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EVOLVING PATTERNS OF RESIDENCE IN A NINETEENTH-
CENTURY CITY : SWANSEA 1851-1871

Volume 1

Joan Christina Margaret Rees
B.A. (Wales)

A thesis submitted to the University of Wales in candidature
for the degree of Philosophiae Doctor

February 1983

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D E C L A R A T I O N

I declare that this work has not already been accepted in substance for any degree, nor is it being concurrently submitted in candidature for any degree.

Except where otherwise stated, this thesis is the result of my own independent investigation.

Joan C. M. Rees
Candidate

I certify that the above declaration is correct

D. T. Herbert
Research Supervisor

Department of Geography,
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February, 1983.



- i -

ABSTRACT

The thesis investigates the evolving pattern of residential structure in mid-nineteenth century Swansea. The analysis identifies the three principle themes of social status, migrant status and family status and assesses the extent to which variables within each of these three themes were causes as well as manifestations of residential differentiation. The major primary data source is the census enumerators' books for 1851 and 1871. The results are presented at two scales of analysis; enumeration-district level and 200 metre grid-square level.

The residential distributions reveal an increasing spatial scale of social-status segregation as the middle classes leave the town centre for peripheral neighbourhoods of distinctive class character, producing strongly sectoral growth. This is accompanied by an increasing separation of home and work. Migrant-status distributions reveal a major, but weakening, linguistic and cultural divide between the Welsh and English populations and tightly clustered 'ethnic communities' for certain Welsh migrant subgroups and the foreign-born. The Irish community occupies a peripherally-located 'ghetto'. Family-status distributions do show an area of weak family-life developing in the central area but life-cycle variation between residential areas is poorly developed, except as a corollary to the formation of age-specific migrant areas.

The analysis reveals that, at both dates, social status is the major household characteristic determining residential location. Migrant status is also important, however, and these two dimensions are not independent of each other; economic position is to some extent culturally-determined, the English migrant population being in ascendancy over the

local and Welsh migrant populations. The weak family-status dimension is also causally related to social status. There is evidence, however, that between 1851 and 1871, the three dimensions became increasingly separate.

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SECTION A

This section reviews the literature on concepts and models of changing urban residential structure and looks in detail at the three major dimensions of residential differentiation which have featured prominently in the literature on urban residential structure in nineteenth and twentieth-century cities. The section also sets the context for the study area and discusses the primary sources of data.

CHAPTER 1
CONCEPTS AND MODELS OF CHANGING URBAN RESIDENTIAL
STRUCTURE

1. Introduction

The rural society existing at the end of the eighteenth century was transformed during the nineteenth century into a predominantly urban one. By the middle of that century approximately one third of the English population was living in cities of 50,000 or more and London's population had become almost two millions. This rapid urban growth must obviously have been accompanied by major social, economic and political change in addition to the industrial and technological transformation which is usually seen as the primary cause of such urban growth. However, little is known about the socio-spatial form of the cities which these concomitant changes produced. Macro scale studies of modern cities would suggest that a few dimensions of social differentiation, social status, family status, migrant status and ethnicity, will account for most of the variation within urban society and that the grouping of households along these dimensions in social space is reflected in physical space by the formation of "social" or "residential" areas. It has been established that these dimensions did not differentiate the society of cities existing before the industrial revolution. Studies on the nineteenth-century city have, therefore, in part, been directed towards establishing the longevity of the main dimensions along which social and geographical urban space is now delineated.

The extent to which modern urban characteristics emerge in nineteenth-century cities will, of course, depend on a whole range of

factors such as the size of the city, its economic base, the rapidity of its growth, the source of its in-migrants, the pattern of land ownership and the size of its population, if any, before the industrial revolution. One would expect that cities which were well established urban centres before the industrial revolution would retain characteristics of pre-industrial residential form, particularly if they did not become industrialised. On the other hand, cities which were the creation of the industrial revolution, or which grew rapidly during the nineteenth century, may display modern characteristics or transitional characteristics peculiar to capitalist or industrial, rather than post-capitalist or post-industrial cities. In studying the residential geography of nineteenth-century cities, it is tempting, therefore, to search for evidence of "ideal types" at either end of the traditional-modern spectrum. This approach is open to all the usual criticism attracted through representing a continuum by a dichotomy, but it is still worthwhile outlining the salient features of pre-industrial and modern cities and their possible relevance to nineteenth-century industrialising cities. The concept of a continuum between the two, along which modern characteristics emerged, will be discussed later.

2. Social Patterns in Pre-industrial Cities

There have been two major contributions towards explanation of intra-urban patterns in pre-industrial cities. The first was by Sjoberg in 1960 in his book "The Pre-industrial City"² and the second by Vance in 1971 in the paper "Land assignment in the Pre-capitalist, Capitalist and Post Capitalist City".³ As the titles imply, Sjoberg viewed the Industrial Revolution as being the major agent in destroying feudal society and Vance viewed capitalism as doing so. In other

words, Sjoberg's social order was based on the technology of production and Vance's on the means of organising production.

Sjoberg viewed feudal society as divided into a small elite which controlled the political, social and religious activities of the city and a much larger lower-class group. Merchants were relegated to a position among the mass rather than forming part of the elite since economic activities were low in prestige in a society where religious and philosophical values deemed money-making to be an inferior pursuit.⁴ This cleavage in society is expressed spatially in the concentration of the elite at the centre of the city "where fullest advantage may be taken of the city's strategic facilities",⁵ and in the "fanning out" of the "disadvantaged members of the city ... toward the periphery, with the poorest and the outcasts living in the suburbs farthest away from the centre".⁶ The pre-industrial city is, therefore, divided into an elite core surrounded by a much larger lower-class area. The lower-class area contains "certain finer spatial differences according to ethnic, occupational and family ties".⁷ Occupational sub-areas were the product of external economies, poor communications and the operations of the guild system.

Unlike Sjoberg, Vance saw feudal society as being "popular" rather than dominated by an elite.⁸ The political life of the city was in the hands of the guilds, membership of which was open to anybody with the requisite skill and a right to burgage property. This class of burghers was the only one dealt with in detail by Vance, though he recognized the presence of a rich merchant elite in the central city and a residue of poor people who could not gain entry to the guilds. Because the guild associations dominated the organisation of society

they "were among the most powerful forces shaping the morphology of the mediæval town".⁹ In order to practice a particular trade it was necessary to live in a guild area and, since place-of-work and place-of-residence coincided, members of the same guild lived and worked in close proximity. The location of these occupational zones was based on accident rather than land values. Within them, the master and his workmen and servants would all live in one dwelling, resulting in a vertical residential structure and social-class mixing. The pre-capitalist city was, therefore, dominated by occupation zonation rather than class zonation.

Vance claimed that his "pre-capitalist city" would have been replaced by the "capitalist" city sometime in the sixteenth century.¹⁰ In the capitalist city, social considerations were replaced by economic considerations in the organisation of land-use and society. Men would own rather than hold property. The ownership of capital became the criterion on which social status was assessed and different land users competed for sites in terms of their yield as capital. Residence and workplace became separate and within the residential areas, class zoning became apparent. As the city grew, the most fashionable houses were located on the periphery encouraging the wealthy to move outwards. The poor occupied the older houses which they vacated, there being a shortage of lower-class housing due to its relative unprofitability. A pattern, therefore, emerged in which the wealthy lived on the periphery and the poor in the centre.¹¹ One must, therefore, consider that although one might still look for remnants of Vance's guild-dominated sub-areas in nineteenth-century cities, Vance himself would have expected to find a much more modern pattern of urban land use by that date.

Neither Sjöberg's views of pre-industrial cities nor Vance's views of pre-capitalist cities have received much empirical testing or confirmation in the context of western feudal society. Sjöberg's ideas were based mainly on research carried out on pre-industrial cities in the non-western world and have received some empirical confirmation in that milieu,¹² but it is dangerous to transpose social theory across cultural and temporal divides. However, a study of London using data for 1695 found that "the proportions of upper-status households were higher in the centre and the lower-status households showed the greatest relative frequency on the periphery".¹³ Warner found that in Philadelphia, labourers and their families showed "the tendency of poverty to concentrate at the ring of the city in 1860, not at the core".¹⁴ Langton tested both the ideas of Vance and Sjöberg in Newcastle using data for 1665 and found that neither set of ideas was sufficient to explain the social geography of Newcastle at that time. Newcastle was dominated by a "merchant clique" concentrated in the centre of the city and surrounded by "regularly patterned occupational districts which were in some areas reinforced by 'class zoning' and in others countervailed by it".¹⁵ If the city must be fitted into the schemes of Vance and Sjöberg, then it could be said to represent "some hybrid of the mercantile pre-capitalist and the capitalist cities".¹⁶ From the available evidence it seems that the theories of neither Sjöberg nor Vance are likely to be verified in their entirety by empirical study but that aspects of each may apply to industrial cities and, therefore, we may expect relict spatial forms from a different socio-economic organisation to persist in certain nineteenth-century cities. However, many of the changes normally associated with the Industrial Revolution were in progress well before the nineteenth century.¹⁷

Vance claims that the outward movement of the upper classes from the urban core, where their homes were taken over for business premises or lower-class housing, began in many mercantile cities in, or before, the nineteenth century, and Wrigley has observed that some social changes, normally associated with nineteenth-century industrialization in Northern England, were in progress in London and the surrounding area in the seventeenth century.¹⁸ Some cities, however, retained pre-industrial characteristics well into the nineteenth century. Newton found Exeter's society to be pre-industrial in the mid-nineteenth century¹⁹ and Warnes found that residential location in Chorley was largely governed by place-of-employment at the middle of the century.²⁰ Cannadine, reviewing work on various British cities suggests that in the larger urban areas modern patterns of segregation were well established by mid-century, while those of the smaller Victorian towns remained pre-industrial.²¹ The date at which modern characteristics would be expected to emerge in cities obviously will vary greatly according to the type of city concerned, but it will also depend on whether the changes are due to the emergence of capitalism or the technological advances associated with industrialisation. If it is the former, then one would expect social change to occur well before the nineteenth century.²² It is obvious that one can expect no general pattern of transition from traditional to modern and as Langton observes,

"One is left with the conclusions that pre-industrial cities did not necessarily exist before the Industrial Revolution and that pre-capitalist cities could flourish in a capitalist era".²³

3. Social patterns in modern cities

The literature on social patterns in modern cities has been extensively reviewed elsewhere²⁴ and so only a brief treatment of the most relevant aspects will be repeated here. The ancestry of modern intra-urban social patterns is of relevance to nineteenth-century cities since aspects of these patterns could have emerged during or before that period. The modern western city, in North America at least, is characterised by clearly differentiated residential areas, the occupants of which differ from each other according to social status, family status, and ethnic status attributes. These three dimensions of differentiation first achieved pre-eminence through the work of Shevky, Williams and Bell who devised "Social Area Analysis" as a means of investigating the social geography of the city.²⁵ The selection of the parameters for Social Area Analysis was dominated by the ideas of Wirth and the three constructs are designed to reflect societal change (increasing scale) along a continuum from traditional to modern styles of life.²⁶ The theoretical and operational inadequacies of Social Area Analysis have been well documented elsewhere and the technique has now been generally replaced by factor analysis.²⁷ Factorial Ecologies have tended to confirm the original assumptions of Social Area Analysis, especially in North American cities, that society is differentiated along a few, usually orthogonal, dimensions. According to Shevky and Bell, differences of social rank form the most important basis for the development of distinctive social areas²⁸ and this finding has been borne out (at least in modern Western cities) by subsequent application of factor analysis, in which a social rank construct normally emerges as the first and most important factor explaining more of the variation in the data than any other. Murdie, in his comparative study of the

Factorial Ecology of Toronto in 1951 and 1961, found Economic Status to be the most important factor at both dates.²⁹ In a British context, Robson, analysing data for Sunderland, found that the first component, accounting for thirty per cent of the total variation, was positively associated with high social class.³⁰ The second most consistent factor to emerge is one associated with differences in family type and corresponding to what Bell has termed familism.³¹ This factor has been variously termed "Stage in life-cycle", "family status", "progeniture" and "suburbanisation".³²

However, although there is a degree of consensus in studies of modern western cities,³³ with a socio-economic class component and a family status component usually emerging as the two most important factors, there are many departures from this norm, indicating that there are real differences in the structure of modern urban areas in the western world. The expected components do not always emerge: ethnicity rarely emerges outside the United States and its presence or absence is obviously dependent on the degree of ethnic heterogeneity in the city concerned and upon the size of any ethnic minority. On the other hand, factors other than those originally outlined by Social Area Analysis often appear. In some British studies a first or second component strongly related to housing conditions has been found.³⁴ However, despite these departures, the general consensus is that:

"the detailed variation in the population characteristics of different parts of the community may be accounted for in terms of the underlying variation along three or four basic differentiating factors".³⁵

The point at which such modern factors of residential differentiation emerged will be different for each town, but it seems reasonable that

in the larger urban areas of the nineteenth century their influence was already being felt. Goheen's work on Toronto in 1870 showed that economic status, family status and segregation were distinctive features of Toronto's mid-nineteenth-century urban society³⁶ and in Doucet's study of Hamilton in 1851, the first four components to emerge were socio-economic status, family status, ethnic status and tenurial condition.³⁷ On the other hand, Warnes and Ward have both found weak levels of residential differentiation in mid-nineteenth-century North-Eastern American cities with occupational status and ethnic groups significantly interspersed.³⁸ In a British context, Tansey found that the three dimensions characteristic of modern society were present in Kingston-upon-Hull in 1851 with social rank as the dominant determinant of residential location.³⁹ Holmes's study of Ramsgate in 1851, and 71 also revealed the dominance of socio-economic status in the shaping of residential areas. Life-cycle stage, however, was found to play no significant role in residential location.⁴⁰ In Pooley and Lawton's study of Liverpool in 1871, distinct ethnic, class and family status segregation was found but principal factor and principal components analysis showed the main dimensions to be inter-related.⁴¹ Similarly, Shaw analysing census data for Wolverhampton in 1851, 1861 and 1871 found segregation according to the three dimensions to be present but at both dates the first factor to emerge was a composite socio-economic / family status dimension.⁴² Lastly, Warnes found that in nineteenth-century Chorley, type of occupation was the dominant determinant of residential location in the early decades and that, although there was a clear socio-economic component by 1851 and "individual occupations were declining in importance as determinants of residential location", the role of occupation "was still strong and pervasive".⁴³

It seems, therefore, that the nineteenth-century city is transitory in nature and that the modern dimensions were in the process of evolving as the previous axes of differentiation declined. Timms has produced a stage model which depicts the evolution of the modern dimensions.⁴⁴ His model presents possible dimensions for six types of city. The three which are of most concern here are reproduced in Table 1.1.

Table 1.1 A Stage Model of the evolution of the modern dimensions of residential differentiation : based in Timms

Pre-industrial city

Construct	Social rank	Family Status	(Ethnicity - Migration)
			?
Indicants	Occupation Education Income	Fertility Working women Marriage	(Culturally visible minorities) (Native migrants Age-sex imbalance, Mobility)

Industrialising city

Construct	Social rank	Family Status	(Ethnicity) ?	(Migration)
			?	?
Indicants	Occupation Education Income	Fertility Working women Marriage	(Culturally visible minorities)	(Native migrants Age-sex imbalance. Mobility)

Modern city

Construct	Social rank	Family status	Ethnicity	Migration status
Indicants	Occupation Education Income	Fertility Working women Marriage	(Culturally visible minorities)	Native migrants Age-sex imbalance Mobility

It can be seen that in the industrialising city, the social rank and family status dimensions, which were joined in the pre-industrial city, are becoming separate and there is the possibility of separate ethnicity and migration status dimensions.

Abu-Lughod has also suggested that only in modern cities do the dimensions of social status and family status become independent variables. In her own study of Cairo⁴⁵ and in Berry and Rees's study of Calcutta⁴⁶ independent social rank and family status factors did not emerge. Abu-Lughod suggests that her inability to separate out a social status and a family status dimension is related to the absence in pre-industrial society of the "necessary conditions" for the emergence of such orthogonal factors. She states the conditions necessary for a clear separation of these as: residential segregation according to modern ranking systems; relatively low correlations between social rank and differences in fertility and family styles; high differentiation of residential sub-areas by housing types; mobility; predominance of independent households.⁴⁷ McElrath provides another evolutionary argument relating the four ecological dimensions to the process of urbanization/modernisation when he states that economic rank and family status are related to industrialisation through, on the one hand, technical skills replacing skills ascribed to age and, on the other hand, to the diminished relevance of sex as a distinguisher of roles.⁴⁸ Both Abu-Lughod's and McElrath's generalisations are based on evidence from present-day studies in countries which retain pre-industrial characteristics rather than the historical development of cities in the developed western world. However, their assumptions may be applicable to the historical social geography of British cities. Some of Abu-Lughod's necessary conditions for the orthog^onality of family status and social

rank are only doubtfully present in nineteenth-century cities. For example, the predominance of independent households would obviously not apply to large areas of nineteenth-century cities where the migrant poor congregated in cramped lodging houses and highly subdivided dwellings. Similarly, mobility other than localised, would not be available to large sections of the population, particularly if individual occupations were confined to certain areas of the city and the workforce needed to be close to its source of employment, and transport facilities were undeveloped. Engels's surplus army of urban labour⁴⁹ would not be in a position to select its residence in terms of family characteristics, its economic position allowing it hardly any choice at all and what choice it had would be limited by proximity to sources of possible casual employment. It seems that most of a city's population would have to be reasonably affluent before family status could emerge as a clear dimension. However, Booth writing on London in the 1880's claimed that the move to the suburbs:

"depends not so much on class or on amount of income over a certain minimum - as on the constitution of the family. The father of young children finds it best to establish their home as far from the crowded parts of London as he can afford to travel to and from his work ... but that later on, when employment is sought by the younger generations, or better opportunities of education for them or pleasures for all, the balance may turn in favour of more central quarters".⁵⁰

In modern cities, the three main dimensions of social differentiation have led to the spatial segregation of the population into residential areas of relatively homogeneous population and there have been numerous attempts to provide a generally applicable model which will summarise the spatial patterns found through empirical

research. The most famous of these is the normative Burgess model of concentric social class zones increasing in status outwards from the city centre.⁵¹ This model is a product of the Ecological Approach originated by the Chicago School in the 1920s and has received much criticism, both for the conceptual inadequacies of the ideas of the Chicago School and for the model's lack of general empirical applicability.⁵² The amendments provided by Hoyt, in which social class areas were seen to form in response to direction as well as distance from the city centre, giving rise to sectoral growth,⁵³ and by Harris and Ullman in which the possibility of outward growth from several separate nuclei was accommodated,⁵⁴ have mitigated the grossness of the generalisations incorporated in the original model and several attempts have been made to prove that some combination of the three will explain the spatial patterns which emerge from empirical research. Berry has claimed that socio-economic class varies axially, family status varies concentrically and variation in ethnicity leads to a multiple nuclei distribution.⁵⁵ This conclusion had already been suggested by Anderson and Egeland's study of four North American Cities⁵⁶ and was subsequently supported by Berry and Rees's study of Calcutta,⁵⁷ Murdie's study of Toronto⁵⁸ and Timms's studies of cities in New Zealand.⁵⁹ However, Berry's generalisation has not emerged as a universal pattern for modern cities and one can cite many studies in which it does not apply. For example, Robson, in his study of Sunderland, found that social class varies zonally to the north of the river and sectorally to the south.⁶⁰ McElrath in a study of Rome⁶¹ and Rees in his study of Chicago⁶² found that social rank and family status were influenced by both zonal and sectoral effects. Rees has

suggested that there may be a relationship between city size and the relative strengths of zonal and sectoral effects, the importance of zonal variations in social rank and sectoral variations in family status increasing with the size of the city.⁶³ There have been many other attempts at generalisation based on zones and sectors, but despite these attempts at modification and qualification of the Burgess-Hoyt model of city structure, the model is now largely considered to have only pedagogic utility in geographical explanation.⁶⁴

However, Robson and Cannadine have both suggested that the Burgess model may be more applicable to nineteenth-century cities than those of the twentieth century.⁶⁵ Robson suggests that:

"the towns which gave rise to the models of the Chicago School shared many of the characteristics of the Victorian town of industrial Britain. They were expanding settlements in which internal political and social organisation was just barely evolving and thus in which the free market forces of supply and demand were able to create the conditions approximating the ecological balance of plant and animal communities".⁶⁶

On the other hand, Ward has argued that the modern patterns of residential segregation could only emerge after the introduction of mass transport.⁶⁷

In order for the Burgess-Hoyt model to apply, one must have, in addition to a hierarchical social class ranking of society, reinforced by residential segregation by status, a growing urban area with sufficient new housing to supply the needs of the outward-moving upper classes so that they can vacate enough property to satisfy the demands of the incoming lower class and a large, socially mobile group to create the outward movement. Most nineteenth-century industrial towns in Britain, however, were growing so fast in population⁶⁸ that

sequent occupance would not have been able to keep up with the demand for housing by lower-class and middle-class groups. It is obvious that all types of housing would have to be provided and it was due to the lack of lower-class houses that instant slums were created through the hasty erection of cottage property by small speculative builders.⁶⁹

Another necessary condition of the Burgess model is the functional separation of home and work and the presence of adequate transport facilities to allow the separation to become spatially effective.

Although it is generally accepted that domestic craft industries were disappearing in the nineteenth century,⁷⁰ there was still a tendency for people to live close to their work. This was due to the casual nature of certain lines of employment, the tendency for entrepreneurs to build houses for their workforces and the fact that in many cities transport facilities were developed after rather than alongside the main expansion of the city or remained economically out of reach of the lower classes. Therefore, in order to serve the needs of the lower classes, the instant slums mentioned above, would have to be near to lower-class sources of employment and so rapidly growing urban areas would often expand in a cellular, rather than zonal, manner as factories located on the urban fringe.

Timms points out that the Burgess scheme was developed to:

"fit the pattern of rapidly growing cities, with industrial bases, efficient transport, heterogenous populations, free-market housing conditions and a value system which stressed newness and spaciousness".⁷¹

The extent to which this fits nineteenth-century cities has been partly answered already, but the last three conditions require comment.

Free-market housing conditions have probably never fully existed anywhere, but they did exist to a larger extent in nineteenth-century British cities than in their counterparts in the twentieth century where subsidised municipal housing and various urban planning policies intervene in the market. The degree to which nineteenth-century British cities had heterogeneous populations will obviously vary between cities but certain migratory groups, particularly the Irish, were notoriously well segregated in many English and Welsh urban areas.⁷² A value system which stressed "newness and spaciousness" existed in the nineteenth century, although it was probably confined to the middle classes. It originated as a concern with hygiene and sanitation, but by the second half of the century it was clearly a concern with "newness and spaciousness" as well. The plans for New Towns and "Garden Cities"⁷³ and the concern of Parliamentary Commissioners with the provision of public parks and open spaces, are typical products of this value system.⁷⁴ One might expect, therefore, that, on the basis of these comments, aspects of Burgess's idealised scheme of urban social structure will exist in nineteenth-century cities.

Several nineteenth-century observers did report a concentric zonal pattern similar to that outlined for Chicago by Burgess. Booth, in his survey of late-nineteenth-century London identified a zonal and sectoral pattern⁷⁵ and Engels found a pattern of concentric zones in early-Victorian Manchester.⁷⁶ There is also contemporary comment supporting the presence of the ecological process of invasion and succession by which houses filtered down through the class hierarchy as the upper classes moved outwards from the city centre. A Dundee minister writing in 1841 noted that:

"the newly opened railways offer new facilities for uniting the business of the town with family residence in the country, and threaten, ere many years, to convert Dundee into one great workshop, with the families of its workmen wholly detached from the notice or sympathy of the families of any upper class".⁷⁷

The outward movement of the upper class followed by the middle class, was also demonstrated by Homer Hoyt in a study of Chicago. His maps depicting "high grade", "intermediate" and "low grade" residential areas in 1857, 1873, 1899 and 1930 reveal that the "high grade" areas were central in 1857 and moved progressively outwards over the period.⁷⁸ Recent research on nineteenth-century cities has also revealed approximations to early stages of the Burgess/Hoyt scheme.⁷⁹ There is evidence, therefore, that in nineteenth-century industrial cities, Burgess's model may have relevance but it is likely only to provide a first approximation in explaining the social geography of the city since Burgess himself stressed that the model was an "ideal construction" which, in explaining city growth, only took cognisance of "one factor, namely radial expansion".⁸⁰

The Burgess-Hoyt model, however, is only one of many explanations (most however do not constitute theories) put forward to elucidate modern urban land use pattern. Another body of theory has emerged from the concept embodied in Land Economics dating back to the work of R. M. Hurd in 1903.⁸¹ Much of the early enquiry in this field was directly concerned with land value and land use as mutual determinants. Haig introduced the notion of the friction of space and saw rent as the charge for accessibility or the saving in transport costs.⁸² The basis of the land economics theory as defined by Ratcliff, is that optimum efficiency will be obtained in land use patterns and various users will compete for various locations and the use that can extract the

greatest return from a given site will be the successful bidder.⁸³

The approach obviously ignores most of the variables involved in land use allocation rejecting all but purely measurable economic factors. Alonso introduced two further variables, first, the quantity of land which each user will wish to acquire and, second, the amount of disposable income which will be devoted to land and travel costs, on the one hand, and goods and services on the other.⁸⁴ The spatial implication of Alonso's theory is that a zonal arrangement of residential areas around a business district of very high rateable values will emerge with the rich seeking spacious housing plots on the periphery - a pattern similar to that envisaged by Burgess.⁸⁵ Therefore, even though the processes which produce the Burgess model may be absent, land economists would argue that a similar pattern may still emerge due to the economic value of land. One would expect that since capitalism was established by the nineteenth century, then a predominantly economic land assignment system would be in operation.⁸⁶

Much of the more recent research on land use patterns in modern cities, however, has moved away from the attempt to produce normative models in the Land Economics or Burgess tradition and has, instead, emphasised a behavioural approach. Studies of residential mobility and residential preference come into this category as does the body of literature on activity systems which studies the pattern produced by the behaviour of individuals, institutions and firms. It is obviously difficult to adopt such an approach for nineteenth-century cities since much of the necessary information will not have survived, but it is useful to bear in mind the importance which these modern studies attach to decision-making, personal preference, allocative procedure and political policy in the shaping of land use patterns.

4. Evolutionary models and the ecological transition

The apparent differences between pre-industrial and modern cities have led to the concept of a continuum, sometimes referred to as the "ecological transition", by which one social order was transformed into the other. Little research has been directed towards investigating the process of transition embodied in such a continuum and it has been generally accepted that the processes which destroyed one social order were the same as those which created the other, so negating the possibility of an intermediate 'ideal type' (Vance, however, does adopt a threefold classification: pre-capitalist, capitalist and post-capitalist, and pre-industrial, industrial and post-industrial are also used).⁸⁷ The tendency, therefore, is to present evolutionary models based on increasing industrialisation, urbanisation and modernisation. The idea that societies will change according to the degree of economic, cultural and technological progress to which they are subjected has been propounded by many writers, most of whom have elucidated the concept by depicting 'ideal types' at either end of the spectrum. A few examples are Tonnies "Gemeinschaft" and "Gesellschaft", Weber's "traditional" and "modern", Becker's "Sacred" and "Secular", Redfield's "Folk" and "urban", Durkheim's "mechanical solidarity" and "organic solidarity" and more recently Loomis and Beegle's "familistic gemeinshaft" and "contractual gesellschaft".⁸⁸

The above writers have all been concerned with the 'rural-urban' continuum but the continuum which is most relevant here is that which encompasses only the urban part. Such a continuum rests on the assumption that increasing "urbanisation" produces, is accompanied by, or is the consequence of, changes in the society which is being urbanised. Such a

continuum suggests that all cities through the centuries represent different stages of development along the continuum. It excludes the possibility that development along certain avenues relevant to urbanisation may have ceased or reversed, or that previously irrelevant factors may suddenly become apposite. However, it does seem that for the relatively short period of several centuries, which is all that is of concern here, the concept of a continuum along which society becomes increasingly urban is appropriate since this period is unified by the powerful and pervasive changes associated with industrialisation. The use of a continuum doesn't, however, necessarily imply that different cities reflect various degrees of development along one dimension. The continuum can be multi-dimensional and different combinations of development along the dimensions can produce different types of urbanisation as well as different degrees.

One exposition of such a developmental continuum is that contained in Reissman's "The Urban Process".⁸⁹ Reissman sees increasing urbanisation as being the result of development along four major dimensions; urban growth, industrialisation, the emergence of a middle class and the growth of nationalism. Differential development along these dimensions produces a typology of urbanisation. Reissman's model is designed to encompass only the last two centuries of urban development, i.e. that part of urban development in which the industrial city emerged and he views urbanisation over this period as a process which involves the whole of society, rather than the urban areas alone. He argues that with the advent of industrialisation, change in society is no longer confined within city boundaries and the divisions between city and country that were characteristic of earlier periods

in history become blurred and eventually disappear. The model encompasses countries at different stages of development all over the world and the four stages of development are divided into classes according to the balance of development between the four indices of urbanisation. Nineteenth-century British cities would fall into a relatively advanced category in the model, that of stage three's "urban transitional" category. Societies in this category are fully urban and have achieved a level of balance on all four sectors of the industrial urban process and may advance towards the final stage of metropolitan growth. Reissman sees the emergence of the industrial city in the West as occasioning a distinct break in the continuity of urban history, it being a quite different phenomenon from the ancient and medieval city. He argues that such a momentous change as that brought about by industrialisation, needed, in addition to the technological changes involved, the emergence of a new ideology to support it. This ideology was spread by the emerging middle class and contained, firstly, a belief in democracy and constitutionalism, which would guarantee a measure of freedom for the new entrepreneurs and protection from the irrational "rule of whim" of monarchs and oligarchs; secondly, nationalism which would provide a wider based loyalty necessary for effective economic growth and, thirdly, imperialism, which "expressed the need to secure whatever materials were lacking in the nation". The relevance of such an ideology can be seen in Western Europe since only those countries which possessed all three aspects of the ideology industrialised rapidly in the nineteenth century. Spain, for instance, while being imperialistic and nationalistic had no democracy and did not industrialise, and Germany began rapid industrialisation only after the unification completed in 1871. The new urban

society would, therefore, be characterised not only by new forms of social stratification and division of labour usually associated with urbanisation, but also by a new ideology.

In addition to the above societal changes there would also be change in the nature of social intercourse as society became increasingly urban. The most famous treatment of this aspect is contained in Wirth's "Urbanisation as a way of life"⁹⁰ in which size, density and heterogeneity were seen as causes of urban characteristics. Wirth argued that size produced variation and the greater the variation, the greater the increase in spatial segregation by status and ethnicity. The spatial segregation so created weakened the bonds of kinship, neighbourliness and the "sentiments arising out of living together for generations under a common folk tradition". Formal controls and competition replaced the informal organisation of folk society. Size also limits personal interaction and encourages the development of segmented social contacts and superficiality, anonymity and transitoriness in social relationships. Density was said to reinforce the effects of size. Heterogeneity produced cosmopolitanism and greater mobility and also social levelling through the standardization of beliefs between different sections of the population. If Wirth was right, therefore, these are the social processes which one can expect to be occurring as the nineteenth-century cities grew.

The spatial pattern of residential differentiation has also been couched in an evolutionary framework. Such models are often complicated by the fact that they attempt to generalise over world-wide cultural and temporal divides, often incorporating an assumption that less developed areas in the Third World reflect the characteristics of developed countries in past centuries. This assumption ignores the deep

cultural differences involved. Such an attempt has been made by Schnore, whose pre-industrial evidence is based on cities in Latin America.⁹¹ Schnore categorises cities into six "types" of intra-urban residential patterns, starting with a "reverse Burgess" pattern and finishing with an "almost Burgess" pattern, the change from one to the other being due to the interaction of four independent variables (the ecological complex): environment, technology, population characteristics and economic organisation.

Another attempt at generalising the spatial patterns of modern and pre-industrial cities has been made by Johnston who adopts a more behavioural approach which "relates the spatial form of the city to ongoing social processes, notably the development of middle classes and their housing choice behaviour".⁹² Based on work in the United States, New Zealand, and Latin America, Johnston finds three main similarities between the cities of the three societies. Firstly, the high socio-economic status neighbourhoods are concentrated in one or a few sectors, secondly, the inner portion of these sectors have been abandoned by the elite and, thirdly, the outer zone of the city is largely intermediate in class whether it is the middle class of the United States or the "slums of hope" of Latin America. Johnston concludes that the differences in the nature of suburban growth between the three societies are of degree rather than kind. This model which stresses the emergence of the middle class may be of use in the study of nineteenth-century cities since it is during this period that the British middle class is reputed to have emerged.

More recently, Shaw has produced a descriptive five stage model of urban residential structure.⁹³ The model indicates a similarity

between the first three developmental stages in terms of axes of differentiation, spatial preferences and the spatial pattern of development and again it is with the advent of the "industrialising city" that these aspects undergo major modification. The model suggests that the industrialising city is transitional, featuring the gradual disappearance of pre-industrial characteristics alongside the emergence of new modern characteristics.

The evolutionary models of socio-spatial transition and the models of ideal types at either end of the continuum, present many avenues for research on nineteenth-century industrial cities. There has not, as yet, been sufficient empirical research to establish where on a traditional-modern continuum they would lie. Since industrialisation arrived in different cities at different times, it is likely that they would vary in their position accordingly. Whatever their position may be, however, research into their social structure will help to establish the processes by which pre-industrial British cities were transformed into their modern counterparts of today. It is with this in mind that an empirical study of nineteenth-century Swansea has been carried out. In order to try to identify the processes by which Swansea developed and grew, an investigation of the social structure has been carried out at two dates; 1851 and 1871. This time span, unfortunately, misses the period of most rapid expansion in Swansea, which occurred between 1871 and 1881, but the unavailability of the 1881 Census precludes its use. Swansea did, however, expand in population by 20,241 from 31,461 to 51,702 between 1851 and 1871 and it is hoped that this time span is sufficient to illuminate developments in socio-spatial structure and answer such questions as whether the rapid accretions to the urban area

were modern according to present-day residential characteristics, and whether there were indications of a pre-industrial or pre-capitalist high class core being abandoned for more spacious peripheral locations.

In the absence of acceptable nomothetic models of general applicability, a partially idiographic approach is essential in empirical study. It is, therefore, important to take into account the main features of Swansea's economic, topographical and morphological character in interpreting the empirical findings, and for this reason a brief historical geography of nineteenth-century Swansea is outlined in a subsequent section. Before embarking on the empirical analysis it is also essential to investigate various aspects of nineteenth-century life which will have a profound effect on the development of residential areas but for which information cannot be adequately gleaned from the type of data analysis used here. Such a backdrop is also useful in putting the findings of this study in context and the next three chapters contain information relevant to the interpretation of each of the major three dimensions of residential differentiation in nineteenth-century cities. The subject areas to be covered are therefore:

- (1) The nature of social class in the mid-nineteenth century
- (2) The role and importance of the family in the mid-nineteenth century
- (3) The nature of nineteenth-century migration and migrant consciousness.

Although the term 'mid-nineteenth-century city' or even 'nineteenth-century city' is used in this overview, it must be stressed that there is no such phenomenon, except in the obvious general sense of the term. The 'nineteenth-century city' was a very varied phenomenon and comparison of the detailed empirical findings of one

city with those of another at the same date can be very misleading. The stage in development is far more important as a guide to comparability than is the date, but comparing cities at 'similar stages of development' can also be misleading, since the economic factors stimulating the development can have a marked effect on its form, as can the nature of the hinterland from which the growing town draws the bulk of its migrant population. Some cities were well established centres before the industrial revolution while others were creations of it, and the two types will obviously develop in a very different manner. Nevertheless certain pervasive factors did affect a wide range of nineteenth-century cities and it is with these factors that the next three chapters are mainly concerned. The information is not specific to South Wales since little research has been published on these processes within that milieu. The terms of reference are, therefore, very wide, spanning the whole of nineteenth-century Britain and, occasionally, nineteenth-century North America in order to take account of the relevant research literature.

