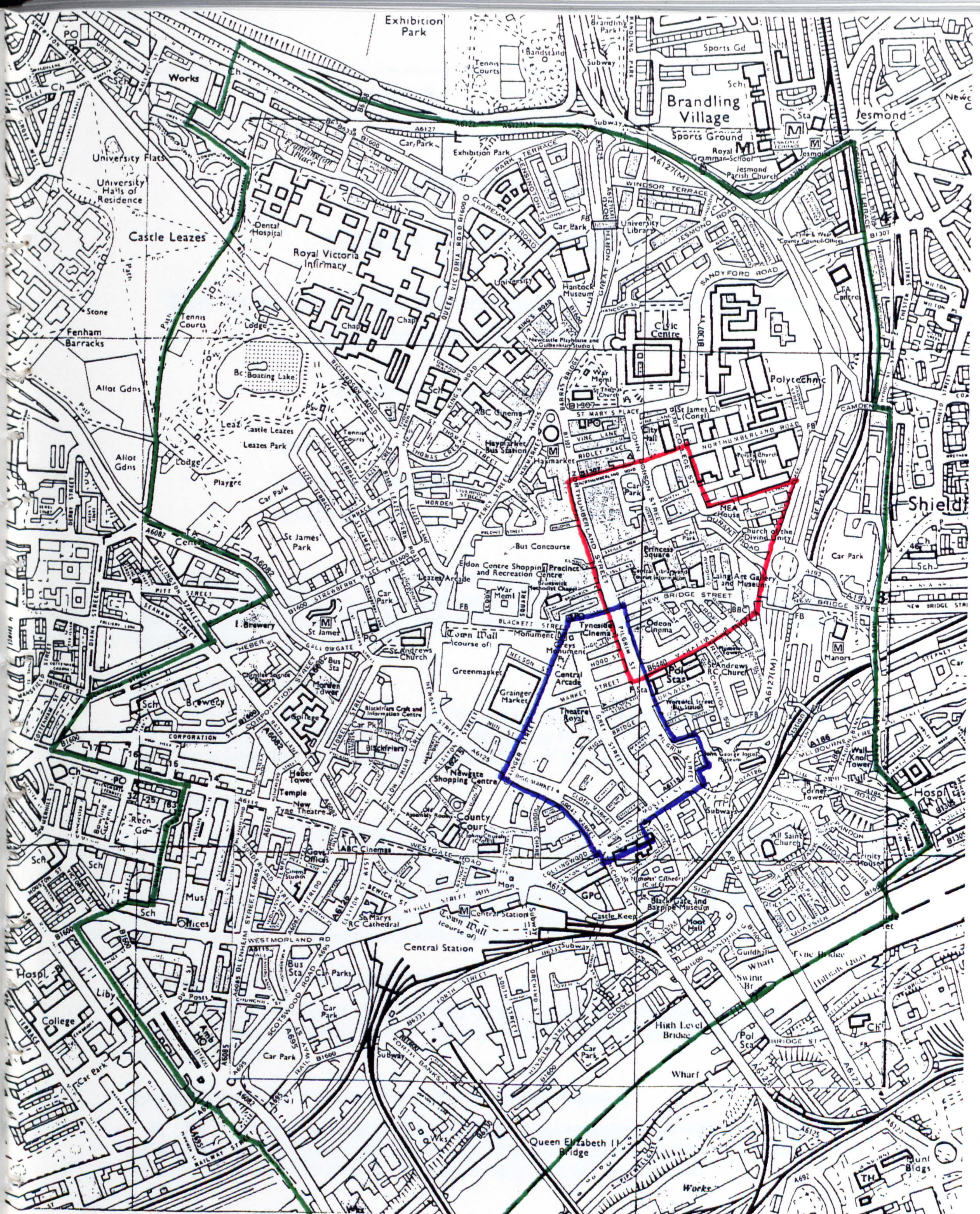


Figure 23: CITY CENTRE LOCAL PLAN FOR NEWCASTLE UPON TYNE
THE PROCESS 1976 - 1985



original in colour

Figure 24: CITY CENTRE LOCAL PLAN FOR NEWCASTLE UPON TYNE 1985
Showing Local Plan and Study Area Boundaries
on 1984 OS Plan Scale 1:10000

Key

- Local Plan Boundary
- Grey Street Study Area Boundary
- John Dobson Street Study Area Boundary

1987 No. 924

URBAN DEVELOPMENT

**The Tyne and Wear Development Corporation (Area
and Constitution) Order 1987**

Approved by both Houses of Parliament

Made - - - - 2nd April 1987

Laid before Parliament 7th April 1987

Coming into force 15th May 1987

The Secretary of State for the Environment, in exercise of the powers conferred on him by sections 134 and 135 of, and paragraph 1 of Schedule 26 to, the Local Government, Planning and Land Act 1980 (a), and of all other powers enabling him in that behalf, hereby makes the following Order:

Citation and commencement

1. This Order may be cited as the Tyne and Wear Development Corporation (Area and Constitution) Order 1987 and shall come into force on the day after the day on which it is approved by resolution of each House of Parliament.

Interpretation

2. In this Order, "the maps" means the set of maps numbered 1 to 11 entitled "Maps referred to in the Tyne and Wear Development Corporation (Area and Constitution) Order 1987", of which prints signed by an Under Secretary in the Department of the Environment, are deposited and available for inspection at the offices of the Secretary of State for the Environment and the offices of the councils of the city of Newcastle upon Tyne and the boroughs of North Tyneside, South Tyneside and Sunderland.

Designation of urban development area

3. The area comprising the two areas shown on the maps bounded externally by a black line edged internally with a stippled band is hereby designated as an urban development area.

Establishment of the Tyne and Wear Development Corporation

4. For the purposes of regenerating the designated area there is hereby established an urban development corporation named "The Tyne and Wear Development Corporation" with eleven members in addition to the chairman and deputy chairman.

2nd April 1987

Nicholas Ridley
Secretary of State for the Environment

Figure 25: TYNE AND WEAR DEVELOPMENT CORPORATION ORDER 1987

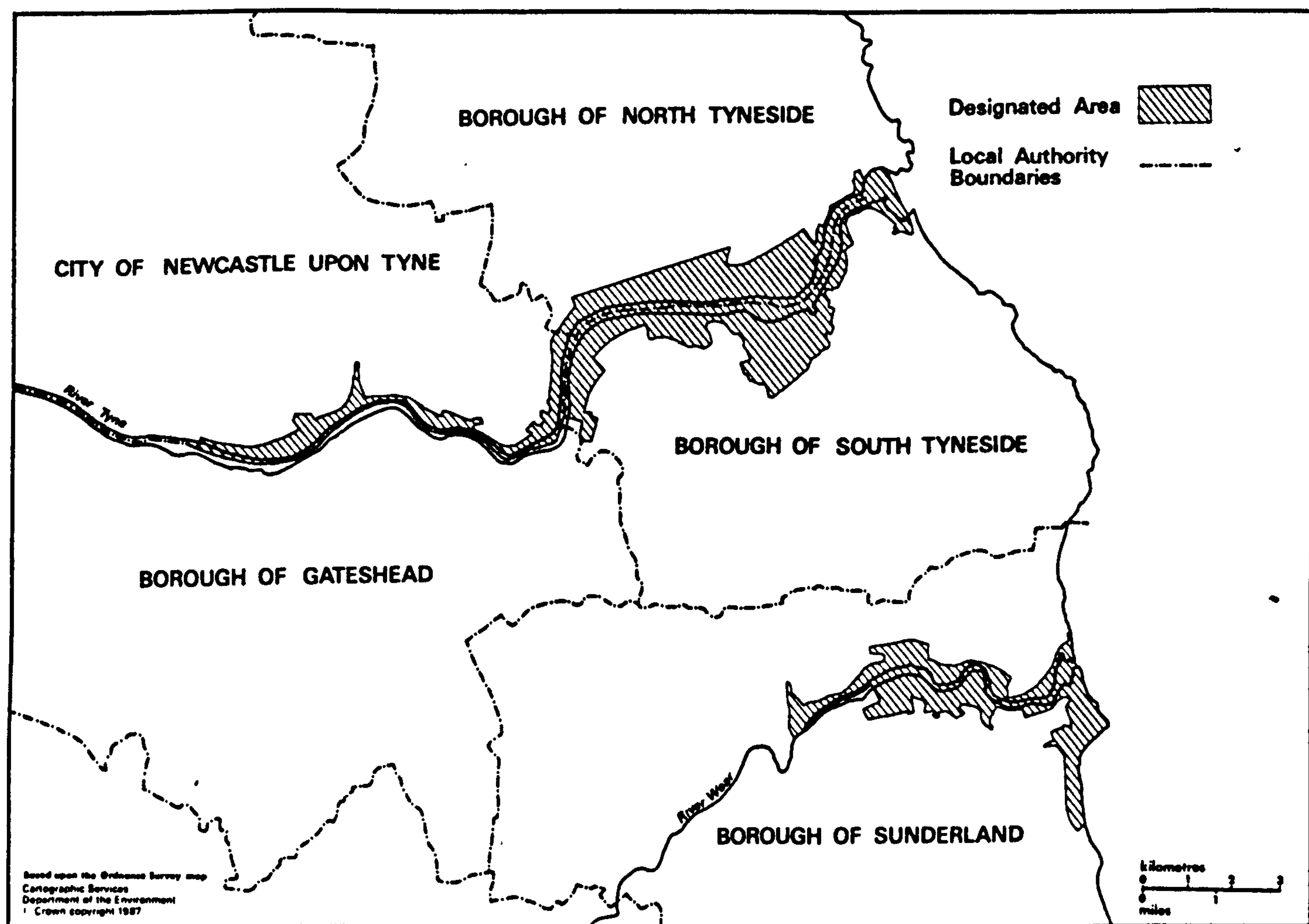
(a) 1980 c.65; section 134 was amended by the Housing and Planning Act 1986 (c.63), sections 47, 49(2) and Part III of Schedule 12.

EXPLANATORY NOTE

(This note is not part of the Order)

This Order designates two areas totalling about 2375 hectares in the city of Newcastle upon Tyne and the boroughs of North Tyneside, South Tyneside and Sunderland as an urban development area and establishes an urban development corporation to regenerate the area. The two areas are shown hatched black on the map forming part of this note.

The development corporation is to be called the Tyne and Wear Development Corporation, and have 11 members beside the chairman and deputy chairman.



45p net

ISBN 0 11 076924 4

Printed in UK for HMSO by Bemrose Security Printing, Derby 850 5217 WO 811 C11 5'87

Figure 26 : PLAN OF TWDC DESIGNATED AREA 1987

GREY STREET RENAISSANCE

The Tyne and Wear Development Corporation is a Government-backed initiative that is working closely with local authorities and the business community to regenerate 2,400 hectares of inner city sites along the banks of the Rivers Tyne and Wear. Capital expenditure of £150 million for its first five years will be targeted at those sites where public sector input in the form of land assembly, infrastructure, or city grant is necessary to unlock future development by the private sector. In Newcastle, the historic Quayside is witnessing an explosion of activity and becoming the focus of attention for private developers and industrialists. A number of key developments are already planned, including:

- * A 25 acre site on the East Quayside is to be developed by Newcastle Quayside Developments Ltd., a joint venture between Shearwater Holdings plc (a member of Rosehaugh Group) and local developers Stanley Miller plc. It will provide high quality specialist shopping, offices, a 5-star hotel, conference, leisure and exhibition facilities and a major area of new riverside housing.

TWELVE

original in Colour

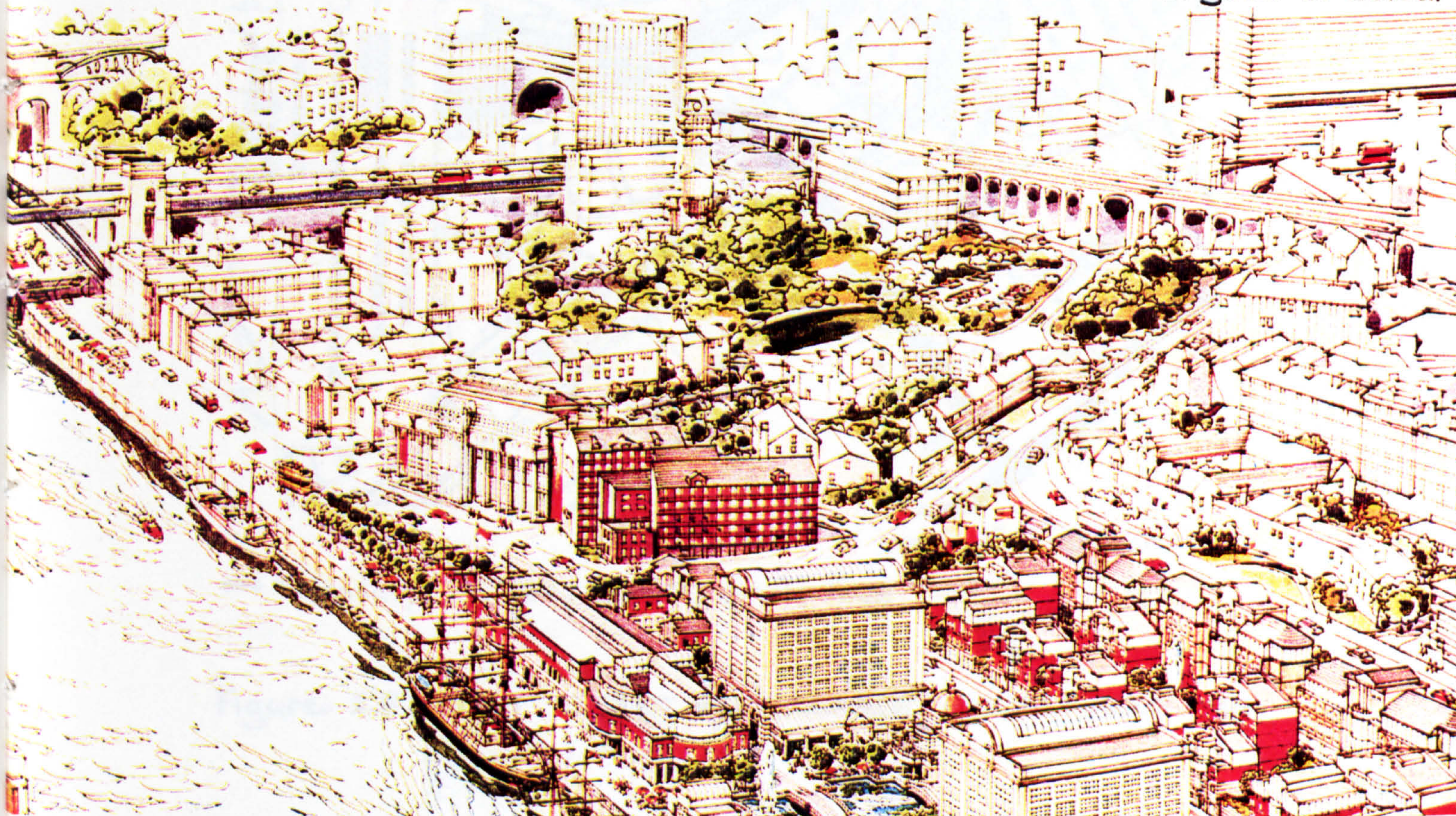
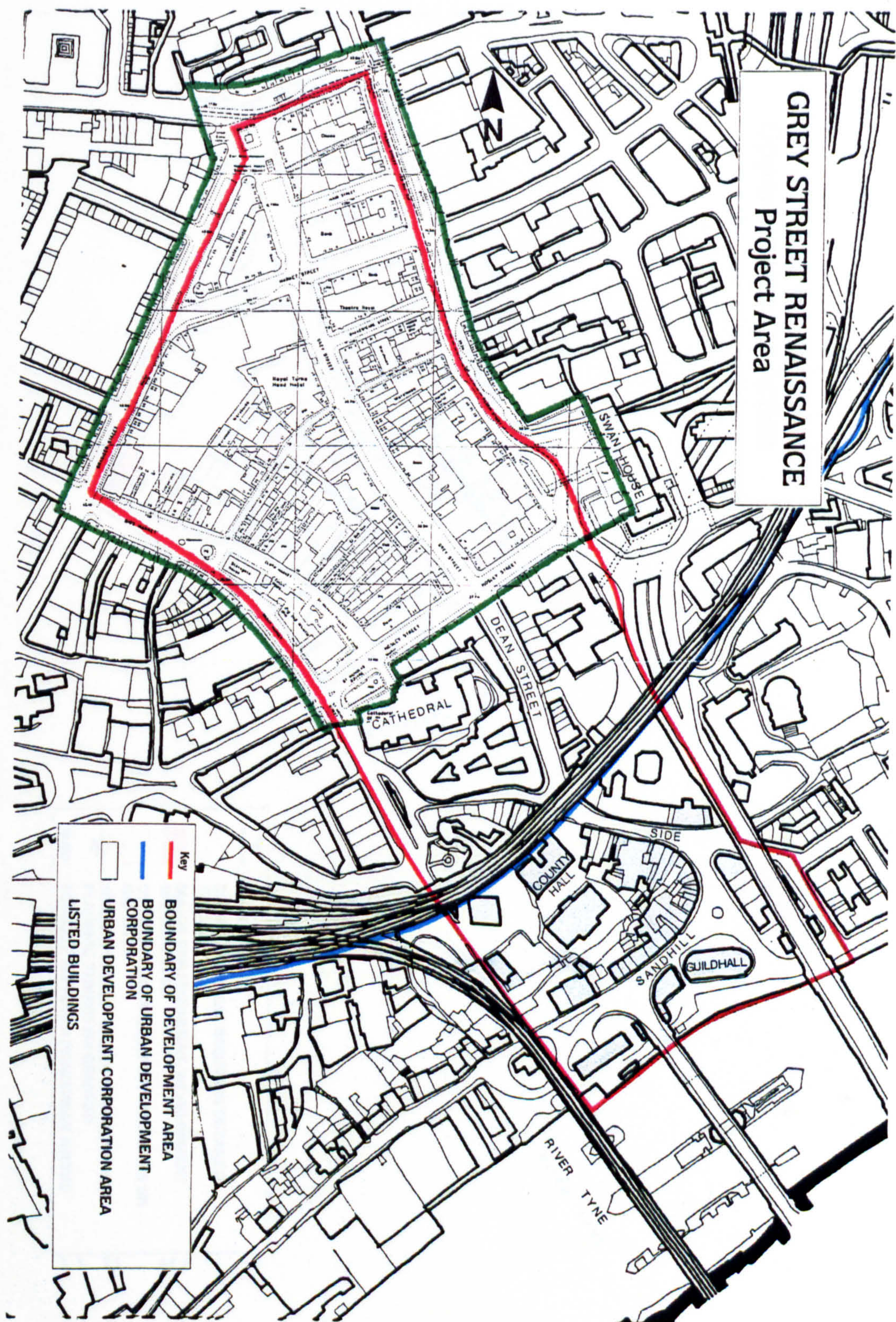


Figure 27: GREY STREET RENAISSANCE NEWCASTLE UPON TYNE 1988
INTRODUCTION



original in colour

— Boundary of Grey Street Study Area

Figure 28: GREY STREET RENAISSANCE · PROJECT AREA 1988
Scale 1:5000

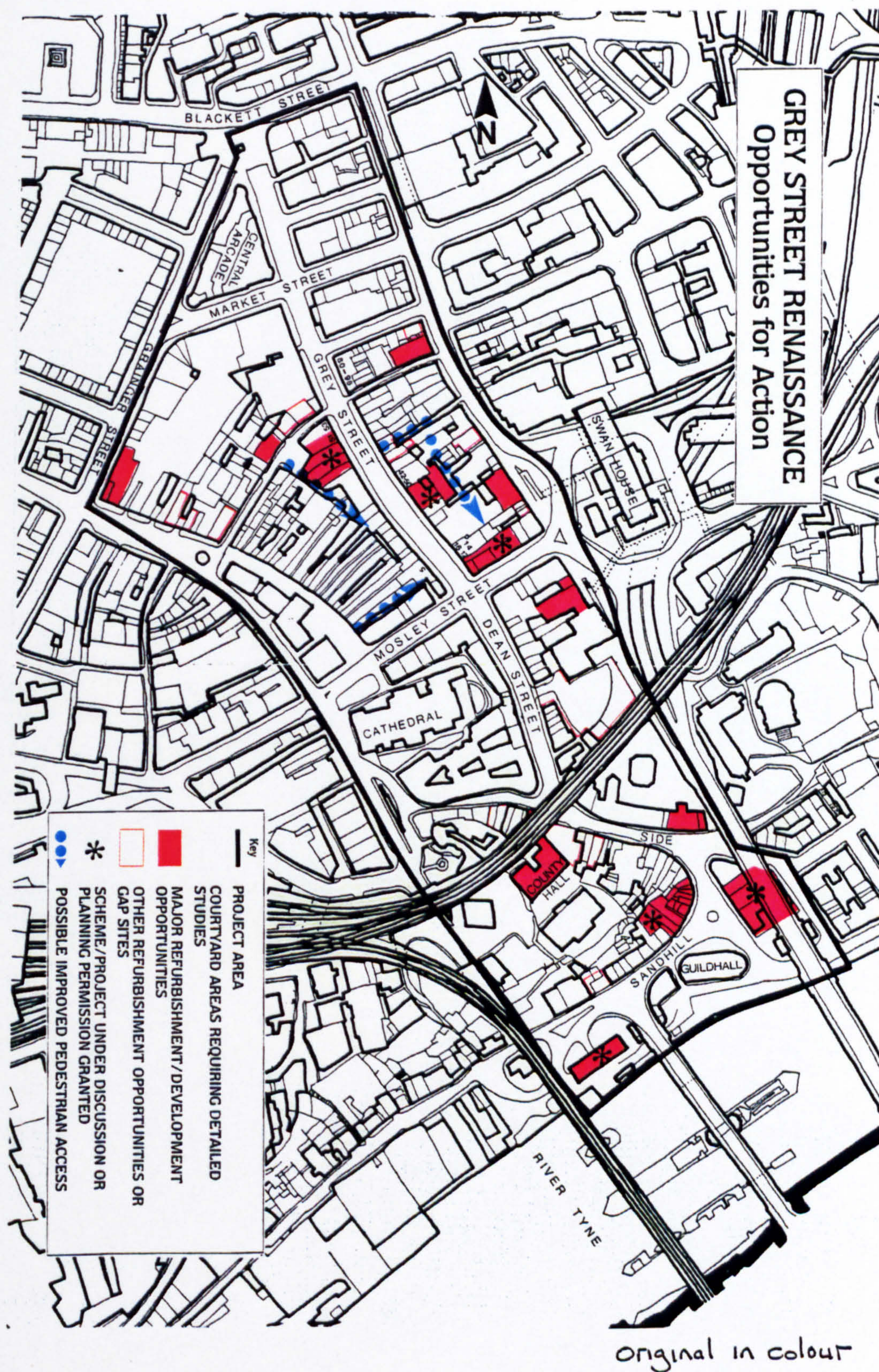


Figure 29 : GREY STREET RENAISSANCE 1988
OPPORTUNITIES FOR ACTION
Scale 1:5000



original in colour

Theatre Village and Chinatown

Figure 30: THE NEWCASTLE INITIATIVE 1988
THEATRE VILLAGE AND CHINATOWN

*A brief synopsis from the Report by a
Study Group called together by the Northumbria Branch of
the Royal Institute of British Architects.*

The vision of the 'Theatre Village' is of a community of the arts, leisure and housing with the potential to:

- shape its own unique identity as a village;
- develop new approaches in the fields of arts and entertainment, building on the excellent facilities already there;
- offer attractive sites for major developments within its boundaries;
- generate employment and training opportunities linked to its strengths.

This vision must take account of the opportunities created by the new West Central route, in particular, offering significant pedestrianisation in the heart of the 'Theatre Village'

It is necessary to think big. Small projects and arts-led development cannot create alone an appropriate village environment. Finance must come from other more significant and ambitious forms of development.

GENERAL PLAN

The Theatre Village is capable of making a significant contribution to Newcastle's regeneration. This plan shows the major project proposals for the area. They must be seen to:

- (a) be imaginative – they will set the style and image of the area;
- (b) be sufficiently commercial to support arts regeneration;
- (c) define the area, giving it a heart and strong connections;
- (d) support the four strands of village, arts, development and employment.

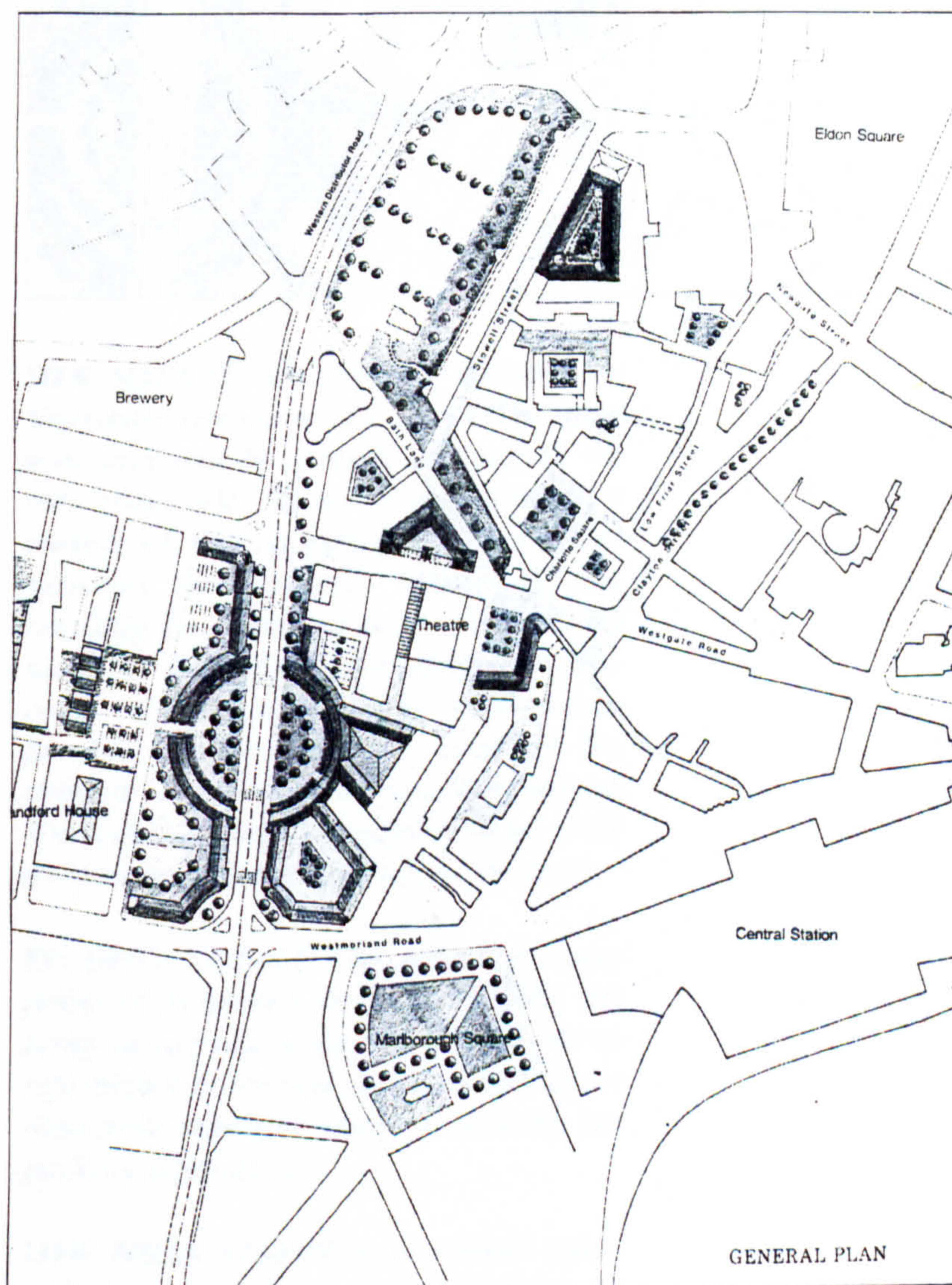
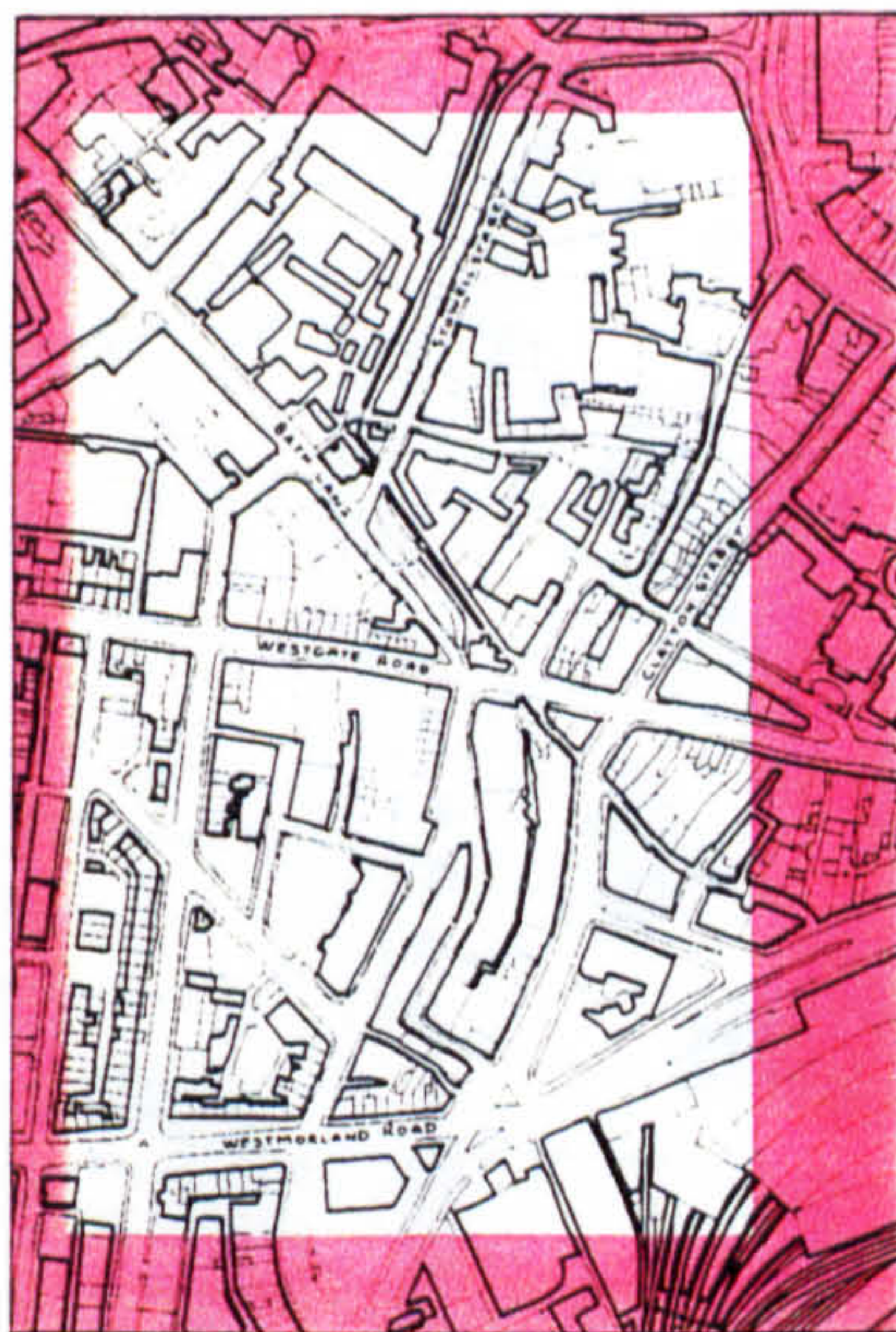
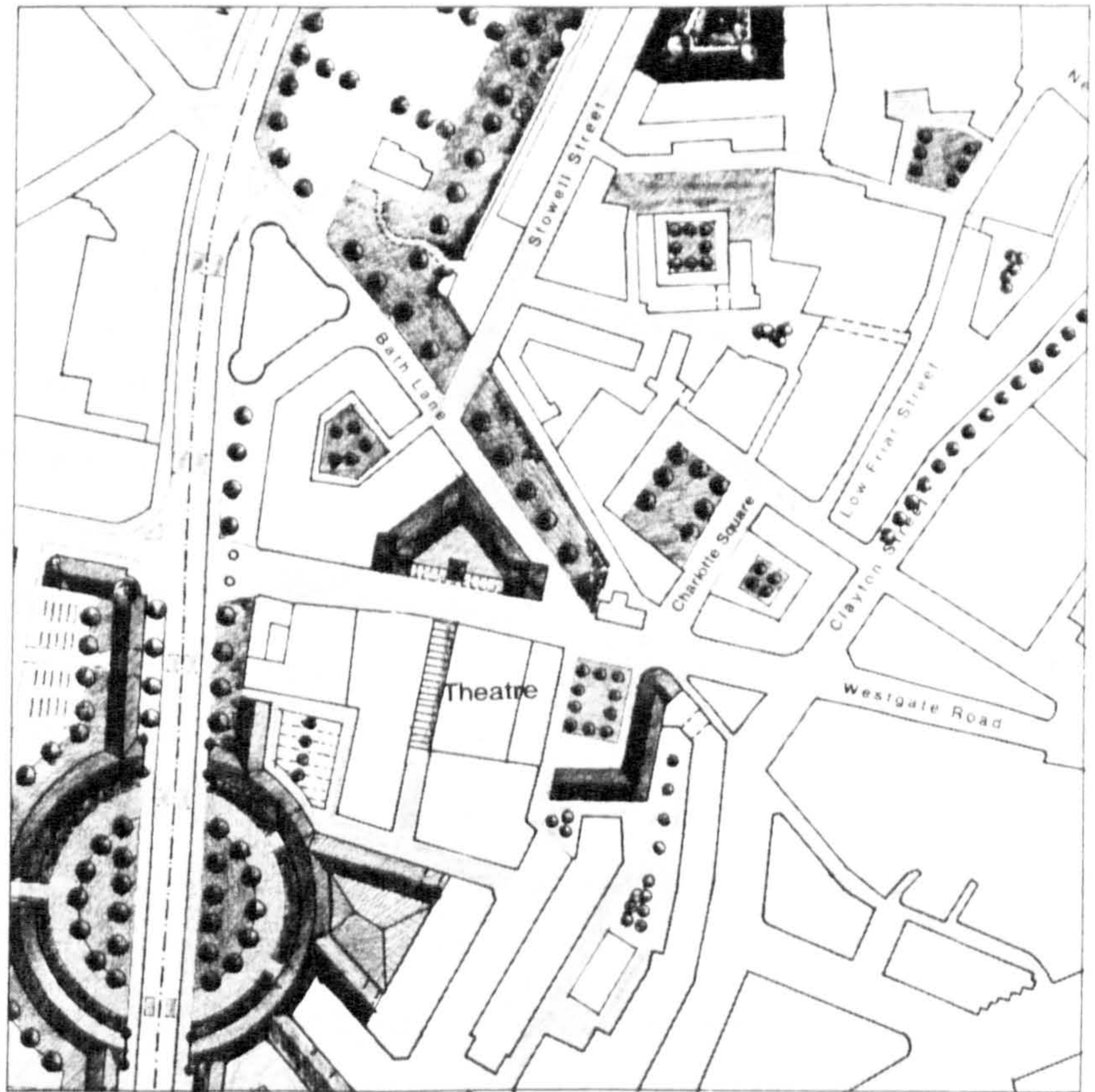


Figure 31 : THEATRE VILLAGE : THE VISION 1988

Popular culture and the arts are one of Britain's major exports, and business associated with them is a major employer. TNI have identified Newcastle City and its region as a source of much of the creative input which fuels the industry. If we invest in that strength the City could achieve international recognition swiftly.

Although talent exists, the cost of equipping it with the technological and business skills needed to survive and flourish in the arts and entertainment market place is increasing. The City's training and education institutions are acknowledged leaders in their fields. TNI has recognised fashion and design. But it is also true in popular music, the visual arts and media. It could and should be true in others. The market for new programmes (particularly in television) is projected to increase dramatically with deregulation. Economic television production requires the full range of performing, visual and technical skills to be available



Silk Square



Clayton Street



Low Friar Street

SILK SQUARE The clothing industry in Newcastle centres in the Blenheim Street area and will be severely affected by the new road. Silk Square would provide a variety of new workshops with support facilities for training, marketing and retailing, in a grouped development to the south of Blandford and Blenheim Crescents. To the north, Bike City would provide a new focus to reinforce the strength of motorcycle retailing around Westgate Hill and Blandford Street, with workshop, training and storage facilities.

STUDENT VILLAGE The extensive upper floors of properties in Clayton Street are lying vacant and neglected. They could be refurbished to provide accommodation for Newcastle students, without creating car parking difficulties.

LOW FRIAR STREET A piecemeal refurbishment of existing premises, building on an existing trend to provide specialist retail and housing, also contains substantial opportunities for the development of managed and separate low cost workspaces for arts and crafts activity centred on this pedestrian street.

Figure 32: THEATRE VILLAGE : PROPOSALS 1988

4. THE CITY TODAY AND THE IMPACT OF CHANGE

BUILT ENVIRONMENT

At street level, the general feeling about the built environment of Newcastle upon Tyne, is one of incoherence. There are clusters of joy, but unfortunately there is a lack of continuity between the parts. Perhaps surprisingly, the aerial photograph suggests greater continuity. (See Figure 33) It is rather like aerial photographs of archaeological remains - the patterns seem so clear from above, but on the ground it is difficult to discern any meaning. The people of the city have little love for its 20th Century buildings. In most cases, this is because they have not been an improvement on the buildings that they replaced. It is acknowledged that the comparison of buildings from different ages is liable to fall foul of the nostalgia factor. It has been argued that whatever buildings had been constructed in the 20th Century, opinion would have been that they were not as good as the old ones. This criticism may be justified, but it will be shown in the European Exemplars, how new buildings can be integrated into the existing scene without the brutalism and pain exerted by some of the buildings in Newcastle. Another disturbing aspect about the built fabric, is the under-utilisation and neglect of many buildings which are highly regarded. The reasons for this neglect are quite complex. Some of the factors include the attitude of property developers and managers to the life-span of the buildings, clear floor space, low maintenance costs, high technology servicing and so on. There is also a relationship with zoning by function and a hangover from the past urban renewal policies. Newcastle has a low density population for a city, and therefore competition for buildings is not as great as in some other centres. These factors have combined to produce tight boundaries to various uses, which make expansion and integration difficult. Finally, there is the 'Northward Drift', which has tended to leave empty property in its wake.

It has already been stated that Newcastle's only planned urban space is Eldon Square. This creates a deficiency, in terms of the kind of outdoor activities which can be found in European cities. Some functions are held in Exhibition Park or on the Town Moor, but these are of a different kind to the sometimes casual, sometimes organised, gatherings which should be a part of urban life. There is certainly enough space in the city. In fact, the low density of building in some areas, creates a loss of spatial definition. However, the point is that spaces which result from demolition or ill-considered building design, are mainly useless and alienating. One of the greatest causes of building neglect and inhospitable left-over spaces, has been the road building programme. The Central Motorway East, Durant Road, John Dobson Street, Sandyford Road - have all created areas of unusable land. Yet, perhaps the greatest disappointment, is the blighting of whole parts of the city for road proposals which have not been built. The worst case is in the West End of the city. The area has been subjected to the 1953 inner ring route, the 1963 Central Motorway West and in the 1980s, the West Central Route. All of these proposals have been, at best, undesirable. It has mainly been obstinate determination by successive City Engineers that has laid waste a valuable area of Newcastle for more than forty years.

The Central Motorway East has created a hard edge to the city which inhibits access. It has also had the effect of stunting development at the Manors. Only with assistance from the Urban Development Corporation, has development started to take place in this area, but nevertheless it still has the perception of being a long way from the city centre. The River has acted as a boundary since the beginnings of the settlement. There has never been a 'closeness' between the North and South banks, and Gateshead is also perceived as somewhat distant. The River was the focus of industrial activity and not very

welcoming. This has changed quite dramatically in recent years and the River is becoming an attractive place and location for festival events. Unique places are universally recognised as ingredients of the successful city, and related to the concept of landmarks. Sometimes, these are features on the skyline which provide orientation, such as the Cathedral lantern or the Earl Grey Monument. Other times, they are locations of individual character. The British film genre of 'meeting under the Town Hall clock' is indicative of this tradition. In Newcastle, it is often specific buildings which provide such a quality. In addition to railway and bus stations, there are - the portico of the Theatre Royal, the Fire Station, Marks and Spencers, St Thomas' Church - to name only a few examples.

The high order of any city is often judged by its proliferation of artefacts, sculpture and fine art. There is an uncomfortable feeling about art being applied to a city and its buildings. It's almost like artistic wallpaper, when much greater integrity is needed. Arguably, the most agreeable situation is where the building itself is art. Often, sculptural facades and decorated elevations remain un-noticed. In Northumberland Street, people are far more familiar with the goods in the shop windows than with the buildings that house them. Sculpture and artefacts (rather than street junk) are present in the city, but they are low key aspects and often only the observant can seek them out.

POLITICAL SYSTEMS

It hardly needs to be stated that the North East of England has always been part of the traditional Labour heartland. Yet, particularly during the early years of Thatcherism, the promise of a new kind of prosperity enabled the Conservatives to score some successes. At that time, the Tories were even operating as a credible opposition on the City Council. However, the promise of

the 1980s has evaporated, and the Thatcher-Major lineage is held responsible by local people, for more hard times. Conservative representation has almost been annihilated on the City Council, where the Liberal Democrats are now the opposition. At Westminster, some of the new breed of Local Members of Parliament have edged their way onto the Labour front benches.

