

THE UNIVERSITY OF HULL

The Meaning of Place: a study of Geographical Imagery
with particular reference to Kingston upon Hull

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PREFACE

One of the fundamental themes in geography has been the exploration of urban and regional character:- a uniqueness of environments often expressed in terms of an ambience or a sense of place. However, this area of study has been neglected in recent years: there have not been sufficiently sensitive techniques available and the predominant philosophical orientation of the subject has not been receptive to the more subjective aspects of environmental experience. The development of environmental perception - an interdisciplinary approach to the study of the relationship of man and environment - has alleviated these problems to some extent. By focussing on the environmental experiences of individuals and the language they use to describe their impressions of places, this research project has taken up and extended the question of environmental character.

The thesis is concerned with the meanings of places and work focusses upon the images of Kingston upon Hull in particular. The meaning of a place is defined as the associations of ideas and emotions it evokes in the individual both as a result of direct environmental stimulation and other secondary sources of information. The image represents the synthesis of these connotations: as they are communicated to other people an image or verbal picture will emerge which conveys not only information about it but also the emotive value placed upon it by the individual. The main proposition, therefore, is that people have cognitive representations of places which they are able to communicate. The underlying assumption is that the language people use is a true indication of these internal representations. The first two chapters of the thesis provide a review of the evidence to support the propositions: chapter one discusses various theoretical frameworks used in the study of environmental

perception whilst chapter two seeks to establish that there has been a neglect of the phenomenological and linguistic aspects of urban imagery. The main body of the thesis is concerned with the development and substantiation of a model of urban imagery. On the basis of survey and experimental work reported in chapters three and four, a categorisation of images dependent upon the type of information available to the individual is proposed. As reported in succeeding chapters, partial support for this model is achieved by reference to two larger social surveys. The validity of this work is then assessed in relation to comparable projects completed recently. The final chapter provides a summary of the findings and considers their implications for further work in urban and regional perception.

It must be stressed that this project has been subject to the usual constraints of time and finance. The lack of more extensive facilities is reflected in the size and organisations of the surveys undertaken. The possible biases inherent in these surveys have been recognised and the interpretation of results has erred on the side of caution rather than running the risk of making unjustified assertions. A more serious criticism of the study must also be conceded. An extensive monitoring of the media and other information sources was not made during the course of the study. This was not feasible and it was felt to be of more value to explore the verbal content of environmental images, illustrating these with media examples where appropriate. The importance of more extensive work into the relationship between image and information sources is recognised, however.

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INTRODUCTION

'Environments always have an ambience, an atmosphere, difficult to define, but overriding in importance. One can at this point only speculate on some of the features of the environment which contribute to this ambience and which thereby become of central significance for the study of environment perception.'

W.H. Ittelson, 1973, p. 15

The work presented in this thesis represents a contribution to the rapidly expanding body of knowledge broadly subsumed under the title of environmental perception. Environmental perception represents a contemporary interpretation of the relationship between man and his environment. It is based on the premise that every individual has a mental image of his environment which is an amalgam of his perceptions, attitudes and beliefs about the nature of the world. The main tenet of the approach is that the individual responds to this idiosyncratic image of the environment. Within geography, environmental perception has offered an alternative mode of explanation for many patterns in the landscape through its interpretation of the subjective factors influencing human behaviour. Work has developed from an assessment of behaviour in relation to the assumed image to studies of the composition and content of images of environment without reference to immediate behaviour. This research project is concerned with the meaning of place and as such considers the images people have of places within their environment. It is concerned with the language people use to describe environments and the importance of informational and emotional components in place imagery.

The framework of the study has been outlined in the preface but it may be of value to summarise the contents of the thesis before considering the research project in its wider context. The main hypothesis explored in the study is that individuals have images of entire cities and larger areas which can be identified and structured. Secondary hypotheses relate to the development and maintenance of these images - the importance of social contact; the role of the media; and the persistence of certain cultural values will all contribute to individual imagery. Chapter One places the study in the context of theoretical developments in environmental perception in a discussion of geographical and psychological

formulations of the process. The main conclusion reached is that the most valid interpretation of the process of environmental perception is as a broadly based process of information reception and assimilation. On the basis of this discussion, the concept of the image is introduced and differences in interpretation highlighted. Chapter Two extends the discussion of imagery by reviewing work into the nature of urban imagery. It is argued in this chapter that there has been a neglect of connotative meaning in images and the need for the study of the language of imagery is stressed. Subsequent chapters provide evidence to support the model of place imagery put forward in Chapter Five. In Chapter Three, results are presented from a pilot survey into urban and regional perception, and a place response test which considered the most common linguistic elements used in place imagery. This work is extended in Chapter Four which reports an experiment into the meaning of place using the semantic differential technique. The model of place imagery is then discussed with reference to two larger social surveys, one completed in Hull and the second in other parts of England. Results from the two surveys are presented in Chapter Six. The last two chapters of the thesis contain a discussion of all the original work presented in relation to the model and other contemporary studies which have been published; the last chapter contains a summary of the work and discusses the implications of the study for further work.

The argument has been advanced recently that the meaning of places and environmental objects is the 'central problem in the field of environmental perception' (Harrison and Sarre, 1971, p. 354). The need for analysis and interpretation of the relationship between individual and environment is evident not only in the assessment of large scale movements (for example, patterns in tourism; migrational movements), but also in

terms of individual needs within the immediate environment. For example, the hypothesised 'rootlessness' of the more mobile sections of society and the need to 'belong' to a place is not sufficiently understood (Lenz-Romeiss, 1973). Similarly, the movement towards greater public participation in planning decisions requires information about the way people structure their images of the environment and the language used in the descriptions of these images.

This represents part of the contemporary context of the project but it may be argued that antecedents of the problem are evident in much earlier geographical work. The interpretation of the meanings and significances of landscapes has been one of the fundamental themes in the development of geographical thought. For example, conflict over the uniqueness of particular places, concern over the elucidation of regional character and the identification of regional consciousness are indicative of a basic concern with the meaning of places evident over many years. Environmental perception is able to offer a new interpretation however, with a change in the procedures of study. In the past, explanations of the meaning of place have depended on individual investigators using their 'geographical imaginations' - a subjective faculty composed of 'sympathetic insight and imaginative understanding ... (which) evokes the genius of a place' (Prince, 1961, p. 22). With the contemporary approaches used in environmental perception, the meaning of places may be assessed in a new and revealing fashion by the consideration of 'the geographical ideas ... of all manner of people - not only geographers, but farmers and fishermen, business executives and poets ... Bedouins and Hottentots' (Wright, 1947, p. 12).

The meaning of place has been expressed traditionally in terms of a concept of environmental character or personality. The character of a

place is supposed to stem from the unique combination of environmental and social elements within it; each town 'has buried somewhere a personality of its own, a personality composed less often perhaps of buildings than of other qualities - contours, street pattern, drama, colour, cosiness, surprise, intimacy, stock, smells, noises' (Casson, 1962, p. 6). The metaphor of personality is made in an appeal to those qualities which distinguish the unique individual. Geographers have not always been in agreement with such a subjective interpretation of landscape although certain geographers have attempted description of regional character with variable success (see Darby, 1962). Within recent years there has been a marked lack of interest in the exposition of environmental character in association with the general decline in regional geography. An important reason for the decline has been that the subjectivity required for 'good geographical description' is not acceptable for scientific generalisation. The debate between the idiographic and nomothetic approaches to geography is well documented elsewhere (Harvey, 1969; Guelke, 1971); the exploration of environmental character has been neglected in consequence. It is of value in this introduction to consider briefly the evolution of the concept of environmental character in geography and thus place this research project in its wider context.

Some of the earliest work into regional personality was completed by the French school of geographers concerned with the description of small areas or 'pays' in France (de la Blanche, 1922; see Wrigley, 1965). Adopting a philosophical position in which man and environment were intimately connected, they attempted to illustrate the development of regional personality evolving through the interdependence of the two. The success of certain of these texts has been recognised - 'the distinctive character or personality of the regions studied could be convincingly demonstrated' (Turnock, 1967, p. 377). The English approach

to regional description in the following years was inspired by Herbertson, in particular, much of whose work was the antithesis of the French (Herbertson, 1905; 1913). He endeavoured to establish a regional model for the world based on differences in the physical environment and in much subsequent work, regional character dissolved in a compendium of facts orientated around a physical definition of uniqueness (see Fisher, 1970). Much of this work showed a neglect of the more imaginative aspects of regional description which was, in fact, recognised by Herbertson. He argued that the 'geographer is no more confined to materialistic considerations than the historian. There is a genius loci,, as well as a Zeitgeist - a spirit of place as well as of time' (Herbertson, 1915, p.153). The development of such a spirit of place was impossible, he argued, without 'a loving familiarity with the region' (p. 153).

There was a decline of interest in regional geography, however, which reached its nadir in the nineteen sixties when concepts of the subject were under strong attack. Thus, Gilbert's paper (1960) represented not only a theoretical statement of his own position but an impassioned plea for regional geography. His comments are of interest in the use of metaphor; 'Regions, like individuals, have very different characters; moreover, the characters of regions, like those of individuals, are constantly changing or developing. The art of describing a region ... is quite as difficult as the art of describing the character of a human individual' (Gilbert, 1960, p. 158). Gilbert uses the work of certain regional novelists to illustrate his arguments about regional character and his contention is supported by Prince, who argues that "Both regions and writers, place and person are unique, and it is in their distinctive qualities that we may find their essential character' (Prince, 1961, p. 24). The major problem facing geographers

was that of effective synthesis. The character of a place is to be recognised in such synthesis; many writers are able to illuminate this through metaphor but the majority of geographers remained committed to facts and ineffective synthesis.

The subsequent rejection of the regional concept and approach by many geographers has led to a profound neglect of the question of urban and regional character within recent years. Regional geography might have been expected to have benefited from the application of perception techniques but this has not happened to date despite the subjective orientation of much of this work. Perhaps it is too soon for the full implications to have been grasped. In any event, it may be argued that the general decline in the regional approach is not only a rejection of the idiographic approach but is also due to the failure of the regionalists to provide adequate descriptions of regional character. Most geographers have regrettably failed to express the more subtle nuances of regional individuality:- summed up neatly in Herbertson's phrase 'loving familiarity', for these are absorbed through experience of the area. A major problem recognised by the French regionalists is that personality appeared to be dependent upon small, isolated communities. With increasing size, industrialisation and interdependence of areas it becomes more difficult to interpret the character of a single area successfully. A further weakening of the concept of the individuality of regions arose from the elaboration of the idea of functional regions. The unique region could be abandoned as a concept, to be replaced by functional regions defined by any set of criteria. Thus Turnock writes 'the search for personality may therefore be abandoned; it is no longer necessary to postulate and delimit some distinctive quality in an area as the essential preliminary for claiming regional status' (Turnock, 1967, p. 378). As

an 'expert', the geographer is inclined to take for granted observations of interdependency and organisation between areas which may not be apparent to others. The recognition that 'regional identity still represents a substantial force in many rural and urban areas' (Turnock, 1967, p. 377) is a strong argument for a reconsideration of the whole question of environmental character.

That the search for environmental personality has not altogether been abandoned by all geographers is shown in recent papers by Campbell (1968), Harris (1971), Wreford-Watson (1970; 1971), and work by certain historical geographers (see Prince, 1971). For example, Campbell suggests that the personality of indigenous populations may be an important factor in the structure and development of regions whilst Harris argues also that personality is a valuable concept in the explanation of regional character. As an illustration, he gives his interpretation of the contrasting characters of French and Anglo-Saxon Canada: the former is introverted and retrospective, the latter outward-looking, individualistic and commercial.

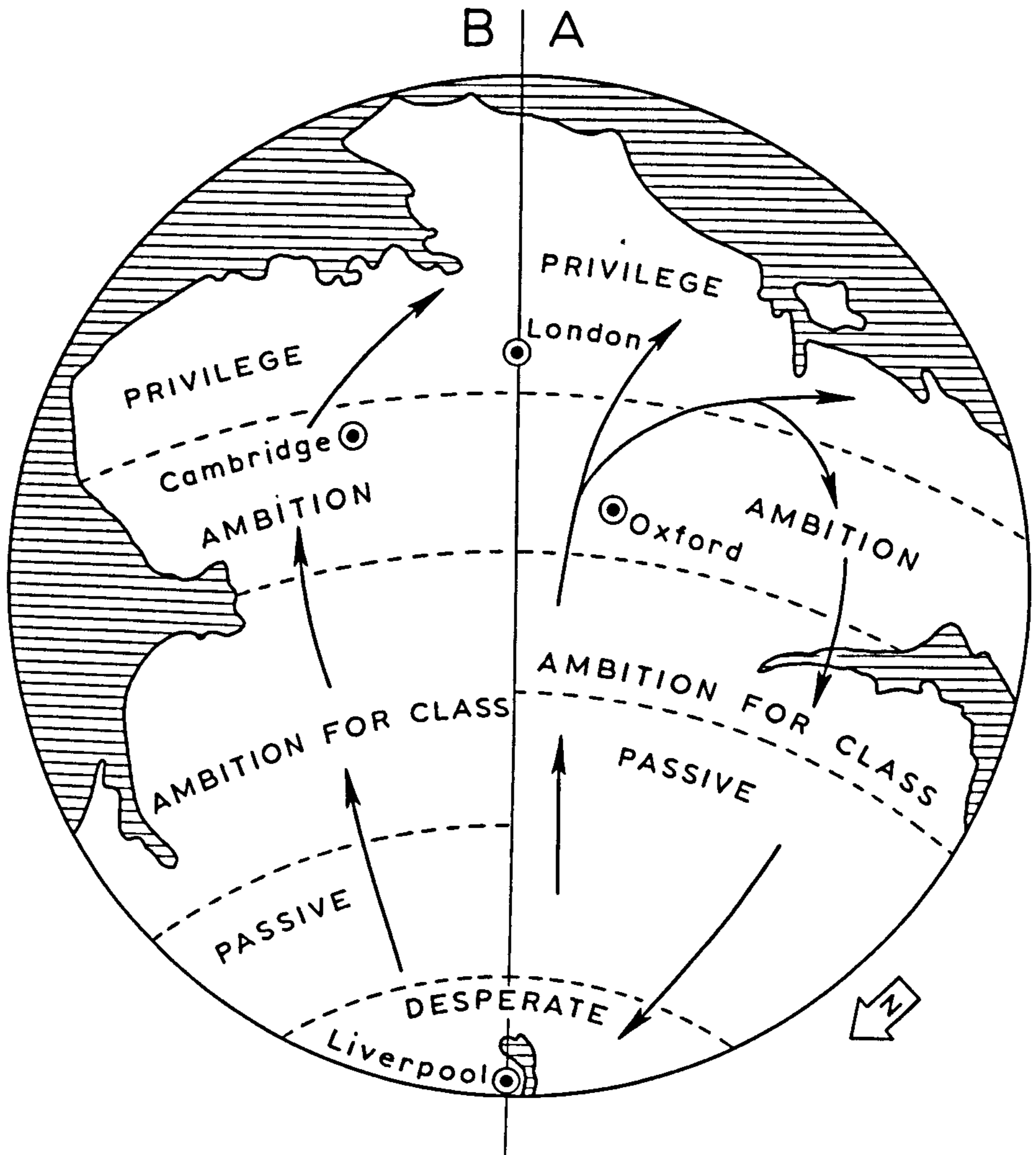
To talk of environmental character and the meaning of place is to use the language of experience rather than that of classification:

'The North can be seen, felt, heard and smelt, and these images accumulate into a positive identification, something existential and separate. Each single image is not necessarily unique to the region, but when constantly superimposed over time an awareness of reality is evoked' (Cherry, 1967, p. 834).

There is extensive evidence of both urban and regional character in literature (see Gilbert, 1970; Darby, 1948). For example, there have been many discussions over the distinct regional qualities of Northern and Southern England (Turner, 1967; Moorhouse, 1964; Priestley, 1934) and some of these perceived differences have been satirised by Parkinson (1967):

a cloud of desperation hangs over the North which ameliorates as one moves south to ultimate privilege on the South Coast (fig. 1).

On the basis of the preceding discussion, the work within this thesis takes up the question of urban and regional character within the framework of environmental perception. Thus, the focus of the enquiry is the environmental experience of individuals and their interpretation of the meaning of places.



Adapted from Parkinson 1967

Fig. 1: 'Stylised Social Mobility and Social Regions of England. A successful man's progress by either Western or Eastern routes (A or B) would consist of a gradual move from Northern desperation at the foot of the map to the privileged South at the top' (Goodey, 1971, p. 50).

CHAPTER ONE. Théories of environmental perception

'When we perceive, we externalise certain aspects of our experience and thereby create for ourselves our own world of things and people, of sights and sounds, of tastes and touches.'

H. Cantril, 1960, p. 469

Since the introduction of the perceptual approach into geography, there has been a rapid increase in the volume and variety of published work. It is increasingly difficult to group all the work into environmental perception into one coherent framework. Since there are several comprehensive overviews of the subject available (Kameron, 1973; Goodey, 1971; Walmsley and Day, 1972), this chapter will concentrate on work by geographers and psychologists into theoretical aspects of environmental perception. The work reviewed concerns the relationship between man, environment and his perception of environment. Within geography, theoretical formulations have evolved from a simple division between man and environment, through various categorisations of behavioural environments, to the concept of the image which proposes that the individual and his environment are inseparably linked. A similar breakdown in divisions is apparent in psychological theories of perception. Earlier formulations made a distinction between perception (the art of seeing) and cognition (the art of believing), whereas contemporary theory argues for a single process linking individual with environment. The basic purpose of the process is to allow contact between individual and environment: 'Organisms, in order to live, must be in contact with those aspects of the environment that affect them ... the organism must know the state of the world in which it finds itself and the action possibilities that this world admits to' (Jordan, 1968, p. 30). The individual receives information from his environment through all the senses and this is ignored, accepted or rejected on the basis of his previous experience.

Human geographers have always made some assumptions about human behaviour within the environment but within the last twenty years there has been an attempt to identify the motives behind the spatial decisions

made by individuals (see Gould, 1969). Theories of how human beings behave in their environment may be considered indigenous to geography but, as Harvey (1967) suggests, they are clarified by relating them to postulates and theories in other social sciences. The development of behavioural geography illustrates the attempt to clarify geographical concepts using psychological postulates. Golledge, Brown and Williamson (1972) suggest that this approach reflects the changing orientation towards the analysis of spatial structure as the logical outcome of behaviour. In terms of theoretical development, they suggest that it is the analysis of behaviour in its own right which leads to the derivation of empirically and theoretically sound statements about individual and group behaviours (p. 59). Associated with this is an increasing trend that many behavioural analyses apply 'just to the behaviours that they seek to analyse, and may be related to spatial structures only through a second or third stage deductive process' (Golledge et al, 1972, p. 59). As illustrated in that review and others of work within behavioural geography, attempts have been made by geographers to quantify concepts regarded previously as essentially descriptive and subjective in character (see Cox and Golledge, 1969; Gould, 1969). The main process in behavioural analysis is environmental perception since all behaviour is determined at some level by the individual's perception of his environment - 'the individual's ... image of the environment ... serves as his data source when deciding upon actions' (Harrison and Sarre, 1971, p. 351-2).

With the primary concern expressed as the objective explanation of subjective phenomena, the orientation of behavioural geography is towards positivism. Within the work of many behavioural geographers, perception is seen as an important factor but one to be accepted rather than explored

to any great depth. It acts as a mental 'black box' between the observed environmental stimuli and the measurable spatial response. To quote Golledge, Brown and Williamson: 'Perception is not a sub-branch of the discipline, but an all-pervasive and supremely important intervening variable in any analysis of the spatial expression of human activity' (Golledge et al, 1972, p. 73). From their review of behavioural geography however, it is clear that there is less interest in the nature of the 'intervening variable' and more in the behavioural response. 'That people have highly structured images regarding the space around them cannot be doubted but the impact of this structure has been almost ignored in the analysis of behaviour in space' (Harvey, 1967, p. 20).

The development of perception studies in geography represents an attempt on one level to explain the spatial behaviour of individuals and groups whilst on another level it may be seen as an attempt at restating in modern terms the relationship between man and environment. However, it would be fair to say that beyond the point made above, there is a certain amount of confusion about the nature of the field of study loosely subsumed under the heading of 'environmental perception'. A somewhat chaotic body of literature has developed embracing work into both philosophical and epistemological aspects of man's relationship with environment, as well as those concerned with the analysis of the perceptual process and its subsequent influence upon values and behaviour. A distinction is emerging between those attempting a holistic synthesis of man and environment - epitomised in the concept of the image - and those concerned with a segmented understanding of the disparate aspects of varied human response to environment.

This fragmentation of approach is illustrated by Kates' assessment of work into perception (Kates, 1970). He selects four research themes from

the body of literature which are representative of work in the field. Each of the four themes relates man to environment on a different scale and different level of generalisation. The four categories are given below.

1. Person/Perception, illustrated by work into the accuracy of visual perception in ambiguous environments and work into perceptual illusion (Ames, 1951; Segall, Campbell & Herskovits, 1966; Gibson, 1966).
2. City/Image, illustrated by studies related to the structural elements of the city reflected in the cognitive maps of the inhabitants (Lynch, 1960; Downs and Stea, 1974).
3. Landscape/Attitude, illustrated by considerations of the aesthetic and cultural elements in the assessment of landscape taste and preferences (Yi-fu Tuan, 1974; Appleton, 1975; Lowenthal and Prince, 1964, 1965).
4. Environmental resource evaluation and hazard research. Work within the former field is concerned with public demands in and on the environment (Shafer, 1969; O'Riordan, 1971) whilst the latter includes studies into the behaviour of individuals in potential hazard situations (Burton and White, 1968).

Kates is optimistic about the value of perception studies and the challenge they present. The challenge is not one 'of data, method or utility, but the value questions (perception studies) raise' (Kates, 1970, p. 659). He suggests that the values groups place on the environment are revealed through environmental perception. Lowenthal is less optimistic (Lowenthal, 1972a). In a review of the problems facing the continued development of environmental perception as a distinct approach, he is

critical of the emphasis in studies of perception and behaviour upon one particular aspect of human response - be it environmental preference, judgement or behaviour. Lowenthal distinguishes four areas in which he feels fundamental problems have arisen: definition and scope; context and content; techniques and measurement; and relevance. He feels that 'Work in environmental perception and behaviour falls short of realising its full potential' because there is little congruence between studies (1972a, p. 333). He argues that there is a failure to establish commonly accepted definitions and objectives and thus the means are lacking whereby the strengths and weaknesses of different approaches can be tested. Lowenthal concludes that the most urgent need is for 'a more systematically organised theoretical base' to meet these deficiencies (Lowenthal, 1972a, p.333).

There are several reasons for the lack of a unifying theoretical structure, not least being the inherent nature of the terms 'environment' and 'perception'. Both are easy to describe but difficult to define. Both are concepts whose theoretical compositions tend to reflect the values and beliefs of the time. Within geography, this tendency has been exhibited in periodic reassessments of the relation of man to his environment both in a philosophical and theoretical sense. On the other hand, the geographical environment has not played an important part in psychological considerations of the perceptual process. Indeed, Craik would go so far as to suggest that 'until very recently, scientific psychology has been ... little aware of the physical environment' (Craik, 1970, p. 7). Environment has been broadly defined within psychology as any condition or influence external to the organism or individual. Reasons for this neglect of the larger geographical environment must

include difficulties in measurement of environmental values and the associated problems of experimental control of environmental variables.

The foundations of the study of perception lie in questions concerning the relationship of man and environment. The nature of the relationship has concerned philosophers from earliest times and the changing emphasis on either man or environment as the predominant force reflects the different value systems of particular periods as much as intellectual or scientific understanding. Glacken (1967) has traced the conceptual developments in the man-environment relationship. He suggests that the concern over the meaning of life in an environmental sense has mythological antecedents but that the ultimate development in the conceptualisation was dependent upon the development of rational thought, since the conception requires a temporal dimension, a sense of history (Glacken, 1967, p. 4). He suggests three distinct interpretations of the relationship of man to nature - each one predominating at any particular period of history. They may be expressed in terms of three ideas: that of a designed earth; the modification of environment by man; the influence of environment upon man. These three concepts, he argues, have formed the basis of philosophy of the meaning of man and the world since earliest times (p. 707). The concept of the designed earth is of interest when compared with the concept of the image discussed later in this chapter. Glacken suggests that the present ecological movement is an attempt to create a holistic concept of nature since there has been 'a long pre-occupation in western civilisation with interpreting the nature of earthly environments, trying to see them as wholes, as manifestations of order' (Glacken, 1967, p. 707). It may be argued that the image too represents an attempt at holistic explanation

in which the physical and social environments coalesce to form a seamless web of experience unique to every individual. The holon is created by the individual and determined by his system of values.

Similarly, the study of perception has deep intellectual foundations for 'the study of perception touches the very essence of existence (Ittelson, 1973, p. 1). The question of perception and the nature of reality have taxed philosophers for many centuries although psychologists shed such metaphysical enquiries to concentrate upon the definition of the perceptual process (see Marx and Hillix, 1973). Mercer and Powell (1972) suggest, however, that the philosophical issues have hinged on questions of the mental and physical states of man. Two observations may be made from any individual: one concerns his physical nature, the other concerns his mental state. The problem is that one set of characteristics cannot be translated into the terminology of the other. The difference is between the world of mental objects and the world of physical things. Marx and Hillix summarise the position by stating that philosophical considerations of perception focussed around this mind-body problem and questions of 'how do we know' (Marx and Hillix, 1973, p. 89). It has been argued that it is inevitable that the consideration of the process of perception should rapidly develop into metaphysical discussion (Hamlyn, 1957).

Attempts in the construction of scientific theory of perception have been made by many psychologists. Since it is such an important process in the relationship between man and environment, any major change in thought is reflected in a changed definition of the role and process of perception (Ittelson, 1973). For example, since the turn of the century, psychologists have defined perception as the major process in

the interpretation of sense data¹; an intervening variable of little importance during the 'antimentalistic' period of behaviourism which followed; whilst one contemporary definition is that of perception as a complex, supremely important process in the man-environment transaction (Kilpatrick, 1961)². Any definition of the perceptual process is subject to criticism by opposing theoretical positions; there is no proof, no external evidence to support or refute conflicting hypotheses and the scientific definition of the process becomes an act of faith rather than a substantiation of fact (Bevan, 1958). Hamlyn draws the conclusion that 'it is always possible for the general conditions under which perception takes place to be written into a conceptual framework ... (but) the notion that a scientific theory of perception can be constructed involves serious difficulty' (Hamlyn, 1957, p. 10).

1. Perception was regarded as a simple mediating process between organism and the external world. It was based on the assumption that objects in the environment emitted sense data. Sensations - defined as primary experiences absorbed through the senses (sight, touch, smell, etc.) - were combined into bundles of more complex perceptions. (Marx and Hillix, 1973; Bevan, 1958)
2. The recent upsurge of the phenomenological approach to psychology has been a reaction against the narrow definition of the behaviourist tradition. The latter represented an attempt to place psychology on a sound scientific basis. Its development was encouraged by the apparent failure of introspection to 'explain' the internal states of consciousness and associated mental functions. The aim was to secure data with which to present a picture of essentially replicable human behaviour. All statements of behaviour were to be phrased in terms of an observable stimulus and an observable response: 'What the subject might be said to be inwardly experiencing ... is of no consequence. The reaction made to one set of stimulus objects that correctly separates it from another set is all we need. The reaction is the perception' (Allport, 1955, p. 53). See work by Marx and Hillix (1973); Wann (1964).

Some of the conflict among psychologists interested in perception arises from assessment of the accuracy of perception, how closely the object perceived corresponds with the external object. There is disagreement about the role of experience in perception, the importance of learning in the perceptual process and the role of the environment (see Allport, 1955; Bevan, 1958; Ittelson, 1973). Ittelson (1973), in his assessment of the relationship between environmental perception and contemporary perceptual theory, suggests that the study of perception has become fragmented into a series of loosely connected problems, since all the major systems of thought approached the problem from their own conceptual position. He argues further that the emphasis upon the perception of objects has hindered the development of environmental perception;

'the overwhelming bulk of perception research has been carried out in the context of object perception, with the findings of the former providing the basis for the latter. As a result, the investigation of perception has lost the essential aesthetic unity without which any pursuit leads to chaos rather than resolution ... The unity which is needed in the study of perception will be accomplished in psychology only when its concepts of the nature of environment and man's role in it are reconsidered' (Ittelson, 1973, p. 3).

Neither the scientific approach of behaviourism and psychophysics nor the phenomenological approach has been able to incorporate a concept of a separate physical environment within the framework of its own approach to perception and for this reason, 'each has ignored the basic task of conceptualising environment' (Proshansky, Ittelson and Rivlin, 1970, p. 28). The behaviourists, concerned with the objective analysis of

behaviour, defined environment in a fragmentary fashion by relating it to fragmentations of behaviour. Proshansky et al (1970) are critical of this, arguing that human behaviour is not fragmented in this manner. They argue that physical settings evoke complex responses from individuals which cannot be broken up in this manner (p. 28). However, they feel that the phenomenological approach to environmental perception may have failed to appreciate the full potential of work into the significance of environment. Since the crux of the approach is a consideration of the environment not as it is but as it is experienced, there is no consideration of the relationship between the physical world and that which the individual constructs. Thus, there is no consideration of the character of the environment which encourages the development of these significances (Proshansky et al, 1970, p. 28).

As far as the geographers are concerned, one of the first theoretical formulations of environmental perception was that presented by Kirk (1951; 1963). He is concerned in his 1951 paper with the processes of geographical thought and the 'search for values as well as facts' (p. 158). He argues that the character of the environment 'depends not so much on the act of observation as on the different modes of thought, levels of experience and sets of values implicit in the various perceptions' (p. 152). Kirk suggested that geography needed a working hypothesis which combined nature and humanity under one discipline and that the answer was to be found in the concepts of Gestalt psychology. The most valuable concept was that of the perceptual psycho-physical field; the field is defined as that area in which originate the pattern of forces that bind together 'environment, light energy, the chemical state of the brain, past and future mental states and the action of the individual observer' (Kirk, 1951, p. 159). This internal state Kirk defines as the 'Behavioural environment', and in this environment 'the gap is closed between mind and

nature' (Kirk, 1951, p. 159).

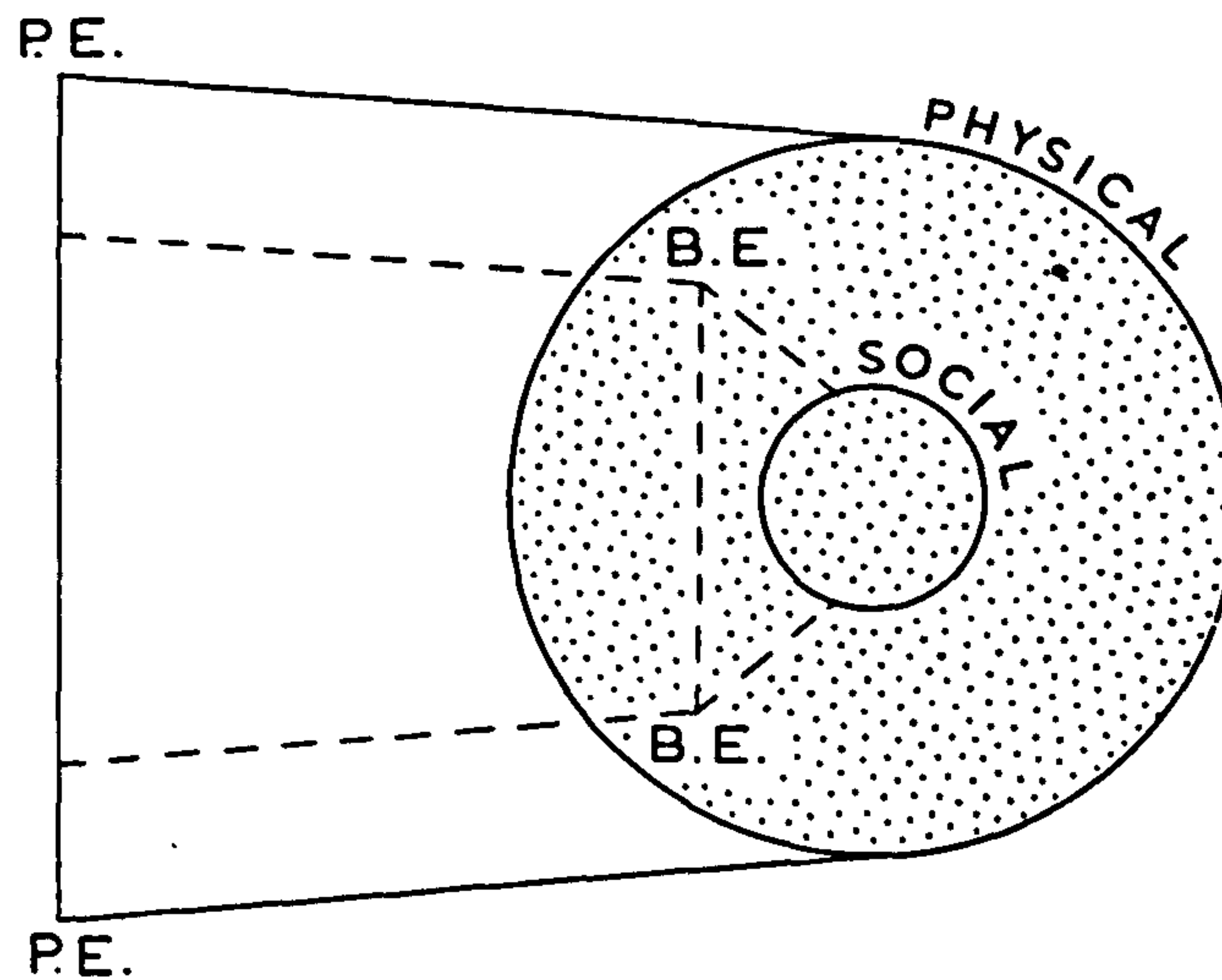
This paper received very little attention at the time of its publication but Kirk was able to restate his views in greater detail in 1963. A diagrammatic representation of his formulation of man's different environments may be seen in fig. 2A. Kirk differentiates between the 'Phenomenal Environment' which contains all those features of the natural environment plus man-made artifacts, from the 'Behavioural Environment', in which the individual perceives his actions to be taking place. Arguing that the traditional dichotomy between man and environment is false, he suggests that 'the true division ... is not between man and environment but between the Phenomenal Environment and the Behavioural Environment' (Kirk, 1963, p. 364). These two combine to form the unified Geographical environment. Kirk distinguishes between behaviour in the phenomenal environment and in the behavioural environment:

'At one level physical man is in direct contact with the Phenomenal Environment (P.E.), and physical action will lead to changes on both sides of the relationship. At a second, equally important level, however, the facts of the Phenomenal Environment will enter the Behavioural Environment (B.E.) of man, but only insofar as they are perceived by human beings with motives, preferences, modes of thinking, and traditions drawn from their social, cultural context' (Kirk, 1963, p. 366).

In other words, he is arguing for the existence of an objective world in which actions may take place, although the selection and the perception of facts from this objective world depends upon the individual's ability to discern them.

Certain of the Gestalt school of psychologists stressed the importance of human experience as a major factor in understanding the process of perception and relating this to everyday life. For example, Kohler (1929)

A. The phenomenal & behavioural environment
Kirk (1963)



B. Behavioural classification of environment
Sonnenfeld (1972)

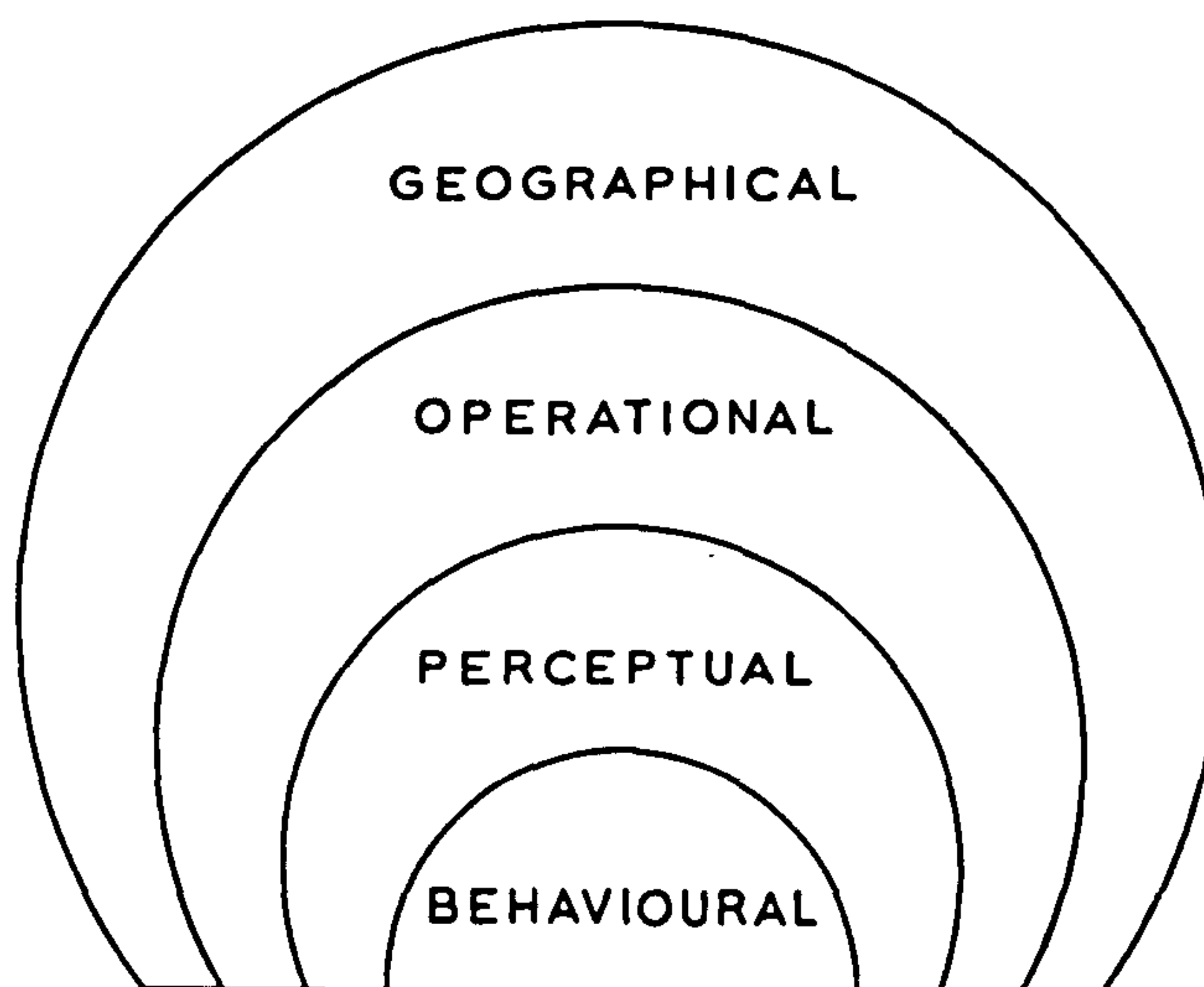


Fig. 2: Two examples of environmental classification.

argued the need to investigate the relationship between the organism and its phenomenal facts; the relationship between the two environments is illustrated in a 'folktale':

'On a winter evening amidst a driving snowstorm a man on horseback arrived at an inn, happy to have reached a shelter after hours of riding over the windswept plain on which the blanket of snow had covered all paths and landmarks. The landlord who came to the door viewed the stranger with surprise and asked him whence he came. The man pointed in the direction straight away from the inn, whereupon the landlord, in a tone of awe and wonder, said: "Do you know that you have ridden across the Lake of Constance?" At which the rider dropped stone dead at his feet.' (Koffka, 1935, p. 27)

Koffka used the tale to distinguish between the 'geographical' and the 'behavioural' environment. The former was the snow covered Lake of Constance whilst the latter, the behavioural environment of the rider, was a snow covered plain. The horseman's behaviour was a 'riding-over-a-plain, but not a riding-over-a-lake' (Koffka, 1935, p. 28). He stresses that the individual's perception of the geographical environment determined his reaction and subsequent behaviour - death by shock at the discontinuity of the two environments in the tale!

The basic division between geographical and behavioural environment has been extended recently. Sonnenfeld (1972a) presents his case from a behavioural standpoint and the nub of the argument he puts forward is that the traditional definitions of man and environment, i.e. human and non-human divisions, are irrelevant in behavioural terms. The behavioural environment of the individual contains elements of both. The behavioural environment is conceptualised as one of a nested set of four environments (Fig. 2B), each one of which contains different elements of

importance to man. In descending order of generality, the 'geographical environment' represents the whole external environment. Since it is the most inclusive, it contains elements which do not "exist" for the individual. The 'operational environment' Sonnenfeld defines as the functional part of the geographical environment. It influences behaviour in that it impinges on the individual as well as the group. Thus it differs as individuals have different psychological and cultural traits. Sonnenfeld argues that these two larger environments are in a sense 'objective' since they can be quantified in some way (p. 247). At a third level of classification, the 'perceptual environment' represents that portion of the operational environment of which man is conscious either through his physical senses or through a learned and experiential sensitivity (Sonnenfeld, 1972a, p. 248). Finally, there is the 'behavioural environment', defined as that part of which the individual is aware and which elicits a behavioural response or towards which behaviour is directed. Behaviour may result in a conscious utilisation of aspects of the environment or its reassessment by the individual (Sonnenfeld, 1972a, p. 247-250).

Sonnenfeld assumes the existence of an objective external world in his conceptualisation but makes the point that the symbolism used by groups determines which features are incorporated into the perceptual environment: 'The special meanings or values attributed to the elements of the symbolic environment subsequently determine the sensitivity of the individual or group to their existence' (Sonnenfeld, 1972a, p. 248). In another paper (1972b), Sonnenfeld takes the question of individual differences and environmental perception further by arguing that the concept of environment incorporated in his model of environmental

personality does not include geographical elements such as climate and landforms, 'rather it is one of qualities, such as predictability, complexity, and resilience' (Sonnenfeld, 1972b, p. 268). These qualities are dependent upon man but he argues that they 'are no less real in their perceived and subjective aspect, and are capable of influencing behaviour' (Sonnenfeld, 1972b, p. 269).

An important point to be made is that there is no necessary link between the environment towards which the individual is sensitive and his environmental behaviour. Within psychology, the 'field theorists' have been concerned particularly with the analysis and interpretation of behaviour within the wider environment (e.g. Barker, 1968; see Marx and Hillix, 1973). Concerned with the analysis and interpretation of behaviour, the geographical environment was seen as one important factor to be considered. Lewin (1951) extended the Gestalt field theory to propose a concept of 'Life Space' which contained all possible facts 'capable of determining the behaviour of the individual human being in a given psychological environment at a given time. Behaviour is a function of life space' (Lewin, 1951, p. 57). As such, it includes an undefined physical environment. Life space was postulated to contain a number of differentiated regions which represent significant phases in the individual's life and which expand, becoming more complex as his experiences increase (see Deutsch and Krauss, 1965). Work by Tolman and Brunswik (1935) conceptualised the process of perception in a wider environmental context. More in accord with geographical thinking, the main principle behind their work is that behaviour is purposeful or adaptive within the environment. The organism utilises environmental objects and develops certain expectancies about them and their role in

relation to his perception of them. Later, Brunswik (1956) introduced a theory of ecological validity in which he suggests that perceptual and behavioural goals are related in an equivocal manner to cues and responses in the environment. Some cues are more valid than others and so the source of information is not perfectly correlated with the actual information received.

Brookfield (1969) extends this argument within a geographical context by advocating the need to relate the information perceived to its source when interpreting human behaviour. His environmental classification is that of 'real environment' - defined as objective reality; and a 'perceived environment' - defined as 'the whole monistic surface on which decision is based' (p. 53). In terms of its classification, the perceived environment incorporates the whole environment - geographical, political, economic and social elements. Brookfield adopts a systems approach in his definition of the process of environmental perception. In this he progresses beyond the conceptualisations of Kirk and Sonnenfeld. His model is descriptive rather than operational. Activities arising from previous decisions based on the appreciation of needs and the means available to satisfy them, lead to one of two outcomes. If the intention is satisfied within the environment energy is released and a new activity defined. If left unsatisfied, energy is released for a redefinition of the problem. Energy is defined in terms of information flows between individual and environment. However, his conclusion is that the time is not ripe for modelling environmental perception because its quantification requires a good deal of simplification of the complexities of the real situation. He argues that 'there are so many other problems we could study effectively, with only marginal awareness of perception; aware of it we must be, but perhaps sometimes only as a status variable

in the descriptive models we construct' (Brookfield, 1969, p. 75).

The complexity of the perceptual process is recognised. Indeed, Ittelson (1973) argues that this is the most significant feature to emerge from post-war studies in perception. He goes on to suggest that the complexity is due to the nature of perception which is not only a phenomenal experience but also instigates action (p. 3). There have also been important changes of opinion among psychologists about the importance of the stimulus in perception and the identification of the various psychological functions such as perception and cognition.

The problems of maintaining and substantiating differences in the definitions of perception, cognition and attitudes have been recognised (for example, Downs and Stea, 1974, pp. 13-16; Ittelson, 1973; Warr and Knapper, 1968, pp. 3-5). In 1958, Bevan wrote 'It is difficult to make a scientifically meaningful distinction between sensation and perception, and perception and conception ...' (Bevan, 1958, p. 52). Similarly, Warr and Knapper argue that 'there are obvious similarities between a conception and an attitude in that both extend over time; and the correspondence between a perception and a conception is also clear since both have the same object and a related content' (Warr and Knapper, 1968, p. 4). There are problems of definition not only of the process but also of the stimulus. The traditional division between perception and other psychological processes has been maintained on the requirement that the stimulus be present. Evolving from work into visual perception of objects, a standard definition of the process has been that a stimulus must be present and that the response made by the subject could not have occurred without the stimulus (see, for example, Stagner and Solley, 1970). This distinction has been advocated also by Schiff, who argues that 'perception should be

limited to those situations in which there is or was a physical stimulus or a set of stimuli present' (Schiff, 1970, p. 5).

This argument breaks down however in any consideration of individual response to the larger environment for there are problems of stimulus definition. Stea (1969) argues that the term 'cognition' should be used when larger environments are considered, since these larger areas must be cognitively organised and committed to memory. Given problems of definition, it may be argued that the most pragmatic view of the problem is the most satisfactory at present:

'In considering basic psychological processes we do not ... commit ourselves to the traditional categories of perception, cognition and so on. The only assumption ... is that man actively extracts information from the environment, processes it, and utilises it' (Proshansky et al, 1970, p. 102).

This view concurs with the change in the definition of the stimulus from being a narrow concept to a broad concept of stimulus information (Ittleson, 1973). Thus, one contemporary definition of perception stands as 'the process of information extraction' from an environment to which the organism needs to adapt (Forgus, 1966). The individual receives information from the environment through all the senses and this is organised according to the values and needs of the individual. Thus, 'the process whereby an organism becomes aware of the state of the world and the action possibilities which this world admits to is a unitary, organismic, perceptuo-cognitive act' (Jordan, 1968, p. 33).

There is close resemblance between the work outlined above and the concept of the image found in geographical work¹ (see page 28). The term 'image' however, is subject to two distinct interpretations: it may be regarded as a distorted picture of reality or as the amalgam of

the experience of each individual within his perceived world. The relationship between reality, the image and behaviour is illustrated in fig. 3, taken from Doherty (1969). Information is taken from reality to form the individual's image. The perception of this information is determined by several idiosyncratic features such as psychological structure, experience and motivations. Subsequent behaviour, in the 'real world', is based not upon reality but the individual's image of it (see also Downs, 1967).

Two distinct intellectual approaches underlie the definitions of the image. That definition which regards the image as a distortion of reality follows original work by Simon (1957). The prime objective of this approach is to consider man as a decision maker and to assess the efficacy of his behaviour within the environment (e.g. Wolpert, 1964).

1 (see page 27) The variable use of terminology is inevitable with such interdisciplinary work. The definition of the 'image' is a case in point. In psychology, 'image' is used to describe the pictures people imagine inside their heads - it is a nonverbal process of 'seeing' situations, objects or events. It is a process of some importance, as Pavio (1971) writes: 'memory, meaning, association, perception, thought - all of these in one way or another, implicated mental imagery as a crucial mechanism.' (p. 3) Mental imagery is a nonverbal process. It is used extensively by mnemonists, who are able to achieve feats of memory through the use of nonverbal images (Bugelski, 1970).

The closest term to geographical image is that of the 'schema'. Stemming from the original work into memory by Bartlett (1932), the schema represents an efficient way of storing environmental information. For example, Neisser (1967) argues that visual perception and visual imagery form part of a constructive process, leading to a synthesis of information into schema. From continuing perceptual experience, the individual constructs a model, or schema of the world. See also work by Lee (1964).

Relationship between Reality, Image and Behaviour
Doherty (1969)

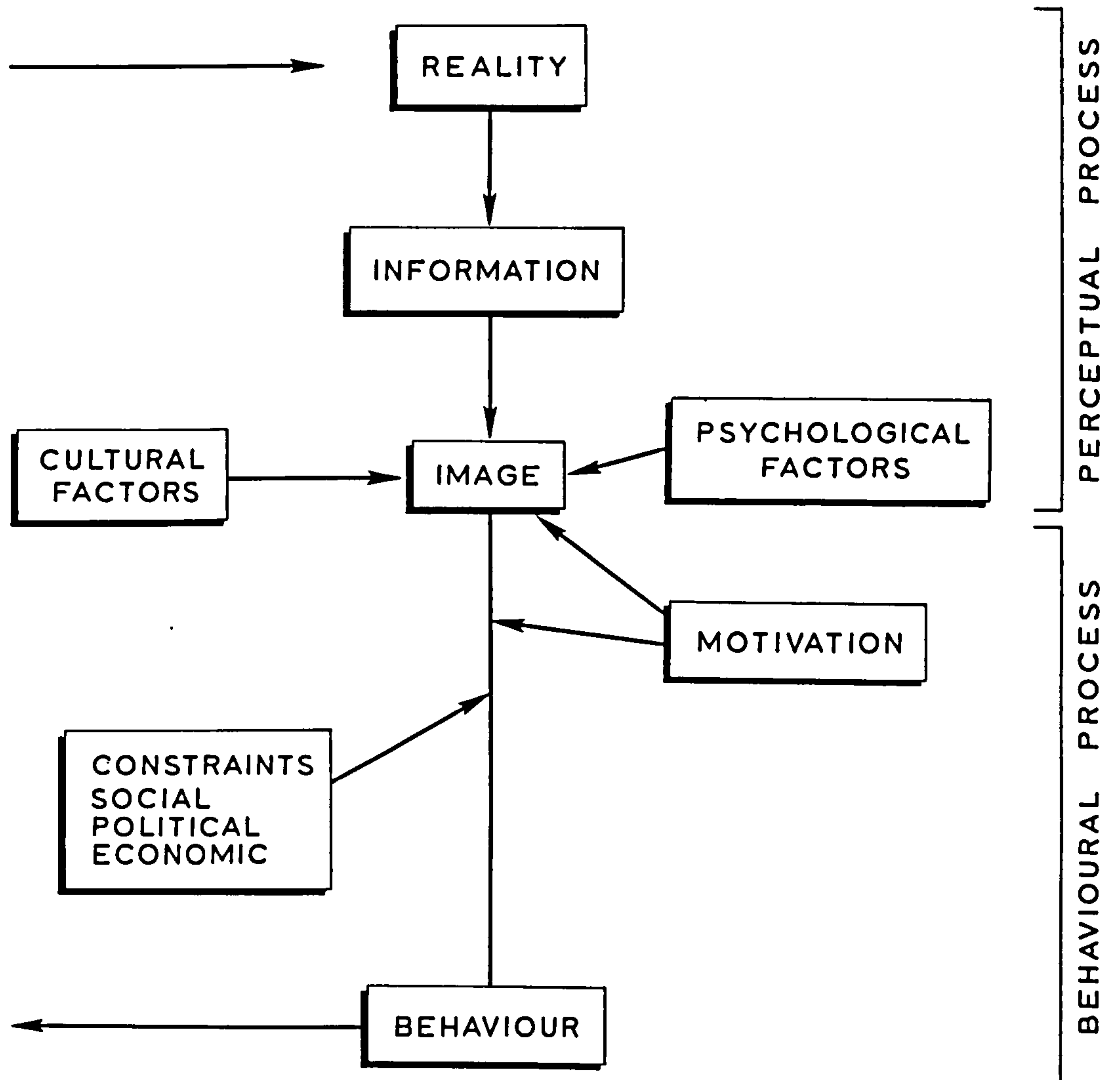


Fig. 3: The relationship between reality, image and behaviour.

Simon argues that individuals cannot have full cognisance of all the facts in decision making (p. 197). As a result of the complexities of the world, individuals adapt to their environment well enough to 'satisfice' conditions, they do not in general optimise. This satisficing behaviour is to be described through the determination of psychological processes because rationality so defined does not represent 'an objective orientation to the real world, but only as a subjective orientation to his incomplete picture of it' (Simon, 1957, p. 198). This view underlies much of the work into behavioural geography (see Golledge et al, 1972; Cox and Golledge, 1969).

The alternative view of the image focussing on the experience of the individual has evolved from work by Boulding (1956; 1959), who defines the image in terms of knowledge and truth:- 'The image is what I believe to be true; my subjective knowledge' (Boulding, 1956, pp.5-6). In an extensive discussion of the nature of the image, Boulding puts forward several propositions concerning its role and function. He states initially that 'it is the image which in fact determines ... the current behaviour of any organism or organisation. The image acts as the field; the behaviour consists of gravitating towards the most highly valued part of that field' (p. 155). Value plays a vital role in the formation and maintenance of the image, he argues, since the subjective knowledge structure consists 'not only of images of "fact" but also images of "value"' (Boulding, 1956, p. 11). The present image is an amalgam of all past experience and is subject to a constant stream of messages from the environment and the meaning of the message - and its possible effect - is determined primarily by the value scales of the individual. 'What this means is that for any individual, organism or organisation, there are no

such things as facts. There are only messages filtered through a changeable value system' (Boulding, 1956, p. 14).

As suggested earlier, work by some behavioural geographers reflects an uneasy compromise between the objective analysis of spatial behaviour and the inherent subjectivity involved in a concept based on individual experience. Behaviour is to be seen as the result of 'inaccurate' perception: 'the organism's simplification of the real world for the purposes of choice introduce discrepancies between the simplified model and the reality' (Simon, 1957, p. 256). Concern has grown over the identification of these discrepancies, particularly in work into urban imagery (see Chapter Two). Brookfield talks of the need to understand 'the distinction between correct, partially correct and incorrect perception of environmental elements' (Brookfield, 1969, p. 65). The problem is the determination of an 'accurate perception' or an 'inaccurate' one. This problem is summarised by Van Dyke:

'Phrases like ... psychological environment ... are a potential source of two sorts of confusion ... they may create the impression that two different environments exist - the real one and the one which is apperceived: but obviously an incorrect apperception of the environment is simply that and not a different environment ... (on the other hand) these phrases suggest that the images one has of his environment are part of the environment; and then the distinction between the enviroined person and the environment is lost' (Van Dyke, 1960, p. 165, quoted in Sprout and Sprout, 1965.)