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CHAPTER 2

THE NATURE OF SOCIAL CLASS IN THE NINETEENTH CENTURY

1. Social class as a concept

The study of social class in the Nineteenth Century presents a plethora of conceptual problems. Not the least of these is the question of definition. From a philosophical point of view one could treat social class either as a 'thing in itself' or as a summation of various aspects of social existence, or as a relational entity by which the abstract distance between one person or one group and another may be measured. Thompson, among others, is a proponent of the latter approach and stresses that "class is a relationship, and not a thing".¹ He defines class as an abstract phenomenon which:

"happens when some men, as a result of common experiences (inherited or shared), feel and articulate the identity of their interests as between themselves, and as against other men whose interests are different from (and usually opposed to) theirs".²

This definition of social class implies that class only exists where there is a consciousness of it. Tawney, however, has warned against confusing:

"the fact of class with the consciousness of class, which is a different phenomenon. The fact creates the consciousness, not the consciousness the fact. The former may exist without the latter, a group may be marked by common characteristics, and occupy a distinctive position vis-a-vis other groups, without being aware that it does so".³

One can, in any case, expect no direct relationship between class consciousness and the resultant behaviour since the fact of a person's

class and his estimation of it do not necessarily coincide. For instance, capitalism, it is argued, produces a fragmented social structure with each small 'class' adopting a false class consciousness,⁴ and Lockwood has demonstrated the false consciousness of a particular group of society, the clerks.⁵

Unlike many other dimensions of differentiation in the city, social class implies that one is dealing with stratification and not merely with differentiation, i.e. there is a ranking according to certain criteria. This ranking usually implies that class is a result of the unequal distribution of rewards in society or unequal access to rewards. Foster argues that in the nineteenth century:

"English society was organised along class lines; in other words, there was a gross 'unfairness' in the way opportunities of social success were distributed, with the country's underlying economic organisation placing the real interests of the privileged and the non-privileged in long-term opposition".⁶

Similarly, Marx defined social classes in terms of their relation to the means of production. Most sociologists now agree that social classes are created by the uneven distribution of rewards on the three main dimensions of class (in economic terms), status and power.⁷

These dimensions, however, need not be independent and, for the purposes of empirical study, they are often collapsed into one dimension, often measured by income levels or, more usually, by occupation, since this, to a large extent, incorporates all three dimensions.

Which ever way one chooses to treat social class, the problem arises of providing a conceptual bridge between what one understands by social class on a philosophical level and the actual relationships

which are revealed by empirical study. This problem needs to be solved since any analysis of empirical data on social class will require some form of stratification and any such regime, however carefully constructed, will remain only as good as the conceptual ideas which lie behind it. Materialism offers one solution since it obviates the necessity of producing any theoretical conceptions that do not spring immediately from the empirical evidence, and all that is required to apply this approach to a study of social class is a belief that class is ontological, which is not in doubt. However, although the approach is obviously advantageous, to adopt it would require detailed, on-the-spot examination of the processes in operation, something which is hardly practical for a past period. One, therefore, is forced to revert to the approach of adopting a conceptual position and treating one's data accordingly. Fortunately, there is a wealth of contemporary opinion on social class in the nineteenth century on which one can base an assessment of the situation, much of it arrived at through a materialistic (or positivist) approach. This material is discussed below.

2. Social relations in pre-industrial society

When one discusses class in Victorian England one is generally discussing a newly-emerged social structure consequent on the Industrial Revolution. However, it is important to remember that this new social structure was confined mainly to the rapidly growing industrial, urban areas. Large areas of rural England still had a pre-industrial social structure in the mid-nineteenth century. In 1851 England was half rural, half urban, and the great industries of the

industrial revolution employed only a minority of the total population. Agricultural workers were, by far, the largest male occupational group (over a quarter of the male population) and domestic servants the largest female group (one in nine of all females over ten years old).⁹

"Handicraft blacksmiths were more numerous than the men of the great iron works ... (and) more men were employed about horses on the roads than in all the work of the young railway system".¹⁰

Furthermore, it was not just the rural areas which retained a pre-industrial society, many of the towns which had not been industrialised did so also. Newton has shown how:

"Exeter's Victorian history is the record of the survival of a society which still clung to the habits and traditions of provincial, pre-industrial and un-urbanised England. Social standards were derived from the County, from the gentry and clergy, the professional men and cultured tradesmen who could write articles on local history, archaeology and science".¹¹

The Victorian society which will be discussed here is the newly created, industrial one but it is important to establish an outline of pre-industrial social structure in order to facilitate an understanding of the industrial society which succeeded it in the growing towns. 'Class', in the modern sense of the term, was only applied to groupings of society from the industrial era onwards. Social commentators of the pre-industrial era talked in terms of 'ranks', 'orders' and 'degrees' and, in the case of economic groupings, of 'interests'. The disappearance of these terms in the nineteenth century is indicative of the fact that Victorian people felt that the

terms had become redundant in the new and different society in which they were living. Pre-industrial society was hierarchical and pyramidal with the monarchy at the apex supported by the gentry and the common people, possessing neither rank nor dignity, at the base. Between the two was a growing number of what were often called 'middling people' whose varying amount of wealth was based on 'trade' and who, if successful, may be absorbed by the gentry above them. The artisans beneath them had clearly defined systems of status gradation according to skill and the whole society was marked by gradations of rank which were understood and accepted by all. The whole was held together by what Cobbet called "the chain of connection", connection implying social obligation with gentle slopes of social gradation,¹² and by "bonds of attachment", a phrase coined by Southey in 1829 to summarise the operation of 'duty', 'charity', 'deference' and 'subordination' in pre-industrial society.¹³ Pre-industrial society then presents a picture of what integration theorists would call a functional society, with a value consensus and a system of stratification based on the functional specialization required by society.¹⁴ Rapid industrialisation, urbanisation, changes in the nature of employment, the way in which wealth could be amassed and in style-of-life changed the functional bases of society and, thereby, destroyed the established class structure.

3. Contemporary comment on the nature of social class in nineteenth-century towns

(a) The ideas of Marx and Engels

There is much discussion as to what replaced pre-industrial social structure, both among contemporary and present-day writers. The

divergence of opinion, however, is mainly due to a difference in interpretation of the term 'class'. Social commentators who were observing society from a political point of view generally chose to divide society into two, usually antagonistic, classes. Those viewing it from a purely philanthropic point of view tended to discern a hierarchy of classes based on gradations of relative poverty and wealth. Marx and Engels are, perhaps, the most famous proponents of the two class model of industrial (capitalist) society. For them society was divided into the 'proletariat' and the 'bourgeoisie', the latter identified by its control over the means of production and the former by the lack of this. The struggle between these two classes determines the social relations between men. The ruling class, according to Marx, controls, apart from the means of production, the whole moral and intellectual life of the people. For social classes to form, however, he believed that a consciousness of common interests was necessary and, therefore, the presence of a 'class enemy' without which competition between individuals would prevail.¹⁵ Marx's view of society was echoed by many political commentators in Britain.

Charles Hall writing on the effects of civilisation stated that:

"the people in a civilised state may be divided into different orders; but for the purpose of investigating the manner in which they enjoy or are deprived of the requisites to support the health of their bodies and minds, they need only be divided into two classes, viz. the rich and the poor".¹⁶

Contemporary observers often cast the dualism in society in terms of a conflict between productive and parasitic classes. The "Extraordinary Black Book" of 1831 stated that:

"The industrious orders may be compared to the soil, out of which everything is evolved and produced; the other classes to the trees, tares, weeds and vegetables drawing their nutriment, supported and maintained on its surface".¹⁷

The consequences which these political observers chose to predict from the severing of society into two opposing camps depends on the width of the fissure which they perceived to divide the classes. Commentators in the politically troubled 1830s and 1840s tended to see a wider gap than later on. In terms of everyday social relationships, a Manchester clergyman wrote that:

"There is not a town in the world where the distance between the rich and the poor is so great or the barrier between them so difficult to be crossed. There is far less personal communication between the master cotton spinner and his workmen, the calico printer and his blue-handed boys, between the master tailor and his apprentices, than there is between the Duke of Wellington and the humblest servant on his estate".¹⁸

At this period the politically-active working class was identified with the Chartist Movement and the middle class with the Anti-Corn Law League, and the relationship between these two groups often demonstrated straight class antagonism.¹⁹ After the middle of the century, however, members of the middle class began to bridge the gap between the two classes, Chartism having flickered out by 1858²⁰ and having been replaced by other movements for reform in which the working class was joined by middle-class radicals. Hollis claims that the 1867 reform bill was "a concession to consensus politics, and not to class politics".²¹

Whether or not society was in fact divided into two classes with opposing interests and the extent of the division depends to a large extent on the fundamental question over which the social theorists of the nineteenth century were so strongly divided: does industrialisation increase inequalities as was believed by Marx and Engels, or decrease them as was believed by Tocqueville and J. S. Mill? Marx argues for a widening of the gap in absolute terms:

"accumulation of wealth at one pole is, therefore, at the same time accumulation of misery, agony of toil, slavery, ignorance, brutality, mental degradation, at the opposite pole".²²

and in relative terms:

"When capital is increasing fast, wages may rise but the profit of capital will rise much faster. The material position of the labourer has improved, but it is at the expense of his social position. The social gulf which separates him from the capitalist has widened".²³

Engels commenting on Britain in 1844 wrote that "there exists here only a rich and a poor class, for the lower-middle class vanishes more completely with every passing day".²⁴ The opposite argument was proffered more recently by Porter in "The Vertical Mosaic"²⁵ where he illustrates a tendency for society to merge into one large middle class and by Wilensky in "The Professionalization of Everyone?".²⁶

The process of "embourgeoisement" by which the new middle class emerged does not necessarily invalidate the two class model of society proposed by many political activists of the day. It could be that the new middle class would either merge its interests with the lower class or with the upper class. Foster argues that this would depend on the development and extent of class consciousness among the

working class. Where this consciousness was strongly developed the working class could coerce the would-be middle class supporting proletarian political aims and life-styles. Foster demonstrated the operation of this in his study of Oldham where the process resulted in a clear division between the upper classes and the lower and middle classes with no following of middle class people aping the rich.²⁷ Lockwood has demonstrated the opposite tendency among a particular section of the middle class, the clerks, whose 'false consciousness' led them to try to emulate the life-style of the upper middle class, despite their working-class level of remuneration.²⁸

From a socialist or communist point of view, therefore, society was often viewed as being structurally bisected into two opposing interest groups or classes. (Conservative politics still tended to stress the old relations of deference and protection). It was not normally claimed, however, that there was a universal consciousness of this severance and from the point of view of the average Victorian man, society was probably structured into a complex of status gradations. As the communists themselves pointed out, capitalism was liable to produce a fragmented social structure except where there seemed a strong chance of overthrowing the whole system (which could only be infrequently) in which case a true class consciousness may develop. Foster has described how the typical fragmentation may occur:

"Under capitalism this process (of alienation) takes place in the process of production. By having to sell their labour, the bulk of the population loses control over the use to which it is put ... It is the usual (passive) response to this alienation which produces capitalisms typically fragmented social structure. In order to re-create the conditions of meaningful 'social' existence - to establish 'apparent' control over what society produces - people tend to limit their social contacts to those possessing roughly the same purchasing power as themselves".²⁹

Engels described the structure thus produced as "the social division of society into innumerable gradations, each recognized without question, each with its own pride but also its inborn respect for its 'betters' and 'superiors'".³⁰ Socialists and communists, therefore, distinguished between a division of society into two classes which represented groups of real interest but of which true appreciation by the people did not normally occur, and the finer stratification of society of which people were aware but which did not serve their true interests. In order to discover what these finer gradations were one needs to know what basis of status evaluation replaced the pre-industrial codes of ascribed status. There have been many studies which have shown how the guild regulated crafts of pre-industrial society with well-defined status hierarchies were replaced by the characteristic "sweated trades" of industrial society in which the status position of the artisan was eroded by the decomposition of the productive process.³¹ There was a lot of contemporary disagreement as to how the resultant 'proletariat' class sorted itself out and whether new bases of status demarcation emerged.³² Foster argues that new criteria did emerge and found that lower-class people would choose their neighbours and marriage partners according to whether they were 'respectable' or not.³³

Ward has pointed out the spatial implications of this. A pre-industrial society with ascribed status positioning clearly understood by all would not need the reinforcement of place-of-residence, whereas a less strongly demarcated system of status acquisition may require the residential segregation of each class. A homogenous working-middle-class residential pattern could either indicate a persistence of pre-industrial status ascription or a lack of a status hierarchy in the newly industrial society.³⁴

(b) The ideas of Booth and Rowntree

As was pointed out earlier, philanthropic researchers and reporters tended to divide society into several strata according to position on a poverty-wealth continuum. The most obvious proponents of this point of view are perhaps Charles Booth and Seebohm Rowntree. They represent a large section of middle-class social observers of the late nineteenth century whose ideas of economic liberalism had been transformed into an acceptance of "limited socialism". There is generally agreed to be a threshold in the 1850s after which the upper-middle class realized that concessions to the working class would avert class conflict while still maintaining a capitalist society. Foster refers to this as the process of liberalisation, "a ruling class response to a social system in crisis".³⁵ The dominant middle-class ideology before the 1850s tended to be one of Economic Liberalism by which the natural inequality and self-interest were taken for granted as the bases of a viable economic and social order, coupled with a faith in the liberty of the person, rational individual effort and in progress.³⁶ This laissez-faire view of society was gradually eroded in many circles by a new socialism and collectivism by which the obligations as well as the privileges of private ownership were recognised and the necessity of State intervention was accepted. Charles Booth was typical of this middle-class response to the increasing publicity on the state of society. However, Booth retained most of his economic-liberal prejudices, accepting a very limited socialism,

"interference on the part of the State with the lives of a small fraction of the population would make it possible, ultimately, to dispense with any socialistic interference in the lives of the rest".³⁷

Booth and Rowntree were also products of the new positivism and it is to this development that one owes the wealth of factual material which describes in detail the actual realities of the various 'styles of life' imposed by the social structure, and it is from this literature that one is most likely to be able to establish what social classes in terms of life-style, rather than political interest, actually existed. Booth in his exhaustive empirical research of late-nineteenth-century London found it necessary to use different stratification systems at various times but they were mostly variations on the basic eight class model used in the Poverty Series. This classification is as follows:

- A. The lowest class of occasional labourers, loafers and semi-criminals.
- B. Casual earnings "very poor".
- C. Intermittent earnings)
- D. Small regular earnings) together the "poor".
- E. Regular standard earnings - above the line of poverty.
- F. Higher class labour.
- G. Lower middle class.
- H. Upper middle class.³⁸

Booth stressed that the lines between his classes were indistinct and the 'classes' were not all homogenous in the 'social' sense, there being several social grades within a single class.³⁹

Booth's conception of social classes, while being partly derived from income levels, was neither based on income, occupation nor status but a more general "style of life". Class 'C' and class 'D' earned the same amount of money over a year but, because one had regular

and the other intermittent earnings, their life-styles were sufficiently different to place them in different classes; those with intermittent earnings were always aiming at more than they could achieve. Booth believed that class limited and sometimes determined the individual's 'life-chances', for example, in attitudes towards education, rates of early marriage and attitudes to female employment. The institutions of an area, also, were moulded by the classes resident there, for instance, Booth points to the predominance of the general dealer over the specialised dealer in the East End of London and the class nature of different religious denominations.

"The natural congregation of Protestant Nonconformist bodies consists mainly of middle class people ... but ... they have left, necessitating orientation to the people now living in the district".⁴⁰

Rowntree divides society into seven classes (two of which do not fit into the stratification) based largely on income levels for a "moderate family" (father, mother and from two to four children). These classes are as follows:

- A. Total family income under 18s for a moderate family.
- B. Total family income 18s and under 21s for a moderate family.
- C. Total family income 21s and under 30s for a moderate family.
- D. Total family income 30s for a moderate family.
- E. Domestic servants.
- F. Servant-keeping class.
- G. Persons in Public Institutions.⁴¹

Both Booth's and Rowntree's classifications show a tendency to divide society more finely in the lower sections than the upper, and

this could be indicative that divisions were more sharply felt among the lower classes than the upper. Indeed, Briggs claims that "dividing lines seemed to be sharper at the base of the pyramid than towards the apex".⁴²

Both Booth and Rowntree were primarily trying to establish the proportion of the population living in poverty and to put forward reasons for it. Booth defined 'the poor' as "living under a struggle to obtain the necessities of life and make both ends meet" and the 'very poor' as "living in a state of chronic want".⁴³ The actual poverty line was operationally defined as "a fairly regular though bare income of such as 18s and 21s per week for a moderate family" (in the 1880s).⁴⁴ Rowntree distinguished between Primary Poverty, in which total family earnings are insufficient to obtain the minimum necessary for the maintenance of merely physical efficiency, and secondary poverty in which, although the family income could maintain physical efficiency, the earnings were absorbed by other expenditure, either useful or 'wasteful'.⁴⁵

Rowntree arrived at a percentage figure for people in poverty in York in 1899 strikingly similar to that obtained by Booth in London a decade earlier. The proportion for London was 30.7 per cent and that for York 27.84 per cent.⁴⁶ These large proportions are supported by statements from other observers. Hyndman observed that "25 per cent of the workers of the Metropolis were in receipt of weekly wages upon which it was quite impossible for them to live",⁴⁷ and Hobsbawm states that a minimum of 10 per cent of the English population in the 1850s were paupers.⁴⁸

Apart from the proportion of the population in poverty, Booth and Rowntree also give the class proportions throughout society according to their own classifications. Booth's based on his 'Poverty Series' classification is as follows:

A.	(lowest)	0.9%	}	30.7% in poverty
B.	(very poor)	7.5%		
C + D	(poor)	22.3%		
E + F	(working class comfortable)	51.5%	}	69.3% in comfort.
G + H	(middle class and above)			
				49.

Rowntree produced the following proportions:

A.	Under 18s per week	2.6%	
B.	18s and under 21s	5.9%	
C.	21s and under 30s	20.7%	
D.	Over 30s	32.4%	
E.	Female Dom. Serv.	5.7%	
F.	Servant-keeping class	28.8%	
G.	In Public institutions	3.9%	50.

4. Evidence from recent work on Census Enumerators' Books

Further information on class proportions can be gained from modern studies of nineteenth-century census enumerators' books. Many of these use Armstrong's classification of occupation by social class based on the 1951 Census which facilitates comparison between them.⁵¹ (The appropriateness of using information on occupation from the Census as a measure of class and the problems of linking the philosophical concept of class with measurable criteria are fully discussed in Chapter 6.) Table 2.1 compares data for a 2 per cent sample of household heads in

Camberwell in 1871,⁵² a 10 per cent sample of household heads in York in 1851,⁵³ a 20 per cent sample of household heads in Hull in 1851⁵⁴ and a 50 per cent sample of households in Cardiff in 1851 (all economically-active persons included).⁵⁵

Table 2.1. Social Class distributions of four mid-19th century urban areas compared

<u>Occupational Group</u>	<u>Cardiff</u> <u>%</u>	<u>Camberwell</u> <u>%</u>	<u>York</u> <u>%</u>	<u>Hull</u> <u>%</u>
I. Capitalists, manufs., professional classes, etc.	3.15	1.97	7.83	4.59
II. Small shopkeepers, lower professions, etc.	8.02	13.62	14.20	12.48
III. Skilled labourers	46.70	65.37	51.26	47.91
IV. Semi-skilled labourers	11.32	11.82	13.67	17.51
V. Unskilled labourers	26.72	7.22	13.01	17.51

While there is obviously a broad similarity in these proportions, the differences do show the effects of different urban types on the class structure. York in 1851 possessed an economy which was primarily pre-industrial. There were many heads-of-household described as "professional" or "self-supporting by private means" in comparison with the country as a whole and a large proportion of labourers and domestic servants. The new middle and working classes were relatively absent due to the lack of modern industry, and craft and service industries still prevailed. Hull was the opposite of this, representing a rapidly expanding town containing the new industries of the capitalist era, and Cardiff

was a rapidly expanding port. Camberwell, on the other hand, was a middle- and upper-working class suburb in the industrial metropolis, not exclusive enough to attract capitalist and professional classes and too far from casual employment to attract unskilled labourers.

The Registrar General's classification into five groups does not invalidate the assumptions of many contemporaries that society was basically divided into two classes with further, less divisive stratification within them. Classes I and II form the upper and middle class (Bourgeoisie) and classes III to V the working class (Proletariat). From the above tables one would expect the proletariat and bourgeoisie to be roughly in the proportion of 1:4. This ratio is further supported by the remarks of Ernest Jones.

"Now, in this country, the basis of operation is very wide - those having identical interests consist of working men, small shopkeepers, small farmers, (many of the larger in both classes also), soldiers, and policemen. Those having interests opposed to these are landlords, mine-owners, factory-lords, bankers, usurers, merchants, state church parsons, place men, great pensioners, and sinecurists - all of which latter, with their families, form about six millions, as opposed to twenty-four millions".⁵⁶

5. Gradations within the two major classes

(a) The working class

It now remains necessary to establish what were the main divisions within the two broad groupings. Within the working class the major division was between skilled and unskilled labourers or between what came to be known as 'the labour aristocracy' and the rest. The labour aristocrat would be better paid, better treated and regarded as

more respectable and politically moderate than the rest of the working class. The extent of the distinction between this artisan group and the lower-working class is evidenced by the way in which it was sometimes grouped with the tradespeople class for statistical purposes bridging the gap between the lower and middle classes. For example, the Registrar General published suicide rates for London in 1838 dividing the population into labourers on the one hand and artisans and tradespeople on the other.⁵⁷ Membership of the labour aristocracy, according to Hobsbawm, depended on six factors:

"Firstly the level and regularity of a worker's earnings; second his prospects of social security; third his conditions of work, including the way he was treated by foremen and masters; fourth his relations with the social strata above and below him; fifth his general conditions of living; lastly his prospects of future advancement and those of his children".⁵⁸

The first of these was held to be the most important and, indeed, wage data is usually the only way of assessing the membership of the labour aristocracy. The division between skilled members of the labour aristocracy and the semi, or unskilled, labourers below them was often reflected in the organisation of union membership. For example, the British Steel Smelter Unions divided members into 'Class 1' who earned 36s per week or more, and 'Class 2' who earned between 15s and 36s per week.⁵⁹ Hobsbawm argues that the fissure between the labour aristocracy and those below them was a direct function of capitalism.

"The main reason why there is a large differential between skilled and unskilled, 'aristocratic' and 'plebian' occupations under capitalism is that the industrial reserve army of unemployed and under-employed, which determines the general movements of wages, affects different categories of workers differently. It operates in the first instance chiefly by keeping the wages of that kind of labour which is most easily expanded, low: that is, the least skilled".⁶⁰

It also tended to keep the wages of the least skilled irregular, further increasing the chances of poverty among this section of the population. This lower section of the working class is often referred to as the 'residuum'.⁶¹ Ward has recently defined it as containing -

"those whose poverty could not be alleviated by economic opportunity and as a pool of cheap labour represent a constant deflationary influence upon the wages of the remainder of the working class".⁶²

The extent of the fissure between the skilled and unskilled workers was emphasized by Mayhew who claimed that to cross the moral and intellectual gulf between them was to reach "a new level ... among another race".⁶³

A further division in the working class may be discerned at the very base of the pyramid where society's casualties tended to settle. This class corresponds to Booth's lowest class of occasional labourers, loafers and semi-criminals.

(b) The middle class

Turning to the middle class, numerically a much smaller social group, one can distinguish three broad sections; the small employers of labour, the lower professions (usually those professions other than the upper orders of the law, medicine and the church) and white collar workers.

The first two were often indistinguishable in terms of income but the third group, the clerks, were usually less well off. All, however, shared a common ideology and a common drive to aspire to

upper-middle class life-styles. Reader has discussed the emergence and development of the professions in the nineteenth century and their gradual extension from the eighteenth century "liberal professions" of the law, church and medicine of the upper classes into the lower professions of the new middle classes.⁶⁴ The first systematic attempt to count the members of the professions was made at the Census of 1841. The authorities admitted as professional persons only the clergy, lawyers and medical men and they calculated that these formed 0.8 per cent of everyone in occupations. The figure rose gradually through the century, not only because more people joined these professions but because more occupations were admitted to the professional lists. The 1861 census saw the addition of schoolmasters, teachers, professors, actors, authors, editors, journalists, artists, sculptors, musicians, organists, civil engineers, including naval architects and draftsmen, and in 1881 architects, land agents and surveyors were added. The broadening of the professional classes increasingly meant division within them. Parts of them remained largely the preserve of the upper classes, while the artistic group were firmly lodged in the middle- and lower-middle class. Eighteenth-century status ascription within particular professions preserved itself well into the industrial age and Dr. Johnson's comment that he 'didn't care to speak ill of any man behind his back, but he believed the gentleman was an attorney',⁶⁵ would still have conveyed a similar impression in 1851. Gradually, however, the burgeoning professions attained a distinctive respectability of their own, firmly seated in the middle- and upper-middle class, largely through the emergence of written qualifications, and the "professions as we know them are very much a Victorian creation, brought into being to serve the needs of an industrial society".⁶⁶

The emergence of the white collar workers was mainly dependent on the expansion of the professions and the small and large commercial and industrial concerns. Again there was a clear division within this group. Lockwood divided nineteenth-century clerks into two grades; the more prosperous, engaged in banking, insurance, the civil service and similar fields of employment, who could obtain a fairly respectable middle-class way of life and the majority of clerks, whose wages were barely more than those of the artisan, but who were always striving socially to identify themselves with the middle class.⁶⁷

The third component of the middle class is what is often understood by the "petit bourgeois", i.e. the small employers, for example, small retail shopkeepers, publicans, innkeepers, builders employing a few operatives, brewers and all other small manufacturers. These independent small men were the dominant group in the middle class.

This diverse class has often been said to lack the numerical strength of the working class and the power and wealth of the elite, but there is much evidence to show that it was a powerful social instrument having a pervasive effect on the political climate of the day. Middle-class ideals of self-help, perseverance, duty, thrift and character were spreading to the working classes⁶⁸ and "the relationship between public opinion and the growing strength of the middle classes was recognized even when there was an absence of political crisis".⁶⁹ Sir James Graham remarked in 1826:

"I know no bound of public opinion. The seat of public opinion is in the middle ranks of life - in that numerous class, removed from the wants of labour and the cravings of ambition, enjoying the advantages of leisure, and possessing intelligence sufficient for the formation of a social judgment, neither warped by interest nor obscured by passion."⁷⁰

However, the pervasive effect of middle-class ideology, though giving a coherence to Victorian culture, should not be over-stressed since its effect was often largely cosmetic and "the formal universality of official values was eroded by the steady pressure of class, status and power".⁷¹

6. Conclusion

Nineteenth-century society, therefore, can be stratified in several different ways according to the definition of class and the purpose for which it is required. From the point of view of economic well-being and life-style, a three class model of working class, middle class and upper class can be delimited with smaller divisions within each class. Where the divisions are placed depends on the criteria used; the labour aristocracy has often been grouped with the middle class rather than the working class. From a purely economic view a more detailed stratification can be adopted, resembling a 'slope of gradation'. From a political viewpoint nineteenth-century society is most often grouped into two opposing classes mutually engaged in conflict. These different viewpoints, however, all start from the common premise that nineteenth-century society was a new phenomenon, a product of advancing industrialisation and urbanisation, replacing a previous stable system based on ascribed status and well-defined social strata. Not only were the bases of status evaluation changing but the tension between classes was increasing. As Briggs says "there was no dearth of social conflicts in pre-industrial society but they were not conceived of at the time in straight class terms".⁷² According to Engels, "The cities first saw the rise of the workers and the middle classes into opposing social

groups".⁷³ This implies that consciousness of class was likely to be well developed and the class structure of society under threat. According to Hobsbawm, writing on mid-Victorian England:

"At no other time in modern British history have the common people been so persistently, profoundly and often desperately dissatisfied. At no other period since the seventeenth century can we speak of large masses of them as revolutionary, or discern at least one moment of political crisis (between 1830 and the Reform Act of 1832) when something like a revolutionary situation might have developed".⁷⁴

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CHAPTER 3

THE NATURE OF NINETEENTH-CENTURY MIGRATION AND
MIGRANT CONSCIOUSNESS

This chapter considers some of the main issues relevant to geographical migration in nineteenth-century Britain. The suggested 'models' of migration are discussed along with ideas on migrant consciousness; causes of migration and the facts of distance migrated and size of migrant stream are related to the spatial outcomes of the processes of movement in the pattern of urban segregation.

1. Migrant segregation and migrant consciousness

(a) 'Models' of migrant segregation

Although most migrants in nineteenth-century British cities were not ethnologically different from the indigenous population, sharp cultural differences did exist among groups from different areas of origin with the result that some of the concepts appropriate to ethnic groups in twentieth-century cities are also applicable in diluted form to nineteenth-century cities. True ethnic minorities did exist, however, notably the Irish, but in Great Britain in 1851 there were only 56,665 foreign-born aliens¹ and there was no large legacy of ethnic groups originating from an earlier phase of immigration. The concepts of migrant status and ethnic status are, in fact, closely inter-related in the nineteenth century since not only did migrant groups possess different cultural if not ethnic identities, but most truly ethnic groups were composed of recent migrants.

Two models of ethnic 'segregation' in American cities have been widely used.² These are the "ghetto" model, as proposed by Ward for nineteenth-century cities,³ and the "ethnic community" model developed by Neils-Conzen.⁴ In the ghetto model the members of the migrant group are characteristically concentrated in the lowest social class and are confined to the poorest areas of the city with very little residential and occupational choice. In contrast to this, the members of an 'ethnic community' display voluntary residential cohesion in order to maintain their culture and form a microcosm of the entire city, retaining their own upwardly mobile elements. These models are not directly transposable to nineteenth-century British cities where cultural differences are not as acute as they are in their American counterparts, but the ghetto model is obviously applicable to certain nineteenth-century Irish communities⁵ and the ethnic community in diluted form is reminiscent of communities of native migrants in various British cities.⁶ In a recent study of Victorian Liverpool, Pooley has found that the Welsh migrant community possessed the attributes of the "ethnic community" and the Irish conformed closely to the "ghetto" model.⁷

In a nineteenth-century context one might add to these two models of migrant segregation a third, which may be labelled the 'reception area' model, in which the population was neither forcibly segregated, as in the case of the ghetto, nor voluntarily segregated and stable, as in the case of the ethnic community, but instead was formed in response to high levels of migration and was characterised by the predominance of newly arrived migrants who would subsequently settle elsewhere in the city or move away from the city altogether. These areas may cater for migrants of diverse origin, as in the case of lodging-house areas of

which Leather Bottle Lane in Gloucester and Kirkgate and Castlegate in Huddersfield⁸ are examples, or they may be culturally specific, as in the case of the Irish enclaves of Central London.⁹ There is mounting evidence that many areas previously associated with the ghetto model may in fact have been closer to the transient 'reception areas' model, there being little evidence that their population was trapped in a kind of 'culture of poverty'.¹⁰ Thernstrom and Knights have demonstrated in the United States that many would-be ghettos show higher transience and lower persistence rates than the areas of the city occupied by indigenous citizens and find little evidence to support the view that most members of a minority group remained for long in the community at all and much less within the confines of their particular neighbourhood.¹¹

While the ethnic community model implies a high level of adjustment to a new society and environment by the alien group, the ghetto model and the reception area model imply absence or incompleteness of adjustment, reflected in restricted opportunities. In the nineteenth century, where strong flows of migration operated from rural areas to burgeoning cities, a process of adaptation, similar in magnitude to that experienced by foreign immigrants entering an alien culture, may have been necessary to accomplish full assimilation into urban life. Duncan and Lieberman have listed four processes by which immigrants adjust to their new environment (the first of which applies to foreign immigrants only). These are naturalisation (the acquisition of legal citizenship), absorption (entry into productive economic activity), assimilation (integration into the social structure, more or less on terms of socio-economic equality) and finally, acculturation (adoption of the local customs and relinquishment of the cultural characteristics of the immigrant group).¹²

It has so far been assumed that migrants entering the city will require some period of adjustment which will lead to their segregation either due to conscious choice or restricted opportunities, but it is also possible that a migrant may directly enter into the social and economic life of the city experiencing no period of alienation or segregation. Pooley has listed five groups of variables which would affect the residential location and, therefore, degree of segregation of a migrant entering a Victorian city. These are:

1. Socio-economic and occupational factors
2. Family and life-cycle factors
3. The availability of housing
4. Cultural factors
5. Factors relating to an individual's migration history.¹³

A migrant group would be less segregated in the city if it displayed a wide range of occupational groups and social classes, a variety of family types, if housing was available over the entire spectrum allowing immigrants to choose according to the requirements of their family and the size of their income, if their culture was similar to that of the recipient city and if each of the migrants possessed migration experience which would facilitate their absorption into the urban milieu in which they were now living. To the extent that these conditions are fulfilled, migrant status would not be revealed in the residential differentiation of the city.

(b) Migrant Consciousness

As detailed above, cultural differences between migrant groups and the consciousness of these differences play an important role in the segregation of migrants. The "ghetto model" of migrant segregation

is based on the presence of prejudice against and possibly also cultural cohesion within the migrant group, while the "ethnic community model" is based primarily on the presence of cultural cohesion. The reception area model implies an absence of culture consciousness.

Previous research has shown that, in nineteenth-century Britain, the major cause of culture conflict arose from differences between the Irish and the home population. In all cities in which they are present in appreciable numbers the Irish are segregated and there is a large amount of documentary evidence to show that prejudice against the group was a major cause. While not a member of the home population, Engels' comment that "the worst accommodation is good enough for them" is typical of attitudes prevailing at the time.¹⁴ Curtis isolates three major sources of prejudice against the Irish in Victorian Britain; race, class and religion.¹⁵ In the case of the first, the Irish were seen to embody all the aspects widely attributed to the Celtic race at the time. The Irish were:

"childish, emotionally unstable, ignorant, indolent, superstitious, primitive or semi-civilised, dirty, vengeful and violent".¹⁶

In terms of religion, the Irish aroused the English distrust of Catholics¹⁷ and in terms of class, not only were they seen as belonging to a subservient peasant class, but they were also hated by the working class for undermining their wages.¹⁸

One might expect that within Wales prejudice against the Irish might have been partially offset by common Celtic origins, but this does not appear to have been the case, the Irish being strongly segregated in all Welsh towns on which research has currently been

published¹⁹ and Hickey has pointed to the presence of strong prejudice against the Irish in Cardiff.²⁰ Prejudice was not, however, one-sided - and there is, not surprisingly, evidence of deep-seated dislike of the English among the Irish population.²¹

A second but less severe cultural divide separates the Welsh and English populations, and it is apparent that the Welsh were not fully spared from the Englishman's depreciation of the Celts, certain sections of the English population viewing the Welsh in similar terms to those outlined by Curtis for the Irish.²² The major source of cultural dissonance, however, occurred as a result of the language barrier, and also religion, nonconformity being prevalent amongst the Welsh. Prejudice rooted in Anglo-Saxon/Celtic conflict was largely confined to the English middle class. The attitude is amply illustrated in the Report on the State of Education in Wales of 1847 which made it clear that the Welsh were regarded as an inferior race. On Welsh Sunday Schools the report asserts that:

"they present the charms of office to those who, on all other occasions, are subject; and of distinction to those who have no other chance of distinguishing themselves ... Whatever ignorance is shown there, whatever mistakes are made, whatever strange speculations are started, there are no superiors to smile and open their eyes".²³

2. Migration in the Nineteenth Century

The most succinct statement on nineteenth-century migration, and indeed migration in general, remains that of Ravenstein. From a study of nineteenth-century census statistics, Ravenstein published

several papers in the latter part of the century, which outlined the 'laws' of the migration process. These laws have recently been restated by Grigg in a paper which synthesises the various statements of Ravenstein's publications. The laws as restated by Grigg are:

1. The majority of migrants go only a short distance
2. Migration proceeds step by step
3. Migrants going long distances generally go by preference to one of the great centres of commerce or industry
4. Each current of migration produces a compensatory counter current
5. The natives of towns are less migratory than those of rural areas
6. Females are more migratory than males within the kingdom of their birth, but males more frequently venture beyond
7. Most migrants are adults : families rarely migrate out of their country of birth
8. Large towns grow more by migration than by natural increase
9. Migration increases in volume as industries and commerce develop and transport improves
10. The major direction of migration is from the agricultural areas to the centres of industry and commerce
11. The major causes of migration are economic.²⁴

Ravenstein's laws treat three aspects of the migration process, the distance and direction of migration, the causes of migration and the characteristics of the migrants. For the purposes of studying the residential segregation of migrants in cities, the characteristics of migrants are obviously of prime importance but, since the place of origin of the individual migrant, his migration path and the cause of his migration give him a migration experience which will affect his

reaction to, and behaviour in, his destination,²⁵ it is important to outline the salient features of the geographical pattern of migration in Britain at this time and its causes.