One of the recent features of Politics in Britain, has been the tension and antagonism between Councils and the Government. This has been especially true of Metropolitan Councils. Some of the reasoning behind these actions appears a little confused, but a number of related aspects are as follows. First, the attack on Labour Authorities is aimed at eroding some of their popular support. Secondly, the Government wishes to re-direct a number of activities away from Local Authority control to the private sector. Education, health and perhaps even policing, are examples. Thirdly, the Government is attempting to assert central control on social and economic issues, as well as on politics. Fourth, the Conservatives are dedicated to reducing public expenditure. Not only are Metropolitan Authorities such as Newcastle City Council, seen by the Tories as recklessly spending public money, but also they can be identified as high spenders because of the level of demand placed upon them. The result has been annual rounds of budget cuts and a progressive depletion in Local Authority services. In this context, expenditure on public buildings and spaces is very low indeed, on the political agenda. The response of the City Council to Government pressure, has been the continued reiteration of the need to play by the rules. This has led to criticism in some quarters (albeit rather muted) that the Council is capitulating and abnegating its responsibility to fight the Government Programme, on behalf of the community. Other power struggles have a longer history. The Marxian perspective of organised labour versus the capitalist

employers was evident for many years in the North East of England. This has now dissipated as the factors of production have virtually disappeared. However, it has been replaced by other forms of power struggle. Local Authorities and Agencies such as the Northern Development Company have been keen to encourage business into the Region, and 'inward investment' has joined the literature of jargon. Yet, much of this activity is multi-faceted. National and international manufacturers, developers and retail outlets have become important to the local economy, but nearly always set their own conditions for investment in a particular place. The Authorities are ready to welcome them but the Councils' role as custodian of the environment can be easily compromised. Often, it has been left to various pressure groups to make the case for the community and its environment, against the powerful alliance of Local Authority and big business. In a region of high working-class population and high unemployment, private sector development can be viewed as pampering to the wealthy. Popular protest and social unrest are never far away from this kind of situation. The divide between privileged Urban Development Corporation areas and under-privileged residential areas is uppermost in this kind of potential conflict. The problem does not occur in Newcastle City Centre because the resident population is very small and of a different class. Nevertheless, there have been sufficient warnings from the East of the city and the West End, to appreciate that the centre may not be immune.

The Government introduced a series of mechanisms during the 1980s, which substantially affected the nature of development. In particular, Enterprise Zones had the effect of deurbanisation with attendant threats to the viability of the city centre. The most publicised case of the Metro Centre has been followed by the Team Valley Business Parks, numerous supermarket developments and retail warehouses. Despite limited success with the

urbanisation of housing, Government support for private sector housebuilders has tended to accelerate suburban housing development. Although the recession has adversely affected the whole business, huge areas of green belt land around the city are still under threat from this kind of activity.

One of the Government's most effective ways of capping Local Authority power was the abolition of Tyne and Wear County Council. Some of the effects of the reduction to a single tier of local government are only now starting to come to fruition. One of these aspects is the introduction of a Unitary Development Plan, which will replace both the Structure Plan and Local Plans within the city boundary. The Plan is at draft stage in 1993, but it is clear that the City Council has been given greater opportunity to trade land with the private sector. At the other end of the scale, essential urban funding continues to be reliant on Central Government. The recent succession of Secretaries of State for the Environment, have made it clear that funding will be allocated on a competitive basis. This is a means of restricting public finance as funds previously allocated on an annual basis may or may not be received by the City, depending on the success or otherwise of its bid.

LOCAL ECONOMY

Newcastle's Local Economy was based on traditional heavy industries. Foremost amongst these were coal mining, ship building and armaments manufacture. All have been in constant decline throughout the 20th Century, and are seemingly heading for extinction. Only Ellington Colliery now remains in the Northumberland coal field and its future is uncertain. Swan Hunter, the last of the shipbuilding yards on the Tyne, has gone into liquidation. Vickers Defence Systems, which took over Lord Armstrong's legacy, has contracted to one tank factory in Newcastle, and that is constantly in competition for orders to remain

in operation. Decline in other industries, such as construction, has caused the male skilled and unskilled workforce to seek employment further afield. Initially, there were opportunities with Imperial Chemical Industries on Teesside and more recently with British Nuclear Fuels at Sellafield. ICI has reduced its capacity and doubts are now being raised about the Nuclear Industry, especially in Thermal Oxide Reprocessing which was intended to provide a good source of employment for the North East as well as West Cumbria. During the boom of the late 1980s, many men became migrant workers to the South East of England, but that area has been badly affected by the recession and many of those opportunities have ceased. The advent of new industries, such as the Nissan Car Plant at Sunderland, has been much heralded. However, the loss of traditional jobs has been greatly in excess of those created by new forms of manufacture.

During the 1980s, Government promoted the notion that the country was moving into a post-industrial phase and that future employment would largely be found in the service sector. For a time, this theory held great promise and the recognised need for diversification in the Local Economy began to be realised. Unfortunately, the recession also severely affected this sector and although the Economy is more diversified than at any time in the 20th Century, its progress has been severely curtailed.

Perhaps more significant are the underlying structural changes that are occurring in the sphere of employment. First, the rapid growth of new technologies has substantially reduced demand for clerical staff as well as machine operatives. Thus, there is significant overcapacity of office and industrial space in the city. Secondly, the unemployment figures hide a number of fundamental changes. Employment in many sectors is switching from a permanent arrangement to short-term contracts or casual work. The philosophy of 'jobs for

life' has almost totally disappeared, and this has been especially apparent in the public sector. Sources of employment performing better than most, are retail and leisure. Yet, these sources tend to be staffed by part-time, semi-skilled, low paid, female workers with little employment protection. All of the above changes have adversely affected expenditure, within the city, and on its built fabric.

Of course, much of the despondency about the future of the city centre, is related to the current economic recession. The present lack of confidence has come about, in only a few years. The scene has been transformed in this respect, from the high optimism of the late 1980s when anything seemed possible. Indeed, in recent times, the peaks and troughs of fortune seem to have been both more pronounced and occurring more frequently. This has added to the general feeling of change being a permanent state. Dramatic changes are extremely damaging to the development of a city. The need is for a consistency of operation to allow the place to evolve. The current trough will undoubtedly be replaced by another building bonanza in a few years time, although it is hoped that future swings in the level of building activity will be less dramatic than the recent past.

Mechanisms encouraging deurbanisation have already been considered under the heading of Political Systems. However, a brief comment needs to be made about the nature of Newcastle's Property Market. Setting aside the effects of recession, there are underlying movements in the Market. Much retail and commercial development has been in out-of-town locations, since 1980. In terms of retail development, this has tended to allow the purchase of relatively high bulk-low value goods by car. This market is probably reaching saturation. Whereas low bulk-high value goods, and services, have tended to remain in the city centre and this market still remains underdeveloped.

Some of the disadvantages of peripheral and suburban office locations are becoming apparent with occupation. There is an element of speculation in this matter, but it could be that the pendulum is swinging back in favour of more central sites. A similar feeling pervades the Housing Market, with the agencies of social housing leading the way. The possibilities of industrial development continue to be limited.

The most underdeveloped sector is still probably leisure and tourism. Especially in the case of the latter, Newcastle has tended to be by-passed on the tourist trail. A common itinerary has been - London, York, Durham, Edinburgh. Conscious of a missed opportunity, the Tourist Board is now marketing the city as the gateway to Northumbria, the Borders, Lake District, and so on. The city has attracted some major exhibitions and special events, such as the Cutty Sark Tall Ships Race. These have acted as great magnets. The overall effect is that considerably more visitors have been drawn into the city. This is witnessed by the recent expansion in city centre hotel accommodation.

SOCIAL STRUCTURES

The City Centre, therefore, has continual potential for a range of activities, including - living, shopping, working and recreation. It is important that these should be encouraged in a balanced way. Housing for example, was expressly prohibited by Planning Policy for many years. In the 1980s, there was an attempt to climb aboard the 'yuppie bandwagon' and highly priced apartments were developed in the centre and especially at the Quayside. The collapse in that market resulted in the conclusion that social and student housing was the most appropriate form of development. If it is agreed that the city's future is best served through heterogeneity of activities, then this principle also needs to be applied to the social order. An understandable objective about the role of the

City Centre is that it should provide for the needs of different kinds of people and that they should have access to it. In this respect, segregation of social groups and homogeneity of function, related to parts of the city, are harmful attributes. The Eldon Square Shopping Centre attracts quality and volume in terms of both shops and shoppers. Indeed, many of each have been displaced from other locations in the city. It is another example of the 'Northward Drift', resulting in abandoned and run-down streets in the Southern part of Newcastle. In Grainger Street and especially Clayton Street, short-term leases are taken on empty shop units for the sale of low quality goods. The middle class arrive in the city from the North, often by car. Multi-storey car parks directly serve the Eldon Square Shopping Centre. The poorer classes arrive at the bus and railway stations in the Southern part of the city and walk through the old streets to the markets.

Newcastle has a proud working class tradition, and a small but growing middle class. The working class community has been particularly ravaged by unemployment. Perhaps surprisingly, there is little evidence of an underclass on the streets. The conspicuous growth of an underclass is becoming a great concern in cities around the world, as well as in Britain. Two of the reasons why Newcastle has not been so troubled by this phenomenon could be as follows. First, inward migration tends to be predominantly among the middle classes and generally employment-based. Secondly, the stability of the working class community limits isolation of individuals. Either through the extended family concept or generations of neighbours, the vast majority of people are an integral part of their community.

The Eldon Square Shopping Centre, provides an example of another disturbing trend in the city. This is the continual privatisation of public space. Several city

streets have been metamorphosised as interior malls. In this way, exterior public space moves from control by the agents of law and the tolerance of the community, to the sphere of private codes, policed by security guards. Thus, the freedom of public space is lost to a private system which determines who shall have access and for how long. This kind of arrangement also acts against the objective of continuity of movement within the city centre.

One of the biggest social concerns about cities in the late 20th Century is their gentrification. In effect, this is acknowledgement that the lower classes are not welcome in the city and are excluded by cost barriers. In a general sense, this does not happen in Newcastle. Although, it can be observed in some of the suburban residential areas. In the city centre, there is insufficient competition for space, to support gentrification. Moreover, there is quite a well developed empathy between classes in this city. The tension is not so much class against class, but the community of Newcastle protecting itself against exploitation by outsiders. During the boom of the late 1980s, there were attempts to establish gentrification on the ghetto principle, as even then it was clearly inoperable on a city scale. There were some very minor successes, but later schemes were severely affected by the economic recession.

One social aspect which is affecting Newcastle and many other cities, is the Urban Youth Culture. In cities, there seems to be a growing mass of young people. Generally, they have modest incomes, but by living with their parents, the cost of living is kept sufficiently low to enable considerable cumulative expenditure on clothes and entertainment. Spatial and temporal ghettoisation is almost an art form with this social group, which also has a perception of aggression associated with it. This can

be manifested in loud music emanating from the boutiques, or raucous behaviour on the streets. The result is that certain places in the city, at specific times of the day or night, appear to be dominated by young people. Other members of society are effectively excluded by an implied intimidation. The most notorious of these areas in Newcastle city centre, is the Big Market on Friday and Saturday nights.

SPIRITUAL WELL-BEING

Any perception of the city as a dangerous place is unfortunate. Especially, as in the case of Newcastle upon Tyne, the perception greatly exceeds the reality. Yet, one of the requirements of a successful city is the need to generate excitement, and there is a fine line between excitement and fear. Despite previous comments, this is a city where most people can find enjoyment. The first step towards spiritual well-being is physical well-being. It is important to be at ease with the environment.

Newcastle has some very comfortable places and there is much to admire in the topographical contrasts. There are also contrasts in activity level which can provide for both reflective solitude and the hustle and bustle of urban life. One of the criticisms is that these qualities are mainly found in the older parts of the city and scarcely in the modern developments. Also, the places are isolated as there is insufficient continuity of spatial experience. In addition, little consideration seems to have been given to the poetic and spiritual, in the urban process. These qualities have become undervalued in a society governed by economics.

Spiritual well-being can be illusive, but it stems from a number of important attributes. The first of these, is the stability which comes from confidence in the present as well as the future. Uncertainty and constant change ebb away at this confidence. Newcastle's urban structure has suffered from dissipation and it is vital that further

action is aimed at restoring the structure, rather than continued diminution. It is true that improved physical well-being would result from growth in the Local Economy, but reinforcement of cultural history is also significant. One of the ways that stability and cultural history can be combined, is through the reassurance of familiar places. Areas such as Grey Street and the Quayside play an important role in this respect.

It is interesting to look back to the old surveys of the town. They appear to illustrate a combination of order and diversity in the urban layout, which seems to be lacking today. Yet, despite the way that modern developments have slashed traditional forms, the aerial photograph shows that the established structure is still there - just under the surface. Traffic management and pedestrians space somehow epitomise the loss of order. As clear routes are terminated by 'no-entry' signs and vehicles directed along back streets, it is understandable how drivers become disorientated and frustrated. It is also difficult to comprehend a system in which narrow medieval routes are open to vehicles while broad Victorian streets are covered in paving.

Large scale urban renewal schemes of the mid 20th Century have made people painfully aware of the need for cities to retain a heart and soul. The latter is generally achieved through an understanding and reinforcement of cultural history. The former is related to a centre or focus. In Newcastle, this has been confused by the 'Northward Drift' and in retrospect it could be observed that the focus could have been strengthened by a certain resistance to that trend. For a time during the 1960s and 70s, it looked as if the Haymarket/Barras Bridge area, was emerging as the new focus. This was given considerable impetus by the construction of the Civic Centre in that area. Yet, more recently the focus has swung back, Southwards, to the Earl Grey Monument. There are a number

of possible reasons for this counter movement. First, geographically, the Monument is a central place. Secondly, and perhaps most significant, has been the development of the Metro Rapid Transit system. The Monument is directly served by the system and is the only station where the two principal lines intersect. Thirdly, it is at the junction of three major streets, including the famous Grey Street. Fourthly, despite its failings as a square, the area does provide pedestrian-dominated public space which is a rare commodity in Newcastle. Fifth, it is at the hub of three functional zones. To the North and West is the shopping zone, to the East is the commercial zone and to the South is the entertainment zone. Finally, the Monument is a distinctive landmark.

Perhaps, the essence of a city's spiritual well-being is contained in its symbolism. The symbols of a society say much about the strength of the community. In Newcastle, the religious buildings are fine examples. Not only does the Cathedral lantern appear on almost every lithograph, photograph, painting and drawing of the city, but it is clearly visible from many vantage points. The Cathedral is supported by a group of churches, ancient ones like St Andrew's and St John's, as well as 18th Century examples such as All Saints. There is also the Blackfriars Monastery. Physical sustenance is represented by the 19th Century Grainger Market as well as the centuries' old traditions of the outdoor Bigg Market and Quayside Market. The symbols of Government and the Law, seem less convincing. In the 1960s, the 19th Century Town Hall which stood at the end of the Bigg Market was replaced by a new Civic Centre, at the Northern extremity of the city near the site of Barras Bridge. On reflection, it is tempting to think that a more central location, on a public square, and a building with a more formal facade might have been more appropriate. The symbols of law present a slightly confused picture. The most imposing of the buildings is the Moot Hall, but its dramatic effect is

considerably diminished by its location. The Magistrates' Court and Police Station have no form of grandeur about them at all. It is therefore supposed, that the new Crown Court building on the Quayside is the clearest symbol of law and order in the city.

Finally, there are the symbols of the city itself. The Tyne Bridge is the most often illustrated, to represent the city. Its strong, plain, steel structure, gives a good indication about the character of the Geordie people. While, standing four-square on the plateau above the river, is the keep of the New Castle.



Figure 33 : NEWCASTLE UPON TYNE AERIAL PHOTOGRAPH 1985
on 1984 OS Plan Scale 1:10000

CHAPTER 3

CASE STUDIES

1. MAJOR INTERVENTIONS IN THE CITY CENTRE

STUDY AREA 1 - GREY STREET 19th CENTURY INTERVENTION

Introduction

Study Area 1 is bounded by Blackett Street (North), Pilgrim Street (East), Mosley Street (South East), Bigg Market and Groat Market (South West) and Grainger Street (West). Its focus is Grey Street, which runs from the Earl Grey Monument at the junction with Blackett Street at the North, to the junction with Mosley Street at the South East. The Study Area covers approximately 10 hectares (25 acres) at the commercial heart of the city.

This area was selected because the 1834 Central Area Development Scheme represented major 19th Century intervention in the medieval town. The Scheme created Clayton Street, Nelson Street, Nuns Street, Grainger Street, Market Street, Grey Street, Hood Street, Shakespeare Street; the Theatre Royal, the Central Exchange and the Butcher and Green Markets (Grainger Market). The streets are lined with a wealth of architectural facades. The jewel in the crown is Grey Street which has attracted praise for over one hundred and fifty years. Some examples are as follows:

1862 W E GLADSTONE

'At two we went to Newcastle and saw the principal objects, including especially the fine church and lantern (St Nicholas Cathedral), the gem of an old castle, and Grey Street - I think our best modern street.' (1)

1948 JOHN BETJEMAN

'As for the curve of Grey Street, I shall never forget seeing it to perfection, ... on a misty Sunday morning. Not even Regent Street even old Regent Street, London, can compare with that descending subtle curve.' (2)

1957 NIKOLAUS PEVSNER

'Grey Street is no doubt ... one of the best in England.' (3)

1960 IAN NAIRN

'Grey Street is a long uphill curve. Nash's Regent Street with an added dimension of better workmanship, one of the great planned streets of Britain ... each change in level beautifully taken up by the intelligent sober frontages, each bit of the curve given just enough emphasis.' (4)

1967 BRUCE ALLSOPP

'Grey Street has been called 'the finest curved street in Europe.' Competitors are surprisingly rare because planners of towns have tended to think in ruthless straight lines. The supreme achievements in the art of planning come from men who interpret the land rather than imposing themselves upon it. It is easy to draw lines on paper maps but the great designed plans with a feeling for the site. The architecture of Grey Street is mostly good but the concept of the whole, ... is superb.' (5)

1980 LYALL WILKES

'Before 1834, the Woods had built graceful crescents in Bath, and Adam had built squares and terraces in Edinburgh - but they were almost entirely residential development. The uniqueness of Grainger's plan lay in the fact that he intended to build, not houses alone in the city centre, but whole streets of gracious shops and public buildings and shopping arcades, with living quarters for shopkeepers above them It was not only a unique achievement in 1834 but in scale and beauty it has never been equalled in this country since - and certainly not by the stucco of Nash's Regent Street.' (6)

In 1991, an original survey was undertaken for this thesis, to obtain information for analysis of the Study Area. The survey includes the following -

Building Uses -	Ground Floor	(See Figure 34)
	First Floor	(See Figure 35)
	Second Floor	(See Figure 36)
	Third Floor	(See Figure 37)
	Fourth Floor	(See Figure 38)
	Fifth Floor (and above)	(See Figure 39)
Facade Materials		(See Figure 40)
Dates of Buildings and Facades		(See Figure 41)
Pedestrian Priority		(See Figure 42)
Vehicular Priority		(See Figure 43)
Elevations to Grey Street		(See Figures 44 and 45)

This information will be used as data for the Application of Urban Design Principles and Typologies in Chapter 4.

Historical Development of the Study Area

It has become part of Newcastle folklore that the Roman soldier Agricola chose a bleak plateau standing about 24m (80 ft) above a river, as the defensive position for the North East of England. The location was also determined by the river crossing which was made at the head of the navigable water-way. Both bridge and settlement became known as Pons AElia. All the standard historical texts about the town, tell the story. However, the significant aspects in terms of this thesis are that as the settlement occurred on the North bank of the river, Southward development was greatly inhibited, and Northward development was not much easier, as it is a hard climb up to the plateau. Even after Romans, Saxons and Normans had all come and gone, the town centre was still at the Quayside, as the vast majority of mercantile activity was based around the river. Nevertheless, by the Middle Ages, the inexorable northward drift had started. Growth of population and competition for space had first attracted the merchant class onto the plateau. Soon, agricultural produce was being brought into the town by horse and cart, and before long the centre of the town had moved away from the Quayside towards St Nicholas' church.

Speed's survey of 1610 (see Figure 6) shows St Nicholas' church (c) at the Southern point of the Study Area. The Northern end is bounded by a secure town wall. Thus, if early development of the town was inhibited by the river and change in level from Quayside to plateau, medieval development was largely contained and defined by the town wall. To the East of the Study Area, Pilgrim Street can be seen providing the most direct route North from the bridge over the river. To the West and South West, Newgate Street leads from the wall in a South Easterly direction, past the Whitecross to the Bigg Market and Groat Market, and back to St. Nicholas' church. The Nunnery stands in the middle of the Study Area next to the Lort Burn, which is now culverted under Grey Street.

The survey by *Corbridge* in 1723 (see Figure 7) emphasises the strong evolving urban pattern which remained little altered on *Thompson's* survey (1746), *Hutton's* (1770), *Cole's* (1803), and *Oliver's* (1824 and 1830). (See Figures 8, 9, 10, 16) For more than two hundred years, this pattern of streets, markets and buildings was the imprint of the town. However, as stated previously, the early years of the 19th Century were to be seen as a period of rapid change. The familiar streets were becoming busy, noisy, thronged and colourful with the dress of the period. From Pilgrim Street and Bigg Market, the heavy waggons of carriers set out every weekday to London, Edinburgh, Leeds and Carlisle, and two or three times a week to nearer towns. In Pilgrim Street, just below Anderson Place (once the Nunnery) a row of sedan chairs would be waiting for affluent merchants to hire them. The carts of country folk brought produce to market while huge drays loaded with beer, ale or porter, travelled out to places as far as sixty miles away.(7) The familiar theme of urban congestion, especially related to wheeled vehicles, was already leading to ideas about large-scale development. An early casualty was the majority of the town wall. From 1760 onwards, Newcastle began to feel the

pressure of growth chaffing against the confines of the old walled borough. The strongly-built gates became an increasing nuisance, with the mass of people, horses and waggons.(8) *Thomas Oliver* noted in 1831 -

'The site of the Pilgrim Gate is now entirely thrown into the street at the union of Northumberland Street and Pilgrim Street. It was a remarkably strong, clumsy and gloomy building, which was totally removed in 1802.'(9)

It also became apparent that amongst all the congestion, the grounds of the former Nunnery remained untouched. The building had been converted to a private residence by Sir Walter Blackett. When he died in 1777, the complete Estate of approximately 5 hectares (13 acres) including the Northern part of the Study Area, was offered to the Corporation. To the dismay of many townspeople, the Council declined to accept.(10) A group of local businessmen pointed out that the Council's error in not purchasing the Estate was due to the absence of any comprehensive town development plan.(11) One of the chief protagonists was *Joseph Bulmer* whose letters to local newspapers in the early years of the 19th Century produced regular features entitled 'Suggestions for the Improvement of Newcastle.'(12)

Bulmer's campaign undoubtedly created a situation in which the embarrassed Council were receptive to proposals for general improvement. *John Dobson* (1787-1865) produced a scheme for the Estate, probably in 1824.(13) Like a great number of Dobson drawings, this proposal has disappeared. Fortunately, the scheme is described in *Mackenzie's* History, from which an attempt has been made to reconstruct the intentions. According to *Mackenzie* -

'It is proposed to make a grand central square, about 450 feet long (135m), and 190 feet broad (50m), containing in the whole 10133 sq yards (8470m²); this area to be used as a public market, for the sale of wheat, oats, etc., and appropriate buildings to be erected on each side, at a distance of 60 feet (18m) from the market. The street on the North side to commence in Pilgrim Street, about 85 feet (26m) South

of the High Friar Lane, to form the North side of the square and passing the open space named Green Court, to open into Newgate Street, South of the houses usually called Grey's Court. The street on the West side of the square is proposed to proceed from the Nun's Gate (which it would then be necessary to widen) and to run in a straight line to Blackett Street, where Eldon Square would form an imposing termination. From this convenient street another is to run along the South side of the square, and to open into Pilgrim Street where the shop of Mr. Richard Davies, marble-mason, now stands. The East street to commence near the portico of the new Scotch church in Blackett Street, and to terminate at the dwelling-house of Mr. Thompson, butcher, in the High Bridge; at which place it is proposed to widen this street, by making some alterations on the South side, connected with the New Flesh Market and tending to make a pleasing bound to the new street. Opposite to the East end of the new market, it is projected to build a Mansion House, suitable to the rank and dignity of the first magistrate of this opulent and populous town. This civic palace is planned to occupy the site of Anderson Place, and to have four handsome stone fronts. The North, South, and West sides to rise from a bold terrace; and the latter front to be ornamented with eight beautiful pillars. The East front to face Pilgrim Street, and to have a lofty, grand portico, capable of admitting carriages, which might enter the gate at one corner of the grounds, and pass out at the opposite one; but the present walk up the middle avenue, with the trees on each side, to be carefully preserved The Mansion House, the terraces, and the ground between Pilgrim Street and the East front, would occupy 6300 square yards (5270m²). The total extent of building-ground, obtained by these arrangements out of Major Anderson's present property, exclusive of streets, amounts to 37000 square yards (30985m², 3 hectares).'(14)

Dobson's scheme was not built, but the proposals will be analysed, as a contribution to the Study Area.

Thomas Oliver (1791-1857) produced 'A General Plan of Improvement' in 1830, which is described in his book. However, all his 'main leading streets' managed to miss Study Area 1, although ironically some affected Study Area 2.(15)

1834 Central Area Development

All these suggestions and proposals finally came to fruition when the Estate, including the Northern part of Study Area 1, which had become known as Anderson Place and the Nuns, was sold to *Richard Grainger*. When Major George Anderson died in 1831 (16) his heir, Thomas Anderson, accepted Grainger's offer of £50,000.(17) The Major's father, Mr George Anderson, an opulent builder and former apprentice bricklayer, had convinced himself that it was his family's ancestral home and had made an easy purchase from the Blacketts in 1782, following the Council's disinterest.(18)

It took three years from the Major's death before *Grainger* presented his proposals. There has been considerable speculation about what happened and who was involved. In pure urban design terms, it might be suggested that it does not matter about who did what, and that it is only the resulting built environment that requires consideration. On the contrary, it is an important aspect of this thesis, that the principal players create the result, whether they be politicians, financiers, urban gatekeepers, developers, designers or constructors. Indeed, the urban fabric is not solely the product of the designer's imagination, but comes from the delicate balances of power and influence that lay between all the principal players. It is true today, and it was equally true in 1834. If we are foolish enough to follow superficial assessments or to believe misleading accounts such as Margaret Jane Dobson's biography of her father, the main lessons about the creation of Newcastle's central area remain unlearnt.

It is for these reasons that an original interpretation of the little authentic information which is available, will be presented.

Much has been written about *Richard Grainger* (1797-1861), although Newcastle still awaits a biography of him. It is only possible, in this context, to provide the most outline sketch of *Grainger* and the others. *John Dobson's* integrity is well recorded and it is interesting to read the view he expressed in 1859 as part of his presidential address to the Northern Architectural Association -

'... I cannot, however, in this address, venture to the great advance that has been made in our street architecture. This would occupy too much of our time; and the omission may, perhaps, be more readily excused, as you yourselves have witness the erection of those magnificent buildings, which owe, in a great measure, their origin to the spirit and enterprise of Mr. Grainger.' (19)

Dobson seems to be promoting *Grainger* as the guiding influence in the 1834 Development Scheme, and it may not be false modesty that led *Dobson* to play down his own role, as he eagerly described his major achievements in the same presidential address. This view is supported by *Thomas Oliver*, who clearly states that the new markets and streets were 'planned and constructed by Mr Grainger.' (20)

Richard Grainger was a small-time speculative builder, who forged an unlikely alliance with *John Clayton* (1792-1890), the invincible Town Clerk of Newcastle. *Clayton* encouraged *Grainger* to move into development. With *Clayton's* backing and finance from his wife's dowry, *Grainger* started on a course that changed his life and Newcastle upon Tyne for ever. (21) Moreover, the public relations were so perfectly handled that the townspeople greeted each proposal with growing enthusiasm.

In 1824, *Grainger* developed Blackett Street and Eldon Square for the Corporation. Eldon Square has been Newcastle's only real planned square. This was followed by the magnificent Leazes Terrace. Each project was an increase in scale and grandeur. *Thomas Oliver* noted another important fact about these developments -

'The introduction of ashlar stone for the building of private dwelling-houses, in Newcastle, may be said to have commenced in 1823, with two houses built by Dr. Baird, in Northumberland Street, to a plan designed by Mr. Thos. Oliver, architect. In the following year, the Corporation offered for sale to the public, freehold building sites in Eldon Square, the fronts to be of ashlar stone, to a design by Mr. John Dobson, architect; and in 1829, Mr. Richard Grainger commenced to build the Leazes Terrace, in polished stone, containing 58 dwelling houses, to a plan drawn by Mr. Thos. Oliver, architect. Previous to these, only three houses could be found in Newcastle, fronted with ashlar stone, all of which are of ancient date'(22)

The point is that in 1823 and 1824, *Oliver, Dobson and Grainger* started a process which was to transform Newcastle from being predominantly a brick town into predominantly a stone town, in only fifteen years.

The scale and speed of the Central Area Development were breathtaking. *Grainger* actually purchased the land in 1832.(23) The unsigned plan of proposals (dated May 1834) was placed before the Common Council on 22 May 1834.(24)

'... on the 24th May, Mr. Grainger first exhibited to the public his plans for improving the town. In July, the same year, he commenced operations in the Nun's Field; and on the 31st October 1835, the new markets were opened!'

Oliver goes on to inform us that the new buildings in fronts of dressed and polished stone were about a mile and a quarter in length. The scheme had an estimated total value of about £1 million and regularly employed 2000 people for several years.(25)

Confidence and enthusiasm for the proposals were seemingly never in doubt, as witnessed by the Newcastle Journal -

31 May 1834 'IMPROVEMENTS IN NEWCASTLE'

'Great interest has been excited, amongst the inhabitants, during the last two days, but the gratuitous exhibition to the public, in Mr. Small's Auction Room ... of Mr. Grainger's projected improvements of the town'

7 June 1834

'that the projected market will be a perfect one and that the streets to be formed, will be magnificent ranges of splendid buildings, who will doubt, after what Mr. Grainger has already done. We need remember only the Arcade, Blackett Street, Eldon Square, and the Leazes Terrace to feel a perfect reassurance, that in Mr. Grainger's hands these immense improvements will be carried into effect, with an expedition and a splendour worthy of the occasion.'

14 June 1834

'... a new era has indeed already begun. Who would have supposed ten or twelve years ago that such buildings as Eldon Square, Leazes Terrace, and the Royal Arcade could have been so speedily and successfully executed by one individual, and these works, we trust, are but indications of that more increased prosperity and enlargement of the town which is yet to follow.'

What an astounding contrast is found when these reports are compared with accounts of developments and schemes in our own Century. However, the final comment must rest with *Thomas Oliver* -

'... the improvements ... to the town, have given new and extensive accommodations, with facilities for trade and business, which is of immense value, and which fully entitles Newcastle upon Tyne to the appellation of a 'spacious and flourishing town' and to retain its character as the 'Metropolis of the North of England.' (26)

The Principal Players

Before moving onto the analysis of the area, it is important to identify the principal players in the 1834 Development Scheme, as there has been much misinformation about attribution.

The plan of the development itself is the most contentious issue. The most likely explanation is that the principles were established by *Richard Grainger* (1797-1861) and formed into a drawing by *John Wardle* (1792-1860) who

apparently ran *Grainger's* 'Architectural Department' from its commencement in 1834 until it was wound-up in 1841.(27)

Only three buildings in the scheme were fully designed. These were the Theatre Royal by *John* (1787-1852) and *Benjamin* (1811-1858) *Green*, the Butcher and Green Markets by *John Dobson* (1787-1865), and the Central Exchange by *John Wardle* assisted by *George Walker*.

The streets were designed as facades. With the exception of *Dobson's* East side of Grey Street from Shakespeare Street to Mosley Street and elevations associated with the theatre and markets, all the facades to the new streets were designed by *John Wardle*.(28)

Further evidence of the process and players involved will be offered as part of the analysis of the area.

The Plan

The 1834 Development Scheme has been much praised as a permanent monument to cultured 19th Century urban design. It meant that Newcastle has become the only traditional major city in England with a planned centre.(29) If all that is true, this thesis suggests that it was more as a result of a series of pragmatic decisions than an overall design concept. The general effect, in terms of the planning, was really formed by a series of 'happy accidents' and detailed intentions. (See Figure 46)

The first (already-established) proposal was a response to the 'northward drift' and the demands for easy movement of wheeled vehicles. In 1771, the medieval bridge over the Tyne was swept away in a devastating flood. A new bridge was completed in 1781, and in 1784, *David Stephenson* (1757-1819) was engaged to improve the approaches to the river and ease communications within the town.(30) The new bridge had given the spur to action but concern had

been growing for some time about the dangers and inconvenience of movement between the Quayside and the plateau. The only access for coaches, carts and cattle between the two parts of Newcastle was either by the steep and narrow Side, where vehicles often became congested; or through a maze of narrow, dark alleys at the foot of Pilgrim Street. The latter route was particularly disturbing, as it had become an encampment for thieves and vagabonds who lay in wait for any robbery opportunity. The major part of *Stephenson's* scheme was the construction of Dean Street over the Lort Burn.(31) Although steep in ascent, Dean Street provided the first direct link between the two parts of the town and considerably improved movement from the new Tyne Bridge, northwards. However, Dean Street terminated at Mosley Street. During the early years of the 19th Century, the town was bursting through the medieval wall, and development was starting North of Blckett Street. An urgent need had therefore been established for a continuation of Dean Street, up to Blckett Street. *Grainger* recognised this need. It was also clear that for *Grainger's* scheme to succeed, he had to encourage substantial support from both Corporation and townspeople. Thus it became the focus of *Grainger's* scheme, to provide a street linking Mosley Street and Blckett Street. As a builder-developer, *Grainger* required that the street be closely parallel to Pilgrim Street, in order to provide convenient building blocks. The description on the 1834 design drawing, confirms the above observations -

'The principal street commences at the head of Dean Street and stretches northward to Blckett Street, which it enters in front of St. James' Chapel. This street will be 80 feet (24m) wide. The Houses will be built with Architectural Elevations, richly ornamented, and the whole of polished stone. The footpaths, on each side of the street will be 13 feet (3.6m) wide, of Arbroath Stone, and the carriage-way will be McAdamized.'

This street received the working titles of 'New Dean Street' and 'Upper Dean Street' before it became known as Grey Street.

The second already-established proposal was for a new street from Blackett Street, opposite Eldon Square, to Newgate Street/Bigg Market. This street was part of *Dobson's* scheme(32) and *Oliver's* general plan of improvement.(33) Moreover, a space of street width had been left in *Oliver's* project for Blackett Street, opposite the centre of Eldon Square.

These two streets formed the basis of *Grainger's* plan. Also, it must not be forgotten that *Grainger* was a speculative builder and developer. The repetitive reference to 'houses' on the 1834 design drawing, emphasises the point that behind the proposed 'Architectural Elevations,' buildings of familiar dimensions would be constructed by tradesmen working in an evolving tradition. It is suggested here, that the factors outlined above and their implications, generated the whole plan.

More than half the length of New Dean Street (Grey Street) would have to be built on land that *Grainger* did not actually own. The decision to build his 'principal street' meant that he had to negotiate a series of transactions. *Grainger* realised that if he could offer owners of property (on the intended line of his street) better accommodation as part of his scheme, then building beyond his ownership might be feasible. *John Clayton* doubted the wisdom of this approach and much reflection delayed the design phase for about a year.(34)

The Transactions for Grey Street

Grainger's determination to build his principal street from Mosley Street to Blackett Street resulted in the need for two major transactions, and a small number of minor ownership agreements - mainly around High Bridge.

The first major transaction was a very delicate affair involving the existing markets. The existing Butcher Market (Flesh Market) was in the form of a square. The shops were composed of rusticated stonework, and the roofs hipped and covered with slates. In the same area was held the poultry, eggs and butter market, situated along the side next to Pilgrim Street and on the opposite side was the Green Market. These were erected by the Corporation of Newcastle in 1808, but had been considerably improved and extended in 1830-31.(35) *Grainger's* timing could not have been worse. The demolition of the whole, and the erection of some new markets elsewhere, appeared to many people to be totally uncalled for, and involving a large unnecessary expense. Clearly, substantial lobbying of powerful groups followed. There were numerous meetings of the Parish of St Andrew's, the Chamber of Commerce, the medical practitioners, the architects and builders, and so on. A petition of townspeople resulted in 5000 for, and 300 against. A similar petition of companies found 25 in favour and 5 in opposition.(36) Eventually, the Corporation agreed to *Grainger's* proposal, provided financial terms could be agreed; and that they would appoint their own architectural adviser, *John Dobson*, to design and superintend the execution of the works.(37) Thus, *Grainger* needed to allocate a large-scale rectangular space in his proposals, for *Dobson's* new market building.

The second major transaction regarded the Theatre Royal which stood in Mosley Street, facing Dean Street. It was built by subscription under the direction of *David Stephenson*, Architect, and opened on 21 January 1788. It

was removed by *Grainger* in 1838, the proprietors having agreed to accept a new theatre and £600 cash, in exchange for the site and materials of the old theatre. The new Theatre Royal, to the design of *John* and *Benjamin Green*, was of sufficient quality and status for *Grainger* to erect it in the principal street.(38) Clear evidence is not available, but the implication of events is that the *Greens* were employed by the Theatre Company for its own reasons. *John Green* was an engineer by training, and therefore eminently capable of devising a suitable structure for this large scale volume. Howard Colvin notes in his Biographical Dictionary of English Architects (1660-1940) that *John's* designs were plain and sturdy, whereas his son *Benjamin* was subject to extravagant flourishes. The description sounds like an excellent combination for theatre designers, and the proprietors certainly expended the sum of £1000 in extra ornamental decorations. The Theatre opened on 20 February 1837.(39) The portico is the building's most striking feature, consciously derived from the Pantheon at Rome.(40)

The minor transactions were relatively easily settled, so *Grainger* had literally cleared the way for the erection of the principal street. The remaining area of land had now to be considered.

The Developing Plan

It has already been noted that there was an established requirement for a street from Blakett Street, opposite Eldon Square, to Newgate Street/ Bigg Market.

The options for the line of this street were as follows. First, it could have followed the proposals by both *Dobson* and *Oliver*, and crossed in a straight line to the Nun's Gate. Secondly, it could have taken a North-South route to join the Bigg Market just past the Southern tip of *Grainger's* ownership. *Richard Grainger* had two primary considerations. First, he needed to allocate sufficient

space for the new market building. Secondly, he required that the land should be densely developed with simple buildings. Both of the above options created triangular shaped sites which would not have fulfilled the developer's requirements. The markets could have been located on the East or West side of Grey Street (although there was really insufficient space to the East). Yet *Grainger* must have felt that 'Flesh and Vegetable Markets' were not conducive to the status and grandeur of his principal street. Also, the notion of moving the markets a little up the street from their existing would have been a difficult point to argue with both the Corporation and townspeople. The most acceptable site for the new markets, was therefore on the Western extremity of the former Estate. *Grainger* and *Wardle* must have then discovered that if the street from Eldon Square followed close to the North West boundary, they could maximise the development of the site and perhaps achieve a link into Newgate Street. However, more importantly, if a street was planned as a link from Blakett Street at the junction with the principal street - parallel to the street from Eldon Square - a rectangular site began to emerge between these two streets, which would be of sufficient size for the new markets.

The description on the 1834 design drawing identifies this part of the proposal -

'Another leading street commences near the head of the principal street, where it joins Blakett Street and extends into the Bigg Market where the Turks Head Yard now is: this street will be 70 feet (21m) wide, and like those of the principal street, the houses will be of polished stone.'

This street was named *Grainger Street* after the developer.

'A ... street commences in the centre of the South side of Eldon Square, and extends into Newgate Street at a point between the Newcastle and Carlisle Railway Company's office and Mr. Joseph Clark's shop.'

This street was named *Clayton Street* after the town clerk.

'The new Market will occupy an area of nearly 2 acres (8100m²) bounded to the Eastward by ... (Grainger Street) ... and to the Westward by ... (Clayton Street)'

'The North and South Boundaries are formed by two streets each 50 feet (15m) wide, which commence in ... (Grainger Street) ... and terminate in ... (Clayton Street) Its distance from the present market will not exceed 170 yards (155m).'

These streets were named Nelson Street and Nuns Street.

'The market will contain 278 shops, exclusive of vegetable and poultry stalls, the whole under well lighted and well ventilated roofs and with eight commodious entrances from the principal streets already described.'

The market was named Grainger Market after the developer.

The framework for the development was now established. It was based on a principal street (Grey Street), a leading street (Grainger Street), a linking street from Eldon Square (Clayton Street), provision for the markets (Grainger Market) with streets on all four sides (Clayton Street, Nelson Street, Grainger Street, Nuns Street).

The entry to the Nun's Gate (the new street access preferred by *Dobson* and *Oliver*) was maintained and conveniently formed a junction with Nuns Street opposite the centre of one of the buildings enveloping the new markets.

The Transactions for Grainger Street and Clayton Street
Nelson Street and Nuns Street were proposed to be wholly on *Grainger's* property, so no transactions were needed.

Grainger Street was within the developer's property at the Northern end, but as the description stated, it passed through the Turk's Head Yard at its Southern end, ie the junction with Bigg Market. *Grainger* therefore agreed to located a new Turk's Head Inn, on the West side of the

principal street (Grey Street). An entry was included to a yard behind the street. However, this was not a considered place, merely space left over after planning (SLOAP). Nevertheless, the front elevation was a prominent contribution to the scheme, forming the 'centre' to the 'second facade.'