The argument for the existence of incorrect perceptions has been countered in two ways. The statement above implies that the individual is in some way an objective observer of the environment. Ittleson (1973) argues that this cannot be so since man and environment are inseparable.

It is not a simple casual relationship between the two but one which involves complex interdependencies:

'One cannot be a subject of environment, one can only be a participant. The very distinction between self and nonself breaks down: the environment surrounds, enfolds, engulfs, and no thing and no one can be isolated and identified as standing outside of, and apart from, it' (Ittleson, 1973, p. 12).

Cantril (1960) has also argued that perceiving 'can no longer be thought of in any sense as "mind reacting to" or being "acted on"' (p. 468). He goes on to argue that man and environment are part of a 'transaction' (see Dewey and Bentley, 1949) within which no part can be separated. Thus, he argues 'there can be no "person" except for an "environment"' (p. 468).

The second basis for argument concerns the definition of the real world. In any assessment of the accuracy of the image, there is a need to match it to an objective environment. This requires the assumption that there is a real world distinct from any individual's image, which represents the 'truth' of the situation without adopting any philosophical position. It may be argued that the real world for any individual is that which is perceived and from which concepts of reality are derived. However, the logical extension of this argument is solipsism which admits no externality by arguing that the world exists only in the mind. Thus, Boulding, in a consideration of the philosophical implication of the concept, is able to accept that the consistency and coherence of the 'outside' world is just a construct of the mind, but argues that the great problem with such a denial of a real world 'is that nobody believes it' (Boulding, 1956, p. 166). The image is universally affected with reality.

Much of the feeling of a shared reality comes from the development

of shared 'public' images. The development of this consensus Boulding calls 'the universe of discourse' (p. 15), which serves to describe the growth and development of common images through conversation and other forms of communication. One consequence of this shared world view is that the 'development of images is part of the culture or subculture in which they are developed and it depends upon all the elements of that culture or subculture' (p. 16). So, it may be argued that these shared images represent contemporary definitions of reality. This conclusion is drawn by Lowenthal (1961) in his consideration of geographical knowledge. He suggests that there is general agreement about the character of the world and the way it is ordered, although explanations of different phenomena vary from person to person. This consensus is mutable, however 'not only is the earth itself in constant flux, but every generation finds new facts and invents concepts to deal with them' (Lowenthal, 1961, p. 245). Although he argues that perception is selective and selective personal worlds of experience underlie the world view, Lowenthal makes the point that anyone who adheres to a consensus must personally have acquired some of its component parts. He concludes that every aspect of the public image is conscious and communicable but stresses that 'personal worlds of experience, learning and imagination necessarily underlie any universe of discourse' (p. 248) and these 'are inchoate, diffuse, irrational and can hardly be formulated, even to ourselves' (Lowenthal, 1960, p. 249). Lowenthal provides a valuable summary of the image when defined in terms of individual experience;

'Every image and idea about the world is compounded, then of personal experience, learning, imagination and memory. The places that we live in, those we visit and travel through, the worlds we read about and see in works of art ... All types of

experience, from those most closely linked with our everyday world to those which seem furthest removed, come together to make up our individual picture of reality' (Lowenthal, 1961, p. 260).

A consideration of the image as the sum of individual experience is in sympathy with certain trends evident in both geography and psychology: a movement towards a phenomenological interpretation of the relationship between man, environment and behaviour. Yi-fu Tuan (1971) describes phenomenology as 'a philosophical perspective ... which suspends so far as ... possible, the presuppositions of official science in order to describe the world of intentionality and meaning' (p. 181). Similarly, Relph defines it as 'a procedure for describing the everyday world of man's immediate experience, including his actions, memories, fantasies and perceptions' (Relph, 1971, p. 193). The assumptions behind the phenomenological movement (see Mercer and Powell, 1972) reflect the debate evident in this review. The assumption of an 'objective' reality which is external to, and independent of, the individual is rejected; thus Relph argues 'all knowledge proceeds from the world of experience and cannot be independent of that world' (Relph, 1971, p. 193). In a consideration of perception in phenomenological terms, Macleod (1964) argues along similar lines to Relph. Rather than matching perceptions to objects, he asks 'what are the properties of phenomena which invite a belief in the existence of an external world? What ... invites us to distinguish between external and internal?' (Macleod, 1964, p. 53). Cantril (1960) answers this by arguing that the essential characteristic of experience 'is the external orientation, the "objectivisation" of some aspects of experience' (p. 468). (See Mundle, 1971)

Certain conclusions may be drawn from the work discussed in this chapter. Having reviewed various theoretical formulations of the process of perception related to the environment, it must be concluded that the range of philosophical and physiological definitions is difficult to synthesise: 'no body of theory or even methodology comprehends so complex a process and the assumptions ... lie hidden' (English and Mayfield, 1972, p. 212). It is necessary to conclude that the environment does not contain the same characteristics as objects; as Ittelson argues, environments possess other properties - symbolic meanings and motivational messages as well as possessing a unique ambience, possibly associated with social activities or aesthetic qualities (Ittelson, 1973, pp 13;15). It is probable that attempts to transfer theories of perception from one to the other will not succeed. Within geographical work, the concept of the image may be accepted as a poor replica of the real world which acts as an intervening variable between individual and reality, or it may be conceptualised as the complex of all past experience of the individual in his environment to be studied in its own right. The second conceptualisation is considered to be the more appropriate in philosophical terms, and the more fruitful for future theoretical development.

CHAPTER TWO. Images of the city

'More than that, we map the city by private benchmarks which are meaningful to us ... my city is a concise, kidney shaped patch ... in which no point is more than about seven miles from any other. I hardly even trespass beyond these limits and when I do I feel I'm in a foreign territory, a landscape of hazard and rumour. Kilburn I imagine to be inhabited by vicious drunken Irishmen; Hackney and Dalston by crooked car dealers with pencil moustaches and gold filled teeth.'

Jonathan Raban, 1973, pp. 160-161

A substantial proportion of the work into the composition and content of environmental images has focussed upon the relationships between the individual and the city. The reasons for this are not difficult to appreciate. Cities are the ubiquitous feature of the contemporary landscape. Their growth, administration, and the adjustments necessary for life in the large cities present some of the most pressing of modern problems. Cities are capable of evoking powerful feelings of both attraction and repulsion and there is a need to explore the present disenchantment with the city ingrained in cultural attitudes in Britain and the United States, in particular.

'The city has always been an embodiment of hope and a source of festering guilt: a dream pursued and found vain, wanting and destructive. Our current mood of revulsion against cities is not new, we have grown used to looking for Utopia only to discover that we have created Hell' (Raban, 1973, p. 9).

The work presented in this chapter provides a critique of contemporary approaches to the study of urban imagery. The argument is advanced that there has been a neglect of connotative meaning and the emotive aspects of urban experience in these studies. Associated with this is the need to explore the images of entire cities and the use of symbolism in these characterisations. It is important to recognise that the following discussion is concerned specifically with work into the structure of urban imagery. This forms part of a substantial area of enquiry into cultural attitudes towards landscape evident in philosophical underpinnings of planning movements for example, and in literature. (See Cherry, 1972; Curl, 1970; Osborne and Whittick, 1969; Dyos and Wolfe, 1973; Briggs, 1968; Lowenthal, 1975; Tuan, 1974; Lowenthal and Prince 1964, 1965; Williams, 1973; Schorske, 1963).

One of the earliest pieces of work into urban imagery was completed by Kevin Lynch (1960) and it is from his work that most subsequent work into urban imagery has developed and expanded. The dichotomy of approach to the study of environmental perception discussed in the previous chapter is present also in work relating to urban imagery. Smith is able to write: 'The phenomenology of towns and cities has been low in the order of priorities, partly because value in this context cannot be quantified' (Smith, 1974, p. 9). There has been a far greater emphasis in published work on the classification - the breakdown and analysis of the component parts of urban images - rather than upon subjective descriptions of urban character. Meaning and value have become variables of importance only very recently. There are two main reasons for this neglect of the phenomenology of urbanism; the first concerns the definition of meaning itself and the philosophical orientation of the researcher whilst the second is related to the methodology developed for the study of urban images.

It is possible to make a distinction between two types of meaning: the former is denotative or referential - 'something that cannot be expressed in words, because it is that which the words stand for' - whilst the latter is connotative or inferential meaning - 'that which is suggested (connoted) inside one's head' (Pollio, 1974, p. 39). Connotative meaning has been described also as 'emotional or metaphorical' meaning (Osgood, Suci and Tannenbaum, 1957, p. 321). The distinction between the two types of meaning in an environmental context is illustrated in work by Sonnenfeld (1966). In a consideration of the landscape preferences of different cultural groups, he argues that 'landscapes may have many meanings, positive or negative' (Sonnenfeld, 1966, p. 73.)

Landscapes may have denotative meanings such as use and utility - grass to walk on, good recreational facilities, for example. At a more abstract level landscape has connotative meanings which Sonnenfeld defines as emotional or symbolic meaning. Thus, landscapes may be considered 'aesthetically pleasing, invigorating, sublime or, conversely, ugly and depressing' (p. 73) whilst symbolically the landscape is able to represent more than is seen. For example, a landscape may symbolise a 'New World', 'Freedom', the 'Homeland' (Sonnenfeld, 1966, p. 73). Stea (1967) has recognised the symbolic importance of landscapes in his suggestion that certain aspects of locational preference may be due to 'the folklore attached to the area: what the area symbolises or has symbolised' (Stea, 1967, p. 28).

The distinction between denotative and connotative meaning has been drawn also in an urban context. Carr (1970) argues that objects and elements have a 'functional' meaning which facilitates movement and activity within the city whilst other meanings may be superimposed on these objects. He suggests, for example, that certain objects have a social significance for residents in the city. Other objects and environments have an 'esthetic significance' (p. 527) in that they convey emotional meanings. Carr suggests:

'Meaning arises when we fill out the skeleton of culturally acquired concepts with the flesh and blood of significance derived from direct experience. Meaning is the increment of knowledge resulting from action - the subtle change of our environmental image produced by each unique experience of the environment' (Carr, 1970, p. 526).

Within geographical studies, reasons for the relative neglect of connotative meaning must include the predominant philosophical approach

in the study of urban images. For the positivist, the image is defined as 'the internal representation or model of the environment (however it is internally arranged) as the individual knows or understands the objective urban environment' (Zannaras, 1973, p. 2). The important phrase is 'objective urban environment' for emotions and symbolic meaning cannot be represented satisfactorily in such an approach. Thus, with a positivist perspective 'part of the meaning (i.e. the classification) of an object becomes the object's "where" as well as the object's "what"' (Lee, 1968, p. 174). The questions asked are denotative questions illustrated for example in the most recent work by Downs and Stea: '... we need answers to three basic questions: 1) what do people need to know? 2) what do people know? 3) how do people get their knowledge?' (Downs and Stea, 1974, p. 16). The importance of these questions is for the analysis and interpretation of spatial behaviour and a good example of the approach is provided by Steinitz (1968). His initial assumption is that meaning includes knowledge of environmental forms and activities and further, he argues that 'activity meanings are among the most generally needed, if not the most needed meanings to be derived' (Steinitz, 1968, p. 233). His research project matches the meaning of the city 'as measured by knowledge of its form and activity attributes, with its actual form and activity attributes' - assessed by himself (p. 234). Whilst the basic orientation of the study is towards the analysis of spatial behaviour patterns, an assessment of the accuracy of individual images implied in the above statement may be acceptable. However, it is not possible to explore connotative meaning within such an approach and there is a subsequent neglect of the important aspects of individual experience and emotive evaluation of the city.

The emphasis upon classification of the structural environment and the production of image sketch maps originate from the work by Lynch and, writing retrospectively, he provides a summary of his definition of the image: 'I have ... discussed the image of spatial environment - the mental representation of the character and structure of the geographical world - as a scaffold to which we attach meanings and a guide by which we order our movements' (Lynch, 1972, p. 241). As a planner and urban designer, his concern remains with the construction and maintenance of highly imageable and satisfactory visual environments. In recent work, this concern focusses on the relationship between the sense of place and sense of time in cities. The basic premise for both books remains:-

'Every citizen has had long associations with some part of his city and his image is soaked in memories and meanings' (Lynch, 1960, p. 1).

In 'The Image of the City', Lynch emphasises the importance of an appreciation of individual meaning and value in the city but stresses his main concern to be the visual quality of urban environments and its role in the creation of meaning. The visual quality he calls 'legibility' - the clarity with which certain aspects of the city present themselves to the observer and which can be built up into larger coherent patterns.

'The environment suggests distinctions and relations and the observer ... selects, organises and endows with meaning what he sees' (1960, p. 6).

Lynch suggests that the environmental image may be separated into three parts - identity, structure and meaning. Identity is used to describe the uniqueness of the object which serves to distinguish it from other objects. Structure serves to relate these unique objects to each other and the structural pattern which results is a necessary prerequisite for action in the environment. Finally, there is meaning. Lynch acknowledges

that 'the question of meaning in the city is a complicated one' (p. 8) and argues that it is possible to separate the physical form of the environment from its meanings. His justification for this assertion is that physical form appears to stimulate and reinforce meaning. 'The image of the Manhattan skyline may stand for vitality, power, decadence, mystery, congestion, greatness or what you will, but in each case that sharp picture crystallises and reinforces the meaning' (pp. 8-9). In his conclusion there is a reiteration that meaning and emotional commitment are dependent upon form: '... while noting the flexibility of human perception, it must be added that outer physical shape has an equally important role. There are environments which invite or reject attention, which facilitate or resist organisation or differentiation' (Lynch, 1960, p. 136).

This argument provides partial justification for the exclusion of meaning from the Lynch research project. He further supports the exclusion by assuming that meaning is too complex and idiosyncratic to be included in his study. He writes:

'Group images of meaning are less likely to be consistent at this level than are the perceptions of entity and relationship ... So various are the individual meanings of a city, even while its form may be easily communicable, that it appears possible to separate meaning from form. This study will therefore concentrate on the identity and structure of city images' (Lynch, 1960, p. 9).

This last point needs to be emphasised. The techniques Lynch developed were designed to measure structural elements of the image, not to consider the meaning and value of these objects to the observer. It must be remembered also when considering his concept of imageability, for his concern with the structural environment perhaps overemphasises the element of 'seeing' to the detriment of other sensory aspects of perception.

Thus, Lynch defines "Imageability" as 'that quality in a physical object which gives it a high probability of evoking a strong visual image in any given observer. It is that shape, color or arrangement which facilitates the making of vividly identified, powerfully structured, highly useful mental images of the environment' (p. 9). Lynch suggests that highly imageable cities would be those with distinct and remarkable environments such as Venice or San Francisco.

The importance of form over other aspects of environmental perception has been emphasised in two pieces of work. Carr and Schissler (1969) attempted to identify the most important elements in the perception of a moving environment and how these were memorised. The study used forty-nine subjects travelling along the NorthEast expressway in Boston. Measurement was made of eye movements in the vehicle and they used various post test memory exercises. Of their conclusions, they found that 'the most surprising' was 'the degree to which perception and memory of the city as seen from a highway seems to be determined by the form of the environment itself' (Carr and Schissler, 1969, pp. 31-32). They conclude, on the basis of these results, that cognitive, affective and individual aspects of perception have been overemphasised, and that the structure of the environment is the most important factor in the formation of impressions. However, it is possible to challenge this conclusion since travelling within a vehicle isolates the individual from all other aspects of the environment - noises, smells, weather, people. There is little to do but look at the physical environment.

Replacing individuals within the urban environment, Lynch and Rivkin (1970) had twenty-seven subjects walk around a block in Boston. Subjects talked as they walked and also recorded their impressions of the walk a

few days later. The authors found that 'the fundamental impression as for almost all our observers came from certain individual buildings and open spaces' (p. 638). There was also recognition of a basic need to organise these into larger cohesive units. Lynch and Rivkin conclude that the need to organise is due to the inherent nature of the physical form of the environment. However, unlike Carr and Schissler, they recognise that the grouping of these units 'depends primarily upon past experience' and that 'they are grouped by selection, simplification, distortion or even suppression of the individual's perception' (Lynch and Rivkin, 1970, pp. 641-2).

The techniques used by Lynch in his study of three American cities - Boston, New Jersey and Los Angeles - have established a precedent for subsequent work. Usually a trained observer establishes the dominant elements of a certain section of the city and then the respondents describe the physical structure, make imaginary trips stating what they 'see' and draw maps from these images of the physical environment. The maps have been found to contain omissions, distortions and the addition of imaginary features (see Downs and Stea, 1974; Maurer and Baxter, 1972; Ladd, 1970; Appleyard, 1970; for example). The classification of the physical elements in the urban environment has been replicated more or less in many studies and has gained general acceptance; these are paths, nodes, edges, districts and landmarks. The size and heterogeneity of samples has increased in more recent studies although the methodology has remained the same in all studies (see Kates, 1970, pp. 654-5 for summary of work). Some of the original five divisions have been questioned in work completed on imagery in British cities. Using Central Birmingham, for example, it was found that edges and districts were not present on

respondents' maps, and that nodes and landmarks fused into a single category (Goodey, Duffett et al, 1971; see also Pocock, 1973).

The majority of studies have conformed to the original Lynch methodology and have concentrated on small sections of the city, usually the central area. A comparative assessment of these replicative studies has been published recently (Spencer, 1973). Criticism of the work has concerned Lynch's original sample, the map methodology and, by implication, the exclusion of meaning from imagery. Tuan (1974) is critical of the narrow base of the Lynch sample - thirty professional and managerial people. He argues that the articulate middle class 'experience a greater range of settings in their city than the very poor, the very rich and people of moderate income but limited education' (Tuan, 1974, p. 207). The quality of their images will be far more detailed and precisely defined than those of the majority. This criticism has been answered in later studies for the structure of the urban image appears comparable using less homogeneous samples. More substantial criticism may be made against the mapping methodology which required the respondent to draw his own image of the city section. It is apparent that the technique can produce resistances from certain sections of the population, notably from the elderly and the less intelligent. In one of the recent cognitive mapping exercises, for example, it was found that elderly and lower class respondents would not co-operate in the construction of maps (Francescato and Mebane, 1974). Similarly, Pocock found an unwillingness to map among certain groups, in particular females and working class respondents (Pocock, 1973).

There have been serious doubts recently about the quality of information revealed by the sketch maps. Orleans writes that 'mapped

imagery is not necessarily consonant with knowledge of the environment elicited in a verbal form' (Orleans, 1974, p. 129). It is apparent that information other than visual information cannot be placed upon a map. Almost certainly, the individual cannot express any emotional response through his map. Rozelle and Baxter criticise the image map precisely because the researcher 'is unable to explore fully the processes by which meaning and value are superimposed on the mental imagery which is presumably externalised by that procedure' (Rozelle and Baxter, 1972, p. 117). One recent study has asked respondents to explain why certain features have been included on their maps (Harrison and Howard, 1972). Studying urban imagery through the language people use to describe not only the physical form but also their feelings about the environment has been suggested only very recently. Francescato and Mebane have recognised that:

'Verbal methods are less skewed towards favouring physical locational elements than map sketching methods. Clearly, what people can locate on a map are streets, nodes, districts, landmarks and edges; they cannot put down how they feel about a city, what they normally do in it, what they like, dislike or deem important' (Francescato and Mebane, 1974, p. 147).

It must be recognised, however, that people were never meant to do these things with the map. Lynch had deliberately excluded meaning from his enquiry: the map technique was designed to measure the visual image of objects in the urban environment. The study of higher levels of urban imagery, including connotative meaning, has not developed because there has been so little progression from the original work by Lynch. Research has remained among the structural classifications of segments of the city although Lynch hoped that work should be taken further:

'We need an environment which is not simply well organised, but poetic and symbolic as well. It should speak of the individuals and their complex society, of their aspirations and their historical traditions ... clarity of structure and vividness of identity are first steps to the development of strong symbols. By appearing as a remarkable well-knit place, the city could provide a ground for the clustering of these meanings and associations' (Lynch, 1960, p. 119).

The basic question, therefore, is not whether the map methodology is adequate but whether Lynch was correct to exclude meaning from his conception of the image. There have been criticisms of this exclusion. Gulick, for example, cannot accept the exclusion of meaning for he argues that the image 'is determined by the beholder's perception of the visible form ... combined with his consciousness of some social or behavioural significance' (Gulick, 1963, p. 193). From a sociological viewpoint, Prokop, (1967) argues that space must carry some meaning and that these meanings lead to the development of spatial symbols. He argues that 'the character, the meaning of spatial symbols, is linked up with the value system, the role system and the social structure of the society' (Prokop, 1967, p. 27). Carr argues that the meaning and value of buildings are of equal importance as visible appearance: 'The relative social values which districts, streets, or buildings symbolise and the simple exposure of these elements to the public eye would appear to be at least as important as their visible form' (Carr, 1970, p. 523).

The main reason for the original rejection of meaning from the Lynch study was the assumption that it would prove to be too idiosyncratic for initial analysis. However, Carr argues strongly for the existence of group meanings, since meaning originates with familiar objects for people of the same class and same environment, in particular (Carr, 1970, p. 523). In the Lynch and Rivkin study, almost all the respondents

commented on the insalubrious character of what was quite a respectable back alley. In his classic paper, Firey (1945) also provides evidence of shared meaning. Looking at sentiment and symbolism as factors affecting land use, he concludes that the persistence of certain patterns 'can only be understood in terms of the group value they come to symbolise' (Firey, 1945, p. 141). He suggests that sentiment for Beacon Hill in Boston is composed of aesthetic, historical and familial associations; for the inhabitants, Boston common was a 'source of tradition and inspiration' (p. 142). It is evident that at higher levels of abstraction, larger and larger groups share in the connotative meaning of objects, landscapes and symbols. For example, some symbols such as the word 'home' convey vast amounts of meaning and association (Lenz-Romeiss, 1973), and at these higher levels, meaning is influenced more and more by shared cultural values. As Rapoport and Hawkes have argued: 'The perception of an object becomes more and more culturally determined as we go to higher levels of meaning' (Rapoport and Hawkes, 1970, p. 107).

Connotative meaning is an integral part of the image of the city, which in turn is the result of individual experience within the city. 'The city ... (is) the refracted image of individual experience. Actual cities are elusive, known and understood through fragments of perceptions which form our personal experience' (Trachtenburg et al, 1971, pp.vii-viii). Moreover, it may be argued that there can be no experience without meaning:

'Meaning is not only about things and it is not only a certain logical structure, but it also involves felt experiencing ... In the past, meaning has been analysed very largely in terms of things (objective reference, sense perception) ... (but) we have come to recognise that there is also a powerful felt

dimension of experience that is prelogical, and that functions importantly in what we think, what we perceive, and how we behave' (Gendlin, 1962, p. 1).

The continuing neglect of connotative meaning is partly a result of the type of enquiry into urban imagery. While the main concern remains with linear movements in the city, shopping patterns and definition of the retail behaviour for example, it is possible to ignore this aspect of experience. When the enquiry is orientated towards the individual and the study of his urban experience, connotative meaning cannot be ignored. It is not only of great importance in the intense personal experience of the immediate environment (see the discussion in Tuan, 1974, pp. 210-223, for example), but also at higher levels of abstraction. It cannot be doubted that people have images of the city as a whole, as a single entity, and at this level, interpretation of the emotional and symbolic aspects of imagery is essential.

The symbol is important as a descriptor of place meaning. Tuan (1974) suggests that symbols are objects with a power to suggest a whole from a part; 'An object is also taken as a symbol when it contains a penumbra of meanings, calls to mind a succession of phenomena related analogically or metaphorically' (Tuan, 1974, p. 23). The great majority of symbols are bounded culturally but some, such as fire, water and certain colours such as red, black and white, appear to transcend culture (See Douglas, 1970, for example). The basic purpose of the symbol is to economise in terms of perceptual input: it helps to reduce the volume of information to be processed and stored in the memory and thus reduces the welter of impressions. Smith argues further:

'A symbol of real significance has a poetic quality. By economy and compression it draws the mind to a level of

perception concealed behind the normal presentations of environment. So, the most effective symbols are those which are imprecise, sparse and open-ended, tending more to the metaphor than the simile' (Smith, 1974, p. 51).

It has been argued that a symbol needs three characteristics to be a true symbol (Bertalanffy, 1965; Pollio, 1974); it must be representative, it must be freely created and it must be transmitted by culture. Symbols are taught and so pass on meanings within the culture. The landscapes of literature for example 'continue to influence the perception of environments long after they have changed. These are inherited landscapes, so to speak, the mental afterimages that make the immediate world a repository of memories and meanings from an earlier time' (Ittleson, Proshansky et al, 1974, p. 19).

It may be argued that symbolic meaning is present at all levels of urban arrangement. Venturi, Brown and Izenour (1973), for example, provide evidence of modern symbolism from the Strip architecture in Las Vegas. They argue against certain modern architects by suggesting that symbols are created by past experience and not by form or structure alone; 'We argue for the symbolism of the ugly and the ordinary in architecture' (p. 99). They suggest that all cities communicate messages to people which can be symbolic, functional or persuasive. The main component in the Strip is the sign: 'They make verbal and symbolic connections through space, communicating a complexity of meanings through hundreds of associations in a few seconds from far away. Symbol dominates space' (P. 103). One salutary lesson comes from the paper; in a civic design competition their attempt to use the strip symbolism - a neon oak tree - was rejected by the inhabitants 'because this image was not the image Thousand Oaks had of itself' (Venturi et al, 1973, p. 112).

The city as a whole has great symbolic value (Wheatley, 1969). Cities can be 'idealised concepts - symbols or metaphors, for what a civilisation can achieve' (Tuan, 1974, p. 193). Within European and Eastern cities, the city has been a transcendental symbol: Smith argues that 'the heart of the matter of urban symbolism ... (is that) for several thousands of years, it was believed that the city was the place where man came closest to the gods' (Smith, 1973, p. 439). With an agrarian mythology, Tuan suggests that American cities do not embody the same cultural associations. For example, Washington D.C. was built for a specific purpose: it 'was conceived to symbolise an ideal. Not the cosmos but an image of national greatness inspired its founding and design' (Tuan, 1974, p. 197). Tuan argues also that the predominant American symbols are churches and government buildings - symbols 'for the country's noneconomic aspirations' (p. 198).

Contemporary urban symbols include elements visible in the environment and verbal descriptions. Tuan suggests that certain American city symbols are functional, such as the San Francisco Gate, but the majority are formed rather self consciously. For example, the St. Louis Gateway Arch was completed in 1965 and the local publicity directive read:

'Because the Gateway arch is a National Memorial equal in dignity and grandeur to other great memorials and is becoming a symbol of St. Louis, it should be used in advertising displays, cartoons, etc. with restraint' (quoted in Tuan, 1974, p. 200).

Certain British cities have started giving themselves brief symbolic titles: for example, Norwich regards itself as 'A Fine City'; Hull is 'Gateway to Europe'; and Wigan is 'The Town without a Peer'! Labels

such as these are given to cities mainly out of civic pride or a need to capture economic benefit and the boost given to the city's image aims to capture its uniqueness (See Gold, 1974, for example; Williams and Adrian, 1963). The greatest range and diversity of brief symbolic slogans is in the United States and there is considerable variety (Kane and Alexander, 1965). Chicago, for example, has been 'The Garden City'; 'Gem of the Prairies'; 'Hogopolis' and 'The Crime Capital'. Certain cities try to project a specific image. San Francisco aspires of elegance - 'The Queen City'; 'The Paris of America' - whilst Las Vegas is 'The City which has Everything for Everybody - Anytime'. Tuan argues that these city nicknames 'reflect and exaggerate the basic values and myths of America' (Tuan, 1974, p. 203), and a similar point is made by Smith, who suggests that 'symbolism may link up with actual memories but equally it may reinforce myths' (Smith, 1974, p. 50).

These illustrations serve to highlight some work by Wohl and Strauss (1958) and Strauss (1961; 1968) which has been neglected. Wohl and Strauss argue that the symbolic value of language is important in the interpretation of the meaning of the city. In discussion of the psychological responses to the city, they suggest that people 'must, to some extent, attempt to grasp the meaning of its complexity imaginatively and symbolically as well as literally' (p. 523). The basic purpose of their work was to ascertain how people are able 'to manage their impressions so as to symbolise whole cities, how they treat entire cities as evocative and expressive artefacts' (p. 523). Looking at the city is only the beginning of the search for meaning, and Strauss argues that it is in speaking about the city that the individual in fact expresses the meaning it has for him; - 'Speaking about cities ... involves the

speaker in the quest for the essence of his urban experience and ways to express it' (Strauss, 1961, p. 13). In an analysis of the language of the city, Wohl and Strauss suggest that the meaning of the city is expressed either through simile or metaphor. In adjectival descriptions, the words used are supposed to fully explain the character of the city: 'It is therefore possible to say of a city that it is brawny, lusty, cosmopolitan, smug, serene, bursting, progressive, brutal, sentimental etc.' (1958, p. 528). However, urban complexity has the tendency to force the use of analogy and then 'the entire complex of urban life may be thought of as a person rather than as a distinctive place, and the city may be endowed with a personality - or character of its own' (p. 528). The basic contention of their work is that characterisation is a means of organising the ambiguous mass of impressions and experiences, and once the city is symbolised through language it is more comfortable. This is an evolving process. New descriptions are needed to interpret new surroundings and then 'new symbolic representations - embodied in anecdote, slogan, poem, or some more prosaic form - crystallise and become public property' (Wohl and Strauss, 1958, p. 532).

The work presented in this chapter has been concerned with contemporary research into images of the urban environment. Stemming from the work by Lynch, the great majority of this work has been replicative, studying the visual imageability of segments of the city. It has been argued that the exclusion of connotative meaning from the study of urban images is unacceptable since it is an integral part of the image at all scales of environment perception. It may be concluded that urban research has focussed on the concrete aspects of urban experience by dealing with visible objects only and not with all facets of the

individual's experience in the environment. There are higher levels of abstraction where symbols are used to convey both information and connotative meaning. Some urban symbols have been discussed in Chapter Two and it is recognised that 'of all forms of symbolism, language is the most highly developed, most subtle, and most complicated' (Hayakawa, 1965, p. 26). Most of the individual's information about the world is received verbally. Individuals classify their unique experiences under simple, usually verbal, categories in memory (Carr, 1970). Whorf (1956) extends the importance of language in experience even further in his argument that the way the individual perceives and understands reality depends upon his language - its grammatical properties and lexical variety (see Lowenthal, 1961). Yet, after a decade of research into urban imagery, there is still very little information about the language people use to describe their images of the environment.

CHAPTER THREE. People talk about places

'Environmental attitudes can best be gleaned from the words people use. Non-verbal responses are important, to be sure, but only language provides the wealth of detail and nuance that enables us to identify and assess perceived differences among places - and, indeed, among perceivers.'

David Lowenthal and Marquita Riel, 1972, Vol. 8, p. 1.

One of the striking features to emerge from the discussion of work into the images of places is the lack of work with a phenomenological orientation. It has been argued that there has been a neglect of connotative meaning in imagery and the language people use to describe their impressions and feelings about the environment. Having reviewed the literature concerning theories of environmental perception and urban imagery, it is possible to present results from two pieces of research into urban and regional perception. Both were completed during 1971. The pilot survey was undertaken during February and was concerned with the descriptive imagery of cities and regions found in a sample population in East Anglia. The place response test was carried out in April, 1971; on the basis of the survey results, this test assessed the verbal descriptions given in response to place names.

The Pilot Survey

The pilot survey had two main aims: to assess whether cities and regions had a distinctive imagery and secondly, to assess some of the contemporary methods of measurement. It was decided to undertake the survey in East Anglia and to focus on two main cities - Norwich and Cambridge, often designated as regional capitals (Smith, 1965). Using a simple random sample, forty inhabitants were interviewed in each city. A copy of the questionnaire used is given in Appendix 1. It may be seen that the schedule is divided into specific sections. The first section is related to individual affiliations to the area and whether the individual is aware of regional character. Many of these questions are open-ended to reduce problems of biased response. The second section is designed to identify individual interpretations of 'region' and descriptions of regional character. The third section provides a measure

of the residential preferences of the sample - a technique based on the assumption that the ranking of places by preference is based on the individual's image of them (Gould, 1966; Gould and White, 1974). The final part of the questionnaire is concerned with the image of Hull; it contains a set of Likert scales and a projective image sentence (Oppenheim, 1966; Saarinen, 1973).

Since the sample was small, results from the two cities were combined for analysis and it is proposed here to consider only certain aspects of the findings. One interesting result to emerge was that the great majority of the sample were convinced of the existence of regional character. Over eighty-five per cent considered that areas of the country were unique and eighty-nine per cent considered East Anglia to be a unique region. Reasons for uniqueness could be grouped into two main categories. The larger (41%) explained uniqueness in terms of the appearance of the landscape.

For example, 'East Anglia is unique for its flat, beautiful, open country'.

Or, 'It's the physical contrasts between the Lake District and the Fens'.

The other main category (39%) explained the character of regions in terms of the character of the local people - with special emphasis upon local dialect.

For example, 'The North has warm, friendly people, not like the South'.

Or, 'Regions change when the people talk differently'.

Or, 'It's the atmosphere, the people are so unfriendly round here'. Other reasons given included the historical traditions of areas and more esoteric reference to the ambience of areas - for example, 'it's intimacy',

or 'the peaceful atmosphere'.

There was no discernible pattern of responses between individuals although people living all their lives in the cities tended to emphasise the loss of East Anglian character through recent suburban development. Replies were brief. People tended to select one factor, for example, a physical feature and then use it as a criterion throughout the entire sequence of questions, suggesting a possible response set. The lack of divergent opinion about regional uniqueness may suggest also that the level of generalisation in the questions was rather high.

In one question the respondent was asked to define a region. The following answers are representative of nearly thirty per cent of the replies:-

'A region is an area inhabited by people who think of one town as their centre.'

'It's a patchwork quilt of towns and villages with the city in the middle.'

A second large group (27%) equated regions with county boundaries. These two characteristics are illustrated in the regional maps people drew; respondents were given a blank map of England and Wales and allowed to mark as many regions and regional cities as they wished. (See plates 1-4) One feature from all the maps is the perceived distances and the lack of information about Northern England. For example, on map one, the area around Durham is called 'the Far North'; on map two and three, Scotland is centred around the North York Moors; on the last map, the respondent spoke of 'going up to Ipswich' and 'up to Colchester' from Norwich.

The relative isolation of East Anglia illustrated by the maps was reinforced in the expression of urban and regional preference. Using this technique, the respondent is required to rank a number of cities and

ENGLAND AND WALES



Plate 1: A Regional Map - Norwich respondent

ENGLAND AND WALES

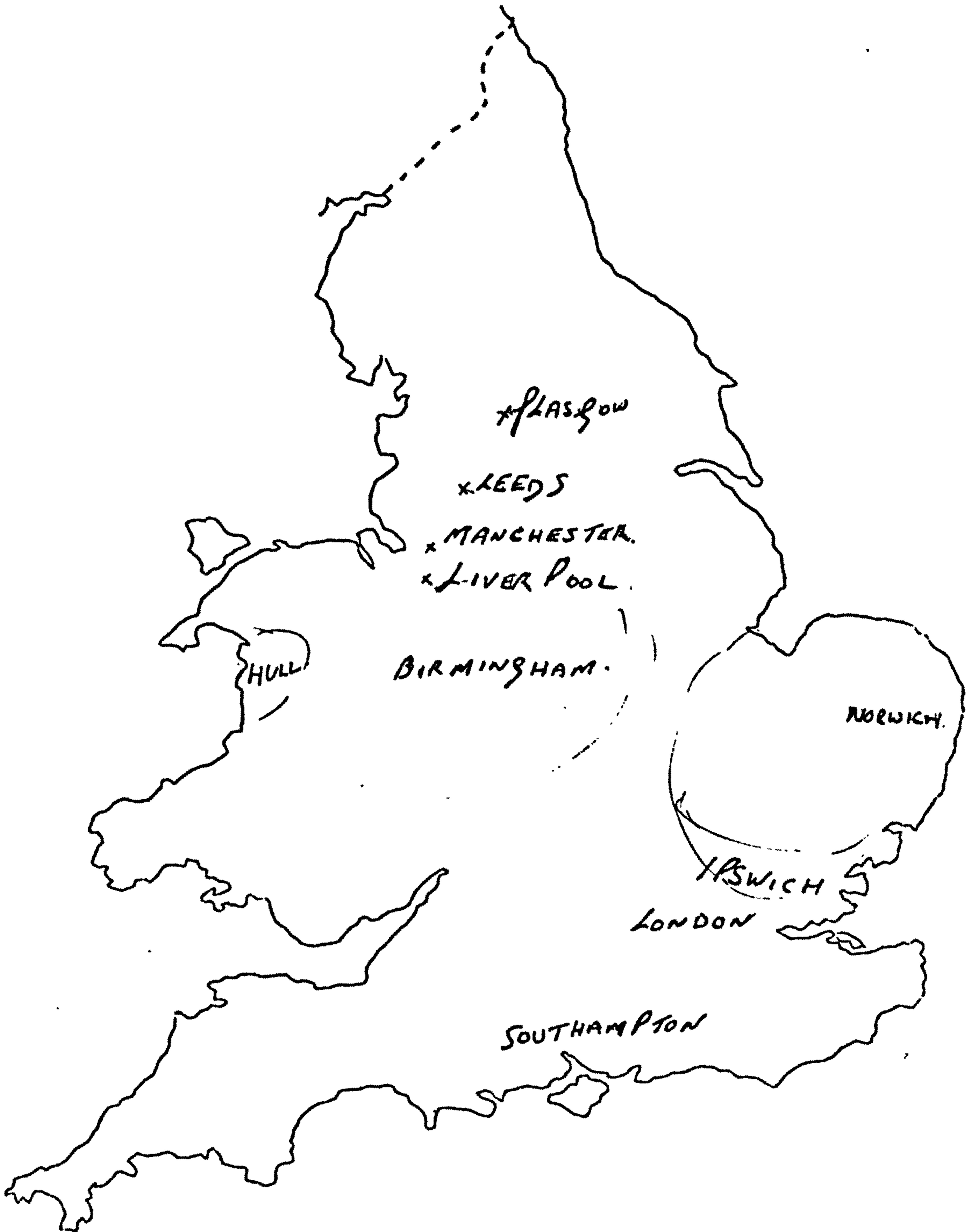


Plate 2: A Regional Map - Cambridge respondent

ENGLAND AND WALES



Plate 3: A Regional Map - Cambridge respondent

ENGLAND AND WALES

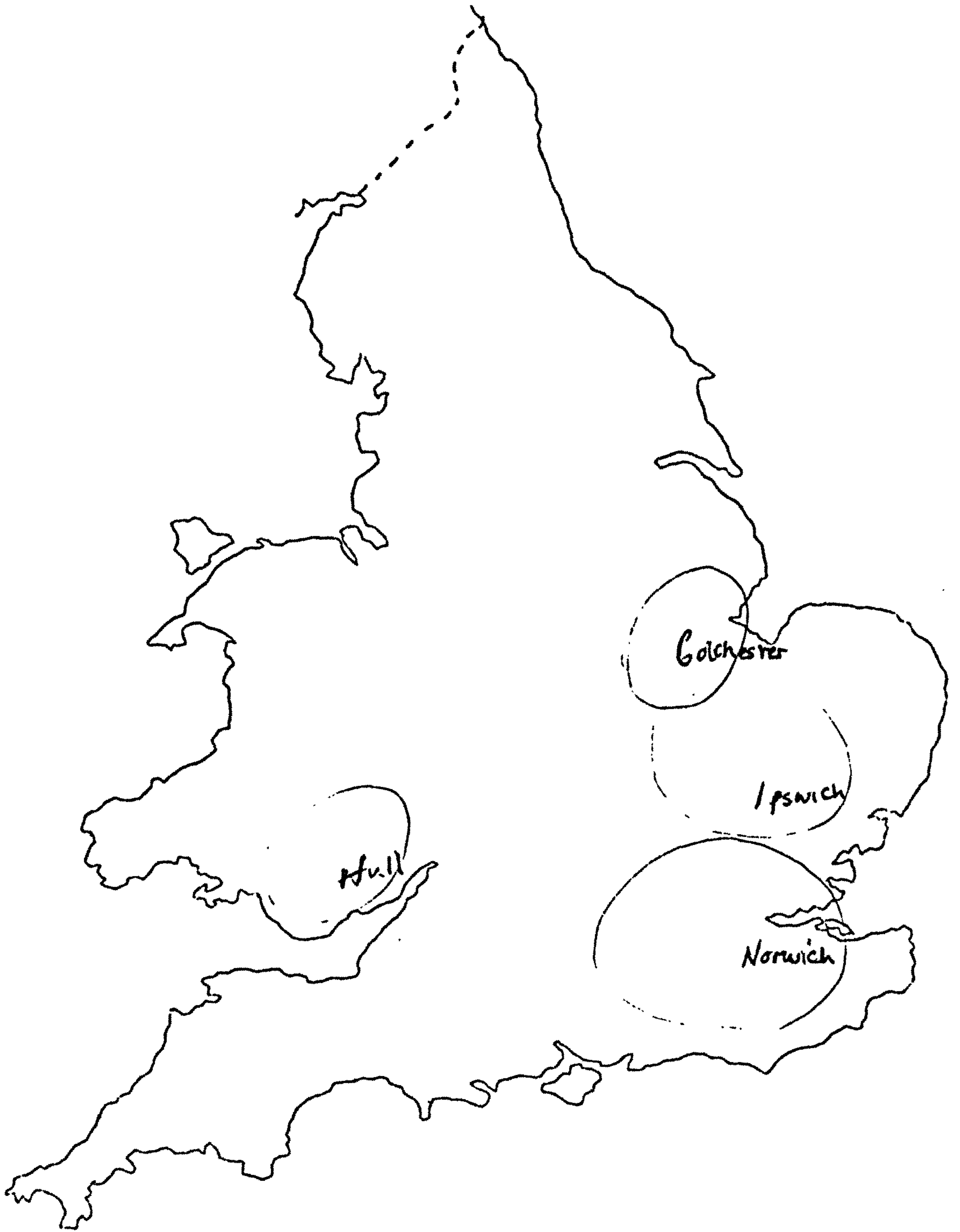


Plate 4: A Regional Map - Norwich respondent

regions in terms of their residential desirability. The assumption underlying the work into locational preference is that the general patterns of preference correspond with the individual's image of the area. There has been some work into the factors influencing observed preferences (see Michelson, 1966; Peterson, 1967); for example, Johnston (1972) suggests that the underlying dimensions of preference for New Zealand cities are associated with environmental features and climatic conditions. In general, the locational preference approach may be criticised for the lack of any penetrating enquiry into the actual images behind the revealed space preference. In this pilot survey, respondents were asked to rank various regional cities and their corresponding regions in terms of residential desirability. A total of fourteen cities and twelve regions were ranked. These rankings were summed and expressed as percentages of the total possible score. Thus, the lowest percentage indicated the most preferred place. Gould (1966) recommends the use of factor analysis with preference data but this was not felt to be necessary with such a small sample since the eigenvalues distinguish only the middle ranks more clearly. It may be seen from Tables 1 and 2 that Norwich, Cambridge and East Anglia are by far the most preferred places and the general pattern of preference is illustrated in Fig. 4. Corresponding with previous work, the cities of the Midlands and the North are most unpopular in terms of residential desirability (Gould and White, 1974).

Within this pilot study it was possible to assess preference in relation to one underlying image, that of the city of Hull. It may be seen that Hull is considered an unpleasant place in which to live falling tenth in terms of preference. It is just a little more desirable than

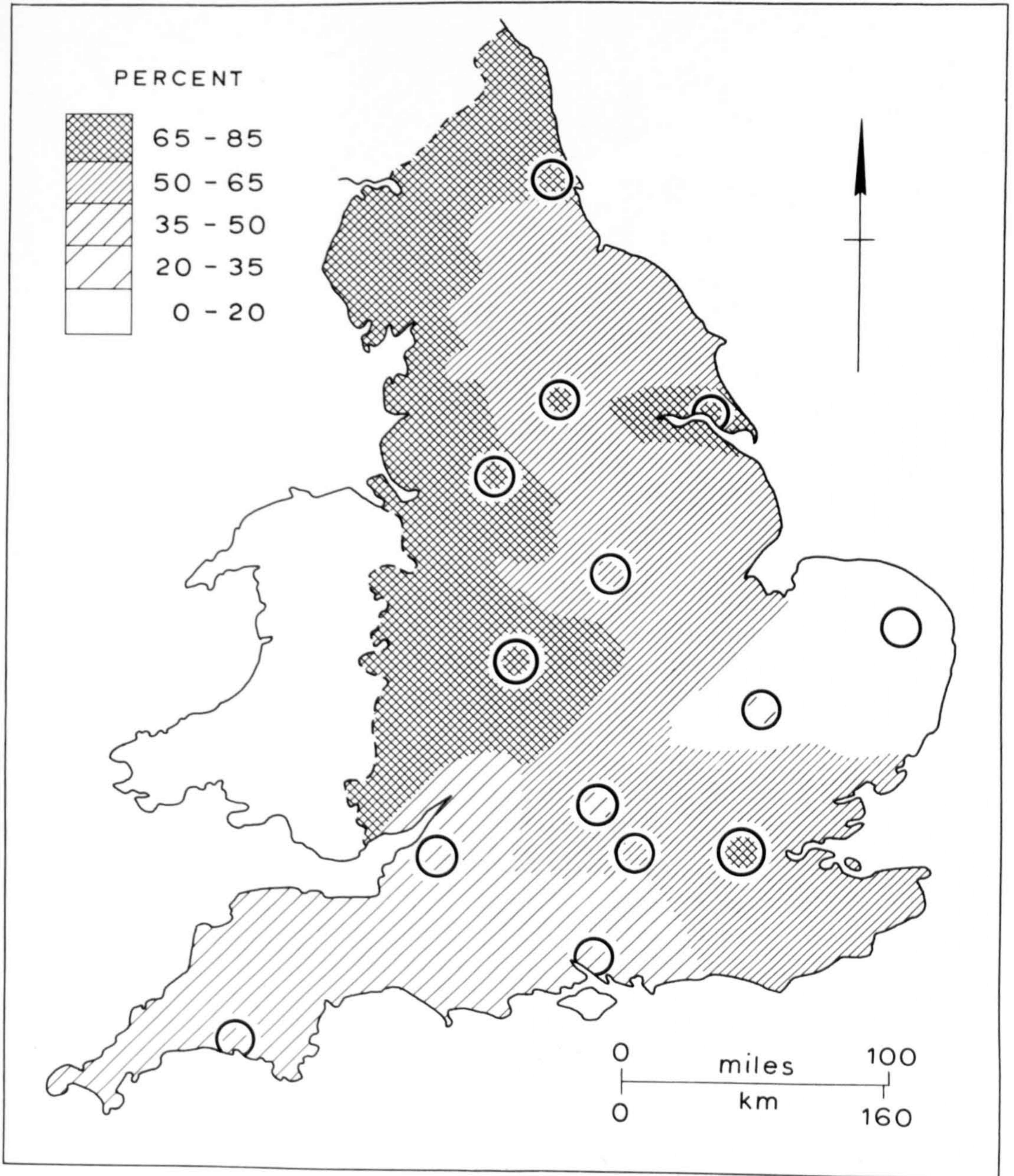


Fig. 4: A map showing the urban and regional preferences of the pilot survey sample. Lower percentages indicate more preferred areas.

Table 1. Residential Preference:- Regional Cities

1. Norwich	19%	8. Nottingham	58%
2. Cambridge	24%	9. Leeds	69%
3. Oxford	36%	10. Hull	70%
4. Bristol	38%	11. London	72%
5. Plymouth	42%	12. Newcastle	75%
6. Southampton	47%	13. Manchester	78%
7. Reading	53%	14. Birmingham	85%

Table 2. Residential Preference:- Regions

1. East Anglia	16%	7. London	60%
2. South West	39%	8. East Midlands	63%
3. Southern	40%	9. West Midlands	69%
4. Western England	47%	10. North West	71%
5. Yorkshire	55%	11. North East	74%
6. Central England	56%	12. Humberside	78%

Table 3. East Anglian attitudes towards Hull and Humberside

<u>Statement</u>	<u>Mean Score</u>
There is a lot of unemployment in the area.	3.7
Hull has a large number of slums.	3.6
Hull is not a cultural centre.	3.4
Hull is a dirty city.	3.4
It is a depressed area.	3.3
Humberside has coal mines and heavy industry.	3.0
Hull and Humberside are flat and boring.	3.0
Humberside has a unique character.	3.0
Hull is isolated from the rest of the country.	2.8
It has a lot of potential.	2.6
Hull and Humberside would become much more important with the Humber Bridge.	2.4
The ports of Humberside are very important to the rest of the country.	2.3

London, Newcastle, Manchester and Birmingham. In terms of regional preference, Humberside was the least desirable region. The image of Hull may be assessed from two techniques in the questionnaire. The image of the city evident from the attitude statements is not favourable. From Table 3, it may be seen that there was agreement with certain negative statements (expressed in mean scores of more than 3.0). The area was thought to be depressed, with slums and unemployment. It was felt to be dirty. On the positive side (expressed in mean scores of less than 3.0), the area was considered valuable for its ports and was supposed to have future potential which was related to the Humber Bridge. Turning to the projective sentence, respondents were requested to complete the following sentence, 'I think Hull is ...'. Out of the total sample only two people could think of nothing. The quality of responses and the amount of imagery incorporated were most surprising, more particularly so, since the questions of regional character had been limited in this respect. The responses are given below; thirty-one per cent of the sample had visited the city and responses have been separated on this criterion.

Images of Hull

A. Those who have been to the city:-

Dreary. A fishing port. Fishy, hilly and damp. Has good roads, nice clean city, sociable people. Fish. A major port and large conurbation. A busy port. Was a lovely city, the people were very friendly. Is a dock place. Isn't a bad city. Has some rather nice pieces of Victorian architecture. Fishing, Land of Green Ginger, Ferens art gallery. Docks. Rather a fishy place. Smiths Magnet Ales and very cold. Ice factories and fish. Fishy, but set in nice countryside. Fishing boats and industries. Hospitality. A good city. The Humber. Ports, cranes, docks and the stink of fish.

B. Those who have not been to the city.

Has a marvellous telephone system, I believe. Not too good. An important port. Factories, white faces, smoke and poverty. Industries, iron and steel works. Fish. Probably not very clean, a slightly run-down sea port. Fishing. Shipping. Industrial, docks and things. An industrial, unattractive area. Fish and some sort of university. Factories and fish. Dockyards and seagulls. Docks, with ships, factories, mills. A heavy city, a bit overpowering. Fishy, on the side of a cliff going up into Yorkshire. Very poor and dirty. Big fishing industry. Cobbled streets and fishwives. Fishermen, cobbles and poverty. Is opposite Grimsby. Is a poor area. Rather a backward, out of the way area. Shouldn't imagine it's very pretty. It's a place you don't really go through. Rather majestic, solid, strong and sombre.

These results are surprising both for the breadth of their content and also the quality of the imagery evident in some of them. The answers to questions about regional character were brief which suggested that the concept may present certain difficulties whereas description of urban character appeared more easily communicable. It is apparent that there were certain elements of information which were combined with other emotional judgements such as 'dirty', 'smelly', etc. On the basis of the survey, it was decided to explore the characteristics of urban imagery in a more tightly controlled test.

The Place Response Test

This test represents an enquiry into the verbal characteristics of urban imagery. The main objective of the test was to isolate common semantic elements used in the description of places. The homogeneity of responses to specific places proved to be of interest and the nature of generalised information given in response to individual place names provided also an indication of the possible role of stereotyping in the formation of urban images.

The test was carried out during April, 1971. Sixty-four first year university students in the Geography Department agreed to participate. The names of thirty-two places provided the stimuli: these were selected without any predetermination but the choice was not entirely randomised. It was the intention to balance the sample of place names in terms of their familiarity/unfamiliarity to the subjects; to balance the numbers of urban/rural places; and to balance them in terms of regional representativeness. There was an awareness of possible bias in terms of overemphasis on large industrial cities, for example, but the level of response to other types of places reduced this bias to an extent. The names of the places selected and a copy of the instructions is given in Table 4. It was felt that one of the most important elements in the test was that of spontaneity of response to each place name. With a considered amount of thought the initial response to a place name diffuses into specificity and is structured more consciously. The purpose of this test was to try and assess the initial verbal responses without allowing time for too much consideration. The importance of spontaneity was stressed in the instructions to the subjects and also through the administration of the test. Each place name was read out with a pause of only five seconds between each item. Associated with this was the expectation that the responses would be more limited in variety but it was hoped that such test procedure would identify the most common semantic elements.

Results

There was a possible total of 2,048 responses: the test resulted in a total response of 1,869 words and the remainder were blank. There was a total of 292 different words used in these responses to the place

Table 4. Place names selected for the Place Response Test

Birmingham	Newcastle	Chelsea
Blackpool	Norwich	Milton Abbot
Brighton	Camden Town	St. Ives
Bristol	Nottingham	Scunthorpe
Cambridge	Oxford	Grimsby
Grimston	Stony Stratford	Stow in the Wold
Carlisle	Plymouth	Barrow in Furness
Peterborough	Chipping Sodbury	Little Walsingham
Leeds	Bath	Bradford
London	Hull	Harlow
Manchester	Southampton	

INSTRUCTION: 'Please write down the first word that comes to mind for each item as it is read out. Do not check back to see what you may have written for any previous item. Try to make your replies as spontaneous as possible.'

Table 5. The most common words used in the Place Response Test

Dirty	(157)	8%	Smoky	(27)	1.4%
Industrial	(137)	7%	Smelly	(25)	1.3%
Clean	(79)	4%	Unhealthy	(25)	1.3%
Rural	(76)	4%	Cold	(24)	1.2%
Old	(42)	2%	Gentle	(24)	1.2%
Nice	(40)	2%	Wet	(21)	1.1%
Busy	(37)	2%	Modern	(21)	1.1%
Beautiful	(35)	1.8%	Peaceful	(21)	1.1%
Pleasant	(33)	1.7%	Dull	(20)	1%
Quiet	(31)	1.6%	Boring	(20)	1%
Small	(31)	1.6%	Dark	(20)	1%
Healthy	(31)	1.6%	Interesting	(19)	1%
Large	(30)	1.6%	Old-fashioned	(19)	1%
Big	(30)	1.6%	New	(19)	1%
Great	(27)	1.4%	Agricultural	(19)	1%

(Total number of responses: 1139 out of a total of 1869; 61% of all responses.)

names. Table 5 shows those words used most frequently in the responses, expressed in absolute values and as a percentage of all words used. The total response to each place name is given in Table 6 which shows also the variety of words used in the description of each place. Finally, Table 6 provides an indication of the affective component in the responses to individual place-names expressed in terms of favourable, neutral, unfavourable connotations.