(a) The causes of nineteenth-century migration

The principal causes of migration are economic.²⁶ One of the major ones was the decline in agricultural employment, particularly the replacement of seasonal labour by machinery.²⁷ Seasonal agricultural labour had initially created a lot of temporary migration, notably that of the Irish to Britain²⁸ but also within England and Wales, for example, the movement of harvesters from Mid-Wales to the Midlands.²⁹ Later, however, the lack of such employment created rural overpopulation. Another cause of excess rural population was the enlargement of farms and the laying down of land to pasture but at the same time other changes associated with the agricultural revolution, such as the enclosure of wastes, helped to ameliorate its effects.³⁰ Further rural depopulation was caused by the loss of craft industry to urban factories.³¹ Workers in craft employment would travel in search of areas where their skill was still in demand,³² but, on the other hand, workers in dying skills had less opportunity to migrate.³³ Another economic cause of migration was the attraction of higher wages in the towns³⁴ and the more varied job opportunities obtaining there.³⁵ Once in the towns, further migration could be encouraged by the casual nature of much employment and fluctuations in industrial prosperity.³⁶ There were also occasional official schemes to aid movement out of rural parishes with a burden of paupers, such as the scheme to sign southern paupers on for three-year contracts with firms in Leeds and Manchester,³⁷ but these were never of much importance.

(b) The geographical pattern of nineteenth-century migration

The pattern of migration was not stable throughout the century, new aspects emerging in the later part of the period. In the early and mid-century, there were two major streams of migration : that of the Irish poor to England, Scotland and South Wales³⁸ and that of the movement of the rural population to the neighbouring towns. The magnitude of the second is reflected in the fact that the industrial urban areas of the period owed much of their massive growth to migration. Net gain by migration accounted for 17.5 per cent of the population increase of 15.1 million in the urban areas of England and Wales between 1841 and 1911.³⁹ In the large towns and London, the proportion was much higher. According to Cairncross, London owed a quarter of its population increase to migration, as did Liverpool, Manchester, Leeds, Hull, Sheffield, Nottingham, Leicester and Birmingham.⁴⁰ This rural-urban movement was not peculiar to the nineteenth century and had been noted by several writers in the previous century.⁴¹ Arthur Young commenting in 1774 attributed the growth of Glasgow, Birmingham, Sheffield and Manchester to "emigrations from the country".⁴² The bulk of the rural-urban movement, however, occurred in the early and mid-nineteenth century. Despite the magnitude of this movement, it did not initially cause rural depopulation. This was due to the high level of natural increase in the country as a whole and all counties grew continuously in population until 1851,⁴³ at which date three counties began to show a slight decline in population.⁴⁴ The major rural-urban movement to industrial South West Wales was from rural West Wales (Carmarthenshire, Pembrokeshire) and from South West England, but there were also seasonal flows from Mid-Wales.⁴⁵

Like the movement to the towns, Irish immigration on an appreciable scale was not peculiar to the nineteenth century; it had been in operation since the middle ages and in 1787 Manchester was said to have an Irish population of more than 5,000.⁴⁶ The major influx, however, started after the potato famine and epidemic of 1821-22,⁴⁷ with added impetus after the more severe potato famine of 1846. The initial influx was of seasonal labourers crossing over to England for the harvest but these were joined increasingly by permanent settlers who flooded into the industrial towns and London. The former consisted mainly of men, single or married, who left their families in Ireland, while the latter influx was composed mainly of complete families. Seasonal migration of Irish harvesters was on a very large scale. In 1841, 57,651 Irishmen came to Britain for the harvest, the majority of them from Connaught, entering Britain mainly via Bristol, Liverpool and Glasgow.⁴⁸ The magnitude of the influx of more permanent settlers after the famine can be seen from the Census figures for the percentage of the Irish-born. In 1841, 1.8 per cent of the population of England and Wales was Irish-born and the proportion for Scotland was 4.8 per cent. By 1851 these figures had risen to 2.9 per cent and 7.2 per cent respectively.⁴⁹ Most of the direct influx into South Wales took place in the decade 1841-1851.⁵⁰

The Irish influx constituted the major long-distance migration stream of the early and mid-nineteenth century, but less important streams were also operating, such as the movement of Scots into the Eastern and Southern agricultural counties of England.⁵¹ However, although fairly distinct movements of population can be distinguished, the actual pattern of migration was exceedingly complex when looked at in terms of

the movements of individuals. The lower classes were particularly foot-loose once having left their parish of birth, rarely settling for any appreciable time. The industrial labourers were characteristically restless vagrants, a Royal Commission describing them as "wanderers who frequently change their place of abode and never remain more than a few months with any employer".⁵² Although unskilled workers were the principal vagrants, skilled artisans would also become itinerants in periods of slack trade. Hobsbawm has described how the "tramping artisan" would progress from one "house of call" set up by his trade union to another, collecting his tramp allowance at each until he should find work.⁵³ In most trades tramping was only resorted to when an imbalance of employment opportunities occurred between areas but among other artisans, such as compositors, masons and ironfounders, casual work and itineracy were the rule.

From mid-century onwards the character of British migration began to change. Transport facilities, especially the development of railways, encouraged longer distance migration. Overland movement had been severely hampered in the early part of the century and it was, for example, much easier and cheaper to get to the northern industrial counties from Ireland than it was from Southern England.⁵⁴ The railways also stimulated migration by creating new urban areas⁵⁵ and assisting the depopulation of some of the rural areas which they traversed.⁵⁶ Further changes in migration patterns were created by shifts in the geographical pattern of economic growth.⁵⁷

(c) The magnitude of nineteenth-century migration

It is generally agreed that migration in the nineteenth century was of great magnitude. Net figures of migration calculated from the

census reveal large movements of population, but there is growing evidence that the actual amount was much greater than the net figures imply. Thernstrom and Knights have revealed that in late-nineteenth-century Boston, the actual in-migration of population was twelve times as high as that implied by the net figures for migration from the Census.⁵⁸ The turnover of households in Boston for the decade 1880-1890 was 4.09 times as great as the total number of households in the City in 1880.⁵⁹ From a study of annual directories it was revealed that one Bostonian in every seven moved out of the city in any one year.⁶⁰ The high mobility of nineteenth-century Bostonians could have been attributable to the settling process necessary for long-distance foreign immigrants, but similarly high levels have been revealed in Britain. For instance, Holmes found that 10 per cent of the occupiers of houses in May 1851 in Ramsgate had moved out of the town by May 1853 and one-third of the houses changed occupiers in the same two-year period.⁶¹ Freidlander and Roshier have demonstrated that, even where small changes in lifetime migrants are indicated by birthplace statistics, numbers of new migrants are often high. For instance, the difference between lifetime migration from Glamorgan to Monmouthshire between 1861-1871 is 769 but they estimate that the number of new migrants was 2321.⁶² There is evidence that such high levels of mobility may not have been new in the nineteenth century: Laslett found that of the 401 people living in Clayworth in 1676 only 158 were still living there in 1688, 91 having died in the parish.⁶³ Most mobility in this period, however, was probably limited to movement between adjoining parishes and in the Census of 1841, 80.7 per cent of the English population was still living in the county of birth.⁶⁴ The local nature of pre-industrial immigration to towns has been demonstrated for several towns, for example, Sheffield, where short-distance migration was of paramount importance.⁶⁵ The

high-level mobility of pre-industrial Britain, therefore, appears to be confined to localised movements which would not appreciably alter the balance of population between one area and another.

(d) Migration distances

According to Ravenstein, nineteenth-century migration, like that of pre-industrial England, was predominantly of a short-distance nature,⁶⁶ and this finding was later supported by Redford.⁶⁷ The census of 1851 revealed that most migrants were born within a ten-mile radius of their place of enumeration⁶⁸ and several studies of particular areas have shown that most migrants in the area of study were born in the near vicinity.⁶⁹ In Sheffield in 1851, 21.5 per cent of the total population was born in the rest of Yorkshire and Derbyshire and a further 5.6 per cent in Lancashire, Lincolnshire and Nottinghamshire, accounting for almost all the non-indigenes.⁷⁰ In Cardiff in 1851, 24 per cent of the population was born elsewhere in Glamorgan and Monmouthshire⁷¹ and in Huddersfield, 22 per cent of the population was born elsewhere in Yorkshire.⁷² Some researchers have distinguished between a predominantly short-distance pattern of migration for unskilled workers and long-distance migration for skilled workers, brought in to satisfy some special need.⁷³ Gwynne and Sill found that the contingent of Welsh iron-workers in Middlesborough contained very few labourers, most of the occupied males being skilled workers, particularly puddlers.⁷⁴ Not all writers have found short-distance movement among the unskilled masses but some of the disagreement in the literature is due to different definitions of what constitutes long and short.⁷⁵ In a South Wales context, John has asserted that both the movement of unskilled labourers and skilled metal workers was of a short distance nature. At the beginning of the century new copper

smelting works in Llanelli procured most of their skilled men from works at Swansea and Penclawdd.⁷⁶ It is likely, however, that the remainder of the working class, the non-metal works artisans, had more complex migration histories.

Although migration of a local nature persisted through the century, it is likely that the mean distance moved increased through time, partly due to improved communications.⁷⁷ Darby found in his study of Cambridgeshire in 1851 and 1861 that, although there was a preponderance of local migration in 1851, there was an increasing amount of long-distance migration by 1861 with many migrants moving directly to London and Durham.⁷⁸ Ward has suggested that an initial short-distance move from a rural area to a neighbouring town may be followed later by a series of longer distance moves between urban areas,⁷⁹ in response to shifts in economic growth and stagnation, and conditions of insecure employment.⁸⁰ However, Friedlander and Roshier, in a sophisticated analysis, found little change in the mean distance moved in Britain between 1851 and 1911.⁸¹

(e) The characteristics of migrants in cities

Since Ravenstein originally asserted that migrants as a group show different demographic characteristics to the rest of the population,⁸² much research has been carried out on this theme.⁸³ Migrant areas within the city are likely to show age, sex and family status attributes deviant from the city population as a whole. Darby confirmed Ravenstein's findings that females are more migratory than males in his study of mid-nineteenth-century Cambridgeshire⁸⁴ and studies by Bowley and Saville of areas of rural depopulation have shown deficiencies in young adults, particularly females.⁸⁵ Lawton found a disproportionately

high number of young adults of both sexes among the Liverpool Irish⁸⁶ and studies of mid-century Huddersfield and Liverpool have shown that young adults are the most mobile section of the population.⁸⁷ In Cardiff, Williams found that 29 per cent of the migrant population was in the 21-30 years age group compared with 20 per cent of the indigenous population.⁸⁸ Welton proposed that the economic base of the city would affect the proportions of male and female in-migrants on finding that there was a predominance of young men in the heavy industrial areas and a predominance of females in textile areas.⁸⁹

Socio-economic characteristics as well as demographic ones affect the propensity to migrate. It has often been demonstrated that in the nineteenth century, the lower-working class are the most migratory social group.⁹⁰ Among these lower classes, the least successful were the most prone to move on, those unskilled labourers who had managed to become property owners showing greater persistence.⁹¹ The majority of the lower class, however, were private renters who, then as now, form the most migratory section of the population, but in the nineteenth century their wanderings were often precipitated by a complete insecurity of tenure.⁹² The casual nature of much of lower-class employment was also conducive to vagrancy.⁹³ Because of this relationship, areas of segregation according to social class and areas of segregation according to migrant status often coincide, and it is not always clear whether such highly segregated sections of the population as the Irish were segregated due to "ethnic" differences or the fact that they occupied the lowest and least coveted position in society. The next most migratory class appears to be the professional classes, over long distances at least. Their ownership of property and access to transport made short-distance migration unattractive, but their wider

information fields made long-distance migration more common among them than the lower or middle classes.⁹⁴ A study of the Derbyshire Peak District in the nineteenth century revealed that 73.5 per cent of the professional classes had moved into the township in which they were living in 1861 and 66.6 per cent had been born outside Derbyshire.⁹⁵

Certain occupations are also more migratory than others. Apart from the obvious claimants, compositors and masons were casually employed and vagrant in habit. Depressions in particular trades at different times would also precipitate an unusual amount of migration.

From the above review, therefore, one would expect that in areas of the city where the population was segregated by migrant status, differences in age, sex, family status, social class and occupation would further distinguish the occupants of these areas. These attributes would also be active in promoting segregation within the city since family status would affect the type of housing required and social status and occupation would affect the type of housing which the migrant could afford. His choice, if he was able to exercise it, would, therefore, be limited to certain sections of the city. Occupation, however, could have an even more limiting effect through the operation of external economies which make it desirable for all branches of one industry to congregate together or near to a particular resource. It has often been noted that particular ethnic or migrant groups are concentrated in one line of employment and so, for that reason as much as cultural and demographic ones, they become segregated in the city. In nineteenth-century Paris, European national groups tended to specialise in particular lines of employment; for example, the Germans in cabinet making and the British in commerce and the professions, and

partly because of this were located in certain arrondissements.⁹⁶

The concentration of Welsh iron puddlers in certain streets in Middlesbrough was partly governed by proximity to the iron works,⁹⁷ and Ward found that Irish and German immigrants to America tended to dominate different occupations and areas of the city.⁹⁸ The occupational specialisations listed above are due to the possession of certain skills by the immigrant group prior to arrival or the swift monopolisation of opportunities on arrival. In other instances occupational specialisation will be enforced on the group after entering the city, as is the case with the Irish in Britain, who were forced into occupations which nobody wanted. (Bricklayer's labourers, navvies, hand-loom weavers, hucksters, petty traders, beerhouse keepers, soap-boilers, fellmongers, glue factory workers etc.).⁹⁹ Once occupational segregation, and, therefore, spatial segregation had occurred, the very fact of residential segregation tended to reinforce occupational segregation through the limitation of opportunities, forming a reciprocal relationship between the two types of segregation.¹⁰⁰ According to Hawley, residential segregation, regardless of its cause,

"is a restriction of opportunity; it hampers the flow of knowledge and experience and thus impedes diversification of interests and occupations".¹⁰¹

By no means all ethnologically segregated groups are characterised by occupational or status segregation, however. In Poughkeepsie, different occupations and skill levels were found within the same ethnic groups, as would be predicted by the "ethnic community" model.¹⁰² However, it has been demonstrated, at a more general level, that all segregated immigrants in the United States are distinctively slower to rise than their Yankee counterparts.¹⁰³ The United States is, however, very different in these terms to Britain and in certain British

towns migrants have been found to be better placed occupationally than indigenes.¹⁰⁴

Another factor which sometimes correlates strongly with segregation is the size of the immigrant or ethnic group. In nineteenth-century Paris, it has been shown that large groups are relatively dispersed and small groups highly segregated.¹⁰⁵

Other factors promoting segregation derive from the origin and the migratory experience of the individual. As can be seen from the discussion of British migratory patterns, many migrants will be experiencing a change from rural to urban ways of life, often necessitating a change in employment. Others will bring a cultural heritage with them which cannot easily be assimilated into their new environment. Those with vagrant experience will be attracted to the lodging-house area of the recipient town, while migrants fresh from a rural parish will seek board with relatives and friends. Incoming Irish families are liable to be destitute, only aspiring to the shared tenancy of a cellar or room. Newly-arrived professional families of all nationalities, however, are likely to seek a residence wherever they desire it, since segregation only affects the under-privileged or the positive ethnocentric.

With so many factors promoting segregation, it is not surprising that highly segregated groups have been found in Victorian cities. Added to these factors, the local nature of nineteenth-century information fields for the lower classes has resulted in the occupation of certain streets by migrants from the same area. Such segregation has been found on a county level in Merthyr Tydfil, where migrants from Cardiganshire,

Carmarthenshire and other localities resided in different areas;¹⁰⁶ similar patterns, on the much smaller village scale, occurred in Preston.¹⁰⁷ In an American context, it has been demonstrated that migrants from different parts of Ireland lived in different streets in the Five Points area of New York.¹⁰⁸

3. Summary

Previous research has, therefore, demonstrated several important aspects of nineteenth-century migration which must be borne in mind in interpreting data regarding the residential location of migrants in nineteenth-century cities. Firstly, the population in these migrant areas, if such are found to exist, may be subject to high turnover rates, the level of migration between urban areas being on a large scale. This may be particularly true of low-class migrant areas. Secondly, many of the migrants may have complex migration histories not revealed by their predominantly rural birthplaces, but many of those coming from the surrounding rural area are likely to be first-time migrants. Thirdly, certain specific occupational groups are likely to have more complex migration histories and will be more transient than the average member of the community. Fourthly, migrant professionals from distant birthplaces are more likely than other classes to have made a direct move, but certain skill groups with distant birthplaces are also likely to have made a direct move. Fifthly, the majority of migrants are likely to have arrived as young adults. Sixthly, any shift in the source of migrants between 1851 and 1871 may have been influenced by the improved communications, notably the opening of the railway in 1850. Finally, while demographic and socio-economic differences between migrant groups, which

can be measured from the census statistics, will have been instrumental in promoting segregation of migrant groups, various other factors not apparent from the census, such as the nature of information fields and cultural differences of which the migrants were conscious, will also be promoting segregation. In a South Welsh context, the most important cultural factors are likely to be a major cultural rift between the Irish and the rest of the population and a largely linguistic divide between the English and Welsh populations.

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CHAPTER 4

THE ROLE AND IMPORTANCE OF THE FAMILY IN THE
NINETEENTH CENTURY

The nature and role of the family as an institution and its change over time is a familiar theme in the literature of the social sciences. Major changes occurred at the time of the Industrial Revolution, achieving a transformation from a "traditional" to a "modern" form of family organisation. It has often been assumed that a stable, cohesive family system, based on tightly knit kinship networks, was disrupted by the arrival of industrialisation and urbanisation and that after over a century of adjustment, a relatively stable system of nuclear families, linked by kinship systems, re-established itself. The notion that pre-industrial family organisation was entrenched and unchanging before industrialisation seems in doubt, however, and it is likely that other earlier changes in society have been reflected in the adaptive response of family and household organisation.¹

1. The Effect of Capitalism, Industrialisation and Urbanisation on the family

Several writers have investigated the effects of the major socio-economic changes of the late eighteenth and nineteenth centuries on the family. Goode has looked at the effects of modernisation² on the family, Parsons, Smelser and Linton the impact of industrialisation³ and Shorter, Laslett (B) and Zaretsky the changes induced by the development of capitalism.⁴ Goode has summarised the points of pressure from industrialisation on the traditional family structure as follows:

(1) Industrialisation calls for physical movement from one locality to another, thus increasing the frequency and intimacy of contact among members of a kin network, although at the stage of full industrialization this is partly counter-balanced by greater ease of contact at a distance.

(2) Industrialisation creates class-differential mobility, that is, among siblings or kindred, one or more persons may move rapidly upward while the others do not, thus creating discrepancies in styles of life, taste, income etc. and making contact somewhat less easy and pleasant.

(3) Urban and industrial systems of agencies, facilities, procedures and organisations have undermined large, corporate kin groupings since they now handle the problems that were solved within the kin network before industrialisation.

(4) Industrialisation creates a value structure that recognizes achievement more than birth; consequently the kin have less to offer an individual in exchange for submission.

(5) Because of specialization, by which thousands of new jobs are created, it is statistically less likely that an individual can obtain a job for his kinsman.⁵

Given the validity of this interpretation, it is likely that the importance of the family in society has been greatly reduced by industrialisation. The removal of power from the family began with the initial separation of home and work which the scale and technology of the new industrial organisation demanded. In pre-industrial society, members of the household were either employed on the land or in domestic

industries and there was no conflict between status ascription within the family and occupation. The head of the household controlled both the internal social and occupational structure of its members, training his sons and any apprentices he may have added to his household, in the skills of the patri-lineal craft. The advent of industrialisation and the factory system precipitated the relative disintegration of the family into an aggregate of individuals in a free labour market and the limited opportunities for men in those industries which became factory-centred threatened the head's dominant position within the family as the principal earner. Smelser has shown how, for the cotton industry in particular, the factory system gradually destroyed family solidarity.⁶ Initially whole families worked within the local mill, much as they did at home, with the head of the family hiring his own assistants and so perpetuating the traditional system of training children for an occupation under parental authority.⁷ However, technological improvements in production methods over the first third of the nineteenth century led to the breakdown of this traditional system and the increasing depersonalisation of factory employment. The end result was a more specialized and highly differentiated "industrial" family structure, lacking many of its former functions, which were subsequently taken over by impersonal organisations.⁸

Parsons has argued that in the new industrialised conditions of employment, separation of home and work was necessitated, not only by the scale and technology of production, but also as a means of reconciling the consequent clash between ascribed status within the home and status attainment within the labour market.⁹ Parsons describes the family as -

"a solidary group within which status rights and obligations are defined primarily by membership as such and by the ascribed differentiation of age, sex and biological relatedness. This basis of relationship and status in the group precludes more than a minor emphasis on universalistic standards of functional performance. Similarly the patterning of rights and obligations in the family is not restricted to the context specific to a positively defined functional role; rather it is functionally diffuse".¹⁰

These characteristics, coupled with the emotionally charged nature of familial relations, place the family in sharp contrast to the occupational world, and the two spheres can only be articulated within an individual by the total segregation of home and work. This segregation was not necessary in pre-industrial society where occupational function was integrated into the kinship system.

This discussion of the effects of industrialisation on the family assumes that industrialisation is the causal element, but it must also be borne in mind that changes in the family may have facilitated industrialisation. Earlier changes in the family dating from the seventeenth century may have made the development of industry easier in Western Europe than elsewhere.¹¹ It has been suggested that the British inheritance system provided a labour force which was not tied to the parental plot and which was, therefore, free to supply the needs of industry.¹²

The development of capitalism has also had an effect on the structure and role of the family. Shorter argues that capitalism

"broke down the boundaries of the small hermetically sealed economic unit, transactions within which were run more by custom than by the free workings of the law of supply and demand".¹³

Individuals were released into a market where they competed for wages or profits and whose sphere of economic influence was much larger than in traditional societies. Capitalism also created an industrial proletariat who were clearly differentiated in cultural and material terms from the surrounding traditional populations. The effect of this was to break down the corporate way of life based on strong community involvement and replace it by free enterprise and individualistic behaviour. The ties between the individual and the community were weakened by the spread of "egotistical economic mentality" originated in the market place and the new conditions of employment demanded that families were socially and geographically mobile, which would not have been possible under the pre-industrial social system. Community obligations, cultural rules regulating familial behaviour and respect for lineage, all lost their value under the new system, leading to an amalgam of independent nuclear families in place of the former regulated kinship communities. The nuclear family rather than the patri-lineal family became the unit on which the social structure was based.¹⁴

This new social structure was made possible by a new kind of rationality. For example, in pre-industrial society, it would be perfectly "rational" to retain in the family group, living on a small peasant holding, adult male kin who consume more than they produce, since to expel them would "do violence to the social system, and cause damage not offset in the eyes of members of the family by any gain in income per head for those who remained on the holding".¹⁵ The predominantly economic rationality of the industrial era discouraged the tendency to retain non-productive adult kin.

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Another effect of capitalism was the increasing emphasis placed on occupational wages as a source of family income, the supplementary subsistence obtained from the land being lost for the industrial proletariat and the possibility of self-employment being drastically reduced.¹⁶ For many, the insecurity caused by harvest failure was replaced by the mercurial price fluctuations of a competitive market, with the added effect that, in one-income families, the chances of severe poverty were increased by the dependence on one source of income; occupational wages.

Barbara Laslett has discussed the effect of capitalism on family structure in relation to the changes it brought in the actual and potential accumulation of wealth for various sections of the population.¹⁷ Actual accumulation has been shown to be positively correlated with extended family living¹⁸ in pre-industrial western society, and it is hypothesized that capitalism altered the range of opportunities which structure the individual's access to accumulation. Laslett found that in Los Angeles between 1850 and 1870, there was an increase in the proportion of households with simple structures and a decrease in the proportion of households with more complex structures. The potential for the accumulation of wealth had been reduced for most families, the potential being concentrated in fewer hands; that is, changes had occurred which were consistent with the development of "capitalism" as Marx described it.

2. Family Structure in the Nineteenth Century

According to Barbara Laslett then, one would expect the nuclear family to comprise a larger proportion of all families in capitalist, as opposed to pre-capitalist, times. However, as her analysis shows, the nuclear family was easily the most common form of family organisation in the earlier and later period.¹⁹ Formerly, it was believed that the extended family predominated in pre-industrial societies and industrialisation and/or capitalism reduced its functional necessity and practicality, replacing it with a predominantly nuclear family system. It has been argued that the extended family was necessary in the past as an agricultural labour force but with the coming of industry, its functional necessity declined.²⁰ Historical research, however, has shown the dominance of the nuclear family in pre-industrial western society.²¹ One of the explanations put forward for this is demographic; in societies which experienced high mortality and a late age of marriage, there was little opportunity for extended families to occur, except for brief periods at the beginning or end of the life-cycle.²² The functional necessity for extended families in pre-industrial Britain is also in doubt, since the labour requirements of cultivating the family holding could be met by other means, for example, by increased fertility or by using non-kin labour. Anderson has suggested that industrialisation may, in fact, have increased the functional necessity of extended family living, especially in those areas where female employment was plentiful.²³ Kin would provide mutual support and child-care at a time when many members of the family worked outside the home and employment was vulnerable. On the other hand, the very high mobility found among the working class in particular

in Victorian cities,²⁴ would have operated against the formation of extended families since larger groups would have more ties with the local area, which would hamper their movement.²⁵ Also, high mortality as a constraint on the development of extended families would not have disappeared by the nineteenth century. Anderson has shown that between 88 per cent and 100 per cent of persons over 65 years of age with a child alive on Census day in 1851 were living with that child, but the actual numbers involved were small, which shows that, in Preston at least, extended family living, where not precluded by deaths, was desired by the population.²⁶ As far as other empirical evidence on the nineteenth century goes, Armstrong found that 21.6 per cent of all households in mid-nineteenth-century York contained at least one relative, a much higher percentage than is found in the empirical studies of pre-industrial Britain.²⁷ Tansey found that 6.46 per cent of his 1851 sample of the population in Hull were living as relatives in extended families.²⁸

3. Family Size and Fertility

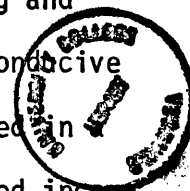
If extended families were more frequent in industrial Britain than in pre-industrial Britain, one would expect average family size to increase unless it was counter-balanced by decreasing fertility. In fact, there is little evidence for an increase or a decrease, in the size of the family with relatives included and neither is there any significant change in nuclear family size.²⁹

Within the nineteenth century, there were differences in mean family size between classes. If Barbara Laslett's assumptions about accumulated wealth and extended families are correct, one would expect a concentration of the largest families among the upper classes,

due to the economic limitations on this type of family organisation among the poorer classes.³⁰ The upper classes would also have had more vested interest in extended kin groups through their desire to preserve their lineage and wealth. Crozier has shown the importance of kin among business families in this context.³¹ Mortality, too, would perhaps have taken less of a toll among the professional classes, there being evidence of a smaller percentage of incomplete families amongst them.³² This would have increased the possibility of extended-family formation. However, conclusive evidence for a correlation between extended-family formation and social class has not been found.

In the case of the nuclear family, Class III has the highest mean family size in the majority of empirical studies.³³ This is probably a function of the skilled artisan and small shopkeeper class retaining the high fertility characteristic of much of the working class, while not experiencing such high mortality. There are several reasons why the lower classes had higher fertility, but there are two conditions which may be mentioned first which partly counter-balanced these. Firstly, there was a larger percentage of incomplete families among the working class³⁴ and this has been reflected in the way that female headed households tended to increase in number as a residential area deteriorated from middle to lower-class status.³⁵ Secondly, urbanisation has been shown to have a negative effect on fertility and one would expect this to affect the lower class most, since they were the ones who most felt the adverse effects of urbanisation.³⁶ However, these two conditions did not prevent the working class having a higher fertility than the other classes for the following reasons. Firstly, the mean age of marriage was higher among the upper status groups³⁷

and this class differential in age widened through the nineteenth century, mainly because the age of marriage for the upper status groups was rising.³⁸ The child-bearing period within marriage was, therefore, longer for the working class. Secondly, there is evidence that the working class did not try to limit fertility³⁹ and that among certain skilled and unskilled working class occupations, the optimum family size was higher than that aimed at by the upper status groups.⁴⁰ Haines has shown how fertility in the nineteenth century showed a general progression from the low fertility of high-level professional and business occupations, to the high fertility of unskilled manual workers. His evidence of fertility levels among various occupational groups, however, shows that fertility differentials were not only governed by class but also by occupation. The high fertility of the wives of coal-miners, agricultural labourers, blast furnace workers, iron puddlers and rollers, ship platers and riveters, iron miners and glass workers is contrasted with the low fertility of the wives of cotton textile workers, domestic servants, and some middle-class occupations such as civil servants, clerks and merchants. This relationship still holds when the figures are adjusted for age and duration of marriage. It is suggested that this situation occurred because the occupations with high fertility involved a particular combination of income and life-cycle with maximum earnings being achieved early in adult life, allowing early marriage, and a lack of female employment opportunities, which prevented female independence from marriage and reduced child costs in terms of caring for infants. Secondly, the migration patterns and less urban characteristics of the mining and metallurgy areas lead to costs, tastes and marriage patterns conducive to larger families; a desired mix of goods and children learned in rural environment was maintained while experiencing the expanded income



outlook and opportunities of industrial wage earners. Finally, higher morbidity and debility among these groups (especially miners) and higher mortality of their children, favoured earlier marriage and more births, both to secure the target family size and to help provide for old age and infirmity of the parents.⁴¹

Higher fertility for these occupational groups and for the working class in general did not, however, result in larger nuclear family size, except for the better-off skilled members of the class, since higher mortality counterbalanced fertility. Rowntree's figures for York in the 1890s are a useful illustration of this.

	<u>Live births</u> <u>per 1000</u>	<u>Deaths</u> <u>per 1000</u>	<u>Infant mort.</u> <u>1 yr per</u> <u>1000</u>	⁴² <u>Mean</u> <u>family</u> <u>size</u>
Poorest class	39.83	27.78	247	4.14
Middle class	40.32	20.71	184	4.65
Highest class	29.00	13.49	173	3.96

Infant mortality is very high for all classes but the excessively high rate for the poorest class more than offsets their higher fertility. The middle class, with a fertility level of the same magnitude as the poorest class, had an infant mortality rate much lower than the poorest class and not greatly higher than the upper class, resulting in a family size 10 per cent higher than both.

4. Household Size and Composition

Like family size, household size shows little variation between pre-industrial Britain and industrial Britain, lying somewhere

between 4.5 and 5.0 at both periods.⁴³ Figures relating to household size, however, conceal possible differences in household composition. There is evidence that lodgers, for instance, while forming quite a large section of the population in the nineteenth-century city, were virtually absent in pre-industrial Britain outside London.⁴⁴ Armstrong's proportions of households with lodgers in mid-nineteenth-century York, Nottingham and Radford were 21.3 per cent, 21.8 per cent and 13.7 per cent respectively.⁴⁵

There is evidence that household size varies directly with social class both in the nineteenth century and pre-industrial Britain. Laslett claims that -

"The general principle (is) the higher the status of the household or family, the larger it was and the humbler the people were, the smaller the households they lived in".⁴⁶

Empirical evidence has shown that this relationship continued into the nineteenth century. Data for Kingston-upon-Hull revealed a gradation in household size from the largest households in the professional and managerial categories to the smallest among the unskilled category.⁴⁷ Laslett explained the gradation in Pre-industrial England as largely arising from the practice of keeping large numbers of servants in high-class households who were drawn from the lower-class ones.⁴⁸ It is likely that the same explanation holds for the nineteenth century since domestic servants were the largest non-kin category in Victorian households. Evidence from nineteenth-century York shows a gradation from a mean number of servants per household of 1.15 for Classes I and II to 0.05 for classes IV and V.⁴⁹ The other large non-kin element of

of nineteenth-century households was that of lodgers. In certain empirical studies the mean number of lodgers has shown an opposite trend to that of servants.⁵⁰ However, it seems that the number of lodgers per class is variable between towns and is probably linked to the economic base of the town and patterns of migration to it.

5. The Role of the Family in the Nineteenth Century

It is apparent from the above discussion that the structure and function of the family changed in the nineteenth century. There was a greater tendency to accommodate relatives within the household and lodgers became a frequent element in the household. The joint effect of industrialisation, capitalism and modernisation was to remove power from the family, stripping it of many of its former roles. Not only did the family lose its influence in the occupational sphere (for all but the upper classes), it also partly lost its social welfare function. Members of the same kin-group in the nineteenth century may have found themselves distanced by affiliation to different social and occupational groups, and the increase in long-distance migration in the century tended to further attenuate kinship ties. The effect of this was to remove many of the restraints on the behaviour of the individual but also to partially remove the support provided by kin in time of need. Impersonal organisations sprang up to perform functions formerly filled by the kin-group. These included trade unions, friendly societies, savings banks, loan societies and schools.⁵¹ It is unlikely, however, that the new organisations could have replaced the kin-group in terms of support in case of poverty. Surprisingly large numbers of the population were at risk of poverty through loss of earnings,

either due to the death or illness of the chief earner in the family or through irregularity of employment. An investigation of hand-loom weavers in North Lancashire villages in 1833 revealed that over 10 per cent of the population was unfit for work due to illness or disablement.⁵² In York in the 1890s death of the chief wage-earner accounted for 15.13 per cent of the population living below the poverty line.⁵³ As far as irregularity or seasonality of work goes, in Leeds in 1838, painters, plasterers, wood-sawyers and bricklayers could expect to work for only nine months of the year, shoe-makers, masons and wheelwrights for ten months and coopers, tailors, joiners, saddlers and carriers for eleven months.⁵⁴ The combination of low wages, irregularity of work, death or illness of the head and large families meant that poverty was a constant threat to lower-class families. Both Booth's survey of London and Rowntree's survey of York revealed that over 25 per cent of families were living in poverty, and Armstrong argues that 52 per cent of the York population were at risk of poverty due to inadequacy of wages combined with largeness of family.⁵⁵ The poor law and organisations such as trade unions, would offer support to families in need but the major burden of support must still have fallen on kin, as it did in pre-industrial Britain; there is evidence that many relatives in nineteenth-century households took the place of a dead member of the family.