The Northern end of Clayton Street (opposite Eldon Square) had become such an established entry point, that any necessary transactions must have been minimal, and as stated on the design drawing, the Southern junction (with Newgate Street) conveniently fell between an office and a shop.

Grainger's aim was obviously to minimise the number of transactions. Those required were quite complicated enough. *John Clayton* (a solicitor himself) paid tribute to his friend *John Fenwick* and the solicitors of Newcastle for their positive approach, enabling the scheme to be constructed without the compulsory powers of an Act of Parliament.(41)

The Remaining Streets

There were two main requirements needed in the rest of the development. First, a link was necessary from Pilgrim Street through Grey Street to Grainger Street, in particular to provide East-West access to the new markets. Secondly, the land in *Grainger's* ownership, between Pilgrim Street and Grey Street needed to be divided into regular building blocks to facilitate construction. On the first point, a main street was drawn from Pilgrim Street to the centre of one of the buildings enveloping the new markets, in Grainger Street. It was noted on the 1834 design drawing as follows -

'A ... street commences in Pilgrim Street a little below the entrance to Anderson Place, is continued across the principal street (Grey Street) and terminates in ... (Grainger Street). This street ... will be 70 feet (21m) wide, and the houses also of polished stone.'

This street was named Market Street because it gave the most direct access to the new markets.

On the second point, the following were proposed -

'Three other streets, each 50 feet (15m) wide, and with houses similar to those in the streets already described, commence in Pilgrim Street, one below Anderson Place, and two above, and will terminate in the principal street.'

The street below Anderson Place allowed enough space between it and Market Street for the construction of the Theatre Royal, and not surprisingly it became known as Shakespeare Street.

The building blocks above Anderson Place became larger in practice, than originally intended. In the event, only one street was constructed above Anderson Place and this was named Hood Street, after the Mayor. (See Figure 47)

Comparison of Dobson's Scheme (c1824) with the 1834 Plan

During the early years of the 19th Century, the Corporation's interest in Anderson Place and the Nun's Field grew. There are several records of the Council's attempts to purchase the property. As Collard and Ross put it -

'Major George Anderson ... a deputy-Lieutenant and magistrate of the County of Northumberland steadily refused all the offers....'(42)

It has already been established that *John Dobson* had a close association with the Corporation. Indeed he was perceived as their architectural adviser. Had their attempts at purchasing the Estate been successful, it is very likely that *Dobson* would have been invited to design the plan. His scheme of c1824 may have been anticipating that situation or he may just have been displaying interest in the area. Nevertheless, the nature of the

scheme is such that it clearly indicates the client was to be Corporation, rather than a speculative builder-developer such as *Richard Grainger*.

It has been shown that *Grainger's* plan was determined by THE PRINCIPAL STREET (see Figure 48), whereas the basis of *Dobson's* scheme was THE GRAND CENTRAL SQUARE. (See Figure 49) It is interesting that *Dobson* felt it necessary to justify this large square by proposing that it would be used for the sale of wheat, oats, etc. It seems to be a recurring theme, that when open spaces are included in proposed plans, they are required to be specifically functioned. It is not suggested that spaces should be arbitrary, ill-considered or incapable of being used. Nevertheless, spaces which find their origin in public celebration and enjoyment would make a greater contribution to symbolic and spiritual well-being of the city. At least, by proposing a combination of streets and squares, *Dobson* was suggesting a more interesting spatial pattern. Indeed, he aimed to emphasise the existing spaces - Eldon Square, Green Court and the Flesh Market, with the locations of new streets. The street from the Nun's Gate was to find an 'imposing termination' at Eldon Square. Another street was to 'pass by the open space named Green Court' and the new Flesh Market would have made a 'pleasing bound' to a third street. The front ground to Anderson Place (off Pilgrim Street) and especially its middle avenue with trees on each side, was to be 'carefully preserved.' In contrast to *Grainger's* scheme which obliterated Anderson Place, *Dobson* made it the focal point by proposing a new Mansion House on the site of the existing building. It was certainly to be a grand edifice - 'a Civic Palace ... suitable to the rank and dignity of the first magistrate of this opulent and populous town.' (43) Presumably the building was to be a replacement for the Mansion House situated at the Close on

the Quayside. This was *Dobson's* recognition of the Northward drift, clearly establishing the area as the centre of governance, as well as commercial activity.

However, as a development, *Dobson's* scheme was low density and uneconomic to a speculative builder. There was little relationship between the line of buildings generated by the street pattern, and the boundary of the property. The domination by grand statements produced a situation where a clear building pattern would have been difficult to achieve. (See Figure 50) Thus, the scheme could only have been realised with the Corporation of Newcastle as its sponsor. With reference to the previously identified needs, the street from Eldon Square to Newgate Street/Bigg Market was an integral part of the proposal. However, Northward movement from the Quayside via Dean Street, was not so clearly recognised. Whilst a route through the Flesh Market may have been part of a more interesting spatial pattern, it was less convincing as a pleasant and easily accessible thoroughfare for volumes of pedestrians and wheeled vehicles.

Thus *Grainger's* Scheme of 1834 for the Central Area Development (see Figure 51) was fundamentally different to *Dobson's* scheme of ten years earlier. It also contrasted in scale and form with the existing medieval pattern.

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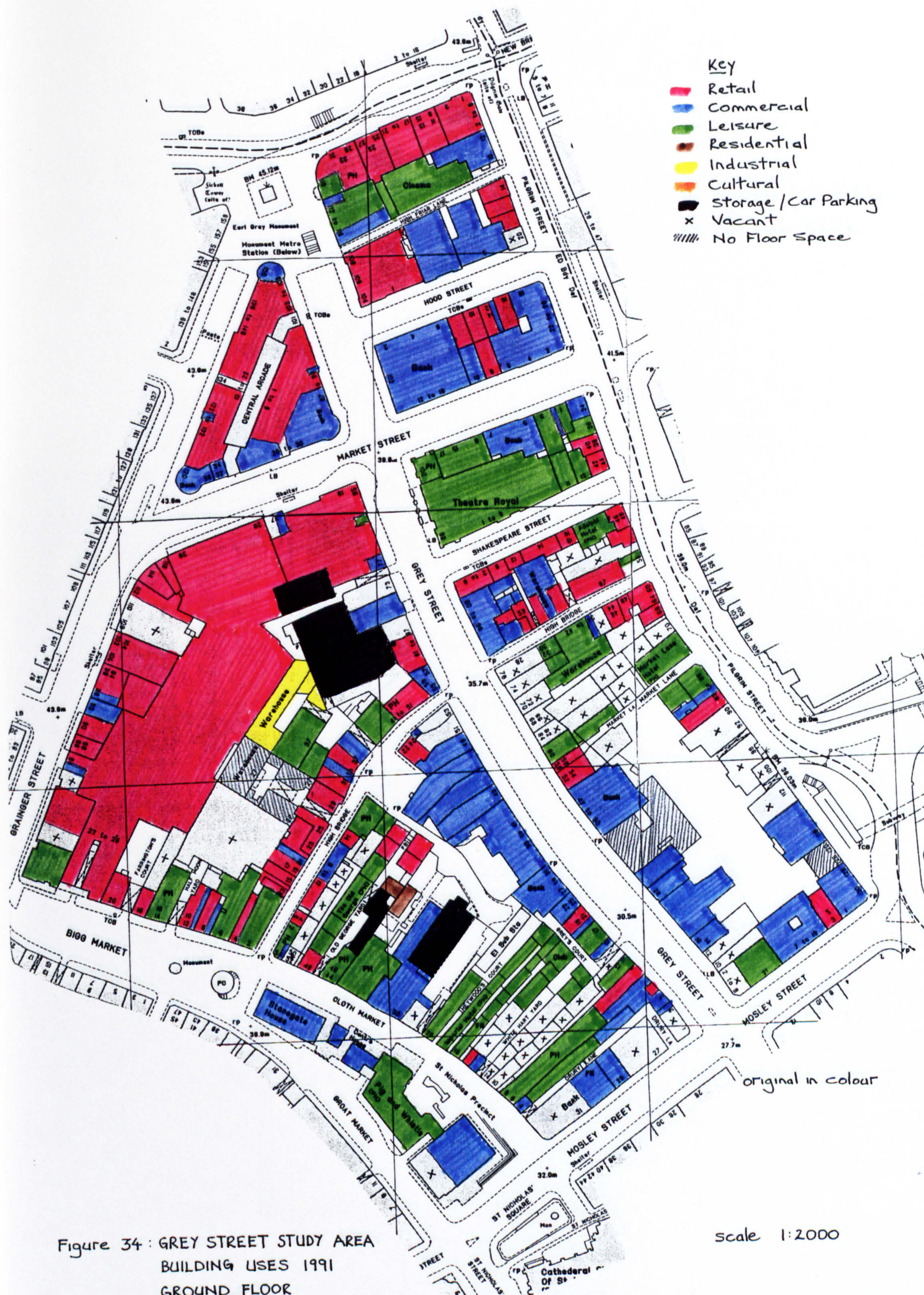
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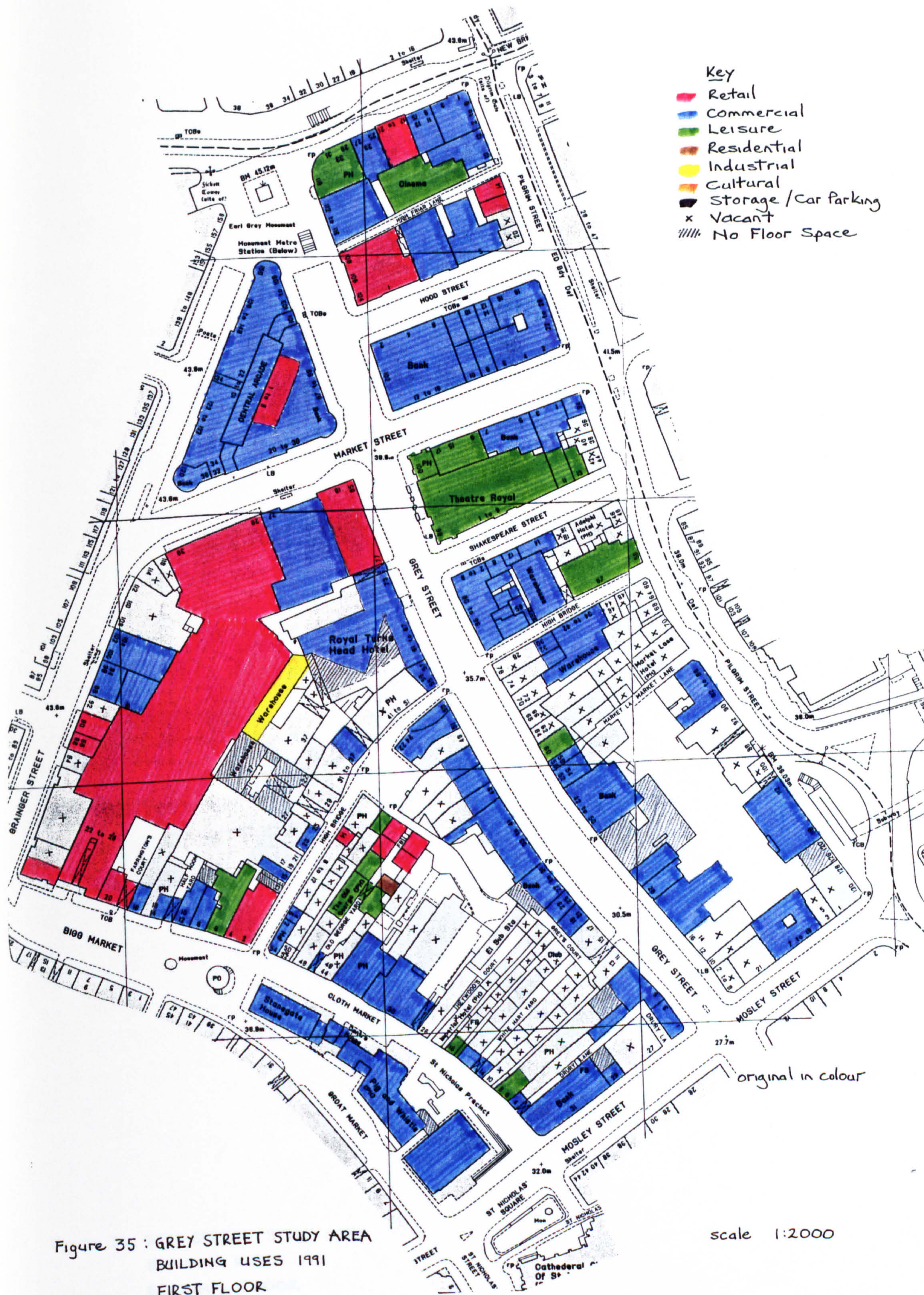


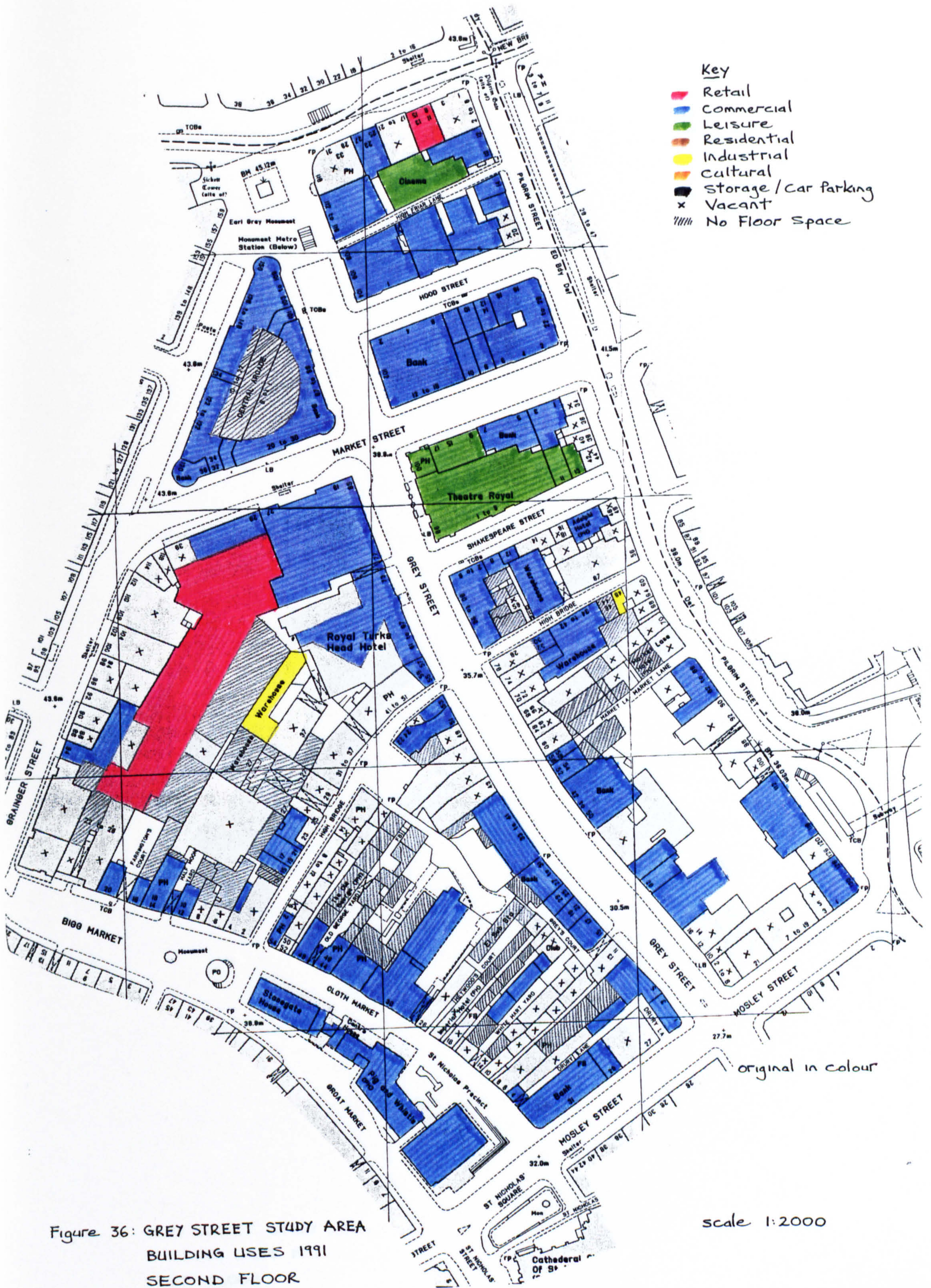
- Key**
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage / Car Parking
 - x Vacant
 - No Floor Space

original in colour

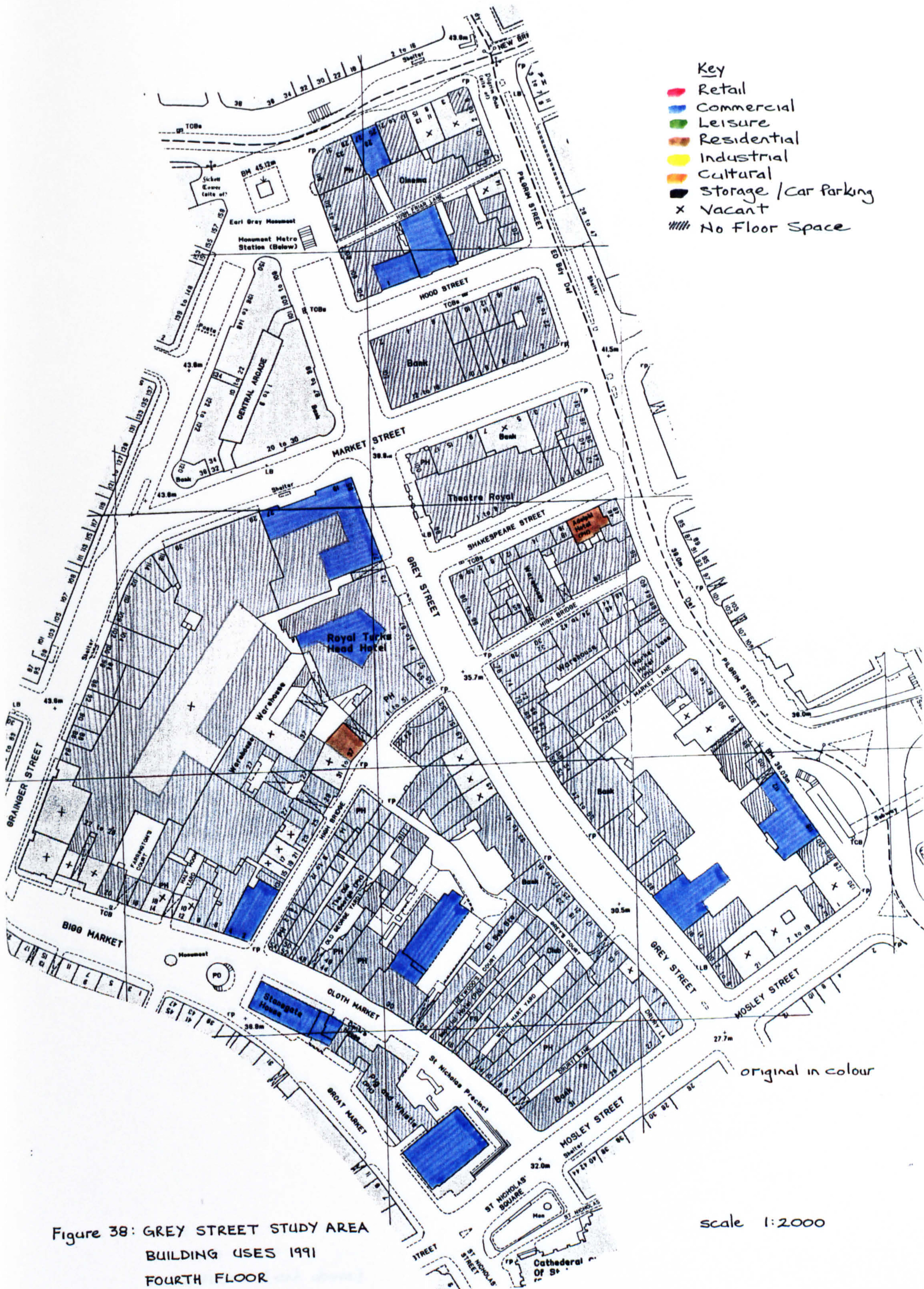
Figure 34: GREY STREET STUDY AREA
BUILDING USES 1991
GROUND FLOOR

scale 1:2000









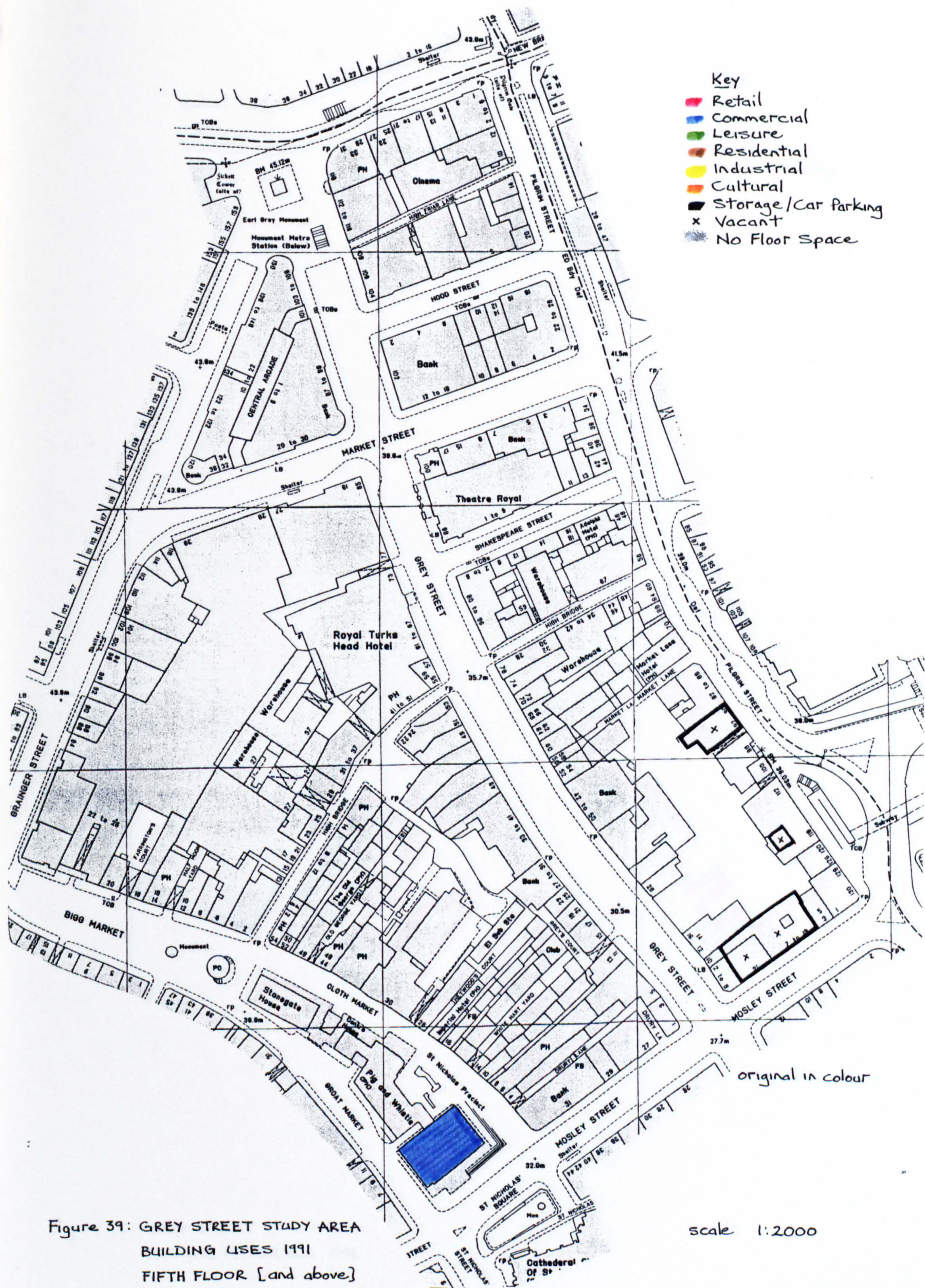


Figure 39: GREY STREET STUDY AREA
BUILDING USES 1991
FIFTH FLOOR [and above]

scale 1:2000

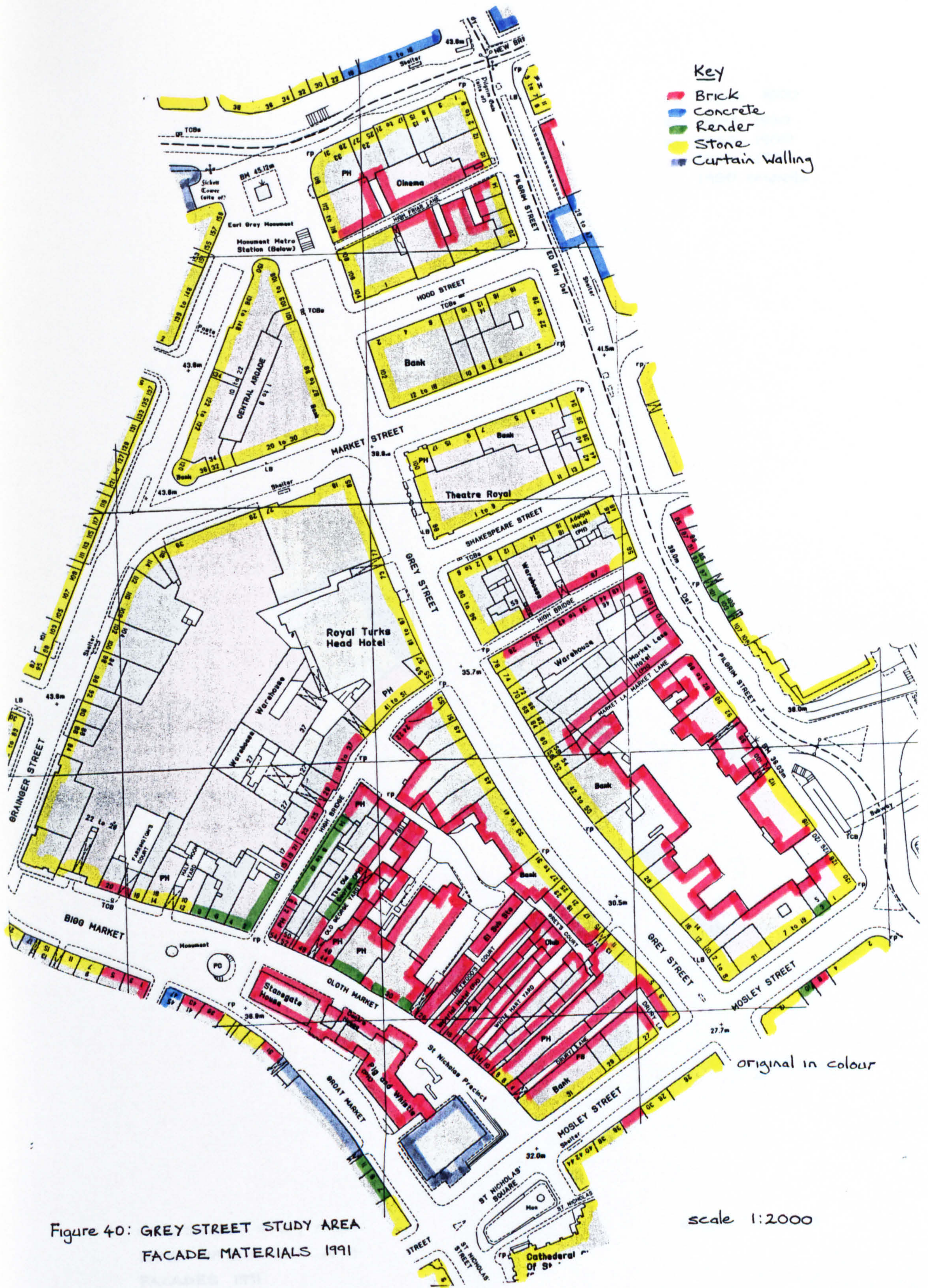


Figure 40: GREY STREET STUDY AREA
FACADE MATERIALS 1991

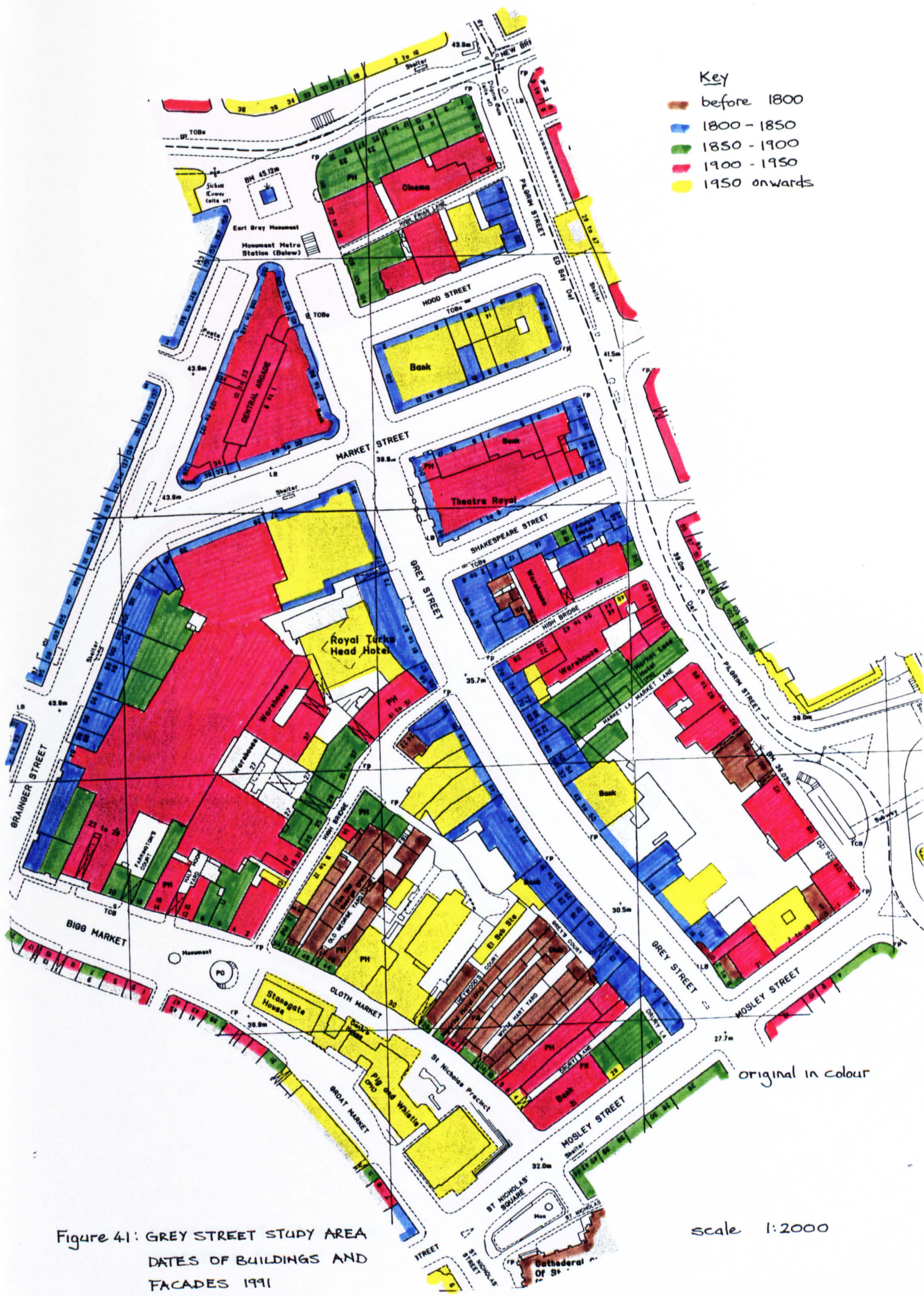


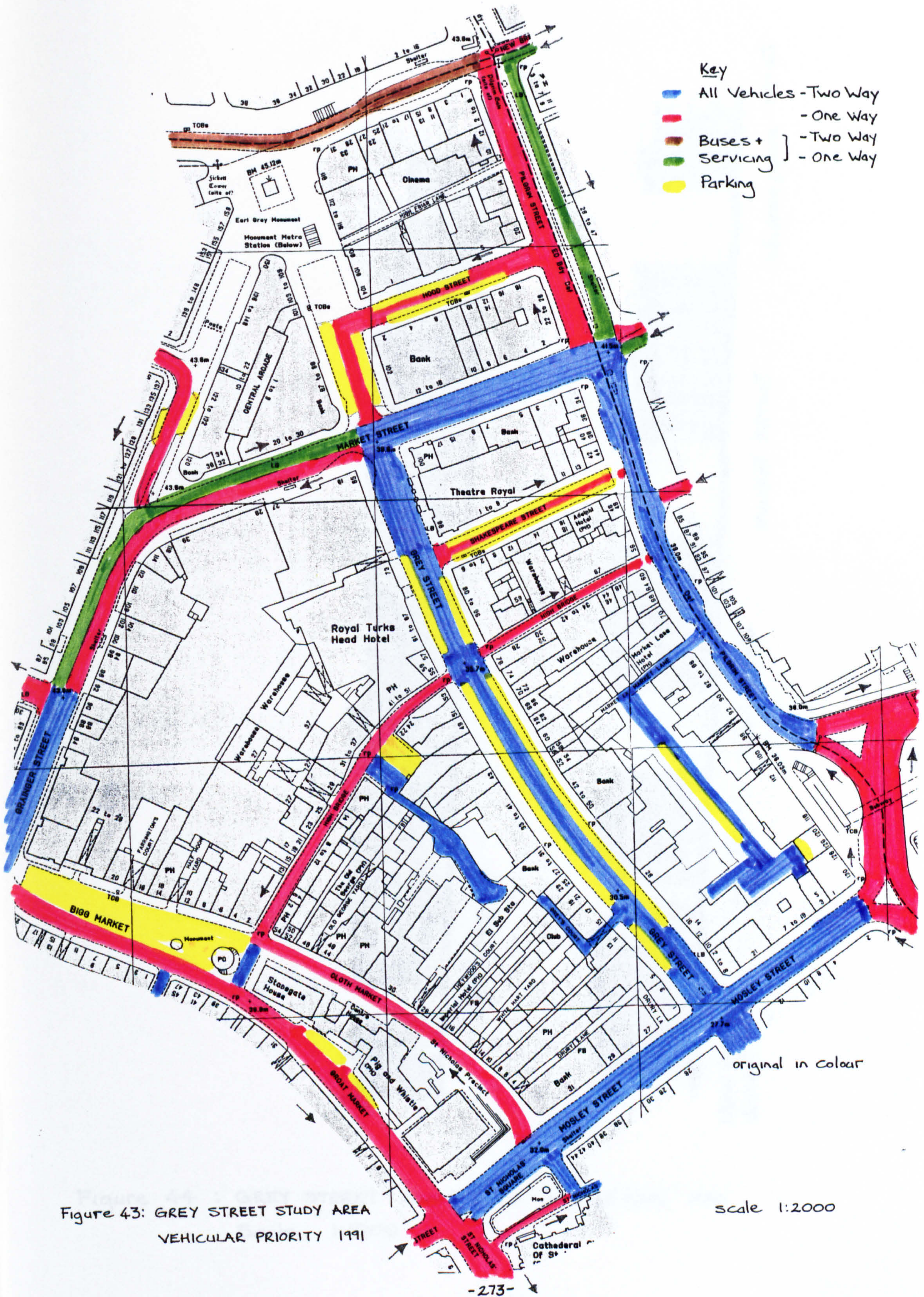
Figure 41: GREY STREET STUDY AREA
DATES OF BUILDINGS AND
FACADES 1991



original in colour

Figure 42: GREY STREET STUDY AREA
PEDESTRIAN PRIORITY 1991

scale 1:2000



- Key**
- All Vehicles - Two Way
 - — One Way
 - Buses + Servicing } - Two Way
 - Buses + Servicing } - One Way
 - Parking