The thirty words shown in Table 5 account for sixty-one per cent of all responses. Most are affective terms: nice; beautiful; boring; smelly, etc. Many were associated with the predominant characterisation of places. For example, a place considered to be industrial was also smoky, unhealthy, dark and dirty. Similarly, places with a rural characterisation were quiet, healthy and gentle. From Table 5, it may be seen that the most common descriptive elements used were dirty (8%), industrial (7%), clean (4%), and rural (4%). These four words provided the initial characterisations of all the place names used in the test. It may be argued that responses to place names require only a few well-chosen words or phrases since these thirty words constituted sixty-one per cent of all responses. It also provides an indication of the degree of generalisation prevalent in such responses: the city is frequently castigated as dirty and environmentally poor whereas the village for the most part represents all that is considered good in both environmental and social terms.

One of the most interesting points to emerge from these more commonly used words is the clear existence of certain dichotomies used in terms of place evaluation and description. The most obvious is the clean-dirty dichotomy which accounts for 12% of all responses. The other polarities are industrial-agricultural; new-old; healthy-unhealthy;

Table 6. The distribution of place name responses

Place name	Total words	A	Favourable	Neutral	Unfavourable
London	(64) 100%	37	(7) 20%	(17) 50%	(13) 38%
Hull	(64) 100%	32	(8) 25%	(13) 40%	(11) 34%
Chelsea	(64) 100%	28	(8) 28%	(13) 46%	(7) 25%
St. Ives	(64) 100%	41	(19) <u>46%</u>	(22) 53%	(0) 0
Barrow in Furness	(64) 100%	26	(0) 0	(14) 53%	(12) 46%
Newcastle	(63) 98%	27	(4) 15%	(12) 44%	(11) 40%
Scunthorpe	(63) 98%	29	(0) 0	(10) 34%	(19) <u>65%</u>
Grimsby	(63) 98%	23	(4) 17%	(10) 43%	(9) 39%
Blackpool	(62) 96%	29	(8) 27%	(10) 34%	(11) 33%
Manchester	(62) 96%	25	(6) 24%	(9) 36%	(10) 40%
Bradford	(62) 96%	35	(5) 14%	(12) 34%	(18) 51%
Bath	(62) 96%	33	(11) 33%	(19) 57%	(3) 9%
Leeds	(61) 95%	23	(4) 17%	(8) 34%	(11) 47%
Nottingham	(61) 95%	40	(9) 22%	(23) 57%	(8) 20%
Stow in the Wold	(61) 95%	36	(12) 33%	(21) 58%	(3) 8%
Bristol	(60) 93%	31	(12) <u>41%</u>	(16) 51%	(2) 6%
Birmingham	(59) 92%	21	(2) 9%	(4) 19%	(15) <u>71%</u>
Norwich	(59) 92%	31	(8) 25%	(21) 67%	(2) 6%
Harlow	(59) 92%	26	(5) 19%	(3) 11%	(18) <u>69%</u>
Oxford	(59) 92%	35	(9) 25%	(20) 57%	(6) 17%
Milton Abbott	(58) 90%	36	(8) 22%	(23) 63%	(5) 13%
Brighton	(57) 89%	34	(11) 32%	(13) 38%	(10) 29%
Cambridge	(57) 89%	30	(15) <u>50%</u>	(5) 16%	(10) 33%
Carlisle	(57) 89%	32	(9) 28%	(17) 53%	(6) 18%
Camden Town	(57) 89%	36	(6) 16%	(17) 47%	(13) 36%
Southampton	(57) 89%	37	(9) 24%	(22) 59%	(6) 16%
Stony Stratford	(52) 81%	25	(6) 24%	(16) 64%	(3) 12%
Plymouth	(52) 81%	32	(8) 25%	(20) 62%	(4) 12%
Little Walsingham	(50) 78%	18	(11) <u>61%</u>	(7) 38%	(0) 0
Chipping Sodbury	(49) 76%	34	(6) 17%	(21) 61%	(7) 20%
Peterborough	(44) 68%	28	(3) 10%	(20) 71%	(5) 18%
Grimston	(43) 67%	33	(5) 15%	(12) 36%	(16) 48%

(Column A = variety of words used)

large-small; modern-old-fashioned; and interesting-boring. The evidence of these dichotomies suggests that places may be evaluated in terms of a few basic dimensions incorporating functional characteristics and environmental evaluations of a more subjective nature.

Table 6 shows the level of response for each place name and provides a more detailed analysis of the results. Five place names had maximum response whilst twenty-one places had over ninety per cent response. The lowest response was accorded to the place-name 'Grimston' - a small village in North Yorkshire. The second column (A) of the table shows the variety of response expressed by the number of different words used for each place-name. This does not indicate the homogeneity of response for each place as such; the categorisation of responses into affective components and the proportion of responses in each category gives a more representative indication of the homogeneity in the image of the place. So words have been classified by the favourable, neutral or unfavourable connotations attached to each and these are shown in the final three columns of Table 6.

There were 127 neutral words given and the category includes general descriptors with no clearly defined affective component: words such as urban; ancient; residential; and complex. A full list of all neutral words is given in Appendix 2a. It will be seen that there is a large element of idiographic description in the list. The neutral category contains many words associated directly with the individual place and indicates the generalised information common in their description. For example; 'Nottingham' stimulated forests (4); Robin Hood (7); wooded (5), whilst 'Grimsby' resulted in fishy (20); ships (8); sea-faring (4). And 'Leeds' is a woolly city for at least five people!

Table 6 provides support for the hypothesis that certain places generate very strong affective responses. This is indicated by the small proportion of neutral terms, for example, 'Harlow' (11%), 'Birmingham' (19%), and 'Cambridge' (16%). Although it would be an unwarranted assertion that these places have most potential in terms of descriptive imagery, there is a certain indication that there may be some factor operating in this way: for example, 'Peterborough' with the second lowest response (68%) scored highest in terms of neutral components (71%). As stated previously, places with specific associations produce a larger neutral category. However, it appears that places with a clearly defined image expressed in neutral terms concerned specifically with the character of the place also show a fairly high proportion of affective responses, whereas places which do not possess a generalised imagery have a high proportion of neutral terms with only a small number of affective elements.

The affective element in the responses was sufficiently large to merit further attention and words were categorised in terms of their favourable or unfavourable connotation. Fifty-seven words were considered favourable and a full list is given in Appendix 2b. The words relate to the environmental image of the place:- peaceful; spacious; picturesque; and secluded. The perceived character of the place is an important element reflected in the use of fashionable; sophisticated; and optimistic. There is a general affirmation of the preferential attributes of places:- good; colourful; and lovely. The third column (Table 6), shows the number of favourable elements contained in the response to each place-name expressed in absolute terms and as a percentage of the total response for each place. Those place-names with a high favourable element have been underlined. The four highest are 'St. Ives' (46%), 'Little Walsingham'

(61%), 'Cambridge' (50%) and 'Bristol' (41%).

'St. Ives' and 'Little Walsingham' are of interest because they both exhibit the homogeneity of place imagery. The image of St. Ives was associated strongly with sea; holidays, and salty, responses in its neutral category (53%), whilst the favourable elements were typical of those described:- St. Ives is a pretty, attractive, clean and lovely place. It contained no dissenting voice. Quite obviously, this is a place familiar to many of the subjects, if not through personal experience, then through some channel of the media. This cannot be true of 'Little Walsingham', a small village in Norfolk. Yet this place-name produced the highest favourable response (61%), although fourteen subjects failed to respond to the place. There was not a great diversity of words used - eighteen in all - but they are worth considering.

'Little Walsingham'

Favourable:- Pretty (6), pleasant (4), charming (4), clean (3), quaint (3), peaceful (2), serene (2), quiet (2), cosy (1), sweet (1), delightful (1).

Neutral:- Rural (7), small (6), agricultural (3), historic (2), old (1), flat (1), countryside (1).

All the affective terms are associated with the traditional nature of the place-name and its primary characterisation as a rural settlement. Since this is considered to be a preferential environment within contemporary values, it may be supposed that the response to the place-name represents a 'village' stereotype rather than an image of an individual place.

The affective responses classified as unfavourable produced far higher totals: seventy-one per cent of the responses to 'Birmingham' were unfavourable, sixty-nine per cent were unfavourably inclined towards 'Harlow' and sixty-five per cent towards 'Scunthorpe'. There was a

greater range of vocabulary. Ninety-seven words expressed some kind of disaffection for places and a full list of these is given in Appendix 2c. Many were associated directly with environmental characteristics such as dirty, filthy, dingy and grimy, while other more subjective assessments were also important: smelly, unhealthy and smoky. There were words associated with general feelings about places, more particularly with the image of life in the large cities:- lonely; bleak; empty; and depressing. 'Scunthorpe' provides an illustration of what was a common industrial city image. There were no favourable elements at all, unlike places like 'London' which have certain compensatory factors.

'Scunthorpe'

Neutral:- Industrial (15), steel (4), iron (4), mining (2), heaps (1), works (1), urban (1), furnaces (1), quarrying (1), metallic (1).

Unfavourable:- Dirty (7), smoky (4), bleak (2), dark (2), hard (2), cold (1), congested (1), grim (1), mucky (1), dusty (1), barren (1), deadly (1), horrible (1), terrible (1), grimy (1), noisy (1), unhealthy (1), drab (1), depressing (1).

Twenty-nine different words were used in this description of 'Scunthorpe' and it serves to illustrate the clustering of unfavourable images around a basic industrial definition. The neutral elements reveal the primary information known about the place - iron, steel, metallic and furnaces.

As a final illustration of the existence of place name imagery, 'Harlow' proved of interest. The place received the second highest score of unfavourable elements (69%) and words such as clinical, sterile and restrictive were used to describe a place which in neutral words was considered to be new, modern and concrete. The image is one common to writings about New Towns and reflects public impressions of them (see Goodey, 1974).

Summary

These two pieces of work, the pilot survey and the place response test contain certain common features. Despite the limitations of a small sample, the pilot survey revealed that judgements of urban and regional character are common among the general public. However, the value of broad, open-ended questions may be limited since individuals generalise in their use of a few, limited categories. Questions of a more subtle nature may be required to study images through social survey. Residential preference is suspect as a means of discovering images since it is doubtful that individuals are able to differentiate beyond the first and last two or three places. In addition, a predetermined selection of places may not be relevant to specific individuals.

The image statement and the results of the place response test support the conclusion that place names produce a descriptive imagery. Recognition of urban character, at least, is not confined to one section of the population since these studies used students and a wider section of the public. The image of Hull from the pilot study was of an industrial, dirty fishing port with Victorian architecture and friendly people. Extending this, the place response test revealed the existence of a limited vocabulary which is applied to all places. The most important of these words were those relating to the cleanliness of the environment and its primary functional classification. Does the designation of a place as clean or dirty thus dictate the tone of the other descriptors - if a place is clean then will it be most of the other 'good' things, and vice versa? The discovery of certain dichotomies underlying all the descriptions of place names is of interest: connotative meaning of places may be identifiable through these dichotomies. The existence of stereotyped responses was highlighted in the test and appears to be an important element in the imagery of places.

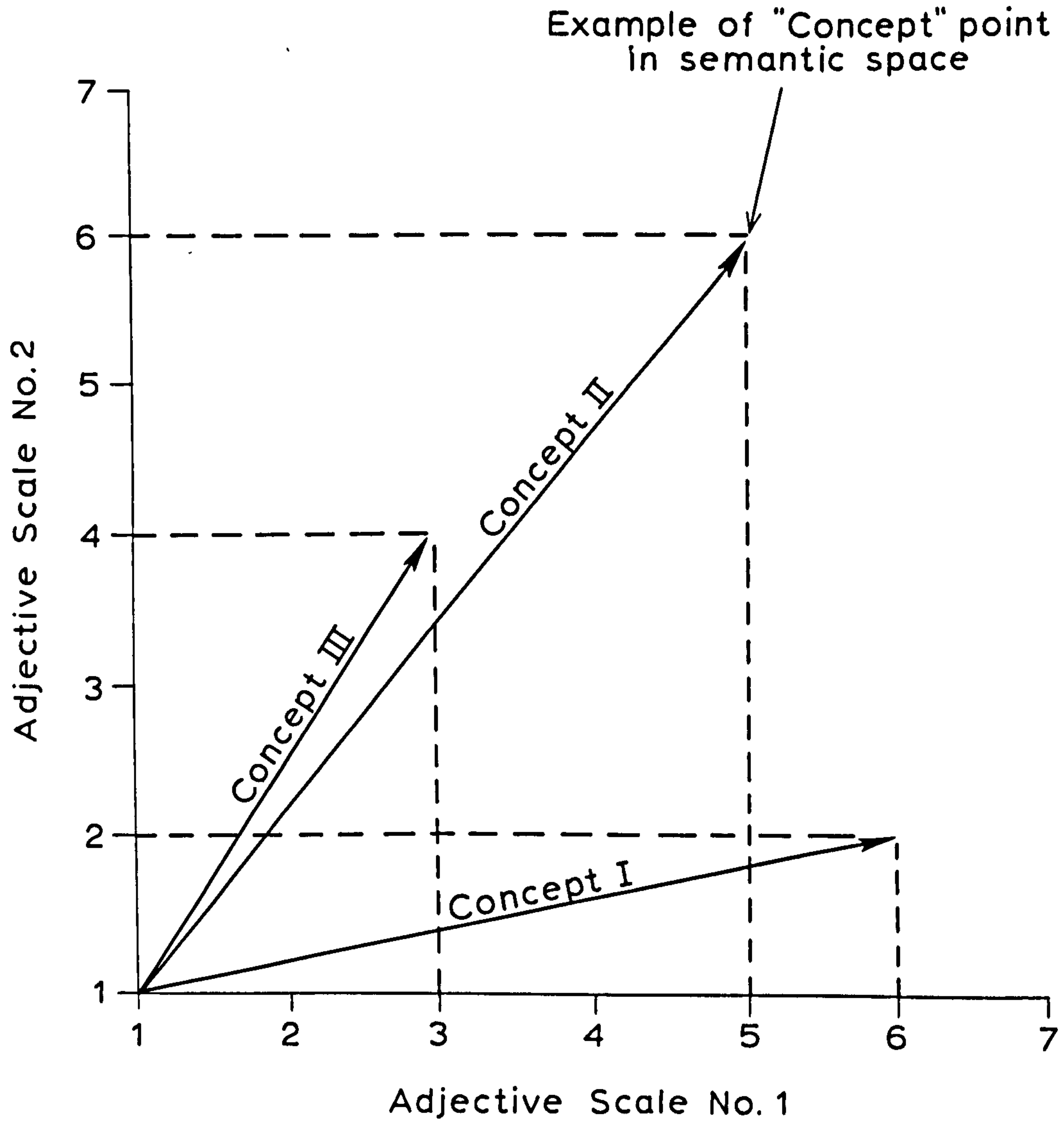
CHAPTER FOUR. The meaning of place and the semantic differential

'Yet one quickly begins to like American cities ... Frail and temporary, formless and unfinished, they are haunted by the presence of the immense geographical space surrounding them ... They are not oppressive, they do not close you in; nothing in them is definitive, nothing is arrested. You feel, from your first glance, that your contact with these places is a temporary one; either you will leave them or they will change around you.'

Jean-Paul Sartre, 1971, pp. 204-205.

It is apparent from the two preceding pieces of work that people are able to describe their images of both cities and regions. Elements in the imagery include purely factual characteristics of places in addition to evident emotive associations. The place response test in particular revealed the most common phrases used in the description of places and also showed that a limited range of vocabulary was adequate for most descriptions. Both pieces of research produced a limited response in terms of semantic variety and were difficult to analyse beyond a superficial word count. To progress further, a psychometric technique was required through which the connotative meanings of places could be explored in greater depth. The technique selected for further consideration was the semantic differential (hereafter SD). Within this chapter, there is a consideration of the SD as a technique for the measurement of meaning and the test using the SD in the meaning of places is reported. Certain underlying dimensions of place meaning are identified. In the final section of the chapter, the images of the places used in the test are discussed.

Developed by Osgood and other psycholinguists (Osgood, Suci and Tannenbaum, 1957; Snider and Osgood, 1969), the SD was designed to measure dimensions of meaning in linguistic and other contexts. It was developed in order to explore the connotative aspects of meaning - the implications and associations generated by words and in particular, the affective or emotive component in the meaning of words. The logical properties of the technique are based on the postulation of a 'semantic space' of unknown dimensionality and euclidean in character (Osgood et al, 1957, p. 25). The semantic space is defined by a series of bi-polar adjectival scales which are assumed to represent a straight line function through the origin of the space (Fig. 5). The more scales included, the more representative



3 concepts located in 2 dimensional space as a function of directions of association. (1 and 7 polarity) and intensity (1-7)
(after Golant and Burton 1969)

Fig. 5: The dimensions of semantic space.

of the meaning is the semantic space. Each point has two inherent properties which express the quality and intensity of meaning: the direction towards one pole reflects the quality of meaning and the distance away from the origin represents its intensity. 'By semantic differentiation, then, ... (is meant) the successive allocation of a concept to a point in the multidimensional space by selection from among a set of given scaled alternatives' (Osgood et al, 1957, p. 26).

Although the SD has never been used as a technique to measure the meaning of place, there is no apparent reason why it should not function using non-linguistic concepts. Indeed, Osgood et al make the point that 'there is no general "semantic differential test" as such, for it is the nature of the problem which determines the class and form of concept selected' (p. 77). A concept may be anything; in most of the studies reported by Snider and Osgood (1969), concepts are abstract words such as 'Happy', 'Sin', 'Death'; there have been SD studies of the meaning of auditory concepts, colours and people (Heisse, 1970; Warr and Knapper, 1968). Geographers have used the SD in work on the perception of environmental hazards (Golant and Burton, 1969) and the attributes of shopping centres (Downs, 1970).

The construction of the technique remains the same. It consists of a series of bi-polar adjectives arranged on a seven point scale. Each set of scales are applied to each stimulus word or concept. For example:

BEAUTY

Happy	___	:	___	:	___	:	___	:	___	:	___	:	___	:	Sad
Strong	___	:	___	:	___	:	___	:	___	:	___	:	___	:	Weak
Hard	___	:	___	:	___	:	___	:	___	:	___	:	___	:	Soft

The subject considers the applicability of each scale to the concept and checks the appropriate division. The extremes of the scale correspond

with the closest applicability of the scale to the concept. The seven intervals of the scale, which define approximately equal intervals in metric terms, correspond to the adverbial qualifiers 'extremely', 'quite' and 'slightly' (Cliff, 1959); these are often included as named divisions since they are particularly helpful for subjects with a lower I.Q. and children (Wells and Smith, 1960). The uneven number of scale points allows for a mid-point or 'neutral' point to be used when the subject finds neither adjective appropriate to the concept. There is a precedent for using seven intervals. Osgood et al found that five points irritated respondents unable to distinguish between slightly and quite a bit. Miller (1956) found that people are unable to distinguish more than seven intervals although this is challenged by Warr and Knapper (1968) who used nine or eleven intervals. Seven intervals were used in the SD test into the meaning of place.

The experiment into the meaning of places using the SD was carried out with two groups of subjects during June, 1971. The larger group consisted of a class of sixty, first year university students in the geography department. The second group comprised thirty maintenance staff from the University of Hull, mainly gardeners, electricians and boilermen. This was a smaller group because the test took about an hour to complete and not many were willing to give up so much time. However, they proved a valuable group since it was possible to check for any distortions which might accrue from using a homogenous group like students.

Ten concepts were selected (Table 7). They are diverse in the sense that the list included four cities, two regions and other more symbolic places such as 'My home town'. The SD scales were made up with fifty bi-polar adjectives selected primarily from the results of the place response test and also from the original work by Osgood et al. The

Table 7. Concepts used in the Semantic Differential experiment

- | | |
|--|-----------------|
| 1. Hull | 6. The South |
| 2. The Place I would most like to live | 7. My Home Town |
| 3. Birmingham | 8. London |
| 4. Villages | 9. The North |
| 5. The North York Moors | 10. Canterbury |

Table 8. Scales used in the Semantic Differential experiment

- | | |
|-------------------------------|-------------------------------|
| 1. Good - Bad | 26. Large - Small |
| 2. Beautiful - Ugly | 27. Hard - Soft |
| 3. Urban - Rural | 28. Strong - Weak |
| 4. Kind - Cruel | 29. Rugged - Delicate |
| 5. Clean - Dirty | 30. Light - Heavy |
| 6. Pleasant - Unpleasant | 31. Masculine - Feminine |
| 7. Sweet - Bitter | 32. Spacious - Constrained |
| 8. Honest - Dishonest | 33. Wet - Dry |
| 9. Nice - Awful | 34. Sensitive - Insensitive |
| 10. Fragrant - Foul | 35. Near - Far |
| 11. Fair - Unfair | 36. Happy - Sad |
| 12. Light - Dark | 37. Friendly - Unfriendly |
| 13. Optimistic - Pessimistic | 38. Rich - Poor |
| 14. Positive - Negative | 39. Cheap - Expensive |
| 15. Healthy - Unhealthy | 40. Fast - Slow |
| 16. Up to date - Oldfashioned | 41. Active - Passive |
| 17. Stable - Unstable | 42. Quiet - Noisy |
| 18. New - Old | 43. Sharp - Dull |
| 19. Usual - Unusual | 44. Hot - Cold |
| 20. Industrial - Agricultural | 45. Peaceful - Ferocious |
| 21. Relaxed - Tense | 46. Complex - Simple |
| 22. Familiar - Strange | 47. Interesting - Boring |
| 23. Colourful - Colourless | 48. Important - Unimportant |
| 24. Gentle - Violent | 49. Successful - Unsuccessful |
| 25. Perfect - Imperfect | 50. Progressive - Regressive |

selection of scales is of major importance since subsequent analysis is entirely dependent upon this input: an overemphasis upon scales of one character will produce a similar factor structure, whilst scales bearing no relationship to the concepts will produce an abundance of neutral scores. The method of scale selection used in this test - that of free associations - conforms to the specification advocated by Miron and Osgood (1966). They suggest that the frequency with which words have been experienced is revealed by the immediacy of response in free association. It is these 'most known words' that should make up the SD scales (Table 8).

There are several methods for the presentation of an SD test. The method used here was in the form of a booklet with the concept at the top of the page and fifty scales below it. The scales were randomised in two ways to inhibit possible response sets - the favourable attribute was not always on the left hand side of the page and the order of the scales was changed for each concept. There is some evidence of response sets in SD studies; for example, with concepts salient to the individual or those stimulating a socially desirable response (see Heisse, 1969). Related to this problem, certain types of individuals have a greater propensity to use certain intervals: for example, children and people with a lower I.Q. tend to use the end and central points more frequently (Osgood et al, 1957, p. 227; Warr and Knapper, 1968, p. 62).

Each member of the two groups was given a booklet and an instruction sheet (Appendix 3). It was found necessary to change the wording of the instructions for the maintenance staff group. Subjects were requested to work through the booklet at fairly high speed. Miron (1961) has compared the stability coefficients between two groups in order to assess

the influence of the speed of completion on SD scores. In his experiment, the first group was requested to work through the SD at speed, giving their immediate impressions. The second group was requested to give each item thorough consideration. Although the difference between the two groups failed to reach significance, the responses from the first group were found to be more stable in a retest. On the basis of this experiment and in the light of possible bias through boredom in the rating of five hundred scales, subjects were requested to work quickly. Each booklet took up to an hour to complete.

The primary function of the SD is to differentiate between the meaning of concepts summed over combinations of scales or individuals. However, the early studies discovered the existence of several underlying dimensions of meaning, each dimension indicated by specific scales. The dimensions identified in the early studies have been replicated in over one thousand studies completed (Heisse, 1969). It is possible to collapse the three dimensional data matrix into a single correlation matrix of scales and Osgood first suggested that semantic scores would be amenable for factor techniques (Osgood et al, 1957, p. 25). The factor structure which emerged was identified in terms of three basic dimensions of meaning: Evaluation (E), Potency (P), and Activity (A). It was found in replicated studies that the E factor explains up to three-quarters of the variance whilst P and A each explain about half as much variance as E. Certain scales have been found to be 'pure' in the sense that the extracted variance was confined almost entirely to a single factor. Thus, examples of evaluative scales are good-bad; beautiful-ugly; potency scales are characterised by scales such as hard-soft; strong-weak; and activity by scales such as fast-slow; active-passive. The ubiquity of the EPA structure has been shown in many varied studies. For example,

di Vesta (1966) produced the same structure working with children; Wright (1958) submitted the SD to extensive test using two thousand adults rating forty concepts on thirty scales (quoted in Heisse, 1969); the EPA structure has been found to be cross cultural (Suci, 1960) and the conclusion to be drawn from empirical work is that 'human beings utilise a similar semantic frame of reference irrespective of their linguistic and cultural background' (Tanaka, Oyama and Osgood, 1963, p. 392).

Similar dimensions were found in this study of the meaning of place. Results from the test were summed over concepts and subjects - giving a total of six hundred responses to each scale in the student group and three hundred in the second group. The statistical analysis of the data was completed during the summer of 1971 using the University of Hull 1900 series computer and the ICL statistical package, XDS 3. The first stage of the analysis was the production of two fifty by fifty scale matrices giving product moment correlations between each pair of scales. These were then reduced by principal components analysis to reveal their underlying structure (Table 9). The loadings are given for each scale on the first three components. Only three components are given for each group because the level of explanation provided by each component falls sharply, making interpretation of subsequent components difficult. In the student group, the first three components accounted for fifty-four per cent of the total variance: the first component explained thirty-five per cent, the second eleven per cent, the third eight per cent. The amount of variance explained in the maintenance group was slightly less but of similar proportions: forty-six per cent of the total variance was explained by the first three components - thirty-one per cent, nine per cent and six per cent respectively. The differences between the two groups are not great.

Table 9. Results from the Principal Components Analyses of SD data

<u>Variable</u>	<u>Student Component Scores</u>			<u>Local Component Scores</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
Good - Bad	.72	.30	.21	.72	.16	.12
Beautiful - Ugly	.76	.18	.05	.76	.27	-.19
Urban - Rural	-.78	.25	.03	-.60	.08	.09
Clean - Dirty	.83	.02	-.13	.79	.09	.11
Kind - Cruel	.71	.19	.07	.68	.01	.25
Pleasant - Unpleasant	.78	.20	.18	.75	.18	.06
Sweet - Bitter	.69	.19	-.14	.70	.15	-.19
Honest - Dishonest	.71	.09	.28	.74	.03	.22
Nice - Awful	.78	.28	.14	.84	.14	.09
Fragrant - Foul	.78	.04	-.08	.75	.21	-.13
Fair - Unfair	.68	.21	.20	.61	.08	.36
Light - Dark	.67	.26	-.16	.65	.15	-.22
Optimistic - Pessimistic	.04	.49	-.11	.05	.48	-.06
Positive - Negative	-.05	.67	.20	.05	.59	.18
Healthy - Unhealthy	.82	.03	-.02	.79	.10	-.04
Uptodate - Oldfashioned	-.46	.55	-.09	-.42	.41	.10
Stable - Changeable	.49	-.43	.01	.52	-.17	-.02
New - Old	-.42	.41	-.17	-.49	.16	.05
Usual - Unusual	-.19	-.05	-.03	-.04	-.18	.24
Industrial - Agricultural	-.78	.24	.12	-.69	.11	.39
Relaxed - Tense	.82	-.08	.16	.77	-.14	.16
Familiar - Strange	.43	.09	.24	.37	.08	.33
Colourful - Colourless	.52	.38	.07	.46	.42	-.17
Gentle - Violent	.81	-.01	-.17	.80	-.03	-.09
Perfect - Imperfect	.66	.24	.14	.59	.33	-.06
Large - Small	-.66	.18	.22	-.52	.25	.26
Hard - Soft	-.68	-.08	.32	-.59	.16	.28
Strong - Weak	-.27	.39	.42	-.13	.41	.20
Rugged - Delicate	-.30	-.09	.71	-.13	.07	.53
Light - Heavy	.72	.11	-.22	.72	-.06	-.11
Masculine - Feminine	-.37	-.05	.57	-.13	.10	.58
Spacious - Constricted	.71	-.08	.13	.47	.17	.02

Table 9. Results from the Principal Components Analyses of SD data

<u>Variable</u>	<u>Student Component Scores</u>			<u>Local Component Scores</u>		
	<u>1</u>	<u>2</u>	<u>3</u>	<u>1</u>	<u>2</u>	<u>3</u>
continued:						
Wet - Dry	-.12	-.28	.49	-.11	-.33	.43
Sensitive - Insensitive	.74	.12	.13	.62	.08	.17
Near - Far	.25	.08	.36	.20	-.19	.45
Happy - Sad	.63	.35	.11	.63	.36	.18
Friendly - Unfriendly	.70	.18	.29	.67	.06	.42
Rich - Poor	.01	.41	-.60	-.24	.43	-.46
Cheap - Expensive	.18	-.16	.50	.42	-.16	.46
Fast - Slow	.70	.48	-.11	-.68	.51	-.02
Active - Passive	-.40	.60	.09	-.41	.59	.04
Quiet - Noisy	.81	-.29	-.02	.81	-.23	-.10
Sharp - Dull	.18	.40	.06	.18	.53	-.07
Hot - Cold	.15	.39	-.54	.15	.33	-.50
Peaceful - Ferocious	.83	-.14	-.08	.82	-.07	-.07
Complex - Simple	-.72	.33	-.01	-.74	.23	-.05
Important - Unimportant	-.36	.46	.25	.13	.47	.11
Interesting - Boring	.35	.46	.32	.51	.55	.09
Successful - Unsuccessful	-.09	.63	-.09	-.13	.61	-.02
Progressive - Regressive	-.31	.71	.06	-.29	.60	.17
Percentage of total variability	35	11	8	31	9	6
Accumulated percentage of total variability	35	46	54	31	40	46

In comparison with other studies, the level of explanation is not quite as high and the EPA structure does not appear so strongly. The first component has high loadings on evaluative scales in accord with other studies but there is no clearly recognisable potency or activity factor. The loadings of scales on the second component suggest that it could be called a 'dynamism dimension' rather than potency or activity. The third component contains only a few scales with moderately high loadings and it must be acknowledged that these are difficult to group into any recognisable pattern unless it be shades of environmental potency. There have been studies in which the P and A factors have 'collapsed' in this manner to form a dynamism dimension (e.g. Kumata and Schramm, 1956).

Scales most characteristic of the first two components appear pure, having a high loading on one component only (Table 10). The similarity in structure between the two groups is marked although there are slight variations in the degree of association between individual scale and component. The first component may be classified as 'Environmental Evaluation'. Although the common evaluative scales such as good-bad; nice-awful, etc. are present, they have smaller loadings than specific environmental evaluations:- clean-dirty; peaceful-ferocious; healthy-unhealthy; quiet-noisy which all have loadings above 0.80. Urban-rural and industrial-agricultural are associated with evaluation although these are less prominent in the component structure of the maintenance staff group. The second component contains fewer scales with high loadings but its character is clear - progressive-regressive; active-passive; positive-negative; up-to-date-old-fashioned, and other activity and potency scales identify a 'Social Dynamism' dimension in the meaning of place.

Table 10. Structure of the first two components for the student and the Local group, showing those scales with the highest loadings

Component One:- Environmental Evaluation

	Student Group	Local Group
Clean - Dirty	0.83	0.79
Peaceful - Ferocious	0.83	0.82
Healthy - Unhealthy	0.82	0.79
Relaxed - Tense	0.82	0.77
Gentle - Violent	0.81	0.80
Quiet - Noisy	0.81	0.81
Urban - Rural	-0.78	-0.60
Pleasant - Unpleasant	0.78	0.75
Nice - Awful	0.78	0.84
Fragrant - Foul	0.78	0.75
Industrial - Agricultural	-0.78	-0.69
Beautiful - Ugly	0.76	0.76

Component Two:- Social Dynamism

Progressive - Regressive	0.71	0.60
Positive - Negative	0.67	0.59
Active - Passive	0.60	0.59
Successful - Unsuccessful	0.63	0.61
Up-to-date - Old-fashioned	0.55	0.41
Optimistic - Pessimistic	0.49	0.48
Fast - Slow	0.48	0.51
Important - Unimportant	0.46	0.47
Interesting - Boring	0.46	0.55
Sharp - Dull	0.40	0.53
Strong - Weak	0.39	0.41
Hot - Cold	0.39	0.33

Explanation is required for the simplicity of the component structure in which evaluation clearly predominates. Many of the scales characteristic of potency or activity appear to have become purely evaluative. The great majority of scales correlated significantly with the good-bad scale. These scales included not only standard evaluations such as pleasant-unpleasant, nice-awful, but also scales considered 'pure' measures of the potency and activity dimensions. For example, heavy-light correlated significantly with all the evaluative scales. One problem is the interpretation of the meaning of the individual scale:- for example, is progressive-regressive to be considered as a scale of evaluative or activity meaning? It obviously depends on the association of other scales. Osgood states that certain activity and potency scales may be 'contaminated' by the evaluation factor in the sense that they have high loadings on both (Osgood et al, 1957, pp. 36-38). It is apparent also that certain scales are able to change their 'meaning' and this feature has been observed in several subsequent studies. Osgood reported that positive-negative and optimistic-pessimistic were unstable since they often align with a dynamism component (which is the case in this experiment). He found similarly that other scales 'leaned' away from the E dimension (p. 177). The conclusion drawn was that there is a high level of concept/scale interaction and that the meaning of the scales to the concept being judged and their relationship to other scales varies considerably;¹

¹ It was the declared aim of SD to develop a set of scales which provided a general measure of meaning. The existence of concept/scale interaction precludes this. Osgood et al state that despite the instability of certain scales, the EPA structure remains stable. However, they conclude: 'in the last analysis, it may prove necessary to construct a measuring instrument for each class of concept being judged' (p. 188). However, Warr and Knapper consider that their work maximises the problem through the diversity of concepts used. They suggest that there is less variation with fewer concepts of similar type (Warr and Knapper, 1968, p. 69).

'In the process of human judgement, all scales tend to shift in meaning towards parallelism with the dominant (characteristic) attribute of the concept being judged' (Osgood, Suci and Tannenbaum, 1957, p. 187).

The dominance of evaluation in the meaning of place may reflect a certain amount of concept/scale interaction. Scales were selected by free association which tended to emphasise the most readily experienced aspects of places and thus, the dominant element was environmental evaluation.

However, it may be proposed on the basis of these results, that the connotative meaning of place contains at least two basic dimensions. The most important is an emotive assessment of the quality of the environment whilst the second major factor in the meaning of place is the pace and activity of life. Having isolated these two dimensions in the meaning of place, it is of value to consider the images of the places used as concepts in more detail.

Examples of the meaning and imagery of places

Ten places were used as concepts and these were selected to provide examples of environments with differing emotional and symbolic values. It is proposed to present the mean for each scale of each concept. Throughout the analysis, an assumption of normal distribution has been made and parametric statistics have been used. This is conventional in SD studies but there have been discussions about the validity of using parametric statistics. Warr and Knapper (1968), for example, suggest that the variance of the data is not a problem since the SD scales are bounded and so response is limited. However, there are two important considerations: the first is a question of the interval scale assumed for SD ratings and the second is the assumption that the distribution of responses is approximately normal.

In his description of semantic space, Osgood assumed that the euclidean space passed through the neutral point of origin and that each half of the scale was equidistant from this point. There has been some evidence to show that certain SD scales are not bi-polar (Mordkoff, 1963; Green and Goldfried, 1965) but the methodology and conclusions of these have been contested recently (Heisse, 1969). There is a general acceptance of bi-polarity. The assumption that each point on the scale is at an equal distance thus allowing an interval scale of measurement is justified by Messick (1957). Finally, the use of parametric statistics requires that the distribution of responses be approximately normal. There are several examples of concepts and scales which produce a highly skewed distribution - 'Feather' on the heavy-light scale, for example. In answer to this, a semantic atlas of three hundred and sixty concepts rated on twenty scales was produced (Jenkins, Russell, and Suci, 1958). Even with such a wide variety of concepts, a correlation of .97 between mean and median suggests that scores were not skewed to any great degree.

Using the student group data, mean scores for each of the ten concepts are given in Table 11. It must be stated that this information is presented as an illustration of the potential value of the SD in the interpretation of the meaning of places: these are not held to be definitive results. For this reason it is proposed to consider two aspects of the results - the relative meanings of the ten place concepts and secondly, examples of actual images. Turning to the summary of the results (Table 11), a mean score of 4.0 corresponds to the neutral point of the scale; a mean of between 1 and 3.9 indicates a decreasing association with the left-hand side of the adjectival scale whereas a mean of 4.1 to 7 indicates increasing association with the right-hand side of the adjectival scale. The first twelve scales given in the table are those

Table 11. Mean scores for the ten place concepts used in the SD experiment

	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>
Peaceful-Ferocious	2.7	1.9	3.1	2.1	4.1	4.4	5.6	5.4	3.5	2.5
Beautiful-Ugly	2.4	1.9	3.3	1.6	3.2	3.4	3.8	5.6	3.6	3.5
Rural-Urban	3.3	2.8	2.9	2.3	4.5	4.3	6.6	6.7	5.0	5.1
Clean-Dirty	2.1	1.9	3.5	1.7	4.5	3.5	5.6	6.0	3.4	3.2
Pleasant-Unpleasant	2.1	2.0	2.8	1.7	2.8	3.5	3.9	5.0	2.6	3.2
Nice-Awful	2.3	1.9	3.4	2.1	3.0	3.6	4.3	5.3	2.8	3.8
Fragrant-Foul	2.7	2.5	3.4	2.3	4.0	3.8	4.9	5.3	3.7	3.7
Healthy-Unhealthy	2.1	1.7	3.4	1.6	3.6	3.6	5.0	5.4	3.2	3.5
Agricultural-Industrial	3.4	1.5	2.9	2.0	5.2	4.3	6.3	6.7	4.6	4.5
Relaxed-Tense	2.7	1.8	3.8	2.5	3.3	5.1	5.9	5.4	3.3	3.5
Gentle-Violent	2.4	1.9	2.9	3.5	4.0	4.3	5.5	5.4	3.9	3.2
Quiet-Noisy	2.6	1.8	3.5	1.8	4.5	5.1	6.5	6.1	4.2	4.2
Optimistic-Pessimistic	2.3	3.2	3.7	3.7	4.0	3.1	3.3	4.4	3.5	4.1
Positive-Negative	2.5	3.7	4.6	3.6	3.1	3.0	2.8	3.4	3.5	3.5
Up-to-date-Old-fashioned	3.7	5.3	6.2	5.1	4.5	3.0	2.9	3.5	4.0	3.3
Strong-Weak	3.2	4.0	4.6	2.5	2.5	3.2	2.0	2.5	3.5	2.8
Fast-Slow	3.4	5.6	5.8	5.6	4.1	2.4	1.5	2.2	3.9	3.2
Active-Passive	3.0	4.7	5.2	4.5	3.2	2.3	1.6	2.5	3.4	3.9
Sharp-Dull	3.4	3.9	4.6	3.5	3.5	3.4	3.3	4.7	3.9	4.0
Hot-Cold	3.5	3.8	4.5	5.0	5.1	3.3	3.5	4.7	4.1	3.5
Important-Unimportant	3.7	2.5	5.0	2.5	2.2	2.2	1.2	2.2	2.9	3.5
Interesting-Boring	1.9	2.1	3.7	1.9	2.5	3.2	2.2	3.6	3.2	3.4
Successful-Unsuccessful	2.5	3.0	3.7	3.5	3.5	2.6	1.7	2.7	3.5	3.1
Progressive-Regressive	2.9	4.1	5.0	4.2	3.5	2.8	1.9	2.7	3.4	4.5
Good-Bad	2.4	2.2	2.7	2.2	3.0	3.7	4.0	4.9	2.9	2.6
Kind-Cruel	2.1	2.4	3.6	3.9	3.3	4.6	5.0	4.4	3.4	4.2
Sweet-Bitter	3.5	2.8	2.0	3.2	4.3	4.0	4.5	4.9	3.9	4.6
Honest-Dishonest	2.5	2.2	4.5	2.7	2.6	4.4	5.1	4.4	3.6	4.4
Fair-Unfair	2.1	2.8	3.7	3.3	3.0	4.2	4.9	4.3	3.5	3.2
Light-Dark	2.0	2.9	3.3	3.0	4.4	3.3	4.8	5.5	3.6	2.9
Stable-Changeable	3.4	2.6	4.2	2.5	4.3	5.5	5.4	5.2	4.1	5.0
New-Old	4.1	5.7	6.4	5.9	5.0	3.5	3.7	3.9	4.5	4.1
Usual-Unusual	4.7	4.3	6.0	5.0	3.6	3.4	4.9	3.4	3.1	4.3
Familiar-Strange	2.9	2.7	5.2	3.9	3.0	4.1	5.1	5.3	2.0	2.7
Colourful-Colourless	1.9	2.1	3.7	2.2	3.1	3.2	2.7	4.4	3.7	2.9
Perfect-Imperfect	2.9	3.3	4.4	3.0	4.4	4.7	4.8	5.3	4.3	3.5
Large-Small	4.2	6.1	4.0	1.8	2.4	2.3	1.2	1.5	3.4	2.8
Hard-Soft	4.0	5.1	5.5	3.5	3.0	3.6	2.2	2.4	3.7	3.9
Rugged-Delicate	3.2	4.2	6.0	2.0	2.4	4.3	3.1	2.8	3.6	3.4
Light-Heavy	2.5	2.2	4.3	3.5	4.2	3.7	5.3	5.6	4.1	3.6
Masculine-Feminine	3.3	4.3	4.9	3.1	2.9	4.1	3.4	2.7	3.4	3.0
Spacious-Constrained	2.7	2.4	4.2	1.3	3.3	3.8	5.5	5.6	3.9	4.1
Wet-Dry	4.1	4.1	5.3	3.1	3.1	4.7	4.4	3.7	3.7	3.3
Sensitive-Insensitive	2.4	2.2	4.2	3.6	3.4	4.7	5.4	5.2	3.8	2.8
Near-Far	3.5	3.4	5.9	3.9	3.3	5.0	5.4	4.7	3.0	4.3
Happy-Sad	1.9	2.2	4.3	3.7	3.0	3.6	4.2	4.2	3.1	3.1
Friendly-Unfriendly	1.7	1.9	3.9	3.2	2.1	4.6	5.1	4.7	2.6	3.2
Rich-Poor	3.0	4.0	3.3	4.9	4.5	2.3	2.6	4.0	4.0	3.4
Cheap-Expensive	3.0	3.8	5.5	3.3	3.1	5.3	5.6	4.2	4.1	3.2
Complex-Simple	4.3	5.6	5.1	5.1	3.7	2.8	1.3	2.1	3.9	3.2

Key - p.92

with the highest loading on the first component and these are followed by the twelve highest dynamism scales. It is possible to obtain a single evaluation mean and dynamism mean by averaging the twelve scores selected for each component. These may be shown graphically as an illustration of the relative meaning of the place concepts (Fig. 6)

It is of interest to consider the relationship between 'the place I would most like to live' as an idealised environment, and the other places. It may be seen from the graph that this idealised concept has a moderately positive evaluation (2.5) and a moderately positive social dynamism (3.0). None of the other places match this intensity and balance of evaluative and dynamic characteristics. 'Villages' and 'The North York Moors' have a more positive evaluation (1.9 and 2.4 respectively) but their dynamism score is much lower (3.8 for both). On the other hand, those places with a high positive dynamism - 'The South' (2.8), 'London' (2.3) and 'Birmingham' (3.2) - have a negative evaluation: the mean score for 'London' is 4.4 and for 'Birmingham', 5.2. Three places match the balance of the idealised concept and these are 'Hull', 'My home town' and 'The North', but the intensity of scores on both components is lower. Given the contemporary flight from the large cities, these are interesting results; the cities have what appears to be a desirable level of dynamism but very unfavourable evaluations of their environments. However, the most favoured environments - 'Villages' and 'North York Moors' - have a much lower level of dynamism than the ideal.

Turning to a consideration of the detailed images of the places, the intensity of the mean score reveals the existence of consensus about the character of them. It is apparent that environments which form part of the present reality for people evoke less extreme responses than other,

Key for Fig. 6

1. The Place I Would Most Like to Live
2. Villages
3. Canterbury
4. The North York Moors
5. The North
6. The South
7. London
8. Birmingham
9. My Home Town
10. Hull

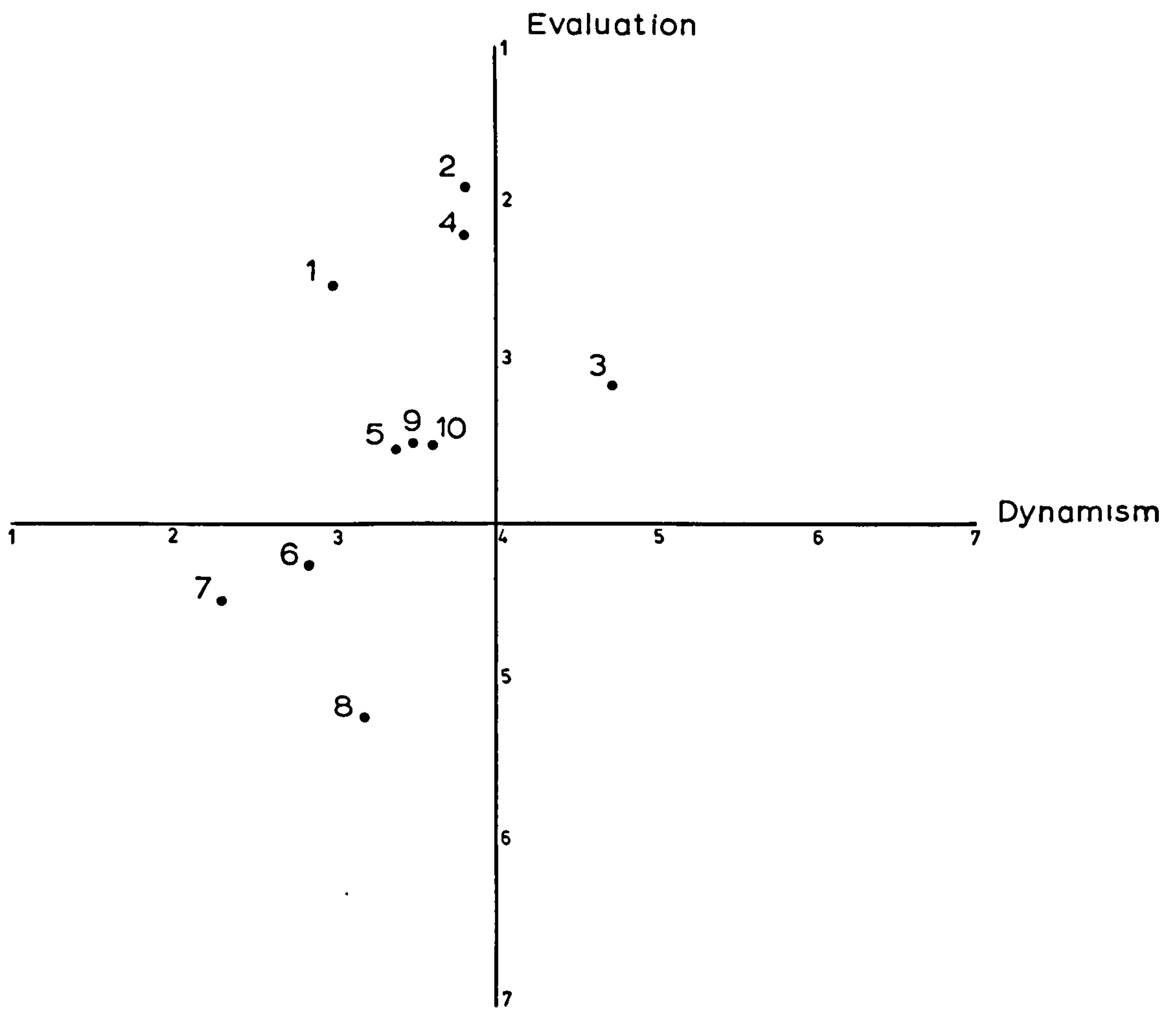


Fig. 6: The meaning of places assessed by the SD dimensions

more remote or idealised places. The most extreme responses are found in descriptions of 'Villages' where eleven scales have a mean score of less than 2.0. These are scales such as healthy, relaxed, quiet, beautiful, gentle, etc. and there are similar evaluations between 'Villages', 'North York Moors' and 'The place I would most like to live'. It is interesting to compare these profiles with that of 'Hull'. Hull is described as a quite peaceful, sensitive, strong, large, colourful, good, familiar and light place. It is also a masculine, happy city.

There are obvious similarities in the images of 'London' and 'Birmingham'. On the positive side, they share characteristics such as very large, important and successful. However, London is uniquely interesting whereas Birmingham is uniquely masculine. Similarly, they share certain negative characteristics: both are noisy, dirty, tense and ferocious. However, Birmingham is uniquely industrial, heavy and dark whereas London is expensive, changeable and insensitive.

As a final illustration which has bearing on earlier discussion, the two regions have quite distinct images. Taking the most extreme scores, both are considered important and large but thereafter, they have different characteristics. On the positive side, 'The North' is friendly, interesting, strong, honest, pleasant, masculine and happy; 'The South' is active, rich, fast, successful, complex, progressive, positive and up-to-date. On the negative side, both are noisy, but the North is industrial, cold, old, poor, old-fashioned, dirty, dark, imperfect and urban; the South is changeable, expensive, tense, insensitive, unfriendly, imperfect, cruel and dishonest.

Discussion

The work with the semantic differential technique has extended the findings from the pilot survey and the place response test. Two basic dimensions of place meaning have been identified - environmental evaluation and social dynamism. It is evident that evaluation plays the major role in the verbal imagery of places. It has been possible to illustrate the images of certain geographical areas through the mean scores of the SD adjectival scales. These have shown that there is a consensus about the perceived character of regions, large cities and more symbolic environments. The character of the North and the South evident from these scales is comparable with that in some literary descriptions.

One aspect to emerge from these tests is the difference in verbal descriptions of places well known to the individual and those not known well. The imagery appears to be more complex and less extreme for the former than for the more remote or idealised places. This is of interest when considering the formation of place impressions. Appleyard makes the point that one 'quality of environmental knowledge ... is its relatively inaccurate or nonveridical character. Except for known parts of the city, we depend upon very little environmental information to make our inferences' (Appleyard, 1974, p. 114). These sources of information include verbal communication and written information about places. Perry and Boyd (1972) found that the latter is more important in the formation of impressions and argue that 'written information has a distinct effect on the impression formation process' (p. 101).

The effect of written information on the formation of images is evident in certain historical contexts (see Lewis, 1966; Thompson, 1969; Merren, 1967, for example). To take one example, Bowden (1969) found

differences in the folk and elite images of the American mid west. The desert image was not carried in the elementary textbooks of the period and so the potential settlers did not share the desert image with the well-educated who had culled the stereotyped image from the popular geographies of the time. The stereotyping of ideas about places may be seen as the development of images which for the most part are generated from a number of secondary sources;

'Stereotypes appear to be learned by word of mouth or from books and films. These media create a vast cultural matrix in which images can develop and persist irrespective of the reality they are supposed to represent' (Karlins, Coffman and Walters, 1969, p. 1).

One example of the influence of the media is evident in schoolchildren's images of Africa (Hicks and Beyer, 1968).

A common definition of 'stereotype' is of an image containing distorted or erroneous information. Fishman (1956) suggests that the consensus among social psychologists is that 'its contents are inferior, shoddy, "wrong" ideas' (p. 28) and should be changed. This view of stereotypes has evolved through the study of ethnic prejudice which has been concerned with the categorisation of social groups and the attribution of certain characteristics to individuals on the basis of group membership (Cauthen, Robinson and Krauss, 1971). It is postulated that the stereotyped image has evolved and warped from an initial 'grain of truth' and this initial truth should be identified;

'Apparently there are latent in fiction, in folklore and in the educational system, certain images of peoples, images of centuries standing perhaps. Within these images there may be "kernels of truth" or there may be a dried hulk of what might have been truth decades ago' (Buchanan and Cantril, 1953, p. 96).

The main stumbling block in the argument about truthfulness has been the question of proof. Fishman makes the point that stereotypes become autonomous precisely because their validity cannot be assessed (Fishman, 1956, p. 54). He is supported by Campbell (1968, p. 824) in his suggestion that the only way to substantiate or discredit the stereotype is by comparison with some objectively defined data set.

It is apparent that certain contemporary stereotyped images of places are evident in the results presented in the last two chapters. For example, the 'industrial' and 'agricultural' connotations of places evident in the tests may represent a cultural stereotype; Orwell's description of Wigan, for example, contains elements of the image of 'The North' - 'labyrinths of like brick houses, blackened by smoke, festering in planless chaos round miry alleys and little cindered yards where there are stinking dustbins and lines of grimy washing and half ruinous w.c.'s' (Orwell, 1937, p. 51). Within a geographical context, it may be argued that the stereotype represents an oversimplification rather than being totally incorrect. Certain parts of Wigan stimulated the Orwell description which is then taken as being representative of the entire place. This definition is advocated by Fishman who describes the stereotyping process:-

It 'is at fault in that it rushes unhesitatingly in to generalisations; it compounds the particularistic error in that after having induced the general from too few (or too unrepresentative) particulars, it proceeds to disregard all subsequent particulars in favour of the general: it is a reaction not to the facts of a specific case but to a "halo" effect, evoked by associations surrounding the case' (Fishman, 1956, p. 32).

It may be argued therefore, that the image is the necessary simplification of environmental experience whereas the stereotype represents an oversimplification, more extreme, stylised and less complex than the image.

CHAPTER FIVE. Images of Kingston upon Hull - Methodology

'The qualities of place are dynamic, temporal and personal. Our response may vary but our feelings about place are real ... When we are at a place we know it. If our image or perception of a specific environmental order is confused or unclear then there is no place. We don't know when we are there; we don't know where we are.'

S.V.D. Ryn, 1962, p. 37

It is value at this point to recapitulate the main aspects of discussion presented in the preceding chapters before moving on to the study of the images of Kingston upon Hull. The basic proposition is that individual images of the environment are an amalgam of psychological processes - perceiving, sensing, feeling and believing. These internal processes may be subscribed under a broad definition of environmental perception or cognition, since internal differentiations are difficult to substantiate. The main flow in the system is information. The image is the amalgam of idiosyncratic assessment and assimilation of vast amounts of information available to the individual. Present environmental perception is influenced by the image which itself represents the assimilation of all the previous experience of the individual. Thus, the image is 'a highly structured piece of information-capital, developed partly by its inputs and outputs of information and partly by internal messages and its own laws of growth and stability' (Boulding, 1959, p. 342).