It is likely that the effect of large-scale migration in attenuating kin links may have been over stressed. The first migrants would obviously suffer some strain on kinship ties, but initial migration was often followed by the arrival of other relatives from the same place⁵⁶ and in cases where this was not so, the next generation

would produce a new kinship network. There is evidence that the majority of one extended family would work in the same factory, works or mine, live within the same few streets and attend the same church or chapel and social functions. Evidence from an informant in Morryston near Swansea, for the late-nineteenth century, reveals a very cohesive family structure and society:

"Small in scale, limited and narrow social horizons, homogenous in social composition, familiar and familistic, with a strong community consciousness generated by common residence and common necessity."

Clusters of kin were linked by:

"continuous interaction and multiple social relationships from home to home, in the Chapel, at work, in common adversity, at play".⁵⁷

The informant stresses the importance of kin (and neighbours) in cases of poverty, claiming that people would rely on the help of kin rather than go to the Parish for relief. The informant's father was among the first generation of his family to migrate and suffered some attenuation of kinship, but it is significant that two of his brothers followed him to work in the same steel works. It seems that although industrialisation may have originally disrupted the kinship group, this was, for many, a temporary experience.

It seems, therefore, that the family in the nineteenth century was, while lacking many of its pre-industrial roles, still a cohesive and influential group. It had lost much of its power in terms of the economic organisation of society but while having less to offer kin in terms of occupational life-chances, did retain its social

unity, except among areas of newly arrived migrants. One can, therefore, expect the family to exert a strong influence on the social geography of the city. What may otherwise be interpreted as the necessity to live near to work in a 'transportless' environment, may in fact also be the result of the desire of related individuals to live near to one another and work in the same establishment. While one has no means of telling from census evidence, without the laborious procedure of names linkage, whether families were related, one must bear in mind that the residential location of each family may have been strongly influenced by kinship and community ties, as well as the more obvious economic and occupational constraints.

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CHAPTER 5

URBAN SWANSEA AT MID-NINETEENTH CENTURY

1. Physical Growth

The area defined as Swansea in this research is that covered by the Municipal Borough set up under the Municipal Corporation Act of 1835.¹ The area of the Borough was 5,363 acres with a population of 31,461 in 1851 rising to 51,702 in 1871.² The boundary of the Borough and the settlements within it are shown in Fig. 5.1.

Swansea at this time was an old borough coastal town extending northwards around a number of discontinuous nuclei, many of which formed recognisable and discrete communities. The old medieval settlement clustered around the castle. The other communities developed as a result of the establishment in the eighteenth century of non-ferrous metal-smelting works along the Tawe valley, and to a lesser extent, of coal mines. The settlements at Hafod, Pentrechwyth and Morryston were the creation of metallurgical industrialists who provided houses for their workers. Other industrial nuclei were to be found at Foxhole, Pentre Guinea, St. Thomas and Port Tennant. Treboeth, Pentre and Cwmbwrla were originally associated with pits but the latter two later became associated with the smelting industry as well (Cwmfelin works). Morryston was the largest of these settlements and had grown from a planned village built by the industrialist, John Morris, in the eighteenth century; by 1850 it supplied labour for a variety of smelting works, chemical works, tinsplate works and iron foundries.³ During the period 1851 to 1871, urban expansion began to draw these settlements into the main built-up area. Hafod was contiguous with the old town by 1870 and Pentre

and Cwmbwrla became joined by ribbon development along the Carmarthen and Llangyfelach roads, and were soon to be more substantially linked with Swansea by the sale of land for building at Waun Wen and Brynmelin. Landore was joined to Hafod by ribbon development along the 'New road to Neath' and Foxhole, Pentre Guinea and St. Thomas by development along the old Neath Road.⁴

During the period 1851-1871, most of the urban expansion occurred in the area north of the old town towards Morryston and, in the west, on the land between Townhill and the coast. In the west, the land between the Oystermouth Road and the coast was planned for building in 1853 and the Uplands Freehold Estate was planned in the same year. Burrows Field was divided into plots in 1857, filling in the area between Oystermouth Road and St. Helens Road. The St. Georges Freehold Land Society developed the land around Constitution Hill between 1852 and 1880 and the Ffynone Estates of James Walters were developed during the same period. In the north of the town, Hafod was developing rapidly and the land at Brynmelin and Waunwen was sold for building.⁵

2. Industry

At the beginning of the nineteenth century, Swansea had reached a position from which it could either develop into a fashionable resort or become an industrial city. In 1806, 'The Cambrian' newspaper commented that:

"this gay resort of fashion is very full of genteel company, more arriving daily. The promenade displays a fascinating assemblage of beauty and elegance which very few watering-places could excel".⁶

However, Swansea's locational advantages for the smelting of metals, especially copper, and the ambitions of its industrialists, ensured that its efforts to become a fashionable resort were thwarted by industrial despoilation. By 1850, Swansea was the centre of Britain's non-ferrous, metal-smelting industry. Copper was the major element in this smelting industry and, at this time, the coastal area from Port Talbot to Kidwelly smelted approximately 90 per cent of Britain's copper.⁷ One observer in the 1880s commented that:

"what coal is to Newcastle, chemicals to St. Helens, silk to Lyons and wheat to Milwaukee, copper is to Swansea".⁸

However, by the time this statement was made, the copper works were already in decline, some of them converting to the smelting of other non-ferrous metals, especially zinc.⁹ From the 1860s onwards, not only did the balance of non-ferrous metals turn from copper to other metals such as zinc, but the non-ferrous metallurgy industry itself was beginning to take second place to coal mining, steel and tinsplate.¹⁰ The middle of the century can, therefore, be seen as the threshold at which the industries on which Swansea originally depended were superseded by those which have set the modern pattern of industrial development.

Metal smelting had first established itself in the Swansea area in the early eighteenth century with the smelting of lead,¹¹ and the first copper works was established by Dr. Lane in Llangyfelach Parish in 1717.¹² From 1750 to 1860, the copper smelting industry flourished. The capital for the development of the industry initially came from the manufacturers of sheet metal and brass and copper goods in London, Bristol and Birmingham but, in the period under study, most of the capital was provided by mining interests.¹³ The factors favourable

for its location in the area included the ease with which copper ores could be imported from the mines in Cornwall and the abundant local supplies of coal for smelting.¹⁴ The fact that, at this time, one ton of metal needed three tons of coal to smelt it, favoured the location of smelting on the coalfield rather than at the mines.¹⁵ There had been some early attempts to smelt copper at the Cornish mines but these had suffered from the fact that it was better to smelt together various types and grades of ore than the produce of one mine.¹⁶ The South Wales coalfield, being nearer to the initial source of ore in Cornwall, possessed transport-cost advantages over other coalfields, and the fact that the coal seams reached the coast in the western part of the coalfield, and were suitable for smelting, gave the Swansea region an advantage over the rest of the South Wales coalfield.¹⁷ Quite early in the nineteenth century, the Cornish supplies became insufficient for the industry and ores were brought from Anglesey and Ireland and the reduction of the duty on imported ores, from £6 per ton to 1 shilling per ton in 1848, enabled Swansea to turn to foreign ores as the British mines declined.¹⁸ By 1850, much of the copper ores came from abroad, particularly Chile, which supplied 7,040 tons in 1855, rising to 17,424 tons by 1860.¹⁹ The cheapness of coal on the South Wales coalfield, its port facilities and reservoir of metallurgical skill, enabled it to maintain its supremacy despite the lack of local ore supplies.²⁰ This situation did not last long, however, since the foreign producers of ore began to smelt the ore before export and the manufacturers of copper goods began to purchase regulus and concentrates direct from the producers.²¹ Swansea had never used its copper for the establishment of manufacturing on any appreciable scale and had allowed this part of

the industry to gravitate towards Birmingham, Liverpool, Manchester and London.²² With the *raison d'être* for a British copper smelting industry waning, therefore, the decline of the Swansea copper industry was assured and its signs were soon apparent.

Copper smelting had, however, assured Swansea's future as a metallurgical centre and a multiplicity of smelting industries developed as a result. These included the smelting of lead, silver, zinc, tin, gold, arsenic and sulphur.²³ Some of these industries had, in fact, preceded the copper industry; lead smelting had begun at the turn of the seventeenth century,²⁴ but it was as copper smelting declined that these industries really developed. Several of the erstwhile copper works were converted to zinc smelting in the 1860s, for example, Vivian's Old Forest Works at Morryston and Grenfell's Upper Bank Works in the Swansea Valley.²⁵ It was the ferrous metal industry, however, which really took the place of copper smelting. The iron and steel industry had previously been concentrated in the eastern part of the coalfield where the coal was more suitable and large iron ore deposits were found in conjunction with the coal. However, the successful introduction of the Siemens open-hearth furnace at Landore Steelworks in 1868, demonstrated that pig-iron could be re-smelted into steel suitable for the rolling of sheets which could be tinned in the tinworks.²⁶ Prior to this, charcoal-iron and coke-iron, produced in puddling and ball furnaces, had been forged for sheets and tin plates but, from the 1870s, acid and basic steels were increasingly used. Four tinsplate works were established in the coastal belt in the decade 1850-9 and eight more, three of them in Swansea itself, in the 1860s.²⁷ Apart from the production of tinsplate, the Swansea area utilized its steel for terneplates (lead coated) and galvanized sheets (zinc coated).

The other industry which increased rapidly in the Swansea area from mid-century was coal-mining and this affected Swansea more through its shipment and export than by its extraction. Evidence of coal mining in the area dates back to the thirteenth century, but the main development of the coalfield occurred from the middle of the nineteenth century onwards.²⁸ The amount of coal passing through the Port of Swansea increased dramatically in the 1850s, rising from 88,410 tons to 184,967 tons in the two years from 1854-1856.²⁹ The actual mining of coal also provided employment for Swansea people at this time, there being seventeen mines in the neighbourhood of Swansea in 1854.³⁰ Coal also gave rise to a thriving patent fuel industry in Swansea, which exported 60,882 tons, out of a total United Kingdom export of 84,215 tons, in 1855.³¹

The industries of Swansea M.B. at the time of the censuses of 1851 and 1871, therefore, represented an overlap between the old industrial order based on non-ferrous metallurgy and that of the new emphasis on ferrous metals and coal mining.³² There still remained a concentration of copper refining works in the Swansea Valley closely aligned to the Tawe River and the canal, but these had been diversified with other metallurgical enterprises. The Old Forest Copper Works at Morryston became a zinc works in the 1860s and the Upper Bank Works was to follow in the 1880s.³³ A new zinc works was opened at Port Tennant in 1869 by the Swansea Zinc Company.³⁴ Two copper ore smelting works were set up in the 1860s (Danygraig and Llansamlet), whose prime interest was in the arsenic and sulphur which the ores contained, rather than the copper, and a chemical plant for alkali and phosphate was added to Hafod Copper Works. Other chemical works were set up in Morryston.

The Morfa Copper Works became diversified in the 1840s with the addition of a silver smelting works, and the White Rock Works converted to a silver and lead smelting works as well as copper.³⁵

There was also a nickel cobalt works at Hafod Isaf. Some of the non-ferrous metal works had begun to manufacture copper and yellow metal goods, for example, in 1845 Taibach Copper Works began manufacturing Malay coins and, in the following year, Geneva coins began to be manufactured in Swansea.³⁶

The future importance of steel and tinplate was already apparent at this time, there being seven tinplate works in the borough (or on its boundary) by 1878, a large steelworks at Landore and three iron works. A spelter works at Landore also became absorbed into the Siemens Steelworks in 1867.³⁷

Other industries within the borough in the period 1850-1870 included the four patent fuel works in the Lower Swansea Valley, the pottery works at Hafod, Landore and Murryston, wagon works at Hafod and Port Tennant and various shipbuilding yards.

3. Transport

It was in the period after 1850 that the railway system around Swansea was developed. The canal system had been completed with the opening of the Tennant Canal in 1823 and canals had played a major role in the transport of fuel, raw materials, manufactured goods and food supplies up to the middle of the century, when railways began to take over. The main line from Cardiff reached Swansea in 1850 and in 1852 it reached Carmarthen and the Chepstow Bridge opened, linking it with England. The Neath-Aberdare line opened in 1851 and the Tawe Valley

line reached Ystalyfera in 1861, a branch line being built from it to Morriston in 1871. In 1865 the line of the Llanelli Railway and Dock Company from Pontardulais to Swansea via Gowerton and Duvant became available for traffic, allowing access to the Port from two directions. Permission for a line along the coast from Neath to Swansea was granted in 1861.³⁸

Railway construction was closely linked with port development and the means by which rival ports secured a hinterland. Anchorage facilities at Swansea were superior to those of neighbouring ports since the Tawe was navigable for two miles from its mouth. The congestion of the river created the need for wet docks in the early nineteenth century but not until the 1840s was action taken. A solution was found in the conversion of the Tawe into a floating dock by the excavation of the New Cut for the river, which was completed in December 1851. Further improvements followed with the opening of the South Dock in September 1859 and the Prince of Wales Dock in 1881.³⁹

Developments in road transport are less easily traced and the system changed more frequently. In 1852, public road transport was limited to a rudimentary network of daily long-distance coaches to Pembroke, Tenby and Haverfordwest via Llanelli and Carmarthen, each leaving at 6.20am, to Carmarthen via Llanelli, leaving at 2.15pm, to Ystalyfera via the Swansea Valley, leaving at 7.30am, and a twice-daily service to Llandeilo. A more frequent service was provided between Swansea and Mumbles with three companies operating return trips two or three times per day.⁴⁰ The function of the long-distance coaches was, to a large extent, taken over by the railways in the following two decades, but omnibus services were introduced during this

period to serve less-distant, populous areas which the railways did not penetrate, such as the Gower Peninsula. Even by the end of the century, however, the Gower services were limited to once-, twice- and thrice-weekly trips. Intra-urban, popular public transport did not develop until the last decade of the century.⁴¹

4. Social Relations

Relations between the industrialists and the labour force in Swansea at this time were paternalistic. In the absence of democratic local government and a large professional or commercial middle class, the industrialists had to fulfil a role in the field of religious and social welfare.⁴² John Morris had built the planned village of Morryston in the late eighteenth century, and the copper masters Vivian and Grenfell built model houses at Hafod and Pentrechwyth, respectively. Schools were provided for the children of works' employees⁴³ and recreational events such as day trips, were organised by the large employers for their workforces.⁴⁴

Unionism did not develop in Swansea until the late nineteenth century; the first miner's lodges were established in Swansea in 1872 and the first tinsplate union in 1871.⁴⁵ Before the 1870s, Trade Societies had been set up by numerous crafts, the earliest permanent one being the Shipwright's Society established in the mid-1830s,⁴⁶ and others followed in the 1840s and 1850s. Many of these societies, however, were ephemeral, disappearing in periods of prosperity. The first Trades Council was set up in Swansea in 1880 on the initiative of the Carpenter's Society, thirteen years after the recommendation by the Trades Union Congress.⁴⁷ Organisation among the workers had been

mutated throughout the century; while the period between the passing of the Combination Laws in 1799/1800 and their repeal in 1825, had been marked by sporadic outbreaks of rioting in most industrial areas during years of industrial distress, in Swansea no acts of violence occurred.⁴⁸ In the ensuing period, after the repeal, agitation for increased wages and improved conditions swept the country but, again, the response in Swansea was moderate, action being largely directed towards attacking the 'truck system'.⁴⁹ Similarly, the activities of the Scotch Cattle in the Monmouthshire Valleys, had no parallel in Swansea⁵⁰ and Chartism had practically no support, there being evidence that there were only twelve chartists in the whole Swansea area.⁵¹

Several reasons can be put forward for the slow development of trade unionism and political activity amongst the working class. Firstly, most workers' organisations met in public houses and this was not compatible with the Nonconformist religion which was prevalent among the Swansea working class.⁵² Secondly, the area did not suffer in times of economic depression as severely as many other industrial areas of Wales. Thirdly, the attitude of many employers was responsive and tended to forestall worker discontent. For example, a nine-hour working day was introduced at Landore Steelworks in the 1870s without a request from the workforce.⁵³

However, while paternalism dominated industrial relations in the period under study, the emergence of collective bargaining and organised co-operation between workers in different industries, was underway. As early as 1843, copper men sought the aid of persons outside the industry during a strike to resist a twenty-five per cent wage reduction⁵⁴ and this marked the beginning of a gradual move away from

paternalism in favour of more impersonal methods of reconciling differences.

The major religious denominations in Wales at this time were Nonconformist and the chapel was often the only social centre in the community. At the time of the religious census of 1851, 76 per cent of the places of worship in the Swansea area were Nonconformist.⁵⁵ English immigrants, however, were largely Anglicans and, since English people dominated the upper social classes, there was, to some extent, a split between the Anglican, English-speaking industrialists, professionals and land-owners and the Nonconformist, Welsh-speaking workers. The divide was not, however, as clear cut as it was in some parts of Wales since mine owners, in particular, tended to be local, Nonconformist, Welsh Liberals and several of the more powerful English industrialists were Liberal, rather than Conservative, and some were not Anglican.⁵⁶ In the outer borough of Swansea, particularly the mining areas, such a divide was barely apparent, with the majority of masters and men being Liberal, Nonconformist and Welsh-speaking. The town, however, was broadly split between the predominantly Welsh-speaking, northern area in St. John's parish and the predominantly English-speaking, central and southern areas with Nonconformism predominating in both but Anglicanism and Conservatism concentrating in the centre and south.

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CHAPTER 6
DATA SOURCES AND METHODS OF ANALYSIS

1. The Census as a data source

The censuses of 1851 and 1871 are suitable for comparative analysis since the questions asked of the occupier at each date are the same, with the exception of an additional inquiry into the presence of lunatics within the household in 1871. The instructions for completing the schedules in 1851 and 1871 are also broadly similar, though there are changes in the instructions for defining what constituted an 'occupier' and what constituted a separate 'household', and the way in which divisions between them should be entered into the enumerators' books. The confusion arising from the instructions in 1851 was worsened by well-meaning amendment in 1861 but, by 1871, the situation was clearer, at least for England and Wales. Therefore, with the exception of the definition of a household, one can expect the same range of interpretation of the questions at both dates, although individual interpretations of the instructions were varied and, sometimes, bizarre.

The quality of the nineteenth-century census enumerators' books as a data source varies with the quality of the enumerators themselves and in the amount of sense the instructions to enumerators, registrars and occupiers made in different types of area and to different sections of the population. For example, the lack of understanding by the Census Authorities of the housing-types existing in Scotland and parts of Northern England is well known, and the instructions on

how to enter high-class occupations were more informative than those for working-class occupations.¹ Certain areas, such as densely-occupied inner-city areas, must have posed far more problems for the enumerator than others.² The confusion of the enumerator is easily to be imagined when one views the return from one house in the Greenhill area of Swansea which, according to the 1851 schedule, contained fifty-seven Irish immigrants in what was a dwelling of very mean proportions.³

The inaccuracies in the 1851 and 1861 censuses have been discussed in detail by Tillott and the same problems are also encountered in 1871.⁴ Some inaccuracies can be remedied easily as they are obvious clerical errors, while many others represent incomplete, rather than erroneous, statements. The more important of these inaccuracies will be discussed briefly in the context of coding the information and at those points in the analysis where they have an effect on the results. The inadequacies of the census which are likely to be most damaging, however, are those of which the enumerators' books give no hint. Among these is the problem of under-enumeration, which is made worse by the fact that it introduces a bias into the returns, since it was the section of the population referred to by Booth as "occasional labourers, loafers and semi-criminals"⁵ which tended to escape the census net. As an anonymous writer in 1854 points out:

"If the truth could in all cases have been told and made manifest, what awful secrets those thirty-eight thousand enumeration books would have been able to disclose".⁶

One must bear in mind, therefore, that the material obtained for analysis refers to the section of the population which has been

successful enough and lawful enough to achieve at least a modicum of room space in which to sleep on census night.

2. The sample

A 20 per cent sample of co-residing groups was taken at both dates. The size of the sample was determined by the amount of time available for collecting data from the enumeration books, 20 per cent being considered the upper limit. This was done because it was not intended merely that the sample should yield enough cases in each category for statistical analysis, but also that the data should allow analysis at a reasonably small scale. A total population analysis would have been preferable but this is clearly not practical for one person to achieve, in a city of this size for two censuses, unless the number of variables to be extracted is very limited. (A total population has, however, been analysed for Merthyr Tydfil by Carter and Wheatley).⁷ The 20 per cent sample yielded 1,203 households (co-residing groups) in 1851 and 2,021 in 1871. For the 1851 census, 232 variables were extracted for each household, producing five eighty-column computer records per household, but due to the time taken to code this information the variables extracted from the 1871 census were condensed to 58. The information obtained at both dates was broadly similar, except that in the 1871 analysis, occupation, age, marital status and birth place were only recorded individually for the head, whereas in 1851, each member of the household was given the same detail of treatment. The equal treatment given to each individual in 1851 was necessary, since samples which concentrate on the head-of-household, produce badly biased statistics. For instance, large

sections of the adult working population, such as lodgers and children over fifteen years old, are excluded from most of the analysis, as are all others who have not achieved householder status. In recording information for every person in the household, however, a different form of bias was introduced since, in parts of the analysis, these household members become independent individuals and, because they were not sampled as individuals, form a clustered sample. The standard errors are, therefore, larger on all figures based on groups of these individuals.⁸ Although full information was only taken for the head in 1871, details of age, occupation, birthplace and sex were recorded for all members of the household though not in a form which would allow an individual level of analysis. The importance of lodgers in the nineteenth century was recognised, however, in the separate columns reserved for information on their social class and birth place. The variables extracted at both dates are given in Appendix A. Institutions were excluded since the sample was restricted to co-residing groups and, although institutions were commensal, they were not co-residing in the same sense of the word. Again, their inhabitants had not chosen their place of residence (except, perhaps, in a limited sense in the case of residential schools). The occupants of boats moored in the Swansea docks were excluded for similar reasons.

The sample was taken systematically, since the even spread of observations which this gives over the population was thought to be the most suitable for this type of study. There is also much support for this procedure in the use of nineteenth-century censuses. Armstrong used a 10 per cent systematic sample for York,⁹ as did Lawton and

Pooley for Liverpool.¹⁰ Tansey in Hull¹¹ and Shaw in Wolverhampton¹² used 20 per cent systematic samples and Dyos and Baker used a 3 per cent systematic sample for Camberwell.¹³

The practice of the enumerators in delimiting the boundaries of co-residing groups and households was erratic at both dates, due mainly to the ambiguity of their instructions and the multiplicity or possible organisational situations within each house. A set of rules, therefore, had to be adopted for the extraction of the systematic sample of co-residing groups. The rules proposed by Tillott and Anderson, with their recommended exceptions, were adopted¹⁴ except in cases where a preliminary scan of the whole enumeration district revealed obvious idiosyncracies in the work of the enumerator, in which case amendments were subjectively made on the balance of the evidence.

3. Coding

In the 1851 analysis, space was allowed for the coding of information on the head-of-household, his wife, ten children, five relatives, eight lodgers, four servants and three apprentices. Separate notes were taken for household members for which space was not available. Children of servants were classed as lodgers unless they were acting as servants themselves. 'Friends' were classed as lodgers if their situation in the household seemed permanent, otherwise they were classed as visitors. Information was not recorded for visitors as they are transient members of the household and do not contribute to the society and economy of the area. The means of distinguishing between visitors and lodgers in the census was ill-defined and, hence, many lodgers may appear as visitors and vice versa.

Here again, Tillott's rules were followed and only those individuals who were specifically said to be on a visit (by phrases such as 'for the night'), were staying in inns or pubs, were sailors or adult visitors unaccompanied by relatives and given no occupation, and visitor families for which the head was given no occupation, were coded as visitors.¹⁵ Apprentices were coded separately from lodgers as they represent a different form of commensal living. The type of apprentice or assistant was also recorded, a distinction being made between apprentice, journeyman, sales assistant, farm servant, trade servant and articulated pupil.

In establishing a system of coding the aim was to avoid imposing on the data a classification which might later prove to be inappropriate. As Harvey comments:

"it is vital to understand how categories are established and in particular how they take on meaning and are transformed through and in use".¹⁶

In view of this, it was hoped that the categories which were formed would avoid creating a meaning for the data which was solely an artefact of the classification per se and conceal true relationships within the data. All classifications will be slightly 'Procrustean' but one can improve them by retaining as much flexibility as possible. The data was coded as follows. The full coding scheme is given in Appendix B.

(a) Age

This was coded in five-year intervals up to fourteen years, and at ten-year intervals up to sixty-five years, after which all ages were grouped together. The accuracy of age statements has been

tested by Tillott, who found that where discrepancies did appear in the ages of people traced between successive censuses, these were in most cases limited to errors of two years or less.¹⁷

(b) Marital status

Marital status was coded to discriminate between males and females and between children and married, unmarried and widowed adults.

(c) Life-cycle stage

Life-cycle stage coding was based on the classification proposed by Anderson.¹⁸ A separate set of codes for widowed families was not used since this information could better be obtained, if needed, by further processing of the columns for marital status of the head and life-cycle stage.

(d) Family Structure

A detailed coding of family structure was used which distinguished between seventy different combinations of related people in one, two and three generation families. The classification was designed to reveal, among other things, the frequency with which different types of extended-family living occurred.

(e) Birthplace

Birthplace was coded in one hundred categories after considering the information on birthplace given in the Census Reports.¹⁹ These reports showed that most of the non-Swansea-born population came from South-West Wales, other parts of Glamorgan and South-West England. These areas, therefore, were given a finer mesh of birthplace

categories. Carmarthenshire, Pembrokeshire and Glamorganshire were divided up on a parish basis (since this is the form in which the majority of respondents had given their birthplace) and the parishes were then amalgamated into groups of one to five, depending on size, to achieve areas of similar size (which had a mean size of 19,774 acres and a standard deviation of 3,783 acres). The exceptions to this were Carmarthen, Merthyr Tydfil and Cardiff which were given separate codes. The parishes immediately surrounding Swansea (i.e. Swansea St. Mary, Swansea St. John, Llansamlet, Llangyfelach, Llandilo-Talybont, Llangwig, Loughor and Llanrhidian) were also given separate codes. The rest of Wales and South-West England were divided up on a county basis. England, apart from the South-West, was divided into Northern counties, Midland counties and Southern counties, with a separate code for London. Scotland, Ireland, Overseas and various 'unknown' categories (Carmarthenshire unknown, Wales unknown etc.) formed the remainder. Separate written notes were made of any frequent recurrence of a particular birthplace not detailed in the above coding.

(f) Occupation

Occupation was coded in three separate ways to provide information on socio-economic class, industrial group and specific occupation.

(i) *Social class*

The rationale for this classification needs special mention, as it raises again the issues put forward in Chapter Two concerning the dilemma of bridging the gap between social class on the

philosophical level and the actual measurement of it from observed facts. Though widely used as a measure of social class, occupation is not seen by all researchers to be a suitable reflection of class. Charles Booth was one of these and commented in his Poverty Series that it is:

"very difficult in many cases to draw the line accurately between professional, middle and working class ... many occupations do not correspond closely to a particular social class".²⁰

More recently Thernstrom has pointed out that:

"men may make certain social advances without changing their occupations at all".²¹

and quotes Weber's statement that:

"only persons who are completely unskilled, without property and dependent on employment without regular occupation are in a strictly identical class status".²²

In this research, however, such a fine definition of social class is not aimed at, partly because the census data does not allow it. Property ownership could be established by linkage of the census with Rate Books but, as far as occupation information goes, not only does the census not give information on whether the stated occupation was followed full-time, part-time, or whether the person in question was unemployed, but the naming of the occupation is often very vague. As Dyos points out:

"One head of a household may describe himself as a carpenter and joiner, live in one of the better parts of Camberwell, and keep a servant or two; another, identically described may live in the worst of slums with a large family in one or two rooms. It is clear that the two do not belong to the same social class, though in order to be consistent we must take the entries in the census books at their face value and must, therefore, enter both as skilled 'labourers'".²³

There is also the problem that certain occupations were badly under-enumerated due to the vagrant nature of the occupation or some other factor. The anonymous writer of 1854, referred to earlier, commented that in the printed returns:

"There are only three ballad-singers and sellers. This must surely be an under-statement. We can hear four bawling lustily in the street as we write ... and (there are only) two female models to artists (we know twelve ourselves!)"²⁴

The census is also particularly remiss in the enumeration of masters. Many masters and employers of men did not return themselves as such, probably because this information was not called for at the head of the column and they did not read the instructions on the back of the schedule. The printed returns for Wales and Monmouthshire show that there were only ten employers with over twenty men in the metal-manufacturing industry and only sixty-five employers with thirty or more men in all branches of employment in the whole of Wales, whereas it is apparent from other historical records that there were many more than this.²⁵ It is difficult, therefore, to distinguish the upper industrial classes from the census returns.

Any classification of population according to social class using occupation as the criterion, therefore, must suffer from not only the conceptual problems of whether occupation really reflects class, but also the inherent deficiencies of the census. It remains, however, the major single criterion available from census data for the classification of social class, and there are numerous arguments in favour of its use, based on the manner in which occupation tends to correlate positively with other factors deemed to be reflective of social class. Runciman argues that occupation is a reliable index of

an individual's position on each of the dimensions of social class; class, status and power.²⁶ He comments that:

"occupations are the mechanism by which the influences of natural endowment, upbringing and education are translated into the differences of wealth, power and prestige, and the most significant moves which the individual can make in all three dimensions will be by means of a change from one occupation to another".²⁷

Occupations are, indeed, the major roles through which rewards are distributed and power exercised and must, therefore, be central to the study of social stratification. Occupations also provide 'life-experiences' which may condition the way one acts in the rest of society. Marx saw the political significance of this in claiming that man's position in the production process provided the crucial life-experience which would determine, either now or eventually, the beliefs and actions of the individual.²⁸ One must also consider the subjective aspect of class embodied in the definition of class as an abstract measure by which one group or individual assesses another. Does a knowledge of a group's occupations affect another group's assessment of its class? Many empirical studies have been conducted on this aspect (though not during the nineteenth century). The evidence is not conclusive; an investigation by the Institute of Practitioners in Advertising (IPA) in 1956 asked the public to attach class labels to various occupations and in only fourteen out of twenty-two listed occupations was the resultant labelling reasonably clear cut.²⁹ On the other hand, a study by Inkeles and Rossi of six developed countries found "impressive agreement among countries in their ordering of occupations according to prestige",³⁰ and another study of an under-developed country by Tiryakian showed that a very similar

occupational prestige hierarchy existed there also.³¹ There is evidence that lack of agreement on the status of occupations stems from an ignorance on the part of respondents as to the nature of many of the listed occupations.³² It seems plausible, however, that such ignorance would be less of a problem in the nineteenth century than it is today, the occupational structure being much less diversified and specialised.

In view of the doubt which exists as to whether occupation is a true enough reflection of class, it would seem that other criterion are better used in conjunction with it. Servant-keeping is an obvious criterion available from nineteenth-century census data and rateable value has been suggested as providing a better indication of social class than occupation.³³ However, to use rateable value in conjunction with enumeration book data would require the successful linkage of the two records, which would be difficult to achieve throughout the sample. The rationale for its use is also not fully convincing. Its proponents claim that some individuals tended to inflate the status of their occupations, whereas rateable values are more objectively determined.³⁴ This may be so, but the method assumes that each household would inhabit the best property which it could afford at the time and, unlike occupation, rateable value only considers the economic aspect of class.

The incorporation of information on servant-keeping into a classification of social class based on occupation has also been suggested.³⁵ While the number of servants recorded in the enumeration books is probably reliable, the presence of each one may not signify a certain level of class. The widowed labourer who utilizes the services of a twelve year-old girl from the neighbourhood to attend to

his young family is not in the same class as the single professional man who employs a mature women to look after his domestic affairs, yet both will be recorded as having one servant unless other criteria are used for interpreting the returns. Also, in some cases, the upper classes may not be characterised by servant-keeping. Foster has referred to the puritanical abstinence in servant-keeping practiced by industrialists in villages surrounding mid-nineteenth-century Oldham.³⁶ The use of information on servant-keeping in conjunction with occupation may, however, partially counteract the deficiency in the returns of masters and employers.

It was decided not to use the above procedure in this study for the reasons previously stated, and also because the presence of domestic servants formed a separate variable and occupation would not, therefore, be the sole indicator of social class. Also, in a study which assigns social classes to all members of the household, and not merely to the head, one has the problem that only the assessment of the head's social status can be improved by the incorporation of servant-keeping information, since all servants in the household must be assumed to be in his employment. The adult son living with his family, who was a master carpenter employing several journeymen and apprentices but who returned himself merely as 'carpenter', would not be up-graded by the presence of domestic servants because it would be assumed that it was the head himself who could afford to employ them. Similarly, semi-permanent lodgers who had servants within their own homes, would have their status under-estimated. The same argument can also be applied to the use of other household information in modifying occupational class designations. A recent study of nineteenth-century Wakefield defined 18 social classes by augmenting information on

occupation with information on the enumerated presence of servants, lodgers, scholars, working wives, working children and house-sharing.³⁷ Only the last of these can be used to modify the social classification of all economically-active members of the household and there are serious problems attached to the use of scholars in particular. There is evidence that they were seriously under-enumerated, those in boarding schools would not be enumerated in their parents' household, and the quality, frequency and duration of schooling were very variable. With the exception of the enumerated presence of scholars, the other criteria listed above were all coded as separate variables in this study.

A social-status classification was, therefore, adopted which is based entirely on occupation and, for the sake of comparability, Armstrong's system based on the 1951 Registrar General's Classification of Occupation according to social class was used and Armstrong's amendments were adhered to.³⁸

(ii) *Industrial Group*

Occupation was also classified according to industrial group. Again the classification used was that of Armstrong (based on the work of Booth).³⁹ Group 9 which is not divided up into sub-groups by Armstrong was sub-divided as shown in Appendix B. Due to the differences between the industrial structures of York and Swansea, more detail was required in certain categories, particularly that of metal manufacture. However, it was decided that, rather than violate Armstrong's classification, the detail necessary could be embodied in a third classification of occupation. This was labelled 'specific occupation'.

(iii) *Specific occupation*

This classification was necessary, not only for preserving industrial information missed by Armstrong's classification, but also because many occupations could not be accurately fitted into Armstrong's industrial classification due to the vagueness of the returns, an occupation with no reference to any particular industry often being stated. The situation is worst among artisans; for example, one has no idea whether a 'carpenter' was a house carpenter, a ship's carpenter or a carpenter in the copper works. The specific occupation classification was, therefore, designed to give a purely occupational classification to these artisan trades and to give more detail to the industrial classification of metal trades. It also assigned separate categories to specific occupations for which many returns were given, and grouped others in an alternative way to Armstrong's industrial classification so that the information recorded was augmented rather than repeated.

4. The choice of a scale of analysis

The size of the spatial units which one chooses for the analysis of nineteenth-century enumeration book data is governed by the following considerations: firstly, the nature of the hypotheses being tested and their appropriateness to macro or micro-level processes; secondly, the size of the city or other area under study; thirdly, whether the total population or a sample is being analysed; fourthly, the quality of the address data on the schedules and the availability of accurate large-scale contemporary maps; fifthly,

whether the area has a uniform population density; sixthly, whether comparability over time is necessary; and, finally, the amount of time available for spatially-locating households.