Figure 43: GREY STREET STUDY AREA
VEHICULAR PRIORITY 1991

scale 1:2000

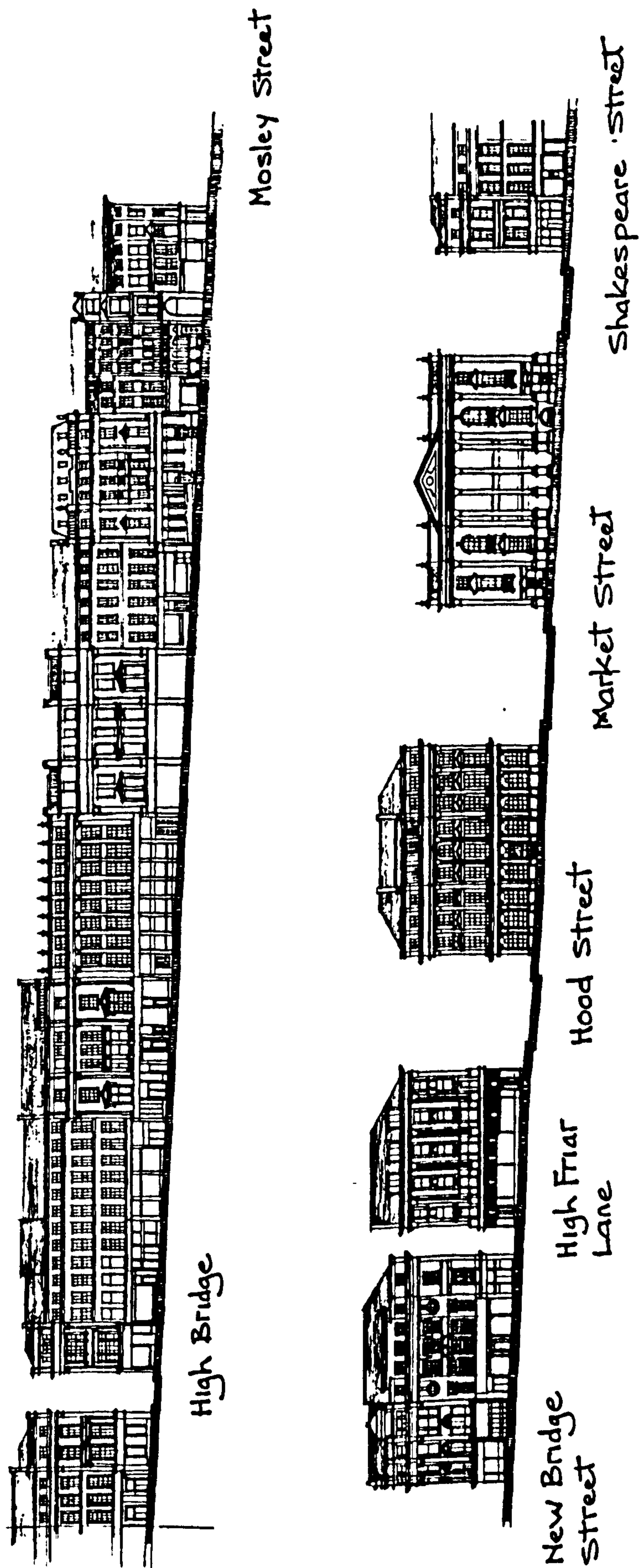


Figure 44 : GREY STREET EAST SIDE ELEVATIONS 1991
Scale 1:1000

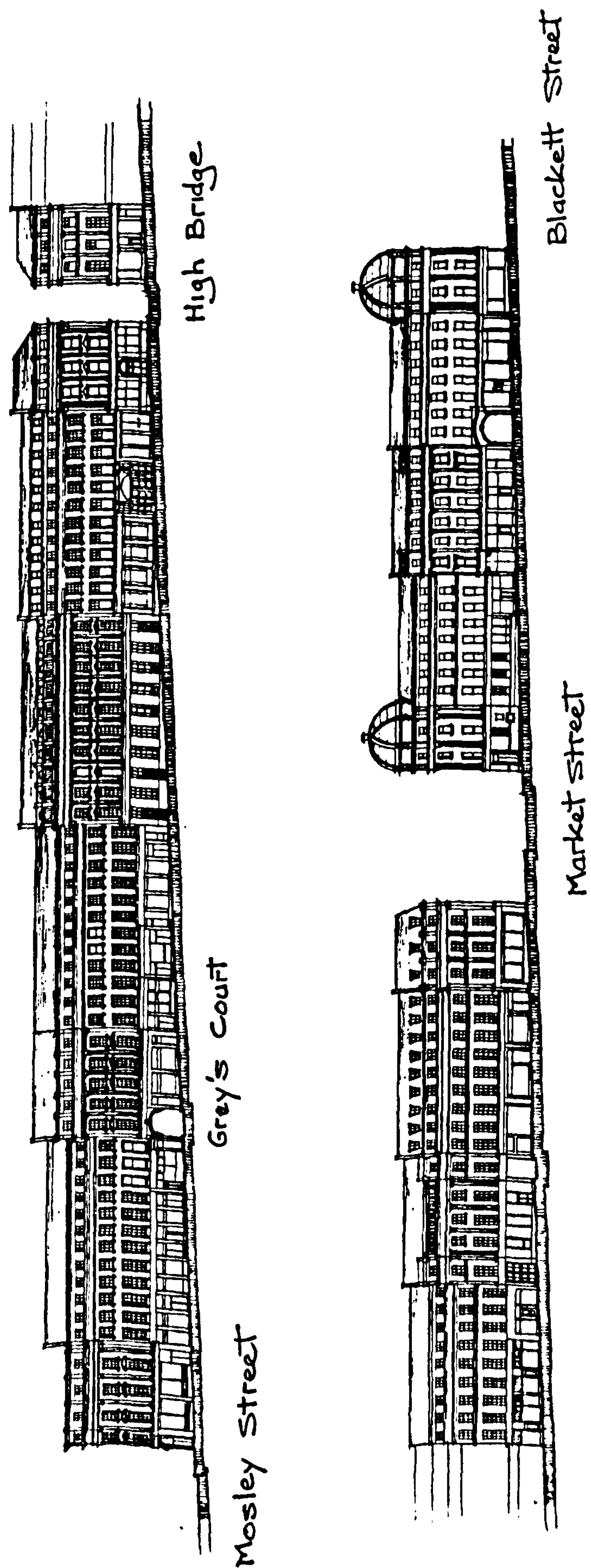


Figure 45 : GREY STREET WEST SIDE ELEVATIONS 1991
Scale 1:1000

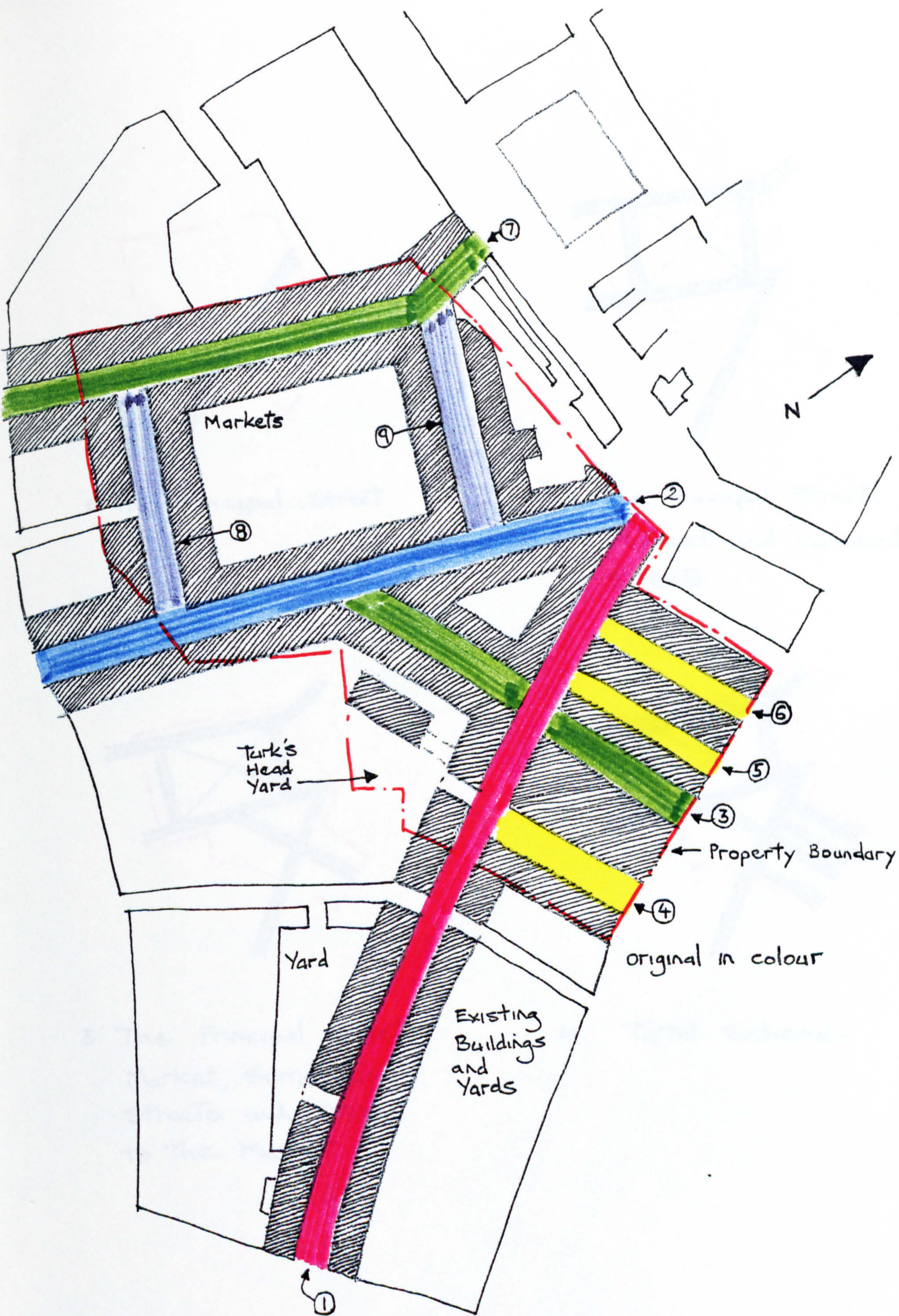
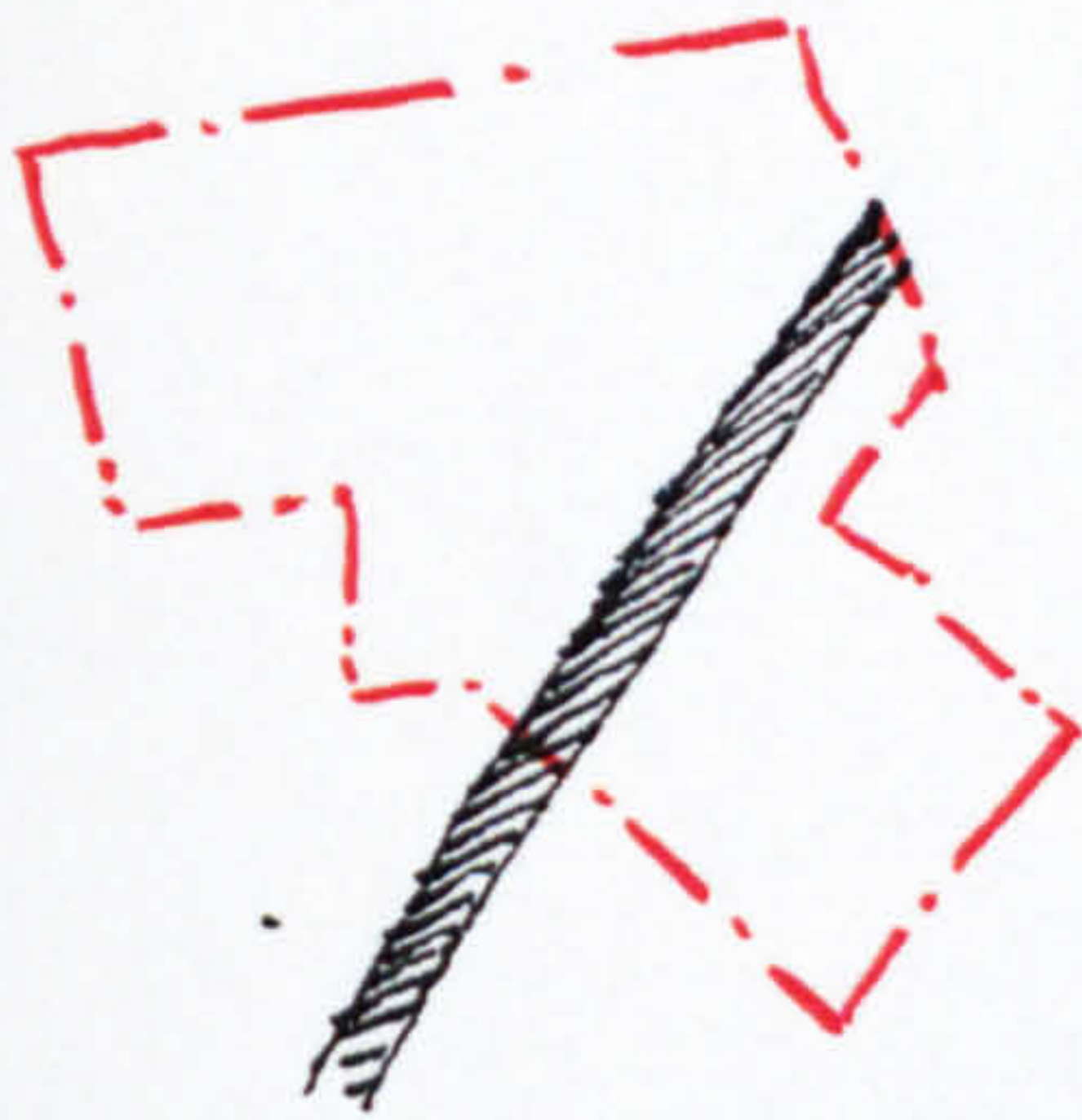
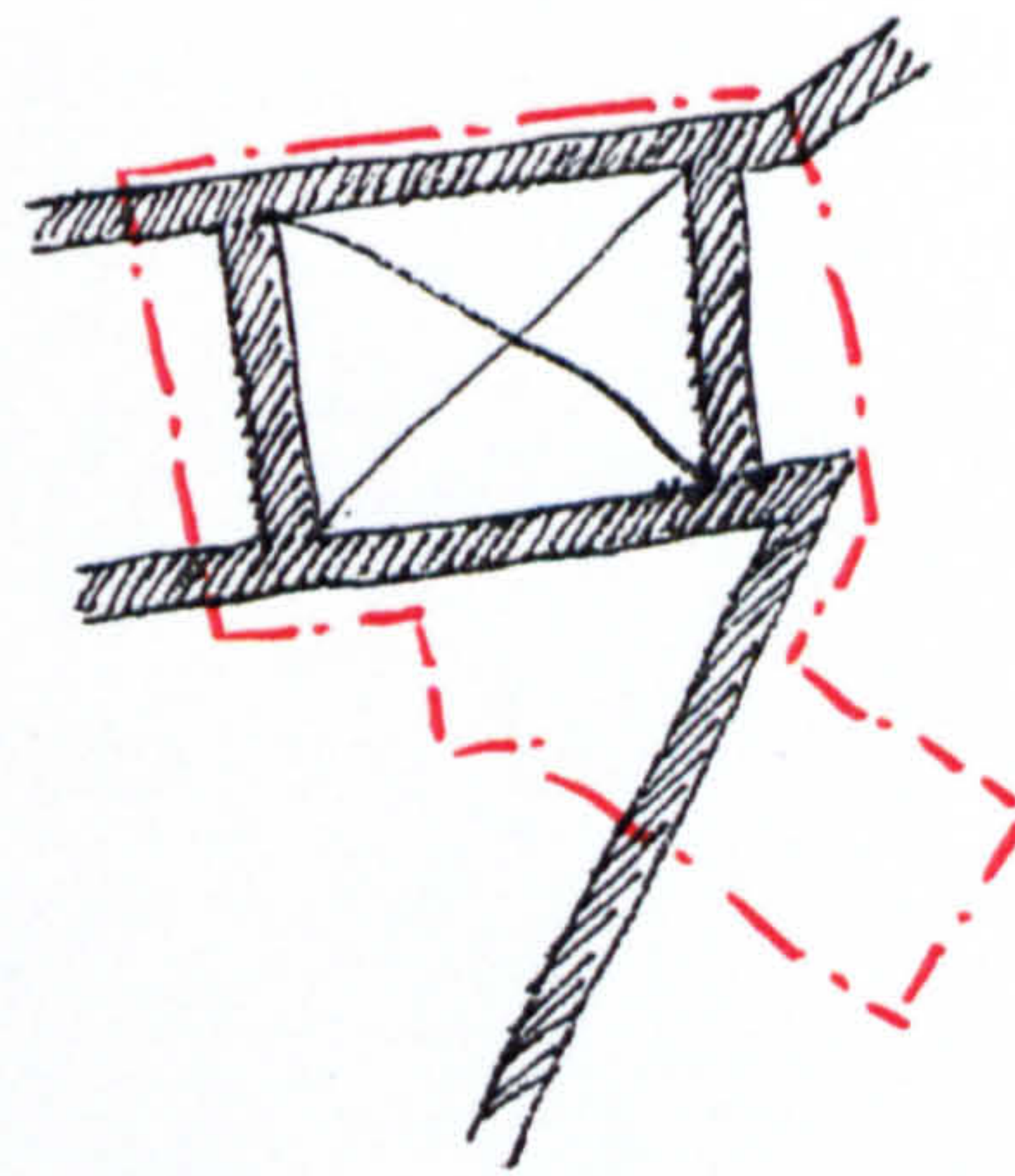


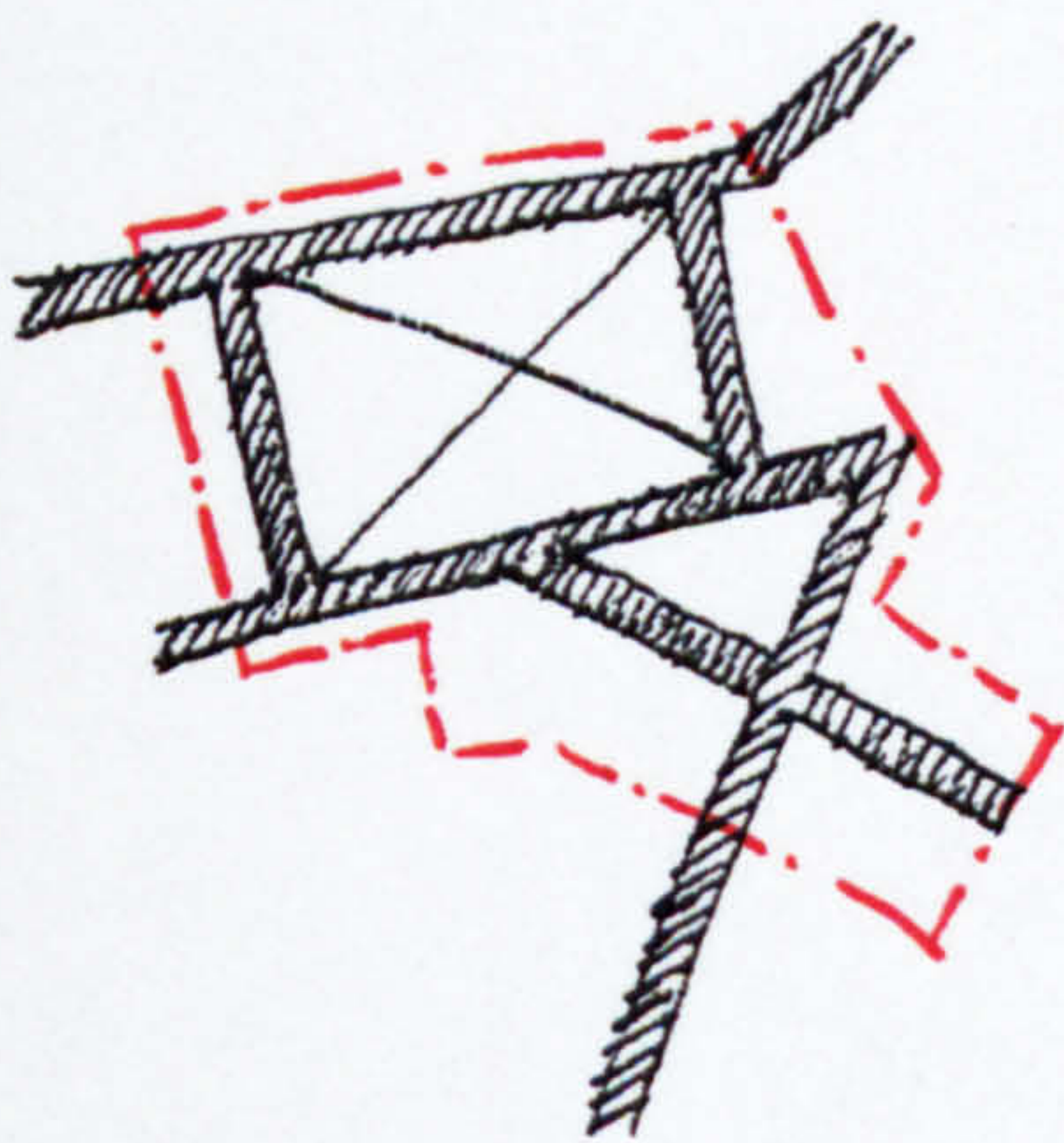
Figure 46 : GREY STREET STUDY AREA
 GRAINGER'S SCHEME 1834
 Reconstruction of the Initial Plan. Scale 1:2500



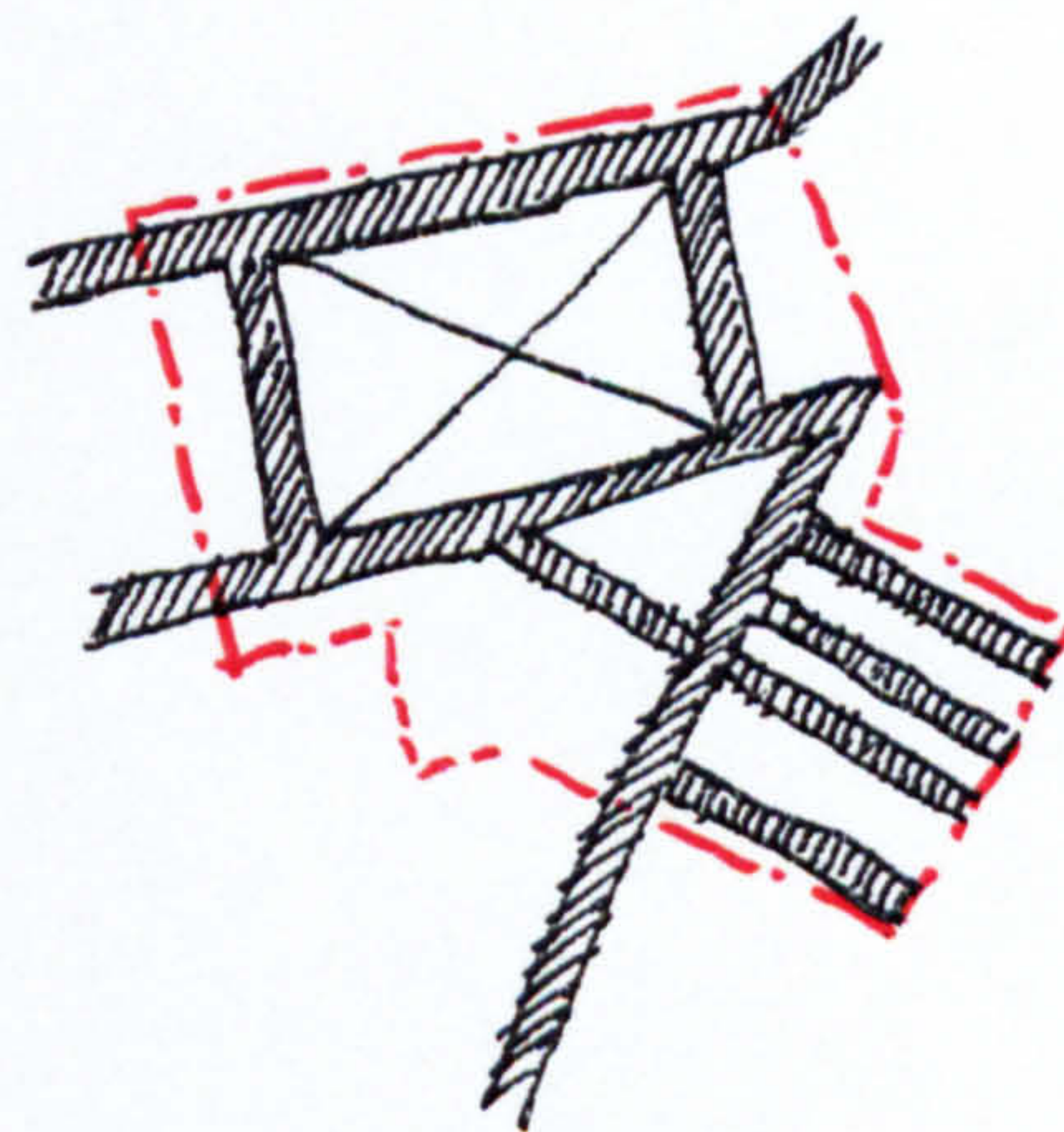
1. The Principal Street



2. The Principal Street
Market and surrounding
streets

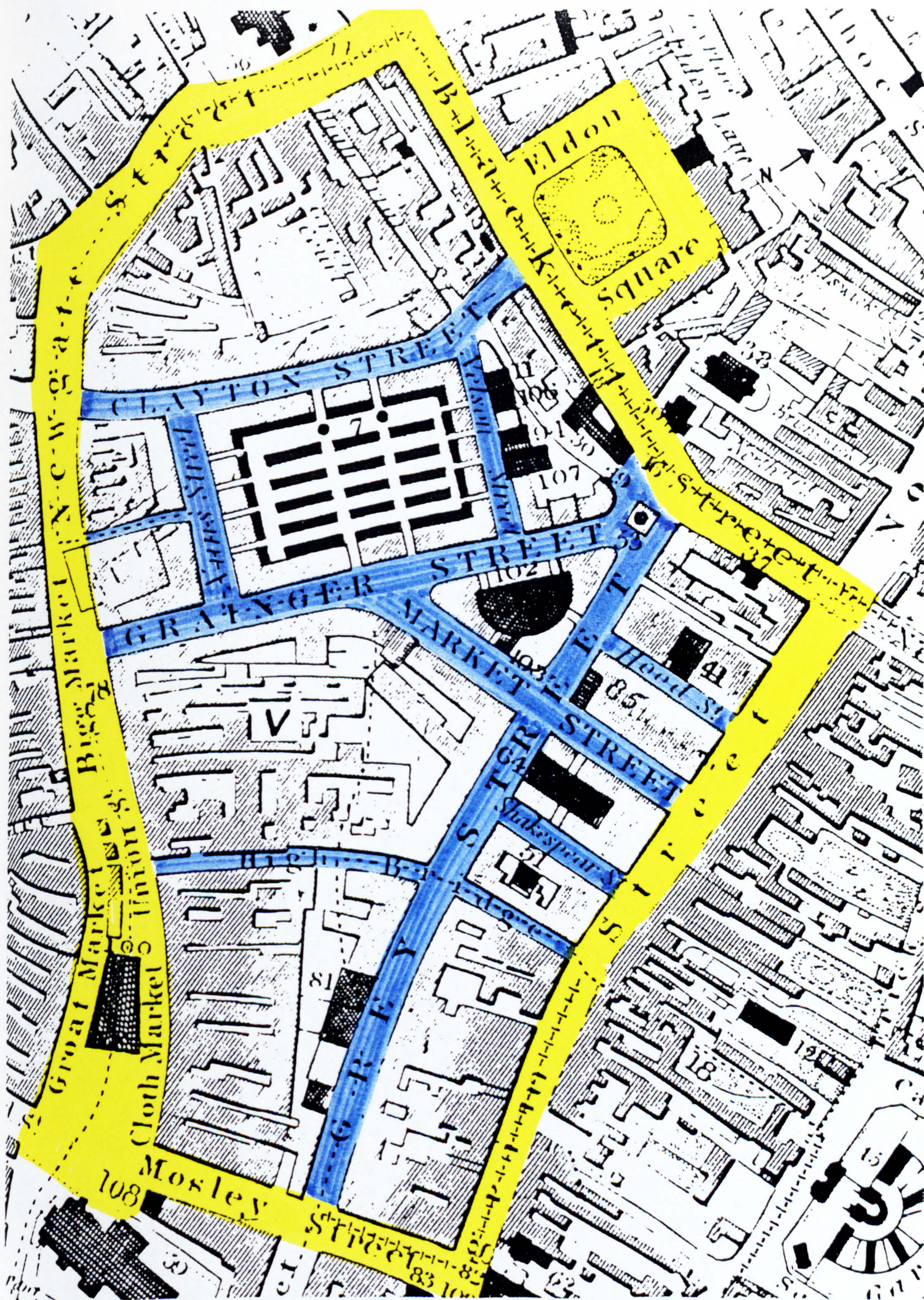


3. The Principal Street
Market, surrounding
streets and street
to the Market

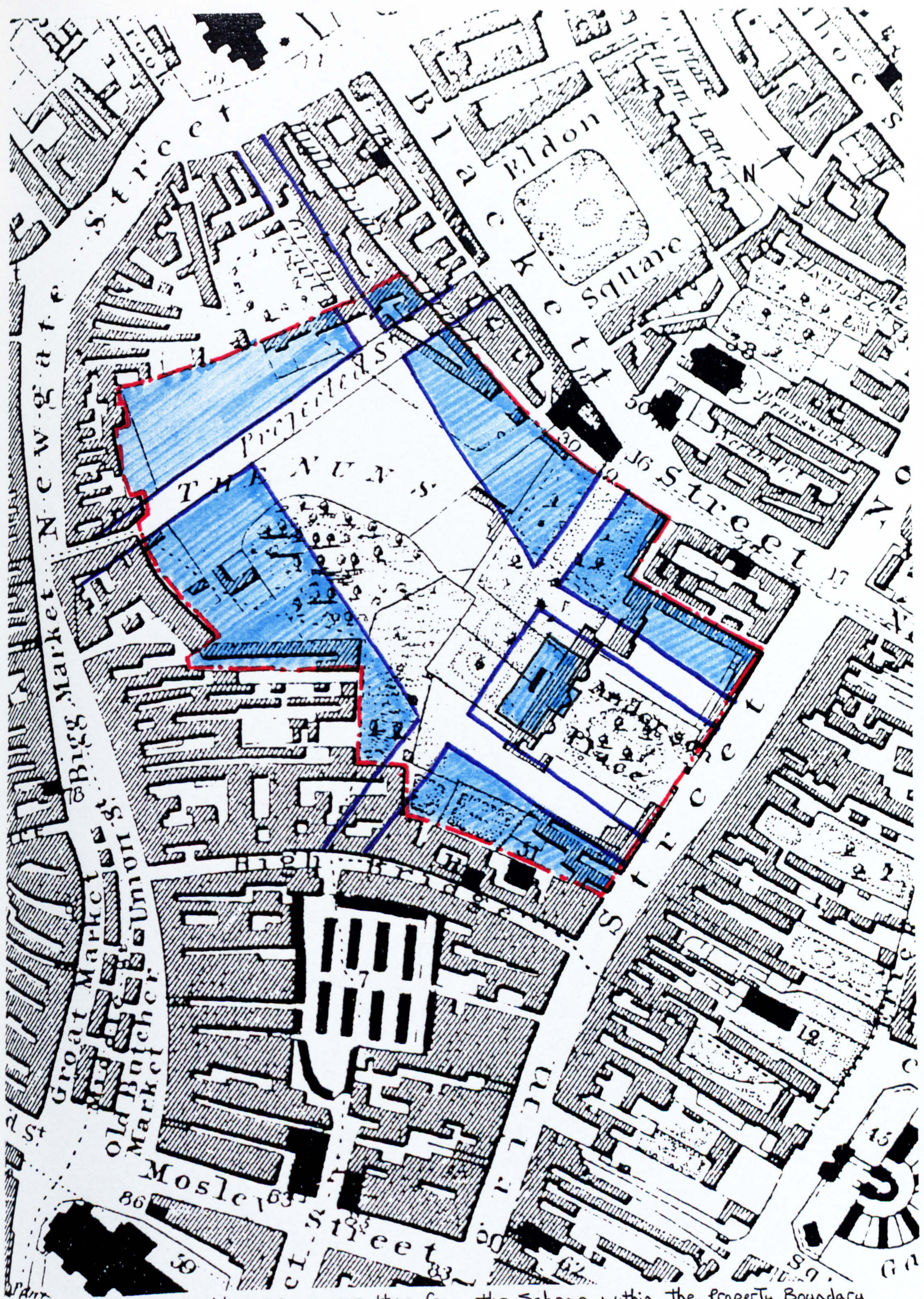


4. Total Scheme

Figure 47 : GREY STREET STUDY AREA
GRAINGER'S SCHEME 1834
stages of the proposal

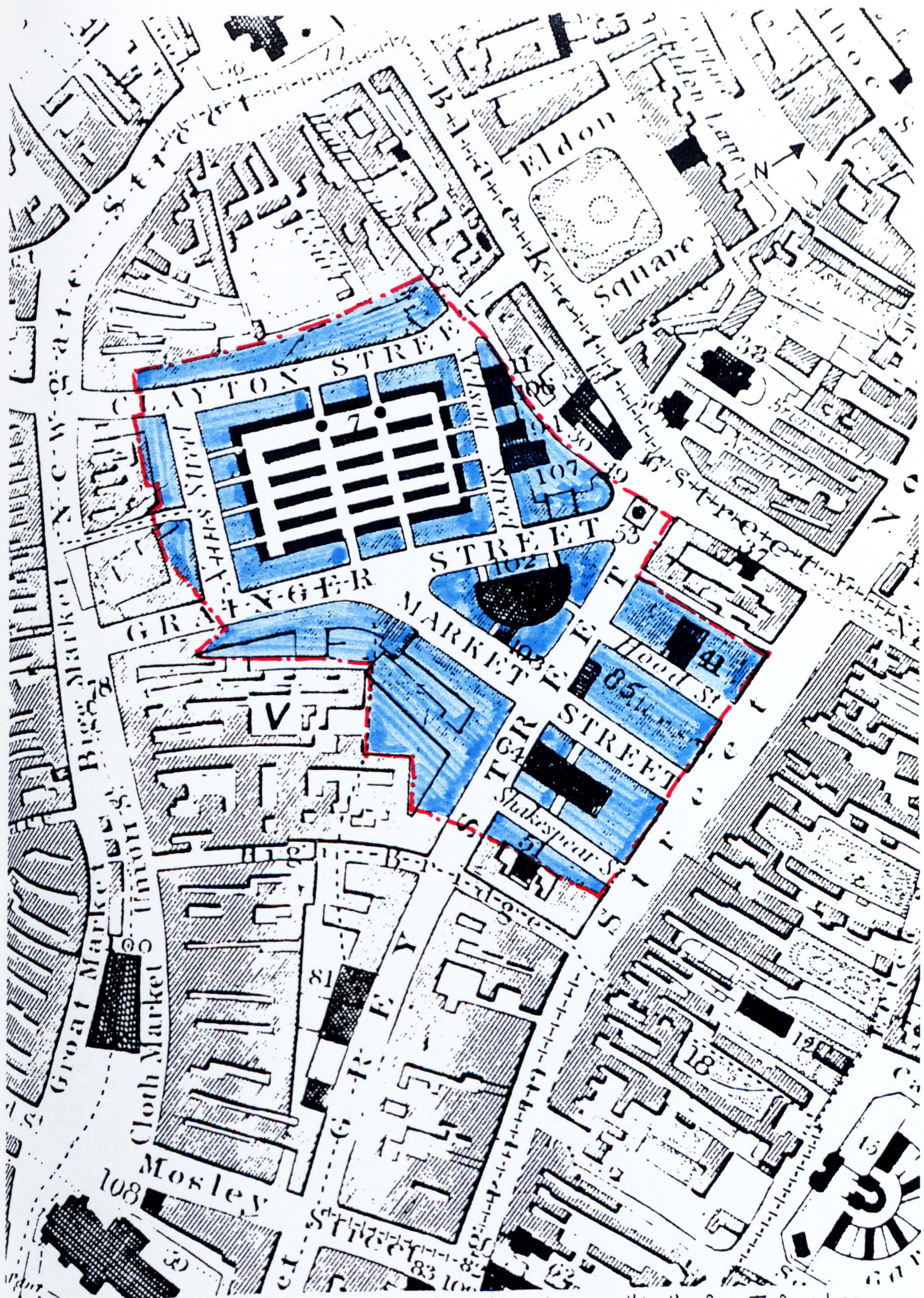


■ surrounding spaces. ■ streets in Grainger's Scheme. original in colour
 Figure 48 : GRAINGER'S SCHEME 1834 based on 'THE PRINCIPAL STREET'
 Scale 1:2500



■ building space resulting from the Scheme, within the Property Boundary
 scale 1:2500 original in colour

Figure 50: DOBSON'S SCHEME c1824 : Streets, Buildings, Boundary.



— building space resulting from the scheme, within the Property Boundary
 original in colour
 Scale 1:2500

Figure 51: GRAINGER'S SCHEME 1834: streets, Buildings, Boundary.

STUDY AREA 2 - JOHN DOBSON STREET 20th CENTURY INTERVENTION

Introduction

Study Area 2 is bounded by Northumberland Road (North), College Street (East), Durant Road (East), Market Street (South), and Northumberland Street (West). Its central spine road is John Dobson Street, which runs from a junction with St Mary's Place and across Northumberland Road at the North, to a junction with Market Street at the South. The Study Area covers approximately 12 hectares (30 acres) between the Civic Centre, retailing and commercial cores, and the University of Northumbria.

This area was selected because the 1960s city centre Redevelopment Plan, represented major 20th Century intervention on a pattern that was primarily established in the early 19th Century. The Plan created John Dobson Street, Durant Road, the Central Motorway East and a plethora of pedestrian bridges and walkways, linking various locations with Princess Square and the deck over John Dobson Street. The buildings are considered as a jumble of many different kinds and John Dobson Street in particular, has attracted much criticism. The Cityscape Team of 1986 (footnote) described it as -

'... the most inhospitable road in the area. Traffic barriers prevent people crossing it and nobody wants to walk its length.' (1)

Even Councillor Les Russell, Chairman of the City's Development, Planning and Highways Committee, called it 'monstrous'. (2) However, John Dobson Street is only part of a plan that was intended to be comprehensive.

Footnote: Alfred A Wood (Chief Architect Planner of English Heritage) wrote that the Cityscape Team are '... a group of distinguished Newcastle architects, engineers and artists ... their aim is to restore pride of place to the capital of the North East.'

In 1991, an original survey was undertaken for this thesis, to obtain information for analysis of the Study Area. The survey includes the following -

Building Uses -	Ground Floor	(See Figure 52)
	First Floor	(See Figure 53)
	Second Floor	(See Figure 54)
	Third Floor	(See Figure 55)
	Fourth Floor	(See Figure 56)
	Fifth Floor (and above)	(See Figure 57)
Facade Materials		(See Figure 58)
Dates of Buildings and Facades		(See Figure 59)
Pedestrian Priority		(See Figure 60)
Vehicular Priority		(See Figure 61)
Elevations to John Dobson Street		(See Figures 62 and 63)

This information will be used as data for the Application of Urban Design Principles and Typologies in Chapter 4.

Historical Development of the Study Area

Isaac Thompson's survey of 1746 (see Figure 8) shows an area of land, part-garden and part-field, between the 'suburbs of Pilgrim Street' (now known as Northumberland Street) and a great natural feature called Pandon Dean. To the South West, the town wall can be seen enclosing further gardens which back onto some houses in Pilgrim Street. The nature of the 'Northward drift' in the development of the town, has already been identified, and the evolution of this Study Area played a significant role in that movement. *Hutton's* 1770 survey (see Figure 9), shows that houses were starting to line both sides of Northumberland Street. By 1803, *Cole's* survey (see Figure 10) indicates that the town wall had lost its function of containment. Saville Row and Saville Place can be clearly seen as two ranges of houses, spreading Eastwards from Northumberland Street. At the turn of the 19th Century, it was considered that Newcastle did not possess any more elegant, spacious and finely-built houses than those at the lower end of Northumberland Street, and

in the view of the historians, Saville Row was the pride and boast of Northumberland Street - truly a range of grand buildings. (3) As this area of streets, houses and gardens grew into an attractive series of buildings and spaces, the quality seemed undiminished. *Baillie* and *Oliver* referred to the buildings as neat, handsome, genteel and superior. Saville Row, Saville Place, Saville Court, Ellison Place and Queen's Square were particularly praised and even Prince's Street, Lisle Street and Northumberland Place, were considered to have commodious and fine houses. (4) This high class urban environment will be analysed in the following sections of this thesis. Nevertheless, it should be pointed out here, that the houses of Saville Place and Ellison Place were built on the North side only. The fronts of these houses were therefore able to take advantage of a downward sloping Southerly aspect. In the case of Ellison Place, individual gardens were formed beyond the access-way. This arrangement is a feature of superior Georgian houses. It allowed the carriage to stop directly outside the front door, whilst permitting generous free space and the attractive prospect of greenery. Saville Place and Queen's Street (Square) took a slightly different form. As they were at right angles to each other, the gardens were laid out more in the form of a square. This group of buildings and spaces, was only accessible from Northumberland Street as there was no East-West communication route at that time. The glorious natural feature of Pandon Dean both limited the Easterly development and prevented the construction of Eastward streets out of town. In 1812, the New Bridge was built over Pandon Dean. (5) This enabled the development of New Bridge Street as a major East-West communication route and also heralded much change. Work began which would lead to the decline of Pandon Dean and ultimately blight the whole Study Area. New Bridge Street itself made a useful contribution to the area, and within a few years, streets sprang up to both sides of it. Although not displaying

quite the quality of the Saville Row - Ellison Place group, nevertheless, there was very little that was detrimental about their development. Higham Place (1819) was constructed up to the Queen's Square gardens. Oxford Street led onto George Street, which was formed on the Southerly side of the Ellison Place gardens, creating both a generous square and a link between the two phases of development. To the South, Erick Street, Carliol Street and Croft Street, followed the line established by the buildings and gardens of Pilgrim Street. Carliol Tower was preserved on the North side of New Bridge Street, in memory of the Town Wall, and was renovated in 1821. (6) This is probably the main reason for the relatively late development of the land between New Bridge Street, Higham Place, Queen's Square and Northumberland Place (Free Library 1881 and Laing Art Gallery 1904). (7) There are at least two distinct testimonies of the attractiveness of this Area. First, after the Mansion House in The Close was sold and before the Mansion House in Jesmond came into use, the Mayor had no official residence. According to Middlebrook, No 1 Ellison Place, where the Judges of Assize were given hospitality, came to serve that purpose. (8) Secondly, both *John Dobson* and *Thomas Oliver* made their homes in the area. *Dobson* resided at 15 New Bridge Street and *Oliver* at 3 Picton Place, which was developed between Oxford Street and The Dean. (9) It is therefore, interesting to read *Oliver's* criticism of *Dobson's* Lying-in Hospital (1826) [now unused, formerly BBC TV studios]. *Oliver* felt that the awkward position of its front, greatly disfigured the appearance of New Bridge Street. (10) Presumably, *Oliver* was referring to the Hospital being set back from the building line, with its front at about 45 degrees to New Bridge Street. *Oliver* was clearly an advocate of continuous street lines. The other slightly negative aspect of development after the New Bridge, was the complicated junction created by New Bridge Street, Oxford Street, Picton Place, Picton Terrace and Trafalgar Street - just in front of the New Bridge.

Oliver's survey (1830) (see Figure 64) illustrates all that has been noted above. In particular, Pandon Dean is shown as a clear edge to the city centre. The *Collard* and *Ross* survey of 1842 (see Figure 11) illustrates little change to the area, except significantly, Pandon Dean South of New Bridge Street, appears to have been filled-in and left as an open space. The series of surveys published by *Reid*, show the changes up to the turn of the Century. By 1878 (see Figure 13), Bath Road (later Northumberland Road) had been constructed as far as the Northumberland Cricket Field, adjacent to the Baths. The area of land adjacent to Higham Place and New Bridge Street is identified as the site of the Free Library. Pandon Dean is shown completely filled-in. Its Northern part is dedicated to gardens, whereas the Eastern boundary has succumbed to the power of the railways. By 1885 (see Figure 14), Bath Road had been extended Eastwards, crossing the railway line, to Camden Street - thus forming the second East - West connection in the Area. The Free Library had been constructed, losing the last symbol of the town wall in the Area as Carliol Tower was demolished to make way for it. The gardens were still evident around Queen's Square and Ellison Place. The name of George Street had disappeared and Ellison Place adopted for the whole square. The 1899 survey (see Figure 15) illustrates the formation of College Street on the site of an old lane, which ran between Saville Place and Ellison Place, to the cricket ground. The street is named after the College of Medicine which had recently been constructed there. On the corner, the four year old Burt Hall (Miners' Union Building) can be seen next to the Riding School (now universally known as the Drill Hall) and the adjacent Parade Ground almost opposite the Baths at the end of Ridley Place. Ellison Place had been extended as a street, to Northumberland Road, which it joined next to the bridge over the railway.

The 1909 survey is superimposed on *Oliver's* 1830 drawing (see Figure 16), to show the various 'improvements' that had occurred over time. The most striking intervention had been the extension of Market Street, from Pilgrim Street to the complicated junction in New Bridge Street. The junction had now gained its own name - Portland Place. Presumably in an attempt to reduce the number of streets entering at this point, Picton Place had been blocked-off and indeed was starting to disappear under growing strings of railway sidings. On the site of the former Pandon Dean, the North - South railway lines can be seen passing under the New Bridge to link with the East - West line at Manors Station. The Market Street extension itself was a crude development. Whilst it is easy to understand the intended improvement in communication, nevertheless it cut quite viciously across Erick Street, Carliol Street and Croft Street and formed an awkward triangle of buildings at Portland Place. It created an interruption in the street pattern, from which arguably the Southern part of the Study Area has never recovered. In addition, it created a large opening in the building fronts on Pilgrim Street, thus adversely affecting their continuity.