One of the most important features associated with the image is economy: the economical storage of large amounts of information. Environmental experiences are classified and combined into larger units sometimes called schema. It is apparent that the dominant or most important pieces of information are stored in this way and act as a framework for memory. Bartlett notes that, in remembering 'the dominant features were the first to appear, either in image form, or descriptively, through the use of language; in fact, this is one of the great functions of images in mental life: to pick items out of "schemata"' (Bartlett, 1932, p. 209). Extending the argument for the organisational role of the image, it has been noted that environmental incongruity inhibits accurate memory, since in remembering 'we begin by recalling what we believe to be the most characteristic features and concepts and proceed to

fill in the picture in whatever way is most consistent with these general features' (Carr, 1970, pp. 524-525). It has been argued earlier that symbols act in a similar way as shorthand features which embody the meaning given to environments. The final aspect of preceding discussion relates to language. It has been argued that language, as part of a symbolic system, is dependent upon culture and that symbols are learned throughout childhood. The aspect of imagery discussed relates to the symbolic role of language for it has been argued that connotative meaning is an important aspect of environmental imagery which has been neglected.

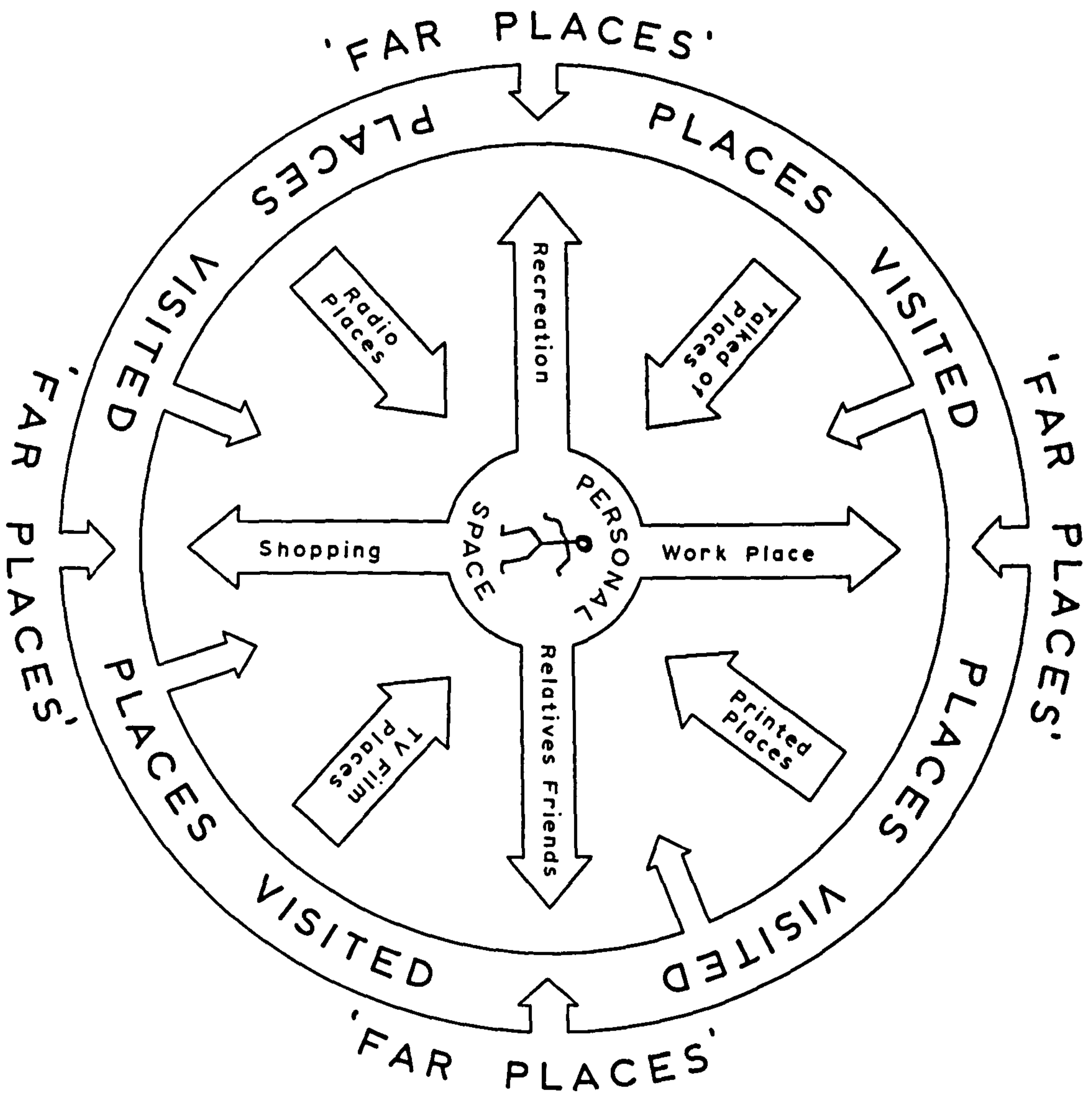
It has been shown that there are two distinct approaches to the study of urban imagery. The more common approach has focussed upon images of the immediate, concrete environment. It is a structural approach in which the relationship between components of the individual's image and the city is revealed through the construction of mental maps whose separate features correspond to features in the urban environment. The alternative approach advocated here considers the image of the city at a higher level of abstraction being concerned with the meaning and character of the city as a whole. As such, work is concerned with the symbolic aspects of urban imagery revealed through the language people use about places. Thus, within Chapter Three and Four of the thesis, results have been presented which illustrate the language of place imagery. These results indicate the importance of inferential and affective connotation in environmental perception.

A Model of Place Imagery

From the results discussed in the last two chapters, it is evident that people can be induced to describe their images of the environment. A basic question emerges from these and other contemporary work: are

there qualitative differences in imagery which are the result of the type and availability of information? Two generalisations specific to geographical imagery have been discussed. For example, Lowenthal (1961) suggests that the individual knows more about his specific micro-area than about the rest of the world and secondly, that the group view of the world must include generalisation and stereotype whereas the individual image of his micro-area is more complex. Extending this, Goodey (1971) has been concerned with the communication of environmental information and approaches the question through a schematic representation of the perceptual places available to the individual (Fig. 7). This may be divided into three areas of informational complexity. The most detailed area is the personal space of the individual which includes all the environmental features and people associated with his behaviour within this micro-area. Secondly, there is a median area about which the individual may claim familiarity but is dependent also upon secondary sources of information such as the media. The most diffuse area is the 'Far Places', information about which is gained from secondary sources alone. The assumption is made that the images of these 'far places' will be vague, hazy and ill-defined (Goodey, 1971, pp. 5-9).

There has been very little work into the detailed structure of these various images. Therefore, on the basis of contemporary work and the previous work reported in the thesis, the model outlined below is an attempt to establish a framework as the basis for a large scale social survey into place imagery. It differentiates between types of images on the basis of the quality and quantity of information available to the individual. It is evident from empirical results not only that people are able to respond to place names with verbal descriptions but also that stereotyping is



After Goodey 1971

Fig. 7: The Perceptual Map of the Individual

common with places further away from the individual's reality. It may be remembered that responses to the 'Hull' concept in the SD test produced far less extreme than other, more idealised concepts. The images of places may be envisaged, therefore, as along a continuum. At one extreme is the image of the individual's immediate environment; at the other, vague impressions of many other places. The formation of these images is a function of the individual's past experience and cognitive sets. It is dependent upon a continuous process of information reception and assimilation. Information comes from direct experience of the place and numerous secondary sources - interpersonal contact, literature and other media sources, in addition to cultural traditions. Fig. 8 is a schematic representation of the model adapted for the purposes of a social survey. The main hypothesis is that for any given place, the images held by individuals will be dependent upon the information available to them about that place.

The first level of the model identifies three types of images along a continuum of information experience. The 'structured image' represents the character of the place expressed through the many-sided experience of its inhabitants. It will contain both inferential and affective connotations and - without entering into philosophical argument - is the closest approximation to 'reality'. It is expected that this structured image will diffuse gradually into the 'stereotyped image'. This image will be brief, biased possibly, and may contain distortion and over-simplification. In addition to these, a third image is proposed. The 'stylised image' incorporates the possibility of the over-emphasis of certain aspects of a place: its character, as perceived by certain inhabitants, may become stylised in the sense that certain favourable elements predominate.

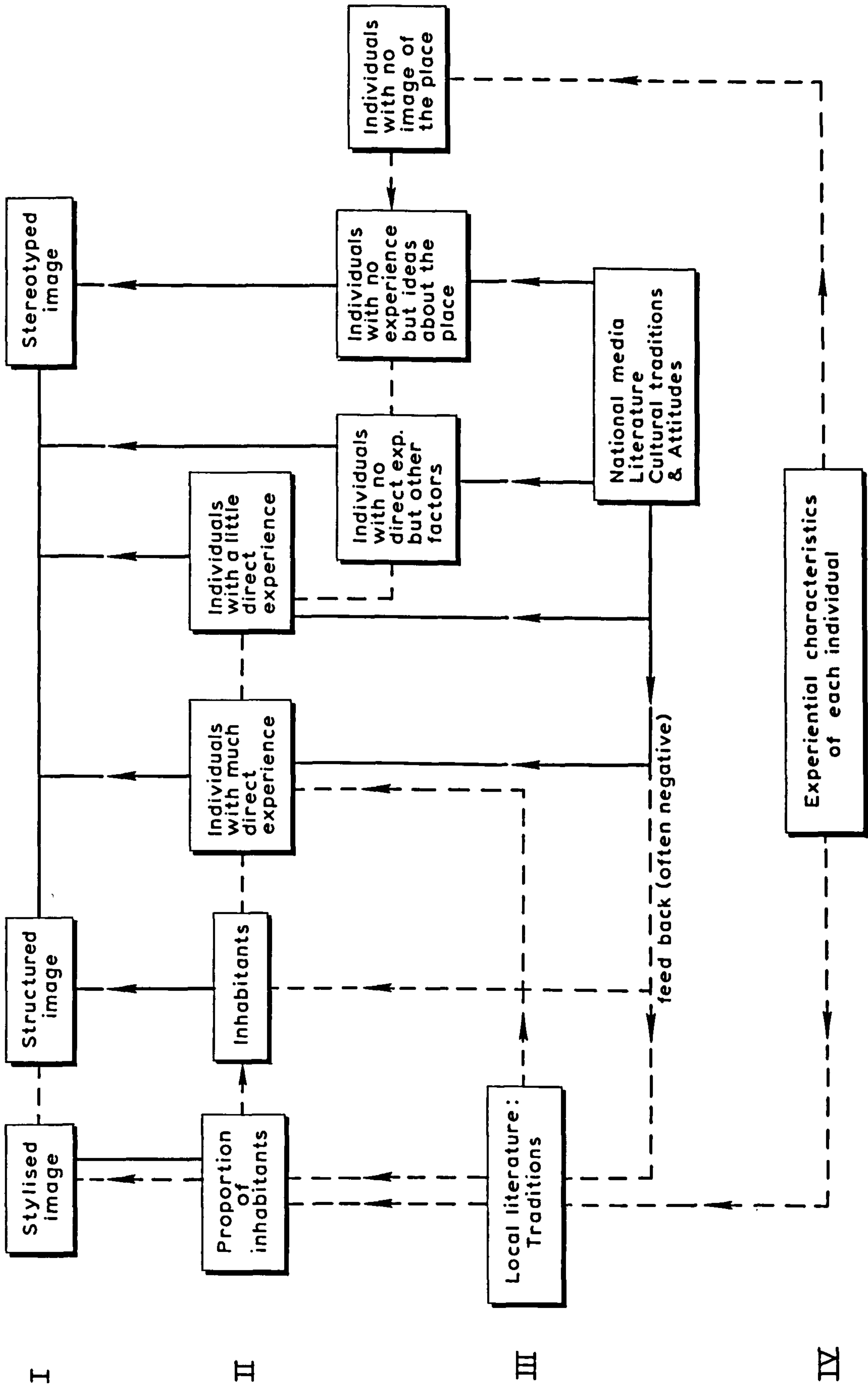


Fig. 8: A model of place imagery

The second level of the model suggests possible groups more likely to develop a specific image. The stylised image would be most often the characteristic image of people with long associations with a place involving, perhaps, the fullest development of affective connotation. Other groups may be differentiated on the basis of direct experience of the place. Those individuals with personal knowledge would be expected to hold a more structured image whilst those without personal knowledge of the place would be more likely to hold a stereotype. There is a possibility that certain social characteristics, such as higher educational status or environmental mobility may deflect from the pure stereotype. There may be individuals without any image of the place at all.

The third and fourth levels of the model indicate other major factors influencing place imagery. The media, customs and traditions are of obvious importance. It is probable that local literature and local attitudes would play an important part in the formation of stylised and structured images and these sources of information would operate at a regional level. Underlying this informational network and contributing directly to the stereotyped image would be the national media networks. These networks may have a negative feedback upon local groups. The fourth level of the model recognises the basic determining factors - the perceptual capacities of the individual, the exploration of which is beyond the scope of social survey.

To summarise the main features of the model for the purpose of a social survey: the dependent variable is the image of the place; the primary independent variable may be expressed as the experience of this place - assessed through the quality and quantity of information available to the individual. Other independent variables will include individual

characteristics such as sex, age, educational and socio-economic status, as well as previous environmental experience and mobility.

Methodology of the Social Survey into Place Imagery

The decision to use Kingston upon Hull as the stimulus for a survey into the meaning and imagery of place was based upon a number of considerations. The model requires that groups of people with variable amounts of direct and indirect experience of a place form the survey population. Hull is a relatively isolated city; due to its extreme easterly position, it should be relatively easy to locate people with no direct experience of the city. On the other hand, many families have lived in the city for generations and there is a strong sense of identification with the city among the inhabitants. Hull is large enough to figure consistently in the national media and, in addition, forms part of a national adage 'From Hell, Hull and Halifax, Good Lord preserve us' which suggests that the city may have certain cultural meanings. Finally, use of the city presents an opportunity for a controlled experiment into the development of imagery with the completion of the Humber Bridge, which has been adopted already as a symbol for the city.

The following discussion about the methodology of the social surveys is based on work by Hyman (1955), Selltitz, Jahoda, Deutsch and Cook (1970). It was decided to adopt a descriptive survey design in preference to an experimental design. There were several reasons to support this decision. A major consideration is that the experimental survey requires a more substantial theoretical foundation whereas the descriptive survey allows

a more flexible approach in terms of the definition of the independent variables; the basic aim of the descriptive survey is the precise measurement of one or more dependent variables (Hyman, 1955). Unlike the experimental survey which should have a small, homogeneous sample, the descriptive survey is most successful with a large and heterogeneous sample. Since the purpose of the descriptive survey is to illustrate the extent of the phenomenon under consideration and to illustrate possible independent variables for use in future work, it appears most suitable for the project.

It is proposed to discuss the sample design of the survey before a consideration of the questionnaires. The dependent variable is the image of the city and the main hypothesis is that the quantity and quality of experience will determine the nature of the image, thus people with direct experience of the city will have an image which is distinct from that held by people with indirect experience of the city. The problem facing the sampling design was to locate groups of people with varying amounts of direct and indirect experience of Hull. An initial decision was made to undertake two surveys, one inside the city of Hull and the larger in other parts of the country. It was felt that Scotland and Wales should be excluded since these countries have different cultural values and traditions which would present increased difficulties in subsequent analysis. The larger survey will therefore be called the 'English Survey'. The Hull survey aimed to explore meaning and imagery among the inhabitants, to discover the detailed structure of the city's imagery and identify possible stylised elements. The English survey was designed to measure external images of the city, ranging from people with direct experience of the city to those expected to hold pure stereotypes about Hull.

A stratified random sample design was chosen for both surveys. Stratification tends to reduce the standard error of the sample and requires a smaller sample than simple random samples (Stuart, 1962). It also allows partial control of certain variables in the survey design. Stratification is a common feature of geographical area surveys because, as Rodgers suggests 'using as the basis for stratification a framework of geographically rational subareas, it is likely to yield both a technically better sample and one which is geographically more meaningful'. (Rodgers, 1970, p. 142).

The Hull survey was the more simple sample design. The city had a population of 348,243 in 1971 and for the purpose of the survey, the population was defined as 'all individuals over 18 within the boundaries of the city and the surrounding suburbs of Hessle, Anlaby, Willerby and Cottingham'. A simple random sample of the inhabitants was rejected in favour of a stratified design. To ensure an adequate cover of the various physical and social environments within the city, a certain number of respondents were to be drawn from each ward of the city (Fig. 9). The ward division was considered preferable since the last social area analysis was based on 1966 data (Wilkinson et al, 1971) and the survey was to be completed in 1973.

The design of the English survey sample presented greater problems. It would have been possible to design a sample in which points were located by a co-ordinate grid network and a table of random numbers. However, a stratification which controlled at least one of the independent variables would be more effective. The final design stratified the English sample by distance away from the city. Certain arbitrary distances were selected: 40, 80, 160, 240, 320 and 400 kilometres from Hull. The 40km.

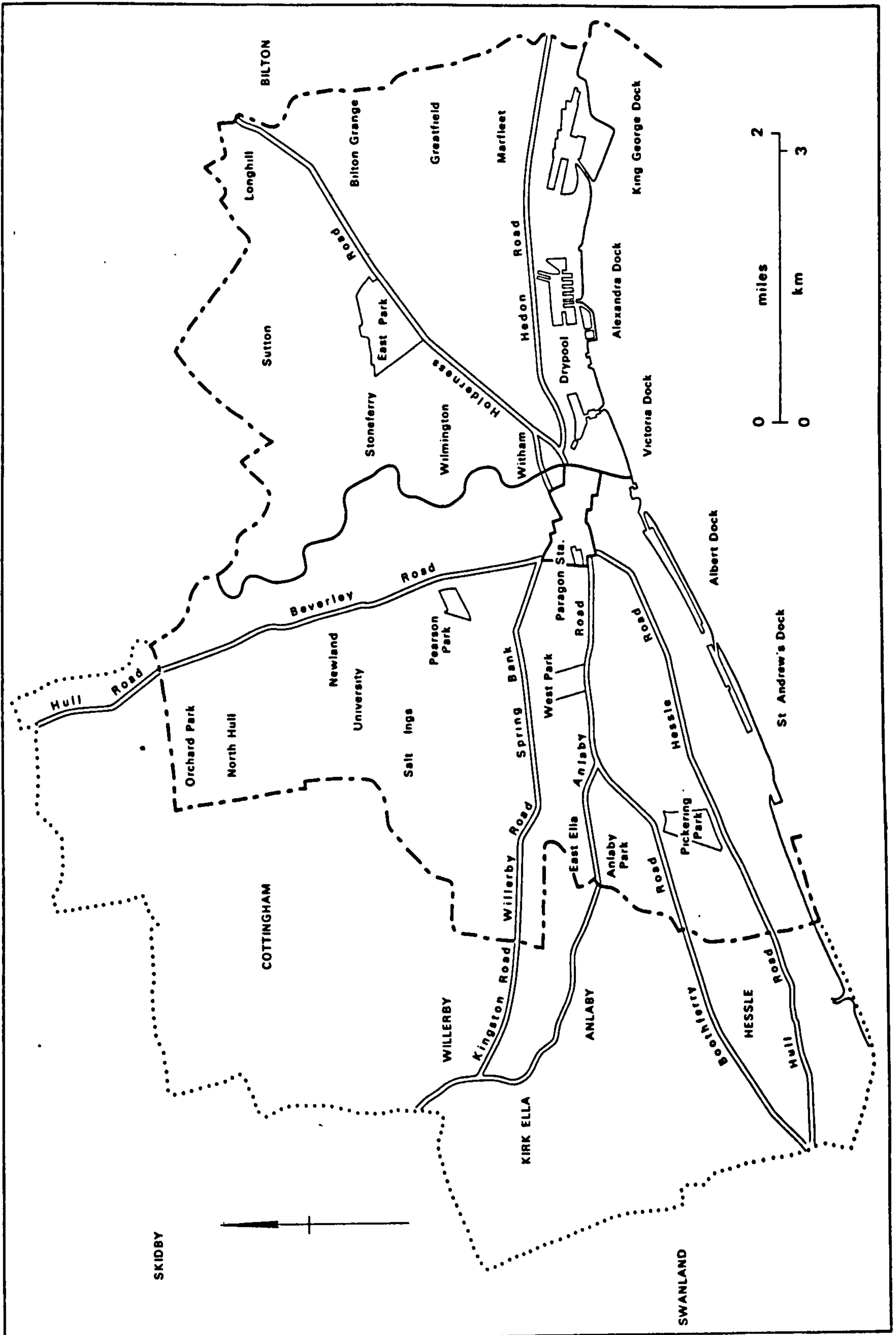


Fig. 9: A map of Hull showing the wards of the city (After Wilkinson et al, 1971)

distance was found to be necessary to locate the population who use the city regularly. Having defined the means of stratification which, it was hoped, would at least partially control the experience variable, the problem was to devise a scheme which would provide adequate cover of the country. It was argued earlier that geographical area and environmental experience would be important independent variables in the formation of place imagery. These two variables could also be controlled to a certain extent by arranging sample points along axes originating from Hull. Such axes would guarantee an equal representation unlike a random number grid.

Six axes were selected, approximating to the points of the compass - north, north west, west, south west, south and south east. The sampling design is shown in Fig. 10. The stratification produced a total of twenty-seven sampling sites and a variety of suburban and urban settlements. These included five market towns such as Sleaford in Lincolnshire and Okehampton in Devon; suburban settlements such as Coleshill on the outskirts of Birmingham and Ruislip, one of the outer London suburbs; among the large urban areas were Berwick-upon-Tweed, Leeds and Gloucester. A full list of the sampling sites is given in Table 12.

The size of the samples was set tentatively at six hundred interviews for the English survey and two hundred interviews for the Hull survey. There is no definitive method for the assessment of required sample size although it may be estimated from potential data requirements. Samples of between fifty and one hundred correspond to an approximately normal distribution which is necessary for certain inferential statistics (Hansen et al, 1953). Another indicator is the frequencies required in each cell of the data matrix (Siegel, 1956). Each sample is composed of a number of respondents who reply to each question.

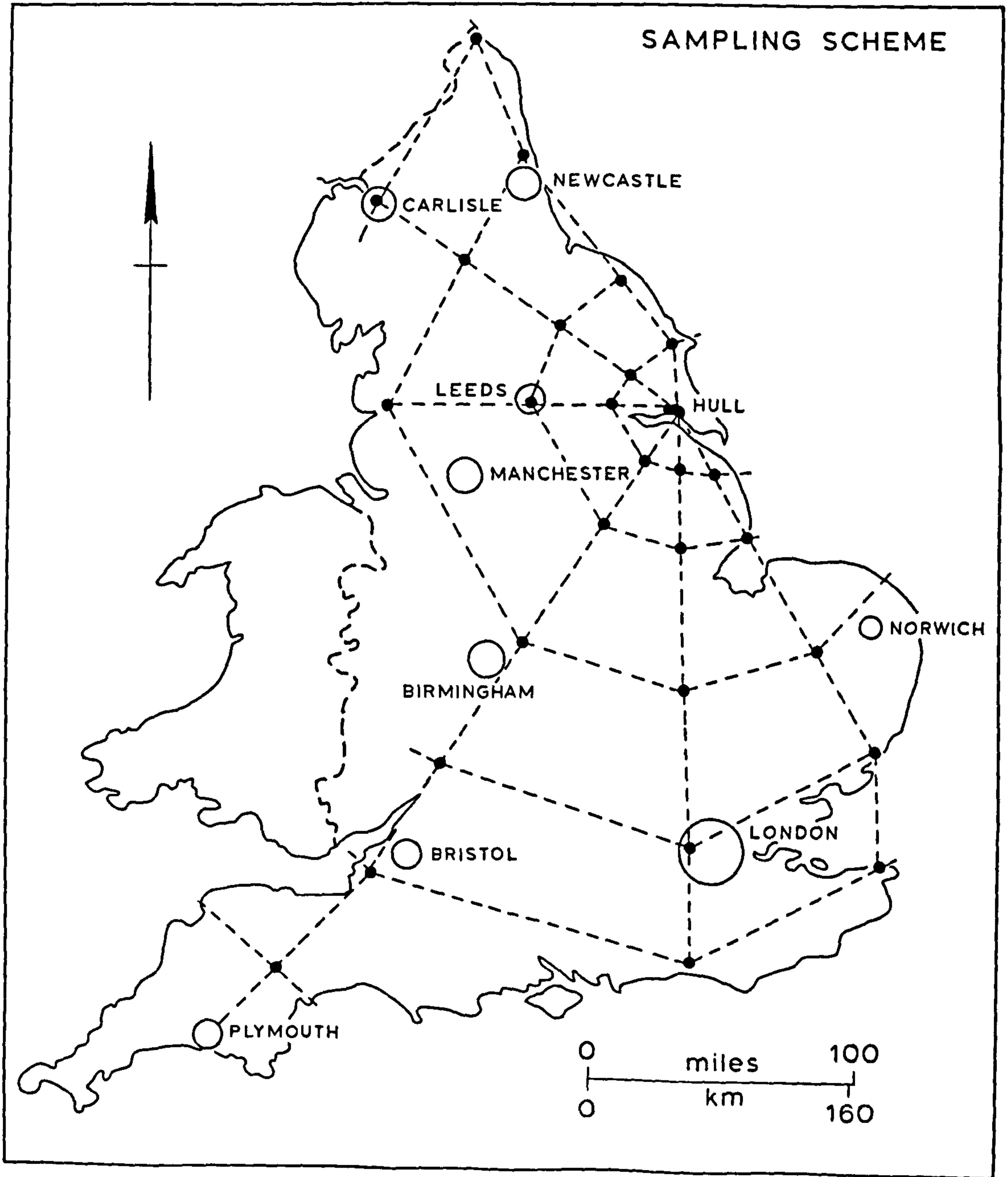


Fig. 10: Sampling design for the social surveys.

Table 12. English survey sample sites

<u>Axis</u>	<u>Radius</u>	<u>Sample Site</u>	<u>Site Number</u>
North	40 km	Burton Fleming, East Yorkshire	01
	80 km	Sneaton and Stainsacre, North Yorkshire	05
	160 km	Cresswell and Ellington, Tyneside	09
	240 km	Berwick-upon-Tweed, Northumberland	10
North West	40 km	Fangfoss, near York, East Yorkshire	02
	80 km	Stamford Bridge, Yorkshire	04
	160 km	Stainmore, Westmorland	07
	240 km	Carlisle, Cumberland	08
West	40 km	Hemingborough, near Selby, Yorkshire	03
	80 km	Leeds, Yorkshire	06
	160 km	Preston, Lancashire	11
South West	40 km	Corringham, Lincolnshire	12
	80 km	Mansfield, Nottinghamshire	25
	160 km	Coleshill, Birmingham, Warwickshire	24
	240 km	Gloucester, Gloucestershire	23
	320 km	Bleadon, Somerset	22
	400 km	Okehampton, Devon	21
South	40 km	Middle Rasen, Lincolnshire	13
	80 km	Sleaford, Lincolnshire	16
	160 km	Kimbolton, Huntingdonshire	17
	240 km	Ruislip, Middlesex	26
	320 km	Ferring, Sussex	20
South East	40 km	Grimsby, Lincolnshire	14
	80 km	Wainfleet, Lincolnshire	15
	160 km	East Wretham, Norfolk	18
	240 km	Shotley, Near Ipswich, Suffolk	19
	320 km	Deal, Kent	27

For the purposes of analysis, every cell of this matrix must be complete. Given this, certain statistical techniques have minimum requirements. It is anticipated at this stage of the project that the predominant statistics used in the analysis will be chi-square as a measure of frequencies and Yules Q as a non-parametric statistic of correlation. Chi-square has a minimum requirement of five characters per cell, preferably ten (Spratt, 1964). Yules Q is insensitive to sample size but for safety in inference it is advisable to have a sample of at least fifty (Davies, 1971).

To assess the possible breakdowns of the data matrix, the broad outlines of the analysis defined at this stage were that:-

1. The total Hull sample would be classified and then broken down into groups dependent upon the independent variables. These were not expected to exceed four subdivisions.
2. The total English sample would be classified and data would be broken down into various stratifications for analysis:
 - i) Radii in terms of distance from Hull, in which case the 40, 80 and 160 km radii would each contain six sample sites, the 240 km radius would have five sites and the 320-400 km radii would have four.
 - ii) Regional groupings; the sample sites would be divided into three groups in which case The North would have eleven sites, the Midland group would have nine and the South would have seven sites. A uniform sampling fraction for each site was not adopted since samples could be weighted during analysis. The final decision about both survey sample sizes was not taken until after the pretests of the questionnaires.

Two questionnaires were required for the surveys. It was decided at the outset that the data would be collected by interviewers rather than

by postal questionnaires. The postal survey is cheap and therefore attractive for a survey design which would require considerable travelling and expense, but the response rates from such surveys are generally low (Oppenheim, 1966). This figure would be considerably higher for a topic without obvious relevance to the respondent. There are biases in the use of interviewers but these were to be controlled to an extent. Interviewers were to be used for a proportion of the interviews but the bulk were to be completed by the author, thus holding bias constant.

Copies of the questionnaires are given in Appendix 4. They contain a mixture of open and closed questions, two psychometric techniques and a blank map of Great Britain. One of the main considerations in the design of both was conciseness. Cochran makes the point that surveys often contain a battery of questions only marginally relevant to the topic and argues that 'an overlong questionnaire lowers the quality of the answers to important as well as unimportant questions'. It was found that during the pilot survey in East Anglia there was a considerable loss of interest after half an hour of interview.

The questions in the English survey questionnaire (Appendix 4a) are arranged in several obvious sections. Questions 1-9 concern the residential mobility and environmental experience of the respondent. The preference questions were designed to assess the possible effects of this experience on spatial preference and this evaluation was also picked up in questions 21-22. Questions 10-19 were concerned with the sources of information available about the city and the type of experience the individual may have had with the city. Question 20 is open-ended and is comparable with the projective sentence 'I think Hull is ...' used in the East Anglian survey.

The second page of the questionnaire contains two sections to be completed by the respondent. The first is an adjectival checklist (hereafter ACL) containing 48 stimulus words about the city. The respondent checks as many as he wishes. There is a danger of enforced response to a question such as this, since the results are dependent solely upon the content of the ACL (see Katz and Braly, 1933). The words incorporated in the ACL were chosen from three sources:- the place response test; the East Anglian survey; and from open-ended interviews with local people about the character of the city. Respondents were asked to indicate whether the words they selected had favourable, neutral or unfavourable connotations. The second section contains several semantic differential scales. There are thirteen scales drawn from the evaluation and dynamism components identified earlier. The scales included are those with the highest loadings.

Profile variables were kept to a minimum. It was not considered necessary to question respondents about marital status or household characteristics, since they are not likely to be important variables. Income questions to determine the socio-economic status of respondents were not included since it was felt that these may jeopardise the interview. So socio-economic status was assessed through a combination of the respondent's terminal age of education, any further training and present occupation. In the case of female respondents, the occupation of the head of the household was requested when appropriate.

Turning to the Hull survey questionnaire (Appendix 4b), it may be seen that the two questionnaires are directly comparable in a number of ways. The profile data, the ACL and the semantic differential scales are unchanged. Similarly, the first section of the questionnaire

(questions 1-8) is concerned with the residential mobility, environmental experience and preferences of the respondent. The questionnaire was designed to measure the inhabitants' image of their city and their perception of outsiders' impressions of the city. The remainder of the schedule is concerned specifically with these aspects. There was an attempt at definition of the meaning of the city expressed through individual identification with it (questions 13-19). This progressed into an assessment of the sources and the quality of information about the city given through the media. The final section is devoted to the inhabitants' image of the city.

The sampling frame used to contact respondents needs to be complete, accurate, up-to-date and convenient to use (Blunden, 1966). Two of the most common frames used in social surveys in Britain are the rating records and the Register of Electors (Moser, 1958). The Register of Electors was chosen as the sampling frame for both surveys. Although four months out of date when it becomes operational (February), the Register provides the most dependable cover of the population defined by the surveys, i.e. all individuals over 18 years old. There are slight problems of duplication with the Register but it was felt that practical considerations - accessibility in all parts of the country and simplicity of use - justified its selection (Gray, 1970).

Individuals selected for interviews were to be contacted by an introductory letter within which confidentiality and anonymity were assured. The letter indicated when the interviewer would call. Copies of the two letters used are given in Appendix 4c. The letters were designed to reduce the number of straight refusals. Non response represents a source of bias in the survey results and needs to be kept as low as possible.

Apart from refusals, selected respondents may be unsuitable for interview; they may be people who have moved away or are away on holiday, etc. It was decided that, given failure to contact respondents a substitution of the next door neighbour was acceptable.

The pretest of the English survey questionnaire was carried out during April, 1972. Initial trials with the schedule failed to reveal any gross miswording of questions or difficult techniques, so two of the twenty-seven sites were selected for a pretest. They were Ferring on the South coast (one of the furthest points from the city) and Sleaford, along the same axis but only 80 km from Hull. The main purpose of this pretest was to approximate numbers of people falling into groups with differing amounts of experience of the city. Using random number tables, twenty people were selected from the Electoral Register in each site. There were no refusals and all respondents were contacted. The proportions falling into each experience group were satisfactory (see Table 13); even at Ferring 85 per cent of the sample were able to respond to question 20, giving some description of the city.

Table 13. Percentages in each sample with information about Hull

		<u>Sleaford</u>	<u>Ferring</u>
Q.10	Direct experience of Hull	45%	15%
Q.14	Information from friends	50%	20%
Q.17	Information from the media	75%	20%
Q.20	Able to give verbal descriptions	95%	85%

On the basis of these results, it was decided to go ahead with the English survey as planned. Interviewing was completed by November, 1972. Seventeen sites were completed by the author and interviewers were used for the other ten. These interviewers were students from the Geography

Department (University of Hull) with previous interviewing experience, who lived in the areas concerned. All attended a briefing and each was issued with an instruction sheet.

The pretest of the Hull survey schedule was carried out in early spring, 1973. Respondents were found to be very interested in the topic and were willing to discuss it at far greater length than anticipated. Each interview took up to an hour to complete. There were no problems with the questionnaire and the quality of response was very satisfactory. On the basis of these twenty interviews, it was decided that two hundred interviews would be sufficient for subsequent analysis. Interviewing was completed by June, 1973. One hundred interviews were completed by three professional market research interviewers and one hundred by the author.

CHAPTER SIX. Images of Kingston upon Hull - Results

'The thing which struck me most about Hull was the lack of any sense of pressure, one can scarcely believe one is in a city at all. It is as though all the natural intensity of urban life has been mysteriously dispersed. The city is full of silent avenues and squares. Perhaps it is this very spaciousness which gives Hull a muted quality ... Hull, to me, is a becalmed place, a sprawl of non-city on a broad and silent river.'

Graham Turner, 1967, p. 196

It is proposed to present the results from the Hull survey and the English survey in this chapter. It is divided into three parts: the first provides details from the open and closed questions used in the surveys and is thus concerned with the images and information about the city, in particular; the results from the adjective checklists are presented in the second part of the chapter; and the meaning of the city as measured by the semantic differential is presented in the third part.

The response rates for both surveys were surprisingly good and must be due in part to the use of an introductory letter which reduced straight refusals to a minimum. As noted in the preceding chapter, it was decided to allow replacement when the selected household was away or unsuitable for interview. Six replacement interviews were made during the Hull survey: the response rate was ninety per cent, giving a total of one hundred and eighty completed interviews. In the English survey, there were forty-eight replacement interviews spread over all sample sites. Out of a total of five hundred and ninety-four interviews there were seventy refusals, giving a response rate of eighty eight per cent. The stratifications of the English sample were completed with the following populations:-

- | | | | |
|----|------------------|-------------------------|-----------|
| 1. | 40 km group | (sites 1,2,3,12,13,14) | : N = 120 |
| 2. | 80 km group | (sites 4,5,6,15,16,25) | : N = 118 |
| 3. | 160 km group | (sites 7,9,11,17,18,24) | : N = 115 |
| 4. | 240 km group | (sites 8,10,19,23,26) | : N = 94 |
| 5. | 320-400 km group | (sites 20,21,22,27) | : N = 77 |

In terms of regional stratification, the sample population breaks down in the following way:-

- | | | | |
|----|--------------------|-----------------------------|-----------|
| 1. | The North region | (sites 1 through 11) | : N = 220 |
| 2. | The Midland region | (sites 12 through 18,24,25) | : N = 174 |
| 3. | The South region | (sites 19 through 23,26,27) | : N = 130 |

The questionnaire data was analysed using the University of Hull 1900 series computer; the main program used was ECXP, the social survey analysis package developed by the University of Essex.

The profile data of the survey populations is illustrated in Figs. 11 to 16. Bar graphs show the breakdown of the English sample into stratifications and also allow comparison with the Hull survey profile data. The English sample has equally representative proportions of male and female respondents and discrepancies between the subgroups are small (Fig. 11). This is not true for the Hull population, however, where the proportion of females is higher (60%).¹ The samples were classified by age: 18-35, 36-50, 51-65 and over 65. The groups (Fig. 12) are of similar proportions although the 320-400 km group shows a higher proportion of elderly people, thirty-eight per cent of the sample are over fifty years old.

Details of the educational status of respondents, defined by terminal age of education and type of further training are given in Fig. 13. The 320-400 km group and the South region contain a higher percentage of people of higher educational status, whilst the Hull sample contains a lower percentage of people of higher educational status: only twenty-eight per cent of the Hull sample completed schooling after sixteen. The educational index was combined in analysis with occupational status to provide a measure of socio-economic status. Occupations were classified initially under the Hall Jones index of occupational status (Oppenheim, 1966). These were reduced and combined to produce four socio-economic groups: professional and managerial (1); other non-manual (2); skilled manual (3), semi-skilled and unskilled manual (4). The proportions

¹ This reflects a greater proportion of afternoon interviewing.

(Fig. 14) within each group are comparable across both surveys although there is a lower percentage of manual workers in the 320-400 km group.

Figure 15 provides a comparison concerning length of residence between the two survey populations. It may be seen that the Hull population is considerably less mobile than the population of the English sample. There are pronounced differences between the two samples (Table 14). This provides support for the selection of Hull as the stimulus city, since it has a large indigenous population which allows adequate exploration of the stylised imagery.

Table 14. Contrasts in mobility between the Hull and English surveys

<u>Length of residence</u>	<u>Hull sample</u>	<u>English sample</u>
0 to 5 years	7% (13)	19% (101)
6 to 10 years	2% (4)	14% (75)
More than 10 years	31% (55)	26% (137)
All their life	60% (108)	40% (211)
	N = 180	N = 524

It was proposed in Chapter Five that the quantity of information available to the individual will affect the type of imagery developed. The English survey was stratified in order to produce representative groups of people with variable amounts of direct experience of Hull and secondary information. The outcome of the survey was that fifty-seven per cent had no direct experience of the city. It may be seen that the stratification provided an effective means of sampling along the continuum. Within the 40 km radius, eighty-three per cent of the sample had direct experience of the city and this decreased to fifteen per cent in the 320-400 km radius group. There is a significant correlation between distance from the city and personal knowledge of it ($Q = +.75$, significant

($p \geq .035$)). It is possible to establish a 'local area' around the city, for seventy-two per cent of the sample with direct experience live within eighty kilometres of Hull. It may be seen from Table 15 that an important factor associated with the frequency of trips to Hull is distance away from the city: out of those who have visited the city within the last year, eighty-three per cent live within the local area. The greatest proportion of the sample living further than eighty kilometres from the city visited it more than five years ago. Of the people who have personal knowledge of Hull, eighty per cent spent less than one day on their last visit (Table 16). Within the 'local area', the greatest proportion were shopping (46%) whilst other factors were balanced between employment causes, visiting friends and relatives, and passing through the city en route to somewhere else.

Table 15. The English Survey: Local area and frequency of trips

<u>Date of last visit</u>	<u>Within 80 km</u>	<u>Over 80 km</u>
Less than 1 year ago	34% (54)	17% (11)
Between 1 and 5 years	33% (52)	28% (18)
Over 5 years ago	32% (53)	54% (34)
	N=159	N=63

Table 16. The English Survey: Local area and reasons for last trip

<u>Reasons for last visit</u>	<u>Within 80 km</u>	<u>Over 80 km</u>
In the course of employment	18% (29)	37% (23)
Visiting friends, relatives	17% (27)	31% (20)
Shopping	46% (74)	(0)
Passing through	18% (29)	31% (20)
	N=159	N=63