The major problem is that one is faced with the task of estimating which scale of analysis would be most appropriate to the purposes of the study without prior analysis of the data, while remaining within the constraints imposed on the size of the sampling fraction and the statistical constraints on sample size per spatial unit. It is doubtful whether a 10 per cent sampling fraction, which is all that one person could manage in large cities, would yield enough observations per spatial unit at anything smaller than enumeration-district level, which might miss many important lines of differentiation. The statistical validity of small area data has been discussed fully elsewhere and the issues will not be repeated here.⁴⁰ The problem of homogeneity of areas also arises since, in a study of social differentiation, homogeneity within the spatial units of analysis is desirable. As Timms points out however,

"the criterion of homogeneity is not that all the people inhabiting a given area should be the same, but that the probability of their being of a particular characteristic should be alike in all parts of the area."⁴¹

Heterogeneity may, however, be a valid characteristic of a 'natural' or 'ecological' area both in the sense of heterogeneous types of people and heterogeneous proportions over the area. A high-class neighbourhood which is losing status may contain pockets of sub-divided, low-class housing and commercial land-use giving it a 'patchy' topography which is one of its major diagnostic characteristics. This very heterogeneity does, however, in a slightly perverse way give 'homogeneity' to the area since it prevails throughout the area. It

is important, therefore, that the spatial units of analysis are small enough to reveal these ecological areas and are so positioned as to encompass rather than transect them. Without prior knowledge of the results one seeks, this is obviously impossible but if spatial units are used, which are much smaller than the expected size of the ecological areas, amalgamation after analysis may produce reasonably accurate areas which say something meaningful about the original data.

Four main types of spatial unit suggest themselves for use in nineteenth-century cities, but none is likely to be fully satisfactory. These are the individual household, the street, the grid square and the enumeration district.

At the micro scale one can take the individual household as the spatial unit and identify it by means of a system of geocoding, giving it a unique spatial reference. Variables can then be mapped on this basis or the codes can be amalgamated into larger units for different purposes, with the advantage that some of the data can be analysed prior to amalgamation or, if peirastic spatial units prove unsatisfactory, the households can easily be re-grouped into larger or smaller units. However, the time required in order to identify each household on a map may not produce proportionate returns and such identification may in any case be precluded by the inadequacy of address data and map evidence. The problems of locating individual households on nineteenth-century censuses are severe, since large-scale plans are rarely available for the immediate period surrounding the census and, when they are, house numbers are only infrequently featured. Added to this, few enumerators recorded house numbers, although instructed to do so and, in some cases, even street names are omitted. These problems are common in towns but in rural and semi-rural areas,

they are the rule.⁴² In the Municipal Borough of Swansea, much of the area outside the town and franchise is of a semi-rural character, containing industrial clusters which are an integral part of the economy and society of the town, though not contiguous with it. Such areas are not supplied with contemporary large-scale plans, the 25 inches to the mile Ordnance Survey maps of 1878 being the most contemporary and these do not include street numberings. Such information as house numbers would, in any case, not be of use in this area without complex, time-consuming and probably inconclusive linkage of census information with rate books (and perhaps other information gathered on a household basis), since the census does not even give street names let alone house numbers. The four hundred and twenty-five households in Morryston which lay within the borough and comprised two enumeration districts, are simply given the address 'Morryston' in the 1851 returns.⁴³ The situation within the town itself is rather better since, not only is the standard of enumeration better, but in 1852 the local Board of Health produced large-scale plans (44 feet to 1 inch) complete with house numbers, public house names and other spatial reference information. These maps are very conveniently contemporary with the 1851 census. For the physical extension of the town up to 1871, the situation is not so favourable since the 25 inch 1878 Ordnance Survey maps have to be used, but as census address information is more convincingly accurate at this date (75 per cent of enumerators gave full address information), household location can be quite confidently attempted. Full benefit of the 1852 Board of Health maps cannot be reaped in the case of the 1851 census, however, due to the offhand attitude of some of the enumerators. Only five out of seventeen enumerators within the town itself (the area covered by the Board of Health maps)

gave full address information for all households and two gave full address information for some, but not all, households. Added to this, the disconcertingly unsystematic manner in which certain enumerators had entered the schedules into their books, which is obvious from a comparison of those enumeration books for which house numbers were given and the plans, makes one dubious of allocating houses in sequential manner between known fixed points, such as named public houses or shops, on the assumption that the enumerator collected his schedules in a spatially ordered manner and preserved this order in copying them into his book. One enumeration district in particular, gives the impression of a shuffled pack of cards. There is also evidence that the enumerators did not always fully read their instructions as to which streets and houses lay within their district. In 1871, one enumerator in St. Thomas annexed a street from a neighbouring district and, realizing his error, gave a different street back in return.⁴⁴ If street names had not been given, as in the Morriston case in 1851, such inaccuracies would go unnoticed.

The paucity of address information in the 1851 census, especially outside the Franchise, and the fact that adequate maps for the extra-Franchise area did not appear until twenty-seven years after the census, makes the allocation of households to specific spatial reference points formidable and impractical in a study of this nature. The task would have been more manageable in 1871, since the whole of the census within the Franchise is furnished with street numbers and, if one can make the assumption that the numbering system had not changed since the 1852 Board of Health maps were surveyed (the streets themselves had not been morphologically changed, street improvement schemes not making their appearance until later in the decade), then allocation of households to individual buildings on the map would have

been comparatively easy. (Tillott, however, found that street numbering was subject to frequent change).⁴⁵ Outside the Franchise, Hafod, Grenfell's Town and parts of Pentre were also supplied with full address information but no maps with house numbers are available for this area and so linkage with other nineteenth-century sources would have had to be resorted to. Since coding of individual households is only essential in studies of intra-urban mobility, or micro-level studies using the total population, such mapping of information was not attempted in this study.

Some form of grouping of households into larger spatial units was, therefore, necessary. The first scale of analysis involving amalgamation of individual households is, normally, the block or street. The street has several obvious advantages as a unit of analysis since it offers a high level of comparability over time, it does not place heavy demands on census address information, or map quality and contemporaneity, and it frequently provides homogeneous units. Blocks offer the same advantages, with the exception that they place greater demands on address information. There are several major disadvantages in the use of streets, however. Streets vary greatly in size and some very long streets may cross important socio-economic boundaries. Streets also frequently intersect, making mapping on such a basis untidy and reducing legibility. There is also the problem of what to do with courts, many of which have obscure boundaries. Does one class them as part of the street off which they run and, if so, what does one do with courts which issue on to two streets, such as the web of courts between High Street and Back Street in Swansea? What size does a court need to be before it is coded separately in the same

way as a street? The main objection to the use of streets in the Swansea case, however, is the size of the sample necessary to produce enough observations per street in order to make the results meaningful. The 20 per cent sample would obviously provide very few streets for which analysis would not produce spurious results.

One is, therefore, left with a choice between an analysis at enumeration-district level and the super-imposition of a grid over the area. Grid squares are an attractive alternative since they offer complete comparability over time and such an abstract spatial framework gives the appearance of objectivity. However, the objectivity is cosmetic, especially in nineteenth-century cities, since the positioning and size of the grid must be subjectively defined. This is usually done with reference to population densities and an origin can be found by super-imposing the National Grid (which is of twentieth-century origin) on to nineteenth-century maps. Objectivity is further diminished by the multiplicity of subjective decisions which have to be made in allocating households to squares from inadequate information. The difficulties of locating houses, discussed in the context of geocoding, apply here, but in less acute form. In a town such as Swansea, where satellite settlements are an acknowledged part of the town, one also has the problem that these clusters will rarely fall within one or two grid squares, rather they will straddle several boundary lines providing too few observations in each occupied square. Similar problems are encountered on the periphery of the built-up area itself and within the built-up area where there are large pockets of non-residential land use. One can overcome these problems by varying the size of the grid to produce a stratifying effect.

The enumeration district avoids many of the above problems since it was designed to contain as many households as could be dealt with by one enumerator on census day and, therefore, provides units of similar size. Even so, those enumeration districts on the periphery of the city often contain few houses since their wide spacing is time-consuming for the enumerator (Brynmill Enumeration District on the western periphery of Swansea in 1851, had only forty households.)⁴⁶ The enumeration district also has the advantage that, given proper boundary descriptions and an assumption that the enumerator did not wander out of bounds, no demands are made on address information and no individual house need be located on the map. Enumeration district boundaries, however, show very little consistency over time⁴⁷ and the areas they enclose are very variable in shape and size and often non-contiguous.

It was decided that, in a town the size of Swansea, the enumeration district would be too large a filter to detect the salient features of residential differentiation, map evidence alone showing that there were broad differences within enumeration districts⁴⁸, and since a 20 per cent sample yielded many more households per enumeration district than was necessary for statistical analysis, it was decided to use a finer filter in the form of grid squares. However, the possibility that meaningful spatial relationships may exist at enumeration-district level was not discounted and analysis was also performed at this level. The choice of a scale for the grid was decided by reference to previous work and the minimum number of observations required in each square. The use of a 200 metre grid has many precedents⁴⁹ and was found to be the most suitable scale in terms of numbers of observations. Outlying squares did not record enough

observations and so the size of the squares required adjustment in these areas. A regular pattern in which the squares increased in size towards the periphery, was not the most suitable solution since certain dense clusters beyond the built-up area did not require larger units and squares well within the built-up area, but adjacent to non-residential land-use or the river, did need larger squares. It was decided, in view of this, to preserve a uniform 200 metre grid and to amalgamate squares where necessary.

The assignment of households to squares was achieved by superimposing a grid over the 25 inch Ordnance Survey maps of 1878 and referring to the 1852 Board of Health maps for house numbers. The origin of the grid was provided by an intersection from the twentieth-century National Grid. Where no house numbers were furnished by the census, streets were divided between squares according to the proportion of the street falling within each square and, where named inns, hotels or public houses, or appellations such as 'Corner Shop', were included, further assumptions could be made as to which end of the street went into which square, assuming that the schedules were in order. Certain unnumbered streets could quite easily be allocated to the appropriate squares due to the enumerator's habit of recording schedules from courts in their appropriate place along the street. Where households fell directly on grid lines, they were allocated to squares north and west of the line. Allocation to squares within the contiguously built-up area of the town was achieved in this manner but, at both dates, it proved impossible to assign the rest of the Borough to squares with acceptable accuracy, except in the case of Hafod and Pentre Guinea at both dates and Cwmbwrla in 1871. The grid-square analysis was,

therefore, limited to the town itself and the three outliers named above. The analysis of the Municipal Borough as a whole was, therefore, limited to the enumeration-district level, the enumeration district within which a household lay being the only consistently available spatial fact for the whole Borough.

The enumeration districts in 1851 provided a reasonable basis for mapping in their natural state and were left unaltered, except for the amalgamation of two pairs of districts. In 1871, however, the enumeration districts within the town needed considerable alteration to eradicate non-contiguity and to achieve comparability of population size. The modified and original 1871 enumeration districts are shown in Figs. 6.1 and 6.2.

The 1851 enumeration districts, the 1871 modified enumeration districts and the grid squares have been allocated identification numbers by which they can be referred to in those chapters in which the results of the analysis are discussed. These numbers are shown in Figures 6.3, 6.4 and 6.5. The relationship between the grid-square overlay and the major streets within the town is shown in Figure 6.6.

Figure 6.1 : Unamended 1871 enumeration district boundaries within the town

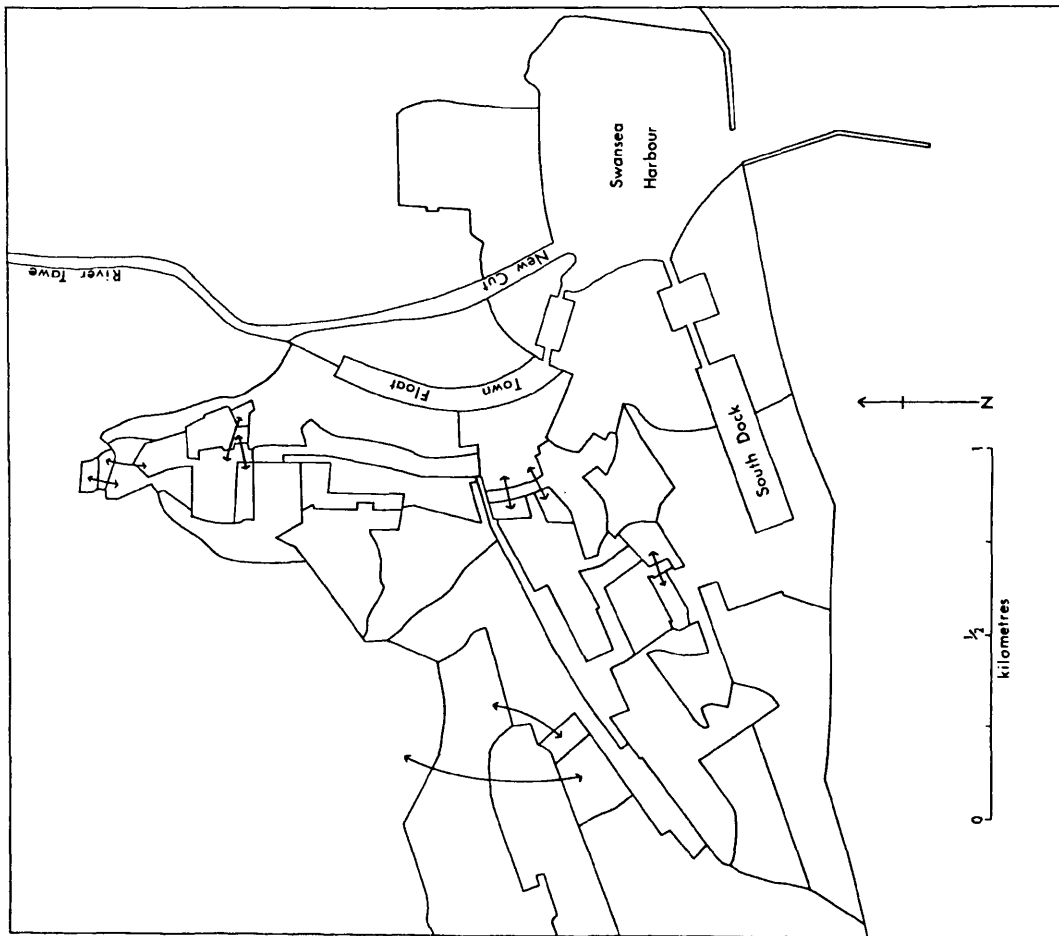


Figure 6.2 : Amended 1871 enumeration district boundaries within the town

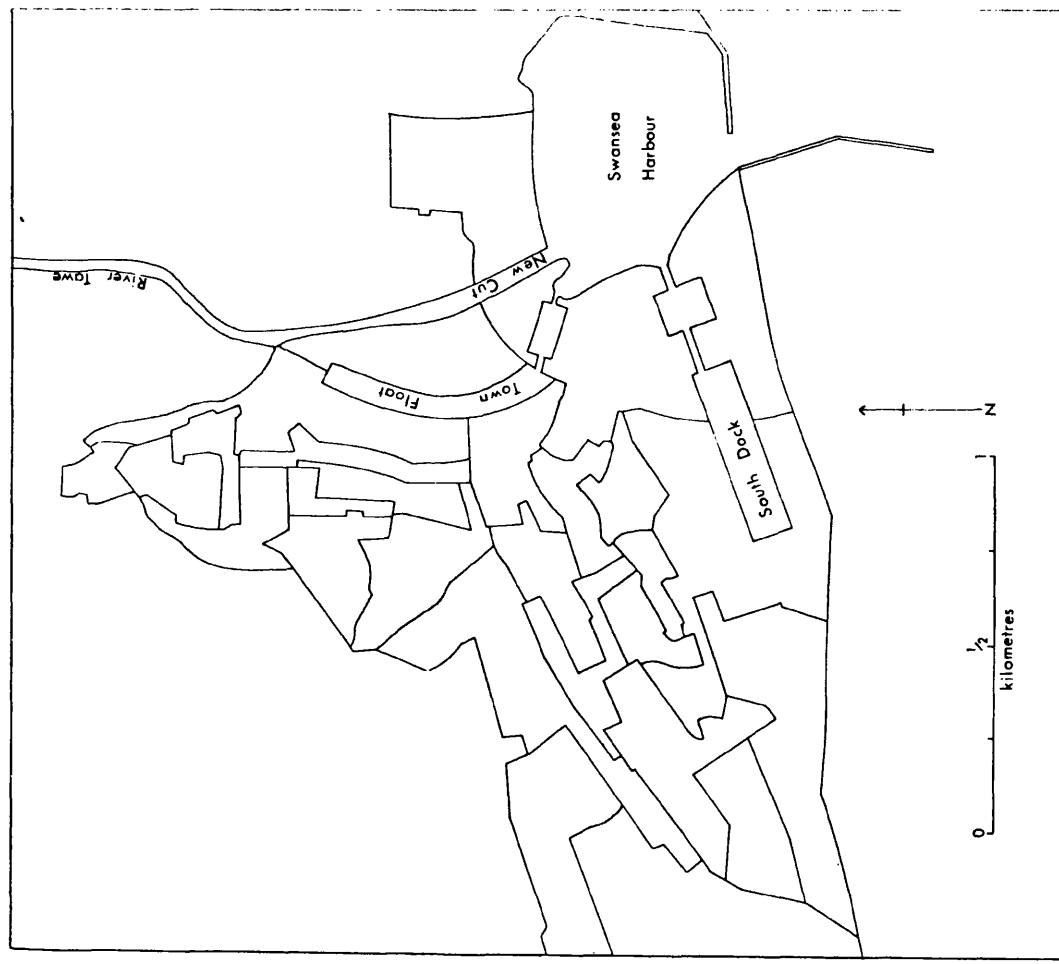


Figure 6.3 : 1851 enumeration district boundaries and identification numbers

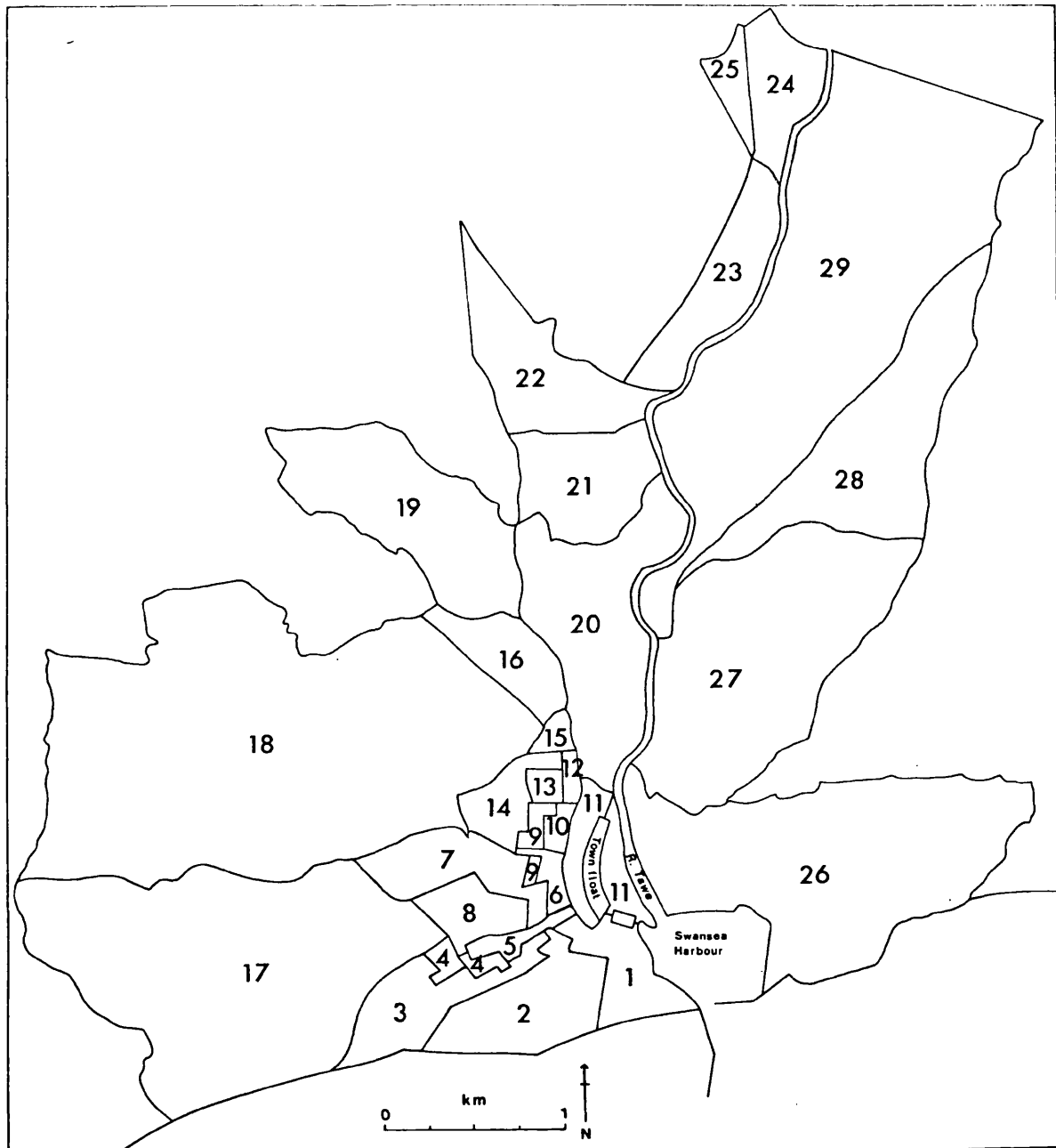


Figure 6.4 : 1871 enumeration district boundaries and identification numbers

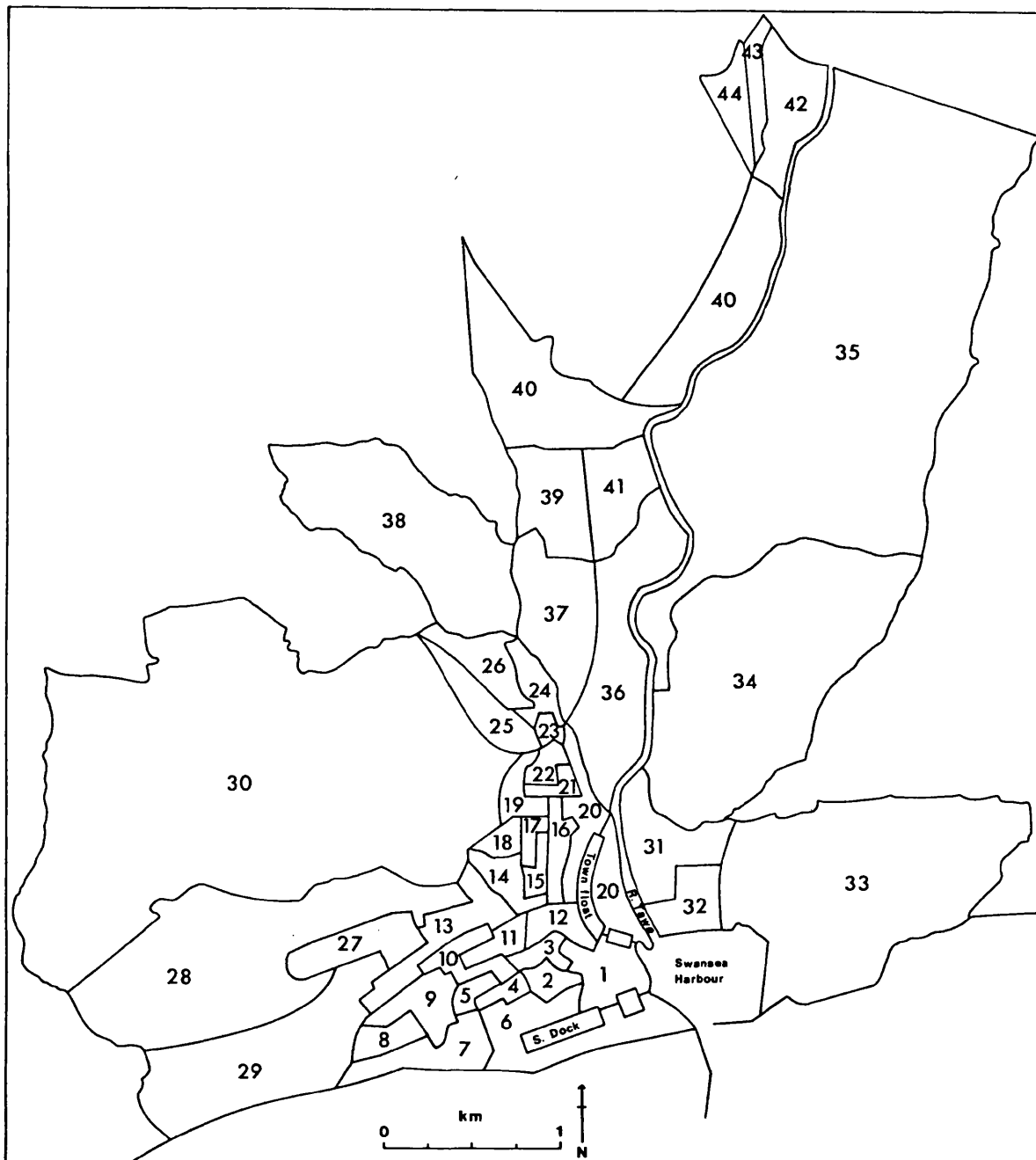


Figure 6.5 : 200 metre grid-square identification numbers

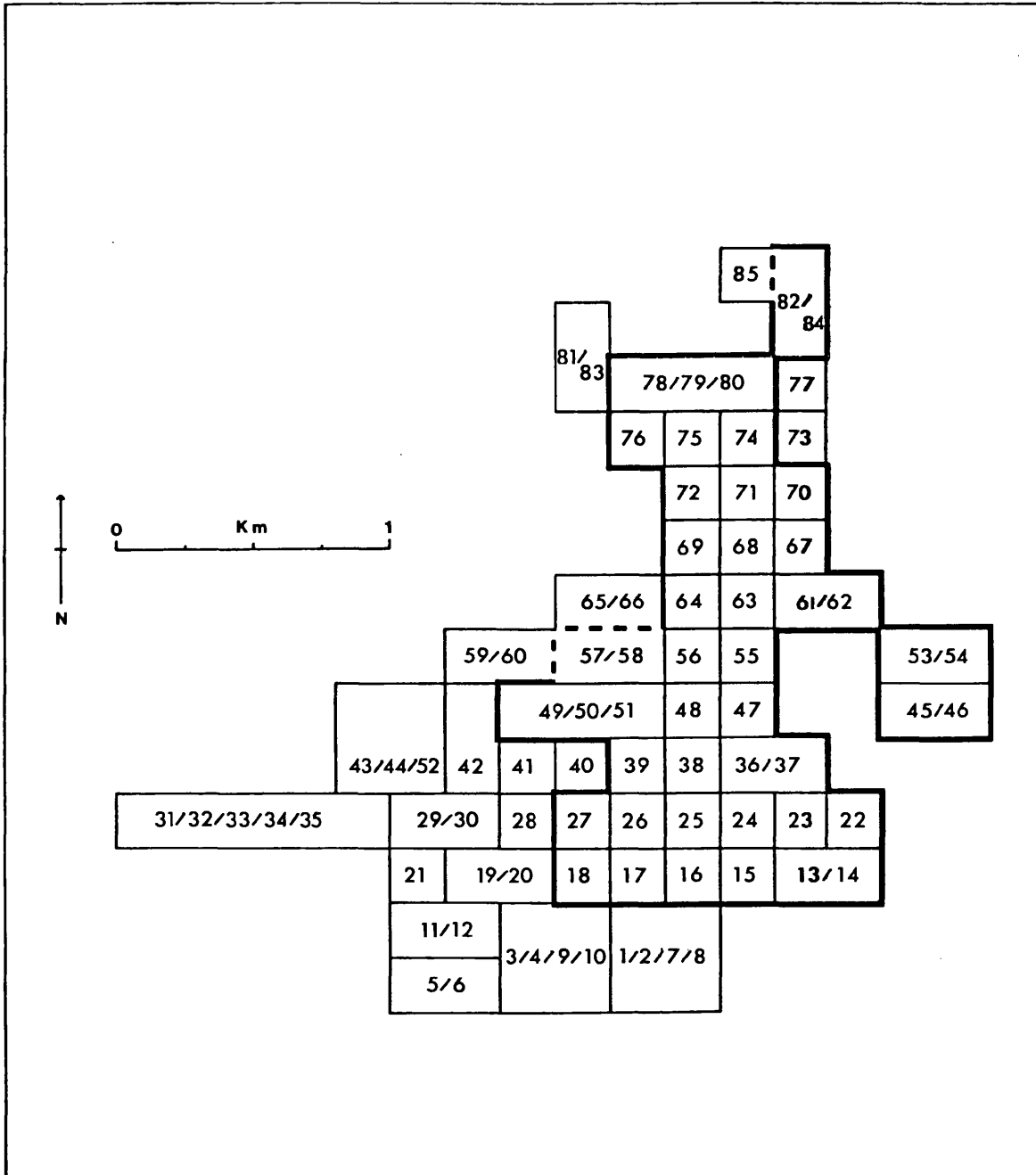
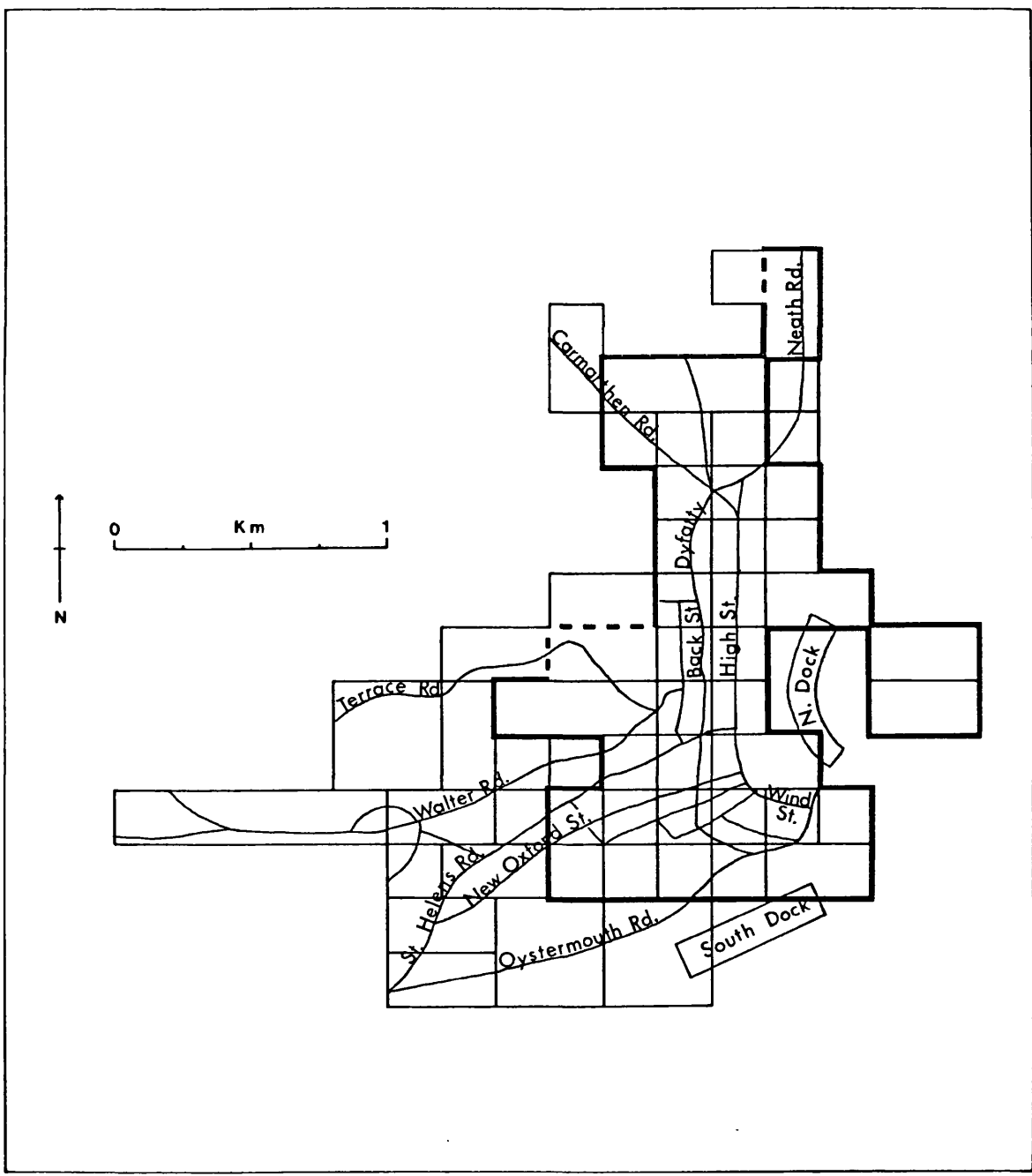


Figure 6.6 : The relationship between the grid-square overlay and the major streets within the town



Notes to Chapter 6

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SECTION B

This section reports on the results of a detailed empirical analysis of the 1851 enumerators' books in three main parts; social class, migrant status and family status. For each of these themes, the detailed depiction of spatial distributions at various scales forms a recurrent emphasis.

CHAPTER 7
SOCIAL CLASS IN 1851

In this chapter, the distribution of the sample population between social classes in 1851 is outlined and the residential distribution of each class examined at enumeration-district level and 200 metre grid-square level. The spatial distribution of non-occupationally-based class indicators is examined and these indicators are also used to test the validity of occupationally-defined social classes in terms of life-style and economic-wellbeing. Finally, the influence of linkages between place-of-residence and place-of-work is investigated and inferences drawn about the effect of these linkages on the residential distribution of social-status groups. Further discussion of the role of social class in residential area formation appears in Chapters 8 and 9, which primarily deal with aspects of migrant status and family status, respectively. Comparison of the 1851 and 1871 social-class distribution is included in Chapter 10.

1. The distribution of the population between social classes

The distribution of the economically-active population among socio-economic groups for the sample is given in Table 7.1.

The large proportion of economically-active persons falling into social class 3 is typical of classifications produced according to Armstrong's method,¹ as indeed are the other distributions which have been similarly calculated.² Independent support for the numerical dominance of social class 3 is available in contemporary literature. Booth's 'Poverty Series' classification, for example, classified 51.5 per cent of the population as 'comfortable working-class'.³

Table 7.1

The distribution of the 1851 sample population among social classes:
A comparison with three other urban areas at mid-century

<u>Social-Class Group</u>	<u>No.</u>	<u>Swansea %</u>	<u>Hull %</u>	<u>York %</u>	<u>Camberwell %</u>
Social Class 1	76	3.27	4.59	7.83	1.97
2	182	7.82	12.48	14.20	13.62
3	1128.5	48.52	47.91	51.26	65.37
4	598.5	25.73	17.51	13.67	11.82
5	341	14.66	17.51	13.01	7.22
Total	2326	100.00	100.00	100.00	100.00

The distribution over the five classes in Swansea shows a comparatively small proportion of the economically-active in social classes 1 and 2, which is typical of industrial towns of the period. One would also, however, expect Swansea to have a lower percentage in these classes than the other towns in Table 7.1 because the figures for Swansea are based on the total economically-active population, rather than economically-active heads-of-household, and one would expect heads as a group to have been more successful in gaining higher-class status.

The large percentage falling into class 4 in the Swansea sample is due to the predominance of heavy industry (metal-smelting) in the outer borough, the availability of semi-skilled work at the wharfs, and the presence in the sample of non-head women in occupations such as laundering and mangling. Class 3 is mostly composed of skilled manual workers and is predominantly an upper working-class group.

100

In assigning the employed population to socio-economic groups, severe problems are encountered in the outer borough where non-ferrous metal-smelting industries are predominant, since it is rarely possible to distinguish between skilled, semi-skilled and unskilled workers, labels such as 'copperman', 'tinman' and 'spelter smelter' being the norm. It is assumed that, except for children and those specifically described as labourers at the various works, most of those described as copper, tin and spelter men will fall into the skilled and semi-skilled categories. This is because unskilled workers are normally casual labourers undertaking a variety of labouring tasks, many of which would not be connected with the smelting works, and are more likely to be found among the large group described as 'labourers'. All metal workers who could not be assigned to skilled or semi-skilled socio-economic groups were, therefore, coded as class 6. After the grouping of households into enumeration districts and grid-squares, this class was split proportionately between classes 3 and 4. The balance between the two classes was determined in the following manner.