During the inter-War years, the only major affect on the physical pattern, was due to the construction of the Tyne Bridge (1928). The new traffic orientation had significant impact on Northumberland Street which had been slowly evolving from a residential street into a shopping street as well. Before the Tyne Bridge, Grainger Street was probably the most important shopping street in the City. Pre-First World War rebuilding did not take place much above Northumberland Street's Southern extremity. The Tyne bridge brought vehicles, and more importantly their occupants, directly into Northumberland Street at a time when retail 'chain stores' were expanding nationally and erecting new premises in every important town. In Newcastle, they mainly developed in Northumberland Street. This may have been because sites were less available

around Grainger Street, but the Bridge certainly produced an impetus. A curious aspect is that Pilgrim Street was not developed in the same way. It can only be speculated as to why this might have been, but the following could be possible reasons. First, Pilgrim Street is located within the old town wall. The 'Northward drift' meant that it was more fashionable to be beyond the old town. Secondly, the complexities of site ownership may have been greater in the 'old' Pilgrim Street, than in the 'new' Northumberland Street. Thirdly, Fenwicks, which had always been a Northumberland Street shop, was enlarging rapidly and maybe acted as a magnet for complementary and competitive stores. Finally, while easy access was gained from the South to both Pilgrim Street and Northumberland Street, customers from the North were arriving primarily at the Haymarket. Thus, Northumberland Street was well placed to attract custom from both North and South, in a way that perhaps Pilgrim Street was not.

The Ordnance Survey Plan of 1954, illustrates little change to the pattern of the area. In detail, Prince's Street had been renamed Princess Street and extended South to New Bridge Street. Higham Place is shown linking through to Ellison Place. Both of these extensions seemed to be quite natural developments and added to the interest of the overall pattern. However, there is a hint of decline as the gardens at Queen's Square and Ellison Place had been replaced by car parks. By the 1965 Ordnance Survey Plan, Picton Place was almost totally lost to railway expansion, but otherwise virtually nothing had changed. Thus, the scene was set for the most dramatic intervention in the urban fabric to unfold.

1960s Central Area Redevelopment

The continuing obsession of planning for the motor car had first shown itself, in this City, with the 1945 Parr Plan. (see Figure 17) It was also indicative of the rise and rise of the Engineer as a force in City Planning. The

City Engineer demonstrated an almost callous disregard for existing patterns in the City with a massive network of planned new roads which were to plough their way through the built fabric. In the Study Area, Ellison Place would have been reduced to about one third of its existing size. Three new North - South roads are indicated on the Plan. One starts from St Mary's Place and follows the line of College Street before cutting off the end of Saville Place, demolishing *Grainger's* Higham Place and joining a much enlarged New Bridge Street. However, it is the other two roads that are more significant. The first commences by demolishing *Dobson's* buildings in St Mary's Place, cuts across Ridley Place, Northumberland Road, Saville Row and New Bridge Street, demolishes the West side of Carliol Street and notably crosses Market Street to plunge its way through existing buildings to a large new roundabout at the junction of Pilgrim Street, City Road, the Tyne Bridge and Mosley Street. The second road commences at that roundabout. It is a large dual-carriageway moving North and shown almost parallel to the railway line over the former Pandon Dean. There are other large roundabouts at the junction with New Bridge Street and St Mary's Place. The 1953 Development Plan (see Figure 18) was considerably more circumspect, although a road almost identical to the last one noted above, is clearly shown. The accompanying written statement clarifies the objectives -

'Inner Ring Road

- (i) A new road is proposed starting at a junction near the Southern end of Pilgrim Street, thence swinging in a North-Easterly direction to cross New Bridge Street at Trafalgar Street and continuing to reach the East end of St Mary's Place ... to the Great North Road.
- (ii) ... Northumberland Road to have no direct vehicular access to the Eastern limb of the proposed inner ring road.

Shopping Street

It is proposed to re-develop the area East of Northumberland Street, primarily for shopping purposes and to provide a new shopping street between New Bridge Street and St Mary's Place.' (11)

From the time that *Burns* became the first City Planning Officer in 1960, large-scale road redevelopment was back on the top of the planning agenda. To justify the proposals, vast origin and destination surveys were undertaken and analysed by computer. The conclusion seemed like a self-fulfilling prophecy, ie a completely new 'system of roadworks' was needed for the City. (12) The scheme proposed an urban motorway system which involved the Central Motorway West being constructed from a new Redheugh Bridge, and the Central Motorway East being built from the Tyne Bridge to run adjacent to the railway line over the former Pandon Dean. The motorways would converge at the Great North Road, above Barras Bridge. There was also to be an East - West motorway, starting at the East end of New Bridge Street, swinging round and underground at Ellison Place, before rising to connect with the West fork of the motorway system by St Thomas Street. A later modification included a Central Motorway By-pass to the East of Manors Station, crossing the Tyne over a new bridge. (See Figure 65) In addition, it was proposed to create three major precincts within the central area, each surrounded by a series of city streets. The most important of these precincts was to be that containing the major shopping area, and the surrounding circulation route would consist of Market Street, Grainger Street, Newgate Street, Percy Street, St Mary's Place and a new road constructed East of Northumberland Street. This new road was given the working title of (New) Princess Street, but was eventually named John Dobson Street. It was intended that Northumberland Street and the remains of New Bridge Street would be closed to traffic and become pedestrian shopping streets. (13) The first priorities of the whole Plan, were the Central

Motorway System and the new Princess Street (14), but to date, only John Dobson Street and Durant Road have been constructed within the Study Area. (See Figure 66)

The enthusiasm for urban motorways, in particular, seems strange to us now. It is difficult to understand how *Burns* could have considered that -

'A finely engineered multi-level junction, needs to be seen as an exciting new element to be added as a positive feature to the central area landscape.' (15)

He also repeats one point several times, which indicates that perhaps he had doubts about pedestrianising city centre streets -

'Everyone seems to have a need to see movement The movement of vehicles in a city centre is, I think psychologically important, and if people are kept fully enclosed in precincts they miss one of the excitements of being in a public place, and this cannot be compensated for, by the architectural design, moving signs or moving water. The plan, therefore, attempts to bring moving traffic visually, though not physically into certain parts of the precinct areas.'

His vision was really Corbusian in nature, as he saw views to interchanges or underground roads as the character of the 'City of Tomorrow'. (16) Also, as *Le Corbusier* would have wished, the segregation of pedestrians and vehicles had become such established practice, that it was seldom debated. Newcastle was to be subjected to the dual segregation system, ie horizontal and vertical. The method of horizontal segregation has already been identified - circulatory roads around a pedestrianised central area. In the vertical system, the lower level is devoted to roads, servicing and car parking, while on the upper level a new deck is formed to accommodate the pedestrian circulation and access to buildings. *Burns* noted that there may be a problem helping pedestrians up to the deck level, and that probably ramps, stairs, and escalators would be needed. (17) It was intended that there would be two main East - West cross strands of pedestrian flow

passing through the shopping area and the Art Gallery/Library area. Yet, the proposals do not identify where the pedestrians will be coming from and going to, and on the Central Redevelopment Pedestrian Level Plan it is not possible to pick out these two strands from the other pedestrian routes which seem to be going in all directions. (See Figure 21) It is interesting to learn that each of the pedestrian spaces was to be considered as a unit of design and that contrasts were to be provided between the units. However, in reality it would seem that another objective of unifying the new surroundings with dark aggregate concrete panels or dark bricks seems to have predominated. Moreover, it is clear that every other consideration was subordinate to the first over-riding principle that precinct areas and the new roads were to be designed as one comprehensive piece of development. *Burns* and his colleagues could not accept the traditional concept of streets and buildings. (18)

Attention to the existing buildings was no less radical. As with the enthusiasm for urban motorways, it is difficult to understand from our perspective, why redevelopment was a matter of such urgency, merely because the majority of buildings had been constructed in the 19th Century. In addition, the statement that mixed uses were occurring in many areas, accentuating the blight created by old age, seems like an anathema to us. (19) So, the second over-riding principle of the Central Area Redevelopment was to be rigid zoning of uses, just as *Garnier* and *Le Corbusier* had proposed many years before. In the 1953 Development Plan (see Figure 18), the Northumberland Road - College Street part of the Area is designated for Civic use. South of Ellison Place and Saville Place, both sides of New Bridge Street up to a Western boundary at Carliol Street are allocated for business use. The whole of the rest of the Study Area was to be primarily intended for shopping use. (20) By 1963, the proposed uses had changed. The planners disliked the

lineal pattern of shopping in the City Centre and wished to introduce 'strong loops'. The solution was to develop shopping West of Northumberland Street, rather than to the East. Offices were to be rebuilt within existing office areas, and perhaps surprisingly, there was recognition that there may be some city centre housing demand, although the list of acceptable family units was very restrictive. It was also observed that business and shopping areas can lead to a dull city at night, unless there is a resident population. The proposal was, of course not integration, but provision for a number of residential blocks in the heart of the city. The suggested forms of buildings for shopping, business and housing cannot be overlooked at this stage. Burns considered that the scale of the city could not be recreated by two storey shopping. His analysis was therefore, that the shopping area needed tall buildings. These were supposed to act as a positive force in the townscape. The proposal was to locate tall buildings where they would have the greatest impact on the design of the new city centre, and their uses would be exclusively office or residential. (21)

In terms of public, social, recreational and educational buildings, the planners deplored their sporadic distribution. The solution had a significant impact on the Study Area. Plans were prepared for rebuilding the Central Library and extending the Laing Art Gallery, in anticipation of very substantial expansion in both services. The concept was that the Library, Art Gallery and Museum, would form two sides of an upper level square with a tall residential block (Bewick Court) spanning John Dobson Street. It was felt that the square would form a most effective cultural centre in the heart of the city and provide the opportunity for outdoor displays. In addition, spaces would be available for other uses such as cafes and shops, particularly associated with the Art Gallery and Museum. (22) Our perception of this square is

the deck over John Dobson Street, where rubbish blows about on increased wind velocities, created by the tower block.

Burns regarded the cultural centre as one of three major building complexes within the City. The idea was that each complex would be designed by one of the most eminent architects in the world, who could set the pattern and architectural standard for all subsequent central redevelopments. (23) There is some dispute about who originated the idea. T Dan Smith (Chairman of the Town Planning Committee and one-time Leader of the Council) makes great play of his attempts to interest *Le Corbusier* and *Arne Jacobsen* (footnote), although he also welcomed the involvement of *Robert Matthew* and *Basil Spence*. (24) In the event, only the latter two were commissioned and it was *Basil Spence* who was offered the culture centre. In reality, his contribution was to design the new library building.

The aim was to carry out all this work without delay. *Burns* explained that in most city centres, the process of development was slow, operating against the background of a comprehensive plan. Whereas, in Newcastle, he considered that the total age of the centre undoubtedly created the conditions for wholesale redevelopment and production of a virtually new centre within a short period. (25) The problems of incomplete deterministic plans, have already been discussed in an earlier section of this thesis. The problems particularly appertain to this Study Area.

Footnote: Work actually started on site for Jacobsen's hotel at Eldon Square. However, it was cancelled due to escalating costs and proposals were invited for an alternative building to be constructed on the excavated site.

One of the unavoidable conclusions about this Study Area is that its natural advantages ironically, were largely responsible for its blight. Pandon Dean, a beautiful natural feature, created a fine edge for the early development. Yet, from the mid 19th Century, the growing band of Civil Engineers found filling it in, too irresistible. Much of the pattern of the city had been established by that time and so the former Dean remained an open space for several years. Partly because of its location on the Eastern boundary of the City Centre and partly because of the era of industrialisation, its development tended to be for industrial purposes with the resulting lower quality environment and lesser lifespan. The lineal nature of the space meant that it was ripe for railway expansion, which seemed to carry with it, a corridor of inhospitality. This corridor, together with the decline of the railways created ideal conditions for the motorway proposals of 1960s. In fact, it has been suggested that the lack of a similar corridor on the Western side of town has been one of the principal reasons for the Central Motorway West not being constructed. It was intended that the Central Motorway East should provide uninterrupted traffic flow. Thus, it was planned that the Study Area would have virtually no communication routes to the East, creating a number of cul-de-sacs and reducing activity potential. This blight was heightened by the nature of the motorway itself. Contrary to *Burn's* notion, people do not find the prospect of motor vehicles racing along a lineal route, either interesting or exciting - merely alienating. Natural squares such as Ellison Place and Queen's Square became strong urban features, and remained largely undeveloped. Nevertheless, Ellison Place became one of several locations in the city, that were subjected to a peculiar notion that became established in the 1960s. It was considered that views needed to be terminated by buildings. MEA House was built across it, and together with Durant Road, obliterated the Western half of the Place. Fortunately, the Eastern half is now

making a comeback as a square. It is doubtful whether the Northern part of Queen's Square has ever been built-on. Currently, it is a long-term temporary car park. Traffic provision in the Study Area is generally chaotic. Fortunately, there is a low density of vehicular activity. Traditional streets such as Higham Place, Ellison Place and College Street are physically separated from John Dobson Street and Durant Road. The last two seem to have been designed to entice motorists to drive as quickly as they can, along them. Their design is certainly not in accord with *Burn's* objective of keeping speeds deliberately low, and not in excess of 20 mph. (26) The traditional pattern of streets has been severely affected. There is no Eastern exit for the Study Area from Market Street, and New Bridge Street West appears like a forlorn urban space terminated at one end by a hotel and at the other by a barrier separating it from John Dobson Street.

As will be shown in the later analysis, building density is relatively low in the Study Area, but the interstices are generally ill-considered, unpleasant and incoherent. The Area is now quite a jumble of modern commercial developments, with older buildings sandwiched in between. The service areas to the rear of these developments and in lower level segregated accesses, are desolate. The overhead pedestrian walkways have temporary feel about them, and are unpopular. Many people prefer to climb over the road barriers, so that they can remain at ground level. Finally, there is the cultural centre, which in the 1960s was to be one of three focal points in the city. The Central Library designed by Basil Spence, was constructed. Although, there is a suspicion that it was only because the plan for John Dobson Street involved the demolition of the old library. The Museum was not built and the Laing Art Gallery now stands with three former party walls exposed to the public gaze. The intended cultural square (deck over John Dobson Street) has no

sense of containment and the occasional person is only rarely seen there. Even the Library management have locked the doors to the square and the main entrance is on the other side of the building.

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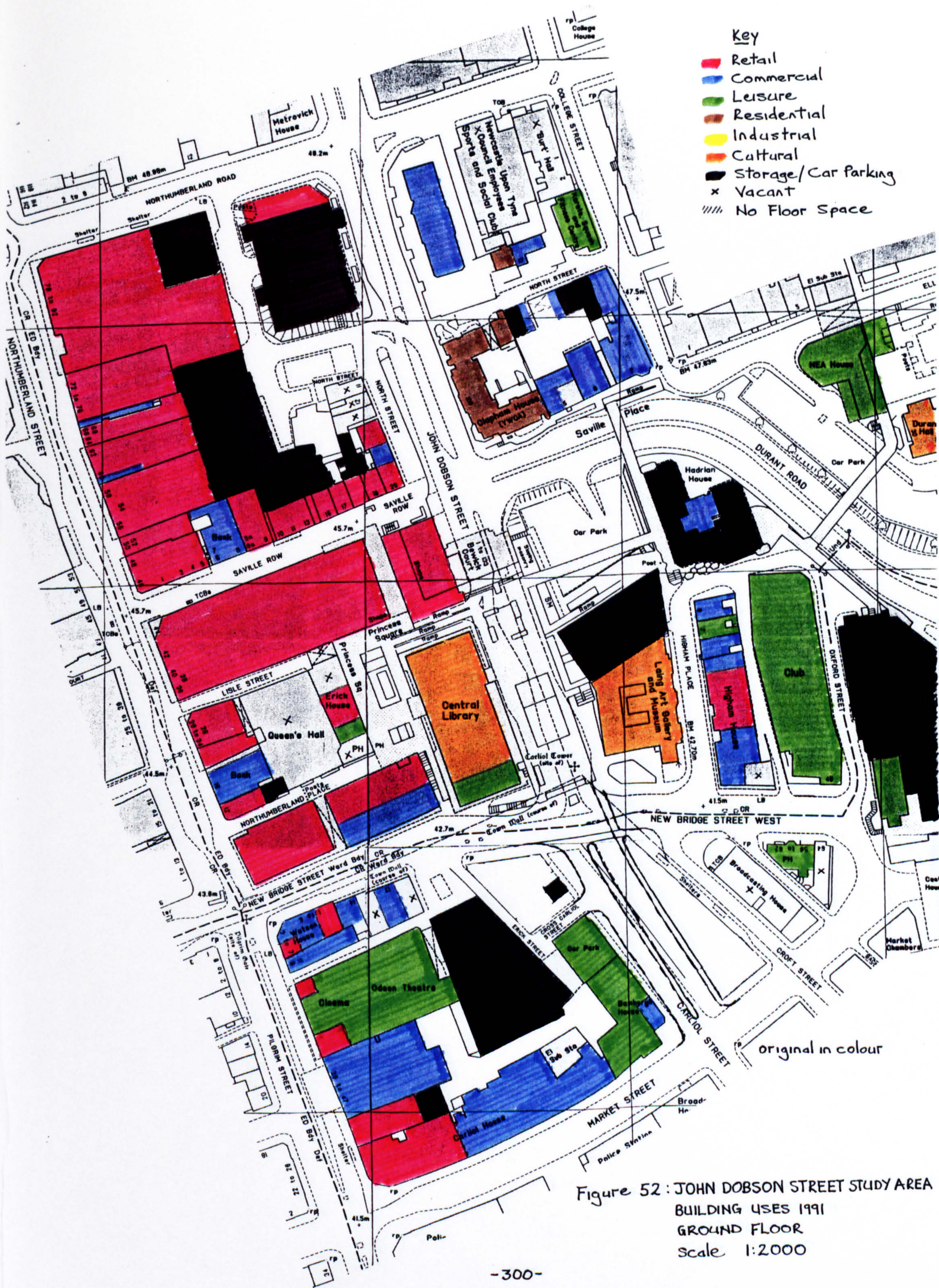
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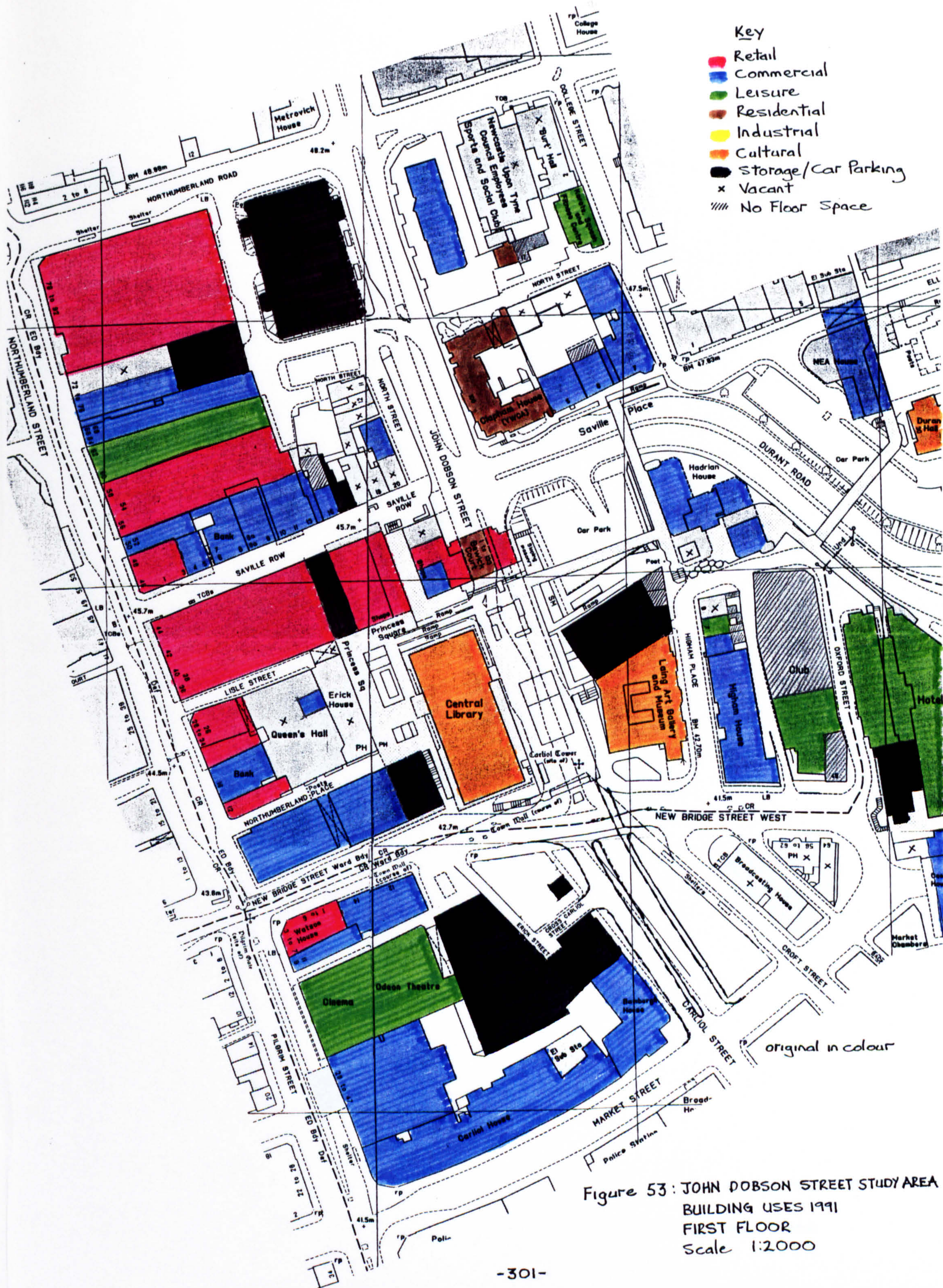
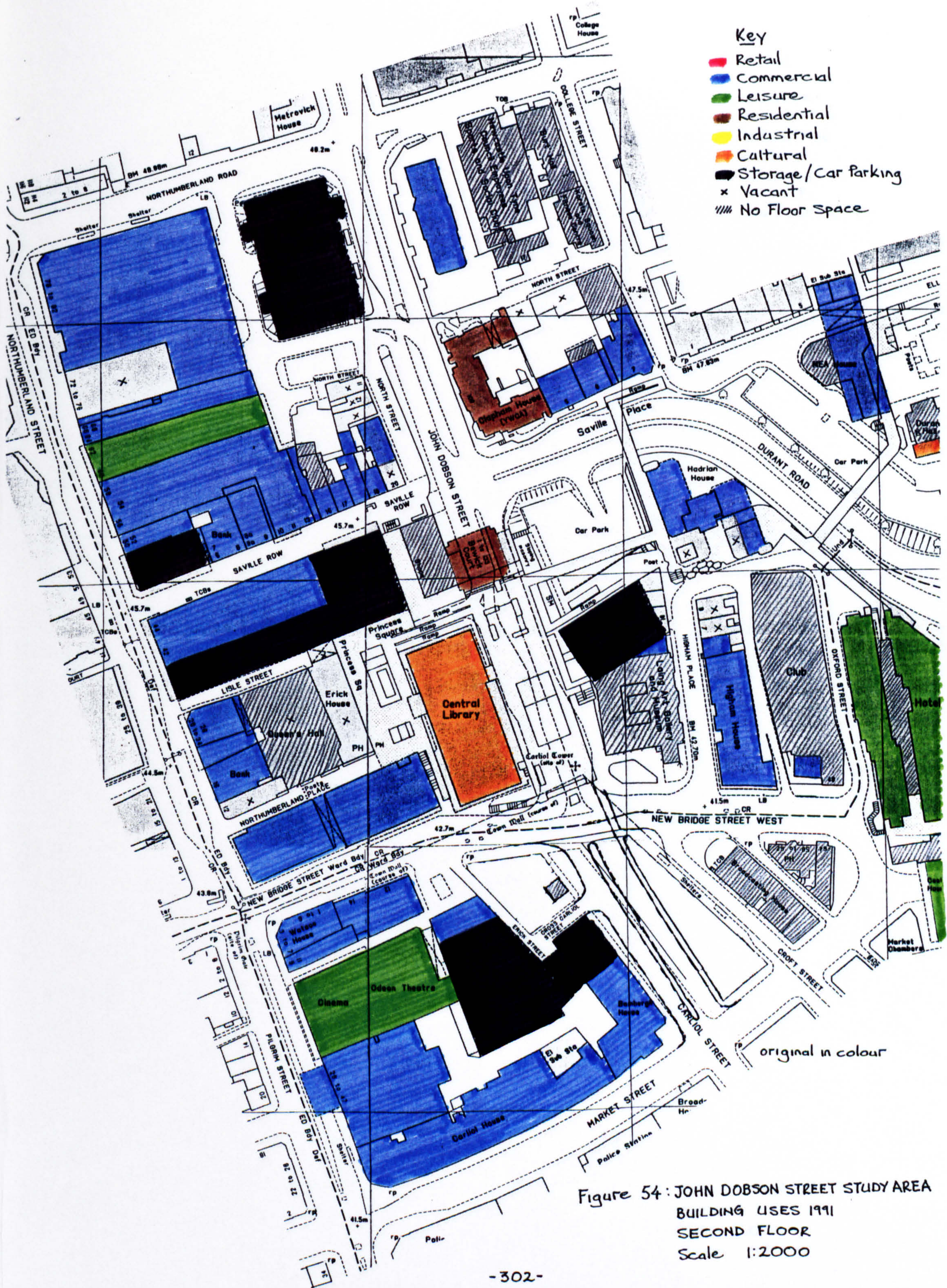
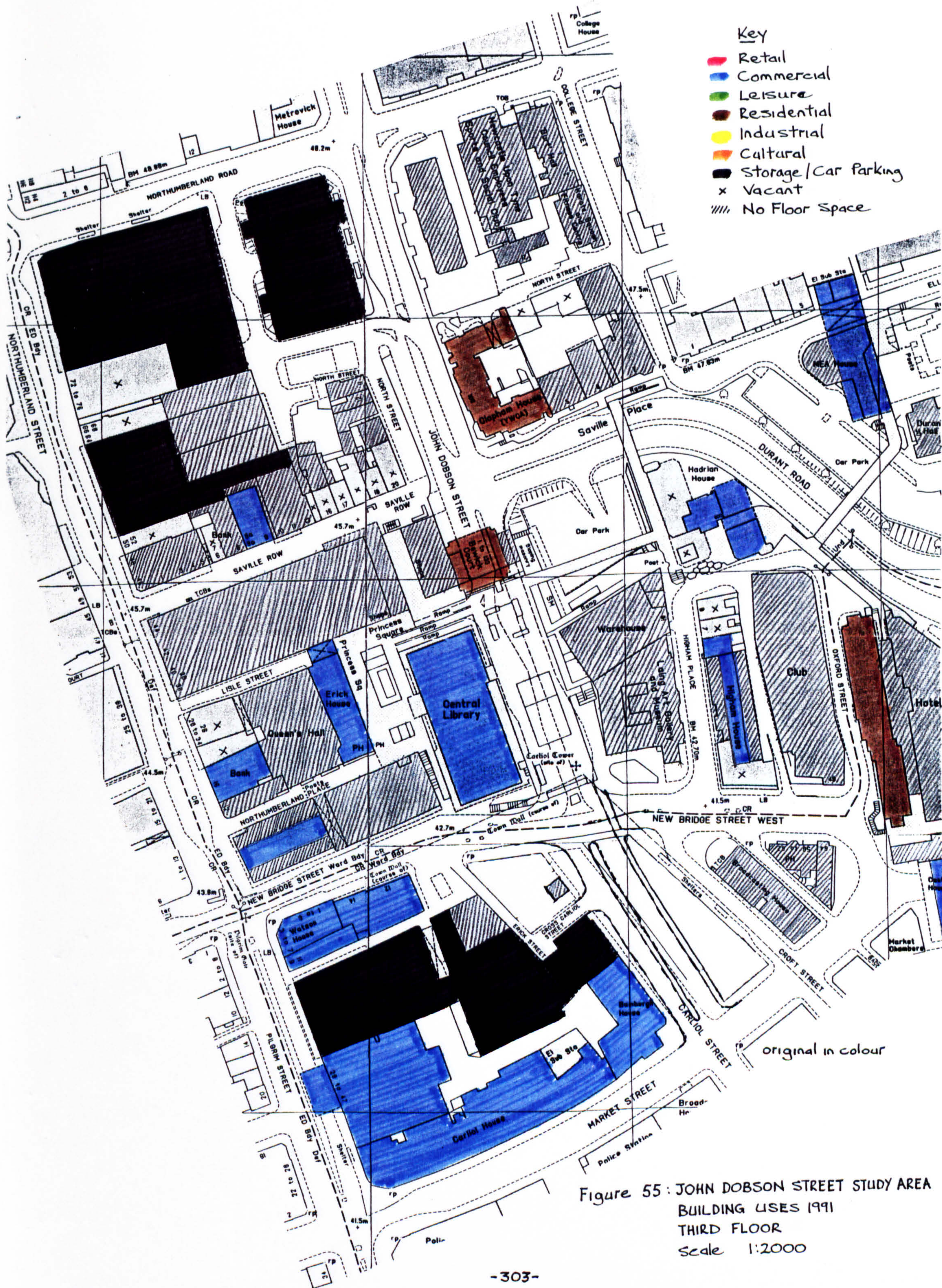
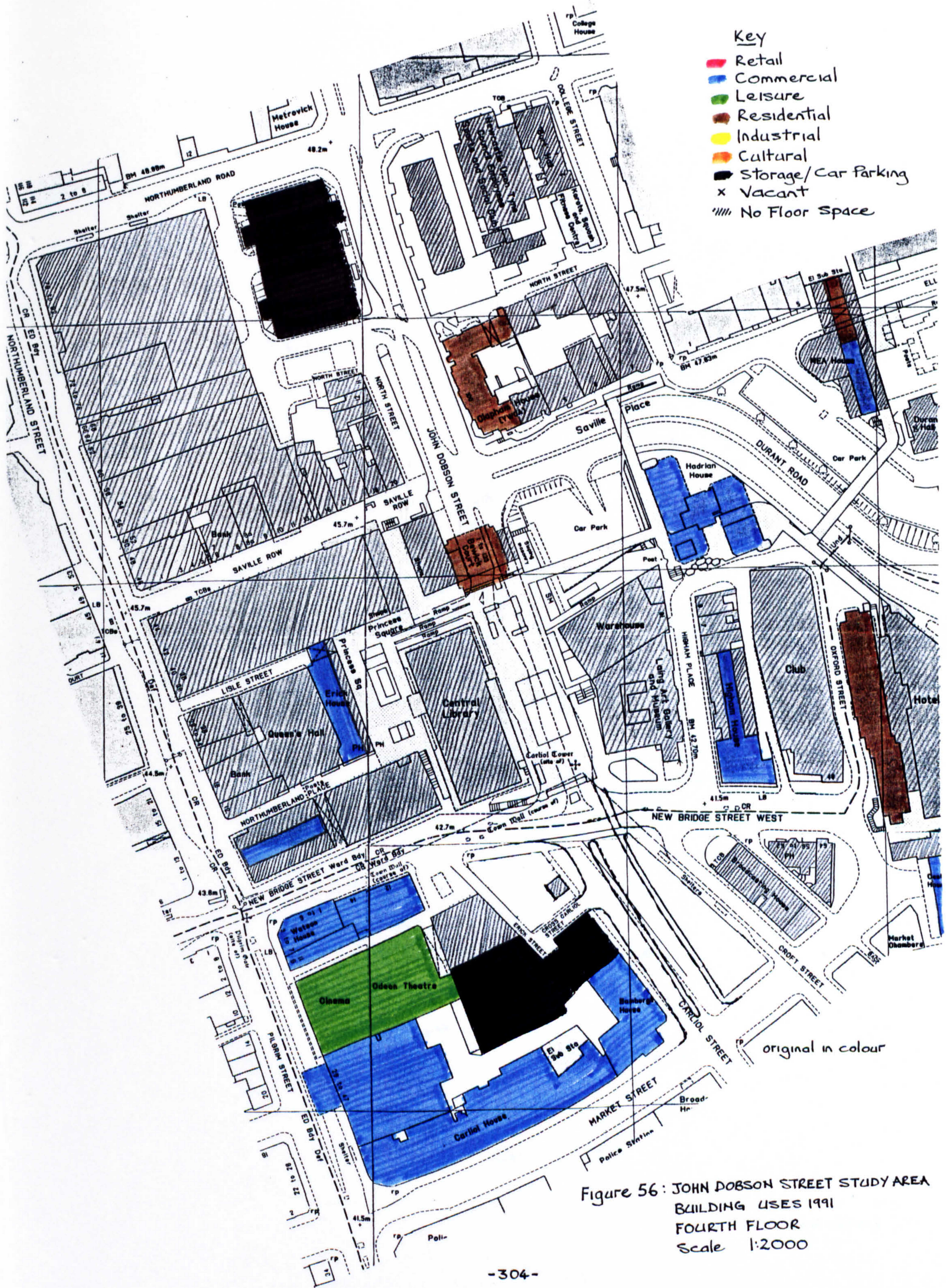
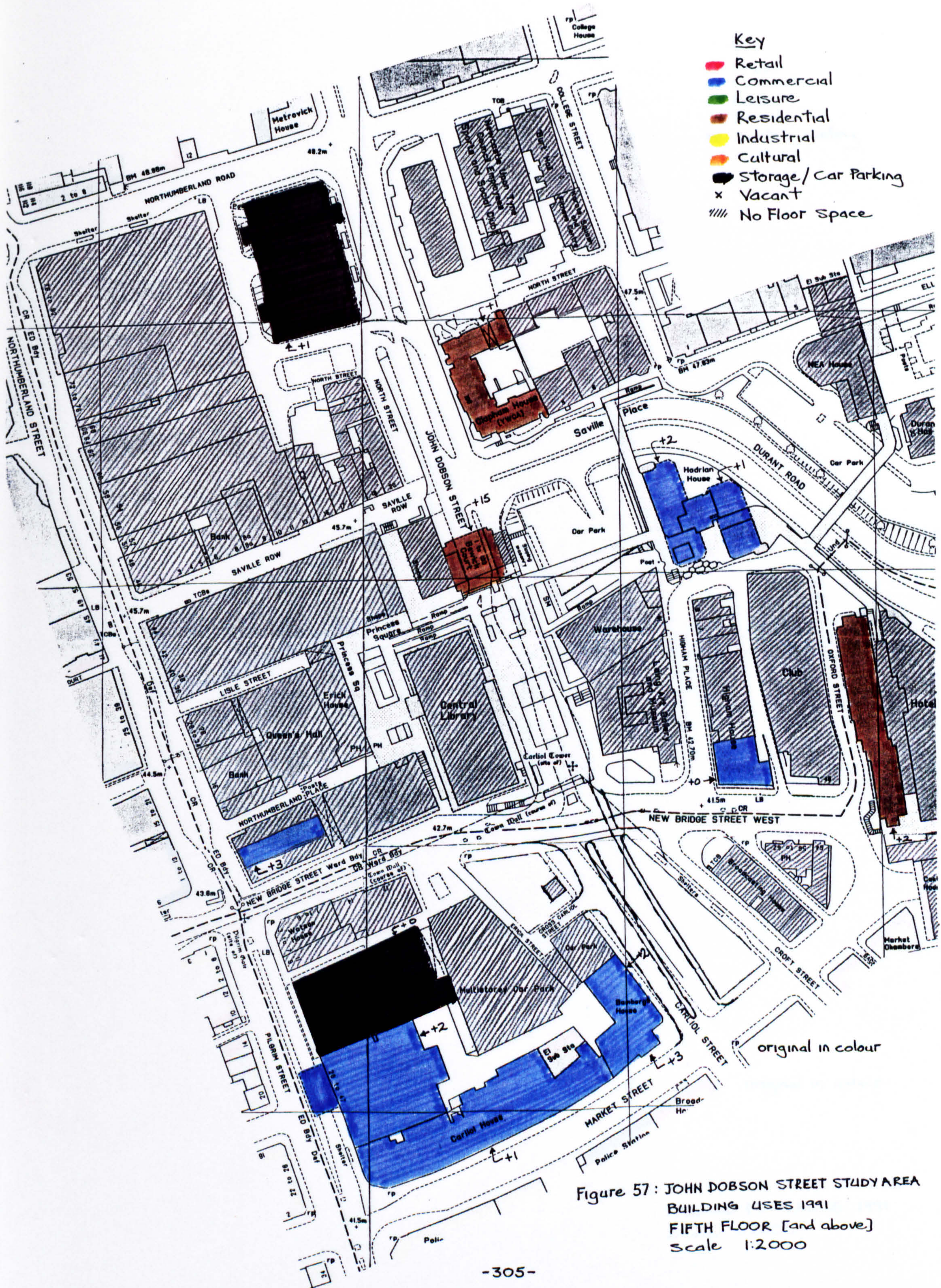


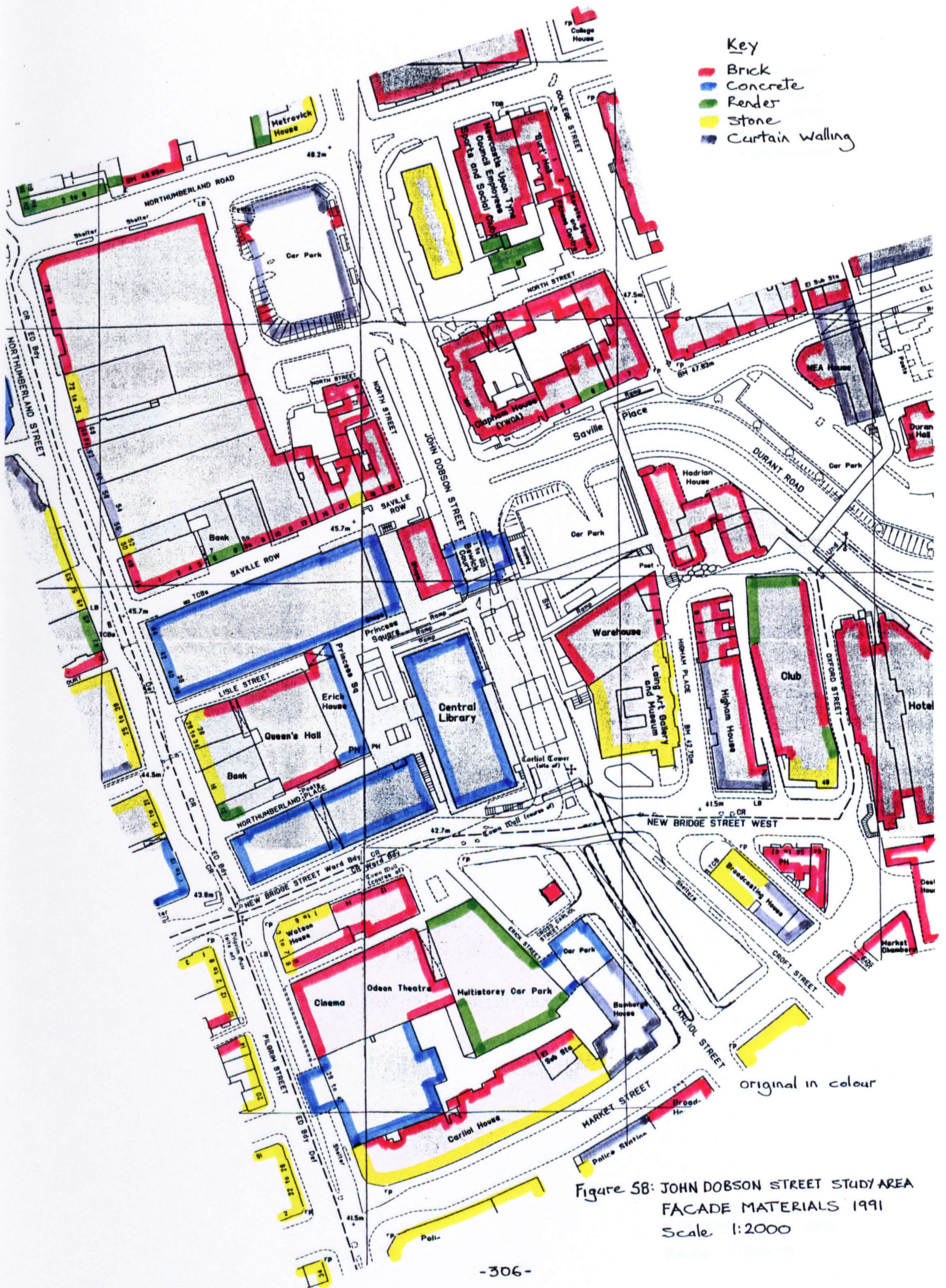
Figure 53: JOHN DOBSON STREET STUDY AREA
BUILDING USES 1991
FIRST FLOOR
Scale 1:2000