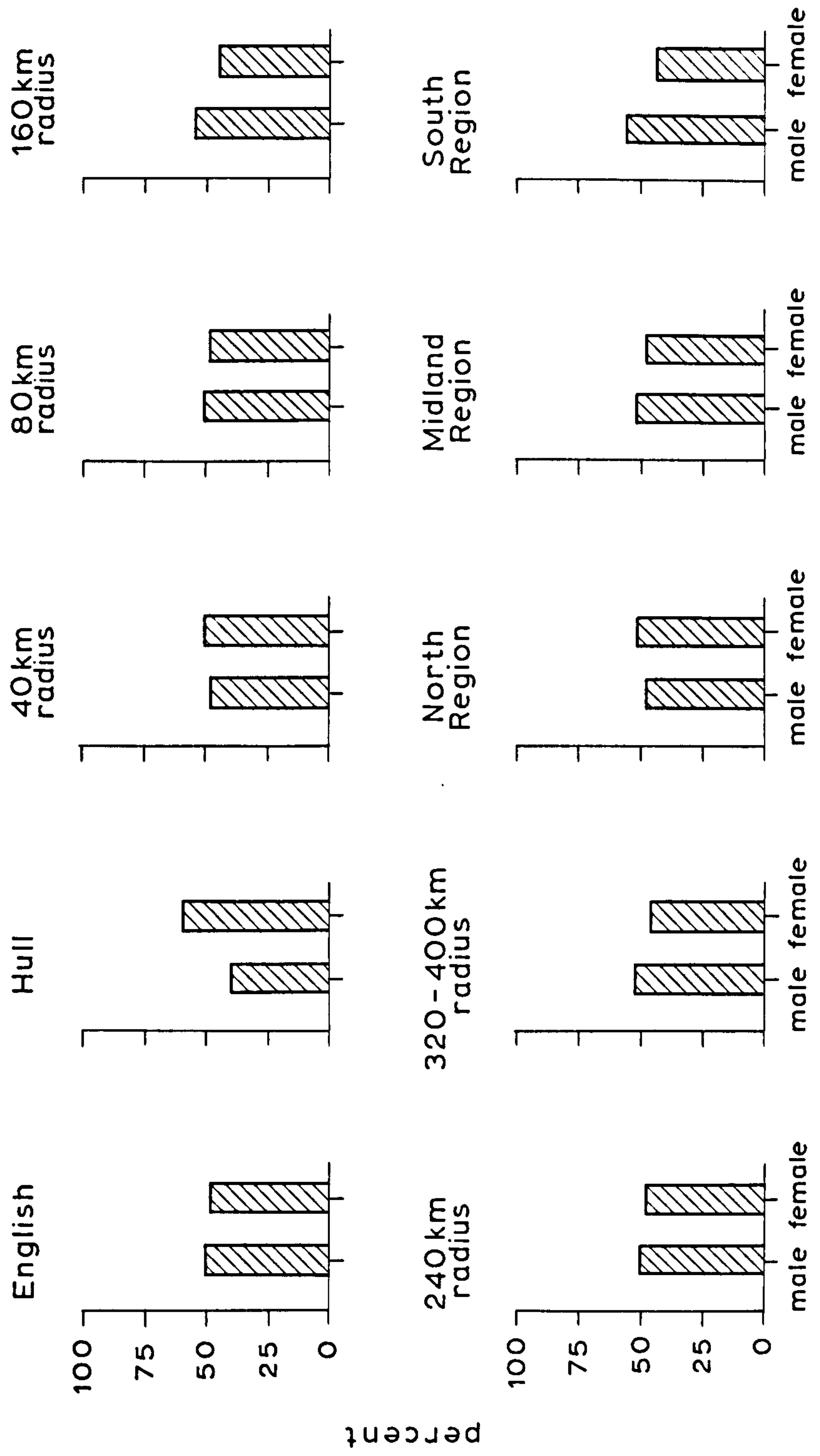


Fig. 11 Figures for sex proportions

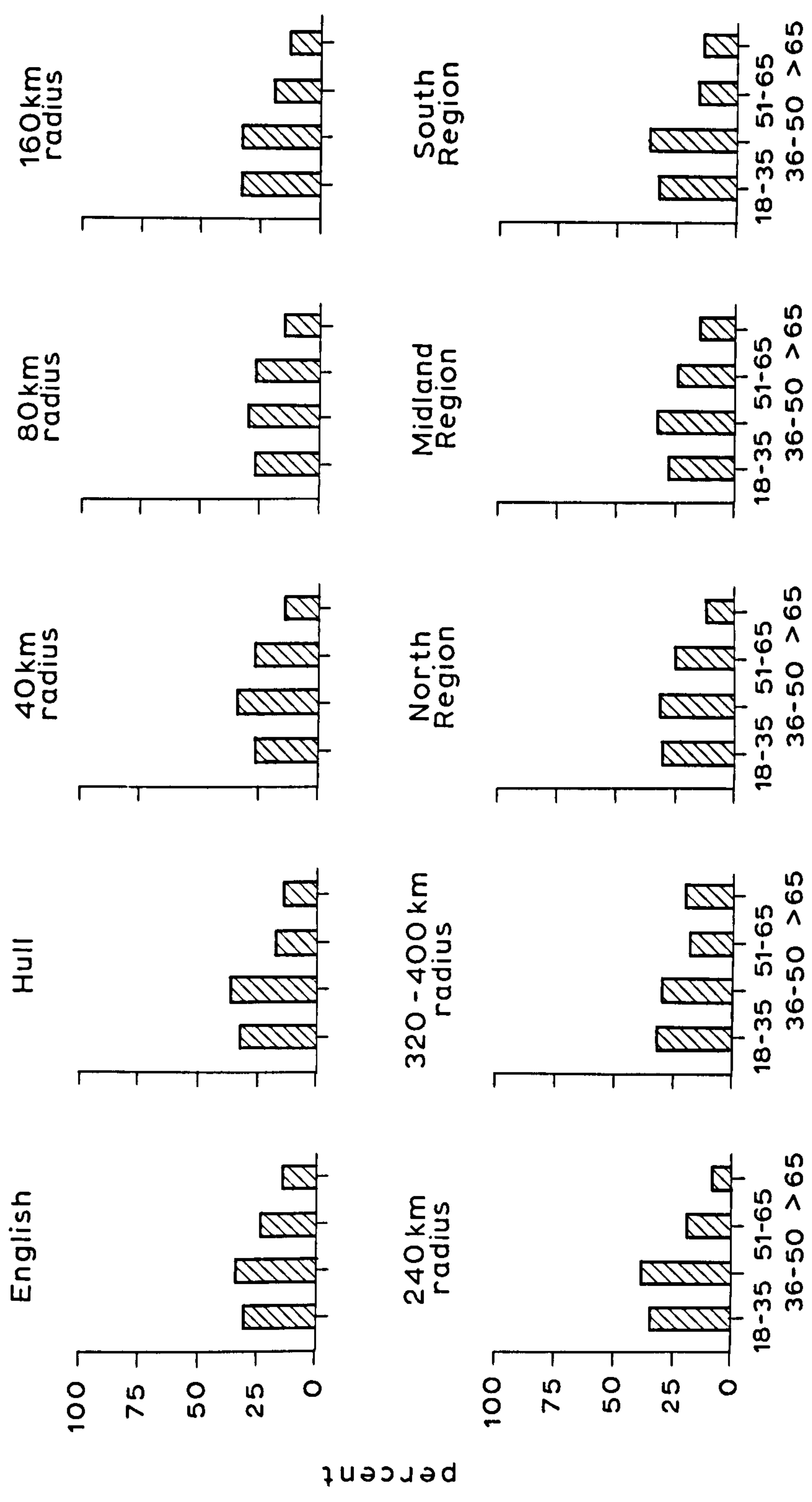


Fig. 12 Figures for age proportions

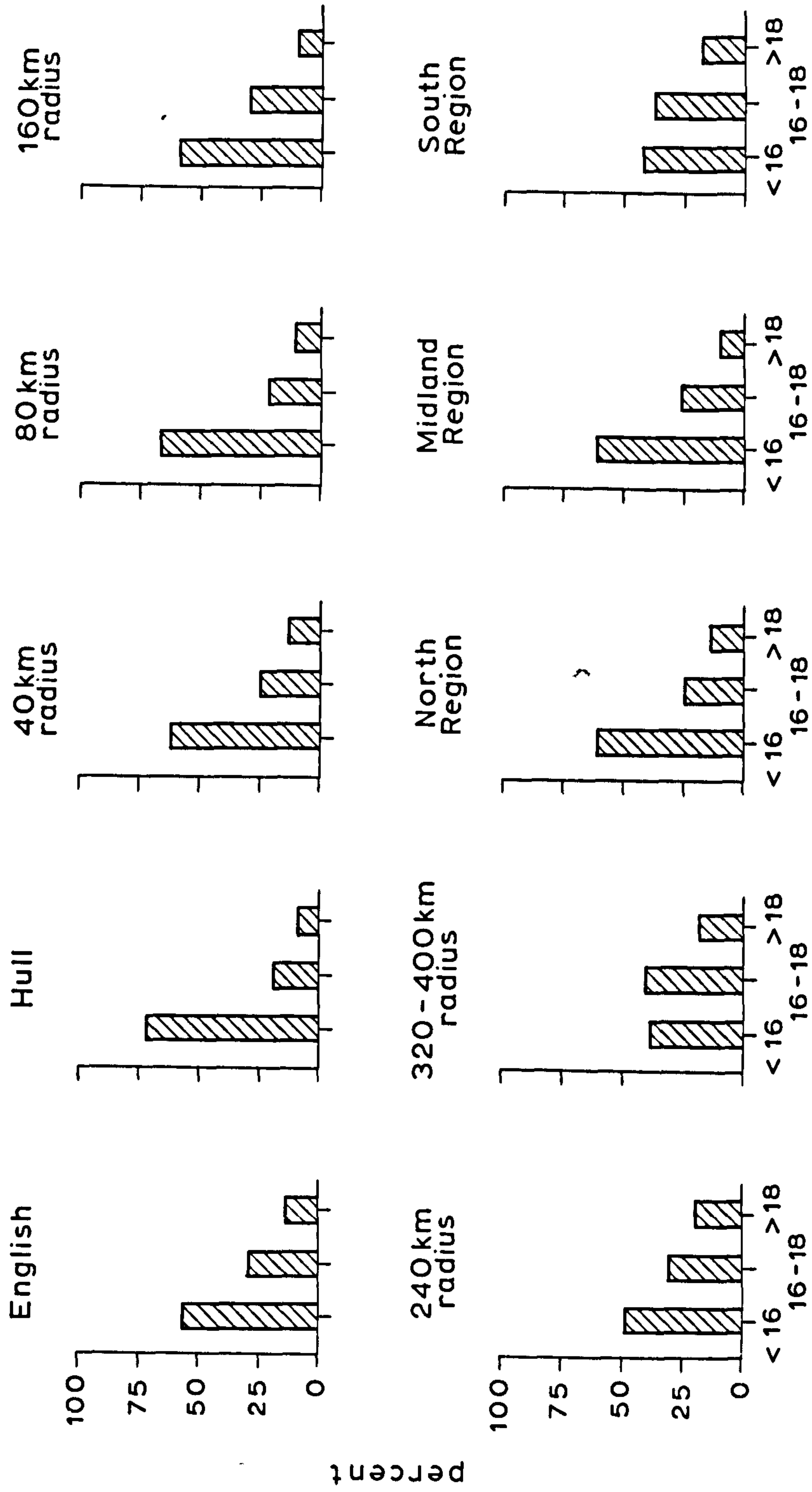


Fig. 13 Terminal age of education

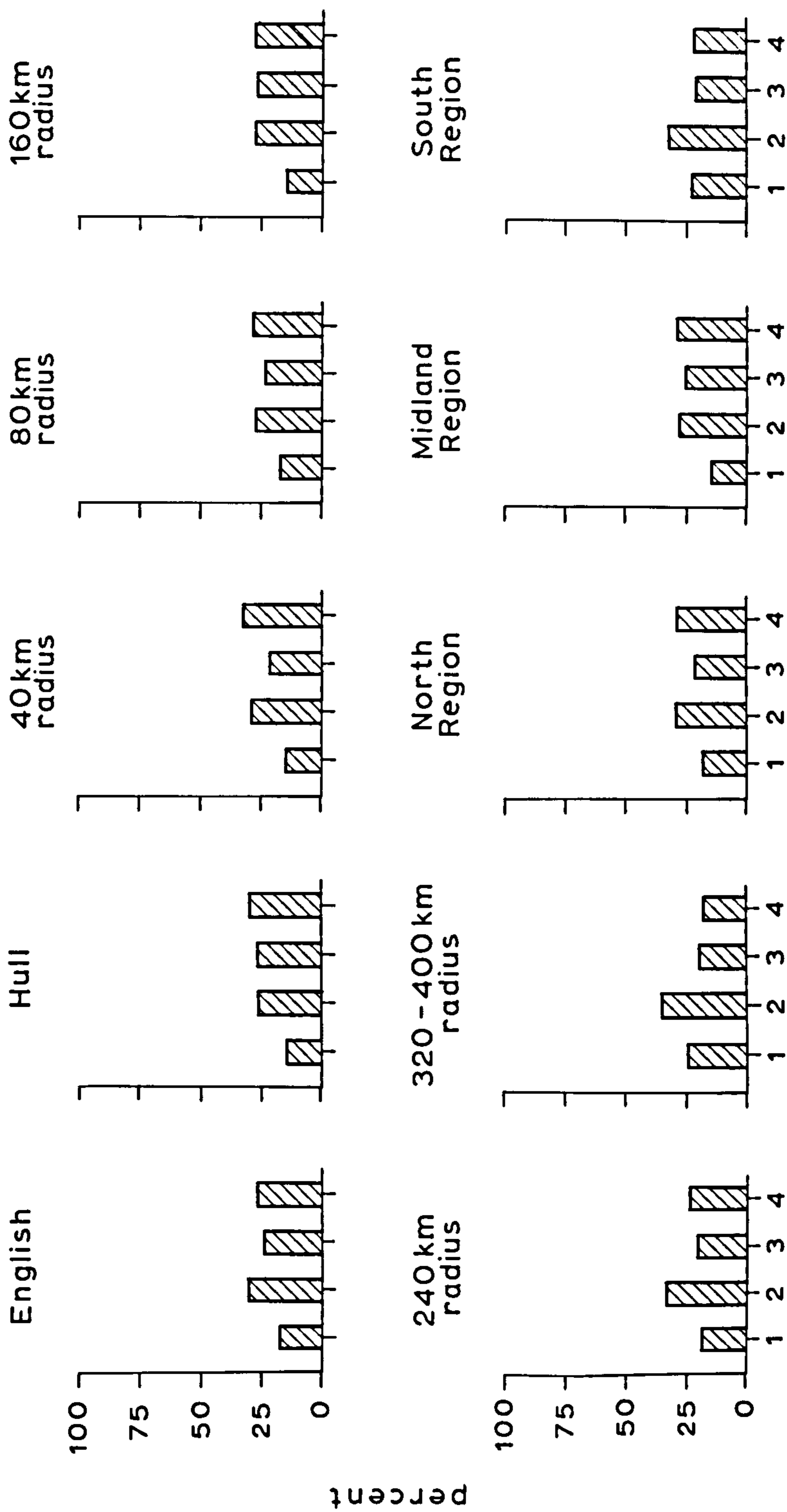


Fig. 14 Socio - Economic Groups

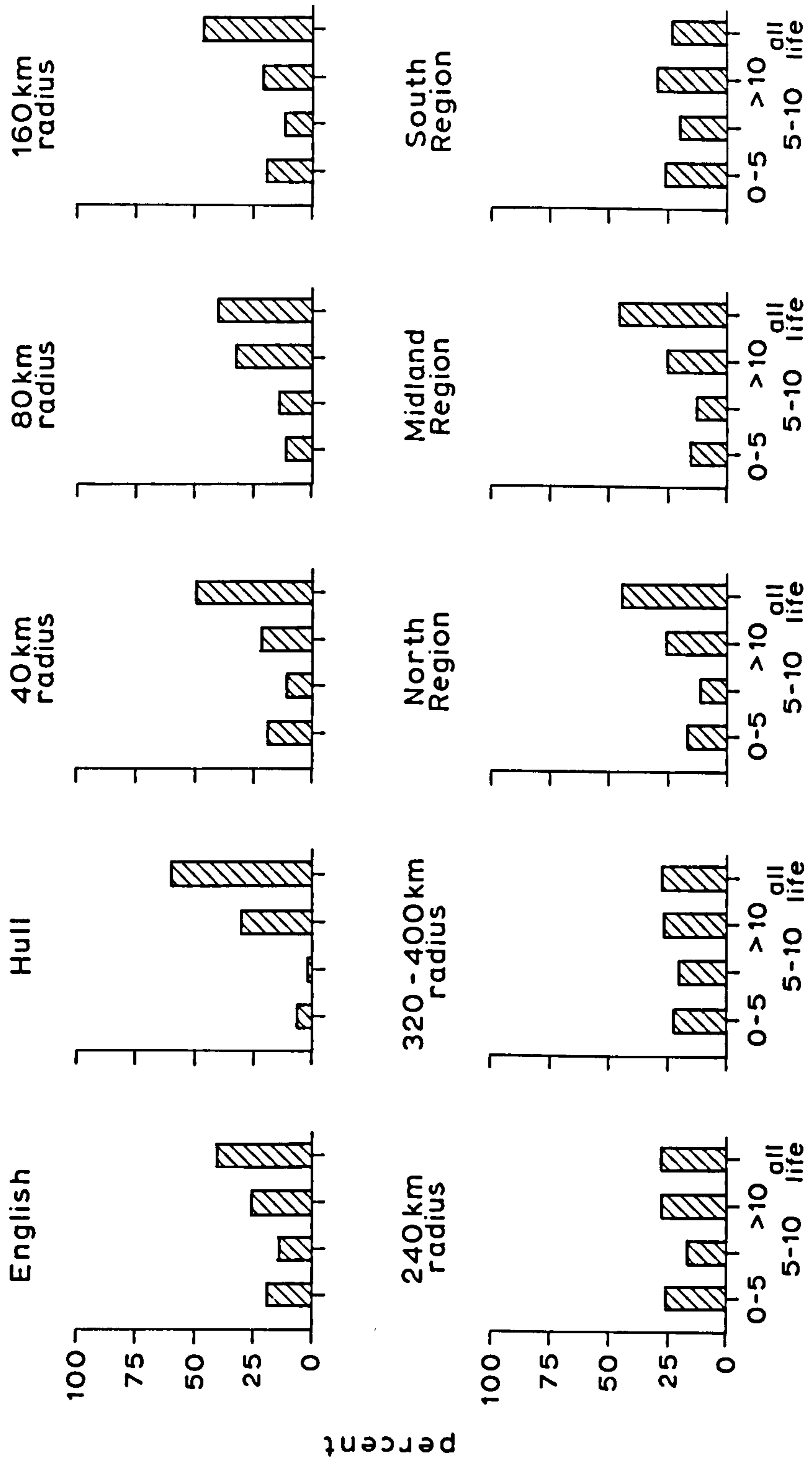


Fig. 15 Length of Residence

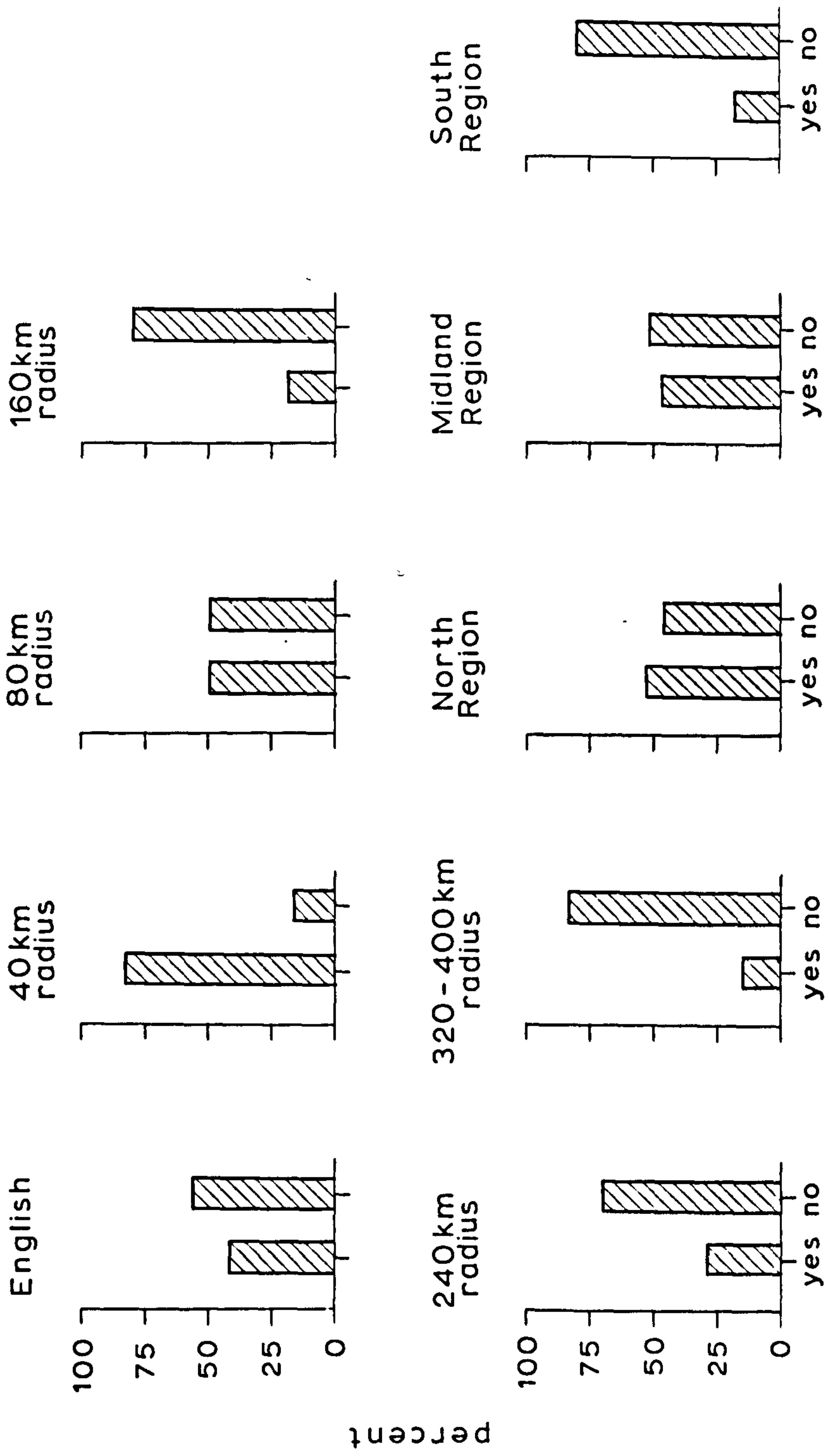


Fig. 16 Personal Knowledge of Hull

Free response imagery and sources of information about Hull

The results presented in this part of the chapter are concerned specifically with responses to the open and closed questions used in both questionnaires. They focus upon three aspects - the residential desirability of the city; the way people describe their impressions of Hull; and, finally, the information people have received about Hull. This includes their own personal experience of the city and secondary sources of information from interpersonal contact and from the media. Two points must be acknowledged at the outset. Firstly, the responses to these questions in the English Survey were very brief in most instances. Individuals were content with single word answers and were often unwilling or unable to elaborate upon these replies. Secondly, there was very little differentiation within sample responses in both surveys with the result that very few significant differences emerged from the analyses. Possible explanations for these responses will be discussed in the following chapter. The results given below have focussed upon the most fruitful aspects to emerge from the surveys.

a) Residential desirability of Hull

It has been argued that an expression of residential desirability or preference is at least partially an expression of the individual's image of the particular place. It is proposed initially, therefore, to consider opinions about Hull as a place in which to live.

The inhabitants of the city have a very high level of satisfaction with life in Hull. Several questions were combined to form a general index of satisfaction. Respondents were asked whether they liked living in the city; what their ideal environment in which to live would be; and, given the choice, would they like to move away from the city. The

response was overwhelmingly favourable. From Table 17, it may be seen that ninety-two per cent of the sample liked living in the city and that seventy-three per cent would not like to move. The consensus was that people liked the cleanliness of the city, its parks and gardens, its friendliness and closeness, and the willingness of the people to help one another. The isolation of the city was preferred - encouraging an independence of spirit although some thought that Hull was being ignored as a result. Out of the total sample, thirty-six per cent disliked nothing about the city; another thirty-five per cent were unhappy about specific planning decisions and the delapidated state of the docks;¹ ten per cent disliked the smell of fish. A little surprisingly, fifty-eight per cent of the sample consider Hull as their ideal place in which to live. This does reflect a difference within the Hull sample. Dividing the sample into two groups - 'Locals' born and bred in the city, from the migrants - it may be seen from Table 17 that whilst there is general agreement about satisfaction with the city, the migrants do not see Hull as an ideal place in which to live. The difference between the two groups is significant (chi-sq. 25.3, with 2 df., significant at 0.001 level). The percentage in the 'other' category in Table 17 includes places in the United Kingdom and abroad. The low preference given to these places by the 'local' population reflects a limited amount of environmental experience - twenty per cent gave their reasons for not wanting to leave as lack of experience of other places, and the strength of family ties and a sense of belonging to the city (45%).

¹ The old town in Hull has been under development plans for several years. Despite various pressure groups such as the Civic Society proposals, little has been done to prevent decay and planning blight.

Table 17. The Hull Survey:- Residential satisfaction with the city

	<u>Total sample</u>	<u>'Local' group</u>	<u>'Migrant' group</u>
Like living in Hull	92% (160)	92% (96)	92% (64)
Do not wish to move	73% (127)	77% (80)	68% (47)
Hull is the ideal place in which to live	58% (100)	76% (70)	23% (25)
Yorkshire	20% (35)	24% (25)	21% (15)
Other places	19% (33)	7% (8)	36% (25)
(Incomplete answers)	(7)		
	<u>N=173</u>	<u>N=104</u>	<u>N=69</u>

Table 18. The English Survey:- Reasons for the rejection of Hull as a potential home

	<u>Urban population</u>		<u>Rural population</u>	
	<u>21-50</u>	<u>over 50</u>	<u>21-50</u>	<u>over 50</u>
Prefer present home	6% (22)	10% (35)	12% (40)	16% (58)
Fishing environment of Hull	14% (49)	7% (25)	6% (20)	3% (12)
Industrial environment of Hull	11% (37)	6% (20)	5% (16)	4% (15)
			others = 37	
			<u>N = 386</u>	

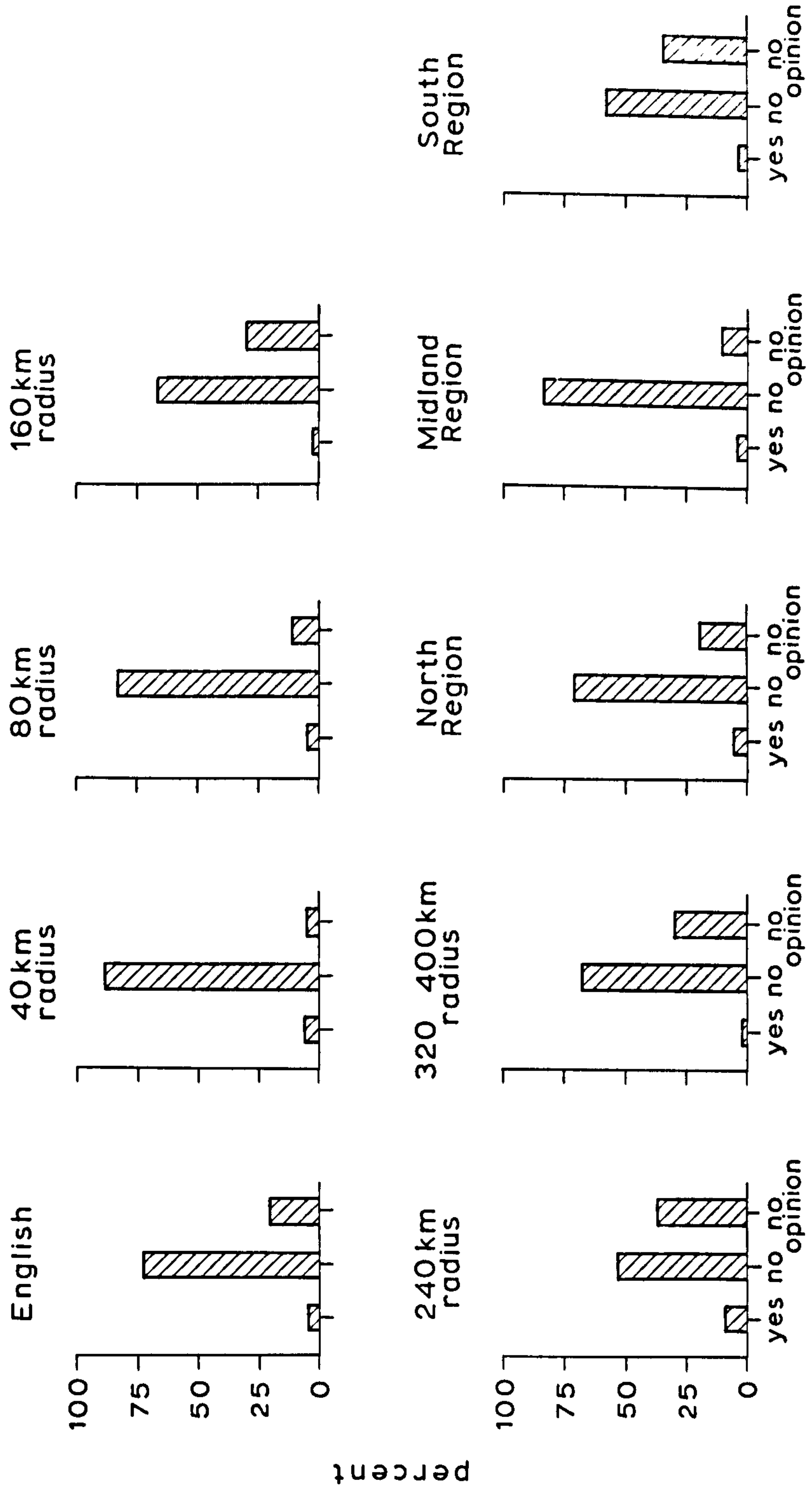


Fig. 17 Residential desirability of Hull

This favourable attitude towards the city is not evident in the English sample. Asked if Hull was a place in which they would like to live, over seventy-three per cent said they would not like to live in the city (Fig. 17). People were asked to give reasons for this rejection of the city. These were associated with two factors: a basic satisfaction with their present environment (44%) and secondly, an unfavourable opinion of Hull itself. Details are given in Table 18, which shows that the desire to stay in the present environment was a feature associated particularly with the rural population and the elderly. Unfavourable impressions of the city concerned fishing and its associated industries, which led to descriptions of a north-east coastal environment - cold, damp and smelly (28%); the industrialised nature of Hull, described in terms of dirt, bleakness and pollution (24%); and a general dislike of the noise and traffic of a big city (4%).

b) Free response imagery

In the English sample, responses to the open-ended questions about the city were brief and dominated by the function of Hull as a fishing port. Out of the total sample, only six per cent had no image at all in response to the question 'What comes to mind when you think of Hull?' Over sixty per cent of the sample associated docks, cranes, ships, fish and trawling vessels with the name. In addition, people mentioned specific features associated with Hull: the private telephone system, the annual fair, Hull City Football Team, the Humber River, the ferry and the bridge. Favourable images focussed primarily around the friendliness of the people and the modern appearance of the city. Twelve per cent of the sample detailed in non-specific, unfavourable terms describing the city as dirty, smelly, cold and industrialised.

No pattern of imagery emerged from analysis of the possible independent variables although there was a significant difference between people with direct experience of Hull and those reliant upon secondary sources of information (chi-sq. 51.3, with 2 df., significant at 0.001 level). From Table 19, it may be seen that the predominant emphasis upon aspects of fishing in the group without direct experience (41%) is replaced by other features of a general nature in the group with direct experience of Hull.

Strict comparison between the Hull and English samples concerning the free response imagery is not possible. The most direct question in the Hull survey was phrased 'Do you think Hull has a distinct character/ Would you describe the character of Hull'. Out of the total sample, seventy-eight per cent thought the city has a distinct character whilst ten per cent thought it no different from any other city. Descriptions of the character correspond closely with earlier questions related to individual preferences. Comparisons between the relative importance of preferences and the character of the city may be drawn from Table 20. Responses fell within five clearly definable groups. These were features associated with the 'social environment' - "friendly", "blunt", "a down to earth atmosphere"; a second category, the 'general environment' included references to the geographical isolation of the city, its flatness and the climate; 'favourable urban features' included emphasis upon the cleanliness of the city, its historic buildings, parks and open spaces; 'unfavourable urban features' included mention of slums, bad planning and dereliction. Finally, a category was necessary to cover aspects of the sea-going activities.

The social environment was considered by thirty-one per cent to be

Table 19. The English Survey:- The relationship between the type of experience and the content of free response images

	<u>People with direct experience of Hull</u>		<u>People with indirect experience of Hull</u>	
Aspects associated with fishing	15%	(34)	41%	(113)
Aspects associated with dock activities	31%	(69)	32%	(88)
General responses	53%	<u>(118)</u>	26%	<u>(71)</u>
		N=221		N=272

Table 20. The Hull Survey:- Comparison between the perceived character of Hull and the resident's preferences

	<u>Character of the city</u>		<u>Likes</u>		<u>Dislikes</u>	
Social environment	31%	(53)	39%	(67)	2%	(5)
General environment	10%	(17)	9%	(15)	19%	(30)
Favourable urban features	21%	(37)	50%	(86)		(0)
Unfavourable urban features	1%	(2)		(0)	35%	(61)
Fishing activities	16%	<u>(27)</u>		<u>(0)</u>	10%	<u>(19)</u>
		N=136		N=168		N=115

the most important feature of the city's character: its friendliness, its small scale, 'village atmosphere', the strength of the community.

Hull was described as a proud city, independent and hard-working. The inhabitants described themselves through their city as blunt, plain-speaking and insular. These features were thought to have originated partly in the fishing tradition and the relative isolation of the city. Another twenty-one per cent of the sample thought that the character of the city lay in its cleanliness, its well-planned environment and its gardens. The 'historic' character of Hull, its traditional role and uniqueness as a fishing port was important to the 'local' population in particular. It is interesting to note that the contemporary fishing and dock activities were not of great importance in the inhabitants' perception of the character of the city - it contrasts markedly with the English sample where it figured to a great extent. For many of the inhabitants the character of the city is a reflection of themselves, whereas the image of the city is related to its function for people outside it: the inhabitants figured very little in any of the outside descriptions of Hull.

c) Sources of information about the city

One of the sections in the Hull questionnaire was concerned specifically with the inhabitants' perception of outside imagery. The question 'Do you think that people outside Hull have any impressions of the city?' produced a strong positive response - over seventy-six per cent of the Hull sample thought they did. More surprisingly perhaps, in view of the residents' satisfaction with Hull, seventy per cent thought that these impressions were unfavourable, only thirteen per cent expected favourable evaluations. The feeling that there were unfavourable images

was associated with all sections of the Hull sample. The majority thought that the impressions focussed around Hull as a fishing port (58%). The inhabitants expected people to think of Hull as a dirty, smelly place (12%), a city of slums and poor housing (10%), and nine per cent expected impressions of militant or rather backward inhabitants. For example:

'They think it is a fishing village and that we all wear aprons and clogs';

or, 'People think it is like Coronation Street - at least they did when I was down in Hertfordshire';

or, 'All they think we ever do is bloody strike! I'm fed up with it';

or, 'It is an impression people have got from somewhere - even people that have never visited seem to think it is a filthy place.'

The inhabitants were asked where they thought these impressions came from. Twenty-two per cent thought the unfavourable impressions were a direct result of the city being a fishing port; fourteen per cent thought the isolation of Hull was an important factor, people rarely came to the city and were thus unable to correct their misapprehensions, and nineteen per cent felt that people had unfavourable impressions because they had no personal knowledge of the city. The largest proportion however (35%), blamed the media for creating these unfavourable impressions. Although the possibility of bias against Hull in the media was rejected by the majority of the sample, thirty-six per cent thought there was a deliberate bias. There is a significant correlation between the 'local' population and a perception of media bias ($Q = +.68$, significant ($p \geq .025$)), and this group does appear more defensive about perceived criticism of the city. For example, after a BBC television

play about Hull (Plater, 1973), the population was moved sufficiently to organise a public meeting to protest about the slant of the play towards the fishing traditions of Hull. The author was compelled to answer charges that the media 'only show the bad parts of Hull, we've got some nice places too: they never show them'.

Turning to the English survey, it has been shown that the majority do have definite images of Hull as a fishing port, but the strongly unfavourable attitude anticipated by the inhabitants is not evident. Two assumptions were made by the Hull population: they expected impressions to change once people visited the city and, secondly, that unfavourable images were transmitted by the media. In the event, nearly half the English sample had friends or relatives who had visited the city (48%). A large proportion of this group (84%) had conversed about the city. Supporting the inhabitants' contention, the predominant impression gained was a favourable one - only eight per cent of the English sample said they were left with an unfavourable impression from friends. Although individuals have said they gained a favourable impression from conversation, this was not evident in their responses towards the city.

It may be seen from Fig. 18 that nearly sixty per cent of the English sample remembered seeing something about Hull in the media. This figure was reasonably consistent across all stratifications. Television was found to be the most important medium (46%), followed by newspapers (31%) and radio (19%). Books were not a common source of information, only four per cent remembered reading anything about the city. One variable in particular was found to differ significantly in consideration of awareness of the city through the media: people with

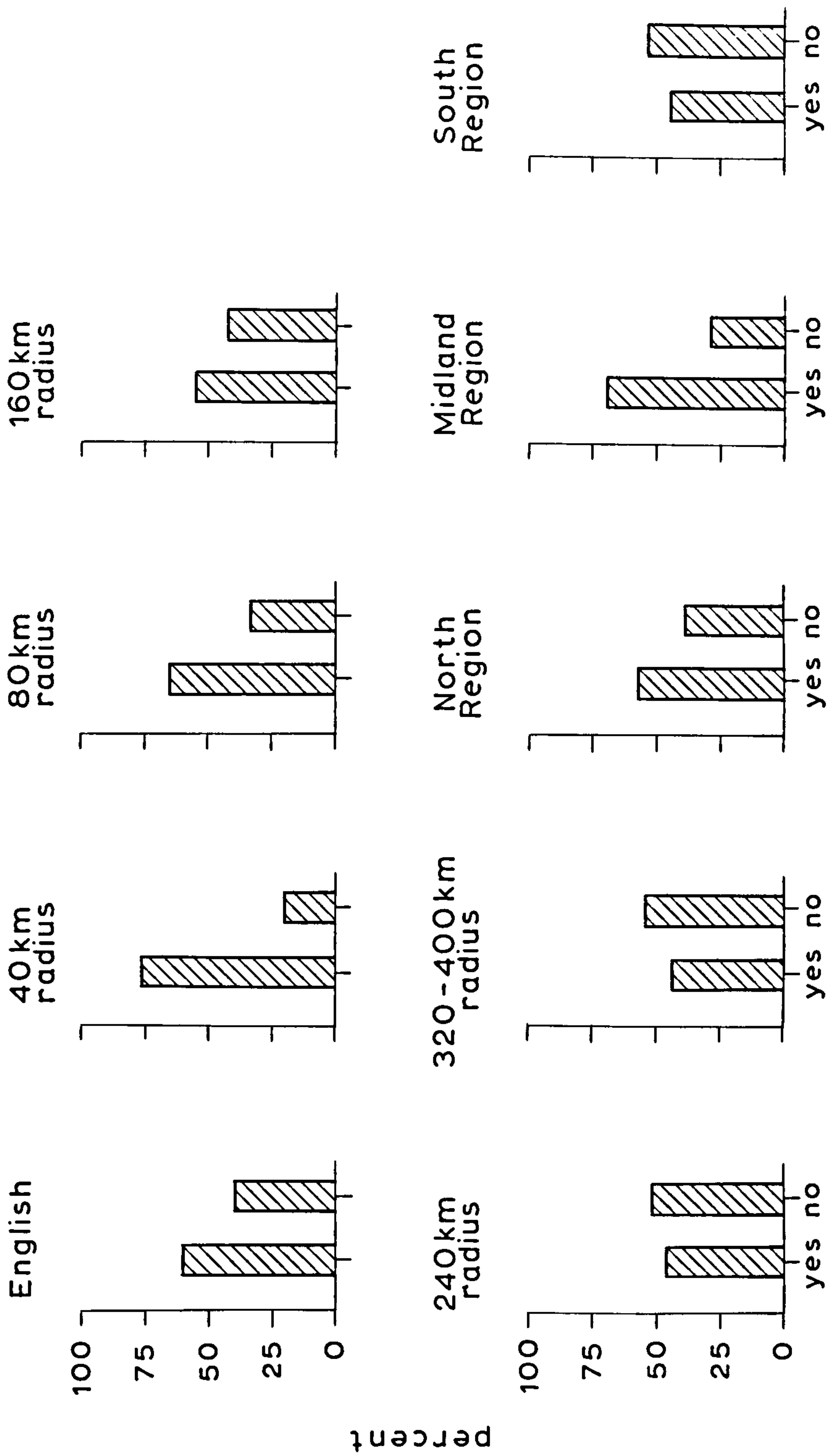


Fig. 18 Information from the media

direct experience of the city were more aware of media information than those with indirect experience (chi-sq. 30.9 with 1 df., significant at 0.001 level) - only twenty-one per cent of the former remembered seeing nothing about the city compared with fifty-five per cent of the latter group.

Replies to a probe about the specific nature of the information were brief and somewhat unsatisfactory. People were content with single word answers from which it was difficult to assess the source and detailed content of the information. However, responses were classified in terms of the 'freshness' of the information. Thus, contemporary information included the dock strike of 1972 and the loss of the Hull trawlers. References to the formation of the new Humberside County and the building of the Humber Bridge were coded separately under the same category. 'Traditional' information included non-specific items about fishing and trawlers, mention of the docks and industry were included in a 'port' category and finally, the other non-specific items including the fair and the ferry. The results are given in Table 21. The main piece of news concerning Hull during the sampling period was the dock strike and this information was rehearsed by twenty-eight per cent of the sample, with mention of dockers and militancy. The question of the formation of Humberside County and the Bridge was significantly more important to people in the local area (chi-sq. 8.7, with 1 df., significant at 0.01 level). Conversely, people outside the local area tended to remember more non-specific pieces of information about the city. It is as well to note that eleven per cent of the sample who had seen something about Hull in the media recently could not remember what it was.

Table 21. The English Survey:- Local area and the type of information received about Hull

	<u>Contemporary information</u>		<u>Traditional information</u>		
	<u>Militancy</u>	<u>Humberside</u>	<u>Fishing</u>	<u>Port</u>	<u>Other</u>
Within 80 km	14% (43)	17% (50)	10% (30)	5% (16)	8% (24)
Over 80 km	14% (41)	4% (13)	14% (42)	11% (33)	2% (7)

Concluding this section on information about Hull, people were asked to indicate where they thought Hull was on a blank map. Figs. 19-23 summarise these distributions for each site. They are grouped according to distance from the city. These maps are presented as illustrations and no comment will be made about the distribution.

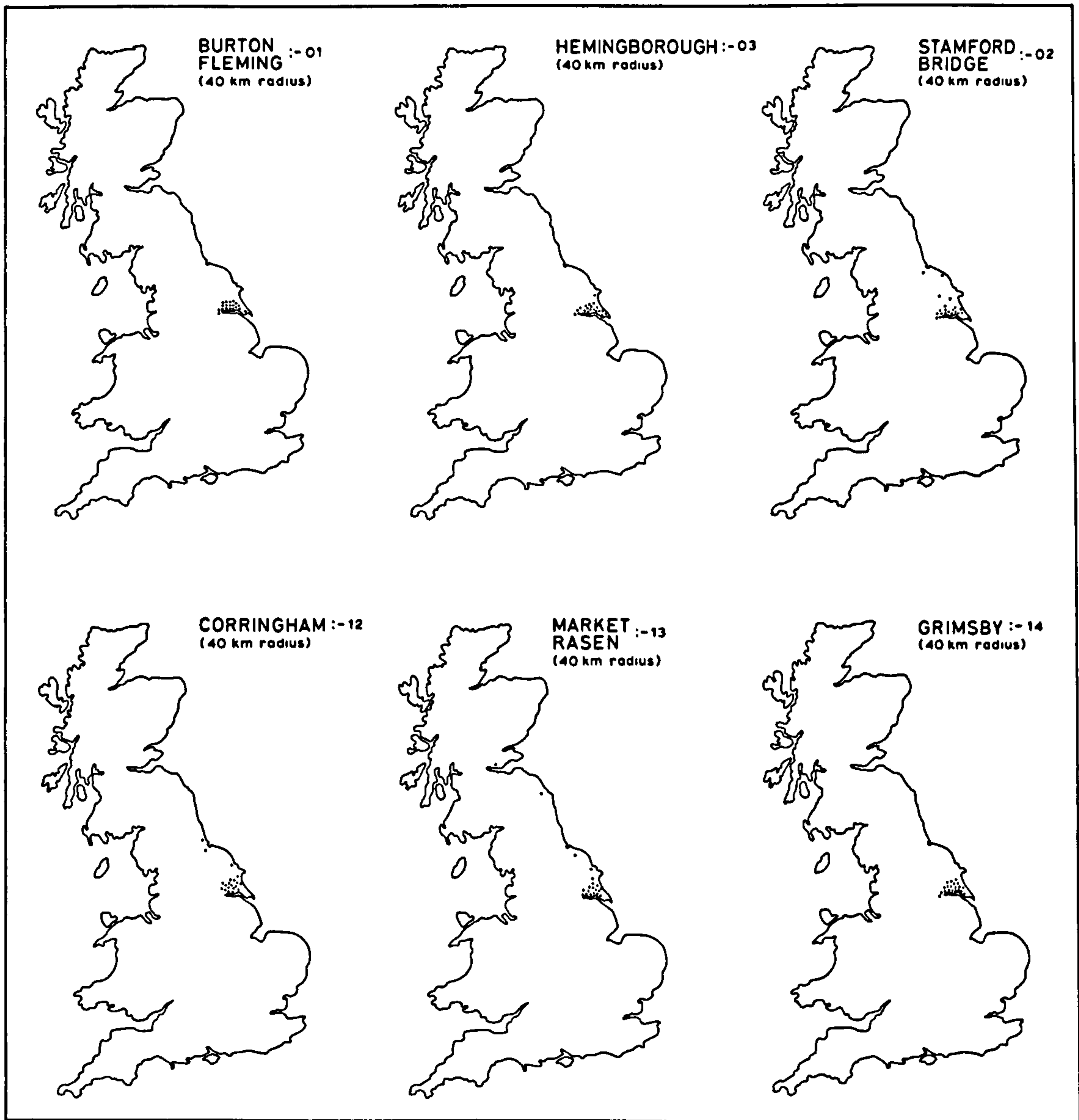


Fig. 19

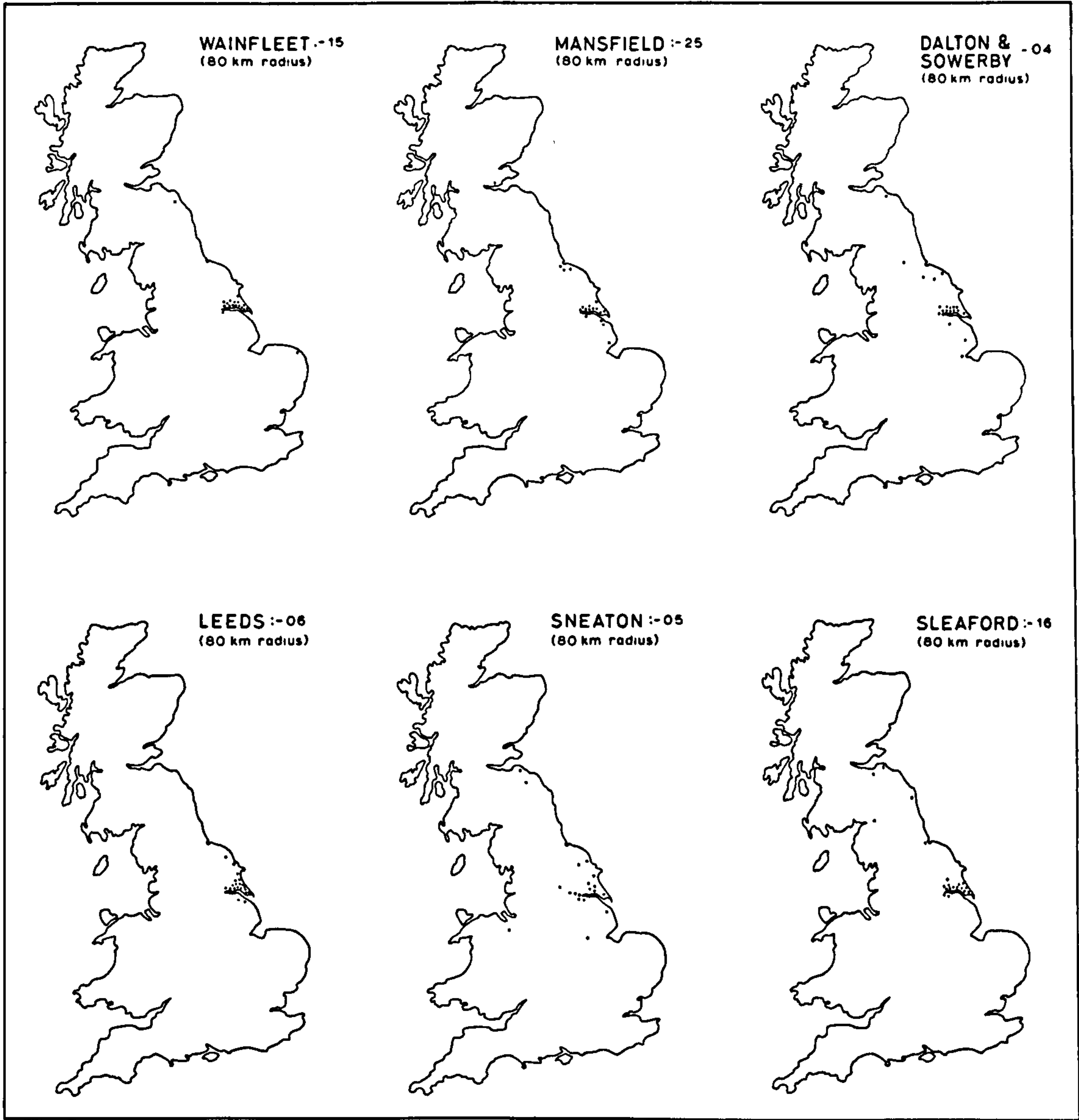


Fig. 20

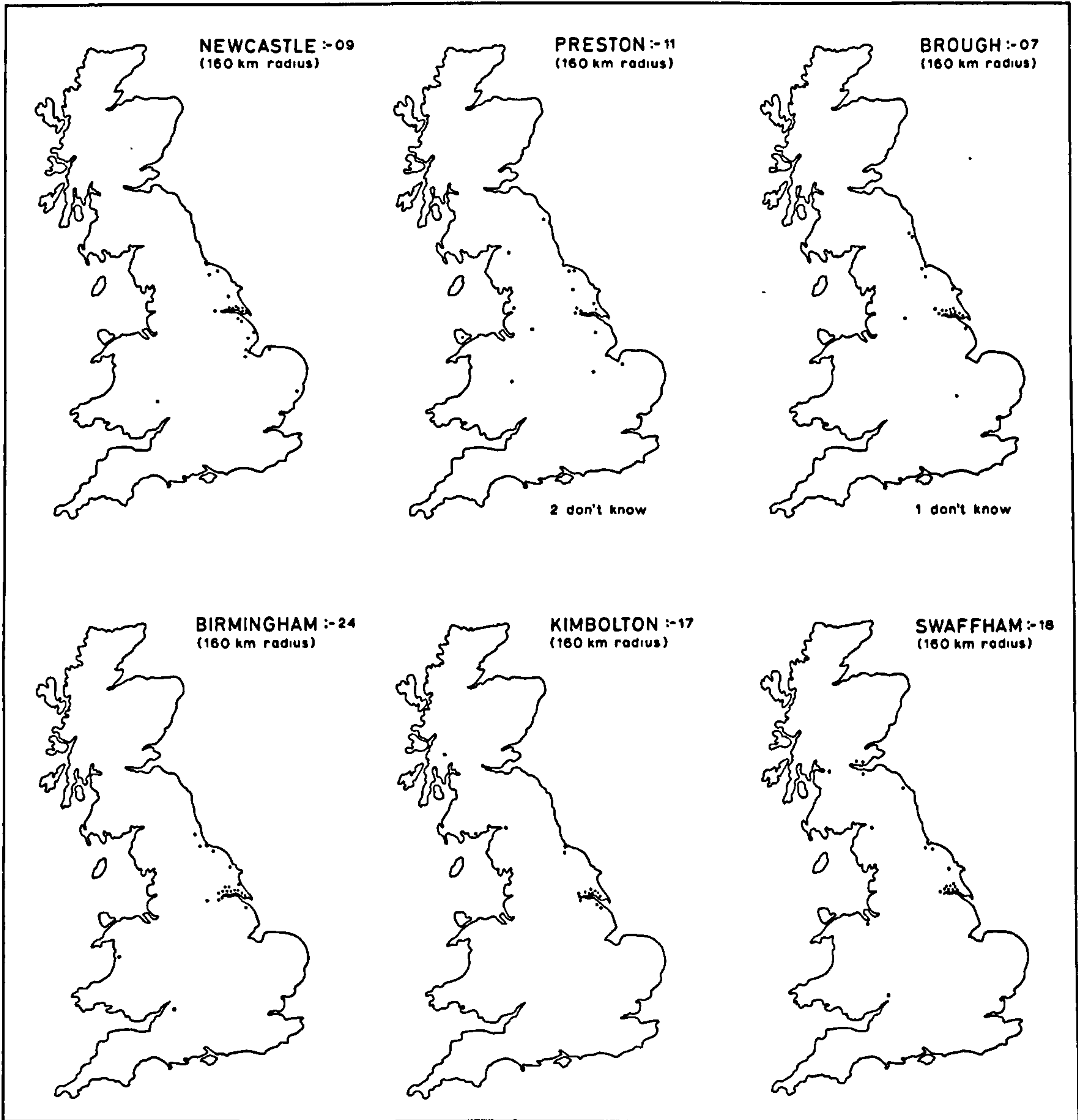


Fig. 21

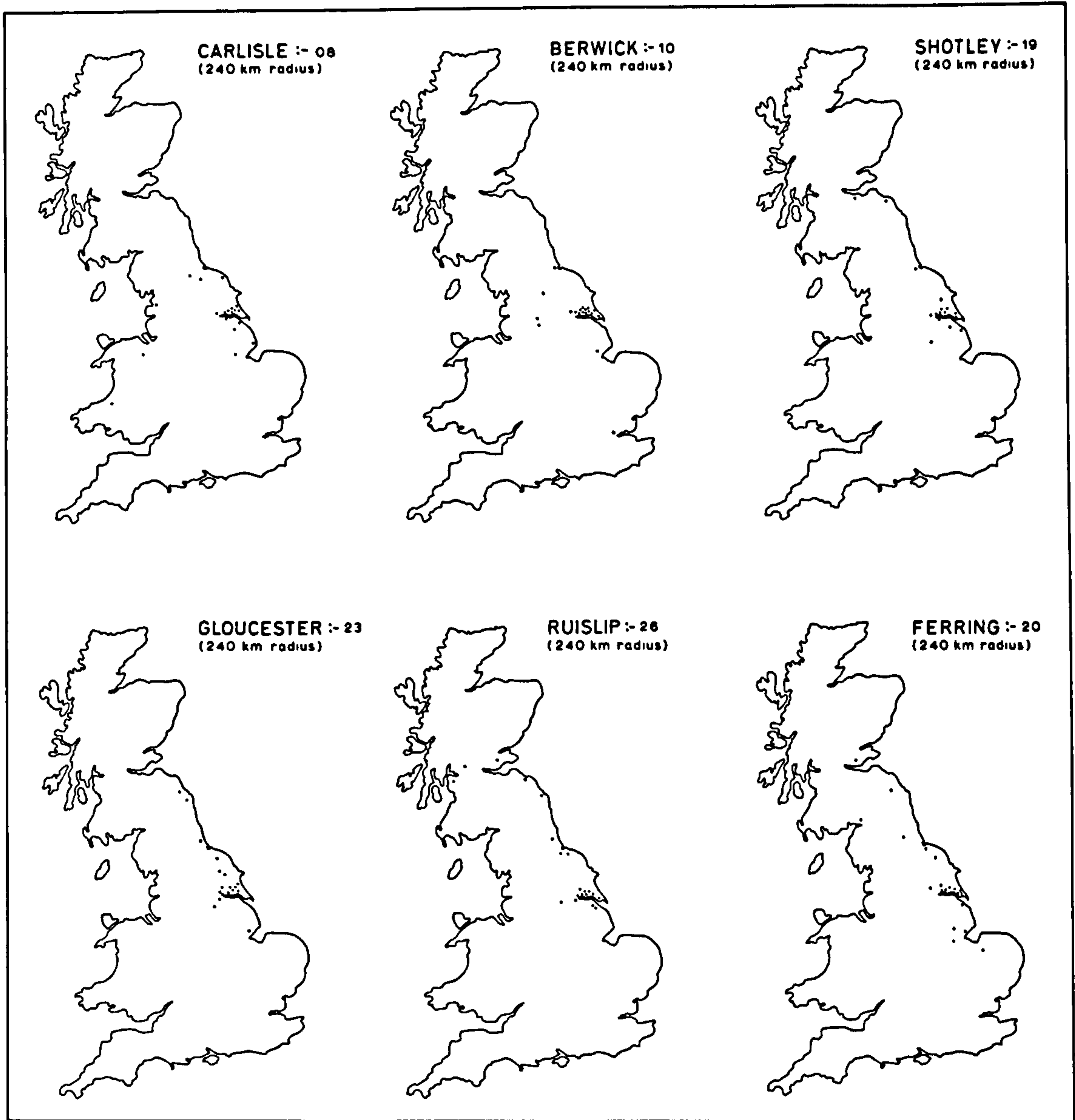


Fig. 22

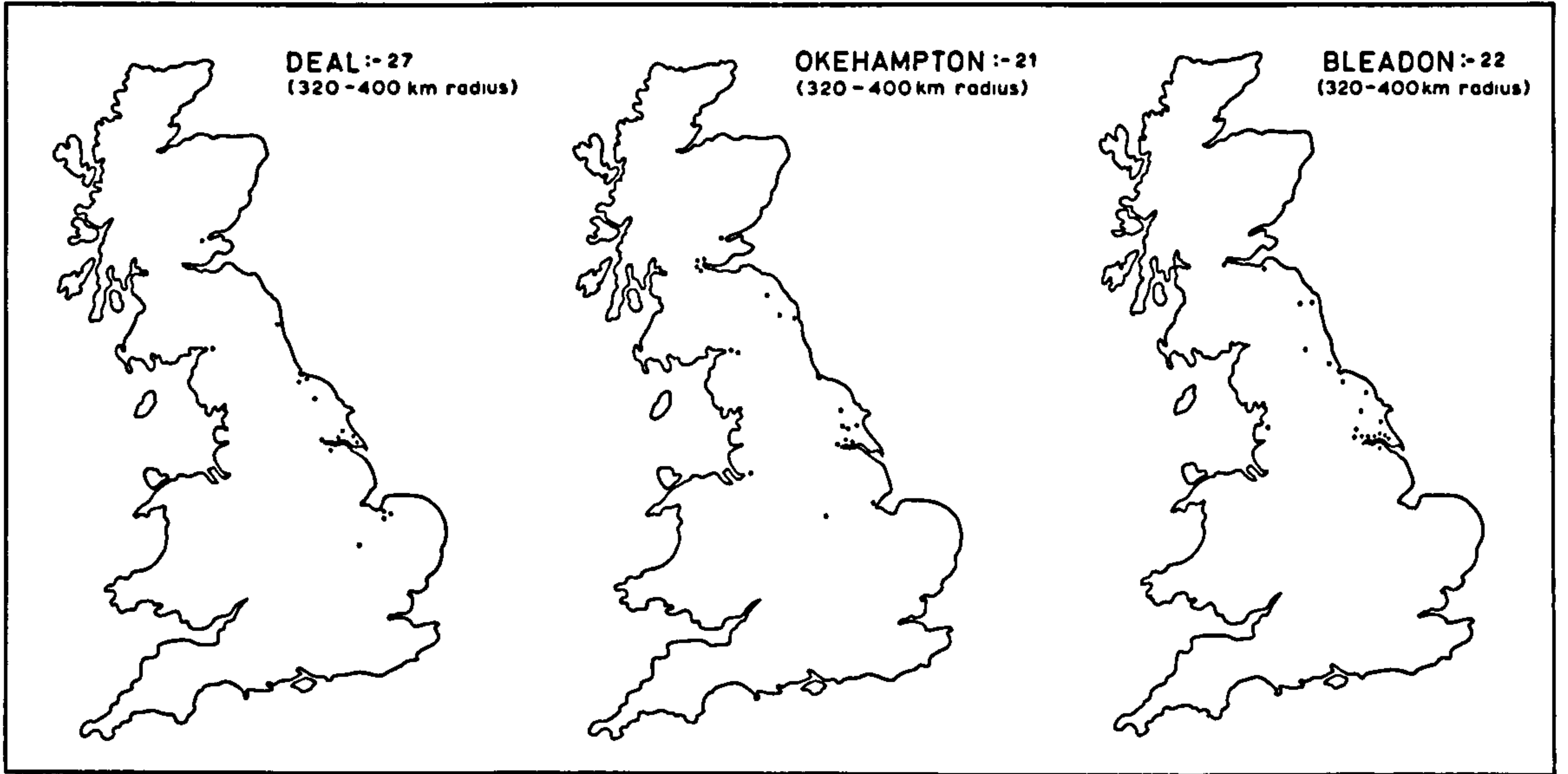


Fig. 23

The adjective checklist results

The adjective checklist formed the first part of the self-administered section of the questionnaires. It contained forty-eight words or phrases used most frequently in open-ended descriptions about Hull. The wording of the question stressed that this was not obligatory; respondents could check as many or as few of the words as they wished. Some measure of the respondents' evaluation of the city was included by their assessment of the adjectives selected. These were assessed as being favourable, neutral or unfavourable. It was found during fieldwork that this was a popular question and all respondents found it easy to complete.

There was an average response of sixteen attributes per person in the English survey, nineteen in the Hull survey. In terms of individual evaluations of the city, a crude measure may be given by the proportions of attributes rated by each respondent. Supporting the results from the open-ended section of the Hull survey, ninety-three per cent of the sample considered the city in a predominantly favourable way; in the English survey, sixty-three per cent had a predominance of favourable evaluations and thirty per cent a predominance of unfavourable judgements. The number of adjectives given a neutral rating was very low for both surveys (less than twenty per cent). Apart from the obviously affective elements such as friendly, depressed, etc., it was surprising that features used normally as classifications were also evaluated. For example, docks were accorded a predominantly favourable evaluation (77% in the English survey); fishy (64% favourable in the Hull survey); and a working class city was evaluated favourably by eighty-four per cent of the English sample and ninety-three per cent of the Hull sample. However, it must be acknowledged that such attributes may be transparent in terms of socially acceptable responses.

Turning to the images of the city revealed by the ACL, results for the English survey and the Hull survey are given in Tables 22 and 23. Within the English sample, the four port characteristics are ten per cent higher than any other attribute. The city is characterised primarily as a working class city (84%), with docks (90%), ships (77%) and fishy (69%). The most important attributes concerning the social environment are its good shopping centre (59%), friendly (48%) and a growing population (47%). Over thirty per cent of the English sample thought that slums were characteristic of the city and that heavy industry and much unemployment were also typical. The impressions of Hull as a cold, flat, drab place were held by nearly fifty per cent of the English sample. This pattern of responses was repeated throughout the main stratifications with only slight variations between groups.

Agreement between the English and Hull surveys is limited. Within the Hull image, the port characteristics are present - docks (81%), ships (65%), fishy (58%), but other dimensions are of equal or greater importance for the inhabitants. From Table 23, it may be seen that social aspects of the city are stressed. There is a consensus about the working class character of Hull (84%) and its virtue as a good shopping centre (85%). It is a friendly place (74%) with a lot of potential and a growing population. The greenery of the city was of obvious importance to the inhabitants in their open responses and this was present also in the ACL ratings. Trees and parks were considered characteristic by seventy-four per cent of the sample and fifty-two per cent described Hull as a garden city. There is agreement about features such as large council estates (75%), low wages (61%) and congested traffic (57%) which may be indicative of dissatisfaction with the city. However, such a contention is not

Table 22. The English Survey:- Adjective checklist results

Docks	90.8%	(477)	Militancy	32.3%	(170)
Working class city	84.9%	(446)	Regional Centre	31.1%	(163)
Ships	77.3%	(406)	Depressed	30.7%	(161)
Fishy	69.3%	(364)	Lots to do	30.1%	(158)
Good shopping centre	59.1%	(310)	Aggressive	29.5%	(155)
Large council estates	55.1%	(208)	Wide streets	28.9%	(152)
Congested traffic	52.3%	(275)	Isolated	27.8%	(146)
Heavy industry	50.3%	(264)	Low wages	26.8%	(141)
Slums	50%	(262)	Characterless	26.8%	(141)
Much unemployment	49.4%	(259)	Rapid expansion	25.7%	(135)
Friendly	48.3%	(254)	Trees, parks	25.5%	(134)
Growing population	47.8%	(251)	Secure	24.5%	(129)
Drabness	44.7%	(235)	Poverty	24.3%	(128)
Flat	44.2%	(232)	Affluent	24.2%	(127)
Redevelopment	43.6%	(229)	Dereliction	24%	(126)
Cold	42%	(221)	Middle class suburb	22.9%	(120)
Light industry	40.2%	(211)	Historic buildings	22.3%	(112)
A lot of potential	39.6%	(208)	Theatres	20.5%	(105)
Strong local community	38.9%	(204)	Mediocre	18.8%	(99)
Grey	37.3%	(196)	Boring	18.3%	(96)
Smoke	35.9%	(188)	Cobbles	17.7%	(93)
Modern	33.7%	(177)	A garden city	9.7%	(51)
Tower block flats	32.9%	(173)	Coalmines	5.9%	(31)
Overcrowded	32.7%	(172)	Hilly	5.9%	(31)

(Attributes expressed as a percentage of total sample N = 524)

Table 23. The Hull Survey:- Adjective checklist results

Good shopping centre	85.5%	(154)	Middle Class suburbs	26.6%	(48)
Working class city	84.4%	(152)	Lots to do	25.5%	(46)
Docks	81.6%	(147)	Slums	25.5%	(46)
Large council estates	75.5%	(136)	Cold	25.5%	(46)
Friendly	73.8%	(133)	Secure	23.3%	(42)
Trees, Parks	73.8%	(133)	Dereliction	23.3%	(42)
Ships	65.5%	(118)	Wide streets	23.3%	(42)
Low wages	61.6%	(111)	Poverty	22.2%	(40)
Fishy	58.3%	(105)	Boring	19.4%	(35)
Congested traffic	57.7%	(104)	Mediocre	16.6%	(30)
Tower block flats	56.6%	(102)	Grey	15%	(27)
Redevelopment	55.5%	(100)	Drabness	14.4%	(26)
Flat	53.3%	(96)	Regional centre	14.4%	(26)
A garden city	52.2%	(94)	Depressed	13.3%	(24)
Isolated	50%	(90)	Overcrowded	13.3%	(24)
A lot of potential	47.2%	(85)	Affluent	11.1%	(20)
Historic buildings	46.1%	(83)	Militancy	10%	(18)
Growing population	45%	(81)	Theatres	10%	(18)
Light industry	45%	(81)	Characterless	9.4%	(17)
Much unemployment	38.8%	(70)	Smoke	8.8%	(16)
Strong local community	30%	(54)	Aggressive	8.8%	(16)
Modern	30%	(54)	Cobbles	5.5%	(10)
Heavy industry	29.4%	(53)	Hilly		(0)
Rapid expansion	27.7%	(50)	Coalmines		(0)

(Attributes expressed as a percentage of total sample N = 180)

supported by the use of more emotive terms, there are very low scores for attributes such as characterless (9%), depressed (13%) and drabness (14%), which figure more highly in the English survey results.