No firm evidence could be found from writings about any of the metal industries at mid-century which would enable the skilled/semi-skilled ratio to be defined, but details for the steel industry in the 1890s are provided by the British Steel Smelter Reports of 1898 and 1899.⁴ Although this evidence is for the wrong industry at the wrong point in time (steel-making was, however, already present, for example, at Landore), it is considered to be a close enough approximation to justify its use. Members contributing to the BSS Sickness Fund are split into three groups (Class 1, Class 2, Class 3) according to how much they earned per week, these groups broadly corresponding to skilled,

semi-skilled and unskilled. Very few class 3 members are recorded in the reports (due to the casual nature of their employment) and in some branches, including those in South Wales, no class 3 members are recorded. The ratio between skilled and semi-skilled workers varies among branches but the average ratio for the South Welsh Branches in April 1899 is 4.46:4.57. Details of wages for the steel smelter workers point to stability in the organization of the smelting industries between the 1850s and the 1890s. In 1854, Thomas Williams, reporting on the effects of the copper smoke in the Lower Swansea Valley, states that skilled workers earn an average of 40 shillings a week and that unskilled labourers earn 15 shillings or less. The BSS reports define Class 1 members as earning over 36 shillings per week and Class 3 as earning 15 shillings or less. There is, therefore, justification for adopting the skilled/semi-skilled ratio revealed in the 1899 reports as a basis for dividing the undetermined class in 1851 between classes 3 and 4, since the relative value to the employer of each group is the same at both dates, which might imply that the division of labour also is similar. The division was, therefore, carried out on a 1:1 basis, a ratio which has the added advantage of minimising error should it be incorrect.

2. The residential location of social classes at enumeration-district level

(a) The spatial distribution according to occupationally-based social-class groups

The spatial distribution of each socio-economic group on an enumeration-district basis is shown for the whole municipal borough in Figures 7.1-7.6. These maps are based on the total economically-active population, rather than economically-active household heads.

Figure 7.1 : Distribution of social class 1 as a percentage of the total economically-active:1851, enumeration districts.

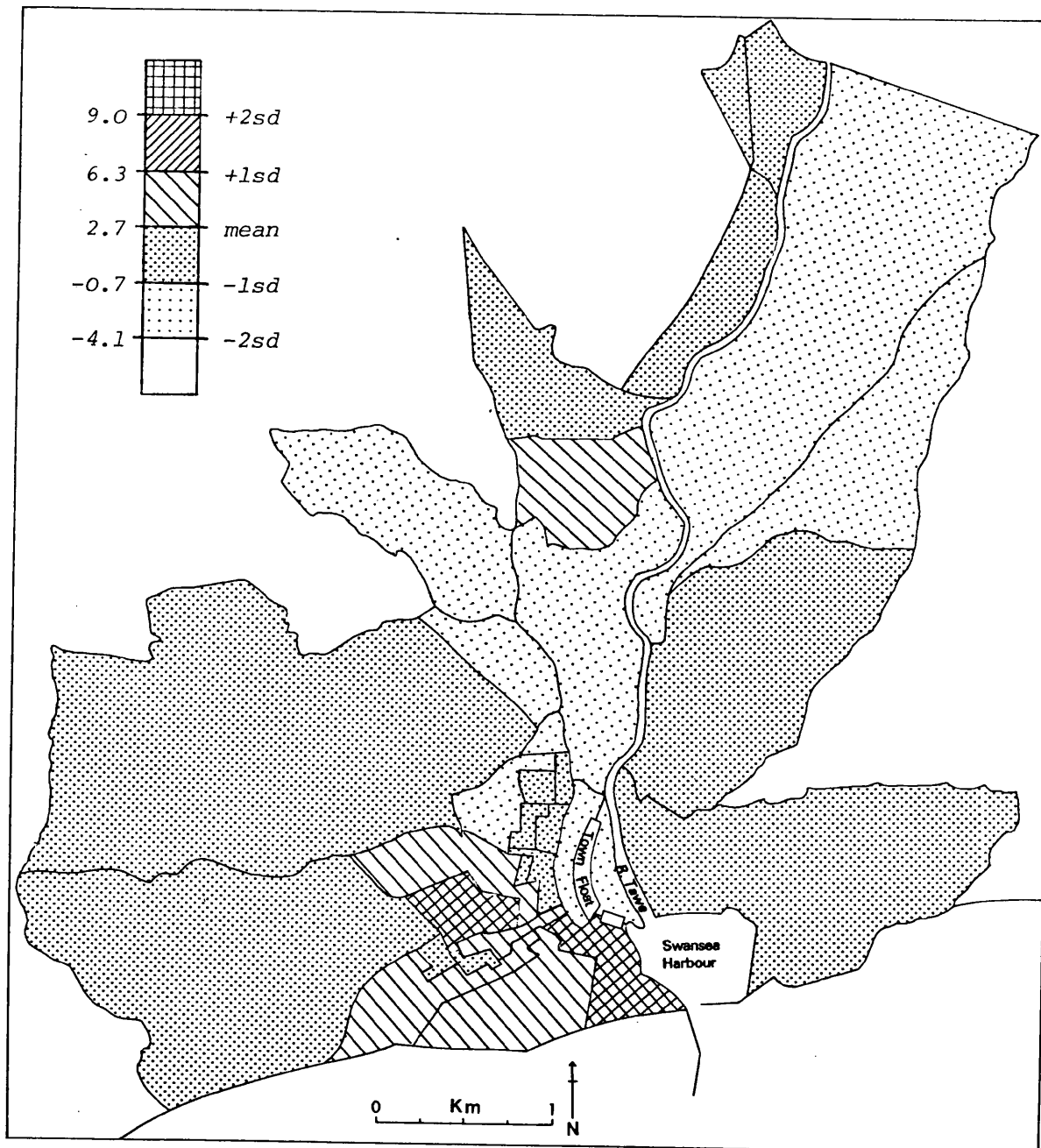


Fig. 7.2 : Distribution of social class 2 as a percentage of the total economically-active:1851, enumeration districts.

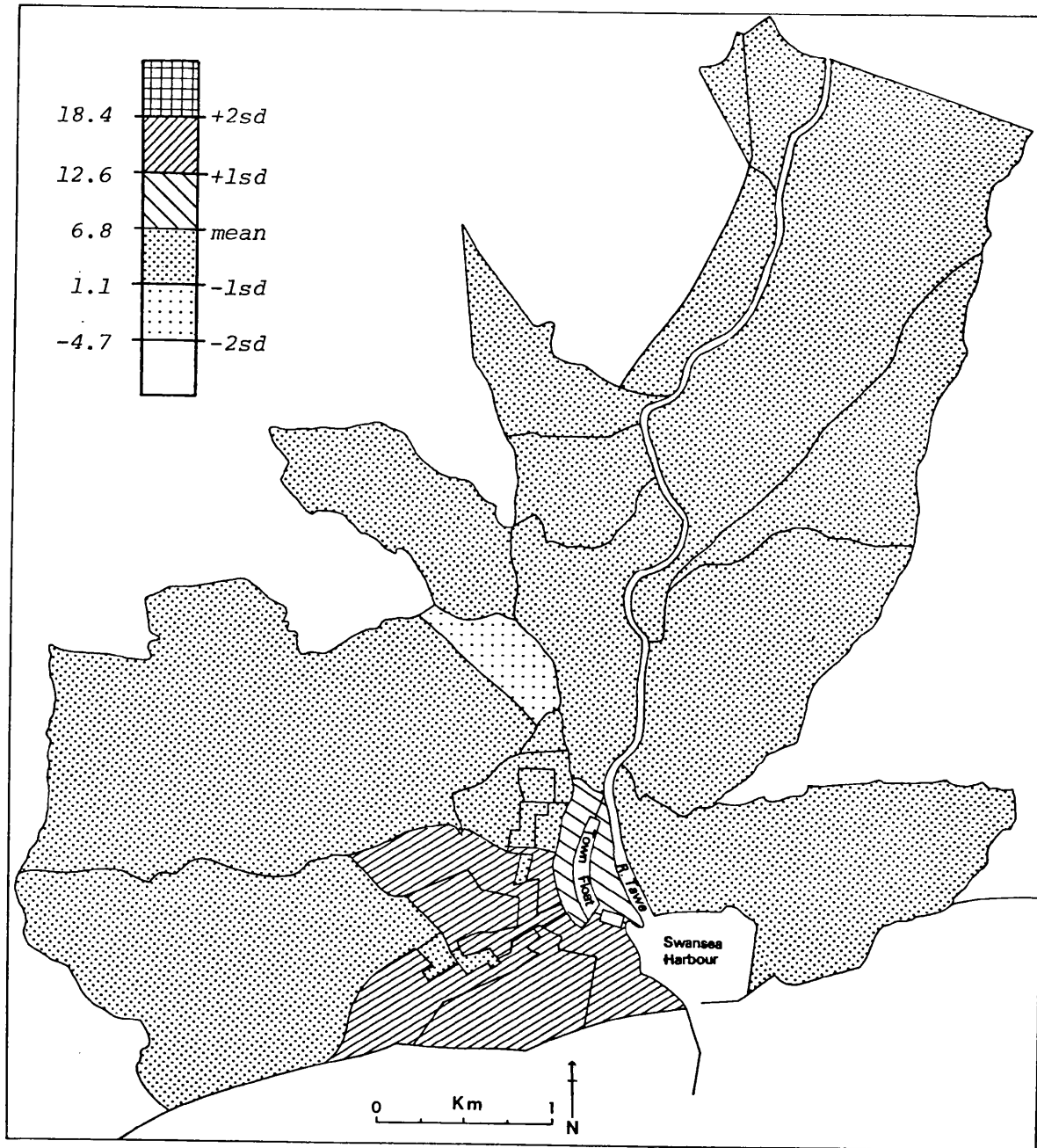


Figure 7.3 : Distribution of social classes 1 and 2 as a percentage of the total economically-active:1851, enumeration districts.

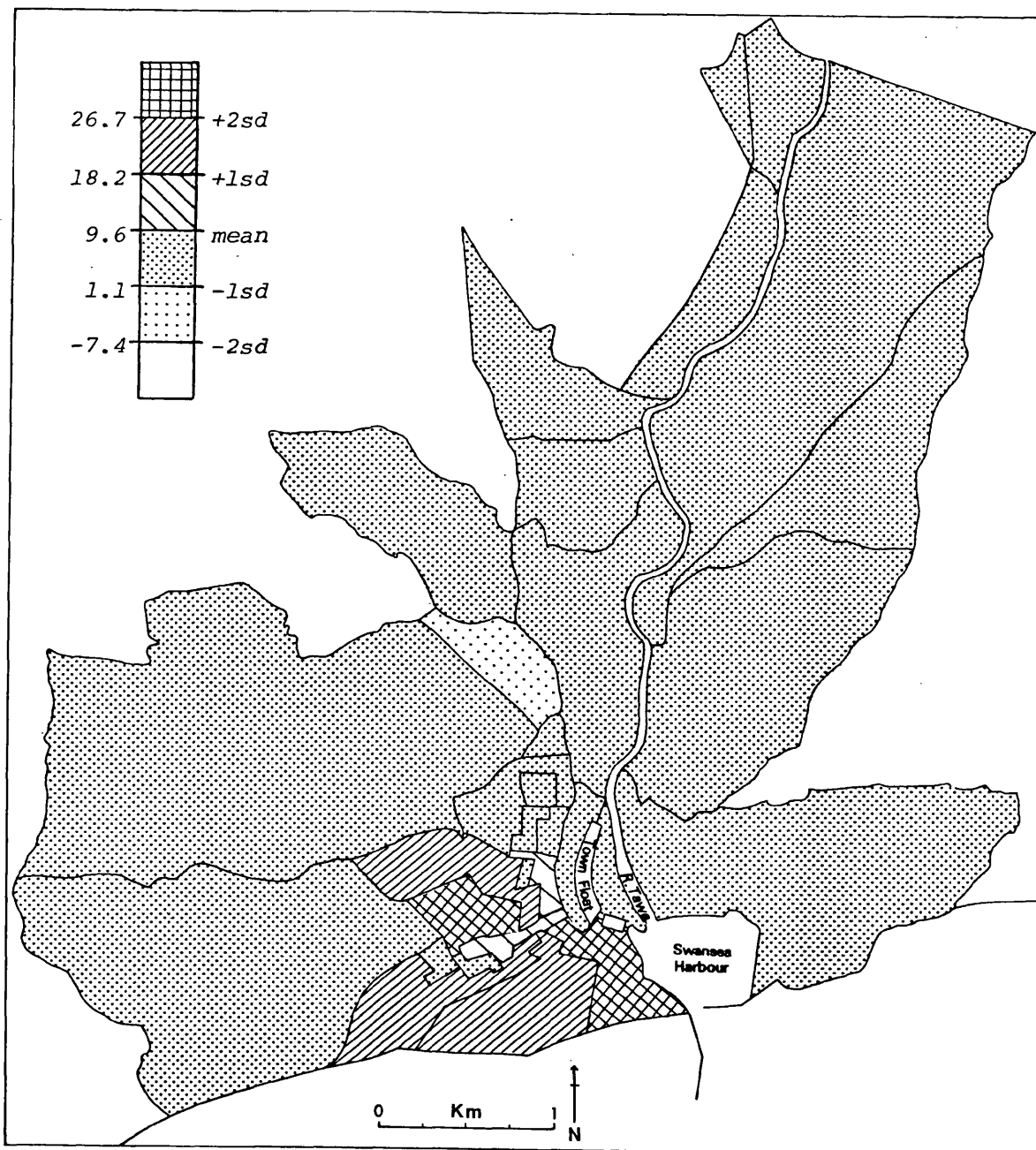


Figure 7.4 : Distribution of social class 3 as a percentage of the total economically active:1851, enumeration districts.

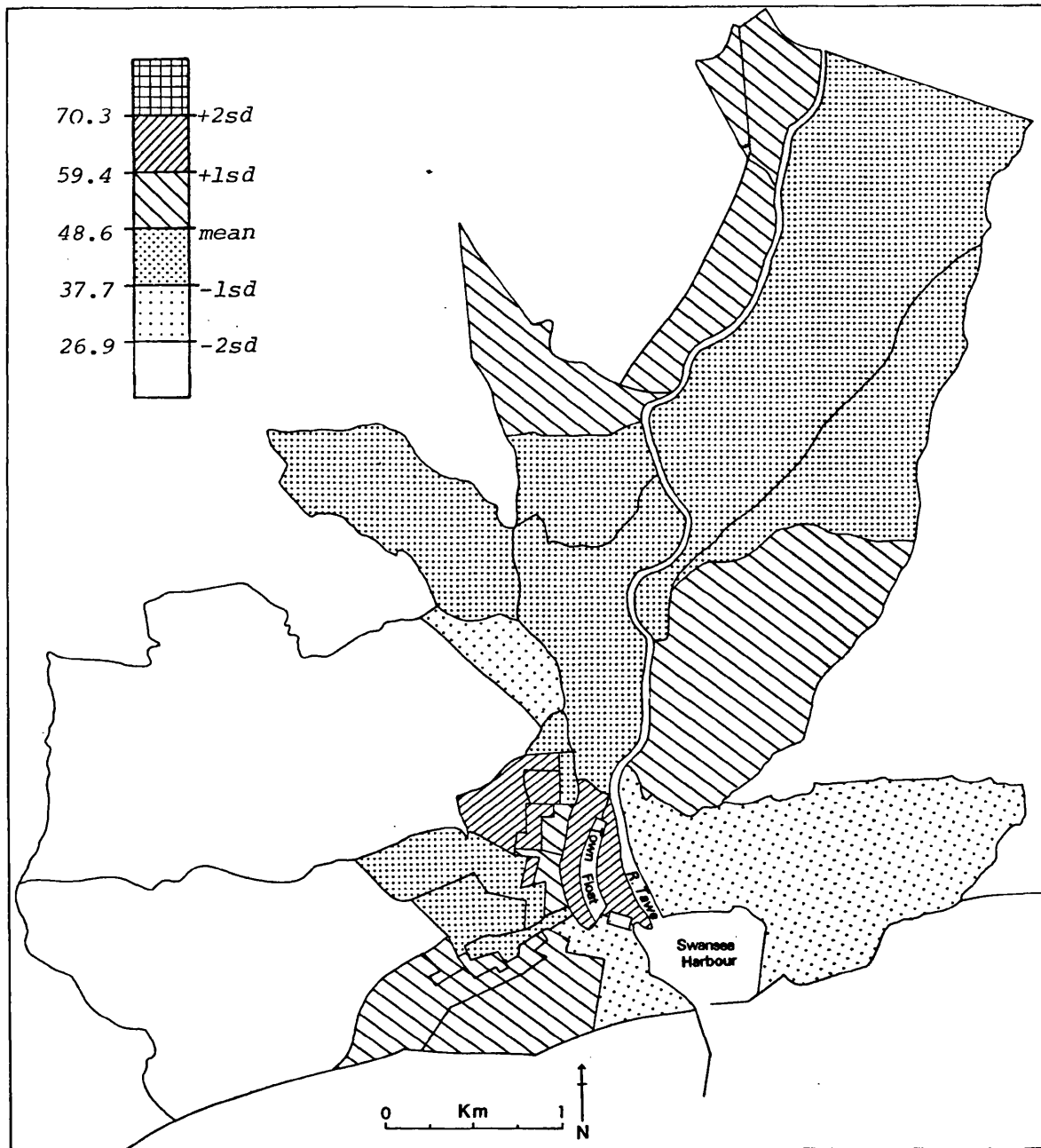


Figure 7.5 : Distribution of social class 4 as a percentage of the total economically-active:1851, enumeration districts.

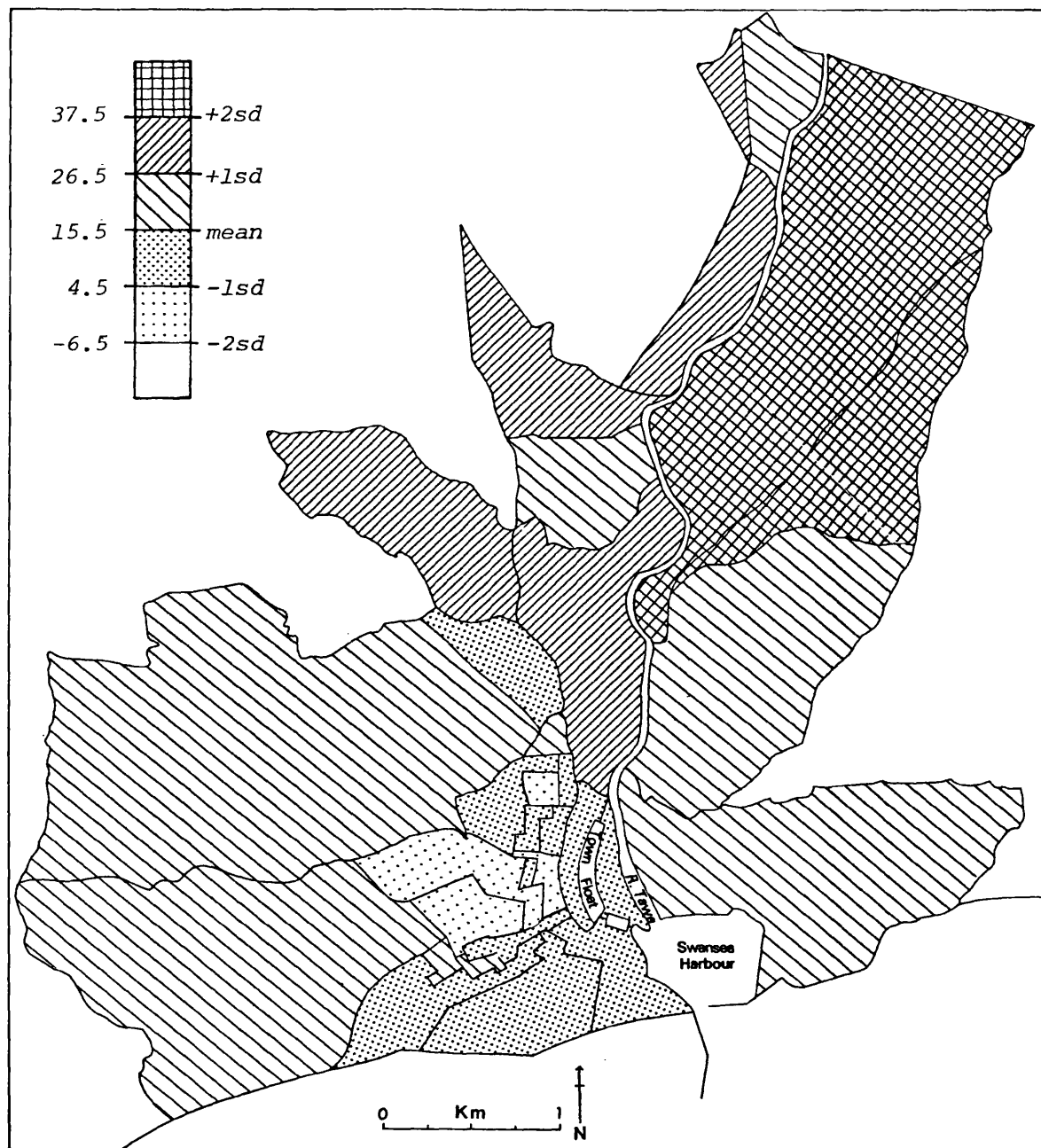
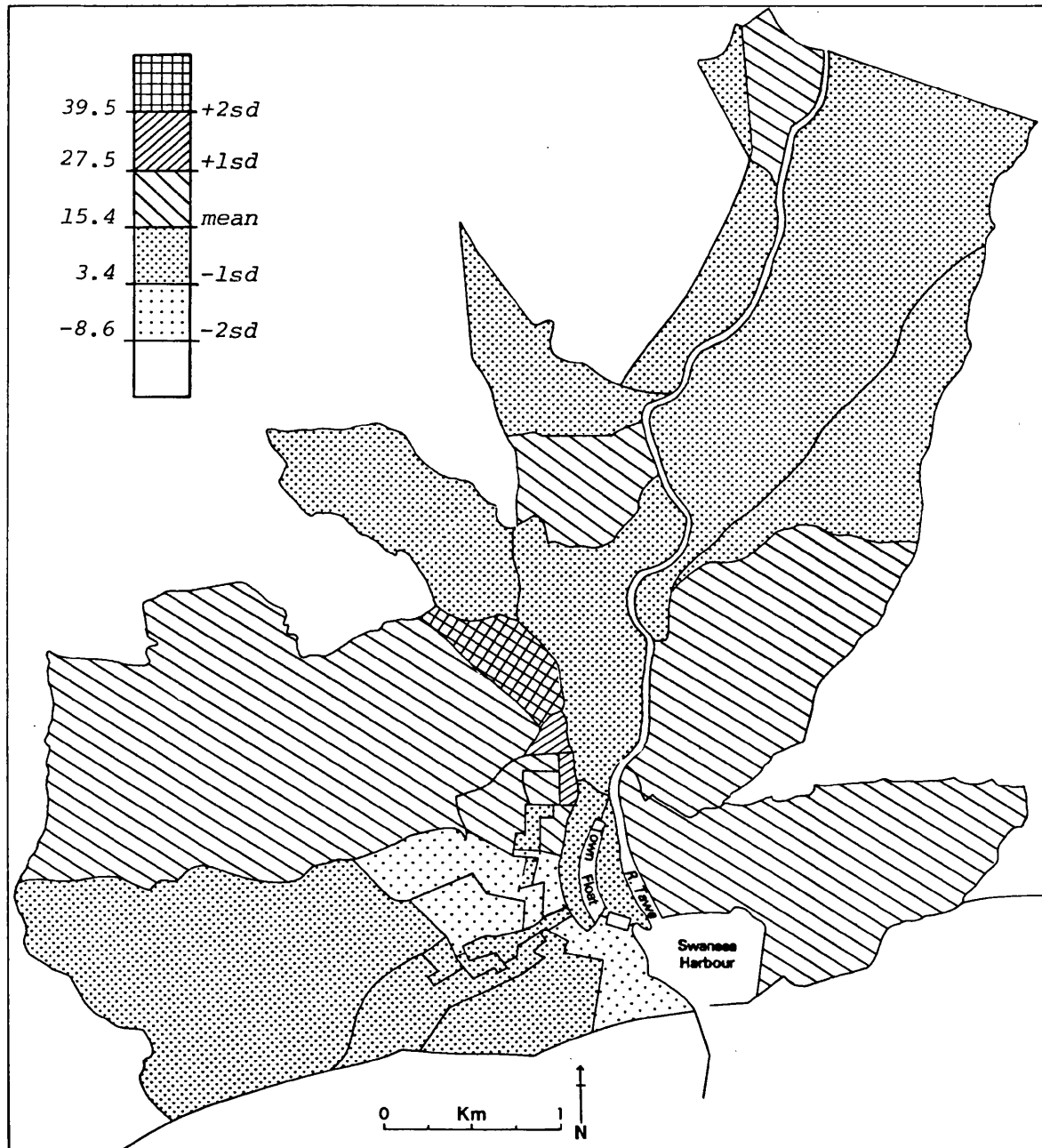


Figure 7.6 : Distribution of social class 5 as a percentage of the total economically-active:1851, enumeration districts.



Classes 1 and 2 are overwhelmingly concentrated in two areas of the town; the area adjacent to Fabian's Bay and the area on the north-western edge of the contiguously built-up area. The first of these areas, E.D.1, is the long-established prestige zone containing the original commercial nucleus (Wind St.) and the large Georgian homes of the wealthy families associated with Swansea's port function (Cambrian Place, Gloucester Place, Somerset Place, Burrows Place and Prospect Place). These two areas within the enumeration district are distinct in a number of ways and are physically separated by the Mumbles Tramway leading from the North Dock (Town Float) to Oystermouth. The Wind Street area to the west of the tramway is a maze of congested buildings and narrow alleyways, while the area to the east remains uncongested. The originally spacious burgesses' plots on Wind Street and York Street are infilled with residential courts of small cottages and non-residential premises, such as brew houses, bake houses, boiler houses, bonded stores, pig-styes, a dyer's shed, smith's shop, wheeler's shop, coach factory, candle factory, flour mill and numerous other work shops. Out of twenty-nine original burgage plots on the south side of Wind Street, only eight still retain gardens at their rear. None of the plots on the north side of the street retain enough open land for further development. The properties fronting Wind Street, however, remain prestigious despite the sometimes noxious industrial land uses at their rear, due to their position on this important commercial street.

In contrast, the area to the east of the tramway, has resisted all pressure for infilling (which would, however, be less in this less central area). The long plots of land show a consistent pattern with houses fronting the street, walled gardens bounded by stables and coach

houses at the rear. The Guildhall, the Assembly Rooms and the Royal Institution of South Wales are also to be found in this area and the southern edge fronts on to a large, landscaped area bordering the esplanade and sea. However, the area is not exclusively residential. Although the only commercial premises, other than inns and hotels, marked as such on the 1852 Local Board of Health Maps are a timber yard, a brew-house and the Harbour Master's Office, many of the residential premises are also the offices for the occupant's businesses. (Three civil engineers, for example, are listed at addresses in this area in Scammell's Bristol and South Wales Directory of 1852).⁵ The area is desirable residentially, not only for those whose business is linked with the port, but also, as the previous example implies, others whose location is more flexible, such as magistrates, surgeons, house and land proprietors. This area on the seaward side of the tramway is, therefore, solidly upper-middle class. The reason for this lies in the ownership of the land.

Within the area of the medieval town and franchise there are two areas of corporately owned common land, the land on Townhill (which rises behind the medieval town) and the burrows along the coast, on which this prestige area developed. (There are also small pockets within the town). In 1761, the Burgesses of the town took out an enclosure act for both these areas and then proceeded to lease parcels of it out to themselves at very low rents. In the late 18th century and the first decade of the 19th century, the land on the Burrows leased out in this manner was developed by the lessees, who built residences on the land, either for their own use (moving there from the now crowded medieval core), or to rent out at a profit to people of their own class. There is

a policy throughout the franchise to exclude industry, particularly that of a noxious nature (which is one of the reasons that the smelting industries developed in the outer borough), but control is more tightly exercised in this area of the town. The leases often contain such covenants as "no noisome, noisy, noxious or offensive trade be carried out, on these premises".⁶

The second area with a high percentage of class 1 and 2 economically-active persons identified by the map, is that on the north-western edge of the built-up area (E.D.8). This area marks the first appearance of what was to become a large zone of high-class housing stretching out westwards towards Uplands along the hillside facing the bay. In 1851, only the land at the townward base of the hill, along the line of the Gower turnpike, (St. Helen's Road) is in the process of being developed. It contains recently-constructed, spacious Victorian terraces (Melborne Place, Northampton Place, Brunswick Place), semi-detached villas (Picton Place) and detached villas (Longland Place), all of which are set well back from the road with large front and rear gardens. The families taking up residence in these houses are not the first representatives of their class in this enumeration district, Oxford Street already being the home of professional and business people.

The other enumeration districts which contain an above-average percentage of individuals in Classes 1 and 2, all have parts of their area within the old original core of the town and it is mainly in this central area that their upper-class residents lived. The two enumeration districts along the coast did not experience upper-class development along their southern, sea front edge due to the low-lying aspect of this

area (known as Sandfields) and the presence of land uses incompatible with prestige developments. (The gas works, the prison and House of Correction, the union workhouse and later the Llanelli Railway and Docks Company railway). E.D.5, at the centre of the town, contains the gravitational centre of the central business district (Castle Square). E.D.7, in the north-west of the town, contains other commercial streets and, in its outer area, several large, free-standing villas (Heathfield House, Cae Bailey, Windsor Lodge, The Willows) on Mount Pleasant, an area of high ground overlooking the town and the bay. This enumeration district, in common with E.D.8, was to be the location of almost all of the new prestige housing over the next few decades.

The only outlier with an above-average class 1 component is Landore (E.D.21). This is a temporary situation due to the presence of two engineers and one surveyor engaged on the construction of the railway through Landore. However, this industrial village on the main route to Neath does, perhaps, have a slight professional service function for the surrounding outer borough, a surgeon appearing on the sample. It is more likely, however, that Morryston performs this function, but the number of professional people involved is not sufficient to highlight this in Figures 7.1-7.3.

In the cases of classes 3 and 4, resident domestic servants have been deducted from the totals. This has been done because such persons are resident in certain areas because the heads of the households in which they reside and are employed, have attained a certain level of class-related wealth, which enables them to keep servants and one would, therefore, otherwise be measuring two opposing dimensions

in one variable. It is considered better, therefore, to include servants in a separate variable since their presence is more an indication of the presence of high social-class rather than low social-class. Another justification for excluding them from the mapping of social classes is that their choice of residential location is not a free one to as great an extent as other employed persons. (Residents in institutions have been excluded from the whole analysis for similar reasons). The exclusion of servants from the mapping of social classes, although justified on the above grounds, does violate the reality of the spatial distribution of social classes since, within prestigious areas, their presence did mean that upper and lower-class persons were living cheek-by-jowl. Although the spacious houses of the upper classes were outwardly opulent, within their walls a distinct spatial (usually vertical) residential segregation existed and the servants' quarters were of very inferior standard to those of their masters.

Due to the fact that the overall distribution of the economically-active population among classes features a very large proportion of the population in class 3, no area of the borough has less than 30 per cent of its economically-active population in this class. However, the area in the north of the town stands out as having a higher concentration of this class. Four enumeration districts in this northern area have above 60 per cent of their economically-active population in class 3, and are characterised by high concentrations of artisans and mariners. (The latter are not seriously under-estimated here, due to the habit of the enumerators of filling in the occupation of absent heads). E.D.s 2, 3 and 4 in the south and west of the town also have a large percentage (over 50 per cent) in class 3 and here again concentrations of artisans

and sea-faring men are found, E.D.2 having 15 per cent of its economically-active described as mariners (not all, however, fall into class 3).

Class 3, therefore, dominates those areas of the town which are away from the commercial core, where housing is not of the poorest standard and where the site is not of prime residential value. In the outer borough, the sharp contrast between the west of the borough (Brynmill, St. Helens, Uplands and Townhill) and the north of the borough (Hafod, Landore, Pentre, Murrison, Llansamlet Lower and Foxhole) reflects the presence of skilled work in the metal-smelting industries of the Swansea Valley, compared with the total absence of these industries in the west.

The distribution of class 4, Figure 7.5, shows a marked concentration in the northern, outer municipal borough and, to a lesser extent, the outer borough in general. This reflects the dominance of heavy industry and primary industry in these areas. Semi-skilled workers at the smelting plants, many workers in mining and most farm employees fall into this class.

The distribution of class 5 highlights both the prestige areas noted earlier and the Irish quarter (Greenhill) on the northern edge of the town, where 57.6 per cent of the economically-active were in this class. The percentage in class 5 in this northern part of the town was temporarily boosted by the labouring work currently available on the construction of the railway line through Cwmbwrla but, when the 'navigators' are removed, the percentage in class 5 is still over 50 per cent. The concentration of labourers in Greenhill extends southwards

into the town through the narrow streets and courts on either side of High Street, where lesser concentrations of Irish and other disadvantaged migrants were to be found.

(b) The spatial distribution according to other class indicators

Mapping the distribution of socio-economic groups at enumeration-district level, therefore, gives an insight into the socio-spatial structure of the borough at mid-century and points to a strong connection between place-of-residence and place-of-work (which will be looked at in more detail later) but also to the existence of several areas relatively homogeneous in class. The identification of social-class areas within the borough on the basis of occupation alone, however, is very unsatisfactory, not only because of the lack of accuracy conveyed by the occupational titles entered on the census, but also because, in the nineteenth century, very many factors distorted the occupationally-based stratification. While one would agree that occupation is one of the major determinants of social strata, if it is to be accepted that life-style and relative prosperity also form important parts of the subjective concept we term social class, then, in the mid-nineteenth century, occupation is not a reliable surrogate for these measures, there being far less standardisation of income levels and no income redistribution through tax concessions for dependants, etc. There is much evidence that, within the same occupation, standard of living varied widely. For example, in classes 3, 4 and 5, the number of dependants was of utmost importance in determining the relative prosperity of the household.⁷ Much employment in these classes was casual and the intermittent nature of the household head's earnings could seriously reduce the standard of living of the household, despite the fact that the total annual income

could be relatively high. In the outer borough, one also has the problem that settlements had been urbanised and modernised to a very different extent and there was a vast discrepancy between the material comforts of life enjoyed by families in the same occupational and socio-economic groups living in different communities. The contrast between the life-styles followed by the inhabitants of neighbouring communities on the western side of the Tawe Valley is revealed in a contemporary report. Thomas Williams, reporting on the effects of the copper smoke in 1854, records in typically philanthropic manner:

"In these villages (Pentre, Treboeth, Cwmbwrla) the miner's cot exemplifies still the rude architecture of another age. The thatched roof, the cold, damp, chilling earth-floor, the large open chimney and fire place, through which alike the wind gusts, the frost bites and the sunlight gleams; the cheerless, solitary apartment, the unceilinged roof, the small windows, the mud walls and the single room, proclaim still the absence of all material requisites of health and decency".⁸

In contrast, the workmen's homes in the villages of Vivian's Town and Landore are:

"Grouped into streets and villages, ample in room and sound in structure, floored with dry bricks, roofed with tile and ceilinged, partitioned into convenient apartments, supplied with all the requirements of civilised life (offering) to the miner and the copper smelter of these happier times a home attractive by its cleanliness, soothing by its comforts and enobling by its independence".⁹

Similar contrasts are found on the eastern side of the Swansea Valley.