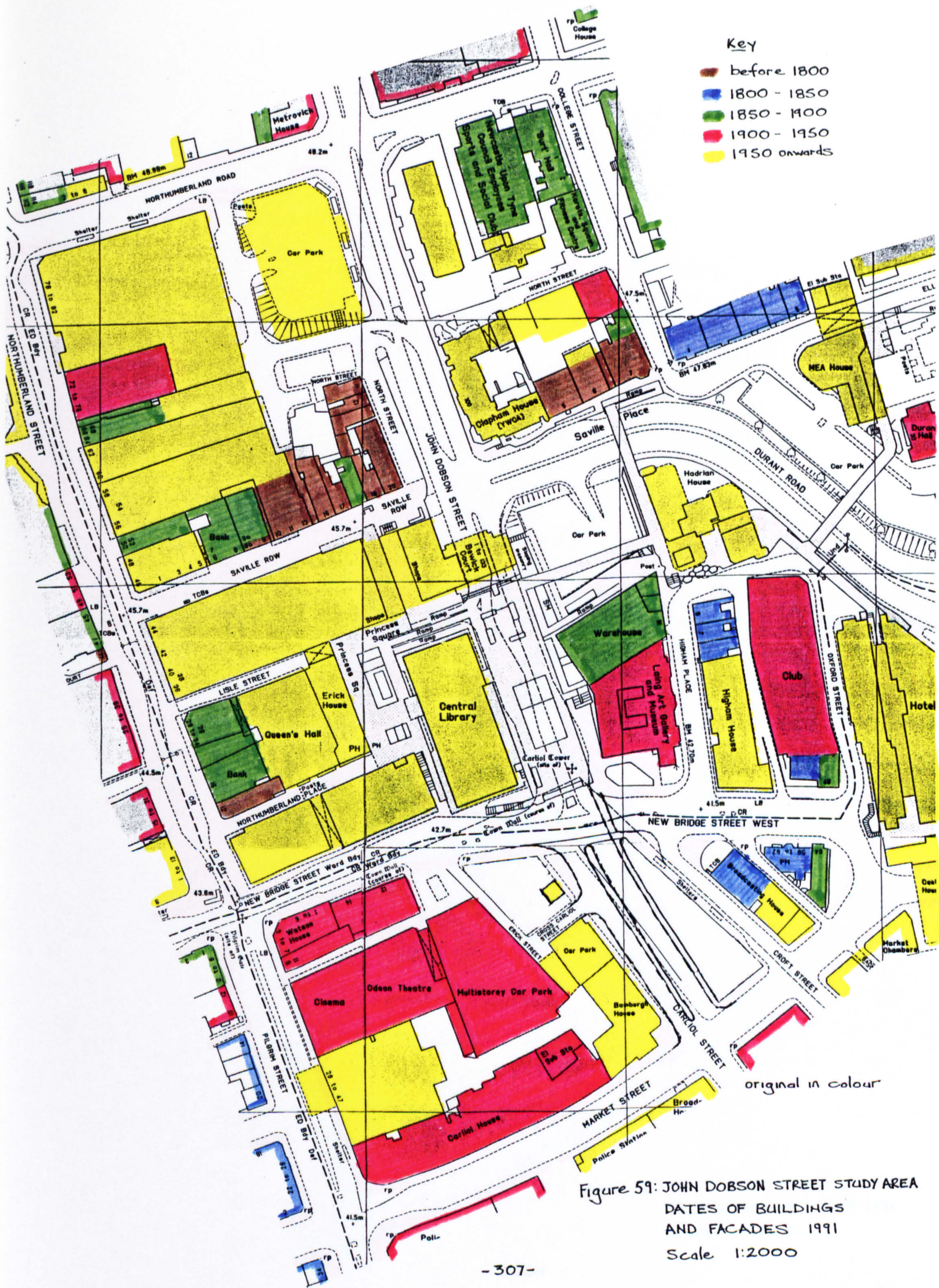




Figure 60: JOHN DOBSON STREET STUDY AREA
PEDESTRIAN PRIORITY 1991
Scale 1:2000

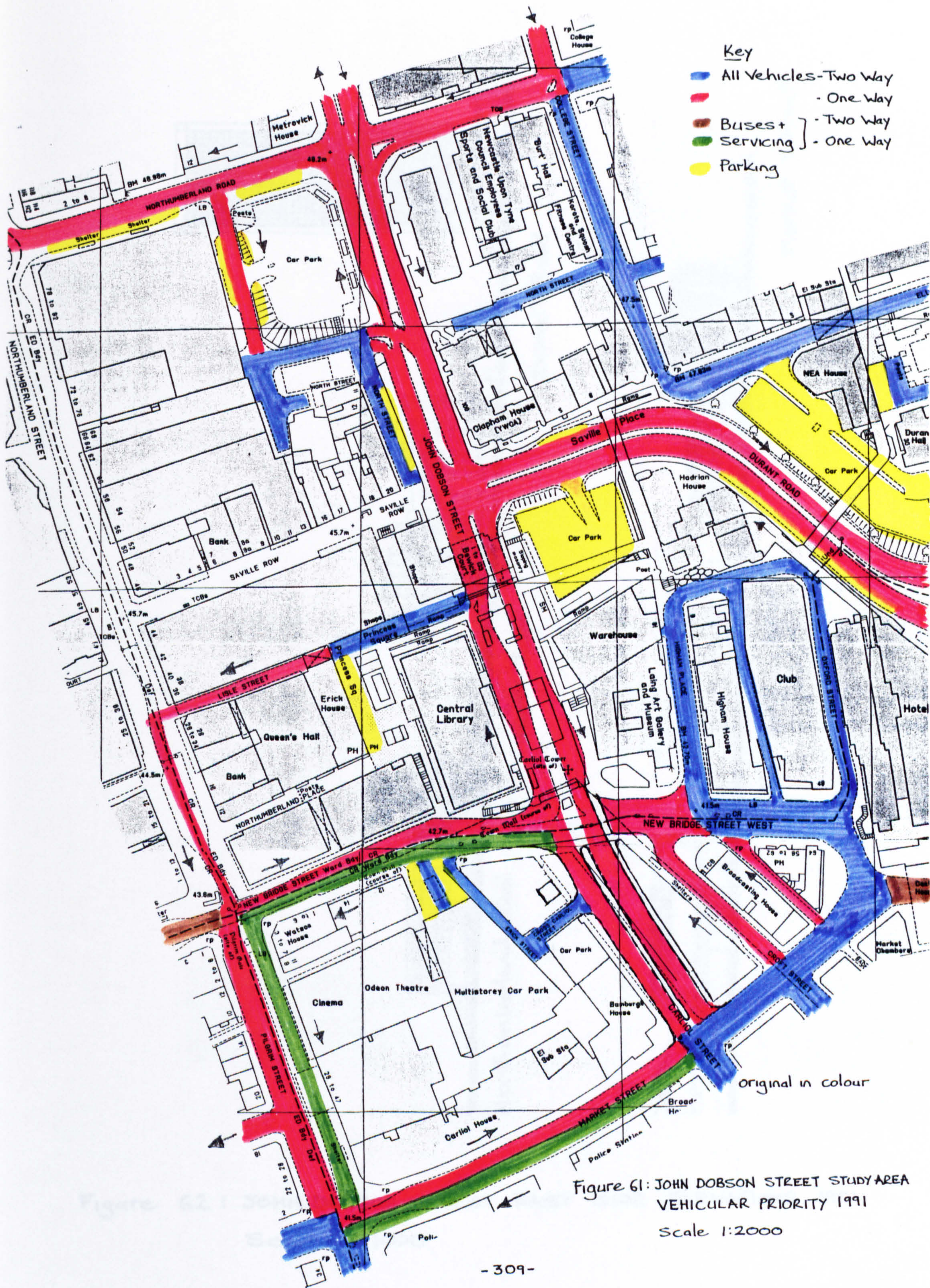


Figure 61: JOHN DOBSON STREET STUDY AREA
VEHICULAR PRIORITY 1991
Scale 1:2000

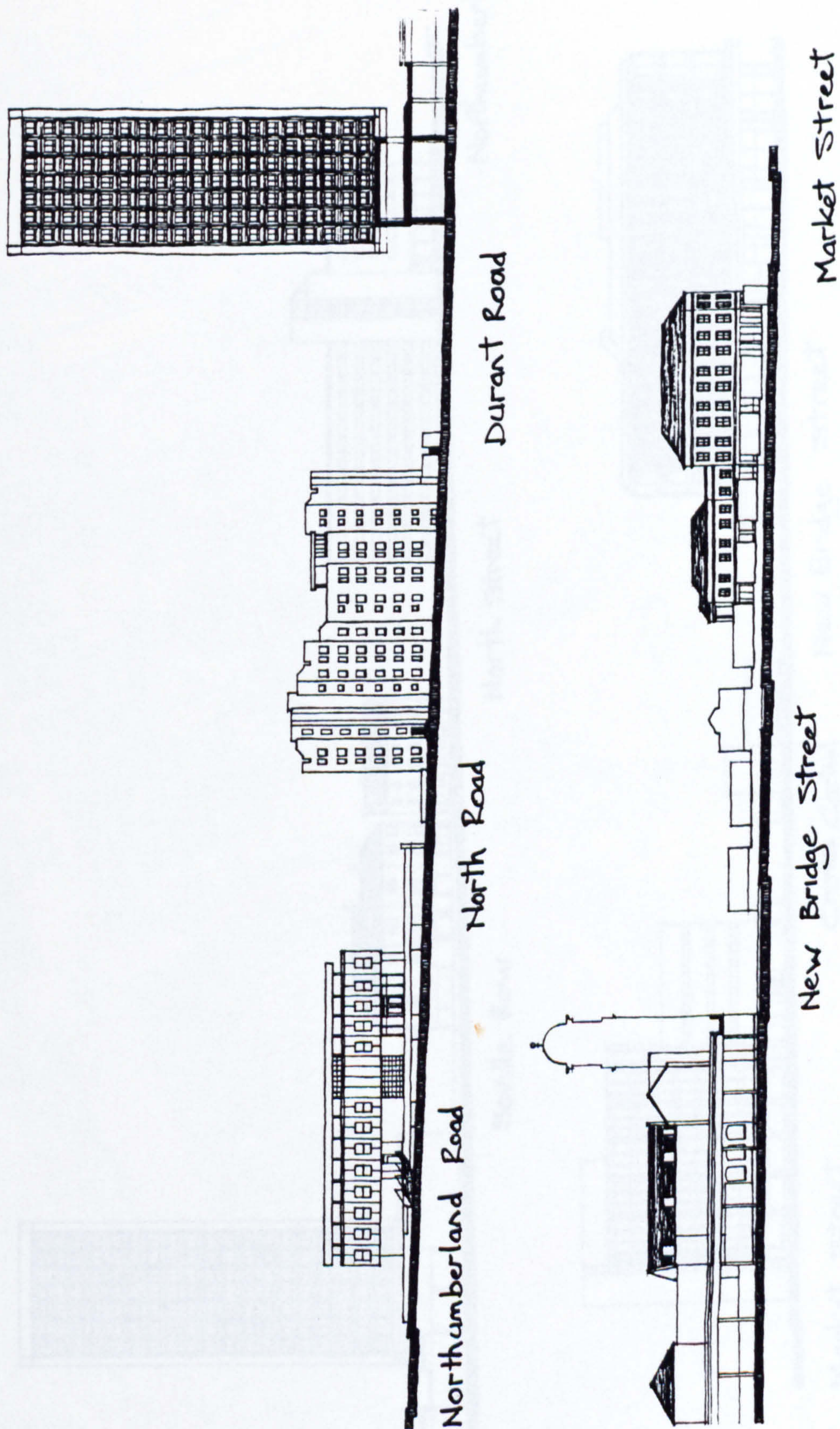


Figure 62 : JOHN DOBSON STREET EAST SIDE ELEVATIONS 1991
Scale 1:1000

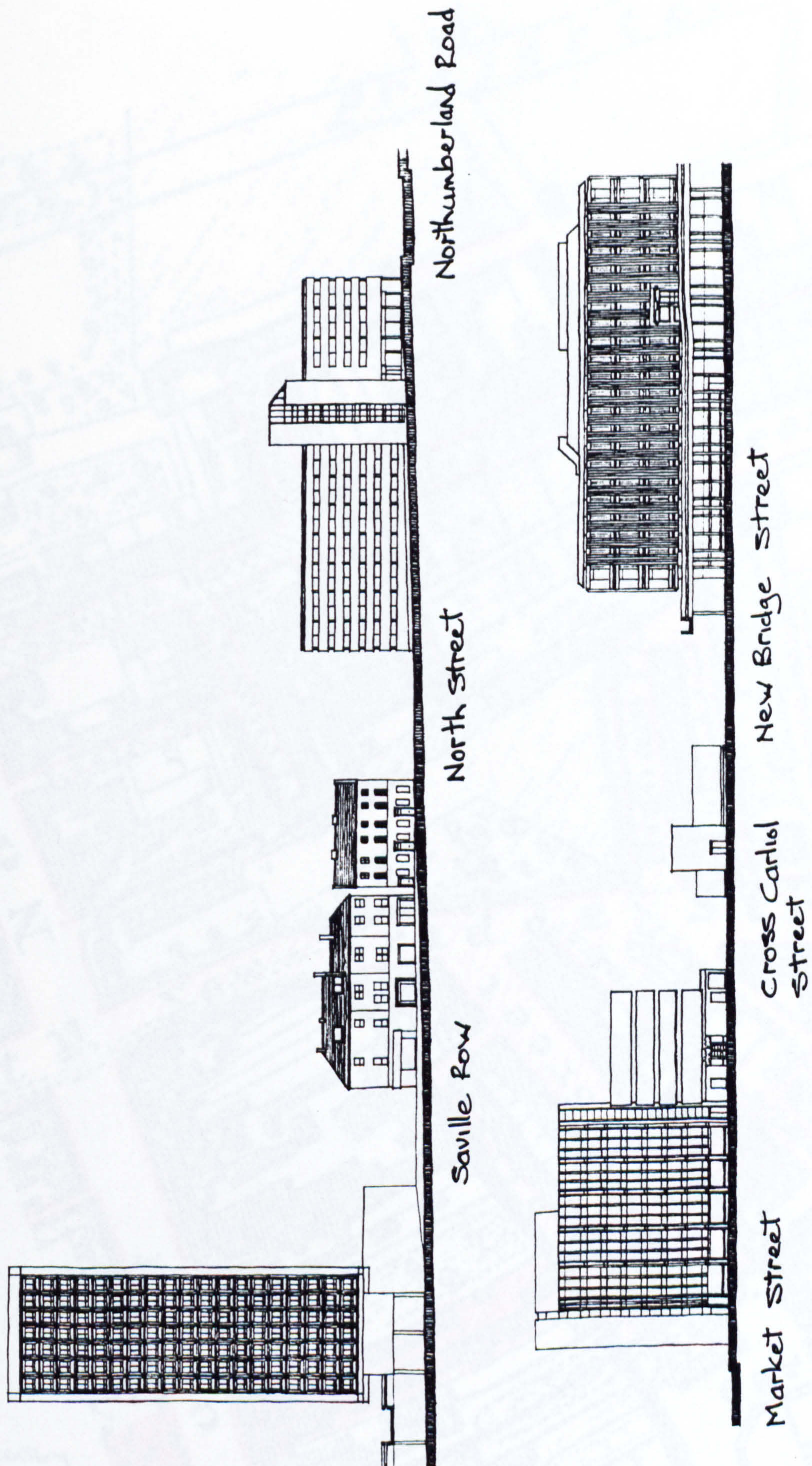


Figure 63 : JOHN DOBSON STREET WEST SIDE ELEVATIONS 1991
Scale 1:1000

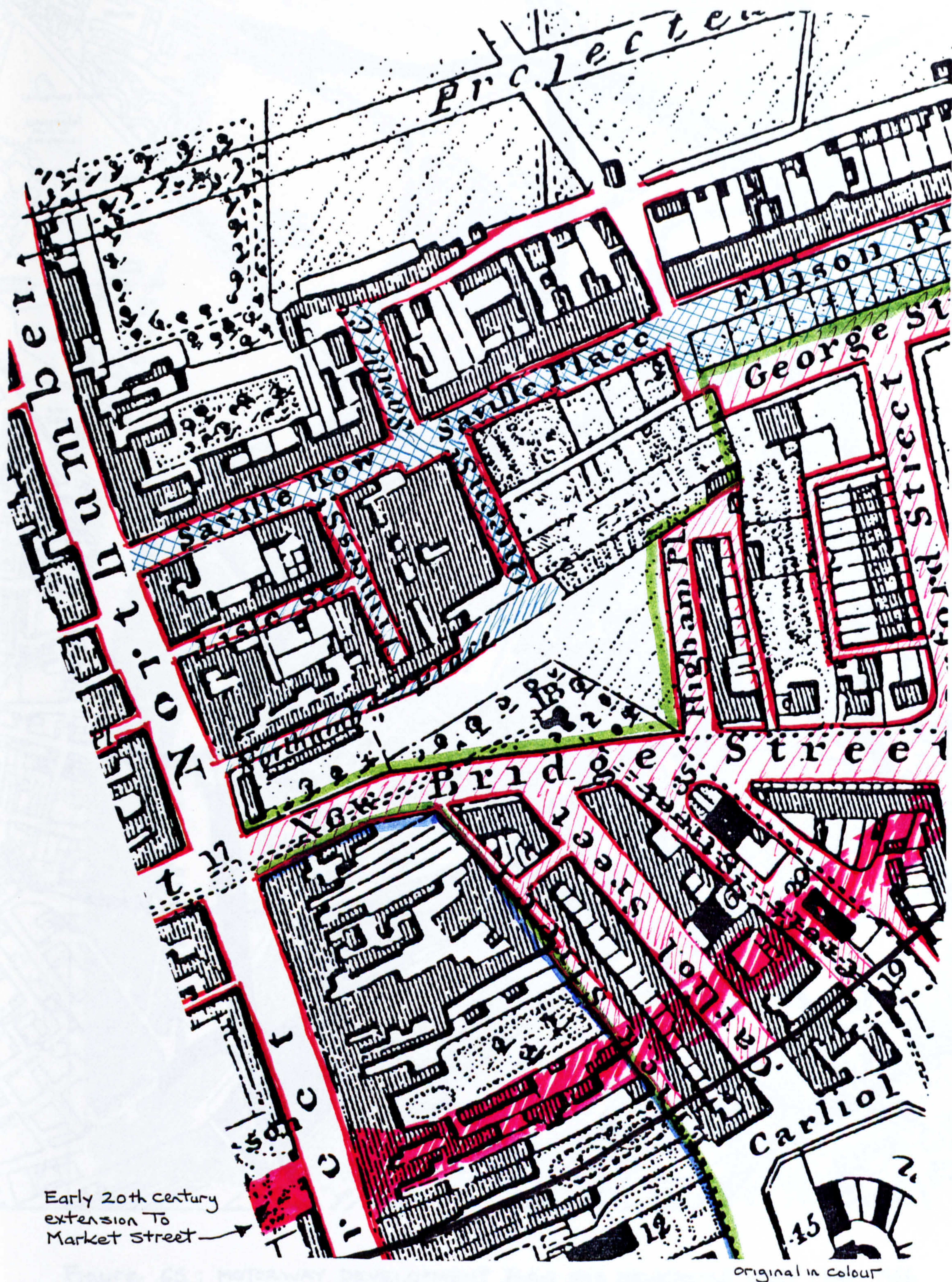


Figure 64 : JOHN DOBSON STREET STUDY AREA 1830
FROM OLIVER'S SURVEY . Scale 1:2000

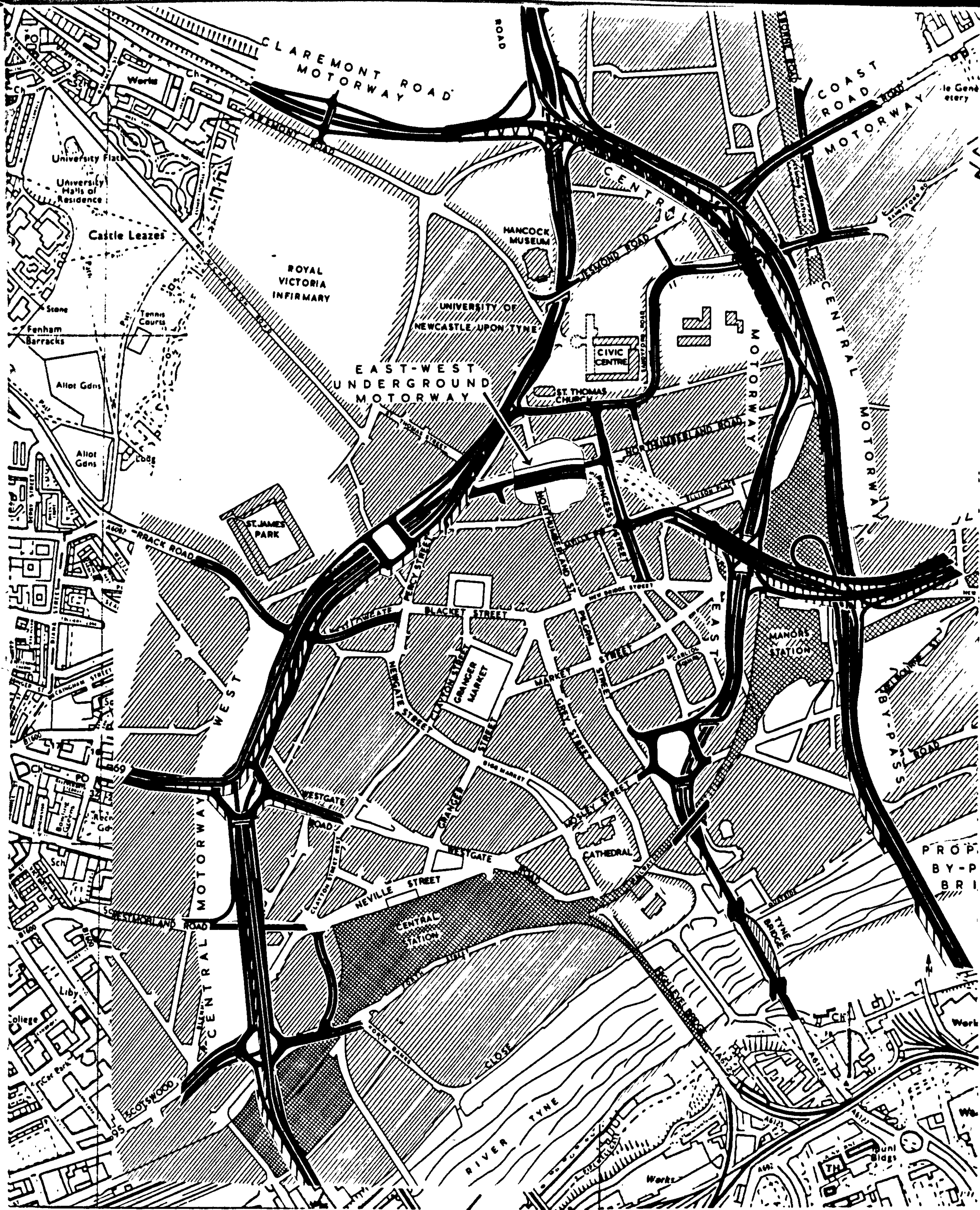


Figure 65 : MOTORWAY DEVELOPMENT PLAN FOR NEWCASTLE UPON TYNE 1966

Scale 1:10000 on 1984 OS Plan

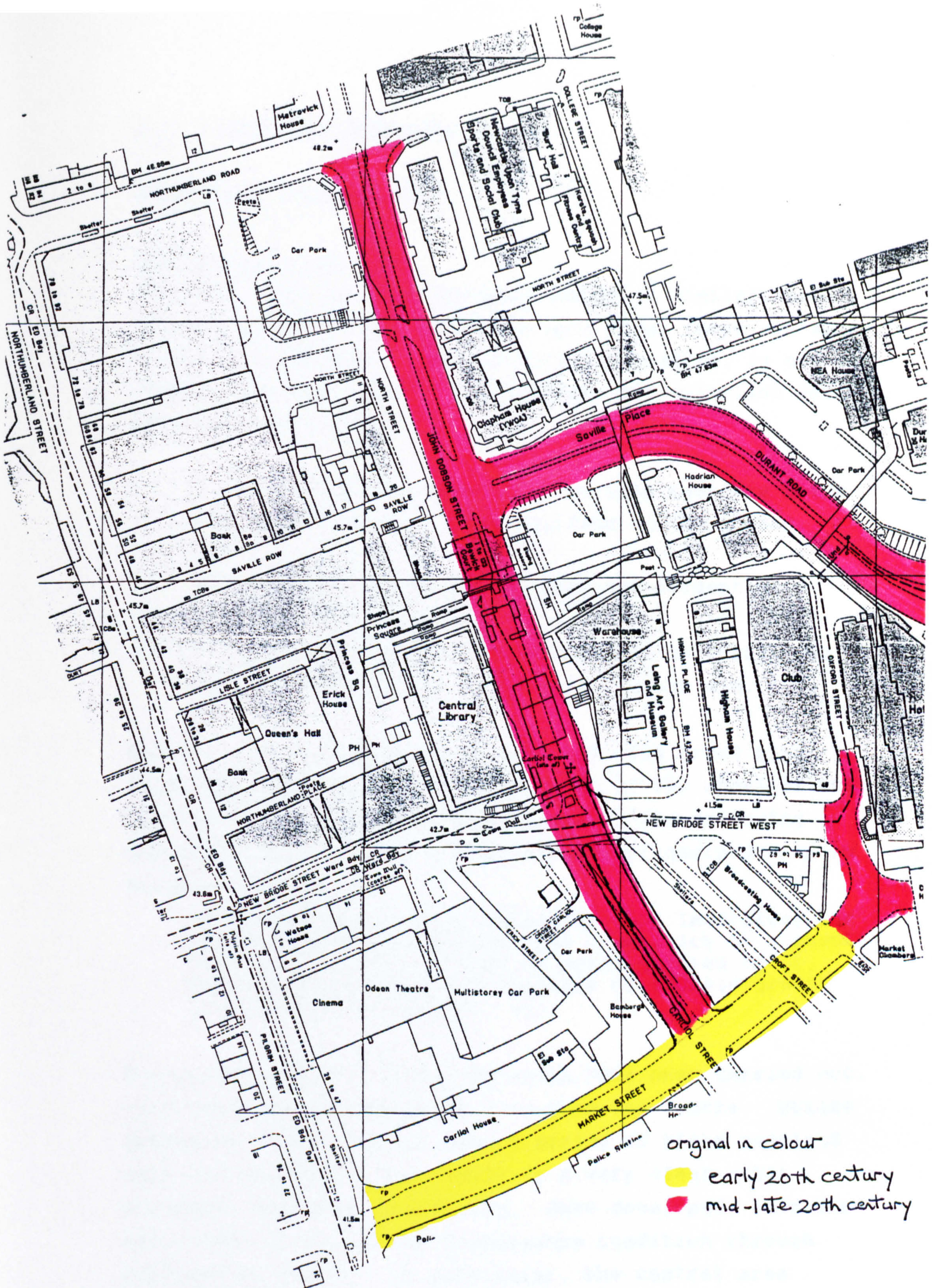


Figure 66 : JOHN DOBSON STREET STUDY AREA
20th CENTURY ROADS Scale 1:2000

2. EUROPEAN EXEMPLARS

AMSTERDAM: INTERVENTIONS

Reasons for Selection

Although there are a surprising number of similarities between Amsterdam and Newcastle upon Tyne, there are also distinct differences. The objective therefore, is not to compare the two cities. The criteria for selection were primarily as follows -

1. A city where sensitive policies have been/are being formulated and are being realised on the ground.
2. A place where coherent patterns are evident.
3. A city where planning frameworks can be identified and the provision of quality is a clear aim.

Moreover, as 'incremental growth' and 'the grand plan' have been identified as the two sides of the model of the work by 19th and 20th Century pioneers, the following quotation confirms the appropriateness of Amsterdam as an European Exemplar -

'It has been said that Amsterdam is a laboratory for town-planning experiments. The creativity of a people that has to make the most of space granted to it, becomes apparent in the sequence of organic growth and conscious planning.' (1)

The grand plans for Amsterdam which have been carried out, were based on expanding the city from the centre. Unlike Newcastle, there has not been a series of plans overlaid upon the existing. The result is a very clear urban structure and ready legibility. Once developed, each area has tended to follow the picturesque tradition through incremental growth. In particular, the central area managed to avoid the upheaval associated with Industrial and Machine Age city movements. This has enabled coherence and continuity to flourish.

Historical Development of the City in the 19th and 20th Century

In the early part of the 19th Century, Amsterdam suffered from recession and decline. However, as an international trading city, it began to benefit from improved shipping, and cheaper goods which were produced elsewhere with the advancing techniques of the Industrial Revolution. A progressive liberal council took over the impoverished city in 1865. There was great unemployment and exodus of the wealthy to dormitory towns. The council set in motion a series of expansion plans, which as Giedion points out, established Amsterdam as one of the few cities of our times which displays a continuous tradition in town planning. (2) The pedigree of the plans by Van Niftrik in 1866 and Kalff in 1877, the Plan Zuid by *Berlage* in 1902 and 1917, and the General Extension Plan of 1934, only began to falter with the CIAM inspired plan for Bijlmermeer in the 1960s. (3)

By the 1870s, a number of the older canals and ditches (*grachts*) were considered to be obstructing the growing volume of land-based traffic. A programme of culverting was commenced. This was hastened by the construction of the Centraal Station in the 1880s, when an almost obsessive desire to create 'good connections' swept through the City Authority. *Spui*, *Nieuwezijds Voorburgwal* and *Nieuwezijds Achterburgwal* (now *Spuistraat*) all became streets at this time, as road traffic began to take its toll. (4) By 1900, the city was at the height of its growth. In 1901 the Housing Act went into effect, which obliged municipal councils to work out plans for further growth and development. (5) This was part of an increasing tendency to create a social housing policy. However, it also established housing as a city function in a way that has largely endured in Amsterdam, while never scaling such heights in Newcastle upon Tyne. Yet, despite this notion, there have been threats and counter-policies. The pre-War General Development Plan for Amsterdam (AUP) for the gradual, balanced expansion of the city up to the

year 2000, had concluded that the centre of Amsterdam would have other city centre functions and that new residential areas would be built on the outskirts. In the city centre mainly offices would be built, easily accessible as wide roads would be constructed for which buildings were to be demolished and further canals culverted. (6) There was an early example of this plan when Rokin became a street as the river Amstel South of Dam Square was forced underground in the mid 1930s. (7)

The Second World War had a traumatic effect on the Dutch and it was not until the beginning of the 1960s that attention once again swung back to urban planning issues. The province of North Holland published a regional plan. This coincided with a number of memoranda which were already formulating a policy for demolition and construction on a fairly large scale. Larger dwellings were planned, and a more spacious street plan with more light, air and open spaces. The number of dwellings planned was about one third of the existing. A policy of deconcentration was therefore proposed for the city, while a number of new growth centres were also to be established. An underground railway, to link the centre with the new growth areas, was approved at the same time. By the mid 1970s doubts were being expressed about the whole Decentralisation Policy. In the ten years to 1975, the population Amsterdam had fallen from 855,000 to 755,000. The large scale out-of-town housing developments were being questioned and Bijlmermeer in particular, was widely recognised as a major housing disaster. Also, there was a rapid increase in commuter traffic as housing but not employment had been relocated outside the city centre. A sharp rise in congestion, noise and pollution, formed quite a threat to the quality of life in the city. (8) At that time many businesses had settled in the city centre and large roads threatened to devastate characteristic parts of the town. Most significantly, two roads were planned from Mr Visser Plein (which had become

no more than a traffic island). This was a strategic location as it was at the end of a new fast road, called Wibastraat, which led in and out of town. It also joined radiating traffic routes and was connected to the IJ tunnel. The two proposed roads were to plough right across the city, bringing fast moving traffic to Dam Square and the Centraal Station. A wide bridge was constructed over the Oude-Schans but the project was halted at Jodenbreestraat by a determined consortium of powerful pressure groups - headed by the tourist lobby. Jodenbreestraat became a broad thoroughfare, but most of the space has now been reclaimed by pedestrians, cyclists and tramcar passengers. Motor cars have relatively little public space dedicated to them. This opposition led to a turning point in Council policy with regard to urban renewal, in which the population now has more influence. (9) Housing needs were affected by the increasing number of one or two person households with their preference for life in a large city. Pressure from protesting citizens forced the City Council to revise its vision of the city. Housing and employment in the city centre now receive equal attention. In order to reinforce the residential function of the city centre, a plan was devised during the 1970s, in which building in and for existing neighbourhoods became pre-eminent and the policy of demolition replaced by a 'renovation policy'. Many architects who produce designs for these projects are influenced by the ideas of the FORUM architects (A Van Eyck, J B Bakema, H Hertzberger, D C Apon). They build on a small scale with imagination and many details. Urban Renewal now adheres to a traditional infrastructure and an 'Urban Quality Plan' is in the early stages of development by the Inner City Research Unit of the Physical Planning Department. Nevertheless, there is still controversy. Architects searching for pragmatism and RATIONALITY have recently reacted against this small scale detailed approach, and have produced developments out of the centre, such as the office complex Nieuw Amsterdam (by

Pide Bruijn) in Amsterdam Zuid-Oost. New motorway and railway projects have made this area a very desirable location for large scale businesses. (10). The resulting migration of corporate organisations, opposing the trend of the 1960s, is reported to be causing concern to the City Council. University Research Groups, who consider themselves to be the conscience of the City Authorities, are unimpressed by this apparent concern. They are far more disturbed by a very large scale plan to build offices, hotels, museums and houses along the river IJ and in the Eastern dockland, aimed at countering the migration of corporate headquarters from the city centre.

The economic status of the city centre is very variable. Within quite short distances, the differences in economic yield are clearly visible. While high value is evident, there are also areas which have been recently redeveloped and/or revitalised for social housing, often due to the lack of interest from private developers. Houses and shops have become economically viable because few corporate office headquarters have remained in the centre. This is primarily due to policies of maintaining character which mitigates against large floor areas and car provision. The concentric group of canals tend to be more economically stable and the central section of Herengracht is particularly in demand and therefore expensive.

The University Research Groups do not consider that Amsterdam has an economic problem and strongly oppose the IJ dockland scheme. They see no need for such a project in economic terms and point to the harmful effects of large scale development, including increased traffic and the reduction in the quality of life.

Current Planning Policy

A policy change therefore occurred in the 1970s from the DECENTRALISED CITY to the COMPACT CITY. This change influenced ideas about urban renewal and public transport. In the case of the underground railway, it has led to a reversal of the decision to construct a complete underground railway network.

Thus, the 1982 structure plan was subtitled FOCUS ON THE CITY. The main objectives being as follows -

1. The urban character of Amsterdam is to be preserved and RESTORED, by concentrating on HIGH DENSITY and SMALL SCALE CONSTRUCTION combining VARIOUS FUNCTIONS.
2. Areas which have lost their original functions are to be redesignated, primarily as RESIDENTIAL areas.
3. CENTRAL FUNCTIONS are to be concentrated at the CENTRE.

In other words, A MAXIMUM NUMBER OF URBAN FUNCTIONS ARE TO BE HOUSED WITHIN A COMPACT CITY.

Innovations are stimulated by educational and cultural facilities, which can have regional, national or even international importance. These facilities, such as theatres, conference centres, universities and other educational institutions, attract people whose ideas, knowledge and activities, exercise a continuous influence on the cultural life of the city. It is one of the tasks of urban planning to provide scope for these economic and social processes. It became apparent to the City Council that this could not be attained through a policy of deconcentration. Amsterdam's current planning policy aims to restore and maintain the economic and cultural potential within a well-planned environment. (11)

Only a few years ago, a desire to escape from the urban environment was felt to be the main motive for outdoor recreation, and a great deal of study was devoted to the collective flight away from the city. This view of outdoor life as a kind of compensation for urban privation has now largely been abandoned. City and country now seem to have complementary recreational potential. A greater proportion of leisure time is being spent closer to work and home, so that creation of external spaces in the city for recreational purposes, is considered by the Authority to be a matter of vital importance. The policy also specifies that urban elements whose function is not necessarily recreational - such as squares, streets, and monuments, can still make definite contributions to the recreational life of the city. (12)

The policy attaches great value to an urban environment with high density, diversity and potential. Maintaining and enhancing the urban character of Amsterdam, is a prime issue. The Authority firmly believes that one way of doing this, is to house as many people as possible within the city. The present spatial structure is to be preserved and construction density is being increased, by making use of new building sites within the city. In addition, original building lines are being retained and new buildings may have five, rather than three or four storeys. These parameters for districts and individual sites are set out in a series of documents, known collectively as the Bestemingen Plan. In fact, the policy is aimed towards the construction of new houses on all suitable sites in the city. It is difficult for the Council to influence the location of private housebuilding, except in a negative context as urban gatekeepers. This means that social housing has a particularly important role. (13) (footnote)

Footnote: Social Housing in Holland is similar to the voluntary sector in this country and financed through the Housing Corporation.

Policy objectives related to traffic and transport are as follows -

1. The increase in commuting distances, to and from Amsterdam, must be slowed down.
2. All parts of the urban transport system are to be part of an integrated network, developed around the existing tram system. In the city centre, trams are to be given free track; a largely unobstructed route provided for cyclists and less space allotted to cars. At traffic lights, public transport is to be given priority.

One clear aim is to shorten distances to places of work, shopping and other facilities. The function of the city centre as a meeting place is also positively identified. The Council views the city centre not only as stimulating economic and cultural development, but also as an evolving centre for the exchange of ideas and information. (14)

An important recent development has been greater financial autonomy for municipalities, as a result of the real estate tax which was first introduced in 1970 to replace frontage, entertainment and tourist taxes. The revenues from this new tax are greater than those from previous separate levies, and are used exclusively for the benefit of the municipalities. The necessity for partial autonomy is generally being acknowledged by the National Government. In April 1982, a working party in which the larger cities and the Home Office were represented, recommended that the cities be given more freedom to determine their own policies and administrative procedures. (15)

AMSTERDAM: THE STUDY AREA

Introduction

The Amsterdam Study Area is bounded by Paleisstraat and Dam Square (North), Rokin (East), Spui (south) and Spuistraat (West). A broad curving street named Nieuwezijds Voorburgwal and a narrow pedestrian street called Kalverstraat, run the full length (North - South). There are a number of linking lanes and alleyways (East - West) but no major street between Paleisstraat and Spui. There are also a number of squares and courtyards which vary in size and character. To the North is Dam Square and to the South, Spui. At the Southerly end, a series of courtyards associated with the Historical Museum are adjacent to the Begijnhof. Even the centre of Nieuwezijds Voorburgwal opens out and has the feeling of a place. The Study Area covers approximately 13 hectares (33 acres) in the city centre.

In 1992, an original survey was undertaken for this thesis, to obtain information for analysis of the Study Area. The survey includes the following -

Building Uses -	Ground Floor	(See Figure 67)
	First Floor	(See Figure 68)
	Second Floor	(See Figure 69)
	Third Floor	(See Figure 70)
	Fourth Floor	(See Figure 71)
	Fifth Floor (and above)	(See Figure 72)
Facade Materials		(See Figure 73)
Dates of Buildings and Facades		(See Figure 74)
Pedestrian Priority		(See Figure 75)
Vehicular Priority		(See Figure 76)
Elevations to Nieuwezijds Voorburgwal		(See Figure 77)

This information will be used as data for the Application of Urban Design Principles and Typologies in Chapter 4.

This area was selected for its variety of spaces, diversity of activity and clear urban structure. It is also not dominated by the concentric canal system.

Historical Development of the Study Area

The street pattern still closely resembles the medieval structure which was generated by watercourses. The Amstel river flows under Rokin, Kalverstraat was a dyke, Nieuwezijds Voorburgwal was a natural water course and Nieuwezijds Achterburgwal (now Spuistraat) was a moat. All four of these waterways were linked at the Southerly end by Spui, much as the streets are today. Dam, to the North, was exactly what it suggests, ie the place where the Amstel was dammed. Like many cities the original settlement was on the banks of the Amstel with the 'old' side being the East bank and the 'new' side located on the West bank. The Amstel (Rokin) therefore forms a natural Eastern boundary to the Study Area. The medieval town wall was built between Nieuwezijds Achterburgwal (Spuistraat) and Singel, thus creating a clear Western boundary. (16)

City expansion has continually changed attitudes to the central area. The first phase was the construction of Herengracht, Keizersgracht and Prinsengracht. They were commenced in the early 17th Century, at the beginning of Amsterdam's Golden Age, and their concentric form provides much of the readily identified fingerprint of Amsterdam's city centre plan. These three 'later canals' provided greatly improved waterborne communication. Their scale and geometric distribution enabled easy access for shipping and better docking arrangements. By the mid 19th Century, the City Authority concluded that the great numbers of waterways were causing obstructions in the city centre. Wheelborne traffic was coming into vogue and the concentric canals could cope with all necessary waterborne activity. By 1900, all the waterways in the Study Area, with the exception of the Amstel (Rokin) had been

culverted and streets formed over them. However, this has not affected the building line or morphology. The main form of city centre transport, during the 20th Century, has become the electric tram.

Throughout this whole period, the open space created at the Dam, grew in scale. The major enlargements occurred in two stages. First, the construction of the Town Hall in 1648 (now the Royal Palace), which was built to stand alongside the Nieuwkerk (late 14th Century onwards), was set back in comparison with the buildings demolished to make way for it. Thus, the size of the square was substantially increased. Secondly, buildings on the East of Damrak-Rokin, including the fishmarket, were cleared in the mid 19th Century. This action almost doubled the size of the open space. (18) However, partly because of the scale created and partly due to the strong North - South route (Damarak-Rokin) crossing the middle, an impression is gained of two interlocking squares, rather than one large place. Dam Square gained its significance from the powerful Town Hall building and is still used for ceremonials related to the Royal Palace. Also it lies at the hub of several important routes -

'It is the heart of the city and always crowded, Dam Square is the place to wander around and get the 'feel' of things.' (19)

The Eastern half of the space does not have a focal building, nor the important routes. Indeed, as a space it has long searched for an identity. In 1924, it became the Damplantsoen (pleasure gardens or park) (20) but the layout appeared formal, sterile, and generally too small for that use. In 1949, a national monument to the Second World War was designed. (21) Yet, its central position and tiered circular base, tends to marginalise the surrounding space. The monument has also been called -

'A rather uninspired design, like a spacecraft emerging from a silo under the square - a stone obelisk surmounts a platform on which are grouped several figures representing peace, resistance and the tragedies of war. It is a pity that it is artistically so commonplace for it means a lot to the Dutch, commemorating as it does the many victims of war.' (22)

As a landmark, it serves as a good meeting place, but people do not linger there unless they have nowhere else to sit.

In the 1930s, the programme for providing streets over waterways, was revived. In particular, the notion of providing a primary access route from the Centraal Station through the heart of the city, caused the Amstel to be culverted between Dam Square and Spui. This extended the route from the Damrak Southwards. Work to the Rokin took place between 1933 and 1937. (23) The programme was halted by the Second World War and was not continued afterwards. The Amstel remains visible up to Spui.