The relationship between the two images is shown in Fig. 24, in which the vertical axis represents the percentage score for each attribute in the Hull survey and the horizontal axis represents the corresponding score for the English survey. It may be seen that there is agreement about certain characteristics of the city. Both groups see it as a working class port, a good shopping centre with congested traffic and large council estates. There is agreement also about certain attributes with a low score in both surveys. The mixture of characteristics and contradictions among these, such as poverty and affluence, modern and dereliction suggests that they are redundant in description. The main differences between the two samples are evident from the top left and bottom right hand corners of the graph which show the distribution of attributes with a high score in one sample and low in the other. It may be seen that attributes such as a garden city, trees and parks, historic buildings and tower block flats are characteristic for the Hull survey, whilst heavy industry, cold, slums and drabness are considered typical by a greater proportion of people living outside the city.

Having obtained the pattern of relationships between the internal and external images of the city, the most meaningful analysis of the data consisted of a breakdown into groups dependent upon the type and quality of information available to them. The English survey was divided into two groups - those with direct experience of the city and those without. Since it is apparent from previous results that friends and relatives conveyed predominantly favourable impressions of the city, these two

Key for Figure 24

- | | |
|----------------------------|---------------------------|
| 1. Affluent | 25. Light industries |
| 2. Aggressive | 26. Low wages |
| 3. Boring | 27. Lot of potential |
| 4. Characterless | 28. Large council estates |
| 5. Cobbles | 29. Mediocre |
| 6. Congested traffic | 30. Middle class suburbia |
| 7. Coalmines | 31. Much unemployment |
| 8. Cold | 32. Militancy |
| 9. Dereliction | 33. Modern |
| 10. Depressed | 34. Overcrowded |
| 11. Drabness | 35. Poverty |
| 12. Docks | 36. A regional centre |
| 13. Flat | 37. Rapid expansion |
| 14. Fishy | 38. Redevelopment |
| 15. Friendly | 39. Good shopping centre |
| 16. A garden city | 40. Smoke |
| 17. Grey | 41. Secure |
| 18. Growing population | 42. Slums |
| 19. Hilly | 43. Ships |
| 20. Historic buildings | 44. Theatres |
| 21. Heavy industry | 45. Tower block flats |
| 22. Isolated | 46. Trees, parks |
| 23. Lots to do | 47. Wide streets |
| 24. Strong local community | 48. Working class city |

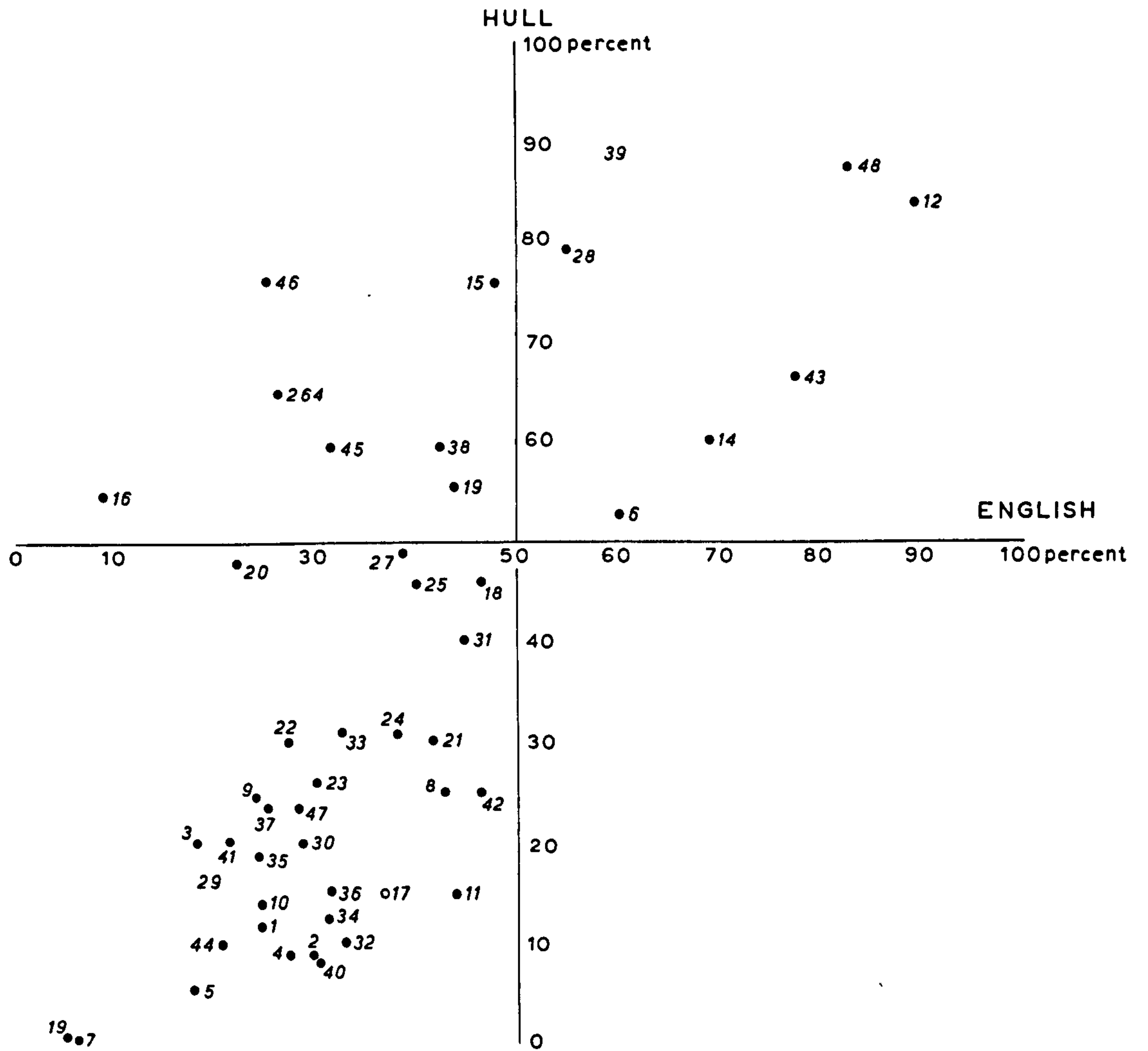


Fig. 24: The relationship between the Hull image and the English image of Hull.

groups were subdivided further on the basis of interpersonal discussion. This resulted in four groups. Group A (N=147) contained people with personal knowledge of the city and knowledge through conversation, Group B (N=70) contained people with personal knowledge but without knowledge through conversation; Group C (N=131) was of people without personal knowledge of the city but with knowledge through conversation; Group D (N=180) consisted of people without personal knowledge of the city and without knowledge through conversation either. It is to be expected that this final group would be most susceptible to the influence of the media and other secondary sources of information. The percentage scores for each of these four groups are given in Table 24, which allows comparison with the ranked Hull scores. The relationships between the Hull image and those of Groups A, C and D are illustrated in Figs. 25 to 27.

It is proposed to consider first the relationship between the internal image and that held by non-inhabitants with personal knowledge of the city. With reference to Table 24, it may be seen that there are only minor differences between the ranked scores of Groups A and B, and therefore, these may be considered together. There is a certain amount of correspondence between the internal and external images of these Groups. Apart from the port attributes, both Groups rate Hull as a good shopping centre: a friendly, flat city with congested traffic and a lot of potential. There is also agreement about certain 'inappropriate' attributes; neither of the two groups with personal knowledge of the city would describe it as boring or mediocre, for example. However, there is disagreement between the Hull sample and these two external groups. Both the groups consider Hull to be more modern, affluent, aggressive, militant and drab than do the inhabitants. It is interesting to note also that these external groups, living predominantly within eighty kilometres of the

Table 24. ACL data for Hull survey and English survey direct and secondary information groups

	<u>Hull</u>	<u>Group A</u>	<u>Group B</u>	<u>Group C</u>	<u>Group D</u>
Good shopping centre	85.5%	81.5%	59%	49.6%	48.3%
Working class city	84.4%	85%	85.4%	85.4%	85.5%
Docks	81.6%	94.5%	92.4%	87.7%	90%
Large council estates	75.5%	48.3%	48.4%	58.7%	60.5%
Friendly	73.8%	59.1%	46.9%	50.3%	38.8%
Trees, parks	73.8%	29.9%	36.3%	18.3%	28.3%
Ships	65.5%	81.6%	71.2%	71.7%	79.4%
Low wages	61.6%	25.8%	30.3%	22.9%	29.4%
Fishy	58.3%	65.3%	57.5%	71.7%	75.5%
Congested traffic	57.7%	65.2%	43.9%	45.8%	50%
Tower block flats	56.6%	34%	24.2%	34.3%	34.4%
Redevelopment	55.5%	52%	46.9%	38.2%	40%
Flat	53.3%	57.8%	51.5%	38.2%	42.2%
A garden city	52.2%	15.6%	24.2%	5.3%	2.7%
Isolated	50%	38.7%	45.4%	26.7%	13.3%
A lot of potential	47.2%	51%	42.2%	30.5%	36.1%
Historic buildings	46.1%	22.4%	19.6%	19.8%	22.5%
Growing population	45%	49.6%	53%	50.3%	42.7%
Light industry	45%	45.5%	24.2%	43.1%	39.4%
Much unemployment	38.8%	44.2%	31.8%	52.6%	57.7%
Strong local community	30%	43.5%	34.8%	42.7%	33.8%
Modern	30%	48.3%	43.9%	31.2%	25.5%
Heavy industry	29.4%	29.2%	43.9%	54.2%	67.2%
Rapid expansion	27.7%	31.3%	21.2%	25.2%	23.3%
Middle class suburbs	26.6%	23.9%	25.7%	19.8%	23.3%
Lots to do	25.5%	35.3%	21.2%	32.1%	27.7%
Slums	25.5%	31.3%	31.8%	61%	63.8%
Cold	25.5%	28.5%	27.2%	45.1%	56.6%
Secure	23.3%	27.2%	24.2%	20.6%	25.5%
Dereliction	23.3%	17.6%	24.2%	22.9%	30%

Table 24. ACL data for Hull survey and English survey direct and secondary information groups (continued)

	<u>Hull</u>	<u>Group A</u>	<u>Group B</u>	<u>Group C</u>	<u>Group D</u>
Wide streets	23.3%	47.6%	39.4%	19.8%	18.3%
Poverty	22.2%	21.1%	27.2%	21.3%	28.3%
Boring	19.4%	12.9%	12.1%	17.5%	25.5%
Mediocre	16.6%	18.3%	22.7%	15.3%	20.5%
Grey	15%	34%	24.2%	41.2%	42.2%
Drabness	14.4%	42.8%	45.4%	40.4%	49.4%
Regional centre	14.4%	40.1%	30.3%	32.1%	23.3%
Depressed	13.3%	19.7%	15.1%	34.3%	42.7%
Overcrowded	13.3%	25.2%	21.2%	39%	44.4%
Affluent	11.1%	34%	31.8%	12.2%	22.2%
Militancy	10%	38.1%	31%	29.7%	30%
Theatres	10%	24.5%	9.1%	9%	29.4%
Characterless	9.4%	19.1%	18.2%	22.9%	39.4%
Smoke	8.8%	14.2%	13.6%	47.3%	53.3%
Aggressive	8.8%	35.3%	27.2%	25%	26.6%
Cobbles	5.5%	10.8%	12.1%	29%	17.2%
Hilly	0	0	0	6.9%	12.2%
Coalmines	0	0	0	3%	15%

(Hull survey N = 180)

(Group A:- people with direct experience/interpersonal discussion N = 147)

(Group B:- people with direct experience/no interpersonal discussion N=66)

(Group C:- people with secondary information/interpersonal discussion N=131)

(Group D:- people with secondary information/no interpersonal discussion
N=180)

city, consider Hull to be a regional centre - unlike the inhabitants, who are alone in their assessment of the city as isolated. Other attributes which remain unique in their importance to the inhabitants are familiar - historic buildings, a garden city, trees and parks, etc.; none of these attributes is rated by the majority of people with personal knowledge of the city.

Turning to the results of groups C and D - (people without personal knowledge of the city) - it may be seen that there are contrasts in the patterns of responses. It is apparent from a comparison of Figs. 25, 26 and 27 that certain attributes have increased their polarity: more attributes have positions on the graph in the segment most important to the Hull population, and a group of attributes has 'moved across' into the bottom right hand corner - ranking highly in the external image only. There are five attributes which maintain agreement across samples, these are docks, ships, fish, a working class city, congested traffic and large council estates. Unlike groups A and B, these two external groups without direct experience do not find that friendly, flat, redevelopment and a lot of potential are appropriate in a description of their impressions of the city. Conversely, a cluster of attributes not apparent in the results of groups A and B emerges in the results of these two groups and is most clearly marked in group D. Specifically, these attributes are heavy, industry, slums, much unemployment, cold, drabness, overcrowded, grey, depressed, and characterless. The only attribute in this cluster about which there is general agreement is drabness; the others are representative only for people with only secondary sources of information from which to develop their impressions of the city.

Key for Figure 25

- | | |
|----------------------------|---------------------------|
| 1. Affluent | 25. Light industries |
| 2. Aggressive | 26. Low wages |
| 3. Boring | 27. Lot of potential |
| 4. Characterless | 28. Large council estates |
| 5. Cobbles | 29. Mediocre |
| 6. Congested traffic | 30. Middle class suburbia |
| 7. Coalmines | 31. Much unemployment |
| 8. Cold | 32. Militancy |
| 9. Dereliction | 33. Modern |
| 10. Depressed | 34. Overcrowded |
| 11. Drabness | 35. Poverty |
| 12. Docks | 36. A regional centre |
| 13. Flat | 37. Rapid expansion |
| 14. Fishy | 38. Redevelopment |
| 15. Friendly | 39. Good shopping centre |
| 16. A garden city | 40. Smoke |
| 17. Grey | 41. Secure |
| 18. Growing population | 42. Slums |
| 19. Hilly | 43. Ships |
| 20. Historic buildings | 44. Theatres |
| 21. Heavy industry | 45. Tower block flats |
| 22. Isolated | 46. Trees, parks |
| 23. Lots to do | 47. Wide streets |
| 24. Strong local community | 48. Working class city |

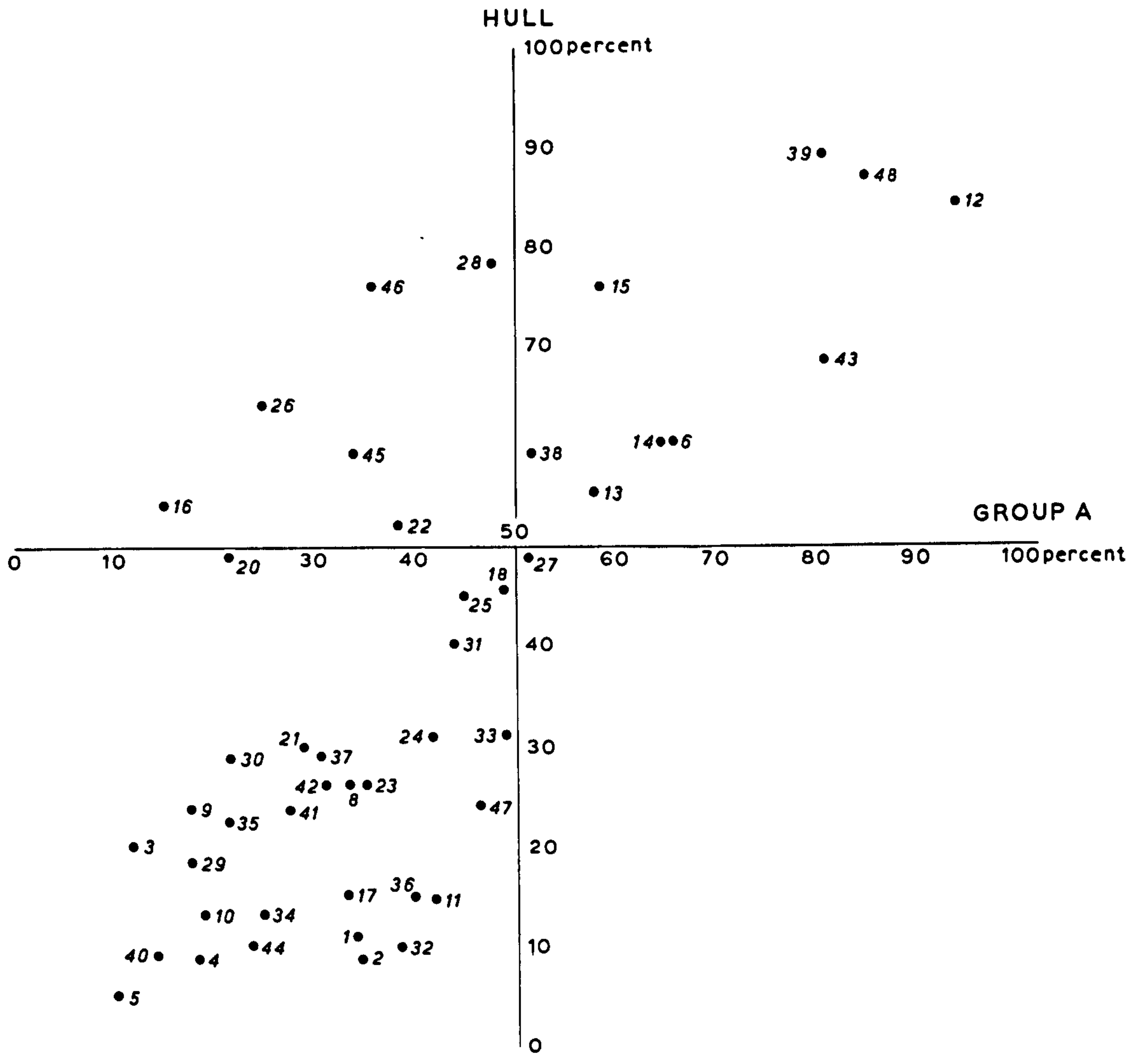


Fig. 25: The relationship between the Hull image of the Hull sample and Group A.

Key for Figure 26

- | | |
|----------------------------|---------------------------|
| 1. Affluent | 25. Light industries |
| 2. Aggressive | 26. Low wages |
| 3. Boring | 27. Lot of potential |
| 4. Characterless | 28. Large council estates |
| 5. Cobbles | 29. Mediocre |
| 6. Congested traffic | 30. Middle class suburbia |
| 7. Coalmines | 31. Much unemployment |
| 88. Cold | 32. Militancy |
| 9. Dereliction | 33. Modern |
| 10. Depressed | 34. Overcrowded |
| 11. Drabness | 35. Poverty |
| 12. Docks | 36. A regional centre |
| 13. Flat | 37. Rapid expansion |
| 14. Fishy | 38. Redevelopment |
| 15. Friendly | 39. Good shopping centre |
| 16. A garden city | 40. Smoke |
| 17. Grey | 41. Secure |
| 18. Growing population | 42. Slums |
| 19. Hilly | 43. Ships |
| 20. Historic buildings | 44. Theatres |
| 21. Heavy industry | 45. Tower block flats |
| 22. Isolated | 46. Trees, parks |
| 23. Lots to do | 47. Wide streets |
| 24. Strong local community | 48. Working class city |

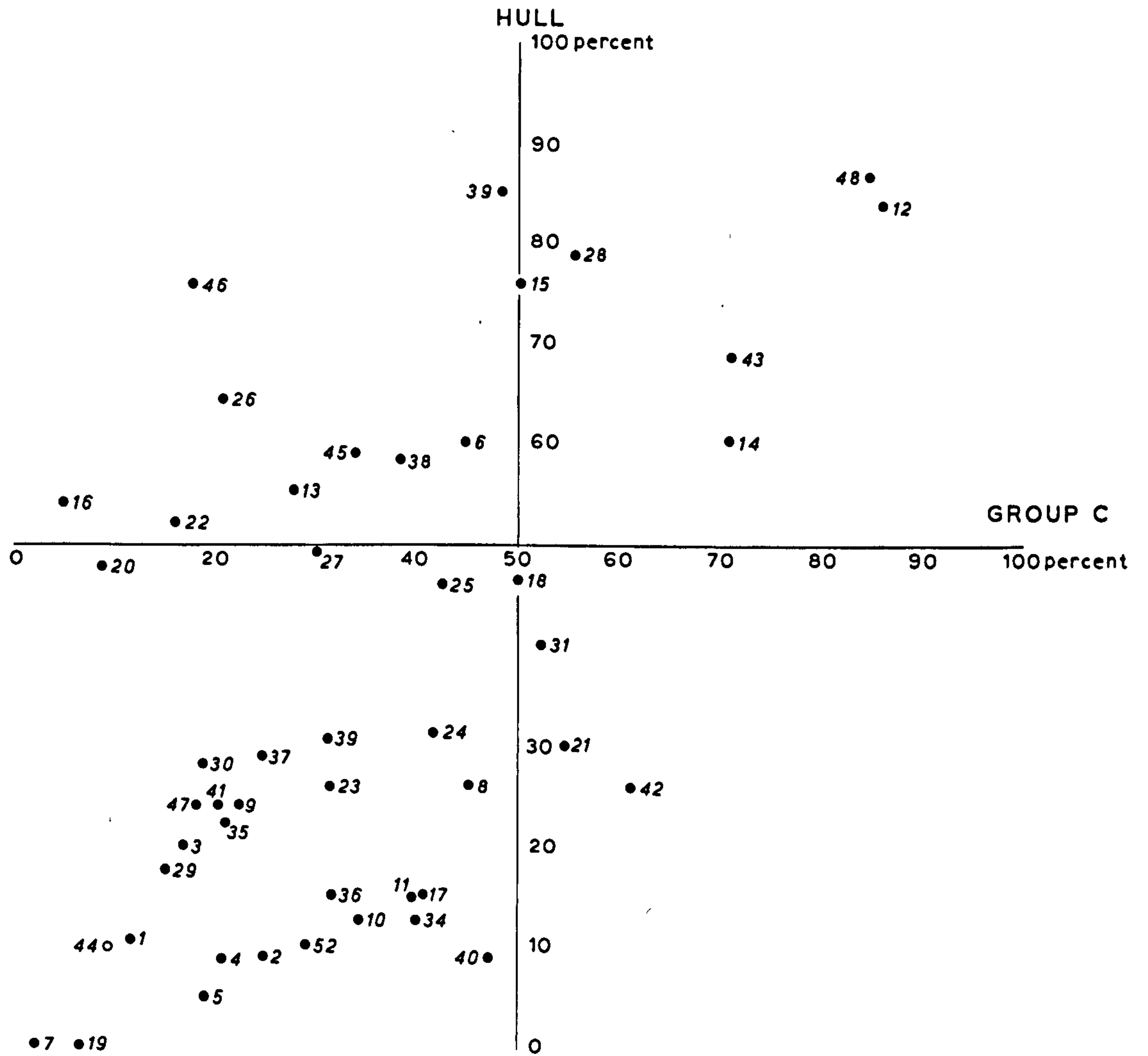


Fig. 26: The relationship between the image of the Hull sample and Group C.

Key for Figure 27

- | | |
|----------------------------|---------------------------|
| 1. Affluent | 25. Light industries |
| 2. Aggressive | 26. Low wages |
| 3. Boring | 27. Lot of potential |
| 4. Characterless | 28. Large council estates |
| 5. Cobbles | 29. Mediocre |
| 6. Congested traffic | 30. Middle class suburbia |
| 7. Coalmines | 31. Much unemployment |
| 8. Cold | 32. Militancy |
| 9. Dereliction | 33. Modern |
| 10. Depressed | 34. Overcrowded |
| 11. Drabness | 35. Poverty |
| 12. Docks | 36. A regional centre |
| 13. Flat | 37. Rapid expansion |
| 14. Fishy | 38. Redevelopment |
| 15. Friendly | 39. Good shopping centre |
| 16. A garden city | 40. Smoke |
| 17. Grey | 41. Secure |
| 18. Growing population | 42. Slums |
| 19. Hilly | 43. Ships |
| 20. Historic buildings | 44. Theatres |
| 21. Heavy industry | 45. Tower block flats |
| 22. Isolated | 46. Trees, parks |
| 23. Lots to do | 47. Wide streets |
| 24. Strong local community | 48. Working class city |

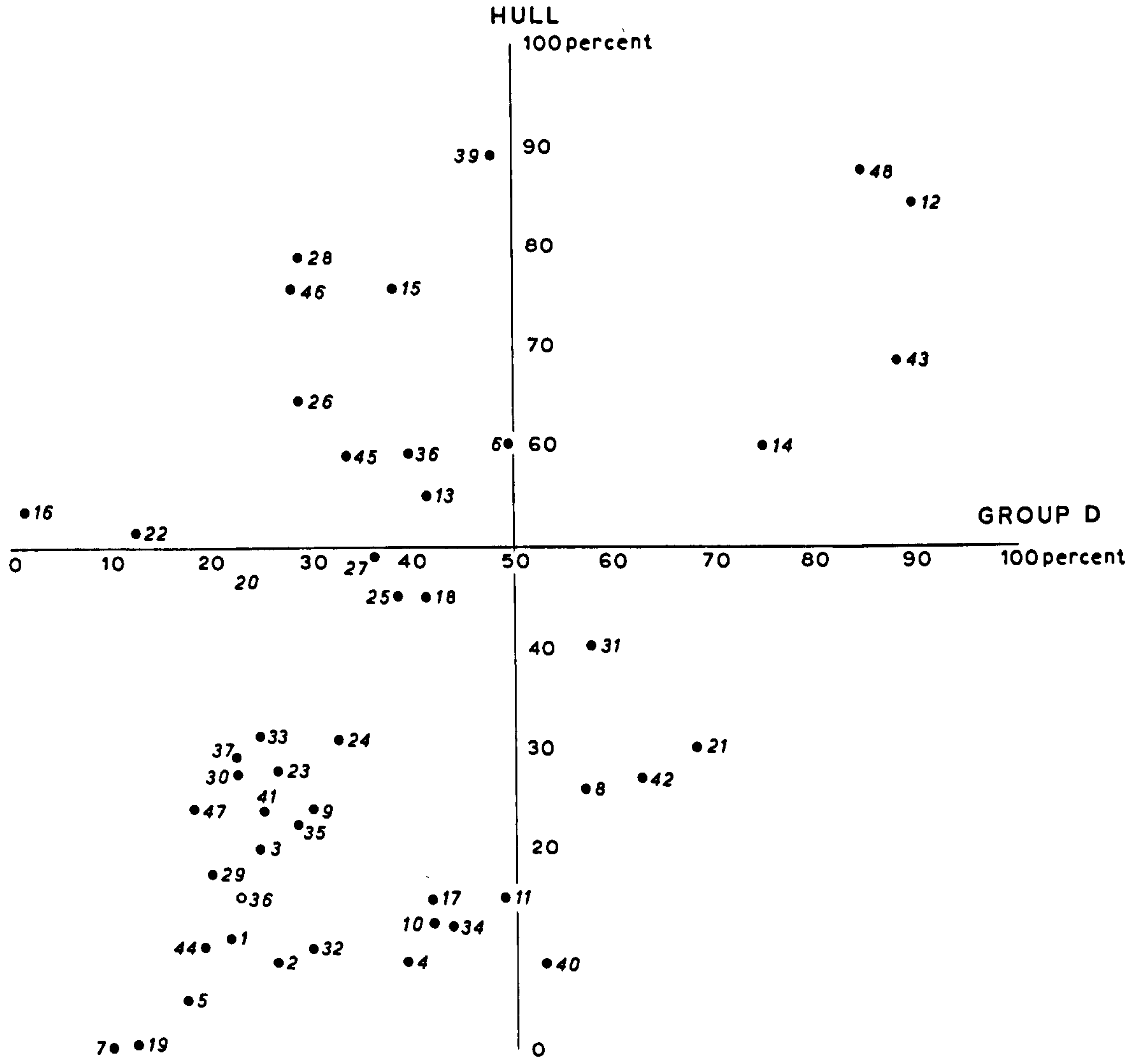


Fig. 27: The relationship between the image of the Hull sample and Group D.

The semantic differential results

The semantic differential formed the second part of the self-administered section of both questionnaires. The scales used were selected on the basis of the SD test results (see Chapter Four). It may be remembered that two basic dimensions in the connotative meaning of places were identified in this test. The most important of these was environmental evaluation and the other was social dynamism, which represented a combination of the more common activity and potency scales. Thirteen scales were selected on the basis of the purest loadings on each of these components. The scales chosen for both questionnaires were as follows:-

- a) Environmental evaluation - clean-dirty; healthy-unhealthy; relaxed-tense; gentle-violent; quiet-noisy; beautiful-ugly.
- b) Social dynamism - fast-slow; successful-unsuccessful; optimistic-pessimistic; positive-negative; up-to-date-old-fashioned; strong-weak; progressive-regressive.

The extra dynamism scale was included since the second component was less clearly defined in the original test. These scales were randomised in terms of the favourable elements to prevent possible response sets. It was found during fieldwork that certain respondents did experience some difficulty with the SD scales, notably the elderly and those of lower educational status. This had been anticipated and if the respondent showed signs of not being able to complete the scales himself, the interviewer read out each scale pair and labelled the intervals (Warr and Knapper, 1968).

The results for the two surveys are given in Tables 25 and 26. The scales have been arranged with the favourable element on the left of each pair. They are scored so that 1 represents the most positive rating through to 7 representing the most negative rating. The neutral point of the scale is 4. Means and standard deviations are given. Considering the dimensions of meaning first, it may be seen that for the inhabitants of the city, the connotative meaning of Hull is expressed through moderately positive environmental evaluations and slightly less positive social dynamism. This contrasts with the English survey, for the external meaning of the city is expressed through a moderately negative environmental evaluation. However, the external population perceives a more positive social dynamism in the city than do the inhabitants.

Looking at the scale means in detail, it may be seen that all the evaluative scales have more favourable evaluations for the inhabitants of the city. They see the city as quite clean and healthy, and slightly beautiful, relaxed and gentle. The English sample agree that the city is healthy, but feel it to be violent, tense, ugly and quite noisy. These differences are illustrated in Fig. 28 which shows the semantic profiles for the two surveys. The difference in the perception of the social dynamism of the city is clearly marked. Both samples see the city as progressive, but the English survey describes Hull as quite a strong, fast place, and it is seen to be more successful, positive and optimistic by people living in other parts of the country than by its own inhabitants.

The English sample was again subdivided into four groups with differing experience of Hull, since this differentiation had proved to be of value in the identification of stereotyped elements in the ACL data.

Table 25. The Hull Survey:- Semantic Differential Scores

<u>Scale</u>	\bar{X}	σ	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Clean-dirty	2.47	1.65	47	81	12	5	6	20	2
Healthy-unhealthy	2.68	1.62	35	80	12	16	13	14	3
Relaxed-tense	3.44	1.55	13	53	19	40	31	14	3
Gentle-violent	3.62	1.46	7	41	30	53	21	16	5
Quiet-noisy	4.16	1.78	10	30	30	22	28	39	14
Beautiful-ugly	3.51	1.37	11	37	31	52	32	8	2
Fast-slow	4.14	1.7	9	33	19	29	38	36	9
Successful-unsuccessful	3.43	1.6	6	64	30	23	27	18	5
Optimistic-pessimistic	3.45	1.7	15	54	20	34	25	15	10
Positive-negative	3.5	1.49	10	47	24	52	20	17	3
Up-to-date-Old-fashioned	3.2	1.71	16	73	19	17	28	12	8
Strong-weak	3.63	1.62	13	45	19	43	28	19	6
Progressive-regressive	2.77	1.6	33	68	29	12	14	13	4

Table 26. The English Survey:- Semantic Differential Scores

<u>Scale</u>	\bar{X}	σ	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Clean-dirty	4.00	1.89	26	154	56	43	82	124	41
Healthy-unhealthy	3.58	1.89	47	188	51	41	78	85	34
Relaxed-tense	4.33	1.55	16	71	47	116	152	98	24
Gentle-violent	4.4	1.39	10	51	68	143	123	104	25
Quiet-noisy	5.45	1.29	5	22	28	36	110	235	88
Beautiful-ugly	4.78	1.47	7	40	55	110	114	143	55
Fast-slow	2.77	1.34	70	208	117	67	34	22	6
Successful-unsuccessful	2.89	1.35	55	205	14	59	48	32	1
Optimistic-pessimistic	3.42	1.46	27	161	88	116	82	45	5
Positive-negative	3.16	1.37	43	159	125	106	57	29	5
Up-to-date-old-fashioned	3.6	1.24	39	162	109	53	82	64	15
Strong-weak	2.78	1.38	75	199	105	80	37	27	1
Progressive-regressive	3.08	1.18	45	159	167	70	58	21	4

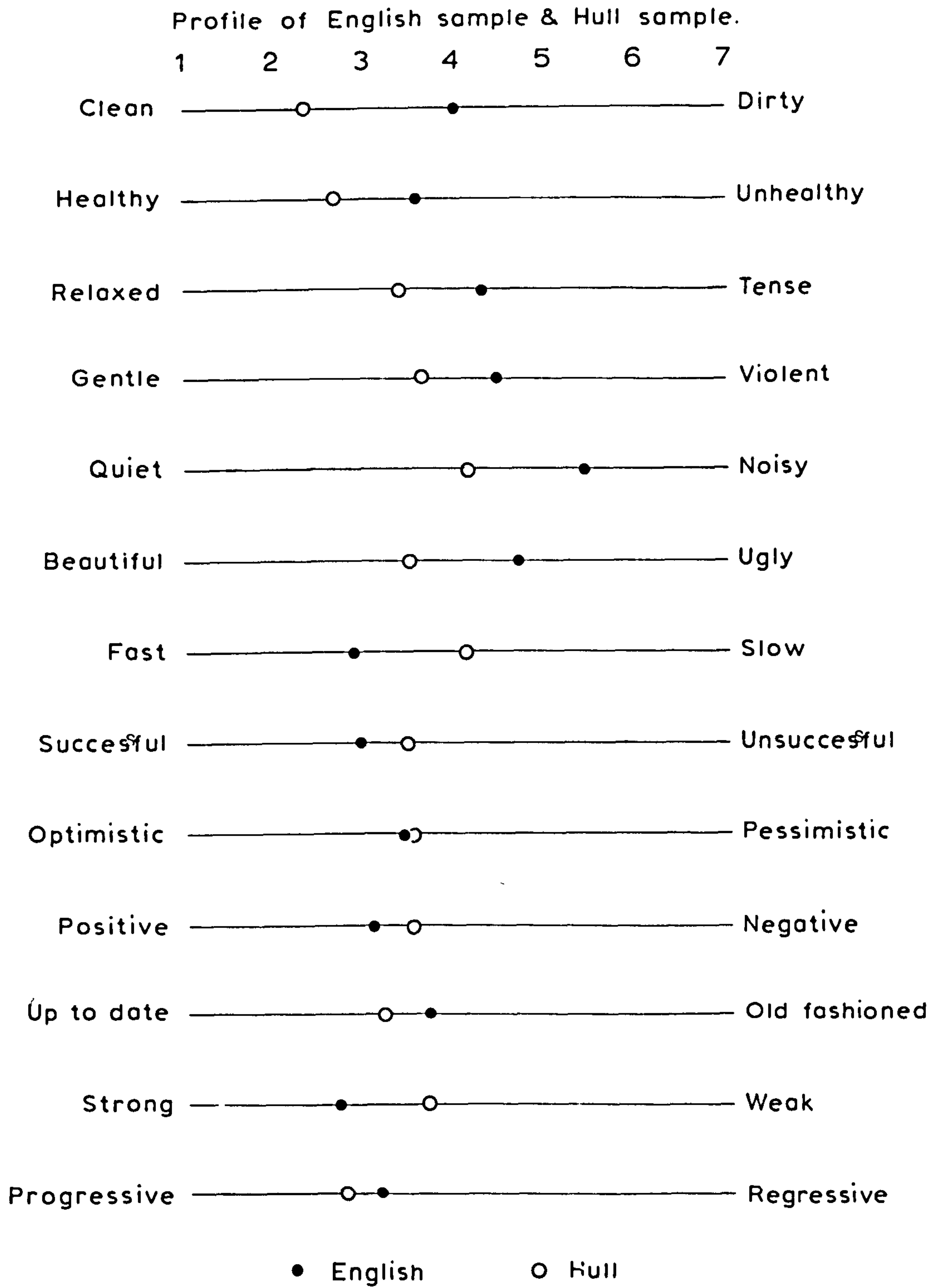


Fig. 28

Table 27. Semantic differential scores:- 1. People with direct experience of Hull

<u>Scale</u>	<u>X</u>	<u>σ</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Clean-dirty	3.94	1.91	12	70	24	15	32	52	17
Healthy-unhealthy	3.58	1.84	21	79	20	18	34	37	13
Relaxed-tense	4.34	1.5	7	30	19	51	64	41	10
Gentle-violent	4.41	1.44	4	23	28	59	50	46	12
Quiet-Noisy	5.41	1.34	2	10	12	17	47	97	37
Beautiful-ugly	4.76	1.51	3	18	26	44	47	59	25
Fast-slow	2.74	1.34	28	90	52	29	11	9	3
Successful-unsuccessful	3.2	1.5	25	87	51	23	20	15	11
Optimistic-pessimistic	3.42	1.44	11	67	39	50	33	21	1
Positive-negative	3.14	1.4	18	70	52	42	25	13	2
Up-to-date-old-fashioned	3.37	1.64	17	74	45	20	34	25	7
Strong-weak	2.76	1.4	35	84	43	32	15	12	1
Progressive-regressive	3.05	1.35	18	69	70	27	25	11	2

Table 28. Semantic differential scores:- 2. People without direct experience of Hull

<u>Scale</u>	<u>X</u>	<u>σ</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>
Clean-dirty	4.05	1.86	14	84	32	28	50	72	22
Healthy-unhealthy	3.58	1.9	26	109	31	23	44	48	21
Relaxed-tense	4.35	1.51	9	41	28	65	88	57	14
Gentle-violent	4.37	1.42	6	28	40	84	73	58	13
Quiet-Noisy	5.46	1.34	3	12	16	19	63	138	51
Beautiful-ugly	4.79	1.46	4	22	29	66	67	84	30
Fast-slow	2.77	1.39	42	118	65	38	23	13	3
Successful-unsuccessful	2.88	1.34	30	118	73	36	28	17	0
Optimistic-pessimistic	3.41	1.49	17	94	49	66	49	24	4
Positive-Negative	3.16	1.37	25	89	73	64	32	16	3
Up-to-date-old-fashioned	3.48	1.64	22	88	64	33	48	39	8
Strong-weak	2.80	1.35	40	115	62	48	22	15	0
Progressive-regressive	3.00	1.3	27	90	97	43	33	10	2

It was expected, from these results, that groups without personal knowledge of the city would have a tendency to maintain more negative scores on each scale. This, however, was not found to be the case, for the scores between the groups showed very little variation (Tables 27, 28). Not only were such broad divisions insignificantly different, it was found that there were only very slight variations in the mean scores between the sexes, various age groups and other proposed independent variables. Using the t test as a measure of significance, none of the differences between mean scores on any scale, for any of the groupings, reached significance. This was found to be the case in both surveys.

Compared with results from the ACL, these semantic differential results are less well-defined. Although more basic individual differences of place perception have failed to emerge from any of the previous sections of both questionnaires, it is disturbing that the group who have been identified as holding a possible stereotyped image - characterised by more extreme, unfavourable responses - did not emerge from the SD scales. One of the most marked features of these scores, in both surveys, is the distribution of mean scores around the neutral point of the scales. Since mean scores tending towards the neutral point may indicate either an extreme bimodality or a genuine distribution around the centre of the scale, Figs. 29 and 30 provide graphs showing the cumulative frequency of responses to each scale in an attempt to identify the distribution of responses. It may be seen that the great majority of responses fall around the neutral point. For example, in the English survey, over 60% of the total distribution of scores on the relaxed-tense and the gentle-violent scales fall in the 'slightly' or 'neutral' categories. Similar distributions are apparent on the majority of the Hull survey scales.

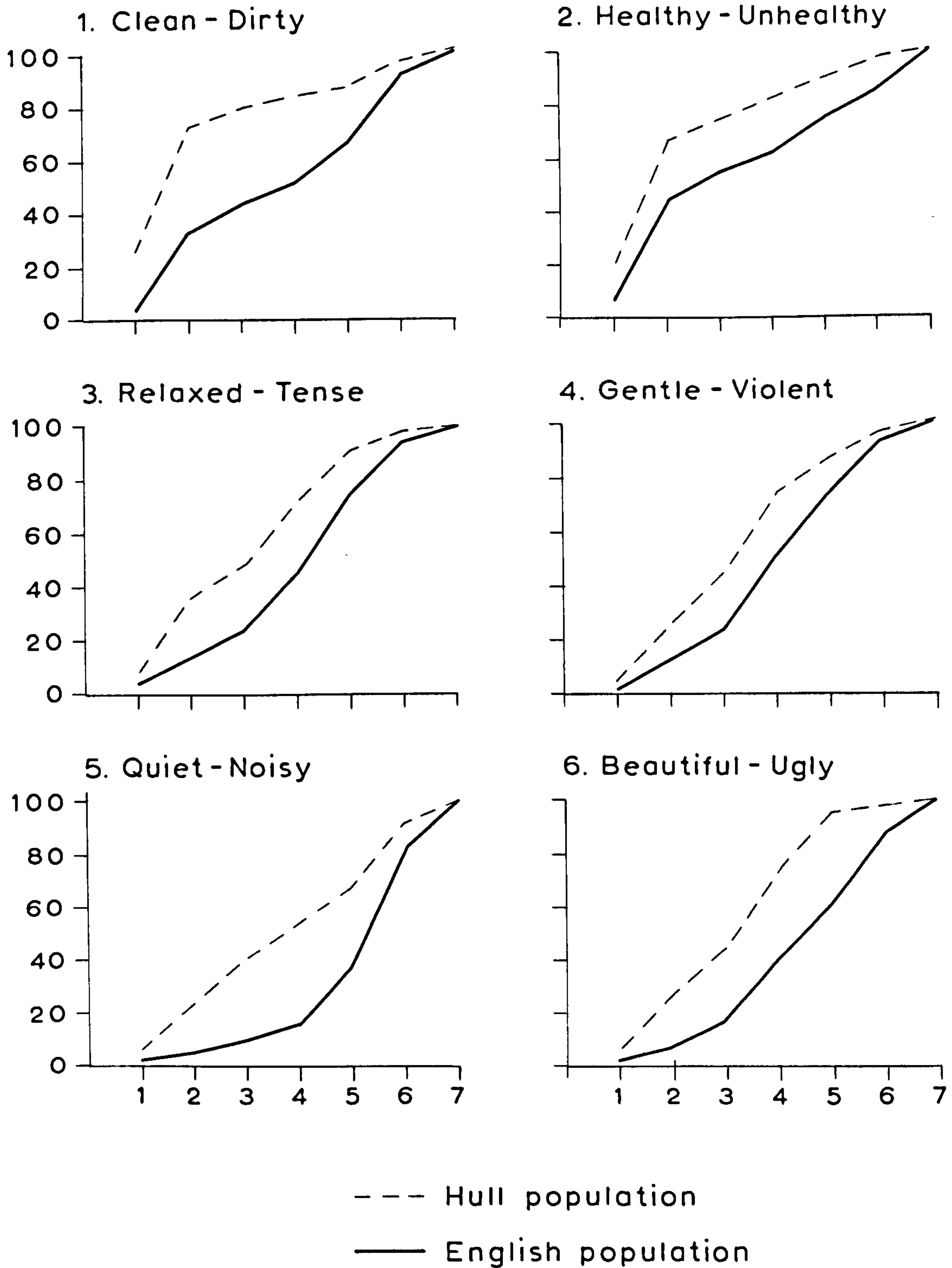


Fig. 29: The cumulative frequency distribution of the evaluation scales.

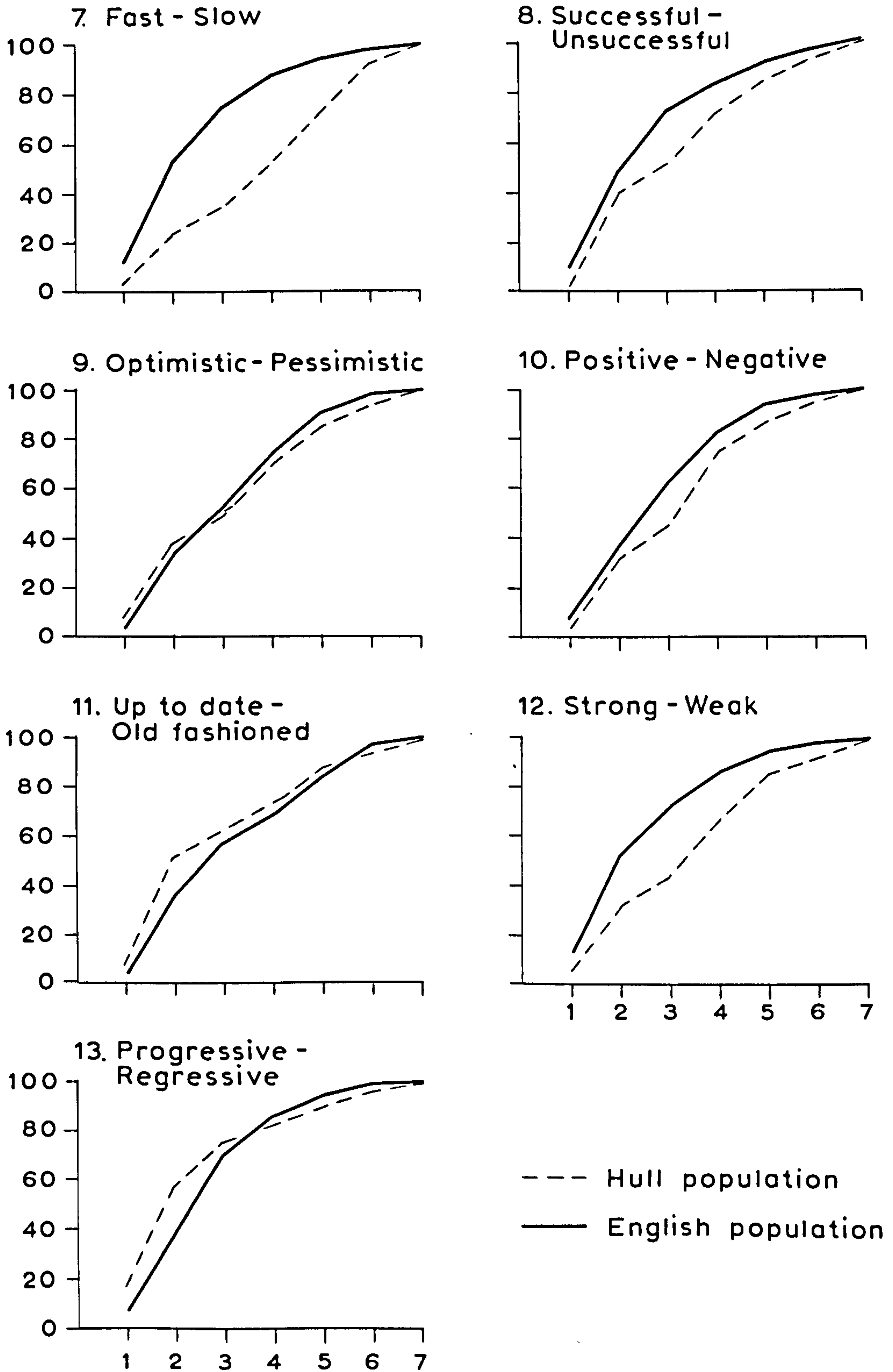


Fig. 30: The cumulative frequency distribution of the dynamism scales.

These distributions do not support the contention that non-student populations have a tendency to use the ends of the scales with greater frequency. The respondents, in both these surveys, have failed to make use of the full range of responses available to them. Possible reasons for this may relate to the design of the scales in the questionnaires or they may concern the relevance of the scales in measuring impressions of Hull. Having noted at the beginning of the section that certain people experienced difficulties with the technique, one possibility is that thirteen scales were insufficient for people to be able to assess what was required by the technique and to be able to record meaningful judgements. Another possibility is that these results are a genuine reflection of the impressions of Hull using these adjectival scales in particular. In support of this possibility, it must be acknowledged that the mean scores from both these surveys are of a similar magnitude to those recorded for Hull in the original SD test (Table 11, p 90).

Chapter Six has presented the results from the English and the Hull surveys; the photographs which follow provide an illustration of the images of Hull discovered in the surveys.

Plate 5: 'Hull has a deep character which stems from the fishing industry - the fishermen's wives waiting for them to come home.'



Plate 6: 'Hull's character stems from being a port; honest, down to earth; it's not a phoney city, it's clean for a port both mentally and environmentally.'



Plate 7: 'Here domes and statues, spires and cranes cluster
Beside grain-scattered streets, barge crowded
water ...'

Philip Larkin



Plate 8: 'Hull is a slow moving city - it's quite a few years behind other places.'



Plate 9: 'Hull is Victorian and Puritan. It is the
marine hymn rather than the sea shanty.'

Ray Gosling



Plate 10: 'Probably not very clean, a slightly run-down sea port.'



Plate 11: 'Hull is a Northern, down to earth, no nonsense,
no mucking about type of place.'

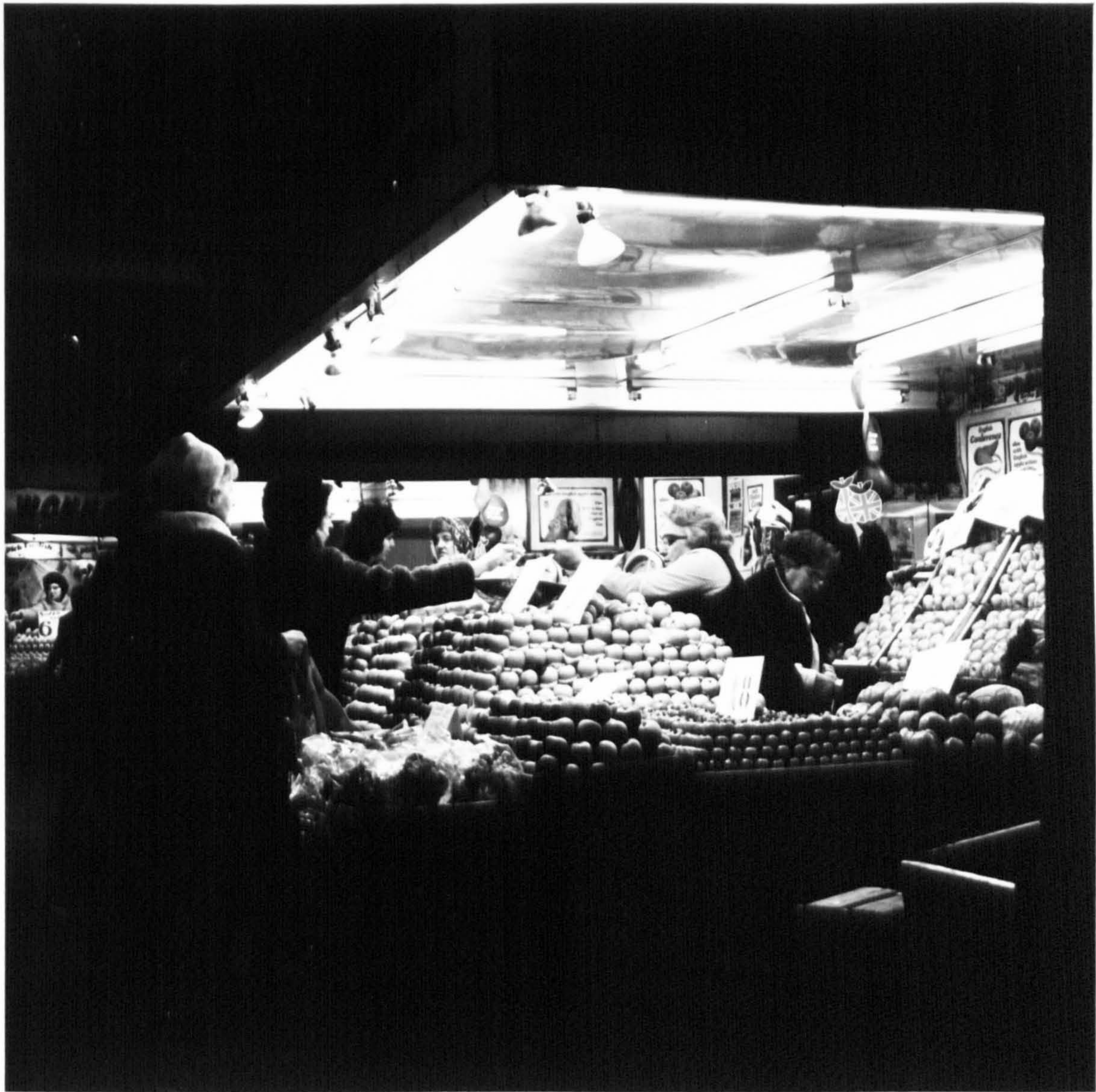


Plate 12: 'The people who have lived here all their lives tend to be insular: friendly among themselves, a very close knit community.'



Plate 13: 'On one side was a misty pleasing confusion
of masts and funnels, finely tangled in the
silvery mesh of the morning ...'



Plate 14: ' ... and on the other, we looked down on
an apparent infinity of cod and codling.'

J.B. Priestley



Plate 15: 'I think it is a high class place - lovely
city centre - nice type of people live here.'



Plate 16: 'While the city centre of Hull may still retain much of its distinctly parochial atmosphere, the Humberside dockland has the cosmopolitan feel of a big European port.'

From 'The Guardian', 1972.



Plate 17: 'Blunt people - with hard working women for
their homes.'



Plate 18: 'Floral - that's what springs to mind. The city centre is full of flowers and lovely parks.'



Plate 19: 'Hull has its own personality. It's due to its insularity and its determination to get ahead.'



Plate 20: 'A lovely old town; Wilberforce sums up the
friendliness and kindness of true Yorkshire
folk.'