"Those (houses) scattered over the parish of Llansamlet are truly Celtic. Thatched and close, or cold and damp, they offer a cheerless contrast to those of a newer date which compose the little towns of Foxhole and St. Thomas".¹⁰

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It is obvious from these descriptions that a skilled miner living in Treboeth and a skilled miner living in Vivian's Town would not perceive each other as belonging to the same social class. It is apparent, therefore, that additional variables are necessary in order to arrive at an approximation of the spatial distribution of social classes. Some variables are available in the census and others, of a less quantitatively accurate nature, can be gathered from large-scale, contemporary maps. The census variables are: resident domestic servants as a percentage of population, the number of households in multi-occupied dwellings as a percentage of all households, households living in courts as a percentage of all households and women and children in the labour force as a percentage of the total economically-active. Those derived from maps are all housing variables. They are: privies as a percentage of households, the incidence of back-to-back houses and houses with ground-floor areas less than 350 square feet as a percentage of all houses.

With regard to the housing variables, it must be stressed that the quality of housing occupied by a household is not necessarily a more accurate guide to its social standing than is occupation, since many families would be recently arrived in the town and the construction of new housing was not keeping pace with the rise in population, making it difficult to rent a property at the desired level. It is not, for example, unusual to find master mariners living in courts. The population of the borough rose by 20,241 in the period 1851 to 1871 and the number of houses increased by 3253,¹¹ leaving a shortfall of 794 houses if one assumes that there were on average 5.002 persons per household (derived from the 1871 census sample). This level of shortfall assumes that all

households would normally be in a position to rent an entire house, however small. This, of course, is untrue but it is very probable that the percentage of households having to share a dwelling whom, if it was not for the shortage of houses, would rent a self-contained dwelling, increased over the period. The percentage of households sharing with other households did, in fact, increase over this period from 7.8 per cent to 16.7 per cent. Housing variables, as a means of assessing social class, therefore, need to be used with caution but, together with the occupationally-based social-class grouping and the other census variables with a class component, they form a fuller picture of the spatial dimensions of social class at this scale of analysis.

Taking the variables from the census first, Figure 7.7 illustrates the distribution of resident domestic servants as a percentage of the total population. This map isolates the earlier defined prestige area on the Burrows as having the highest percentage of resident servants, followed by the newly-emerged upper-class area and the enumeration districts containing the rest of the town's commercial core. The number of servants in the commercial core area is probably over-estimated since some of the resident shop assistants were probably entered as domestic servants in the schedules and some may indeed have performed both functions. The apparent level of servant keeping in the St. Thomas - Port Tennant area (E.D. 26) would be greatly reduced if the number of households keeping servants was the mapped variable, since the 10.4 percentage illustrated is in large part due to the presence of the Grenfell household (Copper master) and his Bailiff's household on the sample, the former of which supported 12 servants. When the distortion produced by one particularly large household is taken into account, therefore, one is left with a spatial pattern which substantiates that produced by socio-economic status.

Figure 7.7 : Distribution of resident domestic servants as a percentage of the total population:1851, enumeration districts.

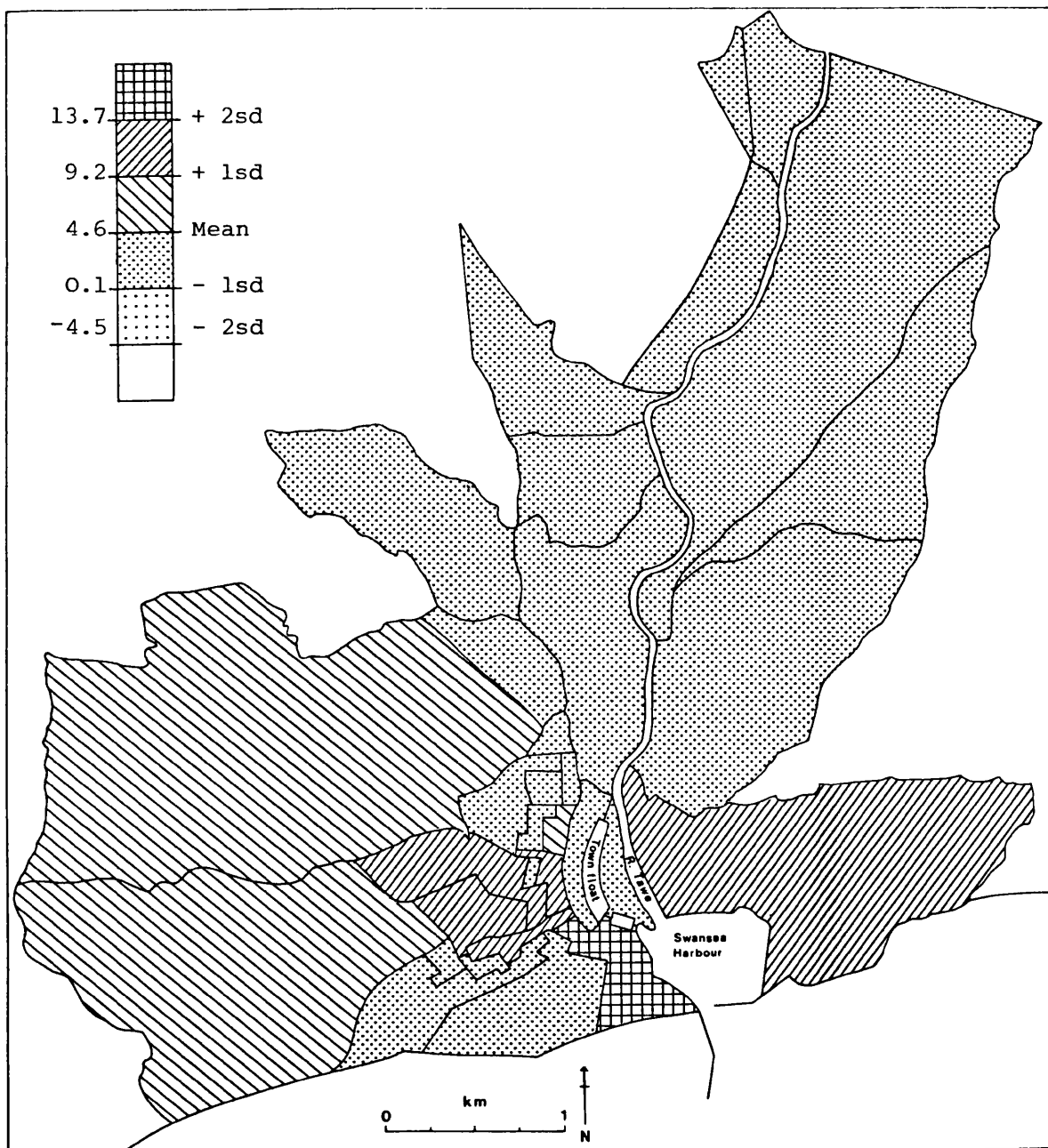
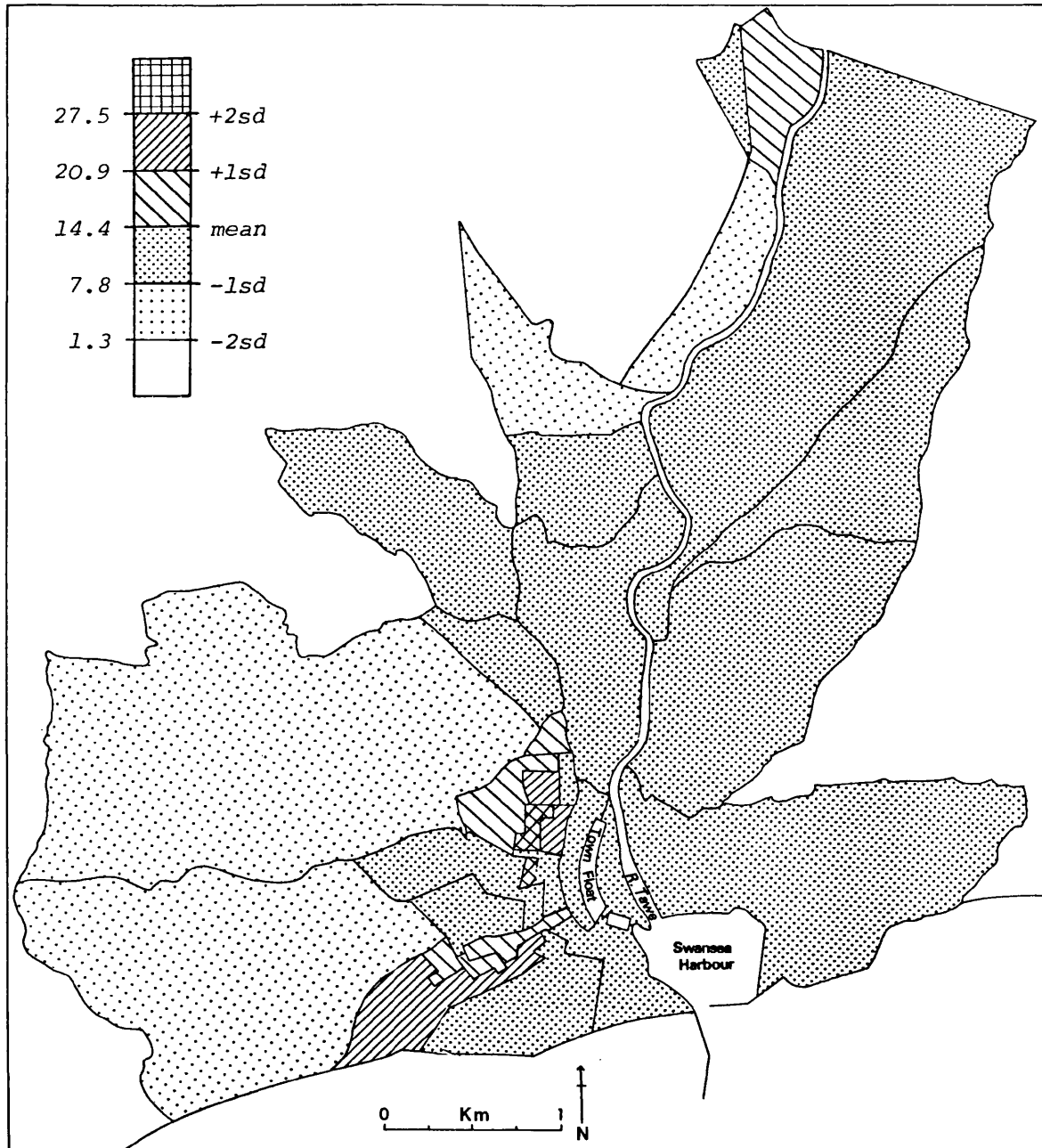


Figure 7.8 illustrates the distribution of economically-active women and children. As with the mapping of social classes 3 and 4, resident domestic servants have been excluded from the sample, since high scores on the variable are interpreted as indicative of low social-class. The level of employment among women and children is low, children forming 2.8 per cent of the active labour force and women 12.4 per cent. This is partly because Swansea did not have any of the factory employment which, in northern, English towns, utilized this type of labour. The metal-smelting works occasionally employed children but only one female copper-works employee is found on the sample. The nearest approximation to factory employment was that provided by the potteries (Cambrian, Glamorgan, Dyfatty) which employed 2.8 per cent of the economically-active females as throwers, transferers, painters and dressers. Most female employment in Swansea falls into four broad categories: first, home-based or small-scale manufacturing of apparel and textiles, for example, dress-making, shoe-making, bonnet-making, stocking-making, tailoring, glove-making, shirt-making, weaving and lace-making (36.5 per cent); second, dealing, food manufacture and catering (26.7 per cent); third, laundering and charring (17.7 per cent); and last, teaching (5.6 per cent). The only other major category was prostitution, the incidence of which is impossible to estimate from the census, but which was recorded by the Inspector of Police for Swansea in 1845 as occupying between 250 and 300 women,¹² and in the late 1870s, 254 prostitutes and loafers were displaced when the main red-light area off High Street was cleared under the Artizans' and Labourers' Dwellings Act.¹³ (Prostitutes are not included in the figures used here). Children were mainly employed as office boys and errand boys (21.2 per cent), in the coal mines (16.7 per cent), as general labourers (7.6 per cent) and as stone

Figure 7.8 : Distribution of women and children in the labour force as a percentage of the total economically-active:1851, enumeration districts.



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masons' apprentices (7.6 per cent). As might be expected, most of the working women were single or widowed, only 11.4 per cent being wives.

The strong association between economically-active women and occupations in dealing and non-residential domestic service is demonstrated in Figure 7.8. The enumeration districts with more than the mean percentage of economically-active women and children are the less prestigious enumeration districts with parts of their area within the retailing centre, the lower part of Morriston, where a service centre was developing, and the poorer enumeration districts in the north of the town. It is noticeable that E.D.16, which is normally above the mean on indicators of low social-class, is here grouped with districts of higher social standing. This is due to the large percentage of Irish families in this area whose women-folk rarely had jobs.

The percentage of households in multi-occupied dwellings (Figure 7.9) shows a strong association with the centre of the town and the Irish quarter. In isolating E.D.5, this variable qualifies the earlier picture produced by socio-economic group mapping. The unusually high percentage of households sharing (26.2 per cent) could be due to enumerator error but the larger than average size of houses in this area and the relatively high percentage of single-person households (7.3 per cent), tends to add credulity to the enumerator's records. This enumeration district did, in fact, also have some pockets of very poor housing, notably on Greenfield Street.

6.7 per cent of the sample households live in courts and the distribution of such households (Figure 7.10) further illuminates the spatial distribution of socio-economic groups. The distribution highlights

Figure 7.9 : Distribution of households in multi-occupied dwellings as a percentage of all households:1851, enumeration districts.

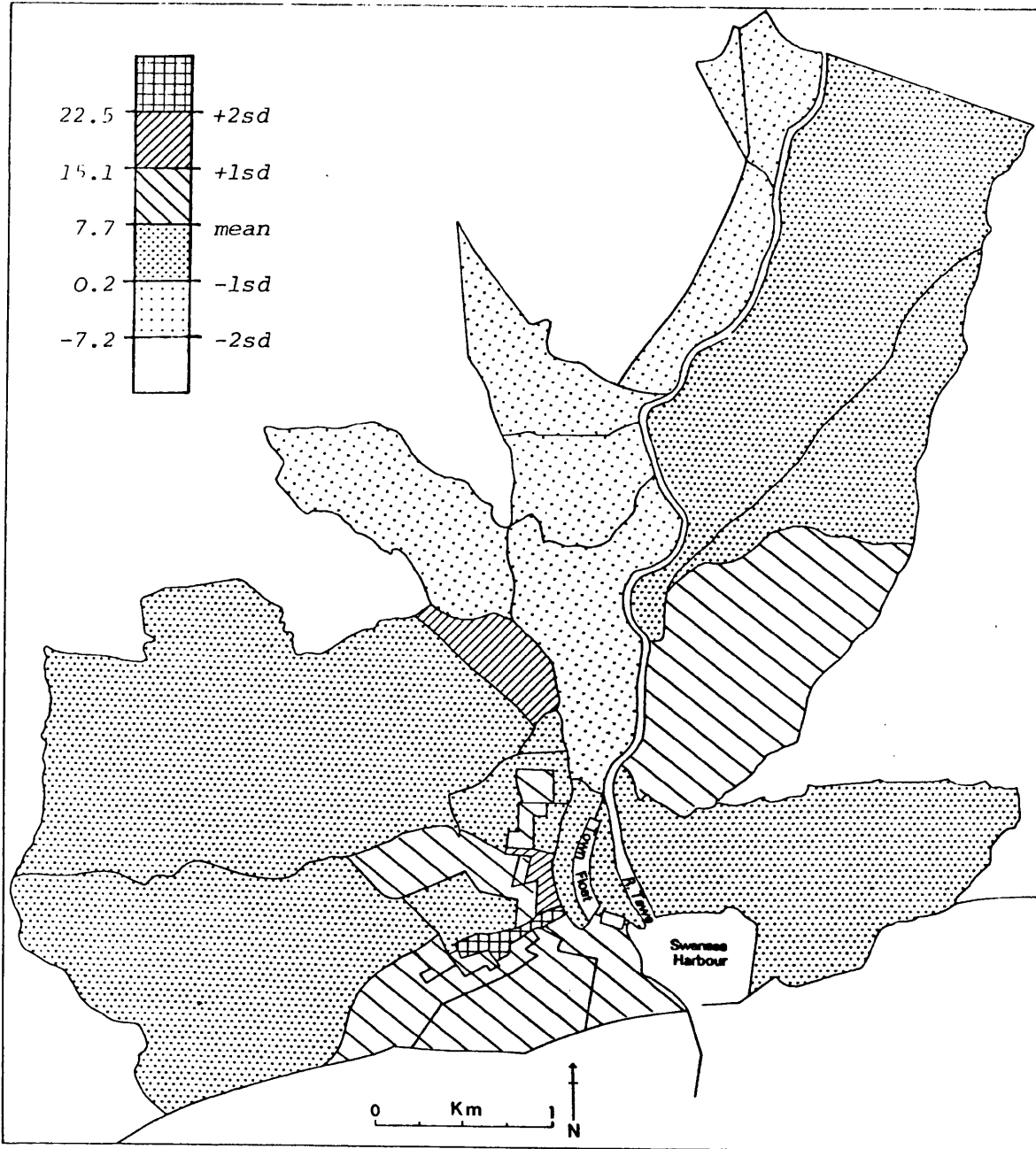
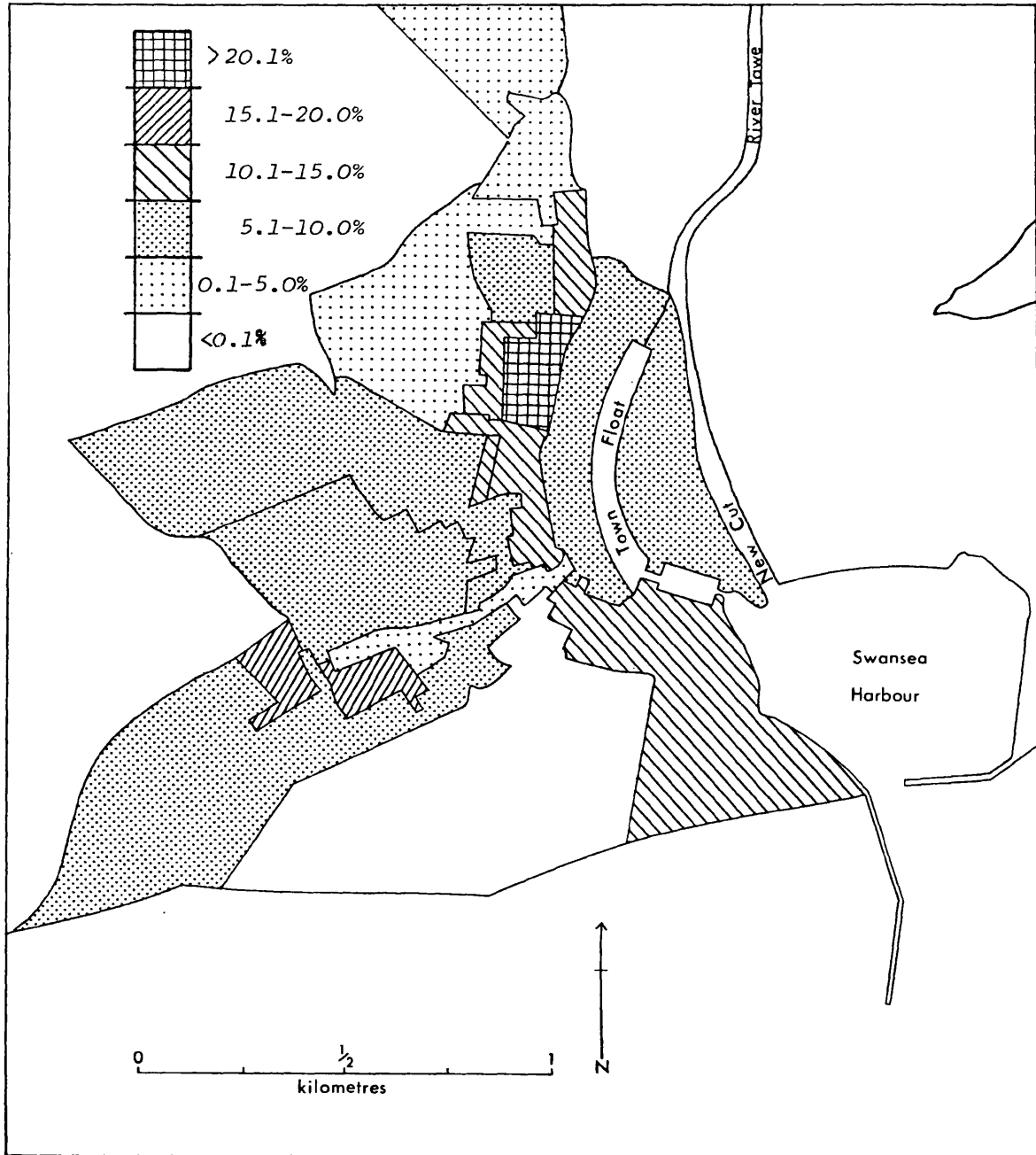


Figure 7.10 : Distribution of households occupying courts as a percentage of all households:1851, enumeration districts.



the north-south axis of High Street and its continuation south-eastwards into Wind Street. The infilling on the burgage plots on either side of Wind Street has already been described and this process had proceeded, to a far greater extent, on either side of High Street. The central section of High Street (E.D.10) had as many as 59.5 per cent of its households living in courts, yet this was not an area with above-average numbers of economically-active in classes 4 and 5. It is an area which remains close to the mean in the distribution of all social classes and this was due to its essentially mixed character, which required a finer spatial mesh to capture what was, in fact, quite distinct social segregation, according to socio-economic class, within its bounds. The residences fronting the High Street were middle-class and the street on which they focussed bound them together into a social enclave, segregated from the congested courts behind the high walls of the yards at their rear.

The enumeration districts with a high percentage of households living in courts were all in the older, central part of the town, except for the William Street area (E.D. 4), on the western edge of the town. Here the housing was new but of an inferior standard to the rest of the housing being built on the Sandfields (which was itself largely of only middling standard) and more akin to that developing on the slopes to the north of the town. This small area of new low-class dwellings also contained one of the few instances of back-to-back housing in the town. This evidence of a low quality of housing in the area corroborates that on the spatial distribution of socio-economic classes, the enumeration district being identified as one of only two in the town with an above-average percentage of economically-active in class 4 and, in

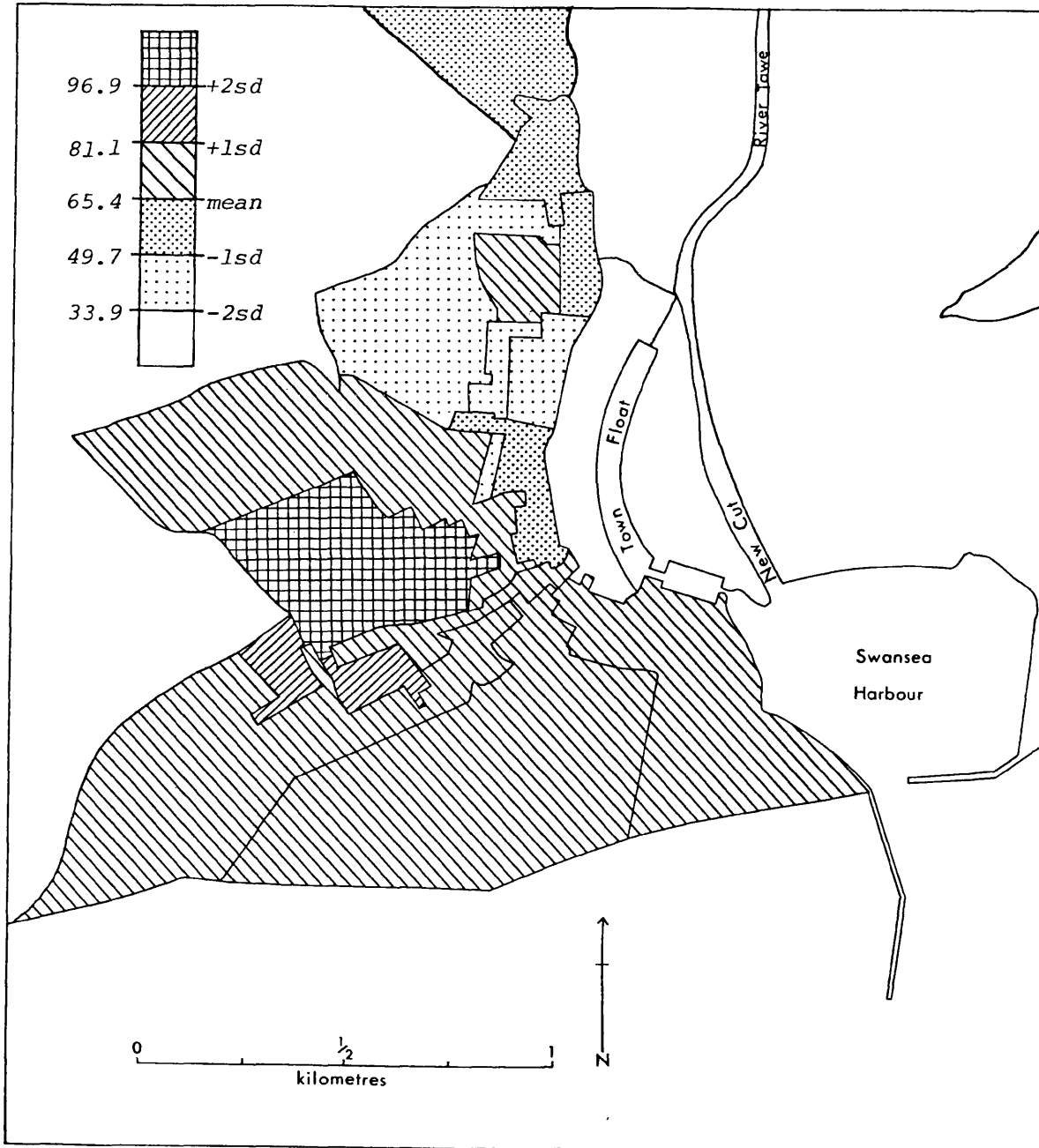
common with those in the north of the town, having a below-average percentage in classes 2 and 3. There are no courts in the outer borough excepting one or two court houses in St. Thomas.

The housing variables indicative of social-class variations derived from map evidence are only available for the contiguously built-up area of the town. This is because the data source is the 1852 Local Board of Health, 44 feet to 1 inch survey, which only covers that area. The major variables obtainable from these maps are: house size, the incidence of back-to-back housing and the incidence of privies.

As the 1845 Health of Towns Commission report on the state of Swansea points out: "Many of the houses have no necessaries and many necessaries have no drains".¹⁴ The absence of these 'necessaries' is an important indicator of social deprivation. The total number of privies in each enumeration district is expressed as a percentage of households and mapped in Figure 7.11. Every house is included in this analysis and the number of houses in each enumeration district is converted into households according to the level of multi-occupation indicated by the census sample for each enumeration district. Where one house clearly had multiple privies only one is counted, since the object is to achieve some measure of the degree to which households were without privies or shared privies. The Strand area (E.D.11) is excluded from this part of the analysis because of the difficulty of identifying which buildings were dwelling houses.

The map (Figure 7.11) shows a clear division between the north and south of the town, with the provision of privies to households varying from 39.2 per cent in the New Street Area (E.D.14) to 96.9 per cent in

Figure 7.11 : Distribution of privies expressed as a percentage of households : 1851, enumeration districts.



E.D.8. The position of E.D.4 (the William Street Area) is interesting in that while this area of new housing contained courts and some back-to-backs, its privies provision was second only to the adjacent high-class area with the ratio of privies to households being 0.8173:1.000.

Data on water closets can also be obtained from the Board of Health maps. Although the presence of water closets is mainly a reflection of the availability of piped water supply (which was only present at this date in the southern and central part of the town), their incidence does pick out the opulent areas within these parts of the town. Water closets occur on Wind Street, Quay Parade, Cambrian Place, Adelaide Street, Burrows Place, Gloucester Place and Prospect Place in E.D.1. (In other words, throughout the area on 'The Burrows' being developed by the burgesses and on the main commercial street). Outside this area, they are less frequent but occur on Rutland Street and Frog Street in E.D.2, Castle Square in E.D.5, Oxford Street, Northampton Place and Picton Place in E.D.8, College Street and Goat Street in E.D.7, and Castle Bailey Street, Temple Street and High Street in E.D.6. This corresponds to the commercial streets at the centre of the town and the high-class residential area developing on the western edge.

At the opposite extreme, whereas Figure 7.11 gives an indication of the extent to which families shared privies, if all were to have access to this facility, groups of houses can also be identified which actually were without access to privies. These occur all over the town but to a greater extent in the north. Parts of Queen Street and Back Street in E.D.9, part of New Street, most of Quarry Street and the whole of Charles Place in E.D.14, parts of Bargeman's Row and Bethesda Row in

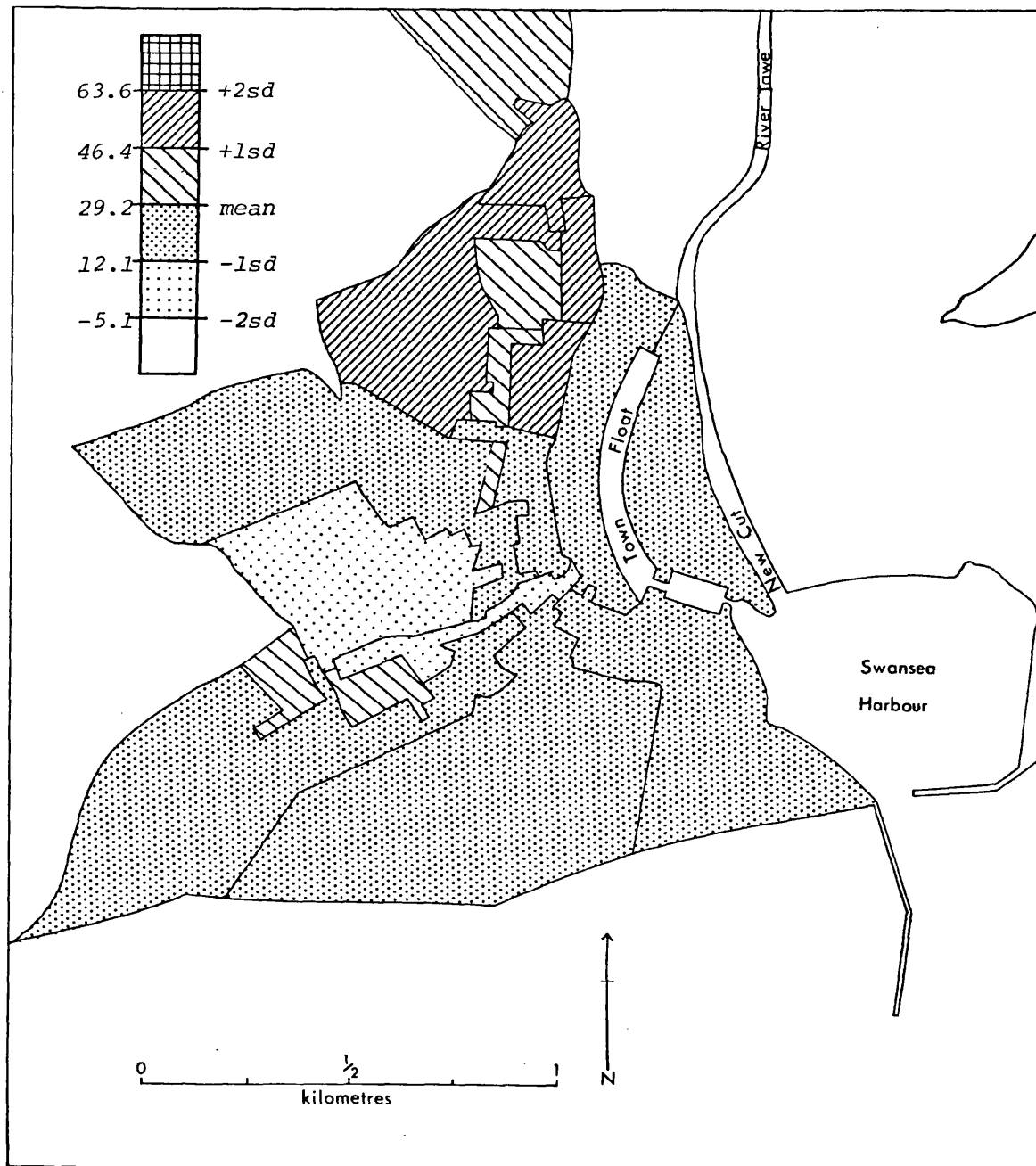
E.D.12, and part of Greenhill Street and half of Well Street in E.D.15, are all without privies, along with numerous other individual houses throughout the area. Instances of groups of houses without the use of a privy also occur in the central area of the town, in the area around St. Mary's church and the market, in parts of Greenfield Street, the north side of Wassail Street, Frog Court and a section of Castle Lane. One outlier, Gas Works Cottages in the south-western edge of the town is without this facility.

During the 1850s, most of the houses without access to a privy were furnished with such access but, in the poorest areas of the town, privy-less dwellings still persisted into the 1860s. A list of addresses of such properties is given in the Surveyors' Reports of 1861.¹⁵ These are as follows: 30, 31, 66, 67, 51-53 Back Street in E.D.9, 44-45 High Street and 31, 32 Regents Court in E.D.10, 7-10 Well Street in E.D. 15, 1-13 Charles Place in E.D.14, and 2-5, 16 Greenfield Street in E.D.5. In 1863, the Board was still serving notices on the owners of the 13 houses in Charles Place to erect three privies for their joint use and on the owner of the four houses in Well Street to erect one joint privy.¹⁶

The privies data, therefore, confirms the previous evidence of poorer quality housing being located in the north of the town and in pockets off the main streets of the town centre.