The Study Area Today

In compact Amsterdam, the whole urban fabric is legible and explicit. From the axis of Damrak-Rokin, the city unfolds in layers. The morphological regularity binds Amsterdammers to traditional concepts of urban form and function, encouraging its urbanists to be unusually cautious about new theories of urban transformation. The centre, exemplified by this Study Area, feels like an open public forum. A daily festival of spontaneous political and cultural ideas is played at a low key, but is all the more effective for its lack of frenzy and conflict. The contrasts of excitement and peacefulness are attuned to various social groups and civically dedicated to the conquest of boredom and even despair, in ways that many other cities have forgotten or never thought possible. (24) The deep and enduring commitment to libertarian socialist values and participatory spatial democracy is openly apparent throughout the urban built environment and in the social practices of urban planning, law

enforcement, popular culture and daily life. One senses that Amsterdam, and in particular this Study Area, is actively keeping alive the very possibility of a socially just and humanely scaled urbanism. It is far from perfection, as local commentators continually remind you, and there is no effort to proclaim the achievements or to present them as a model for others to follow. Nevertheless, this Study Area is packed with conspicuous urban quality.

The most striking impression of the Study Area is the dramatic contrast in activity level generated by different social groups within a very small space. The greatest density of humanity is found during trading hours in the Kalverstraat. This narrow street, now pedestrianised, has been Amsterdam's principal shopping place and certainly continues to be dominated by that activity. It forms part of an urban trek, unerringly followed by foreign tourists and provincials. The trek begins at the Centraal Station, moves South along the Damrak past groups of predatory buskers, and deposits the trekkers in Dam Square. A few of the more adventurous visitors find their way to the comparatively high class shopping of the Rokin, but the vast majority are sucked into the narrow entrance of the Kalverstraat. Once individual shops with owners living above, the masses now pass by small outlets of international chain stores and multiples mixed with lock-up shops patrolled by slightly shady figures in dark glasses and leather jackets. Vaguely different versions of what appears to be the same disco rhythm, blares out from each unit. The scene resembles a mixture of 1960s Carnaby Street and the High Street of a rather down-market seaside resort which against the trend is maintaining its popular support. The trek crosses over Spui without deviation and continues along another part of Kalverstraat, through Munt and eventually to Rembrandt's Plein where fatigue is assuaged with seats in the sunshine, glasses of light fizzy beer and further street

entertainers with well-organised collection teams. The financial input to the area, from the trek, is obviously significant. The number of people involved is beyond estimate. This promotes the shopkeepers of the Kalverstraat as a strong politico-economic group. The Inner City Research Group of the Planning Department seem to regret that the trek ends at Rembrandt's Plein, preferring that it should be circular in nature, thus returning trekkers to the Centraal Station. It is difficult to discern whether or not this represents a cynical attitude by the Authority to this group of visitors.

Spui (pronounced 'spay' or 'spy') is a short broad boulevard, appearing as a static rather than dynamic space. It is lined with bookstores, cafés and a university building. Musicians (rather than buskers) play in this active but cultured atmosphere, while an arts fair is held there quite frequently. One of the entrances to Begijnhof is from Spui, through a small arched oak door. Despite the proximity of enormous activity, it remains a remarkably peaceful spot. It is like a reflective urban retreat that succeeds in being both open and closed at the same time, just like so many other paradoxical spaces and places in this area. (25) Optional routes are identified as narrow entrances and exits unfold. By the Engelse Kerk, a way leads to the Kalverstraat, or back to Spui, or through an impressive covered way to the History Museum. Alternatively, a narrow gap between the houses passes into a series of courtyards, each with its own exit to a street. In the last of the courtyards, people sit peacefully under a huge tree. This courtyard is viewed from a colonnade, the far end of which, it is astonishing to discover, is only a few steps from the teeming Kalverstraat. Another exit leads via Sint Luciensteeg to Nieuwezijds Voorburgwal, at its very broad central section. This sedate street, which is relatively narrow at its junction with Spui, has a strong spatial

containment through a combination of curved form and positively closed vistas. Although wider than Spui, Nieuwezjds Voorburgwal is more associated with movement than leisurely activity. Nevertheless, a craft fair is occasionally held in its open middle section, albeit with considerably fewer potential customers than in Spui. The least memorable of the streets in the Study Area is Paleisstraat. There are only two large buildings on its North side (the telecommunications office and the Royal Palace) and together they present rather a blank face to the street. Activity on the South side is inhibited by movement which becomes more frenetic towards Kalverstraat and Dam Square.

By contrast, Spuistraat is one of the focal places of Amsterdam's squatter network, which if not actually encouraged by the authorities, it is at least tolerated. Moreover, the whole contemporary residential renaissance of the city centre illustrates the power of popular control over the production of urban space. In particular, it has counteracted the conventional wisdom of the late 20th Century that decentralisation and suburbanisation have been emptying the urban core of its economic base. Indeed, it has been argued that in no other major world city today, are young householders whether students or young professionals, in such command of the city centre. (26)

The buildings in Spuistraat, like all the others in the Study Area, follow the line of the now-submerged water courses. Water was the making of Dutch society, through international trade, but it has also provided a constant tension of literally working against the prevailing tides and times to create places that reinforce collective self-recognition and identity. The Dutch are very conscious of space. The patient preservation and yet modernisation of former canal buildings, demonstrates the ability to create significance out of little spaces. Perhaps even more

symbolic is the attitude to public areas, which produces an enriching and communal urban spatiality, through aggressive social intervention and grass-roots planning. There is undoubtedly an extraordinarily committed civic consciousness that persists to the present. (27)

It is difficult not to observe that the automobile is perceived as an intruder in the city centre. It is immediately apparent that compared with many other cities, there are few cars. There is a feeling that in a number of ways, this is derived from an urban structure based on canals and rivers, as well as from social values. It could be that there is something deep in the psyche of Amsterdammers that finds it difficult to accept motor cars moving about on watercourses (albeit culverted and now formed into streets). Cycles along tow paths, or trams which have a parallel with riverbuses, both appear far more acceptable to the townspeople. Recent alterations to streets have more clearly identified the cycle paths and increased pedestrian space. Spuistraat is an example. It has been redesigned primarily for pedestrians and cyclists. Alongside the bike path is a narrow one-way car lane with parking spaces, but this accommodation for the automobile is tension-filled and wittily punctuated. The police are always ready to arrive with wheelclamps and the spectacle of their attachment can draw appreciative onlookers. Tow-away trucks seem to burst onto the streets, pouncing on offending cars. Opposition to motor vehicles in Amsterdam is perhaps only second to Venice, contributing to the city's label - 'Venice of the North'. If anything, it is the bicycle rather than car, that assumes the joint roles of individual expression and social status. The message is one of environmental consciousness and commitment. (28) The street scene itself can also be a spectacle, a place for stunning diversity and a source for the life of imagination. In Amsterdam, people appear to be noticeably aware of this phenomenon. There is a conspicuous amount of street

entertainment. The number of pavement cafes is also increasing. The latter may be to do with the attempted privatisation of public space, but is also because the pavement cafés are particularly useful street observatories. (29)

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- Key
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage/Car Parking
 - x Vacant
 - //// No Floor Space



original in colour

Figure 67: AMSTERDAM STUDY AREA
BUILDING USES 1992
GROUND FLOOR
Scale 1:2000

- Key**
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage/Car Parking
 - x Vacant
 - No Floor Space



original in colour

Figure 68: AMSTERDAM STUDY AREA
BUILDING USES 1992
FIRST FLOOR
Scale 1:2000

- Key
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage/Car Parking
 - x Vacant
 - ||||| No Floor Space



original in colour

Figure 69: AMSTERDAM STUDY AREA
BUILDING USES 1992
SECOND FLOOR
Scale 1:2000

- Key**
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage/Car Parking
 - x Vacant
 - //// No Floor Space



original in colour

Figure 70: AMSTERDAM STUDY AREA
BUILDING USES 1992
THIRD FLOOR
Scale 1:2000

Key

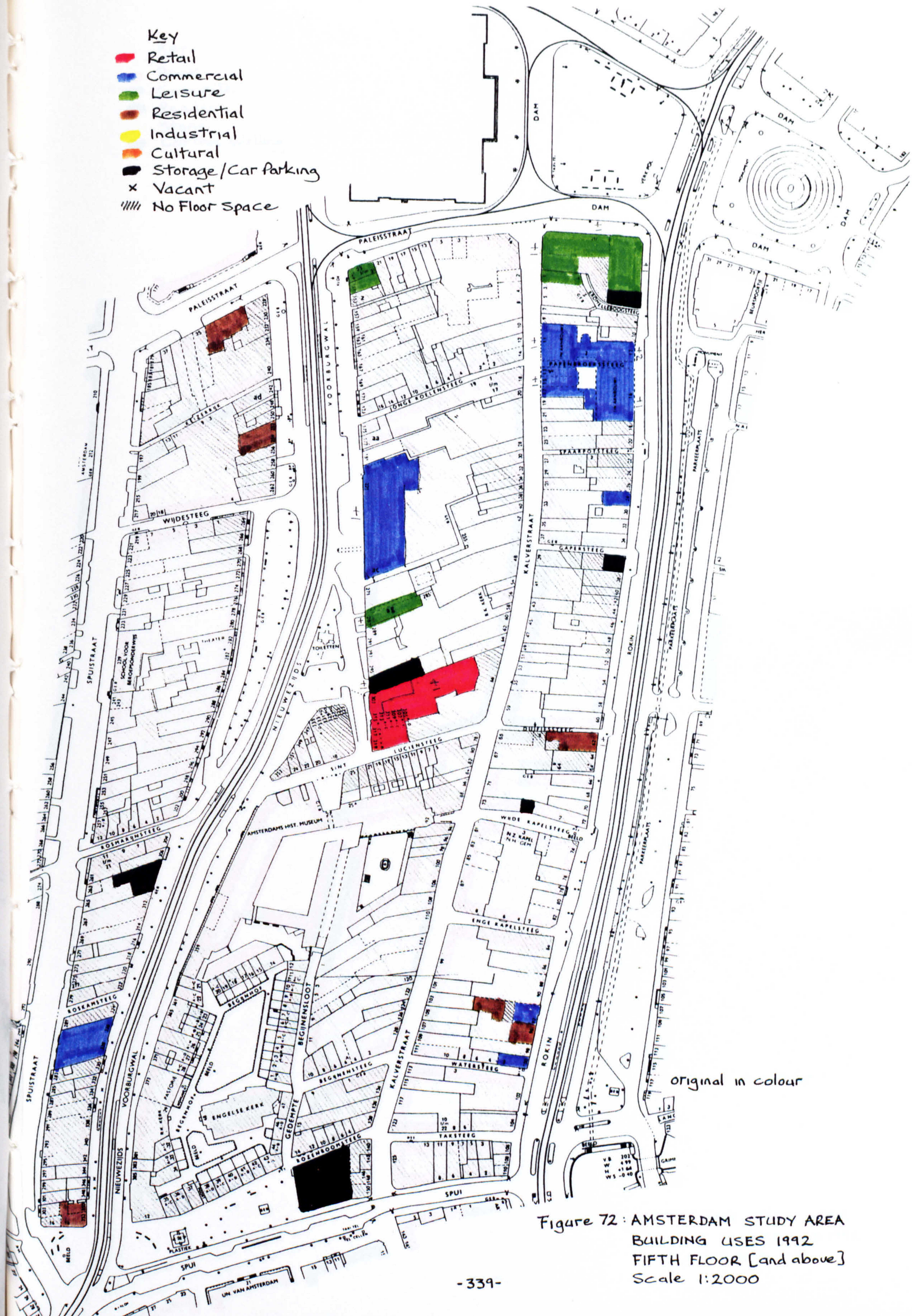
- Retail
- Commercial
- Leisure
- Residential
- Industrial
- Cultural
- Storage/Car Parking
- x Vacant
- //// No Floor Space



original in colour

Figure 71: AMSTERDAM STUDY AREA
BUILDING USES 1992
FOURTH FLOOR
Scale 1:2000

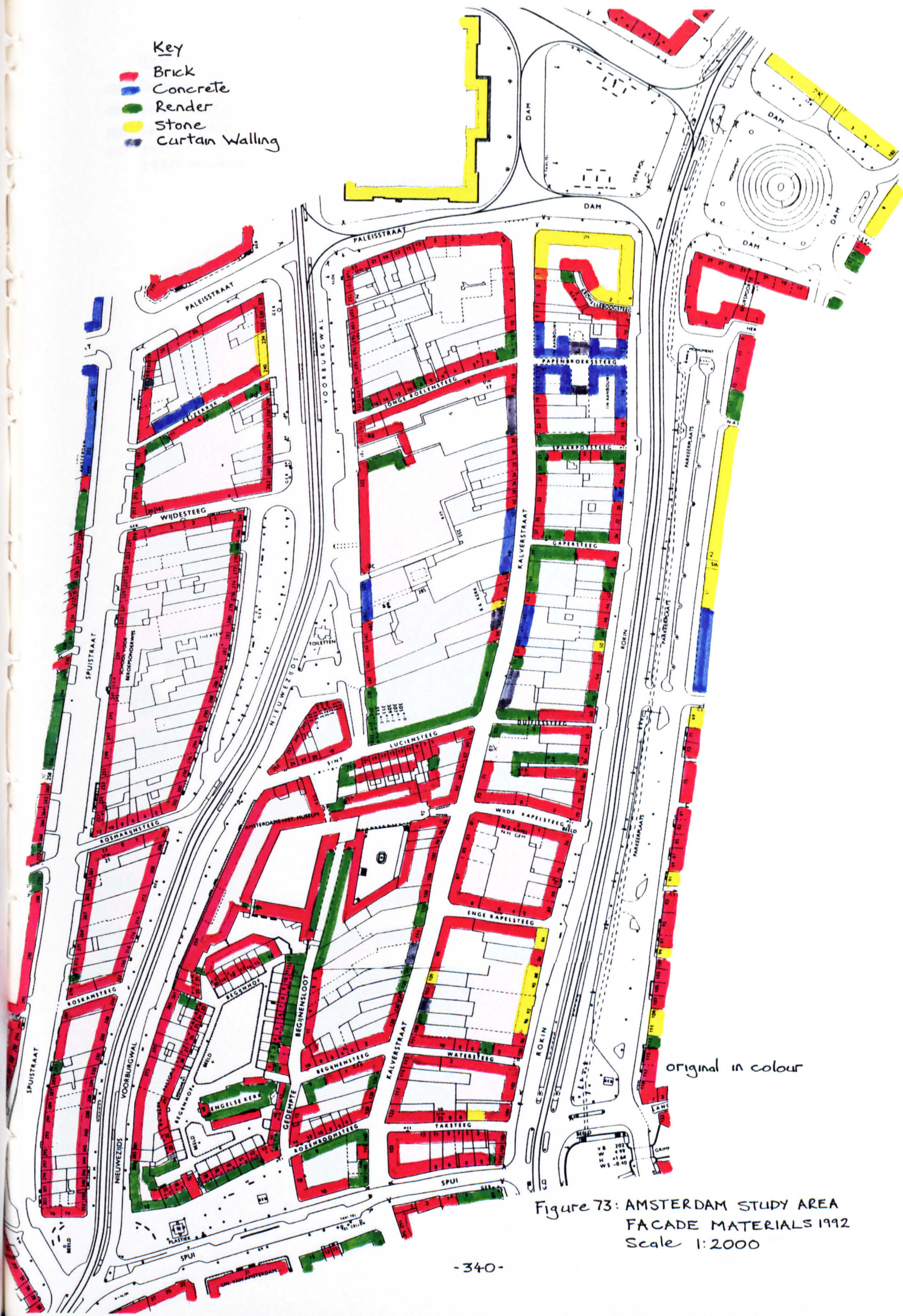
- Key**
- Retail
 - Commercial
 - Leisure
 - Residential
 - Industrial
 - Cultural
 - Storage/Car Parking
 - x Vacant
 - //// No Floor Space



original in colour

Figure 72: AMSTERDAM STUDY AREA
BUILDING USES 1992
FIFTH FLOOR [and above]
Scale 1:2000

- Key
- Brick
 - Concrete
 - Render
 - Stone
 - Curtain Walling



original in colour

Figure 73: AMSTERDAM STUDY AREA
FACADE MATERIALS 1992
Scale 1:2000

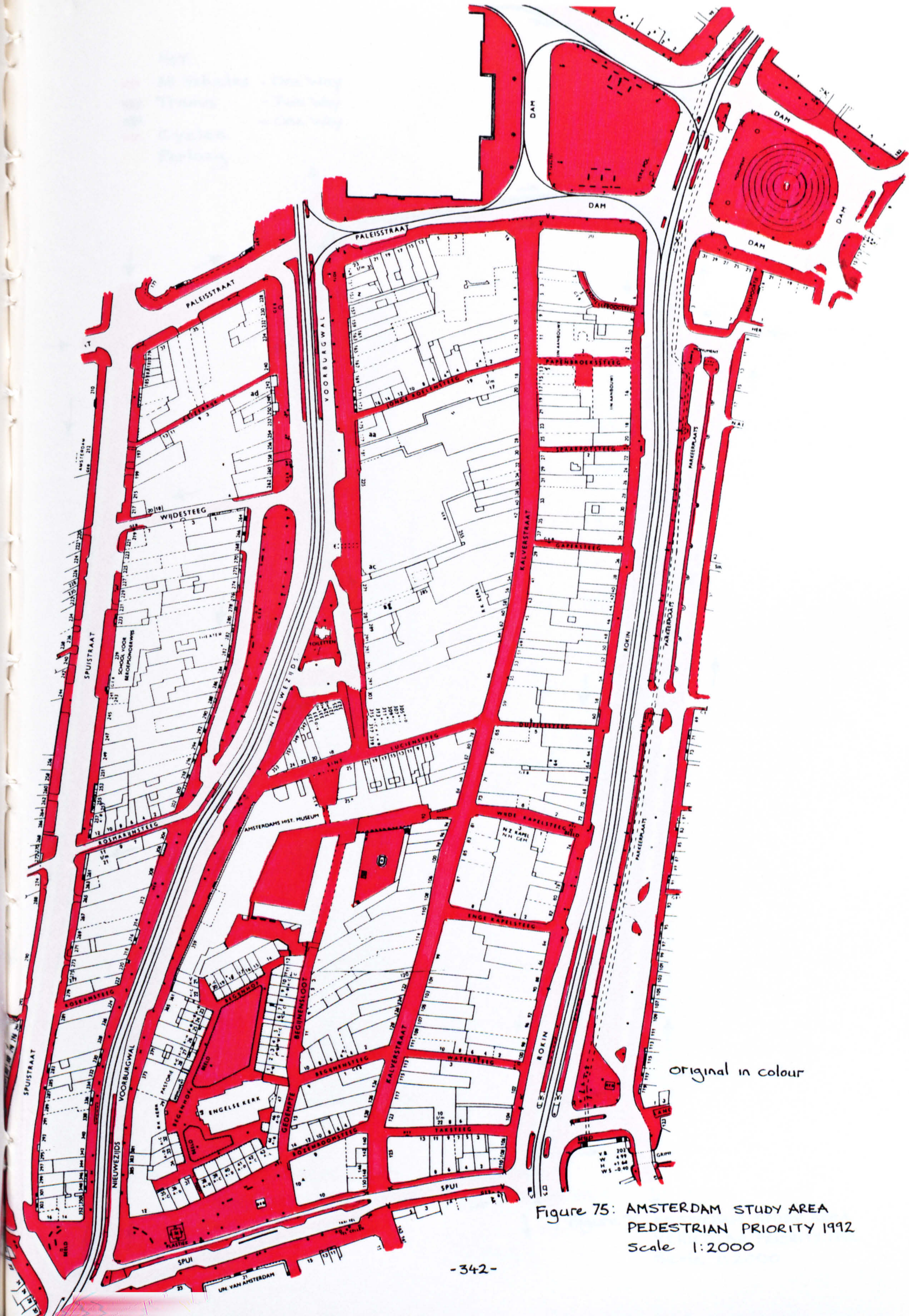
Key

- before 1800
- 1800 - 1850
- 1850 - 1900
- 1900 - 1950
- 1950 onwards



original in colour

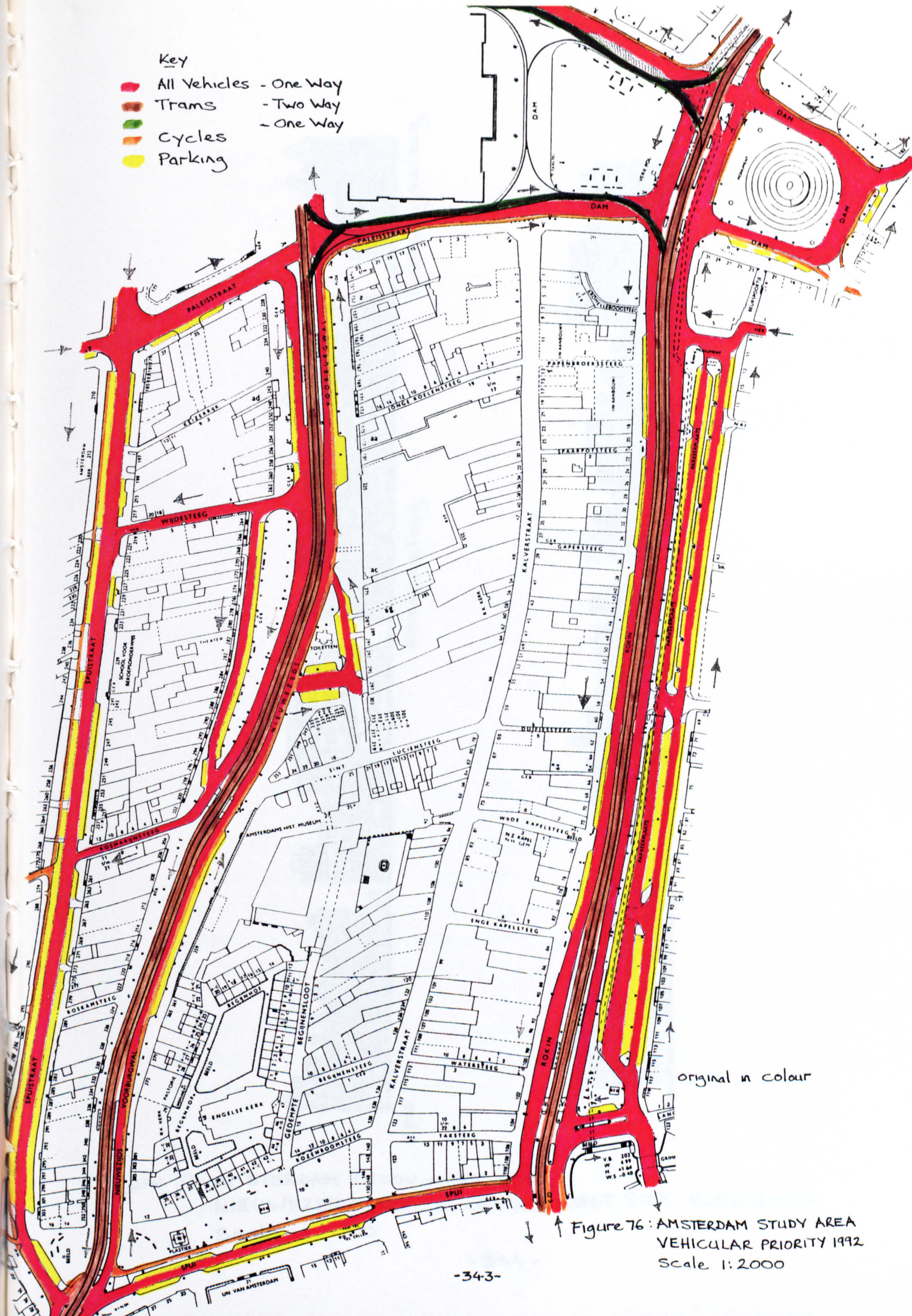
Figure 74: AMSTERDAM STUDY AREA
DATES OF BUILDINGS
AND FACADES 1992
Scale 1:2000



original in colour

Figure 75: AMSTERDAM STUDY AREA
PEDESTRIAN PRIORITY 1992
Scale 1:2000

- Key
- █ All Vehicles - One Way
 - █ Trams - Two Way
 - █ Cycles - One Way
 - █ Parking



original in colour

Figure 76: AMSTERDAM STUDY AREA
VEHICULAR PRIORITY 1992
Scale 1:2000

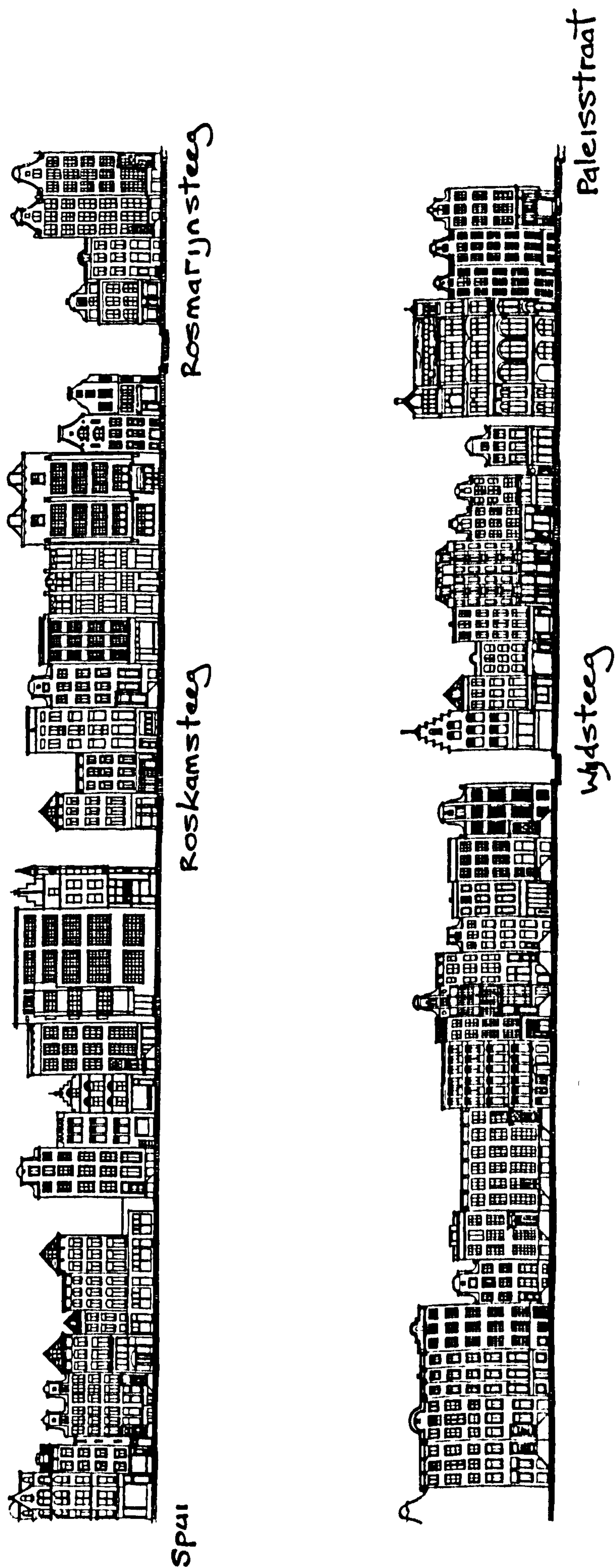


Figure 77. AMSTERDAM STUDY AREA 1992
 NIEUWEZIJDS VOORBURGWAL WEST SIDE ELEVATIONS
 Scale 1:1000

STUTTGART: INTERVENTIONS

Reasons for Selection

The criteria for selection of both European Exemplars were as follows -

1. A city where sensitive policies have been/are being formulated and are being realised on the ground.
2. A place where coherent patterns are evident.
3. A city where planning frameworks can be identified and the provision of quality is a clear aim.

Further, it is important that the two exemplars make different kinds of contributions to the urban restoration of Newcastle upon Tyne. Unlike Amsterdam, Stuttgart was subjected to dramatic urban intervention in the mid 20th Century. The bombs of the allied forces destroyed a great number of city centre buildings. The response of the Stuttgarters has great significance for this study, as does the analysis of the resulting outcome. It has been shown that Amsterdammers have an almost pathological hatred for the motor car. By contrast, the Germans - at least in the Stuttgart Region - have a love affair with powerful versions of the beast that approaches the obsessional. Policy responses in Newcastle have all too often been related to the needs of the motorist. It is therefore, helpful to discover how the Stuttgart Authorities are dealing with this issue.

It was Stuttgart that inspired *Rob Krier* to make his study of URBAN SPACE in the early 1970s. *Krier* was an associate professor in the University at the time. However, he was not primarily involved in urban design, nor was he in the Stadtebauliches Institut. His appointment related more to the general role of art in design. Nevertheless, the city awakened an interest in urban patterns which led to his

seminal work. This work has been used extensively in establishing concepts of urban design for this thesis. Like Krier, a surprising number of Stuttgarters are aware of the German School of Town Planning and especially of the work of *Camillo Sitte*. It is surely no coincidence that Krier himself, is now professor at the University in Vienna.

This thesis concentrates on urban space and the surrounding built fabric. Stuttgart has suffered from technological solutions to the growth of motor transport, but more importantly, it retains a variety of urban experience within coherent patterns -

'Streets bustling with life, side-streets suddenly ending in quiet plazas - plazas which, like the Schillerplatz, with its Thorwaldsen monument of Schiller, the great German poet ... is bordered by impressive historical buildings Here, one becomes aware that this city, despite all its civic modesty has retained an element of grandeur. This city ... is more than just a former royal residence or a modern metropolis and State Capital, for it is here that the ordinary meets the unusual, the profane with the poetic, and where down-to-earth common sense and the fiery impatience of the adventurous mind meet in a harmonious manner to form a perfect union.' (1)

Historical Development of the City in the 19th and 20th Century

In topographical terms, Stuttgart is located in a natural bowl, almost entirely surrounded by hills which support both vineyards and forest. The original medieval city pattern is clearly evident today. The Stifts church, market place, townhall and houses were originally encompassed by a moat which linked into both sides of the castle (Altes Schloss) at the head of the settlement. By 1640, a grid of streets had spread out to both sides beyond the moat and the city plan resembled the form of a butterfly. The blocks were developed as flats and tenements, with courtyards at their centres. (2)

In 1803, Duke Friedrich II (1797-1816) was installed as Elector and almost immediately crowned King. Thus Stuttgart became the seat of the royal court, in a State greatly increased in area by the cession of numerous territories. This initiated a new wave of building. During the 17th and 18th Centuries, the moat had been progressively filled-in, while the city wall was being reinforced. At the beginning of the 19th Century, the city wall and gates were quickly demolished. On the site of the North - West section of the moat, the 'Grosse Graben' was transformed into a ceremonial avenue known as the Königstrasse in 1811. Thouret, the King's master builder, planned entire new districts. (3) Those on the Western side of the city generally followed the principle of a grid. Whereas, those on the Eastern side, appear more closely related to the French school layout, pioneered by *Eugene Haussman*. There are several PLACES with diagonal streets radiating from them. This passion for building also inspired Friedrich's successor, Wilhelm I (1816-1824). (4)

The advance of industry in the 19th Century radically changed the economic and social structure of the city. A perceptible rise in the volume of trade and industrial activity took place after the establishment of the Customs Union in 1834. (5) A familiar story occurred in Stuttgart, as a rapidly increasing population flooded into the city. Housing development took off at a pace, to accommodate the new workforce. By the 1880s, the foundations were laid for the Bosch factory in Stuttgart and the Daimler plant in Cannstatt. (6) The city spread outwards, much on the lines that Thouret had planned. The medieval core, the original grid development beyond the city wall, the academie, royal residence and extensive gardens remained essentially unaffected, as there was sufficient space within the 'topographical bowl' for substantial quantities of building. In the first decades of the 20th Century, buildings were produced by *Fisher*,

Littmann, Bonatz, Osswald and Mendelsohn, which brought world-wide renown to the Stuttgart School of Architecture and its design principles. In 1905, other localities were incorporated into the city on a large scale. (7) The agglomeration took the city boundaries as far as the river Neckar. This began the movement towards suburbanisation. Land between Thouret's streets and the forest is steep, and therefore difficult and expensive in terms of construction. However, industrialisation brought considerable wealth and the new Stuttgarters were beginning to demonstrate significant aptitude for technological solutions, especially in Civil Engineering. The streets took essentially two forms. The first type is based on the straight line principle. These streets radiate outwards until the gradient becomes too steep - they then continue as steps and footpaths. The second type was based on following the contours. So, beyond 'the bowl', a network of curved streets can be observed, winding their way up to locations at noticeable altitudes which command wonderful panoramic views over the city. While buildings in the grid streets are predominantly four - five storeys, mixed use but including a good proportion of flats, buildings constructed on the gradients are almost exclusively individual low-density houses.

As the 20th Century progressed, available land for construction became fully developed. At the same time, transportation and especially the motor car, became more freely available. Consequently, a number of satellite towns were established in adjacent valleys, with regular commuting to the city. The hillsides and satellite towns were attractive to the more wealthy residents, leaving a residue of the less wealthy, in the city blocks. Many buildings became rather dilapidated as even this region was not immune to the economic ravages of the 1920s. The Nazis achieved a turn-round in economic fortunes, but they were also preparing for war. During the Second World War, the first air raids on the city took place in 1940,

followed in 1943 by the first large-scale offensive and in 1944 by substantial destruction of the city centre. At the end of the War, about 60% of Stuttgart had been destroyed. (8)

The amount of destruction was astonishing, and not surprisingly, rebuilding took some time to organise. In 1953, Stuttgart became the capital of the land of Baden-Württemberg. (9) This heralded an era of great economic recovery and with it, suburbanisation and the growth of the satellite towns gained huge momentum. Despite the Swabian propensity for Civil Engineering, and especially tunnelling, the topography of the region has meant that traffic routes are still directed along the valley and through the city. Some bypass routes have been established, but the links have never been completed. Post War development has therefore included the construction of some major roads in the city, for through-traffic. The War time devastation was mainly confined to the city centre. The principles behind its rebuilding will be explained in 'The Historical Development of the Study Area'.

The era of the 1960s and early 1970s, was one of inner city decline, city centre regeneration and great increase in traffic congestion as families with two and three cars made journeys into the city centre from ever greater distances. However, since the end of the 1970s considerable re-urbanisation and gentrification has taken place in the inner city blocks. Students and the low-paid, who had been the post-War residents, were progressively priced-out. This is one of the reasons why the University moved most of its departments to an out-of-town campus in the 1980s. The conspicuous wealth of the last decade is still evident, although large capital projects have been clearly cut-back, particularly with the prospect of the enormous costs of German Re-unification appearing on the horizon. Gentrification has also

resulted in a surprising amount of conspicuous underclass and today the pedestrianised shopping street - Königstrasse, can appear quite threatening at night. Re-urbanisation has also highlighted the over-capacity of the large city roads which are now often used as 'race-tracks', by a comparatively small number of high-powered cars.

Current Planning Policy

In recent years, increasing concern about the role of motor vehicles in the city has led to a focus on Region-City co-ordination. The requirements of Greater Stuttgart have progressively become part of city policy. A high level team now operates within the Planning Department, dedicated exclusively to these issues. The needs of transportation, seem to occupy the majority of their time. One of their prime objectives is a common theme, ie keeping through-traffic away from the city. There are proposals for increased rail links and completion of the by-pass network. (10) However, the days of free spending on infrastructure have passed, even in Germany. The Planners are therefore uncertain about if, when, and how much of these schemes will be realised. Another objective of Planning Policy is aimed at reducing the impact of the existing city roads themselves. In this aspect also, the Planners are experiencing considerable difficulties. The first consideration was to reduce vehicle speeds. Unfortunately, for local policy makers, there is a kind of 'Catch 22' situation. The high cost of constructing these fast routes through the city, after the Second World War, fell to the Republic. thus, they are Federal roads. Any change in general bandings of speed limits affecting these roads, therefore requires an Act to be passed by the German Parliament. As previously noted, the Germans have a love-affair with their motor cars which would make such an Act politically unacceptable. Nevertheless, the City

Planners do have the power to introduce local speed limits. The difficulty is that local speed limits would be seen as exceptions to the general rule and therefore would need specific signs in every case. The Planners have costed the introduction of these signs and discovered that a reasonable coverage would account for a large proportion of the city's annual budget. (11)

It has already been stated that road space for the city's traffic ring is now over-capacity, as a result of recent re-urbanisation. There is regret within the Planning Department that the scheme was forced through to completion in 1982. The ring acts as a barrier to development, pedestrian activity and fine-grained vehicular movement. Pedestrian routes in particular, are pushed under, over and across these roads. Their scale is immense. Commonly, a dimension of 50 metres is found between building frontages, and junctions are often major interchanges with subterranean pedestrian activity. Within the ring, there has been Christmas time experiment of total pedestrianisation. The benefits are unclear, but there is a notion that policy may be amended to incorporate the experiment as a permanent feature. (12)

It is clear however, that despite the detrimental effects of the existing ring of roads, it would not be feasible, either politically or economically, to have them reduced in scale. Within the traffic ring, there is substantial car parking. Some of it, is at street level, but quite a high proportion is either in multi-storey structures or under squares, thus creating a negative urban impact. The movement hierarchy from traffic ring to local distributor streets to car parks to pedestrianised core -forms an understandable part of current planning policy. The proposal for complete central pedestrianisation would certainly result in the car parks being re-located beyond the traffic ring. Consequently, walking distances would be increased and the large-scale roads would present an even greater barrier to pedestrians. Furthermore, large

pedestrianised central areas can produce an apparently aimless, disorientated pedestrian population in a city which has lost the urgency often generated by the presence of motor vehicles.

In 1935, a Building Code became part of the Stuttgart Byelaws. Originally, the Code had two main objectives. First, the Local Authority was anxious to maintain the view of the valley at a time when larger and higher buildings were coming into vogue. As a symbolic landmark, the station tower was identified as the maximum height for any proposed development. Secondly, there was a desire to incorporate the 1910 Fire Precautions into the general building pattern. (13) The Code became a framework for development. It was revised in 1962 and incorporated into the General Regulations for the Federal Republic 1971, a new version of which, was produced in 1990. (14) It is now accepted by all parties to the development process, that the Local Authority Planning Department establishes the parameters for building. Under the Building Code, not only are the use, height and density determined, but a complete range of other factors. These include materials and colour, open space, penetrability and a detailed range of building lines. The latter includes building lines for different heights, as well as two specific categories. One category prescribes the limits of possible building, whereas the other identifies the precise location of the proposed building envelope. (15) A significant aspect is the scale at which the Code operates. It is not a citywide outline, nor statement of general intent. Every piece of land which occurs within the city boundary has been carefully considered, debated and assigned the appropriate development parameters. The parallels with Amsterdam's Bestemingen Plan, are very evident. (16) Plans illustrating the parameters are readily available from a publicly accessible office in the Planning Department. (See Figure 78) As far as use is concerned,

the ubiquitous mixed use is applied to the city centre. Nevertheless, the priority is dwellings and shops. Office developments are often excluded as there was a concern that the city centre may become dominated by offices. (17)

The City Planners do not regard themselves primarily as Urban Gatekeepers. They view their role in a much broader sense. Moreover, the City Authorities recognise the importance of a strong Planning Department and reasonable resources are made available to them. Policies are viewed as limited instruments, without assistance to see them realised. Subsidies for urban renewal work are available from Federal, State and City Governments, because all three levels are aware that the exodus from the city was harmful in both economic and environment terms. There is a robust re-urbanisation programme in Stuttgart. (18) Additional regulations in conservation areas are matched by professional advice and further subsidies. Throughout the city, the Local Authority pays standard fees to approved private sector architectural consultants. Building owners and developers can seek free advice from the consultants on a range of issues including exterior colours, types of doors and windows, shop front design, and so on. (19) All this activity is aimed at maintaining and enhancing urban quality. Another tool is the propensity for competitions. These include both proposals for buildings and urban space. Many are urban design competitions, but focus on relatively small areas of land. Competitions have been sporadically successful in this country. It could be due to their infrequency, lack of clear objectives, lack of judgement based on the objectives, or just because they are seen as the exception rather than the rule. In Stuttgart, the emphasis on competition as a means of producing designs for individual buildings and spaces, has resulted in well-established procedures and high quality proposals. It can therefore

be seen that Planning Policy in Stuttgart is not free from the outcomes of past decisions. Nevertheless, current policies backed by resources, are directed towards urban quality as the predominant aim.

STUTTGART: THE STUDY AREA

Introduction

The Stuttgart Study Area is bounded by Schiller-Platz (north), Dorotheenstrasse (North East), Karlstrasse, Karlspassage and Eberhardstrasse (South East), Töpferstrasse and Geissstrasse (South), Breitestrasse (South West), Schmalestrasse, Unter der Mauer and Am Fruchtkasten (North West), and covers approximately 12 hectares (30 acres).