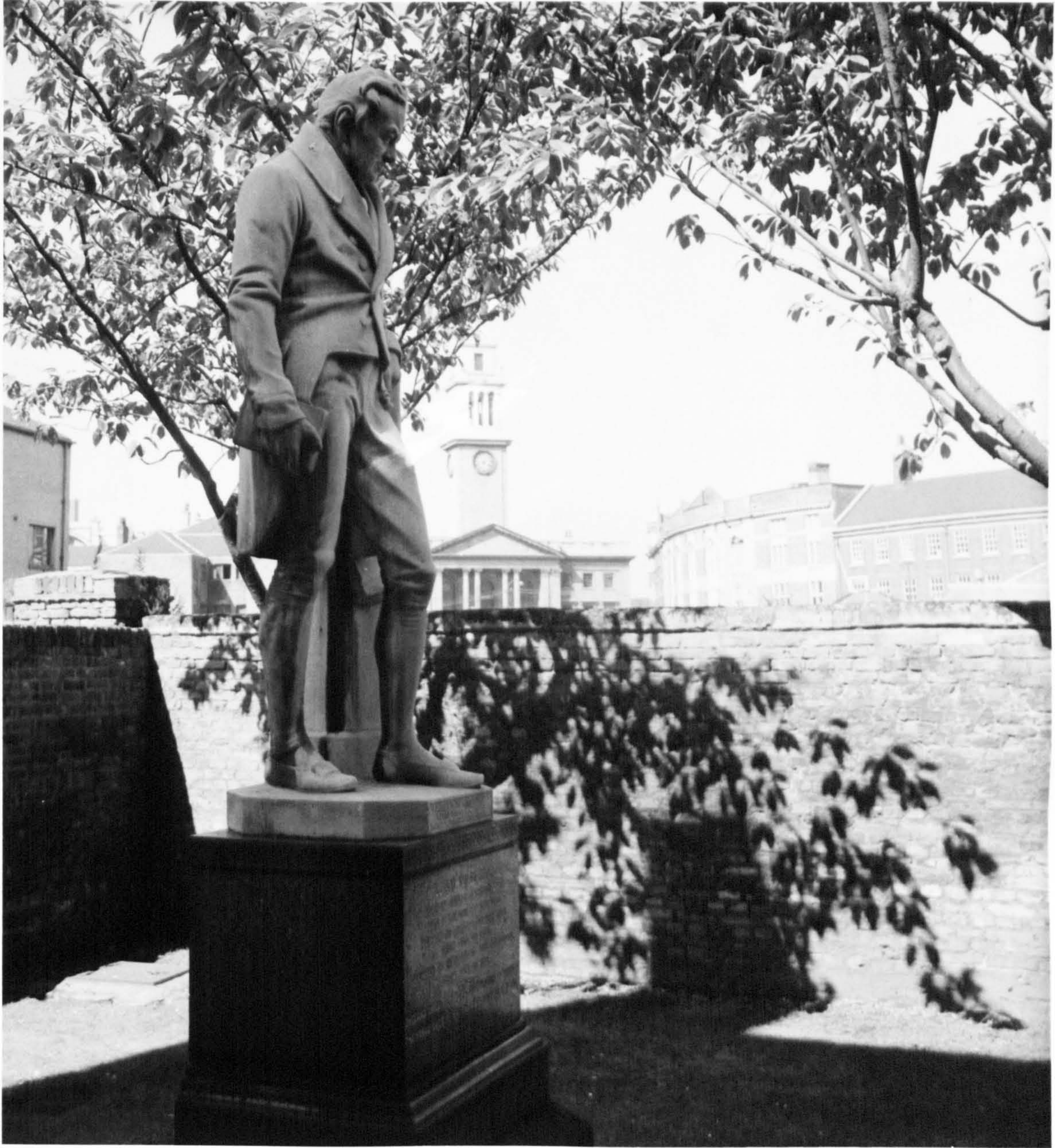


Plate 21: 'I always imagine Hull to be a big city; it's a rough and ready place but, by God, their women are supposed to be good!'



Plate 22: 'Don't think it puts itself out much - nothing
much goes on here - it wants a good shake up.'



Plate 23: 'Hull's character is fading. All the
fishermen are disappearing to the new estates.'



Plate 24: 'Of course, it will all change when they
finish the Bridge ...'



CHAPTER SEVEN. A Discussion of the Imagery of Place

'She answered that everybody said the Highlanders ate children, and made them their common food ... They affirmed in the newspapers of London, that we had dogs in our army trained to fight ... They represented the highlanders as monsters with claws instead of hands. In a word, they never ceased to circulate, every day, the most extravagant and ridiculous stories with respect to the Highlanders. The men ... in repeating these stories to their wives, improved, no doubt, upon the exaggerations of the soldiers, till, passing from mouth to mouth, the original falsehood became at length so absurd, that none but English peasants, the most stupid and credulous of mortals, would listen to them. But, indeed, there is nothing so absurd that the English will not readily believe it.'

Chevalier de Johnstone, 1745

It is proposed in this chapter to discuss pertinent aspects of all the original work presented in the thesis. Initially, discussion will focus around the results of the two surveys, relating these to the model proposed in Chapter Five. Examples of image making in the media and other literary work will be presented to support identification of the types of images proposed. Secondly, results from all five pieces of work - the pilot survey, place response test, semantic differential test and the two surveys, will be discussed in relation to other work published recently (in particular, Lowenthal and Riel, 1972; Townsend and Taylor, 1974; Donnelly, Goodey and Menzies, 1973).

Discussion of the model of place imagery

Discussion will be confined initially to the two main surveys undertaken, and their relationship with the model proposed in Chapter Five. In the model three distinct images - stylised, structured, and stereotyped, were identified in the form of a continuum. The stylised image, it was argued, would contain an over-emphasis upon certain favourable features of a place; the structured image would approximate more closely a balanced assessment; and the stereotyped image would contain distortion and over-simplification. The main hypothesis underlying the model was that the type of information available to the individual would determine to a large extent the type of image the individual would be likely to develop. The quality and quantity of information was assessed by the type of information available to the individual - either direct experience of the place or reliance upon a variety of secondary sources of information. At no time in the present study has the image been 'tested' for accuracy. It is felt to be inappropriate to assess whether these observed images are 'correct' or

not, since it has been argued consistently that any reality these images represent can only exist in relative terms. Thus, comparisons and contrasts have been made between the images themselves rather than by testing them against some objectively defined data set of characteristics.

Images of Kingston upon Hull were measured by three techniques in the surveys - open-ended questions, the adjectival checklist and a set of semantic scales. The character of the city was reasonably consistent across all three measures in both surveys. It is apparent that the inhabitants experience a great deal of affection for the city. This is evident not only from the overwhelming majority who consider Hull to be their home and that they belong to the city (84%), but also in their assessment of the character of the city. The strength of the community was apparent in the descriptions of Hull as a friendly, sociable, down-to-earth place. The inhabitants were proud of the cleanliness and modern appearance of the city and its green areas. The meaning of Hull expressed through the semantic scales showed that environmental evaluation was of slightly greater importance than social dynamism. It is rather surprising that the fishing tradition of the city should not have emerged as a major element in the inhabitants' perception of the city's character. Indeed, there was evidence of a particularly defensive attitude about this feature, since the majority of the sample felt that outsiders' unfavourable impressions of Hull would be related to this feature in particular.

But for people living outside the city, the importance of Hull as a fishing port cannot be over-emphasised. In the free response, it may be remembered that over sixty per cent of the English sample associated fishing in some guise with the name. Unfavourable evaluations were not

evident from these responses however, although there was a predominantly unfavourable evaluation of the city's environment evident from the semantic scales. People felt that the city was tense, violent, noisy and ugly. On the other hand, Hull was felt to be strong, positive, and optimistic. These results suggest differences between the images of the inhabitants as compared with those of the outsiders. The most effective means of illustrating these differences is afforded by the adjectival checklist results.

Certain clusters of attributes emerged from the analysis of the ACL results. Significant differences were apparent in the selection of attributes considered characteristic of the city which were dependent upon whether the individual had direct experience of Hull or not. A summary of the main areas of agreement and disagreement is provided in Table 29. It is divided into three parts. Part One shows those characteristic attributes about which there is general agreement (more than forty-five per cent in all groups). It may be seen that the Hull population and Group A - people with personal knowledge of the city - are in agreement over the largest number of attributes considered characteristic of the city. Part Two of Table 29 shows those attributes which a high percentage of the Hull survey considered characteristic but which are not so considered by people outside the city. The greatest disagreement is between the Hull population and people with no personal knowledge of the city and no interpersonal contact (Group D). All three external groups disagree about the appropriateness of 'isolated', 'trees, parks', 'a garden city', 'historic buildings', 'tower block flats' and 'low wages'. Could these attributes form part of a stylised image? Part Three of Table 29 shows those attributes thought to be

Table 29. Characteristic attributes from ACL results comparing results from the Hull survey and the informational groups of English survey

Part One Agreement between Hull population and three external groups

<u>Group A</u>	<u>Group C</u>	<u>Group D</u>
Working class city	Working class city	Working class city
Docks	Docks	Docks
Ships	Ships	Ships
Fishy	Fishy	Fishy
Large Council estates	Large council estates	Large council estates
Congested traffic	Congested traffic	Congested traffic
Friendly	Friendly	
Redevelopment		
Flat		
A lot of potential		
Good shopping centre		

Part Two Disagreement between Hull population and three external groups

<u>Group A</u>	<u>Group C</u>	<u>Group D</u>
Isolated	Isolated	Isolated
Trees, parks	Trees, parks	Trees, parks
A garden city	A garden city	A garden city
Historic buildings	Historic buildings	Historic buildings
Tower block flats	Tower block flats	Tower block flats
Low wages	Low wages	Low wages
	Redevelopment	Redevelopment
	Flat	Flat
		Friendly
		A lot of potential

Part Three Disagreement between three external groups and Hull population

<u>Group A</u>	<u>Group C</u>	<u>Group D</u>
Drabness	Drabness	Drabness
Much unemployment	Much unemployment	Much unemployment
Strong local community	Strong local community	
Modern	Heavy industry	Heavy industry
Wide streets	Slums	Slums
Regional centre	Cold	Cold
	Smoke	Smoke
	Overcrowded	Overcrowded
	Grey	Grey
		Depressed
		Characterless

characteristic by a high percentage of the external groups but a low percentage of the Hull population. The group with personal knowledge of the city are alone in finding 'wide streets', 'modern' and 'a regional centre' characteristic of their impressions of the city. Similarly, two groups with some form of personal contact (A and C) feel that the city has a 'strong local community'. However, there is also agreement between the two external groups without personal knowledge of the city about the relevance of 'slums', 'heavy industry', 'cold', 'smoke', 'overcrowded', and 'grey' in their impressions of Hull. These attributes may be a part of a stereotyped image - oversimplified and very unfavourable.

The model suggests that the media and so-called 'traditional attitudes' are an important source of information for place impressions and the argument was advanced that various types of information could be identified. Although an extensive analysis of media contributions was not possible in the present study, the following examples of media comment do appear to substantiate the existence in particular of 'stylised' and 'stereotyped' images. The structured image appears more elusive since strong differentiations within the Hull population did not emerge.

1. The media and internal imagery of Hull.

Apart from the emphasis upon 'low wages' and 'tower block flats', there is evidence among the local literature to support the hypothesis that greenery in the city, historic buildings and the isolation of Hull are all themes of great importance to the local population. They appear not only in the promotional literature of the city such as the town guides but also in the local newspaper, the 'Hull Daily Mail'. This newspaper is of considerable local influence; for example, seventy-eight per cent

of the Hull sample bought the newspaper each day. The comments below, although brief, are offered as support for the stylised image for they do illustrate longstanding elements in the city's character which are important only on a local basis.

The emphasis upon both the greenery and the historic aspects of the city appear to be at least partially a reaction against the fishing tradition, for a generally defensive attitude is prevalent among much of the local writing and national items written by local people. Thus, the 'Hull Daily Mail' writes about the 'huge backlog of nonsense built up about Hull - especially the image of a small fishing village where we swap cods' heads for cash' (Hull Daily Mail, 19.11.69, p. 6). The pre-eminence of trees and parks in the city's iconography appears to be of fairly long standing. For example, back in nineteen thirty seven, the city guide extols the virtues of Queen's Gardens, which was constructed from the first dock in the city:

'By the filling in of Queen's Dock, which has been converted into beautifully illuminated gardens ... Hull today is an up to date and bright looking city ... (with) such a wealth of trees and open spaces' (Development Committee, 1937, p. 75).

One of the recent town guides similarly emphasises the verdant appearance of the city:

'For although it is primarily industrial, commercial and maritime in character, it is an attractive city, with flower beds decorating many of its main thoroughfares and central shopping areas, and famed for its public parks, gardens and recreation grounds' (Development Committee, 1972, p. 1).

In a recent publication issued by the Junior Chamber of Trade (1973), six out of eight photographs illustrate municipal gardens in some guise. There is also considerable comment in the local press about the attractive

nature of the city: this was marked after the play by Plater (1973), when pleas to show the good parts of the city referred to the municipal gardens predominantly.

The appeal to Hull's historic importance is analogous to the garden emphasis and appears to serve the same purpose - to play down the industrial aspects of the city. The Hull guide (1972) calls the city 'a place of considerable historical interest' and its resume of the historical development of the city predominates over contemporary information. A much earlier work was written with the avowed intent of showing 'the rising generation how proud they should be to uphold the honour and dignity of this ancient city' (Monson-FitzJohn, 1927, p. 1). Writing a promotional piece in the 'Yorkshire Post', the then Lord Mayor eulogizes upon Hull's two famous sons, Andrew Marvell and William Wilberforce:-

'Like Ecclesiasticus, we praise these famous men, and to me, they are symbols of culture and freedom, and I like to think that Hull aspires to both' (Rosen, Yorkshire Post, 27.10.72, p. 7).

Both the gardens and the historic importance of the city were more common in replies by the elderly and the indigenous population of the city but not significantly so.

There is a heightened awareness of Hull's external image among the inhabitants which reflects their concern over the city's perceived isolation. In 1931, members of the Hull Society in London 'being all inspired with the highest regard for their birthplace' discovered that 'there is little or no knowledge of the city of Hull ... among the population of the metropolis' (Hull Society Minutes, 26.2.31, pp 156-157). They felt that for the sake

of future development this should be rectified. The Town Clerk wrote recently in a national newspaper:-

'Although the area is one of the United Kingdom's principal industrial complexes, it is still an attractive place with a clean, spacious appearance. This is a quality often remarked upon favourably by visitors who, through lack of knowledge, may have expected something different' (Glen, Guardian, 10.5.73, p. 19).

The lack of knowledge and subsequent unfavourable image implied in the above statement is thought to stem at least in part from the isolation of the city. Angry at Yorkshire Cricket Club's refusal to play in Hull, the editor of the 'Hull Daily Mail' wrote:-

'Could it be the old, old story - the city's geographical location: that Hull is considered too much out on a limb, too remote? ... the idea that east of the A1 trunk road there is some sort of great void, an unknown and unchartered land ... is a popular joke that has worn a little thin' (Hull Daily Mail, 12.8.74, p. 6).

A local poem published in a small pamphlet aiming to capture the character of the city in photograph, poem and song runs - 'Hull ... ignored by the whole country / Isolated and left' (Wyse, 1971, p. 6). It has been said repeatedly in the local press that the city has a poor image and the following is typical:-

'Only the unrealistic among us would deny that Hull's image, for whatever reason, is not what it might be and even if it were good there would be too many people unaware of it' (Hull Daily Mail, 7.2.71, p. 6).

There is a noticeable tendency to coin slogans about the city which reflect the defensive attitudes of the inhabitants and which are thought to serve as an aid to industrial development. In 1971, the Corporation

spent £20,000 in a public relations exercise (see Goodey and Lee, 1972), which led one alderman to remark in revealing fashion:- 'We are not a patent medicine. We are a city with proud traditions - the city of the future' (Schultz, Hull Daily Mail, 4.2.71, p. 1). As another example, one Lord Mayor was moved to pun that Hull 'is a city of Fish and Ships' which can have done little for the city's image! (Rosen, Yorkshire Post, 27.10.72, p. 7).

The main purpose behind the slogan competition in 1971 was to attract new industries to the city and, sponsored by the Industrial Development Officer, a local competition was held because 'a snappy, punchy slogan is needed ... to wipe away its shabby image and hammer home Hull's benefits and potentials' (Hull Daily Mail, 7.2.71, p. 1). Needless to say the slogan which won, 'Hull: Pacemaker of the Seventies', is strongly reminiscent of the American city slogans and died an early death. Another slogan used in conjunction with a graphic symbol of the model of the Humber Bridge attempts to turn the isolation around by arguing the role of Hull as the 'Gateway to Europe'. The symbolic value of the Humber Bridge may only be conjecture at the moment but it provides an important psychological focus: thus a recent pictorial of the city is able to write of 'the joy and excitement of watching the shape of the Humber Bridge gradually filling the skyline' (Hull Pictorial, 1974, p. 36).

2. The media and external images of Hull

It has been shown that for the inhabitants of the city, its isolation is felt to be one of the most potent forces in the development of unfavourable images. In external comment, the isolation of Hull is singled out not in relation to its physical characteristics but in the effects the isolation has had upon the inhabitants. There is also

regional recognition at least of the pre-occupation of the city with its image. A comment from the Yorkshire Post:-

'Hull keeps up a plaintive muttering about being among the top ten English cities and the nation's third port. It does little for the city's image' (Yorkshire Post, 4.4.70, p. 7).

Similarly, Andrew Robertson writing in the Sunday Times on his impressions of Hull:-

'The people are sensitive to outsiders and outside criticism. Some of them believe that the rest of Britain looks on Hull as a backward fishing village, when the truth is that it is the country's third port, has a population of more than 300,000 and only about 10,000 are employed fishing or fish processing ... It is still a bit of a village nevertheless, in which the majority of citizens go home for lunch' (Robertson, Sunday Times, 20.8.72, p. 15).

The main emphases in the national media are related to Hull's role as a fishing, dockland area with special comment upon the militancy of the dockers. There are certain common themes; for example, in a recent radio programme ('This Island Now', 18.1.72), discussion covered the Humber estuary and the potential afforded by the Humber bridge; the poor communications to the city; unemployment and militancy. In addition, the commentator suggested that one of the main disadvantages of the city was 'Hull's ridiculous music hall image' of Hull, hell and damnation. Isolation and the parochialism and the militancy of the inhabitants of the city is a common theme in media reports. For example:-

'Until now the city, best known for militant dockers and trawlermen, has sat in isolation on the tip of the Humber ignored by the rest of Britain.' (Hencke, T.H.E.S., 8.6.73, p. 5).

In a special report on the potential of Hull as a Common Market port, the journalist argued that the loss of Hull's trade in recent years was because:

'Shipowners have lost patience with what they describe as the "appalling labour record" of the Hull docks.' (Chippendale, Guardian, 10.8.72, p. 10).

It is apparent from authors recording their impressions of the city that far from finding it a friendly city, they find the inhabitants remote, strange and rather suspicious. The following quotations are taken from Priestly who visited the city in 1934, and Turner who wrote in 1967,

'These people are pleasant but queer. They are queer because they are not quite Yorkshire and yet not quite anything else. They are in fact citizens of Hull, like their fathers and grandfathers before them.' (Priestly, 1934, p. 354).

'The immigrant population is also small ... and outsiders are suspect. "It's always as well to mention right at the outset that you're Hull born" said a local man.' (Turner, 1967, p. 186).

In another BBC broadcast subsequently published in *The Listener* (1969), Ray Gosling describes his impressions of the city. Making specific mention of fish, Hull Fair, its dockland industries and unemployment in the city, he found:

'A warm welcome to visitors who look like one of them but for the stranger there's a cold shoulder.' He goes on, 'Hull is cold and drab and fat fishermen's wives. It is Victorian and Puritan. It is the marine hymn rather than the sea shanty.' (Gosling, 1969, p. 475)

Evidence to support the external stereotype is difficult to locate in these contemporary media reports. Obviously unfavourable comment upon the city's environment is not common. Back in 1968, Hull was described as:-

'A rather grimy city, not very attractive even to the most biased of local eyes, and with too many slums and decrepit industrial buildings.' (Financial Times, 25.10.68, p. 22)

The Daily Telegraph was critical of aspects of municipal housing in the city but prefers to damn with faint praise -

'Nevertheless, Kingston upon Hull is ... a most agreeable city ... and it has been reconstructed in a satisfactory if uninspired manner.' (Daily Telegraph, 22.8.70, p.9)

Certainly, comment related to the Hull docks and the fishing industry are more favourable than unfavourable. The docks are seen as a unique contribution to the city's character and there is criticism that the town docks are allowed to stagnate;

'The Docks have a unique and peaceful beauty ... The fascination of this feature of the city prompts one to reflect on the fate of the first docks to be formed over 200 years ago, now unfortunately turned into a municipal garden' (Daily Telegraph, 22.8.70, p. 9)

'The moat was converted into the Town Docks, one of which, Queen's, is now a park. The rest remain, stagnating behind their lock gates ... What will become of these splendid relics is uncertain ... it would be a pity, on the precedent of Queen's Gardens, just to fill in the docks and create yet another office or apartment area.' (Robertson, 1972, p. 15).

The majority of these media reports are related specifically to the main concerns of the city which, within the last eight years or so, have concerned the dock trade and militancy, deep water fishing activities and the various skirmishes with Iceland, the role of Hull with entry into the EEC and the building of the Bridge. The inhabitants assume that unfavourable images of the city emanate from fishing but evidence to support the proposed stereotyped image is not obvious from these media reports. The feature common to the two external groups with no personal

experience of the city is 'heavy industry' - fishing is a shared attribute across all groups. It was found that 'fishy', and other sea-faring activities were accorded a predominantly favourable evaluation by people living outside the city. Looking at those attributes in the group without personal experience of Hull and without interpersonal contact either (Group D), it is possible to assess whether the attributes evident in the stereotyped image are associated with fishing or another factor, most probably 'heavy industry' which showed the greatest percentage increase and is not evident in image of Group A. Using Yules' Q as a measure of association, it is evident that there is a negative correlation between 'fishy' and 'heavy industry' which is significant ($Q = -.55, p \geq .025$). Selecting certain attributes with high percentage scores in the image of Group D; while 'slums' are associated significantly with both 'fishy' and 'heavy industry' ($Q = +.56; Q = +.42, p \geq .025$ in both cases), the other unfavourable attributes associate significantly with 'heavy industry' alone. Thus, the correlation between 'heavy industry' and 'drabness' is the strongest ($Q = +.7$), 'grey' is next highest ($Q = +.64$) and these are followed by 'much unemployment' ($Q = +.56$) and 'overcrowding' ($Q = +.55$). All these correlations are significant ($p \geq .025$).

It is difficult to assess precisely what 'heavy industry' means since it is rather a loaded term but it may be argued that one of the most important elements in it is the iron and steel industry. Such writing and discussion of features of heavy industry are not present in media reports of Hull as has been shown. This suggests that the imagery present in people with no direct experience of the city and little or no interpersonal contact is not related to Hull at all. There is evidence to support the contention that the filling details of this image are

related to some greater symbolic city present in national attitudes and cultural traditions. Consider the two following quotations in relation to the stereotyped image of Hull which it may be remembered concerns heavy industry, drabness, much unemployment, slums, cold, smoke, overcrowded, grey, depressed, and characterless.

'Advancing more and more into the shadow of this mournful place whose dark, depressing influence ... filled them with a dismal gloom. On every side, and as far as the eye could see into the heavy distance, tall chimneys, crowding in on each other, and presenting that endless repetition of the same dull, ugly form ... and poured out their plague of smoke, obscured the light, and made foul the melancholy air.' (Dickens, 1959 edition, p. 335).

Similarly -

'Our manufacturing towns and villages are masses of ugliness - rows of houses with no architectural feature to please the eye, the only glimpse of nature being the narrow strip of murky sky overhead, dull and saddening.' (Hole, 1866, quoted in Cherry, 1972)

It may be argued therefore that the stereotyped image of Hull, while containing the barest bones of information about the port, draws its substance from the imagery of any northern industrial city described in its nineteenth century symbolism. It is possible to offer a piece of contemporary writing which uses all this symbolism to provide 'background' to a report on the loss of the Hull trawler 'Gaul' in 1974. It appeared in a woman's magazine of wide circulation in 1974, with the following heading -

'The most warm and endearingly tough people in the world'
 'Hull is a town of endless grey slate and dark red brick, narrow streets of terraced back-to-back houses, outside privies and front doors opening

straight onto the pavement. Small cul-de-sacs of houses boast front gardens the size of two bicycles stood together and here and there a straggly hydrangea or a few clumps of privet struggle to make the most of the soil impoverished by centuries of industry. Stray dogs lope along, small children push rickety prams, larger ones kick balls against brick walls - the activity that passes for football where boys are more used to concrete than green fields.

On the perimeter of the town, the planners have developed huge areas of council estates, houses, maisonettes, high rise flats. They have done this with enthusiasm and skill and in no way could one criticise the structural planning - yet a strange bleakness still prevails. It isn't the people - they must be the most warm and endearingly tough in the world; there is plenty of open space and rich green grass but a desperate absence of trees.

The town lives - and dies - on its fishing. Boys go to sea as soon as they are old enough, to fish or work in the ships floating factory, gutting and freezing the fish ... working full-time and with good settlings the average take-home wage would be from around £2,000 a year. It isn't much for a growing family. Some children go to school with cornflakes packets lining their plimsolls.' (Flack, 1974, pp. 12-13)

The first paragraph illustrates admirably the nineteenth century image: 'endless grey slate': 'narrow back-to-back houses': 'outside privies': plants 'struggling' to grow in soil 'impoverished by centuries of industry'. For good measure the second paragraph throws in some contemporary symbolism - 'huge areas of council estates': 'a strange bleakness': 'a desperate absence of trees'. And finally, there is the fishing upon which 'the town lives and dies'. With images of the entire population embarking 'as soon as they are old enough', their feet protected by 'cornflakes packets' - of course!

A wider discussion of urban imagery

The work discussed in the present study represents a contribution to a field of knowledge which is advancing rapidly. Having established that it was possible to measure urban images, the main focus of the research has been to isolate and relate various images of a city to one another. Other work published recently which is relevant may be subdivided into general surveys comparable with the Hull survey, and secondly, work seeking to identify basic elements in individual experience of the environment. It is possible to discuss the results reported in the present study with these other pieces of work, although it must be acknowledged that different underlying assumptions and, more particularly, different verbal techniques, preclude direct comparison. It is proposed to consider two main points in this discussion. Firstly, to assess what other work has to say about urban images of the type identified in this thesis, i.e. constructive characterisations of places. Comparable work has been carried out in the North East Region (Townsend and Taylor, 1974), the city of Sunderland (Donnelly, Goodey and Menzies, 1973) and in four cities in the United States (Lowenthal and Riel, 1972). Secondly, it is of value to consider the techniques through which urban imagery has been measured and to assess their relative merits.

Research into public perceptions in the North East are both part of government sponsored projects. The North East Area Study was established to consider many aspects of the area but the relevant paper is the interim report on the sense of place and local identity in the area (Townsend and Taylor, 1974). The other piece of research in the region forms part of a project into the public perceptions of five

British towns, with special reference to the needs of planners (see Goodey, 1973). Sunderland is the only town to be published so far. Both these surveys were carried out with the aim of measuring responses by inhabitants to their environment. The Sunderland study may be considered in relations to the findings of the Hull survey in particular, while those from the North East Area Study may be considered also in relation to the pilot study of regional perception (Chapter Three).

Townsend and Taylor, in defining their terms, suggest that their survey is into aspects of the sense of place - 'there are certain intrinsic qualities of place that provide meaning to individual people' - and local attachments - 'local identity can be taken to imply that in some way the individual associates with place to such a degree that he assumes an affection for some or all these qualities' (p. 1). Two aspects are of interest in relation to the present study. The authors isolate the local identity of the region's inhabitants through their observed emphasis upon familiarity and friendliness as the most important factors. They find that definitions of the 'home area' is 'concerned with the interaction of the individual with other people - rather than with the relationship to his physical environment.' (p. 18) On the other hand, descriptions of larger areas and regional character were defined by non-social elements. It was shown in the East Anglian survey and the Hull survey that local character and regional areal definition was based on both physical and social characteristics.

The people of the North East revealed a similar defensive attitude about the external image of their region as did the Hull population.

The authors write:

'The most striking feature of the results is the strong defensive reaction respondents exhibit when they feel the North East is being slighted. Clearly the majority had strong underlying feelings of loyalty and allegiance to the region.' (Townsend and Taylor, 1974, p. 34)

Also, as in the Hull region, the majority of their sample thought that the North East had an external image which was unfavourable rather than otherwise. Townsend and Taylor (1974) suggest that much of the regional loyalty is based upon 'perceived notions of the regions' external image' which is 'frequently portrayed in the popular media as a thoroughly depressed area' (p. 34). Of greater interest in terms of the development of stylised and stereotyped imagery is their discussion of 'the symbolic image of the "Geordie" ... fostered by local folklore and image makers' (p. 31). They expect this character to provide the main focus of the area and the main indication of the uniqueness of the North East. However, their discussion of this concept is a little disappointing: the symbolic creature is not defined beyond the rather vague assumption 'that there is nothing intrinsically Geordie but a very symbolic Geordie' (p. 31). When asking their respondents, forty-eight per cent defined a Geordie by his location (on Tyneside), and nineteen per cent by his accent. Townsend and Taylor acknowledge that 'the definition of a Geordie may be a symbol of many aspects of regional culture, but the word has no overriding acceptability for the whole of our sample' (p.34) - a comment which casts certain doubts on their conclusion that regional identity 'can be seen as the individual "interacting" with the symbolic Geordie - a character who embodies all the regional and cultural qualities of the North East' (p. 56).

The other study in the North East is far more precise in terms of

the definition and orientation of the survey. Working on the public image of Sunderland and how this could be related to the needs of planners in particular, the authors make the following point - 'in our study of Sunderland we were searching for impressions and observations of the town made by its residents. There are no "right" or "wrong" answers ... what follows is Sunderlanders talking about Sunderland' (Donnelly, Goodey and Menzies, 1973) - a comment in sympathy with the work on Hull. Like Townsend and Taylor, there is acknowledgement of a recognisable external image of Sunderland although they did no research into this supposed image. However, there is comment on the Sunderland image of itself;

'Our Sunderlander is friendly and helpful, a homely, hard-drinking person; often forthright and outspoken. He is seen by outsiders as speaking with a funny accent and fitting into the "Andy Capp" image.' (Donnelly, Goodey and Menzies, 1973, p. 46)

The Hull population, it may be remembered, saw themselves as friendly and blunt but proud and (unlike the people in Sunderland) thought that outside images were concerned with the physical rather than the social environment. The most detailed section of the Sunderland study concerns individual responses to various housing environments contained in a set of stimulus photographs. The findings provide support for the importance of environmental evaluation which emerged as the main dimension in the SD test, and Donnelly (et al) also observed stereotyped linkages of descriptors evident in earlier work in the present study. They found that in housing preference 'environmental quality (cleanliness, tidiness, quietness), proved to be the most potent in people's perceptions of an area' (p. 54). By dividing these responses into a 'good' and a 'bad' category, the argument is advanced for the existence of strong feeling behind these preferences. They found that -

In the 'good' section a 'rural' type of factor is operating, made up from categories like 'prefer greenery'; 'like open spaces' ... other factors, viz. 'clean'; 'quiet'; 'safe'; 'tidy'; etc., are, in themselves, not numerically important but obviously work powerfully in combination' (p. 60).

Conversely, the language used for the rejection of particular environments included the by now familiar groupings of dirty, drab, untidy, slum, ugly, and depressing (p. 60). This semantic content is similar to that used by people to describe their impressions of Hull and also to that in responses to place names.

Substantial evidence for the importance of these descriptors is gained from the studies by Lowenthal and Riel (1972). They present results from structured experiment into the formation of environmental impressions. They had individuals walk through various preselected routes in four American cities: New York, Boston, Cambridge, Mass., and Columbus, Ohio. The techniques used in the questionnaires, filled out at the end of each walk, included free response, and a set of twenty-five, five point semantic scales. One of the aims of the study was to identify 'universal environmental structures' evident in the language used to describe the environments. Using phi correlations between their semantic scales they identified 'an internally consistent network of beautiful, fresh, ordered, smooth, rich, vivid, pleasant, clean, likable, light ... All environments tend overwhelmingly to be judged as a combination of all these traits or by their opposites' (Lowenthal and Riel, Vol. 6, p. 11). They found further that these attributes are linked by emotion for beautiful, fresh, interesting, pleasant, clean and likable - the scales chosen for their affectual meaning - 'all universally intercorrelate with one another' (Vol. 6, p. 13). It is interesting to note that some of

these scales were used in the test into the meaning of place (Chapter Four) and they have produced a similar pattern of intercorrelation - without the stimulation of actually being present in the environment judged.

In the final paper of the series, Lowenthal and Riel attempt to decide whether the observed associations are verbal associations alone, whether the groupings are just the result of similarity in meaning, or whether they are actual environmental associations. There are certain divergences. For example, 'in judging actual environments, observers regularly associated ordered places with new ones, and chaotic with old. By contrast, semantic judgements link ordered with old, and chaotic with new' (Vol. 8, p. 17). However, the central group of adjectives identified overlap both verbal and environmental experience. The words are not, in general, those of environmental description and the emotive connotations of this group of descriptors serves to illustrate the importance of emotional responses in the formation of environmental impressions. As the authors comment, where there is overlap between environmental and verbally associated adjectives, strong feelings are apparent.

'Attribute connections that are duplicated in environmental and semantic contexts tend to involve strong feelings and evaluations, whereas realms that are unique to one or the other realm of experience are less emotive and more descriptive.' (Lowenthal and Riel, Vol. 8, p. 23)

It is evident from this research that the description of urban character emerges from such impressions. The first four papers of the series are concerned with individual city portraits. The test walks were 'not chosen as representative of New York (for example) as a whole,

but rather as quintessentially New York' (Vol. 1, p. 2) and Lowenthal and Riel argue that the impressions convey easily recognisable pictures of the four cities. Thus the 'consensual picture of Boston ... (is) essentially seedy (decayed, littered, grimy and dreary), crowded, busy and strongly idiosyncratic (quaint, historic, colorful, full of 'atmosphere')' (Vol. 2, p. 7). There is a wealth of detail in these reports and it is possible to illustrate only one more finding which may be compared with the Sunderland housing preference categories. They found that New York and Boston evoked far stronger impressions than either Cambridge or Columbus, and the character of the four cities differed markedly. 'Columbus and Cambridge share a linked suburban landscape which is overwhelmingly considered clean, pleasant, likable and interesting' (Vol. 17, p. 19), whereas the population of New York emerge as the true metropolitans since 'many of the prevailing negative stereotypes associated with American cities are absent among observers of New York'. These people are alone 'in not regarding urban landscapes as ugly, smelly, chaotic, rough, poor, bounded, drab, and dark' (Lowenthal and Riel, Vol. 8, p. 23).

Techniques used in the measurement of urban images

In assessing results, the techniques of measurement and the relevance and adequacy of social survey need to be discussed. The choice of more structured techniques and the validity of preselecting the descriptors and the need for techniques not dependent upon verbal communication have to be considered. A loosely structured social survey was used in the Sunderland study. It lacked a sampling frame which also precluded any statistical analysis. The authors selected representative areas and then interviewed people willing to chat on the doorstep for forty-five minutes

or so. The total sample was one hundred and fifty-eight, and sixty-eight per cent female. Donnelly (et al) felt this non-random design was acceptable since the content of the survey was impressionistic. The North East Area Study (Townsend and Taylor, 1974) also involved a social survey in five areas of the region. Theirs was a voluminous questionnaire on many aspects beyond discussions of imagery. Neither of these two studies has been able to do more than report percentage breakdowns of response to each question and continuing work into urban imagery must surely consider the value of work at this level of generalisation. There is widespread recognition, as in the present study, of the difficulty people experience in verbalising their images. This is apparent not only in the situation where no environmental stimulus is present but also when the individual is within the environment at the time of the interview. For example:-

'People found it difficult to verbalise beyond this point either because of the interview situation, or because people customarily do make their preference choices on vague, half conscious, semi-formalised notions which they hold. These notions may defy analysis by conventional research techniques but are very important in the individual's dynamic relationship with his environment' (Donnelly, Goodey and Menzies, 1973, p. 56).

There were similar difficulties with open descriptions when people walked through the environment to be described. Lowenthal and Riel (1972) also found that 'vocabularies for environmental description are apt to be conventionalised in form and impoverished in nature' (Vol. 1, p. 13).

It is essential, given this observation made across studies with and without direct environmental stimulus, to design and incorporate a wide variety of techniques in perception research. The majority of

structured techniques require previous selection of the elements included and herein is the problem - determination of the relevance and meaning of the elements for individual respondents. In the present study it has been shown that the three techniques used - open response, the adjectival checklist and the semantic differential - produced analogous results but each highlighted different facets of imagery and of the three, the open response was the least effective. The semantic differential is the more common of the structured techniques and there is considerable preselection of elements to be included (e.g. Kasmar, 1970). Lowenthal and Riel selected twenty-five scales found in selection tests to 'be fundamental to environmental apprehension and differentiation' (Vol. 2, p. 5). However, eight of these scales failed to diverge more than 0.5 from the neutral point in any of the four cities which suggests that they were less appropriate than previously supposed. They found also that the emotive scales were ineffective since, 'almost all groups adjudged their cities interesting; pleasant, and likable' (Vol. 5, p. 38). This was true of the environmental evaluation of the Hull survey describing their own city but the outside population were more definite in their use of the negative ends of these scales.

Two points may be made in relation to the semantic differential technique and place meaning on the basis of results from the present study. It is apparent that the Lowenthal and Riel scales all relate to environmental evaluation - an emphasis which was apparent in the place response test. The possibilities that social dynamism may be an important dimension have not yet been explored in any other study. Yet the importance of the social environment is evident from open-ended responses into the imagery of British towns. Secondly, the adjectival checklist

has not been considered in any depth in other work. This seems unfortunate for the technique has undoubted value. No difficulties were encountered in its application and valuable results were obtained from it. In addition, Warr and Knapper (1968) tested the level of correspondence between the SD and the ACL as measures of person perception and observed a correlation of $+0.82$ ($N=13$) between the two. They conclude that the similarity between the two is 'striking evidence of the concurrent validity of the two very different measures' (p. 102). Given the difficulties some individuals experience with the SD, the checklist may provide a valuable alternative. Most certainly there needs to be more work to assess the adjectival checklist as a technique for image measurement.

One other measurement technique which has not been discussed so far is the repertory grid test, which is offered in some quarters as alternative to the SD (Harrison and Sarre, 1971; Hudson, 1974; Donnelly and Menzies, 1974). The technique forms part of personal construct theory (Kelly, 1955) which concerns individual cognitive complexity. The argument is advanced that people differentiate between stimuli on the basis of constructs and the number of constructs used is indicative of the cognitive complexity of the individual (Bieri, 1966). In the repertory grid test the individual is asked to differentiate between triads of elements. It is argued that 'the major advantage of the repertory grid is that it provides a standardised judgemental framework within which the subject has maximum freedom to respond' (Smith and Leach, 1972, p. 561). Whilst this technique is of obvious value within clinical psychology, it may be argued that its value to the study of geographical imagery has not yet been substantiated. Harrison and Sarre (1971) provide a theoretical

rationale for the technique but in reporting the results of actual work in imagery using the repertory grid, it is evident that there are considerable problems with the technique. One of the main difficulties which appears to run counter to the basic purpose of the technique was the admitted need to prestructure their grids in order 'to force responses into a particular format, normally one which is comparable across different individuals' (Harrison and Sarre, 1971, p. 6). In these two studies, as in the one by Hudson (1974), the repertory grid took up vast amounts of time and their samples are very small and homogeneous. For example, Hudson used twenty-six students to assess images of grocery shops; Sarre used twenty middle class housewives in Bath. Apart from such biases, it is necessary for the researcher to organise the elicited constructs and Hudson acknowledges that 'this is very dependent upon the subjective grouping procedure of the author' (1974, p. 479).

One other piece of research using the repertory grid for environmental constructs has been published (Donnelly and Menzies, 1974). It purports to consider 'meaning in imagery' by using the repertory grid with selected school children. Ten constructs were elicited including 'not so good - nice'; 'crap - great'; 'nasty - go there'; 'not nice - the same'; 'crap - similar'. Very high correlations were observed between the majority of these constructs which, in turn, appear to be strangely related to the initial example of differentiation given to the children - 'nice - nasty'. It really is questionable what value this piece of work has beyond familiarising the authors with the technique.

Summary

An attempt has been made in this chapter to draw several threads of argument together based on a wide variety of evidence. In the first section, evidence from both local and national media was used to provide support for the identification of 'stylised' and 'stereotyped' imagery in particular. Evidence for the elements of the stylised image was found in the local literature. However, it was found that the stereotyped image was not related uniquely to Hull but was a response to a greater symbolic North Country town. In the second section, the work in the thesis was compared with other contemporary research. There are common findings. For example, there is evidence of a shared environmental language and certain shared environmental meanings. The inability of people to talk at depth about their environmental experience is a feature which emerges from work in both Great Britain and the United States. This highlights the need for a wide variety of techniques, both structured and unstructured. In this context, the value of the adjectival checklist has been discussed; and it has been argued that the repertory grid technique has not yet been substantiated as a valid measure of environmental imagery.

CHAPTER EIGHT. Conclusions and implications for further work

'(There) is a lack of any universally accepted general theory by which landscape and emotion may be connected and until we have found this the problem of language is bound to be even more acute. We are in fact trying to use a second-hand terminology to describe a relationship which we do not properly understand.'

J.H. Appleton, 1975, p. 20

Conclusions reached during the study have been separately outlined at the end of the relevant chapters. These concern the question of meaning in environmental experience; the nature of geographical imagery, and the development of perception measurement techniques. These conclusions are now re-examined and the wider implications for future work are considered.

It has been shown that any study of environmental perception is concerned inevitably with the environmental experiences of individuals. How these experiences are assessed, however, depends upon the orientation of the research. A phenomenological orientation has been adopted in this study in that individual experience of environment has constituted the main focus of enquiry. Thus, the images observed have not been considered in relation to any specific environmental behaviour and there has been no attempt to assess their accuracy against some more objectively defined data set.

The aim of the study has been to make a contribution not only to the new and rapidly expanding field of environmental perception but also to contribute to more traditional geographical ideas. In the Introduction, the essential continuity of the project with earlier geographical work was stressed and it was argued that definitions of urban and regional character represented attempts to elucidate the unique 'atmospheres' of certain landscapes. The study has been able to establish that most people feel places have an ambience which is composed of unique combinations of physical and social characteristics. One of the recognised components of urban and regional character involves an emotional assessment of places and landscapes. But, by and large, emotion has not played an important role in academic geographical assessments of environmental character where the objectivity of the descriptions has been stressed to

the exclusion of more subjective elements. This may explain why regional novelists, as opposed to regional geographers, have been more successful in the descriptions of environmental character since they were unconstrained by demands of objectivity and were thus able to identify and reflect more closely the environmental feelings of the population.

The importance of emotional and symbolic aspects of individual environmental experience has been discussed in Chapter Two. The connotative meaning of environments has been considered in relation to urban images, in particular, and it has been argued that there has been a neglect of this fundamental aspect of environmental perception. The findings from this study have been able to contribute to the growing debate about the meaning of environments and their significances by considering the images of both cities and regions. The work with the semantic differential and the place concepts identified at least two dimensions in the meaning of place. These were environmental evaluation and social dynamism. It may be remembered that these two dimensions were present also in open-ended descriptions of both urban and regional character. It has been argued that connotative meaning is of importance at all levels of interaction between individual and environment, from the relationship between individual and single buildings to entire cities and larger areas. The results from the study support the contention that,

'Spaces and places, no less than people, can evoke intense emotional responses. Rooms, neighbourhoods and cities can be "friendly", 'threatening', 'frustrating', or 'loathsome'; they can induce hate, love, fear, desire, and other affective states.' (Ittelson, et al, 1974, p. 88)

The model of place imagery put forward in Chapter Five proposed a

continuum of imagery, postulating three distinctive varieties of image dependent upon the quality and quantity of information available to the individual. The existence of stereotyped images has been recognised in several pieces of work discussed previously and they emerged from both the place response test and the semantic differential test. The most significant source of information for stereotyped images is assumed to be the media. However, the stereotyped image of Hull appears to have developed not from the contemporary media but from more deep seated cultural attitudes to the North. The study has also been able to make a contribution to the study of city images by identifying a stylised imagery intrinsic to the inhabitants. Certain elements of this stylised image were evident in the local literature and local traditions of the city. Finally, it must be acknowledged that there were difficulties in the identification of the 'normal' image: the extremes were far easier to identify and substantiate.

There do not appear to be great differences between individual images of places. The individual variables proposed in the model of place imagery failed to reveal any significant differences within the samples. This failure may be due to the nature of the assumptions made or to a more general failure in the measurement techniques. It is accepted that the level of the enquiry may have been too general to reveal fine differences between individuals. On the other hand, Tuan (1974) has stressed the role of the group culture on the perception, attitudes and environmental values of the individual, and differences in environmental perception tend to be between groups rather than individuals. Secondly, Lowenthal and Riel have concluded 'that where people are makes much more difference to the structure of the way they see the world than who they are' (Lowenthal and

Riel, 1972, vol. 7, p. 37). In this study, environmental images have been discovered through the language people use to describe their feelings and impressions of places and certainly there is evidence of a shared vocabulary of environmental experience.

Turning to questions of measurement, one feature to emerge from the surveys used in the study, and from comparable work, is the poverty of response associated with open-ended questions about individual images of places. Associated with this is the lack of variety in response. It is possible that images cannot be described beyond a general 'superficial' level, that shorthand phrases such as 'I think Hull is fishy' might be all the verbal description possible. Images may be too vague or ill-formed to put into extended verbal descriptions. On the other hand, the paucity of response may be the result of questionnaire design and more general faults within the survey method which do not encourage elaborate replies. The main problem in the assessment of environmental imagery is that the 'primary data ... should be people's accounts of their own experiences. How are we to go about it in practice so as to ensure maximum validity?' (Armistead, 1974, p. 119). It is evident that questionnaire techniques are a relatively circumscribed way of assessing experience but some do appear to function more successfully than others. The conclusion to be drawn from the study is that a battery of techniques is needed which may include extended participant dialogue, if possible, and a variety of verbal and non-verbal measurements. Most certainly, the adjectival checklist proved of considerable value in the main surveys where the semantic differential was much less successful than expected. The problem of measuring people's experience remains considerable for reasons succinctly expressed by Huxley:

'What a gulf between impression and expression! That's our ironic fate - to have Shakespearian feelings and (unless by some billion to one chance we happen to be Shakespeare) to talk about them like automobile salesmen or teenagers or college professors. We practise alchemy in reverse - touch gold and it turns into lead; touch the pure lyrics of experience, and they turn into the verbal equivalents of tripe and hogwash.' (Huxley, 1955, pp. 35-36)

Implications of the study for further work

The questions raised in this study are not just academic. Work into the public images of cities and regions of the country has obvious implications for planners and administrators faced with problems of industrial decline and the need to attract new populations to their areas. It has been argued that the search for a 'new' image for Hull arose mainly in response to the need for new industrial development in the city. The disturbing feature to emerge from these results for the Hull industrial development committee is that the external, stereotyped image of the city has nothing to do with Hull at all. In fact, the docks and fishing activities were evaluated favourably by people living in other parts of the country and these features were considered to be a unique contribution to the city's character. The unfavourable images of the city come from its perceived position in 'The North' and so Hull has the image and symbols given to any nineteenth century northern city. This suggests that all northern cities have a similar derogatory image. Further, it suggests that other northern cities are faced with the problem of changing the same stereotyped image which is deeply engrained in cultural attitudes.

The validity of the model of internal and external imagery of places postulated in this study needs to be tested in other areas: it may be

possible, for example, that the inhabitants of other coastal cities do not experience the same feelings of denigration about their fishing activities as do those of Hull; other cities may not be so aware of their individuality. Most certainly, one of the most fruitful areas for future enquiry will be into the relationship between environmental imagery and information. A valuable study would be a more controlled analysis of the relationship between the language of media reports and the development of place impressions. Once the specific elements in the communication of environmental images have been identified, it may then be possible to assess whether alternative 'image' communications do indeed have any effect. By focussing on the language used to describe places, this study has highlighted the importance of emotional and symbolic elements in the imagery of places.

13. (If yes) Could you tell me what sort of things help to make it so?
14. Do you feel that this area is unique?
 _____ yes; _____ no; _____ don't know
15. (If yes) Could you tell me why?
16. When considering different parts of the country, what do you think in terms of?
 _____ places you know personally; _____ large cities;
 _____ counties; _____ specific regions;
 _____ other (specify)
17. Would you say that Norwich/Cambridge is:-
 _____ just a large city; _____ the most important town in the county
 _____ the major city of the region
18. (Respondent to be given a blank map of England and Wales)
 Would you mark on the map please:
 i. The position of Norwich/Cambridge; ii. The boundary of the region of which it is the major city; iii. Would you also mark on any other cities which you consider to be regional capitals and draw their regional boundaries.
19. Could you tell me what you understand to be a region?
20. Which of the following definitions would you most strongly agree with?
 i. Regions are recognisable parts of the country. They consist of unique areas, each with their own particular characteristics;
 ii. Regions are administrative divisions, made up from several counties and may be changed around at will;
 iii. Regions do not exist at all.
21. You have been given a list of several cities in England. Would you rate them please, so that the city you would most like to live in = 1, through to the city you would least like to live in = 14.

Birmingham
 Bristol
 Cambridge
 Hull
 Leeds
 London
 Manchester

Newcastle
 Norwich
 Nottingham
 Oxford
 Plymouth
 Reading
 Southampton

21. (continued)

Would you rank the following areas in order of preference, i.e. where you would most like to live = 1, the area you would least like to live = 12.

Central England	Northwest England
East Anglia	Southern England
East Midlands	Southwest England
Humberside	West Midlands
London and the South East	Western England
Northern England	Yorkshire

Finally, would you tick those cities or regions you have actually visited.

22. I see from the previous question that you have/have not been to Hull. Would you say that Hull was the major city of any particular region?

_____ yes (specify); _____ no; _____ don't know

23. Would you show the position of Hull on the map please?

24. Can you remember how you came to know about Hull and the area around it?

_____ personal knowledge; _____ from friends; _____ t.v. and radio;
 _____ newspapers; _____ school _____ other

25. (If from personal knowledge) Would you tell me how often you go to Hull?

_____ more than once a week; _____ more than once a month;
 _____ more than six months; _____ more than once a year;
 _____ less than once a year (date)

26. (If from personal knowledge) What was the purpose of your last visit?

_____ in the course of employment; _____ visiting friends and relatives
 _____ holidays or passing through; _____ other

27. Would you complete the following sentence please?

'I think that Hull is

28. Here are a series of statements about Hull and Humberside; would you tick each one in the column which most closely corresponds with your opinion.

28. (continued)

	Strongly agree	Agree	Don't know	Disagree	Strongly Disagree
1. Hull is isolated from the rest of the country.					
2. It has a lot of potential.					
3. Hull is a dirty city.					
4. Hull and Humberside have coalmines and associated heavy industry.					
5. Humberside has a unique character.					
6. There is a lot of unemployment in the region.					
7. It is a depressed area.					
8. The ports of Humberside are very important to the rest of the country.					
9. Hull is a cultural centre.					
10. Hull has a large number of slums.					
11. Hull and Humberside would become more important with the Humber Bridge.					
12. Hull and Humberside are very flat and boring.					

Finally, would you give me a few personal details please?

M/F

Under 20; 20-35; 36-50; 51-65; over 65.

Terminal age of education? _____

Occupation of the head of household? _____

Appendix Two (a)The Place Response Test: - Words in the neutral categoryA. General terms.

Industrial. Rural. Old. Small. Large. Big. Modern.
 New. Agricultural. Historic. Urban. Flat. Countryside.
 Commercial. Far. Open. Near. Suburban. Ancient. Dry.
 Residential. Unusual. Slow. Tiny. Complex.

B. Specific terms.

Fishy. Fishing. Ships. Sea. Shipping. Port. Marine.
 Naval. Docks. Watery. Seaside. Salty. Water.
 Steamers. Sailors. Decks. Oil. Sea-faring. Resort.
 Spa. Coastal. Lights. Washing. Pebbles. Beach. Sandy.
 Pavilion. Holidays.
 Academic. Studious. Scholarly. Sagely. University.
 Students. Clever. Religious. Cathedral. Cloisters.
 Monastery. Monks. Medieval. Roman. Georgian. Manners.
 Low-lying. Marshy. Nodal. Dense. Forrested. Robin
 Hood. Wooded. Midlands. Northern. Central. Southern.
 Western.
 Rolling. Elite. Chalky. White. Moors. Unfamiliar.
 Hilly. Home. Villages. Blue. Sporting. Stimulation.
 Football. Obscure. Racing. Symmetrical. Trains.
 Illusive. Fortified. Silent. Station. Sleepy. Bricks.
 Glass. Coal. Heaps. Steel. Woolly. Iron. Metallic.
 Quarry. Strikes. Concrete. Geordie. Pearly Kings.
 Pensioners. Hippies. Flowers. Cows. Immigrants.
 Coloured. Cosmopolitan. Foreign. Pakistanis. Yellow.

Appendix Two (b)The Place Response Test: - Words in the favourable category

Clean. Pretty. Full. Nice. Good. Grand. Busy.
 Warm. Up-to-date. Beautiful. Lovely. Thrilling.
 Pleasant. Cultural. Agreeable. Quiet. Fine.
 Sophisticated. Healthy. Fresh. Elegant. Great. Rich.

Appendix Two (b) continued

Magnificent. Gentle. Select. Gorgeous. Peaceful.
 Sweet. Fair. Interesting. Colourful. Smart.
 Important. Quaint. Calm. Friendly. Trendy. Homely.
 Light. Optimistic. Hot. Bright. Open. Cheery.
 Attractive. Breezy. Secluded. Fashionable. Princely.
 Fantastic. Spacious. Gay. Serene. Picturesque.
 Lively. Tidy.

Appendix Two (c)The Place Response Test: - Words in the unfavourable category

Dirty. Depressing. Lonely. Dreary. Unpleasant.
 Smoky. Dusty. Primitive. Isolated. Empty. Smelly.
 Bourgeois. Clinical. Characterless. Obscure. Cold.
 Wet. Dull. Dark. Crowded. Horrible. Unhealthy.
 Filthy. Terrible. Snobbish. Ugly. Awful. Unimportant.
 Grim. Grimy. Slums. Stony. Bleak. Bad. Rough.
 Noisy. Desolate. Touristy. Boring. Old-fashioned.
 Poor. Horrid. Grey. Mucky. Scruffy. Dead.
 Rubbish. Nasty. Dingy. Unsuccessful. Rowdy. Dowdy.
 Hellish. Vile. Brown. Dreary. Restrictive. Barren.
 Congested. Unpleasant. Commercialised. Mediocre. Oily.
 Mean. Declining. Nondescript. Uninteresting. Negative.
 Hard. Rusty. Glum. Miserable. Sinful. Expensive.
 Crusty. Stormy. Dreadful. Remote. Rainy. Impersonal.
 Greedy. Corrupt. Dangerous. Showy. Dump. Squashed.
 Vicious. Stinking. Insignificant. Crumbling. Vulgar.
 Earthy. Despairing. Shocking. Strange. Weird.

Appendix ThreeThe Semantic Differential Test

Each respondent was given a booklet containing ten place concepts, each with a set of fifty scales underneath. The instruction sheet varied for the two samples to ensure complete comprehension of the test instructions.