The focus of the Study Area is the Markt-Platz, which is a central place, in every sense. The eight pedestrian routes into the square, ensure a continuous cross-flow of movement, while vehicles skirt the Easter corner. The Rathaus (Town Hall) faces onto the square, at the South Western side. The other major square in the Study Area is Schiller-Platz, at the Northern fringe. It is bounded by the Justiz Ministry, Altes Schloss (old castle) and the Stiftskirch (Stifts Church). A main pedestrian spine, Hirschstrasse - Kirchstrasse, leads from Breitestrasse past the Rathaus, along the edge of Markt-Platz, past the Stiftskirch, through Schiller-Platz and out to Königsbau towards the Haupt-Bahnhof (central station). A parallel route, which is part-vehicular and part-pedestrian, runs along Eberhardstrasse, through Karlspassage, along Karlstrasse and out towards Karls-Platz. There are also two major cross routes. They both link Königstrasse (the main shopping street) with Haupt-Statterstrasse (part of the traffic ring). The first route is mainly pedestrianised. It runs along Stiftstrasse, by the front of the Kirch, crosses Kirchstrasse, continues as Sporerstrasse, past the Markthalle (covered market) and crosses Karlstrasse. The second cross route runs parallel to the first one. It is mainly vehicular, and is comprised of Neue Brücke, Nadlerstrasse and Dornstrasse. There are a number of other vehicular and pedestrian

routes as well as a series of small, but important squares. They all make up a fascinating composition of static and dynamic spaces.

In 1992, an original survey was undertaken for this thesis, to obtain information for analysis of the Study Area. The survey includes the following -

Building Uses -	Ground Floor	(See Figure 79)
	First Floor	(See Figure 80)
	Second Floor	(See Figure 81)
	Third Floor	(See Figure 82)
	Fourth Floor	(See Figure 83)
	Fifth Floor (and above)	(See Figure 84)
Facade Materials		(See Figure 85)
Dates of Buildings and Facades		(See Figure 86)
Pedestrian Priority		(See Figure 87)
Vehicular Priority		(See Figure 88)
Elevations to Hirschstrasse - Kirchstrasse		(See Figure 89)

This information will be used as data for the Application of Urban Design Principles and Typologies in Chapter 4.

This Study Area was selected for its variety of spaces, diversity of activity and clear urban structure - although in terms of composition it represents a striking contrast to Amsterdam.

Historical Development of the Study Area

The Study Area virtually covers the old city of Stuttgart, and is still considered by Stuttgarters as the heart of the city today. A pictorial view of 1638 (see Figure 90), shows the Study Area surrounded by a wall and moat. The Altes Schloss, Stiftskirch, Schiller-Platz and a small Markt-Platz are all visible. Indeed, the complete general pattern is recognisable, although quite fragmented by the comparatively large number of spaces between the

buildings. The original Rathaus can be seen on the South East side of the Markt-Platz. (20) By 1794, a new Rathaus had been constructed on the South West side of the square, where its successor stands today. The density of building within the Study Area had increased, although many narrow thoroughfares still existed. There was also a major square in addition to the Markt-Platz and Schiller-Platz (then known as Schloss-Platz). This additional square was called Baren-Platz and was to be found on the South East side of the old Markthalle, in a position now occupied by Münzstrasse and about half of the current Markthalle. The plan of 1794 (see Figure 91) also shows that the moat had been filled-in. The city had spread far beyond its original boundaries and similar to many cities, the moat and wall progressively became redundant as defences, and were merely seen as obstructions to communication. A broad straight street was formed on the North Western boundary. At the time it was called Der Grosse Graben, but has since been re-named Königstrasse. The Southern curve of former moat and wall became Lange Graben, but was re-named Eberhardstrasse. (21) The old city had developed at the very bottom of the valley. Expansion beyond the old wall, to either side, had taken place at a higher level. Thus the Graben were formed at the upper level. The Study Area therefore has the topographical feeling of a bowl, still contained by the old city limits.

Throughout the 19th Century and early 20th Century, the Study Area maintained its medieval pattern. Perhaps surprisingly, as redevelopment occurred it served to strengthen the city form and structure. Streets and squares became fewer, but better defined and more significant because of it. As Markt-Platz grew and Baren-Platz was built upon, a hierarchy of spaces became established with Markt-Platz at the pinnacle. (22) The streets started to act as links between the squares, as well as establishing their own hierarchical network. The Rathaus, Stiftskirch, Altes Schloss, Justiz Ministry and

Markthalle became symbolic focal buildings. There was no reason to suspect that the evolution of the urban fabric in the Study Area would not just continue.

However, slow incremental change which had been the hallmark of the Study Area since it constituted the original city, came to a dramatic end with the air raids of the Second World War. It has been observed previously, that 60% of Stuttgart was destroyed by these actions. The Study Area took the brunt of the attacks. All the buildings were damaged and the majority obliterated. The surviving structures were few. The robust medieval structures of the Altes Schloss, Justiz Ministry and Stiftskirch, were repaired. Only few fragments of walls remained of any other medieval or 19th Century buildings. The only other survivors were from the early 20th Century and included the Markthalle, back section of the Rathaus, a group of buildings around Geissstrasse, and Töpferstrasse, along with about half a dozen others, scattered around the Area. (23)

The City Authority's response to the devastation was extremely interesting. There are two main schools of thought, regarding the rebuilding of war-torn cities. The first approach is to view war as an un-natural intervention. The response in this alternative, is to rebuild the city as it was before the war - to continue its natural development. The second approach is to consider the destruction as a new start (the phoenix model). In this alternative the city is replanned to meet modern needs. In Europe there are good examples of both models. Untypically, the Stuttgarters took neither of these options. They repaired the buildings that could be saved, but saw no point in trying to fake or mimic the past. However, the devastated Study Area was the symbolic heart of their city, and they felt that it was inappropriate to lose its traditional spaces and replace them by an unrecognisable MODERN PLAN. The decision was

therefore made that modern buildings would be constructed on existing sites, thus retaining the established spatial pattern. As far as possible, the grain would be unaltered and in many cases, the new superstructures were built on old foundations. (24)

The Study Area Today

The Study Area remains the centre, the focus and the heart of the city of Stuttgart. It is a well-defined and compact centre. The nature of the topography means that from nearly all directions there is a feeling of going down into the Area. Conversely, there is a notion of coming up and out. The Area is further defined by a spatial pattern which is different to its surroundings. The encompassing dynamic spaces are broad, uncompromising statements. The straight, pedestrianised, Königstrasse and the traffic-route of Haupt-statterstrasse, are to either side. Beyond them both are grids of streets with rectilinear building blocks in between. To the North Eastern end Planie now takes the traffic underground, while at ground level the space opens out to the huge Schloss-Platz, with the great Schloss Garten, beyond. At the South Western end, Eberhardstrasse is a true city street. It leads onto a densely built area which certainly has the feeling of acting in a supporting role. The medieval origins of the spaces are still evident in the Study Area itself, but comparison with early plans shows that evolution and refinement have continued since the 19th Century. (25) It is a distinctly legible urban pattern with very clear spatial definition. The major routes through the Study Area run along and at right angles to the valley. Yet, the medieval scale, changes in width, and variations in direction, form a kind of modified grid. Moreover, it is not a case of a grid of streets (albeit modified) with building blocks in between. The grid is created by only four streets, with other streets and squares defined by buildings, making up the small scale network. The resulting effect is a group of

useful interconnected public spaces. In particular, Markt-Platz and Schiller-Platz with Kirchstrasse linking them, forms a ready-made public stage for a whole range of outdoor activities. The Wine Festival (Weindorf) for example, is a week long annual event which takes place in this location. (26) Tables and bench seats, market stalls selling wine and local dishes, musicians and entertainers, as well as a mass of humanity, fill the spaces. In this sense, the layout of a city can encourage social interaction or act as a form of social control. In the latter case, if spaces for assemblies, rallies, events, entertainment, etc, either do not exist or are so ill-conceived that they are not welcoming, then the inhabitants will live their lives independently or at best in small groups. Certain political organisations delight in this form of social control, but it does not suit a mature Western society. Stuttgart clearly belongs to the former group, where social interaction in public space is greatly encouraged. It is suggested here, that the kind of ethos which enables useful public space to thrive, strengthens the identity of place and the deep psychological connections of the townspeople with that place.

This approach becomes all the more significant when the buildings are considered. The Study Area contains some powerful symbols of society. The Rathaus (Town Hall), symbol of local government and political order, stands with its main entrance opening onto the Markt-Platz - already identified as the physical and metaphorical centre of the Study Area and thereby the city. The Altes-Schloss (old castle) is a symbol of history, longevity and past conflicts resulting from a less developed society. The Justiz Ministry symbolises law and order and the Stiftskirche represents spiritual fulfilment. These three buildings define Schiller-Platz, only second in importance to Markt-Platz in the spatial hierarchy. The buildings around this square are the only ones in the Study Area

which pre-date the 20th Century (27), a reminder that they do not represent temporary or transient values. The square itself pays homage to the great German poet, indicating the significance of the Arts. Along Dorotheenstrasse is the Markthalle, symbol of trade and sustenance. The proximity of church and market illustrates the two sides of human need, ie spiritual and physical. The proposition is that the townspeople are psychologically re-assured by the clarity of these symbols, as they move through the spaces. There is a permanence of civilisation that is associated with these buildings.

The segregation of different social groups is a very strong feature of the Amsterdam Study Area. The Stuttgart experience is completely different. This Study Area is overwhelmingly public and encourages social integration rather than segregation. There is definitely an atmosphere of the places belonging to all the people. Also, unlike Amsterdam, the vast majority of those using the Area are locals rather than visitors. Having analysed part of Amsterdam, it is difficult to argue that a high proportion of pedestrian routes assists in social integration. However, in the case of Stuttgart, it is undoubtedly true. Without stimulating pedestrian spaces, the car would dominate throughout, separating people from places as well as from one another. Moreover, as American models have demonstrated, the motor-city elongates travel distances and lowers environmental quality. Yet, a similarity between Amsterdam and Stuttgart could be that the high level of pedestrian activity enhances the compact nature of both city centres. Walking is also a great socio-economic leveller, as it removes the status symbols associated with private transport. Many of the routes through the Stuttgart Study Area are pedestrianised. There is a multiple choice of routes, and it is pleasurable almost to the point of exhilaration, to walk through the variety of spaces. For example, the

Hirschstrasse - Kirchstrasse route may be taken from Eberhardstrasse to Schloss-Platz. This commences from Eberhardstrasse with a typical descent into the Study Area. At the foot of the steps is a small paved square which leads onto Breitestrasse, a city street with occasional cars in either direction. The pedestrianised route continues beyond Breitestrasse with shops either side until it crosses Neue Brücke where Nadlerstrasse opens out into a medium sized square which includes provision for car parking. The square has quite a substantial amount of planting with bench seats between the trees. A formal facade of the old Rathaus building is to the right with small shops and bars to the left. A bar-bistro in part of the Rathaus has a number of outside tables in the Hirschstrasse. The Markt-Platz seems like a great space as it opens out on the right hand side. It is mainly an unobstructed paved area and it is possible to look along to some large trees at the far end. The only vehicles skirt the diagonally opposite corner, from Munzstrasse to Marktstrasse. The route angles away from the Markt-Platz as it enters Kirchstrasse. This, seemingly narrow, dynamic space is lined by small scale shops. Nevertheless, one of the cafés has found sufficient space for a few tables and chairs. Kirchstrasse crosses over Stiftstrasse - Sporerstrasse, which are also pedestrianised here. The junction opens out into a tiny paved square. The route goes through a pinch point, before the side view of the magnificent Stiftskirch is seen across a raised terrace. The way is much broader as it crosses the end of Dorotheenstrasse and past the end of the church into Schiller-Platz. The grandeur of the church, Justiz Ministry and Altes Schloss is quite breathtaking. The route either continues by the Altes Schloss or turns diagonally towards a small covered passage in the corner of the Justiz Ministry. Either way moves from cosy well-defined and mainly intimate spaces,

to the vastness of the Schloss-Platz where large groups of human-beings appear almost insignificant in the great formal plan.

Within the Study Area, vehicular routes pass across the pedestrian routes (or vice versa), on a scale which is a reminder of city vibrancy, rather than a disturbing intrusion. The contrasts of comparatively slow and fast activity as well as quiet ways punctuated by the sounds of the city, are essential ingredients to human stimulation, excitement and enjoyment.

The spaces and buildings will be fully analysed in subsequent sections, but a few observations are necessary in this section to complete the picture of the Study Area today. It would be tempting to note that the success of the pedestrian routes is due to their comparative narrowness, which would make them unsatisfactory vehicular routes. However, Munzstrasse may actually be narrower than Kirchstrasse, and the most pleasant city street, Eberhardstrasse, appears to have very similar dimensions to Hirschstrasse. It seems that the scale of dynamic spaces within the Study Area enables them to be suitable for both vehicles and pedestrians. By observation, it is also noted that the speed of vehicles is self-regulating in streets of this size. It is interesting to compare the routes through the Study Area, with Königstrasse and Haupt-statterstrasse, which lie just beyond its boundary. It has already been established that Königstrasse continues to be the city's main shopping street, and has been pedestrianised in the recent past. It is not a comfortable space. The width is too great to walk in the middle, and be attracted to activity at either side. Consequently the movement pattern is much like a traditional street, ie pedestrians choose one side and walk along that side, perhaps crossing over from time to time. The Authorities have sought to fill the middle of the space and thus create the visual effect of two narrow

spaces at each side. The techniques ranges from trees to large glass umbrellas to benches, tables and lamp standards - but success has been limited. The long straight layout of the street, terminating in a view of the station tower, adds to its daunting appearance. It is rarely used in the evenings, except by gangs of homeless drunks and druggies. Haupt-statterstrasse is part of the traffic ring. This enormous road is about twice the width of Königstrasse. It is completely alien territory for the pedestrian, as vehicles speed by, causing great noise and vibration as they disappear in polluted dust clouds. There are a few ground level pedestrian crossings but generally it is necessary to use inhospitable subways. One aspect of concern might be that the traffic ring is an inevitable consequence of the delightful atmosphere created in the Study Area. It is true that large pedestrianised areas do create traffic concentrations at their perimeters. This is one of the reasons why pedestrianised areas should be relatively small or at least allow vehicular penetration. This Study Area does allow for limited penetration by vehicles. On balance, it is considered that the traffic ring was not inevitable. The problems of through-traffic and the era of large scale engineering solutions have already been discussed and identified as the reasons for the construction of Haupt-statterstrasse and the other roads. It is concluded that the Study Area could have evolved largely as it is today with the vehicles dissipated into a network of city streets beyond its boundary.

The late 20th Century buildings, which form the majority of the Study Area's fabric, are on the whole undistinguished. Yet, the scale, height, grain and modern style nevertheless, form perfectly acceptable definitions to the plethora of spaces. Only with Department Stores and multi-storey car parks does the scale of built form begin to be overpowering and unsatisfactory. The Study Area today, is the result of very sensible and far-sighted

decisions which were forced by the actions of the Second World War. (28) The result is a fascinating network of spaces which are clearly derived from the city's medieval beginnings, although the spaces have also evolved with time. The decision to maintain the spatial structure has enabled this evolutionary process to continue. The decision not to rebuild the past has meant that the City Authority has avoided the problem of the city centre turning into a museum. At present the predominant style is mid 20th Century modernism, but as the decades and centuries unfold, incremental renewal will generate a heterogeneous city centre full of the periods and styles of building yet to come.

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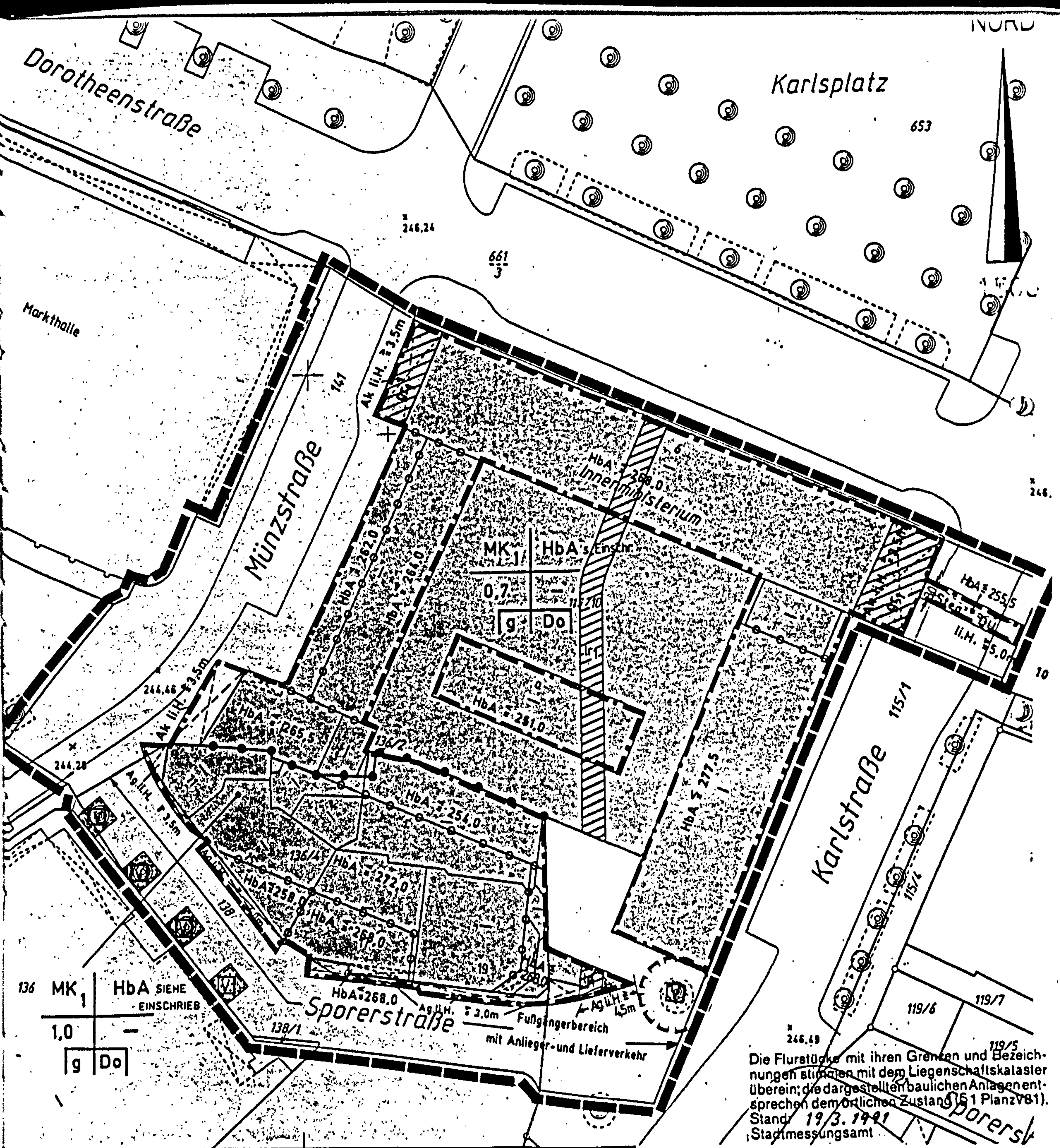


Figure 78: STUTTGART STUDY AREA · BUILDING CODE
EXAMPLE OF SITE DEVELOPMENT PARAMETERS
scale 1:1000

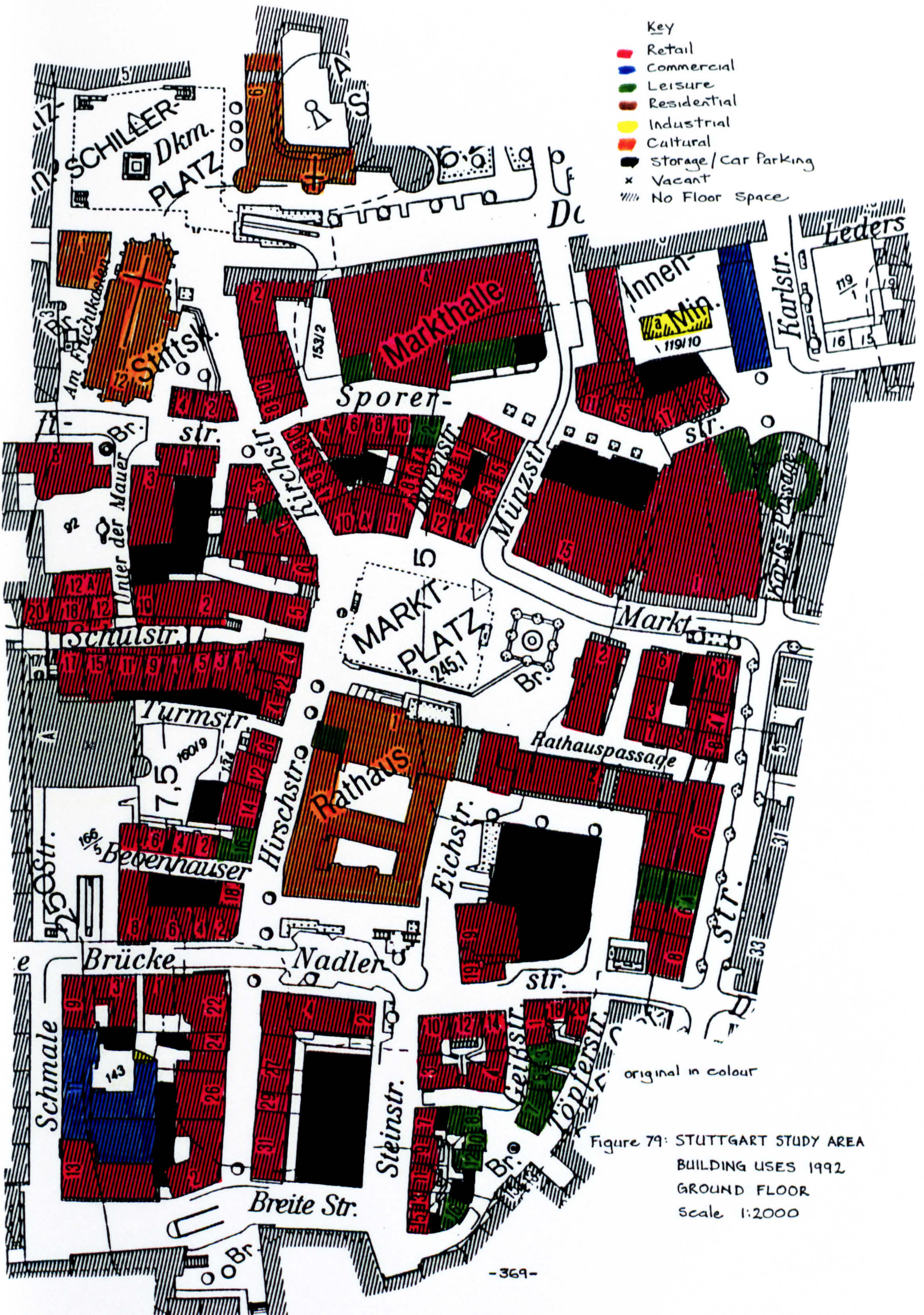




Figure 80: STUTTGART STUDY AREA
BUILDING USES 1992
FIRST FLOOR
Scale 1:2000



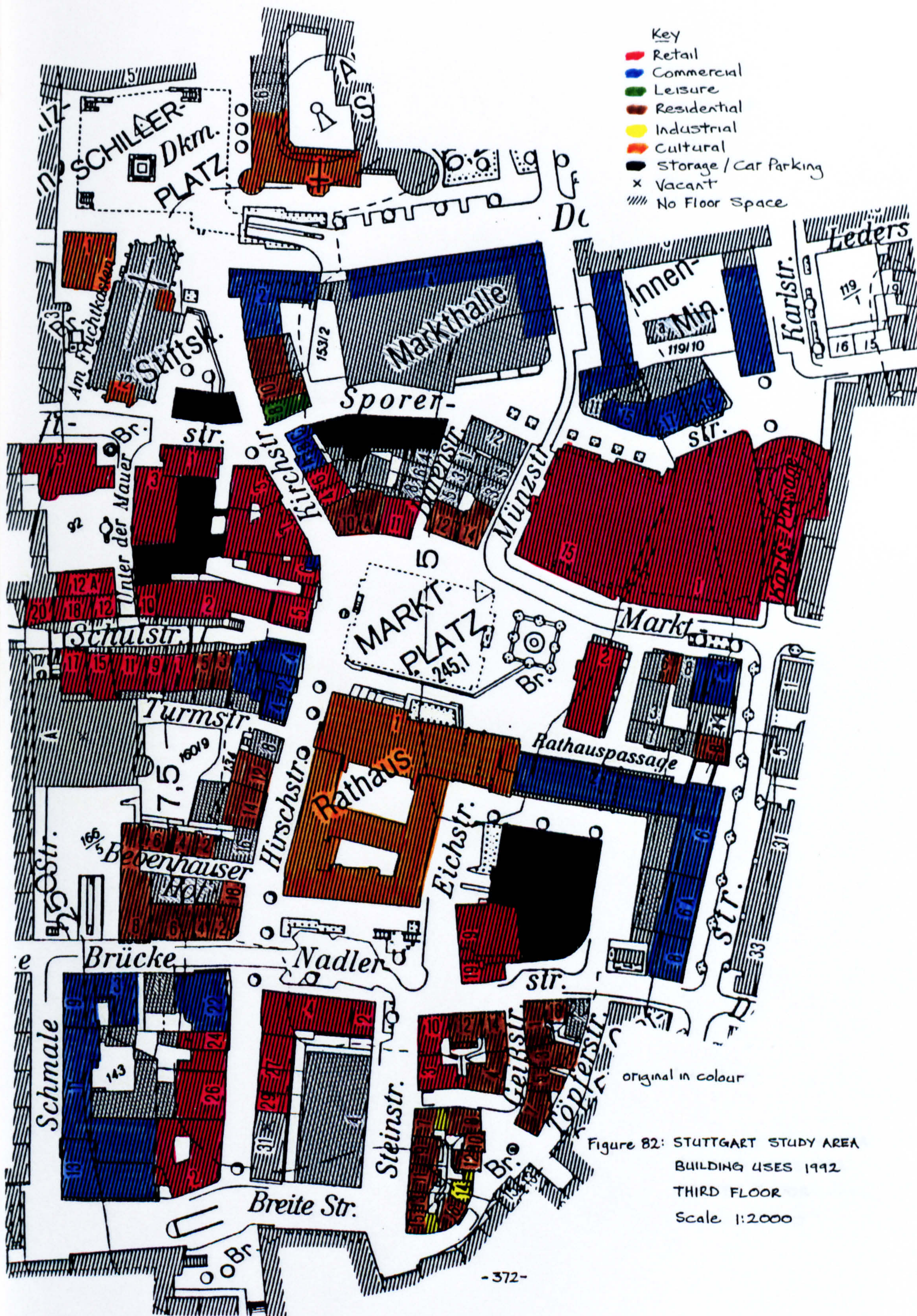






Figure 84: STUTTGART STUDY AREA
BUILDING USES 1992
FIFTH FLOOR [and above]
Scale 1:2000





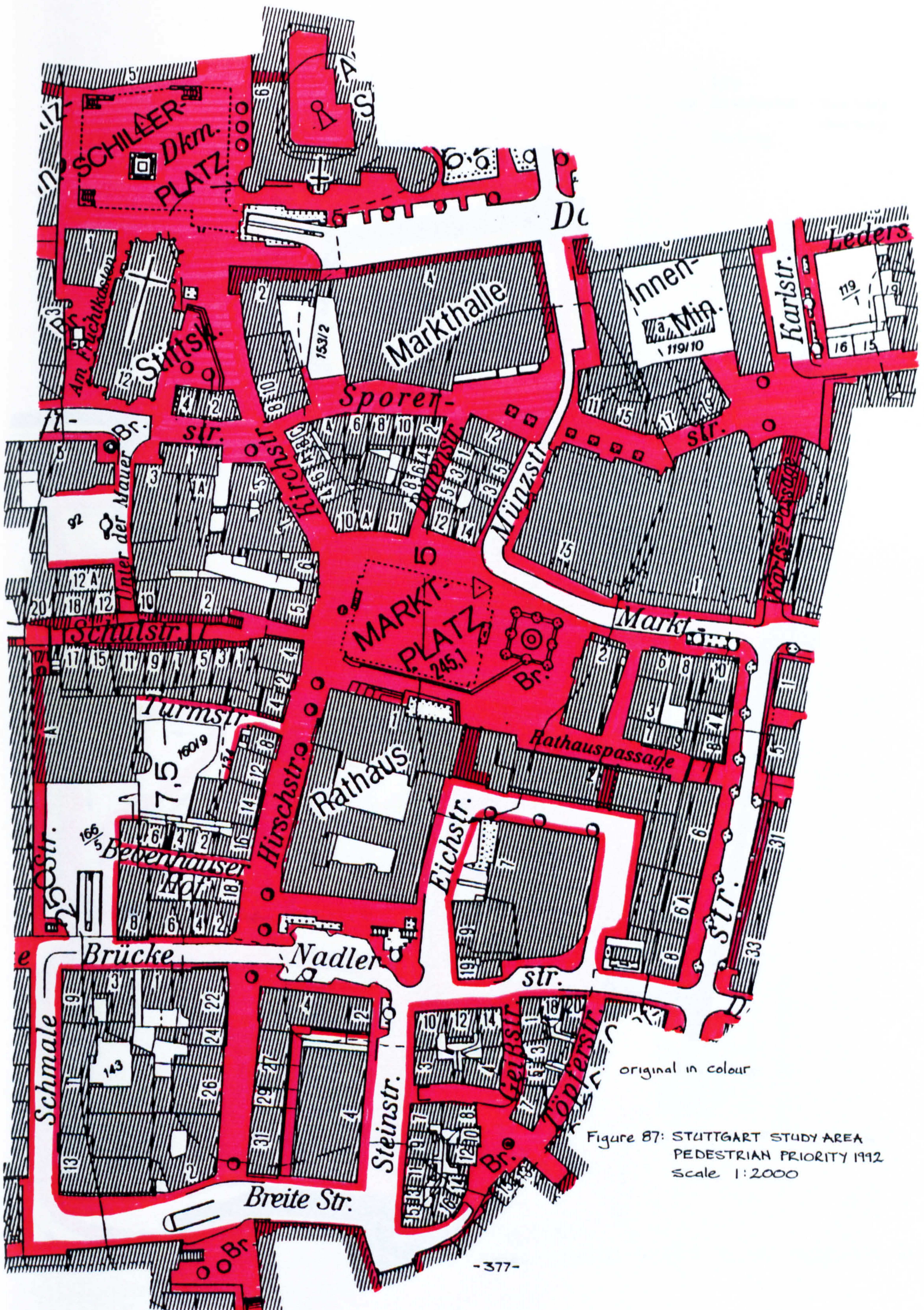
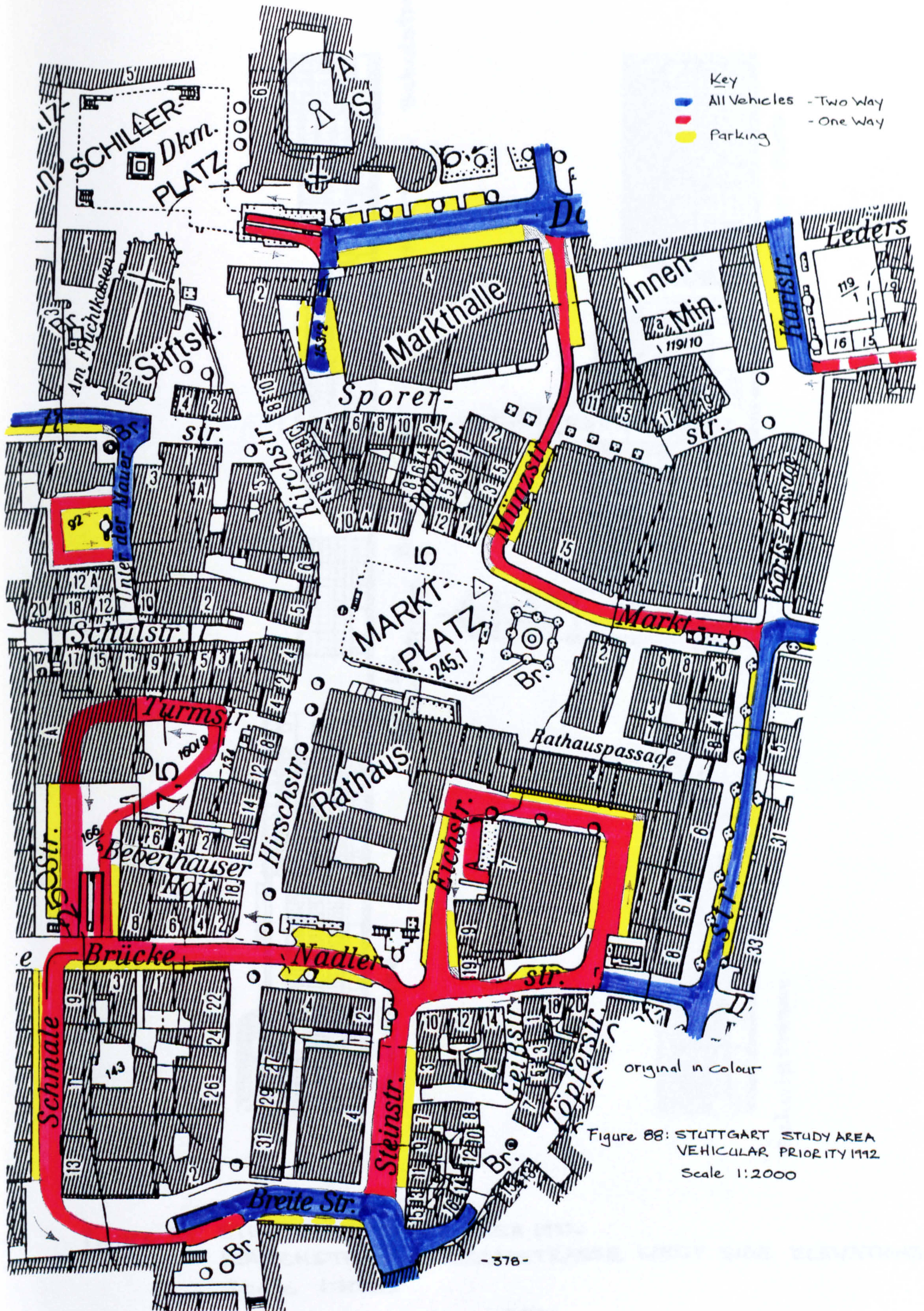


Figure 87: STUTTGART STUDY AREA
PEDESTRIAN PRIORITY 1992
Scale 1:2000



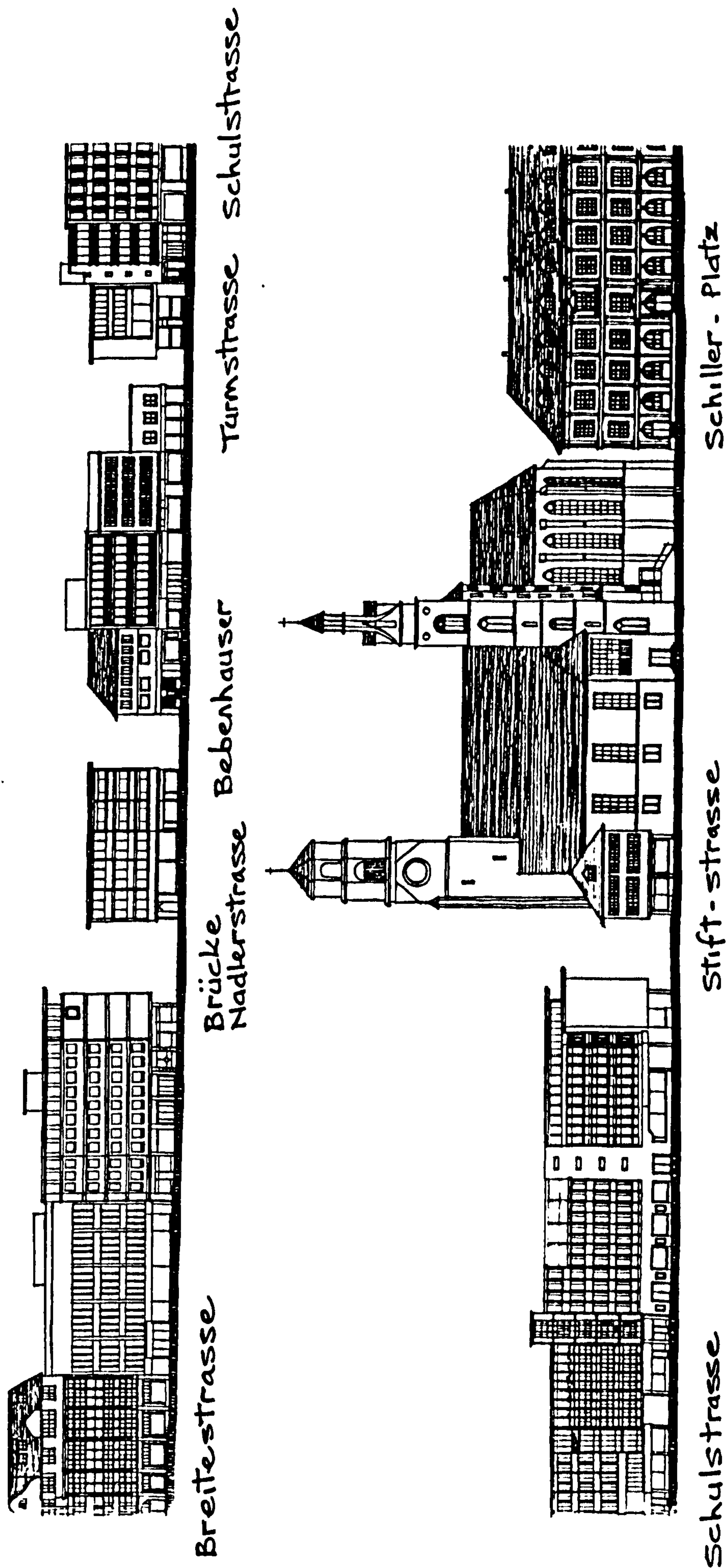


Figure 89: STUTTGART STUDY AREA 1992
 HIRSCHSTRASSE-KIRCHSTRASSE WEST SIDE ELEVATIONS
 Scale 1:1000

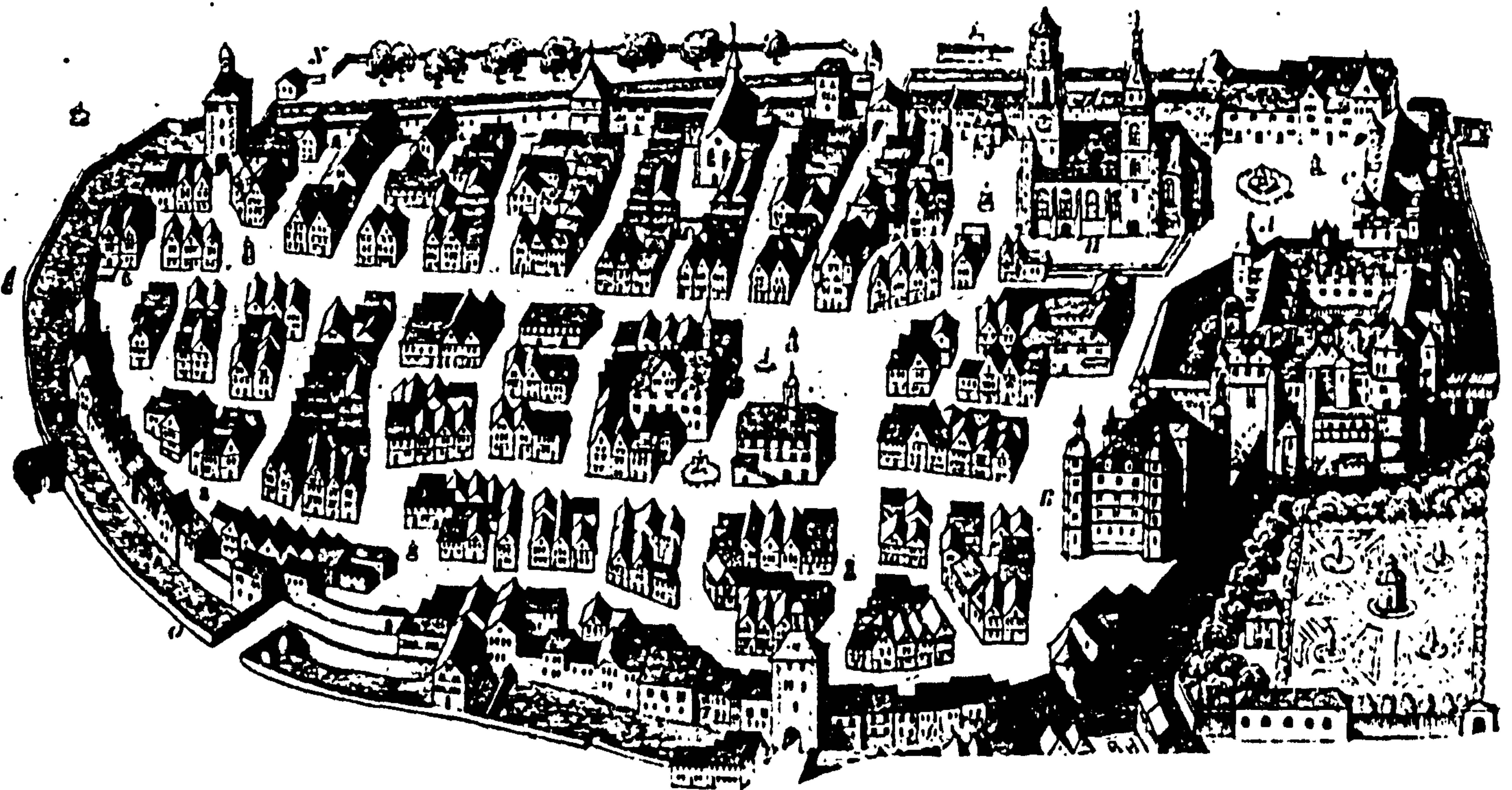


Figure 90: STUTTGART STUDY AREA
PICTORIAL VIEW OF THE CITY · 1638