1. Instructions to the students:

'We are trying to measure the meaning of certain things to various people by having them judge them against a series of opposite adjectives. On each page of this booklet you will find a different concept to be judged and underneath it a set of scales. Please make your judgements - in order - on the basis of what the concept means to you.

For example:

CIGARETTES

If you feel that this concept is VERY CLOSELY RELATED to one end of the scale you should place an X as follows;

good X : ___ : ___ : ___ : ___ : ___ : ___ bad

or

good ___ : ___ : ___ : ___ : ___ : ___ : X bad

If you feel it is QUITE CLOSELY RELATED (but not extremely, check like this:

thick ___ : X : ___ : ___ : ___ : ___ : ___ thin

or

thick ___ : ___ : ___ : ___ : ___ : X : ___ thin

IF ONLY SLIGHTLY RELATED, like this:

safe ___ : ___ : X : ___ : ___ : ___ : ___ unsafe

or

safe ___ : ___ : ___ : ___ : X : ___ : ___ unsafe

The direction of your X obviously depends upon which end of the scale seems to be most characteristic of the concept. If you consider

Appendix Three

1. Instructions to the students: (continued)

the concept to be NEUTRAL (both sides of the scale equally associated with it), or if the scale is COMPLETELY IRRELEVANT (unrelated to the concept), check the middle space.

Please make each item a separate and independent judgement. Sometimes you may feel you've had the same item before. This will not be the case, so please don't look through items or try to remember how you checked similar items earlier. Work through at fairly high speed.

Please don't worry over individual items. It is your first impressions, the immediate 'feelings' about the item we want.

2. Instructions to the University Maintenance Staff:

'We are trying to find out what sort of ideas people have about different places, particularly their feelings about Hull. At the top of each page in this booklet you will find the name of a different place and underneath a number of pairs of opposites. Please would you place an X in the space which expresses most clearly your feelings about the place for each pair of opposites. For example:

MANCHESTER

Big 1 : 2 : 3 : 4 : 5 : 6 : 7 Small

If you think Manchester is a VERY big place, put an X in space 1.

If you think it is a VERY small place, put an X in space 7.

If you think it's QUITE big (but not very big), put an X in space 2 - or if you think it is QUITE small, put an X in space 6.

If you feel it's only SLIGHTLY big, put an X in space 3 - or only SLIGHTLY small, put an X in space 5.

Lastly, if you don't think the pair of opposites apply to the place, put the X in space 4.

Similarly, with the other lines, put an X in the column which expresses most nearly your opinion. It is your first impression, your immediate feelings we want, so try to do the places as quickly as possible.'

Appendix Four (a)

The English Survey Questionnaire

Department of Geography, University of Hull.

Questionnaire Number.

Sample Point Number.

Address.

1. How long have you lived here?

 0 - 5 years

 5 - 10 years

 Plus 10 years

 All my life

2. Where did you live before? _____

3. How long were you there for?

 0 - 5 years

 5 - 10 years

 Plus 10 years

4. Did you have any specific reasons for moving to this area? Yes / No

5. Can you say what they were?

 Personal

 Economic

 Environmental

6. You must have visited quite a few places in Britain, which did you like best? _____

7. Would you explain why?

8. Again from your own experience, which place stands out as the worst you have been to? _____

9. Could you say why?

10. Have you ever been to Hull? Yes / No

 (if yes, q. 11 - 13)

11. When did you last visit Hull? _____

12. What was the purpose of the visit?

 In course of employment

 Visit friends, relatives

 Passing through to somewhere

13. How long did you stay in Hull? _____

14. Have you any friends or relatives who have been to Hull? Yes / No (if yes, q. 15 - 16)

15. Have they talked about the place to you? Yes / No

16. What sort of impression of the place did they give?

 Favourable

 Neutral

 Unfavourable

17. Can you remember having read anything, or seen and heard anything about Hull?

 Yes / No / D.K. (if yes, q. 18 - 19)

18. What was the source of the information?

 Books

 Newspapers

 Radio

 T.V.

19. What sort of things do you remember about the item?

20. What comes to mind when you think of Hull?

21. Is Hull a place you would like to live in? Yes / No / No opinion

22. Can you say why?

(Questions 23 - 25 on a separate sheet to be given to the respondent.)

In conclusion, would you give a few personal details, please.

26. M. / F.

27. In which age group are you?

 Under 20

 21 - 35 51 - 65

 36 - 50 Over 65

28. At what age did you finish full-time education? _____

29. Have you had any further training? (specify) _____

30. What is your job? _____

Appendix Four (a)

The English Survey Questionnaire

Department of Geography, University of Hull.

23. Please tick as many, or as few of the words below which fit in with your impressions of what Hull is like. It is not important whether you have been there or not, it is how you IMAGINE the place to be.

AFFLUENT	<input type="checkbox"/>	<input type="checkbox"/>	FLAT	<input type="checkbox"/>	<input type="checkbox"/>	LIGHT INDUSTRIES	<input type="checkbox"/>	<input type="checkbox"/>	RAPID EXPANSION	<input type="checkbox"/>	<input type="checkbox"/>
AGGRESSIVE	<input type="checkbox"/>	<input type="checkbox"/>	FISHY	<input type="checkbox"/>	<input type="checkbox"/>	LOW WAGES	<input type="checkbox"/>	<input type="checkbox"/>	REDEVELOPMENT	<input type="checkbox"/>	<input type="checkbox"/>
BORING	<input type="checkbox"/>	<input type="checkbox"/>	FRIENDLY	<input type="checkbox"/>	<input type="checkbox"/>	LOT OF POTENTIAL	<input type="checkbox"/>	<input type="checkbox"/>	GOOD SHOPPING CENTRE	<input type="checkbox"/>	<input type="checkbox"/>
CHARACTERLESS	<input type="checkbox"/>	<input type="checkbox"/>	A GARDEN CITY	<input type="checkbox"/>	<input type="checkbox"/>	LARGE COUNCIL ESTATES	<input type="checkbox"/>	<input type="checkbox"/>	SMOKE	<input type="checkbox"/>	<input type="checkbox"/>
COBBLES	<input type="checkbox"/>	<input type="checkbox"/>	GREY	<input type="checkbox"/>	<input type="checkbox"/>	MEDIOCRE	<input type="checkbox"/>	<input type="checkbox"/>	SECURE	<input type="checkbox"/>	<input type="checkbox"/>
CONGESTED TRAFFIC	<input type="checkbox"/>	<input type="checkbox"/>	GROWING POPULATION	<input type="checkbox"/>	<input type="checkbox"/>	MIDDLE-CLASS SUBURBIA	<input type="checkbox"/>	<input type="checkbox"/>	SLUMS	<input type="checkbox"/>	<input type="checkbox"/>
COALMINES	<input type="checkbox"/>	<input type="checkbox"/>	HILLY	<input type="checkbox"/>	<input type="checkbox"/>	MUCH UNEMPLOYMENT	<input type="checkbox"/>	<input type="checkbox"/>	SHIPS	<input type="checkbox"/>	<input type="checkbox"/>
COLD	<input type="checkbox"/>	<input type="checkbox"/>	HISTORIC BUILDINGS	<input type="checkbox"/>	<input type="checkbox"/>	MILITANCY	<input type="checkbox"/>	<input type="checkbox"/>	THEATRES	<input type="checkbox"/>	<input type="checkbox"/>
DERELICTION	<input type="checkbox"/>	<input type="checkbox"/>	HEAVY INDUSTRIES	<input type="checkbox"/>	<input type="checkbox"/>	MODERN	<input type="checkbox"/>	<input type="checkbox"/>	TOWER-BLOCK FLATS	<input type="checkbox"/>	<input type="checkbox"/>
DEPRESS	<input type="checkbox"/>	<input type="checkbox"/>	ISOLATED	<input type="checkbox"/>	<input type="checkbox"/>	OVERCROWDED	<input type="checkbox"/>	<input type="checkbox"/>	TREES, PARKS	<input type="checkbox"/>	<input type="checkbox"/>
DRABNESS	<input type="checkbox"/>	<input type="checkbox"/>	LOTS TO DO	<input type="checkbox"/>	<input type="checkbox"/>	POVERTY	<input type="checkbox"/>	<input type="checkbox"/>	WIDE STREETS	<input type="checkbox"/>	<input type="checkbox"/>
DOCKS	<input type="checkbox"/>	<input type="checkbox"/>	STRONG LOCAL COMMUNITY	<input type="checkbox"/>	<input type="checkbox"/>	A REGIONAL CENTRE	<input type="checkbox"/>	<input type="checkbox"/>	WORKING-CLASS CITY	<input type="checkbox"/>	<input type="checkbox"/>

Using only those words you have ticked, would you write in the 2nd box whether you consider them to be:-

Favourable = +, or Neutral = 0, or Unfavourable = -.

24. Below are a few pairs of adjective opposites; clean or dirty, quiet or noisy etc. Without thinking too much about each pair, please would you tick the column which best agrees with your feelings and impressions about HULL.

	Very	Quite	Slight	Neutral	Slight	Quite	Very	
CLEAN	_____	_____	_____	_____	_____	_____	_____	DIRTY <input type="checkbox"/>
HEALTHY	_____	_____	_____	_____	_____	_____	_____	UNHEALTHY <input type="checkbox"/>
TENSE	_____	_____	_____	_____	_____	_____	_____	RELAXED <input type="checkbox"/>
GENTLE	_____	_____	_____	_____	_____	_____	_____	VIOLENT <input type="checkbox"/>
NOISY	_____	_____	_____	_____	_____	_____	_____	QUIET <input type="checkbox"/>
UGLY	_____	_____	_____	_____	_____	_____	_____	BEAUTIFUL <input type="checkbox"/>
FAST	_____	_____	_____	_____	_____	_____	_____	SLOW <input type="checkbox"/>
SUCCESSFUL	_____	_____	_____	_____	_____	_____	_____	UNSUCCESSFUL <input type="checkbox"/>
PESSIMISTIC	_____	_____	_____	_____	_____	_____	_____	OPTIMISTIC <input type="checkbox"/>
POSITIVE	_____	_____	_____	_____	_____	_____	_____	NEGATIVE <input type="checkbox"/>
UP-TO-DATE	_____	_____	_____	_____	_____	_____	_____	OLD-FASHIONED <input type="checkbox"/>
WEAK	_____	_____	_____	_____	_____	_____	_____	STRONG <input type="checkbox"/>
PROGRESSIVE	_____	_____	_____	_____	_____	_____	_____	REGRESSIVE <input type="checkbox"/>

Appendix Four (b)The Hull Survey Questionnaire

Department of Geography, University of Hull

Interviewer:-

Address of respondent:-

1. Do you like living in Hull?

Yes/No/Uncertain

2. What do you like particularly?

3. What do you dislike?

4. Do you travel away from Hull very often? (approx. yearly frequency)

5. Are these trips mainly for business or pleasure?

Business/Pleasure/Other (specify)

6. Do you enjoy travelling?

Yes (reason?)

No (reason?)

Indifferent

7. Given a completely free choice, would you prefer to live:-

In a city; In the suburbs; In the country

8. Could you describe what would be your ideal place in which to live?

(probe:- location, type of landscape, people, etc.)

9. How long have you actually lived in Hull? (number of years)

10. It would be helpful to know which parts of the country you have

known, would you mind giving a few details of where you have lived?

	PLACE	No. of Years
Place of Birth		
1		
2		
3		
4		
5		
6		
7		
8		

Appendix Four (b) continued

11. Do you consider Hull to be your home?
 Yes/No/Uncertain/Do not understand 'home'
 (If yes, q. 12; if no, q. 13-14; if 4th choice, q. 15)
12. Can you describe what home means to you?
13. Is there a place you consider to be home?
 Yes/No (specify)
14. Why is it that place rather than the place you live at the present time?
15. Can you describe what home means to you?
16. Do you feel you belong anywhere?
 Yes/No/Uncertain (instruction:- if yes, elaborate on place and reasons)
17. Given the choice, would you like to move away from Hull?
 Yes/No/Uncertain (reasons for moving?)
18. Can you remember seeing or hearing anything about Hull on a national or regional level recently?
 Yes/No/Uncertain
 (if possible, list up to three items, with source if possible)
- i
 ii
 iii
19. Which television channel do you watch most often?
20. Which radio station do you hear most?
21. Which are your regular newspapers?
22. Do you think there is any bias in the items about Hull?
 Yes/No/Uncertain
 (if yes, specify)
23. Do you think that people living outside Hull have any particular impression of it?
 Yes/No/Uncertain
 (if yes, q. 24-29)

Appendix Four (b) continued

24. Can you describe these impressions?
25. Would you say that the general impression is favourable/neutral/unfavourable?
26. Where do you think this picture comes from?
27. Do you think it changes once people have visited the city?
 Yes (reason?)
 No (reason?)
28. Would you feel it is important to change this impression?
 Yes (reason?)
 No (reason?)
29. How can it be changed?
30. From your experience of other places, would you say that Hull has a distinct character?
 Yes/No/Uncertain
 (if yes, q. 31; if no, q. 32-33)
31. Would you describe the character of Hull?
32. Could you say why not?
33. Do you know of a place which does have a distinct character?
 (specify)

(34 and 35, the ACL and the SD scales given to the respondent)

In conclusion, would you mind giving a few personal details, please.

M/F; In which age group are you? 21-35; 36-50; 51-65; over 65.

At what age did you finish full-time education?

Have you had any further training? (specify)

Could you describe your (or your husband's) job?

Appendix Four (b) continued

Department of Geography, University of Hull.

23. Please tick as many, or as few of the words below which fit in with your impressions of what Hull is like. It is not important whether you have been there or not, it is how you IMAGINE the place to be.

AFFLUENT	<input type="checkbox"/>	<input type="checkbox"/>	FLAT	<input type="checkbox"/>	<input type="checkbox"/>	LIGHT INDUSTRIES	<input type="checkbox"/>	<input type="checkbox"/>	RAPID EXPANSION	<input type="checkbox"/>	<input type="checkbox"/>
AGGRESSIVE	<input type="checkbox"/>	<input type="checkbox"/>	FISHY	<input type="checkbox"/>	<input type="checkbox"/>	LOW WAGES	<input type="checkbox"/>	<input type="checkbox"/>	REDEVELOPMENT	<input type="checkbox"/>	<input type="checkbox"/>
BORING	<input type="checkbox"/>	<input type="checkbox"/>	FRIENDLY	<input type="checkbox"/>	<input type="checkbox"/>	LOT OF POTENTIAL	<input type="checkbox"/>	<input type="checkbox"/>	GOOD SHOPPING CENTRE	<input type="checkbox"/>	<input type="checkbox"/>
CHARACTERLESS	<input type="checkbox"/>	<input type="checkbox"/>	A GARDEN CITY	<input type="checkbox"/>	<input type="checkbox"/>	LARGE COUNCIL ESTATES	<input type="checkbox"/>	<input type="checkbox"/>	SMOKE	<input type="checkbox"/>	<input type="checkbox"/>
COBBLES	<input type="checkbox"/>	<input type="checkbox"/>	GREY	<input type="checkbox"/>	<input type="checkbox"/>	MEDIOCRE	<input type="checkbox"/>	<input type="checkbox"/>	SECURE	<input type="checkbox"/>	<input type="checkbox"/>
CONGESTED TRAFFIC	<input type="checkbox"/>	<input type="checkbox"/>	GROWING POPULATION	<input type="checkbox"/>	<input type="checkbox"/>	MIDDLE-CLASS SUBURBIA	<input type="checkbox"/>	<input type="checkbox"/>	SLUMS	<input type="checkbox"/>	<input type="checkbox"/>
COALMINES	<input type="checkbox"/>	<input type="checkbox"/>	HILLY	<input type="checkbox"/>	<input type="checkbox"/>	MUCH UNEMPLOYMENT	<input type="checkbox"/>	<input type="checkbox"/>	SHIPS	<input type="checkbox"/>	<input type="checkbox"/>
COLD	<input type="checkbox"/>	<input type="checkbox"/>	HISTORIC BUILDINGS	<input type="checkbox"/>	<input type="checkbox"/>	MILITANCY	<input type="checkbox"/>	<input type="checkbox"/>	THEATRES	<input type="checkbox"/>	<input type="checkbox"/>
DERELICTION	<input type="checkbox"/>	<input type="checkbox"/>	HEAVY INDUSTRIES	<input type="checkbox"/>	<input type="checkbox"/>	MODERN	<input type="checkbox"/>	<input type="checkbox"/>	TOWER-BLOCK FLATS	<input type="checkbox"/>	<input type="checkbox"/>
DEPRIVED	<input type="checkbox"/>	<input type="checkbox"/>	ISOLATED	<input type="checkbox"/>	<input type="checkbox"/>	OVERCROWDED	<input type="checkbox"/>	<input type="checkbox"/>	TREES, PARKS	<input type="checkbox"/>	<input type="checkbox"/>
DRABNESS	<input type="checkbox"/>	<input type="checkbox"/>	LOTS TO DO	<input type="checkbox"/>	<input type="checkbox"/>	POVERTY	<input type="checkbox"/>	<input type="checkbox"/>	WIDE STREETS	<input type="checkbox"/>	<input type="checkbox"/>
DOCKS	<input type="checkbox"/>	<input type="checkbox"/>	STRONG LOCAL COMMUNITY	<input type="checkbox"/>	<input type="checkbox"/>	A REGIONAL CENTRE	<input type="checkbox"/>	<input type="checkbox"/>	WORKING-CLASS CITY	<input type="checkbox"/>	<input type="checkbox"/>

Using only those words you have ticked, would you write in the 2nd box whether you consider them to be:-

Favourable = +, or Neutral = 0, or Unfavourable = -.

24. Below are a few pairs of adjective opposites; clean or dirty, quiet or noisy etc. Without thinking too much about each pair, please would you tick the column which best agrees with your feelings and impressions about HULL.

	Very	Quite	Slight	Neutral	Slight	Quite	Very	
CLEAN	_____	_____	_____	_____	_____	_____	_____	DIRTY <input type="checkbox"/>
HEALTHY	_____	_____	_____	_____	_____	_____	_____	UNHEALTHY <input type="checkbox"/>
TENSE	_____	_____	_____	_____	_____	_____	_____	RELAXED <input type="checkbox"/>
GENTLE	_____	_____	_____	_____	_____	_____	_____	VIOLENT <input type="checkbox"/>
NOISY	_____	_____	_____	_____	_____	_____	_____	QUIET <input type="checkbox"/>
UGLY	_____	_____	_____	_____	_____	_____	_____	BEAUTIFUL <input type="checkbox"/>
FAST	_____	_____	_____	_____	_____	_____	_____	SLOW <input type="checkbox"/>
SUCCESSFUL	_____	_____	_____	_____	_____	_____	_____	UNSUCCESSFUL <input type="checkbox"/>
PESSIMISTIC	_____	_____	_____	_____	_____	_____	_____	OPTIMISTIC <input type="checkbox"/>
POSITIVE	_____	_____	_____	_____	_____	_____	_____	NEGATIVE <input type="checkbox"/>
UP-TO-DATE	_____	_____	_____	_____	_____	_____	_____	OLD-FASHIONED <input type="checkbox"/>
WEAK	_____	_____	_____	_____	_____	_____	_____	STRONG <input type="checkbox"/>
PROGRESSIVE	_____	_____	_____	_____	_____	_____	_____	REGRESSIVE <input type="checkbox"/>

Appendix Four (c)Copy of the Letter for the English Survey

The University,
Hull

Dear Sir/Madam,

Mrs. J. Burgess, a research worker in the Department of Geography at the University of Hull, is engaged in a piece of research which consists of a nationwide survey.

The aim of the survey is to discover how the public feel about the area in which they live, and their opinions about other parts of the country. The results are expected to reveal the importance of individual opinion in this matter. It is hoped that as a result of the study, consideration for the individual will play a far greater part in future regional planning decisions.

The interview takes no longer than ten minutes and is anonymous. You have been chosen by chance from the total population of the area. We require no personal information.

One of our interviewers will call to see you some time during the afternoon or evening of tomorrow. I would be grateful if you would grant them an interview.

Yours faithfully,

Professor H.R. Wilkinson
Head of the Department of Geography

Appendix Four (d)Copy of the Letter for the Hull Survey

The University,
Hull

Dear Sir/Madam,

Mrs. J. Burgess, a research worker in the Department of Geography at the University of Hull, is engaged in a piece of research which consists of a nationwide survey.

The aim of the survey is to discover how the public feel about the area in which they live. It is concerned also with their opinions about other parts of the country, particularly about Hull. The results are expected to reveal the importance of individual opinion in this matter. It is hoped that as a result of the study, consideration for the individual will play a far greater part in future regional planning decisions.

The interview lasts no more than 15 minutes and is anonymous. You were chosen by chance from the total population of Hull. One of our interviewers will call to see you in the near future. I would be grateful if you would grant them an interview.

Yours faithfully,

Professor H.R. Wilkinson
Head of the Department of Geography

REFERENCES

- ALLPORT, F.H. 'Theories of Perception and the Concept of Structure', New York: Wiley, 1955.
- AMES, A. 'Visual perception and the rotating trapezoidal window', Psychological Monographs, 1951, 65, No. 324.
- APPLETON, J.H. 'The Experience of Landscape', New York: Wiley, 1975.
- APPLEYARD, D. 'Styles and methods of structuring a city', Environment and Behaviour, 1970, 2, 100-117.
- ARMISTEAD, N. 'Reconstructing Social Psychology', Harmondsworth, Middlesex: Penguin Books, 1974.
- BARKER, R.G. 'Ecological Psychology: Concepts and Methods for Studying the Environment of Human Behaviour', Stanford, Calif.: Stanford Univ. Press, 1968.
- BARTLETT, F.C. 'Remembering', Cambridge: Cambridge Univ. Press, 1932.
- BERTANLAFFY, L. von 'On the definition of the symbol', in 'Psychology and the Symbol', Royce, J.R. (ed.), New York: Random House, 1965, 26-29.
- BEVAN, W. 'Perception: Evolution of a concept', Psychological Review, 1958, 65, 34-55.
- BIERI, J. 'Cognitive complexity and personality development', in 'Experience, Structure and Adaptability', Harvey, O.J. (ed), New York: Springer, 1966.
- DE LA BLACHE V. 'Principes de la geographie humaine', Paris, 1922.
- BLUNDEN, R.M. 'Sampling frames', Commentary, 1966, 8, 101-112.
- BOULDING, K.E. 'The Image: Knowledge in Life and Society', Ann Arbor, Mich: Univ. of Michigan Press, 1956.
- BOULDING, K.E. 'National images and international systems', Journal of Conflict Resolution, 1959, 3, 120-131.
- BOWDEN, M.J. 'The perception of the western interior of the United States, 1800-1870: A problem of historical geography', Proceedings of The Association of American Geographers, 1969, 1, 16-21.
- BRIGGS, A. 'Victorian Cities', Harmondsworth, Middlesex: Penguin, 1968.
- BROOKFIELD, H.C. 'On the environment as perceived', in 'Progress in Geography: International Reviews of Current Research', ed. C. Board (et al), London: Arnold, 1969.

- BUCHANAN, W. and CANTRIL, H. 'How Nations See One Another', Urbana: Univ. of Illinois Press, 1953.
- BUGELSKI, B.R. 'Words and things and images', American Psychologist, 1970, 25, 1002-1012.
- BRUNSWIK., E. 'Perception and the Representative Design of Psychological Experiments', Berkeley, Calif.: Univ. of California Press, 1956.
- BURTON, I. and WHITE, G.F. 'The Human Ecology of Extreme Geophysical Events', Natural Hazard Research Working Paper No. 1, Department of Geography, Univ. of Toronto, 1968.
- BURTON, T.L. and CHERRY, G.E. 'Social Research Techniques for Planners', London: Allen and Unwin, 1970.
- CAMPBELL, D.T. 'Stereotypes and the perception of group differences', American Psychologist, 1967, 22, 817-829.
- CAMPBELL, R.D. 'Personality as an element in regional geography', Annals of The Association of American Geographers, 1968, 58, 748-759.
- CANTRIL, H. 'Concerning the nature of perception', Proceedings of The American Philosophical Society, 1960, 104, 467-473.
- CARR, S. 'The city of the mind', in 'Environmental Psychology: Man and his Physical Setting', (ed.) Proshansky (et al), New York: Holt, Rinehart and Winston, 1970, 518-533.
- CARR, S. and SCHISLER, D. 'The city as a trip: perceptual selection and memory in the view from the road', Environment and Behaviour, 1969, 1, 7-35.
- CASSON, H. 'Seaside sense' paper delivered at the Conference on the future development of holiday resorts, London, 13.10.1962, p. 6, as quoted in Lowenthal, D. and Prince, H. 'English landscape tastes', Geographical Review, 1965, 55, 186-222.
- CAUTHEN, N.R., ROBINSON, I.E. and KRAUSS, H.H. 'Stereotypes: A review of the literature', Journal of Social Psychology, 1971, 84, 103-125.
- CHERRY, G.E. 'The ambience of the North: The image of an unfavoured region', Northern Architect, 1967, No. 2, 834-835.
- CHERRY, G.E. 'Urban Change and Planning', London: Foulis and Co., 1972.
- CHIPPENDALE, P. 'Bitter wharves', The Guardian, 1972, 10 August, p. 10.
- CLIFF, N. 'Adverbs as multipliers', Psychological Review, 1959, 66, 27-44.
- COX, K.R. and GOLLEDGE, R.G. eds. 'Behavioural Problems in Geography: A Symposium', Studies of Geography No. 17, Evanston, Ill.: Department of Geography, Northwestern Univ., 1969.

- CRAIK, K.H. 'The comprehension of the everyday physical environment', Journal of the American Institute of Planners, 1968, 34, 29-37.
- CRAIK, K.H. 'Environmental psychology', in 'New Directions in Psychology', Craik, K.E. (ed.) New York: Holt, Rinehart and Winston, 1970.
- CURL, J.S. 'European Cities and Society', London: Leonard Hill, 1970.
- DARBY, H.C. 'The regional geography of Thomas Hardy's Wessex', Geographical Review, 1948, 38, 426-443.
- DARBY, H.C. 'The problem of geographical description', Transactions of The Institute of British Geographers, 1962, 30, 1-15.
- DAVIES, J.A. 'Elementary Survey Analysis', Englewood Cliffs: Prentice Hall, 1971.
- DEUTSCH, M. and KRAUSS, R.M. 'Theories in Social Psychology', New York: Basic Books, 1965.
- DEWEY, J. and BENTLEY, A.F. 'Knowing and the Known', Boston, Mass.: Beacon, 1949.
- DICKENS, C. 'The Old Curiosity Shop', London: Oxford Univ. Press, 1959 edition.
- DI VESTA, F.J. 'A developmental study of the semantic structures of children', Journal of Verbal Learning and Verbal Behaviour, 1966, 5, 249-259.
- DOBY, J.T. (ed.) 'An Introduction to Social Research', New York: Appleton - Century - Crofts, 1967.
- DOHERTY, J.M. 'Developments in Behavioural Geography', Discussion Paper No. 35, London: Graduate School of Geography, London School of Economics, 1969.
- DONNELLY, D., GOODEY, B. and MENZIES, M. 'Perception related survey for local authorities: A pilot study in Sunderland', Univ. of Birmingham: Centre for Urban and Regional Studies, Research Memorandum No. 20, 1973.
- DONNELLY, D., MENZIES, M. and SPENCER, D. 'Meaning in Imagery: The Sunderland Results', Univ. of Birmingham: Centre for Urban and Regional Studies, Working Paper No. 13, 1974.
- DOUGLAS, M. 'Natural Symbols', London: Barrie and Cresset, 1970.
- DOWNS, R.M. 'Approaches to, and Problems in, the Measurement of Geographic Perception', Seminar Paper Series A, No. 9, Bristol, Department of Geography, Univ. of Bristol, 1967.
- DOWNS, R.M. 'Geographic space perception: Past approaches and future prospects', in 'Progress in Geography: International Reviews of Current Research', Vol. 2, (ed.) C. Board (et al), London: Arnold, 1970.

- DOWNS, R.M. and STEA, D. 'Image and Environment: Cognitive Mapping and Spatial Behaviour', London: Arnold, 1974.
- DYOS, H., and WOLFE, M. (eds.), 'The Victorian City. Images and Realities of the Environment for the Social Mass', London: Routledge, 1973.
- ENGLISH, P.W. and MAYFIELD, R.C. (eds.) 'Man, Space and Environment', London: Oxford University Press, 1972.
- FLACK, S. 'One of our trawlers is missing', Woman's Own, 1974, 10 August.
- FIREY, W. 'Sentiment and symbolism as ecological variables', American Sociological Review, 1945, 10, 140-148.
- FISHER, C.A. 'Whither Regional Geography?', Geography, 1970, 55, 373-388.
- FISHMAN, J.A. 'An examination of the process and function of social stereotyping', Journal of Social Psychology, 1956, 43, 27-64.
- FORGUS, R.H. 'Perception, the Basic Process in Cognitive Development', New York: McGraw-Hill, 1966.
- FRANCESTATO, D. and MEBANE, W. 'How citizens view two great cities: Milan and Rome', in 'Image and Environment', Downs, R.M. and Stea, D. (eds), London: Arnold, 1974, 131-148.
- GENDLIN, E.T. 'Experiencing and the Creation of Meaning', New York: Macmillan, 1962.
- GLEN, J.H.W. 'The future of Hull', The Guardian, 1973, 10 May, p. 18.
- GIBSON, J.J. 'The Senses Considered as Perceptual Systems', Boston: Houghton Mifflin, 1966.
- GILBERT, E.W. 'The idea of the Region', Geography, 1960, 45, 157-175.
- GILBERT, E.W. 'English regional novels and geography', Abhandlungen des I: Geographischen Instituts der Freien, Universitat Berlin, Bd. 13, 1970, 47-54.
- GLACKEN, C. 'Traces on the Rhodian Shore', Berkeley, Calif.: Univ. of California Press, 1967.
- GOLANT, S. and BURTON, I. 'The Meaning of a Hazard: Application of the Semantic Differential', Natural Hazard Research Working Paper No. 7, Toronto: Department of Geography, Univ. of Toronto, 1969.
- GOLD, J. 'Communicating Images of the Environment', Centre for Urban and Regional Studies Occasional Paper No. 29, Univ. of Birmingham, 1974.
- GOLLEDGE, R.G., BROWN, L.A. and WILLIAMSON, F. 'Behavioural approaches in geography: an overview', Australian Geographer, 1972, 12, 59-79.
- GOODEY, B. 'Perception of the Environment: An Introduction to the Literature', Centre for Urban and Regional Studies Occasional Paper No. 17, University of Birmingham, 1971.

- GOODEY, B. 'The Image of Five British Towns: Perception Studies for Planning', Univ. of Birmingham: Centre for Urban and Regional Studies, 1973.
- GOODEY, B., DUFFETT, A., GOLD, J., and SPENCER, D. 'City-Scene: An Exploration into the Image of Central Birmingham as Seen by Area Residents', Research Memorandum No. 10, Birmingham: Centre for Urban and Regional Studies, Univ. of Birmingham, 1971.
- GOODEY, B. and LEE, S.A. 'City Scope: Image Mapping in Hull', Report for McKinsey and Co. Inc., London, 1972.
- GOULD, P. 'On Mental Maps', Michigan Inter-University Community of Mathematical Geographers, Discussion Paper No. 9, Ann Arbor, Mich.: Department of Geography, Univ. of Michigan, 1966.
- GOULD, P. 'Methodological developments since the Fifties', in 'Progress in Geography', C. Board (et al), London: Arnold, 1969, 1-49.
- GOULD, P and WHITE, R. 'Mental Maps', Harmondsworth, Middlesex: Penguin, 1974.
- GRAY, S. 'The Electoral Register: Practical Information for Use when Drawing Samples, both for Interview and Postal Surveys', London: O.P.C.S., Social Survey Division, 1970.
- GREEN, R.F. and GOLDFRIED, M.R. 'On the bipolarity of semantic space', Psychological Monographs, 1965, 79 (6, Whole No. 599).
- GUELKE, L. 'Problems of scientific explanation in geography', Canadian Geographer, 1971, 15, 38-53.
- GULICK, J. 'Images of the Arab City', Journal of The American Institute of Planners, 1963, 29, 179-197.
- HAMLIN, D.W. 'The Psychology of Perception: A Philosophical Examination of Gestalt Theory and Derivative Theories of Perception', London: Routledge and Keegan Paul, 1957.
- HANSEN, M.H., HURWITZ, W.N. and MORDON, W.G. 'Sample Survey Methods and Theory', New York: Wiley, 1953.
- HARRIS, C. 'Theory and synthesis in historical geography', Canadian Geographer, 1970, 15, 157-172.
- HARRISON, J.D. and HOWARD, W.A. 'The role of meaning in the urban image', Environment and Behaviour, 1972, 4, 389-413.
- HARRISON, J. and SARRE, P. 'Personal construct theory in the measurement of environmental images', Environment and Behaviour, 1971, 3, 351-374.
- HARVEY, D. 'Behavioural Postulates and the Construction of Theory in Human Geography', Seminar Paper Series A, No. 6, Department of Geography, Univ. of Bristol, 1967.

- HARVEY, D. 'Explanation in Geography', London: Arnold, 1969.
- HAYAKAWA, S.L. 'Language in Thought and Action', London: Allen and Unwin, 3rd Impression, 1968.
- HEISSE, D.R. 'Some methodological issues in semantic differential research', Psychological Bulletin, 1969, 72, 406-422.
- HEISSE, D.R. 'The semantic differential and attitude research', in 'Attitude Research', G.F. Summers (ed.), Chicago: Rand McNally, 1970.
- HENCKE, D. 'Hull University poised to enjoy the fruits of Europe', Times Higher Education Supplement, 1973, 8 June, p. 5.
- HERBERTSON, A.J. 'The major natural regions: an essay in systematic geography', Geographical Journal, 1905, 25, 300-312.
- HERBERTSON, A.J. 'Natural regions', Geographical Teacher, 1913, 7, 158-183.
- HERBERTSON, A.J. 'Regional environment, heredity and consciousness', Geographical Teacher, 1915, 8, 147-153.
- HICKS, E.P. and BEYER, B.K. 'Images of Africa', Social Education, 1968, 32, 779-784.
- HUDSON, R. 'Images of the retailing environment: an example of the use of Repertory Grid Methodology', Environment and Behaviour, 1974, 6, 470-494.
- HULL DAILY MAIL, 'Strain on Loyalties', 1974, 12 August, p. 6.
- HULL DAILY MAIL, 'Hull: the Friendly City. The trade of Hull and the Humber Ports', Hull, 1973.
- HYMAN, H. 'Survey Design and Analysis: Principles and Processes', Glencoe, Ill.: Free Press, 1955.
- HUXLEY, A. 'The Genius and the Goddess', New York: Harper, 1955.
- ITTELSON, W.H. (ed.) 'Environment and Cognition', New York: Seminar Press, 1973.
- ITTELSON, W.H., PROSHANSKY, H.M., RIVLIN, L.G., and WINKEL, G.H. 'An Introduction to Environmental Psychology', New York: Holt, Rinehart and Winston, 1974.
- JENKINS, J.J., RUSSELL, W.A. and SUCI, G.J. 'An atlas of semantic profiles for 360 words', American Journal of Psychology, 1958, 71, 688-699.
- JOHNSTON, R.J. 'Structuring the image: an investigation of the elements of mental maps', Environment and Planning, 1972, 32, 355-360.

- CHEVALIER DE JOHNSTONE, 'A Memoir of the Forty-Five', London: Folio Society, 1968 edition.
- JORDAN, N. 'Themes in Speculative Psychology', London: Tavistock Publications, 1968.
- KAMERON, J. 'Experimental studies of environmental perception', in 'Environment and Cognition', W.H. Ittleson, (ed.), New York: Seminar Press, 1973, 157-167.
- KANE, J.N. and ALEXANDER, G.L. 'Nicknames of Cities and States of the United States', New York: Scarecrow Press, 1965.
- KARLINS, M., COFFMAN, T.L. and WALTERS, G. 'On the fading of social stereotypes: studies in three generations of college students', Journal of Personality and Social Psychology, 1969, 13, 1-16.
- KASMAR, J.V. 'The development of a usable lexicon of environmental descriptors', Environment and Behaviour, 1970, 2, 153-169.
- KATES, R.W. 'Stimulus and Symbol: The view from the bridge', Journal of Social Issues, 1966, 22, 21-28.
- KATES, R.W. 'Human Perception of the Environment', International Social Science Journal, 1970, 22, 648-660.
- KATZ, D. and BRALY, K.W. 'Racial stereotypes of one hundred college students', Journal of Abnormal and Social Psychology, 1933, 28, 280-290.
- KELLY, G.A. 'Psychology of Personal Constructs', Vol. 1, New York: Norton, 1955.
- KILPATRICK, F.P. (ed.) 'Explorations in Transactional Psychology', New York: New York University Press, 1961.
- KINGSTON UPON HULL DEVELOPMENT COMMITTEE, 'The City and County of Kingston upon Hull', Hull: A. Brown and Sons, 1937.
- KINGSTON UPON HULL DEVELOPMENT COMMITTEE, 'Hull', Hull: A. Brown and Sons, 1972.
- KIRK, W. 'Historical geography and the concept of the Behavioural Environment', Indian Geographical Journal, (Silver Jubilee Edition), Madras: Indian Geographical Society, 1951, 152-160.
- KIRK, W. 'Problems of geography', Geography, 1963, 48, 357-371.
- KISH, L. 'Survey Sampling', New York: Wiley, 1965.
- KOFFKA, K. 'Principles of Gestalt Psychology', London: Keegan Paul, 1935.
- KOHLER, W. 'Gestalt Psychology', New York: Liveright, 1929.

- KUMATA, H. and SCHRAMM, W. 'A pilot study of cross cultural meaning', Public Opinion Quarterly, 1956, 20, 229-238.
- LADD, F.C. 'Black youths view their environment: Neighbourhood maps', Environment and Behaviour, 1970, 2, 74-99.
- LARKIN, P. 'Here', from 'The Whitsun Weddings', London: Faber and Faber, 1971.
- LEE, T. 'Psychology and living space', Transactions of the Bartlett Society, 1964, 2, 9-36.
- LEE, T. 'Perceived distance as a function of direction in the city', Environment and Behaviour, 1970, 2, 40-51.
- LENZ-ROMEISS, F. 'The City - New Town or Home Town?', London: Pall Mall Press, 1973.
- LEWIN, K. 'Field theory and Learning', in 'Field Theory in Social Sciences: Selected Theoretical Papers by Kurt Lewin', D. Cartwright (ed.), New York: Harper and Row, 1951, 60-86.
- LEWIS, G.M. 'Regional ideas and reality in the Cis-Rocky mountain west', Transactions of the Institute of British Geographers, 1966, 38, 135-150.
- LOWENTHAL, D. 'Geography, experience and imagination: Towards a geographical epistemology', Annals of the Association of American Geographers, 1961, 51, 241-260.
- LOWENTHAL, D. 'Environmental Perception and Behaviour', Research Paper No. 109, Chicago: Department of Geography, Univ. of Chicago, 1967.
- LOWENTHAL, D. 'Research in environmental perception and behaviour; perspectives on current problems', Environment and Behaviour, 1972, 4, 333-342.
- LOWENTHAL, D. 'Past time, present place: Landscape and memory', Geographical Review, 1975, 65, 1-36.
- LOWENTHAL, D. and PRINCE, H.C. 'The English Landscape', Geographical Review, 1964, 54, 309-346.
- LOWENTHAL, D. and PRINCE, H.C. 'English Landscape Tastes', Geographical Review, 1965, 55, 186-222.
- LOWENTHAL, D. and RIEL, M. 'Environmental and Semantic Responses: Comparative Studies in Environmental Perception', New York: American Geographical Society, 1972.
- LOWENTHAL, D. and RIEL, M. 'The nature of perceived and imagined environments', Environment and Behaviour, 1972a, 4, 189-207.

- LYNCH, K. 'The Image of the City', Cambridge, Mass.: M.I.T. Press, 1960.
- LYNCH, K. 'What Time is this Place', Cambridge, Mass.: M.I.T. Press, 1972.
- LYNCH, K. and RIVKIN, M. 'A walk around the block', in Proshansky (et al), 1970, 631-642.
- LYNDON, D., MOORE, C.W., QUINN, P.J. and RYN, S.V.D. 'Towards making places', Landscape, 1962, 12, 31-41.
- MACLEOD, R.B. 'Phenomenology: a challenge to experimental psychology', in 'Behaviourism and Phenomenology', T. Wann (ed.), Chicago: Univ. of Chicago Press, 1964.
- MARX, M.H. and HILLIX, W.A. 'Systems and Theories in Psychology', New York: McGraw-Hill, 1973.
- MAURER, R. and BAXTER, J.C. 'Images of the neighbourhood and city among black, Anglo- and Mexican-American children', Environment and Behaviour, 1972, 4, 389-412.
- MERCER, D.C. and POWELL, J.M. 'Phenomenology and Related Non-Positivistic viewpoints in the Social Sciences', Monash Publications in Geography No. 1, Department of Geography, Monash University, Melbourne, 1972.
- MERLEAU-PONTY, M. 'The Phenomenology of Perception', London: Routledge and Keegan-Paul, 1962.
- MERRENS H.R. 'The physical environment of early America: the images and image makers in colonial South Carolina', Geographical Review, 1967, 59, 530-556.
- MESSICK, S.J. 'Metric properties of the semantic differential', Educational and Psychological Measurement, 1957, 17, 200-206.
- MICHELSON, W. 'An empirical analysis of urban environmental preference', Journal of the American Institute of Planners, 1966, 32, 355-360.
- MILGRAM, S. 'The experience of living in cities', Science, 1970, 167, 1458-1461.
- MILLER, G. 'The magical number seven plus or minus two', Psychological Review, 1956, 63, 81-97.
- MIRON, S. 'The influence of instruction modification upon test - retest reliabilities of the semantic differential', Educational and Psychological Measurement, 1961, 21, 883-893.
- MIRON, S. and OSGOOD, C.E. 'Language behaviour: the multivariate structure of qualification', in 'Handbook of Multivariate Experimental Psychology', Cattell, R.B. (ed.), Chicago: Rand McNally, 1966.

- MONSON-FITZJOHN, G. 'The City of the Three Crowns', London, 1927
- MOORHOUSE, G. 'Britain in the Sixties: The Other England', Harmondsworth, Middlesex: Penguin Special, 1964.
- MORDKOFF, A.M. 'An empirical test of the functional antonymy of semantic differential scales', Journal of Verbal Learning and Verbal Behaviour, 1963, 2, 504-508.
- MOSER, C.A. 'Survey Methods in Social Investigation', London: Heinemann, 1958.
- MUNDLE, C.W.K. 'Perception: Facts and Theories', London: Oxford University Press, 1971.
- NEISSER, U. 'Cognitive Psychology', New York: Appleton, 1967.
- OPPENHEIM, A.N. 'Questionnaire Design and Attitude Measurement', London: Heinemann, London, 1966.
- O'RIORDAN, T. 'Perspectives on Resource Management', London: Pion Ltd., 1971.
- ORLEANS, P. 'Differential cognition of urban residents: effects of social scale on mapping', in 'Image and Environment', R.M. Downs and D. Stea (eds.), London: Arnold, 1974, 115-130.
- ORWELL, G. 'The Road to Wigan Pier', London: Gollanz, 1937.
- OSBORN, F. and WHITTICK, A. 'The New Towns', London: Leonard Hill, 1969.
- OSGOOD, C.E., SUCI, G.J. and TANNENBAUM, P.H. 'The Measurement of Meaning', Urbana, Ill.: Univ. of Illinois, 1957.
- PARKINSON, C.N. 'The Two Nations', The Economist, March 25, 1967, 1116-1117.
- PARR, A.E. 'Mind and milieu', Sociological Inquiry, 1963, 33, 19-24.
- PARR, A.E. 'Psychological aspects of urbanology', Journal of Social Issues, 1966, 22, 40-45.
- PAVIO, A. 'Imagery and Verbal Processes', New York: Holt-Rinehart-Winston, 1971.
- PEARSON, A. 'Dock gate to Europe', The Guardian, 1973, 10 May, p. 19.
- PERRY, R.P. and BOYD, J.E. 'Communicating impressions of people: a methodological study of person perception', Journal of Social Psychology, 1972, 86, 95-104.
- PETERSON, G.L. 'A model of preference: quantitative analysis of the perception and of the visual appearance of residential neighbourhoods', Journal of Regional Science, 1967, 7, 19-31.

- PIAGET, J. 'The Child's Construction of Reality', London: Routledge and Keegan Paul, 1955.
- PLATER, A. 'The Land of Green Ginger', a play for television, shown on BBC Television, 14 January 1973.
- POCOCK, D.C.D. 'Some comments on urban images derived from invitation-to-map exercises', Architectural Psychology Newsletter, 1973. 4, 42-48.
- POLLIO, H.R. 'The Psychology of Symbolic Activity', New York: Addison-Wesley, 1974.
- PRIESTLEY, J.B. 'English Journey', London: Heinemann with Gollanz, 1934.
- PRINCE, H.C. 'The geographical imagination', Landscape, 1961, 11, 22-25.
- PRINCE, H.C. 'Real, imagined and abstract worlds of the past', in 'Progress in Geography: International Reviews of Current Research', Vol. 3, C. Board (et al), (eds.), London: Arnold, 1971, 4-86.
- PROKOP, D. 'Image and functions of the city: An essay on social space', in Urban Core and Inner City', Brill, E.J. (ed.), Leiden, 1967, 22-34.
- PROSHANSKY, H.M., ITTELSON, W.H. and RIVLIN, L.G. (eds.), 'Environmental Psychology: Man and His Physical Setting', New York: Holt, Rinehart and Winston, 1970.
- RABAN, J. 'Soft City', London: Hamish Hamilton, 1973.
- RAPOPORT, A. and HAWKES, R. 'The perception of urban complexity', Journal of the American Institute of Planners, 1970, 36, 106-111.
- RELPH, E. 'An inquiry into the relations between phenomenology and geography', The Canadian Geographer, 1970, 14, 193-201.
- ROBERTSON, A. 'A place to create a British Amsterdam', Sunday Times, 1972, 20 August, p. 15.
- RODGERS, H.B. 'Random sampling techniques in social geography', Geographica Polonica, 1970, 18, 139-156.
- ROSEN, L. 'Why City of Hull means home', Yorkshire Post, 1972, 27 October, p. 7.
- ROWE, C. and CLARK, I. 'By the tide of Humber: Thoughts on Hull and the North Bank', Great Yarmouth: Galliard, 1971.
- ROZELLE, R.M. and BAXTER, J.C. 'Meaning and value in conceptualising the city', Journal of the American Institute of Planners, 1972, 38, 116-122.
- SAARINEN, T.F. 'The use of projective techniques in geography', in 'Environment and Cognition', W. Ittleson, (ed.), 1973, 29-52.

- SARTRE J.P. 'The Psychology of Imagination', London: Methuen, 1972.
- SARTRE J.P. 'American Cities', in 'The City: American Experience', Trachtenburg, A., Neill, P. and Bunnell, P., New York: Oxford University Press, 1971, 197-205.
- SCHIFF, M. 'Some Theoretical aspects of attitudes and perception', Natural Hazards Research Paper No. 15, Toronto: Department of Geography, Univ. of Toronto, 1970.
- SCHORSKE, C. 'The idea of the city in European thought: Voltaire to Spengler', in 'The Historian and the City', O. Handlin and J. Burchard (eds.), New York: M.I.T. Press, 1963, 95-114.
- SEGALL, M.H., CAMPBELL, D.T. and HERSKOVITS, M.J. 'The Influence of Culture on Visual Perception', Indianapolis, Ind.: Bobbs-Merrill, 1966.
- SEGAL, S.J. (ed.), 'Imagery: Current Cognitive Approaches', New York: Seminar Press, 1971.
- SELLTIZ, C., JAHODA, M., DEUTSCH, M. and COOK, S.W. 'Research Methods in Social Relations', London: Methuen, 1962.
- SHAFER, E.L. 'Perception of natural environments', Environment and Behaviour, 1969, 1, 71-82.
- SIEGEL, S. 'Nonparametric statistics: for the Behavioural Sciences', New York: McGraw-Hill, 1956.
- SIMON, H.A. 'Models of Man', New York: Wiley, 1957.
- SMITH, B. 'Regionalism I: Regional institutions in England', London: Acton Society Trust, 1964.
- SMITH, P.F. 'Symbolic meaning in contemporary cities', R.I.B.A. Journal, 1973, 9, 436-441.
- SMITH, P.F. 'The Dynamics of Urbanism', London: Hutchinson, 1974.
- SMITH, S. and LEACH, C. 'A hierarchical measure of cognitive complexity', British Journal of Psychology, 1972, 63, 561-568.
- SNIDER, J.G. and OSGOOD, C.E. 'Semantic Differential Technique: A Sourcebook', Chicago: Aldine, 1969.
- SONNENFELD, J. 'Variable values in space and landscape: an enquiry into the nature of environmental necessity', Journal of Social Issues, 1966, 22, 71-82.
- SONNENFELD, J. 'Geography, perception and the behavioural environment', in 'Man, Space, and Environment', P.W. English and R.C. Mayfield, London: Oxford Univ. Press, 1972a, 244-250.

- SONNENFELD, J. 'Social interaction and environmental relationships', Environment and Behaviour, 1972b; 4, 267-278.
- SPENCER, D. 'An evaluation of cognitive mapping in neighbourhood perception', Centre for Urban and Regional Studies Research Memorandum No. 23, University of Birmingham, 1973.
- SPROTT, D.A. 'Use of Chi-square', Journal of Abnormal and Social Psychology, 1964, 69, 101-103.
- SPROUT, H.H. and SPROUT, M.T. 'Man-Milieu Relationship Hypotheses in the Context of International Politics', New Jersey: Princeton University Press, 1956.
- SPROUT, H.H. and SPROUT, M.T. 'The Ecological Perspective on Human Affairs', New Jersey: Princeton University Press, 1965.
- STAGNER, R. and SOLLEY, C.H. 'Basic Psychology: a Perceptual Homeostatic Approach', New York: McGraw-Hill, 1970.
- STEA, D. 'The measurement of mental maps: an experimental model for studying conceptual spaces', in 'Behavioural Problems in Geography: A Symposium', K.R. Cox and R. Golledge, (eds.), Studies in Geography No. 17, Evanston, Ill.: Department of Geography, Northwestern Univ., 1969.
- STEA, D. 'The reasons for our moving', Landscape, 1967, 17, 27-28.
- STEINITZ, C. 'Meaning and congruence of urban form and activity', Journal of the American Institute of Planners, 1968, 34, 233-248.
- STRAUSS, A. 'Images of the American City', Glencoe, Ill.: The Free Press, 1961.
- STRAUSS, A. 'The American City: A Sourcebook of Urban Imagery', Chicago: Aldine, 1968.
- STUART, A. 'Basic Ideas of Scientific Sampling', London: Griffin, 1962.
- TANAKA, Y., OYAMA, T. and OSGOOD, C.E. 'A cross-cultural and cross-concept study of the generality of semantic space', Journal of Verbal Learning and Behaviour, 1963, 2, 392-405.
- THOMPSON, K. 'Insalubrious California: perception and reality', Annals of the Association of American Geographers, 1969, 59, 50-64.
- TOLMAN, E.C. and BRUNSWIK, E. 'The organism and the causal texture of the environment', Psychological Review, 1935, 42, 43-77.
- TOWNSEND, A.R. and TAYLOR, C.C. 'Sense of place and local identity in North-East England: the summary report', Univ. of Durham: North East Area Study, 1974.

- TRACHTENBERG, A., NEILL, P. and BUNNELL, P. 'The City: American Experience', New York: Oxford University Press, 1971.
- TUAN, YI FU, 'Geography, phenomenology and the study of human nature', Canadian Geographer, 1971, 15, 181-192.
- TUAN, YI FU, 'Structuralism, existentialism and environmental perception', Environment and Behaviour, 1972, 4, 319-332.
- TUAN, YI FU, 'Topophilia: A Study of Environmental Perception, Attitudes and Values', New Jersey: Prentice Hall, 1974.
- TURNER, G. 'The North Country', London: Eyre & Spottiswoode, 1967.
- TURNOCK, D. 'The region in modern geography', Geography, 1967, 52, 374-384.
- VENTURI, R., BROWN, D.S., and IZENOUR, S. 'Learning from Las Vegas', in 'Environment and Cognition', W.H. Ittleson (ed.), New York: Seminar Press, 1973, 99-112.
- WALMSLEY, D.J. and DAY, R.A. 'Perception and Man-Environment Interaction: A Bibliography and Guide to the Literature', Occasional Papers in Geography, No. 1, Department of Geography, Monash University, 1971.
- WANN, T.W. (ed.), 'Behaviourism and Phenomenology', Chicago: University of Chicago Press, 1964.
- WARR, P.B. and KNAPPER, C. 'The Perception of People and Events', London: Wiley, 1968.
- WELLS, W.D. and SMITH, G. 'Four semantic ratings compared', Journal of Applied Psychology, 1960, 44, 393-397.
- WHEATLEY, P. 'City as symbol', An Inaugural Lecture delivered at University College, London, 20 November, 1967, London.
- WHORF, B.L. 'Language, Thought and Reality: Selected Writings of Benjamin Lee Whorf', Carroll, J.B. (ed.), New York: Wiley, 1956.
- WILKINSON, H.R., DAVIDSON, R.N., and FRANCIS, M.K. 'Kingston upon Hull and Haltem Price Social Area Analysis', Univ. of Hull, Department of Geography, Miscellaneous Series No. 10, 15; 1971-1973.
- WILLIAMS, O. and ADRIAN, C. 'Fair Cities', Philadelphia: Univ. of Philadelphia Press, 1963.
- WOHL, R.R. and STRAUSS, A.L. 'Symbolic representation and the urban milieu', American Journal of Sociology, 1958, 63, 523-532.
- WOLPERT, J. 'The decision process in a spatial context', Annals of the Association of American Geographers, 1964, 54, 537-558.
- WREFORD-WATSON, J. 'Image geography: the myth of America in the American Scene', Advancement of Science, 1970, 27, 1-9.

WREFORD-WATSON, J. 'Geography and image regions', Geographica Helvetica, 1971, 1, 31-33.

WRIGHT, J.K. 'Terrae Incognitae: The place of imagination in geography', Annals of the Association of American Geographers, 1947, 37, 1-15.

WRIGLEY, E.A. 'Changes in the philosophy of geography', in 'Frontiers in Geographical Teaching', R.J. Chorley and P. Hagget (eds.), London: Methuen, 1965, 3-20.

WYSE, V. 'Hull', in 'By the Tide of Humber: Thoughts on Hull and the North Bank', in Rowe, C and Clark, I., Great Yarmouth: Galliard, 1971.

ZANNARAS, G. 'An analysis of the cognitive and objective characteristics of the city: their influence on movements to the city centre', Unpublished Ph.D. thesis, Ohio State University, 1973.