The second variable estimated from the 1852 Board of Health maps is house size. It would be impractical to measure floor areas of all houses in each enumeration district with a view to arriving at a

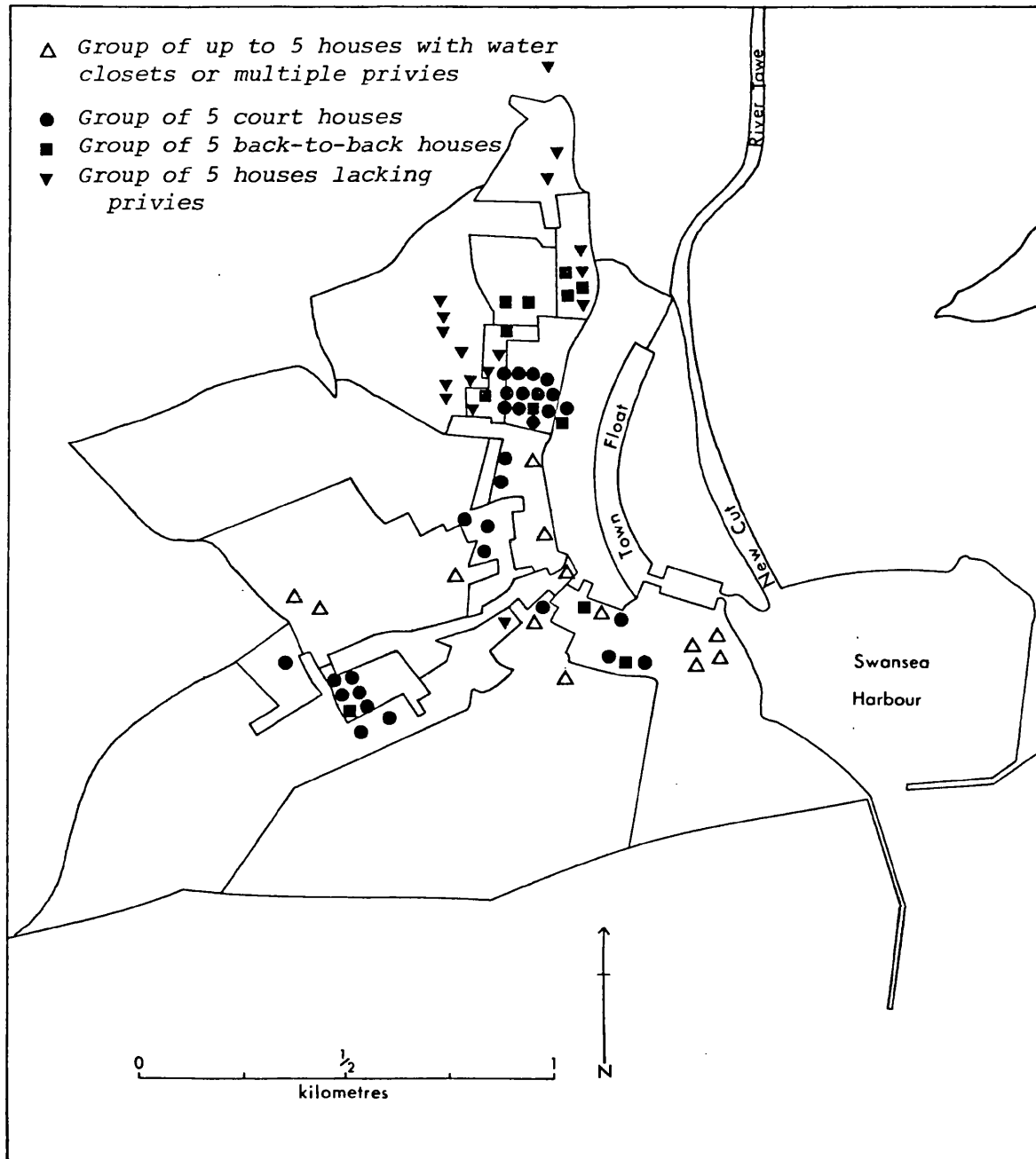
Figure 7.12 : Distribution of houses with ground-floor areas less than 350 square feet as a percentage of all houses: 1851, enumeration districts.



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mean house size, since the results which could be obtained from large-scale maps, would not be sufficiently accurate, or useful, to justify the work involved. Furthermore, for many properties the number of floors would be unknown, as would the proportion of the floor area in domestic use. In view of this, a simple technique has been used whereby houses with ground-floor areas below a defined minimum are expressed as a percentage of all houses within each enumeration district. Although this is a crudely measured variable, the ease with which the information can be gathered and the unavailability of other housing variables in general for the nineteenth century, are sufficient to justify its use. The minimum floor area chosen is 350 square feet. The justification for this is that a large number of houses have floor areas approximating 350 square feet (a standard two rooms up, two rooms down) and the minimum area, therefore, must be set below this level in order to highlight areas where poor housing predominates or is relatively absent. The results are mapped in Figure 7.12. The poorer quality of housing in the north of the town is again emphasized, the situation being worst in the courts off High Street (E.D.10) in the lower Greenhill area (E.D.15) and the land sloping down from Upper High Street to the railway (E.D.12), in all of which, over half the houses fall below the defined ground-floor area. The thirty-two per cent of houses under 350 square feet ground-floor area in the west of the town, supports the earlier evidence of this district's low social standing. In contrast E.D.8, where the new, prestige housing-zone was developing, has a complete absence of houses in the defined category and the low percentage of 5.6 in E.D.5, supports the earlier claim that the houses in this area are larger than average and, therefore, more suitable for occupation by more than one household.

Figure 7.13 : Distribution of courts, back-to-back houses, water closets and houses which lack privies:1851.



The incidence of back-to-back housing has been mapped, together with the presence of water closets and groups of houses which lack privies, in Figure 7.13. Back-to-back housing reflects the distribution of courts, all instances being located within courts although some do have one side facing a street. Isolating back-to-back houses is not particularly meaningful since other terraced houses which are not built back-to-back but which have no door, window or ventilation of any form in the rear wall were, from the point of view of the occupants, the same as back-to-backs. This type of house was probably common in inn yards and courts where houses had been built around an existing perimeter wall. It is impossible from map evidence to identify such houses but photographic evidence from 1929 shows that they existed in Tudor Court in E.D.14.¹⁷

3. The relationship between occupationally-defined class variables and other class indicators

It would be valuable to know how meaningful the division into the five social classes based on occupation is in terms of life-style and level of material well-being. There is obviously a correspondence between the distributions produced by the five occupationally-based class variables, on the one hand, and the other 'class' variables on the other, but it is extremely difficult to assess the extent of the relationship by visual comparison of the spatial distribution of arbitrarily-defined groups. As mentioned earlier, the fact of a head being occupationally in Class 3 or class 4 was not particularly meaningful in the outer borough. It may be the case that the lower three classes were deprived in terms of living standards to a similar degree and that only classes one and two achieved a materially comfortable standard.

Tentative testing of this can be achieved by comparing the percentage of each class possessing certain attributes thought to indicate high or low social status. The percentage of households keeping no servants, the percentage of households sharing privy accommodation and the percentage of households living in houses below the defined minimum ground-floor area can be used for this purpose. The percentage of households keeping no servants in each of the five classes is given below.

<u>Class</u>	<u>% keeping no servants</u>
1	35.4
2	52.7
3	88.7
4	93.8
5	95.8
6 *	94.9

*the class which is proportionately split between classes 3 and 4.

The major division falls between classes 2 and 3 but there is also a significant division between classes 1 and 2 (professional and trading people). The difference in the incidence of servant-keeping between artisans and labourers is relatively small. The percentage for class 6 shows that classes 3 and 4 in the outer borough were less likely to keep servants than those living within the town and franchise.

In the case of the sharing of privies and the house floor-space variable, the certain knowledge that each household within each class shared or did not share a privy, or lived in a house below the defined minimum ground-floor area, has to be replaced by the probability of its

doing so, since the address information is not complete enough to tie households to houses. The probabilities are derived from the percentage of households possessing the attribute in the enumeration district within which each household is found. The percentage of households in each class with a probability less than 0.67 (the average probability for all households) of sharing a privy is given below.

<u>Class</u>	<u>% of households with probability < 0.67</u>
1	90.62
2	75.32
3	45.60
4	46.10
5	22.03

Again the major break lies between classes 2 and 3 with a lesser division between classes 1 and 2. In this case, however, the artisans (classes 3 and 4) are very similarly placed but the labouring class is distinctly worse off. This is due in large part to the association of this class with the Irish (20 per cent of those below the threshold are in the Irish quarter) who, although not occupying the worst housing as regards privy provision, fell well below the 0.67 threshold, having a probability of 0.59 of sharing a privy. (The similarity between classes 3 and 4 is not due to the reallocation of class 6 since this housing variable relates to the town only).

The percentage of households in each class with a probability less than 0.29 (the average probability of all classes) of living in a house below the defined minimum ground-floor area is given below.

<u>Class</u>	<u>% of households with a probability < 0.29</u>
1	89.60
2	84.17
3	49.85
4	32.54
5	20.76

This distribution substantiates the previous two but the difference between class 2 and class 3 is more strongly emphasised, that between the upper two classes less obvious and the gradation between the lower three classes more distinct.

Although the means of measurement used here are rather crude, the results do support the evidence contained in contemporary Urban Sanitary Authority reports of this and other towns that, in terms of house condition and style of life, there were two major categories of people; on the one hand, professional and trades people and, on the other, artisans and labourers.

4. The relative modernity of the Borough according to residential, social-class structure

The mapping of socio-economic groups and other variables related to social status at enumeration-district level, reveals a pattern which is neither pre-industrial nor modern. There are the beginnings of distinct social-class areas and a marked difference between the north and south of the town but many districts are very mixed in class terms, with affluence and poverty juxtaposed. This is especially true of the centre of the town, where one would indeed expect a more pre-industrial pattern, with place-of-work and place-of-residence fused together, and long-established patterns of status ascription requiring no spatial reinforcement.

One can generalise that the process of residential class segregation was developing as the town expanded. The disadvantages of town-centre living in an industrial settlement had not yet persuaded all the wealthy households to move to spacious suburban residences (heavy industry was, however, kept away from the town itself). The expansion on to the Burrows was an early attempt to create an exclusive residential area without losing the advantage of centrality (the coast and river make this area artificially peripheral) but the desirability of this area was soon to be lost with the construction, later in the decade, of the South Dock and, in the early 1860s, the Llanelli railway. This area was superseded as a 'fashionable district' by that developing in the west on the rising ground north of the Gower Turnpike. The westward movement of high-class housing was caused by the need to escape the effects of the sulphurous copper smoke (a matter of considerable concern east and north of the town at this time),¹⁸ the physical barrier provided by the River Tawe, which made the town relatively inaccessible from the eastern bank and, perhaps, the pull of the scattered large houses and their prestigious occupants, which were nearly all west of the town. (Brynymor, St. Helen's House, Singleton, Hill House, Pantygwydir, Parkwern, Uplands, Ffynone, Brooklands and Sketty Hall). (The location of these houses was, however, itself a result of the other two factors, heavy industry having been present in the Swansea Valley for well over a century and the franchise in which they mainly lay was 'protected' from industrial development).¹⁹ No attempt has been made to trace the actual movement of wealthy households out of the centre but the decline of the Burrows district later in the century and known individual cases of movement, such as that by Grant-Francis (Town Clerk) from Burrows Lodge to Cae Bailey

on Mount Pleasant, suggest that the new prestige housing was not solely the result of a rapidly expanding population.

In contrast, the poorer classes, with the exception of those in the William Street area (E.D.4), were forced to expand in a northerly direction along the slopes of the Swansea Valley. The more disadvantaged the group, the further north its location; the Irish occupying the northern extremity of the contiguously built-up area. Much of the development in this northern sector was of low standard and, in places, very disorganised, little attempt having been made to form the rows of houses into a regular pattern of streets (Figure 7.14). While high-class housing is absent and most is of poor quality, there is a wide variation in housing standards in this northern sector. The Irish quarter was not the housing nadir of the town, being free of back-to-backs and courts and relatively well provided with privies (it did, however, contain the town's only cellar dwelling).²⁰ The poorest dwellings were found instead in the vicinage of Bargeman's Row in E.D.12, New Street in E.D.14, and the courts off Back Street and High Street in E.D.9 and 10. References in contemporary reports to houses declared 'unfit for human habitation' and to others for which lime-washing was recommended, most frequently occur in these areas, the references to the Irish quarter being more concerned with over-crowding and the lack of vaccination. A typical reference to the court dwellings in E.D.12, describes the house in which three children had contracted smallpox as being:

"in a dirty state, two seats and a bench being all the furniture in the house - there is no bed, only three blankets round the children".²¹

The better housing in the northern sector is found in the neighbourhood north-west of High Street station (E.D.13) and on High Street itself,

Figure 7.14 : The Bridge Street area of Swansea. Reproduced from the 1852 Local Board of Health maps.

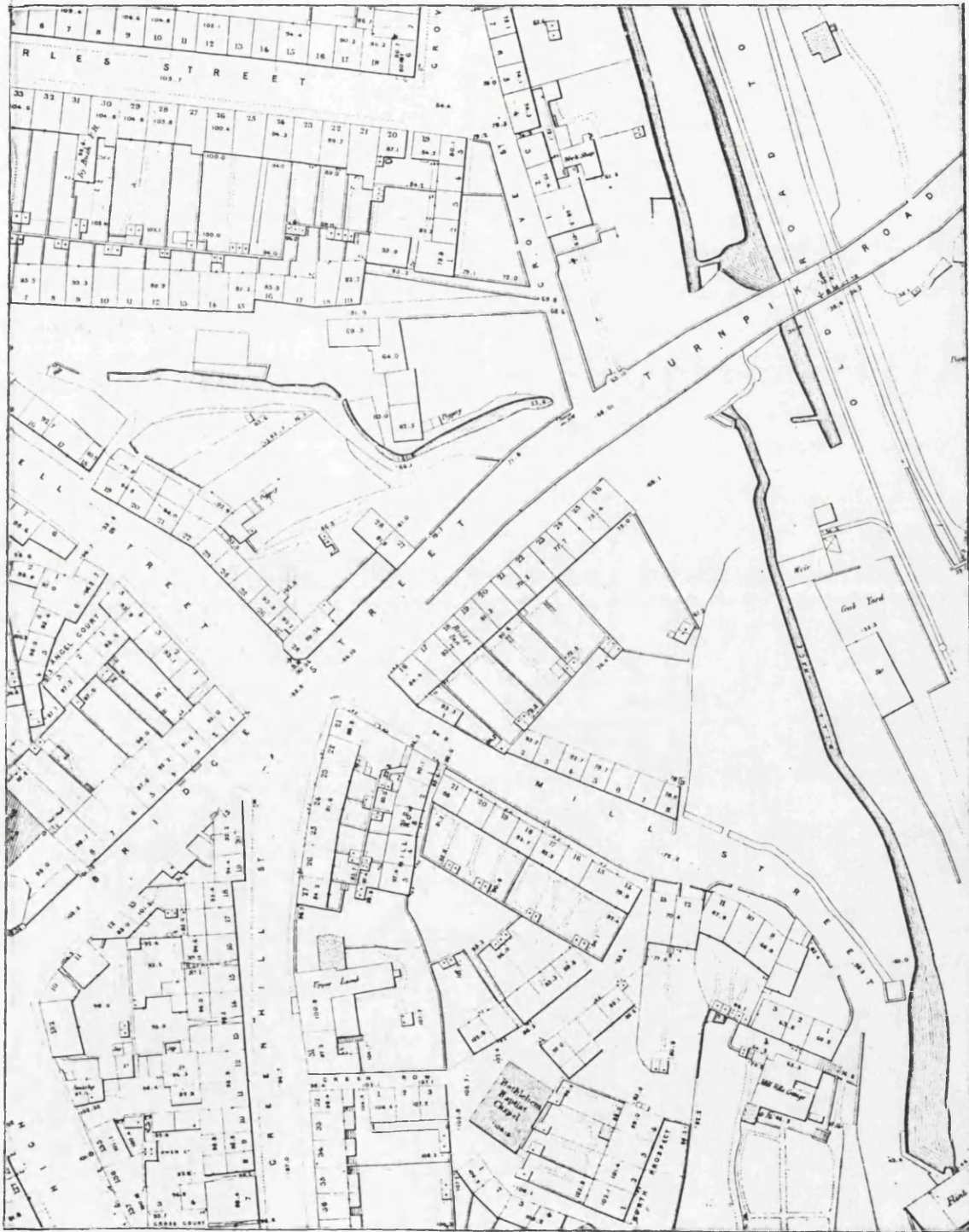


Figure 7.15 : The Wind Street area of Swansea
1852 Local Board of Health maps.



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where the houses are larger and arranged in regular streets of reasonable width.

Within the centre of the town, the pattern is one of social-mix and the spatial divisions are too fine to be captured by analysis at enumeration-district level. The districts which contain the medieval town are typified by the presence of both high and low social-class indicators. Households sharing privies adjoin those furnished with water closets and squalid courts are separated from private pleasure gardens by a single wall (Figure 7.15).

The spatial scale of social-class segregation, therefore, varies between the inner and outer built-up areas. While the central area is mixed and weakly segregated at this scale, the outer built-up area is segregated on a broad scale between the northern and western extensions of the town. Within this broad division smaller social-class areas can be distinguished. The western development is largely middle-class in its northern and higher section and upper working-class in its lower, southern section (but also containing a pocket of lower-working-class housing). The northward extension of the town, on the other hand, is lower working-class with an area of upper working-class towards its centre.

A second major division occurs between the town and the rest of the municipal borough. While the northern outer borough was heavily industrialised and was indisputably part of the 'urban area' of Swansea, (hence its inclusion in 1835 in the borough) its population was grouped into industrial villages in a settlement pattern which more closely resembles rural than urban development. It is, therefore, meaningless to look for pre-industrial or industrial patterns of urban social segregation in this area. Its class divisions are dictated by its

dominant economic activity, metal-smelting, and the balance between classes is largely that necessitated by the skill-mix in these industries.

The residential location of the works' employees was decided for them through the necessity of living close to the works in the absence of transport and the fact that the owners of the works built rows of cottages near the works for their use. The population attracted to the works in turn necessitated the presence of people offering services and the social-mix in the villages was thereby diversified. The middle classes are represented by teachers, (most of these, however, would hardly merit the class 2 designation they receive) publicans and innkeepers and master shoe-makers, tailors and other master craftsmen. The poor were represented by hawkers, building labourers and scavengers. The very rich, too, were not completely absent, as the presence of the Grenfell household at Maesteg House on the slopes of Kilvey Hill in E.D.26, demonstrates.

Since address information is incomplete in the census for this northern area of the borough, it is impossible to surmise whether the labouring classes were residentially segregated from the skilled workers within the industrial villages, but several contemporary reports refer to the affluence of the copper works' villages in comparison with the mining villages.²² If this was the case, one would expect E.D.s 22, 28 and 29 to rate lower on social-class indicators but one cannot expect this to be apparent in the maps, since mining and metal-manufacturing give similar class proportions according to occupationally-based classifications and housing variables are not available for the outer borough. The other social-class indicators taken from the census, i.e. the percentage of women and children in the labour force, the percentage of households in multi-occupied dwellings and resident domestic servants as a percentage

of total population, are not particularly sensitive in the outer borough because of the comparatively small percentages involved and because the first two are not, in the outer borough, primarily measuring social class. The dominance of heavy industry reduces opportunities for female employment and the only area with an above-average percentage of working-women and children is the lower half of the small town of Morriston, where the population is large enough to create female service employment. Since each settlement is isolated, one is not likely to find female employment in industrial villages where female job opportunities are scarce, even if many of the local households are in need of extra earnings. The mining settlements did have slightly higher levels of child employment, but this again is because mining at this date offered opportunities for this and employers would naturally draw on the local village labour pool. The percentage of households in multi-occupied dwellings is a social-class indicator within the town because financially better-off areas would be able to resist sub-division through an ability to pay the full rent. In the outer borough, however, the distances between settlements, and the tendency for each works to draw on a local labour force, make this variable more an indicator of the presence of a works which had recently expanded and necessitated an in-migration of labour. The only enumeration district in the outer borough, with a percentage of households in multi-occupied dwellings above the mean for the whole borough, is Foxhole (E.D.27) and this, indeed, is the only enumeration district in the outer borough with less than 75 per cent of its population locally born (67.8 per cent were locally born).

The incidence of servant-keeping is, perhaps, the best social-class differentiator one can achieve for the outer borough. It too, however, has major drawbacks in that various political, religious and

migratory groups had different servant-keeping propensities and also the level of servant-keeping in the northern outer borough as a whole is low, making the figures potentially more subject to error. However, although the outer borough is depicted as uniformly lacking in servants as a percentage of total population, when mapped with the rest of the borough, as in Figure 7.7 (except for the already discussed exception of Port Tennant/St. Thomas), the actual figures do reveal variations. Taking households with servants as a percentage of all households (a better variable where the figures involved are small and the group is a sample), Foxhole stands out as having the highest percentage of 13.6 (3.5 per cent of the population were servants) followed by the other copper-smelting settlements of Lower Morryston (9.1), Hafod (8.9) and Landore (8.5). Treboeth, a mining settlement, has the least with 2.8 per cent.

The western part of the outer borough is distinct in many ways from the larger northern part. It is much more sparsely populated, containing no villages (Sketty is outside the boundary), and is dominated by employment in agriculture and building, and, on the northern slope of Townhill, mining. The dominance of agricultural employment (including gardening at White's Gardens, Nott's Gardens, St. Helen's Nurseries and Singleton Estate) and building employment (which provided much labouring work) makes the area predominantly lower working-class. However, superimposed on this is the pattern of large residences belonging to the local industrialists, gentry and 'dignitaries'. The presence of these residences is reflected in the number of servants as a percentage of the total population, these districts being the only ones in the outer borough with a percentage over five.

5. The spatial distribution of social classes at grid-square level

It is apparent from the above discussion of social-status patterns that the enumeration district, particularly in the centre of the town, is too large a spatial unit for the purposes of distinguishing social areas. For this reason, and also to aid comparison of the 1851 and 1871 census samples, the households have been reallocated to 200m grid-squares. Since address information will only allow this within the town and the village of Vivian's Town, this section only applies to these areas.

Indices of dissimilarity have been calculated for the five social classes based on the grid-square groupings and these are given below:

Table 7.2
Indices of dissimilarity between social classes at 200m
grid-square level: Town only, 1851.

	<u>Social</u> <u>Class 1</u>	<u>Social</u> <u>Class 2</u>	<u>Social</u> <u>Class 3</u>	<u>Social</u> <u>Class 4</u>	<u>Social</u> <u>Class 5</u>
Social Class 1	-	43.68	59.43	67.94	76.94
Social Class 2	43.68	-	34.92	53.89	64.61
Social Class 3	59.43	34.92	-	36.27	39.01
Social Class 4	67.94	53.89	36.27	-	48.52
Social Class 5	76.94	64.61	39.01	48.52	-

This table reveals that, as is expected, classes 1 and 5 are the most segregated classes but it also demonstrates an unexpectedly high level of segregation between classes 1 and 2. The following series of maps, Figures 7.16-7.21, help to elucidate the presence of this segregation on the ground.

Fig. 7.16 : Distribution of social class 1 as a percentage of the total economically-active:1851,grid.

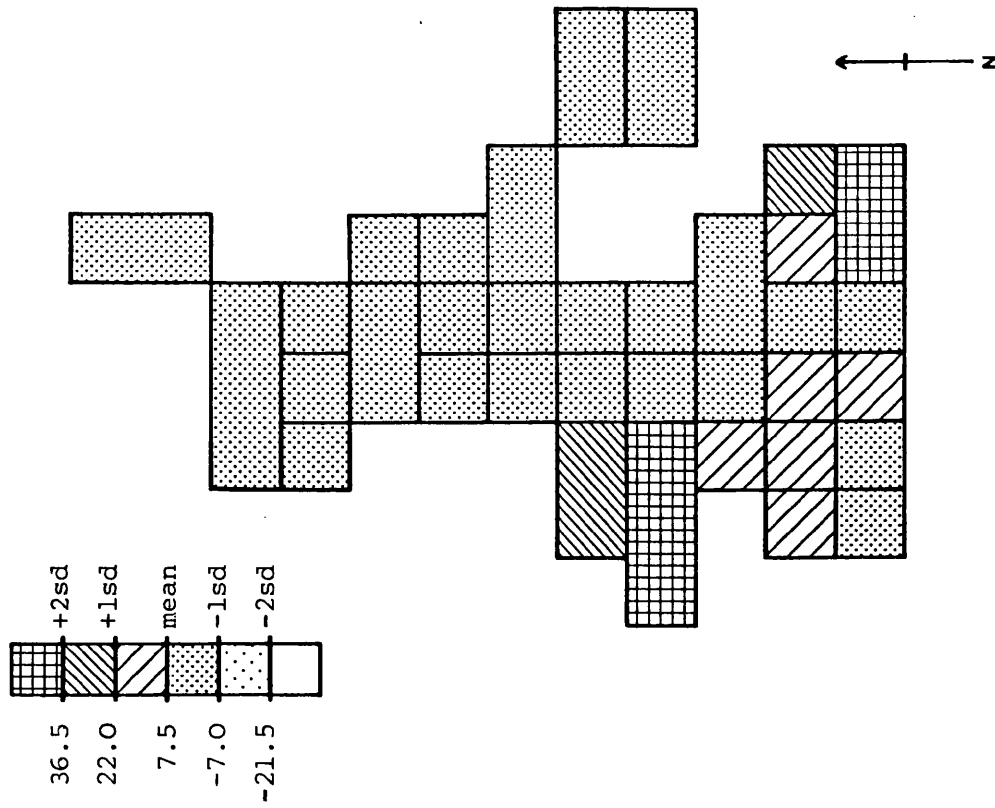


Figure 7.17 : Distribution of social class 2 as a percentage of the total economically-active:1851, grid.

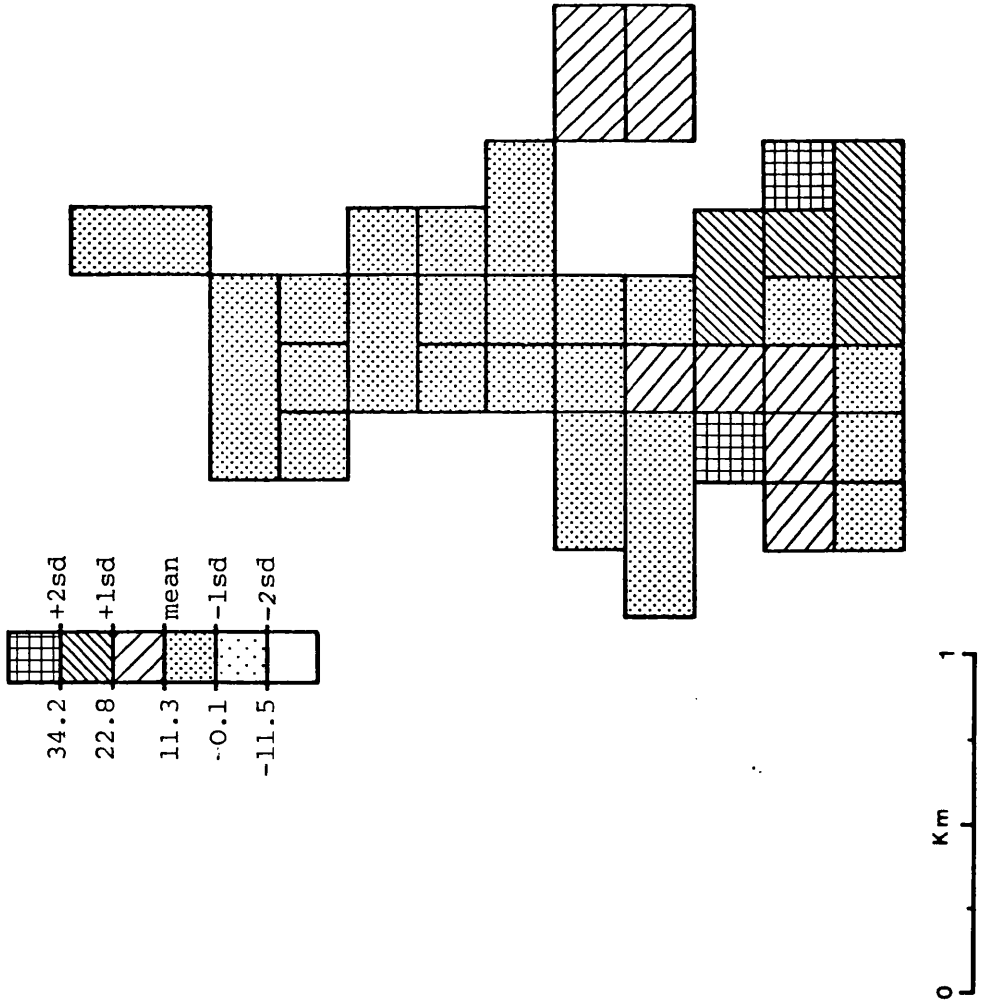


Figure 7.18 : Distribution of social classes 1 and 2 as a percentage of the total economically-active:1851, grid

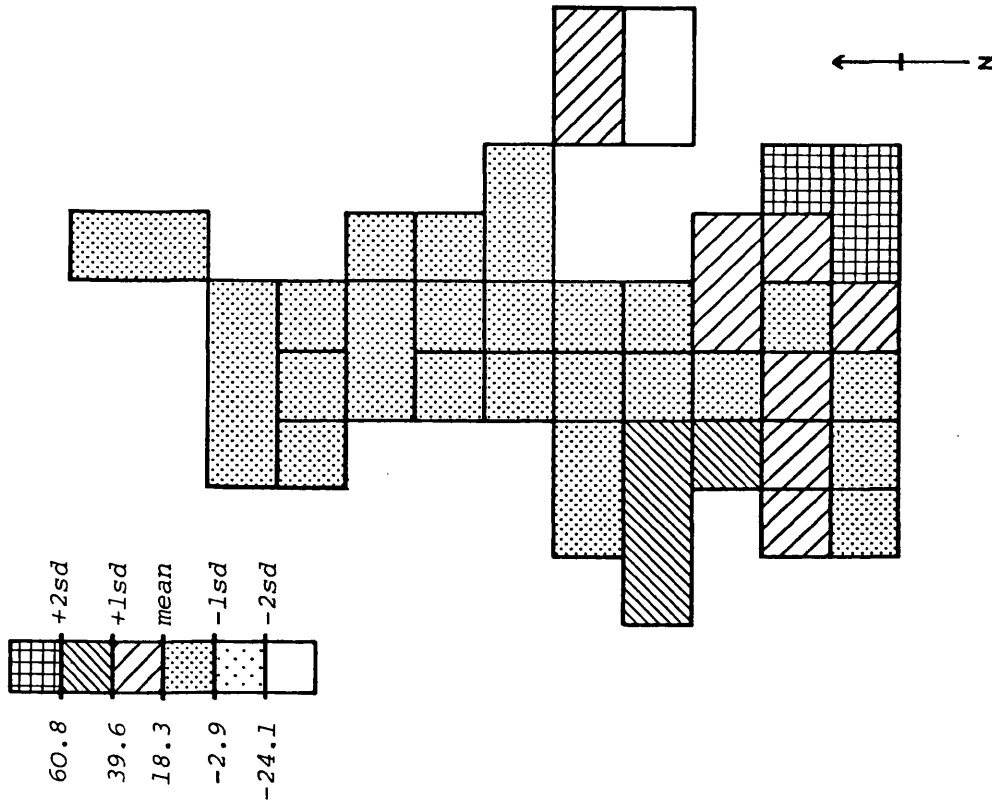


Figure 7.19 : Distribution of social class 3 as a percentage of the total economically-active:1851, grid

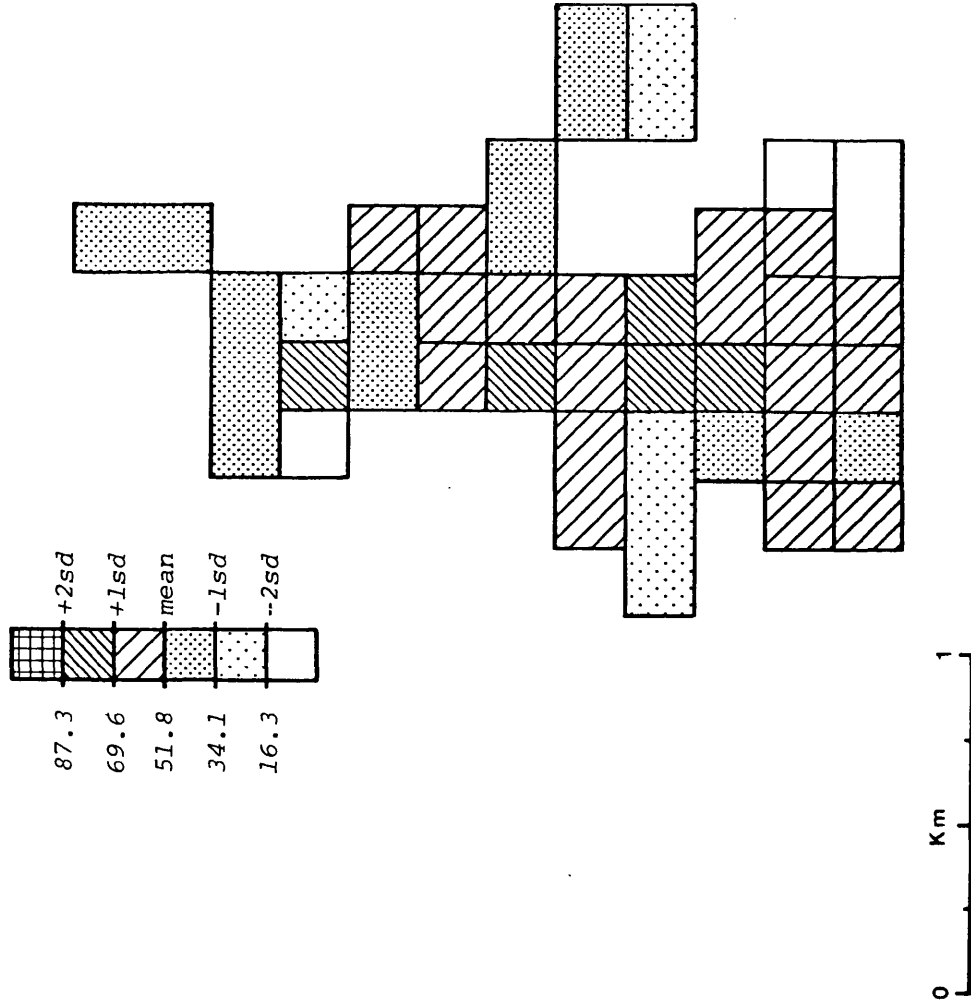


Figure 7.20 : Distribution of social class 4 as a percentage of the total economically-active:1851, grid

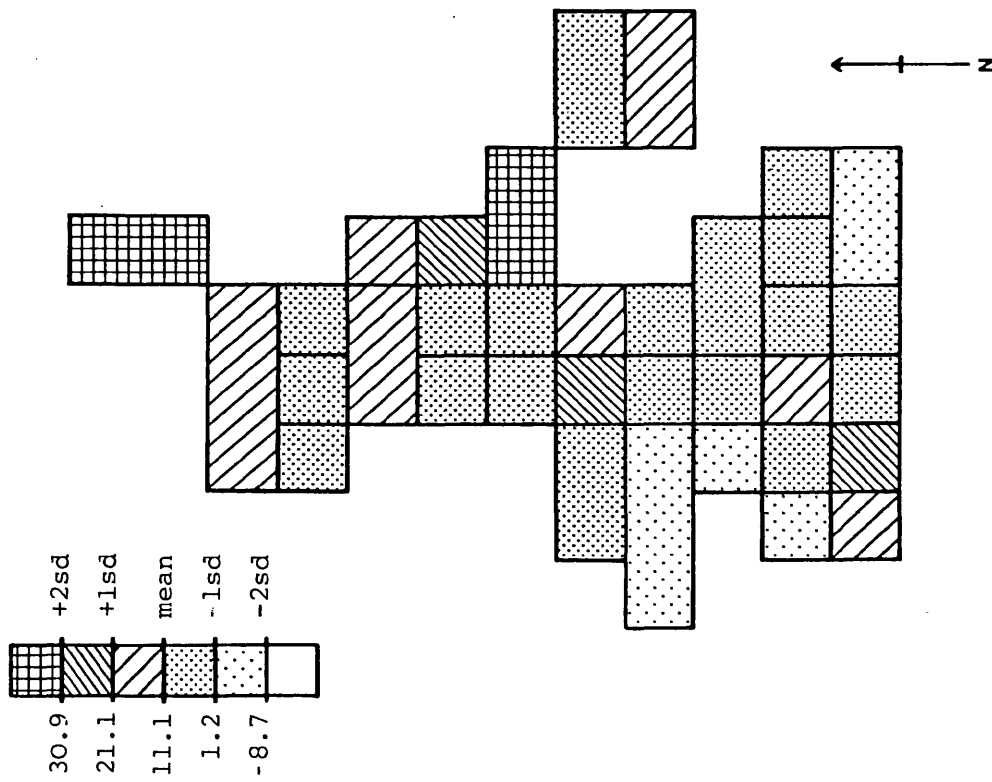
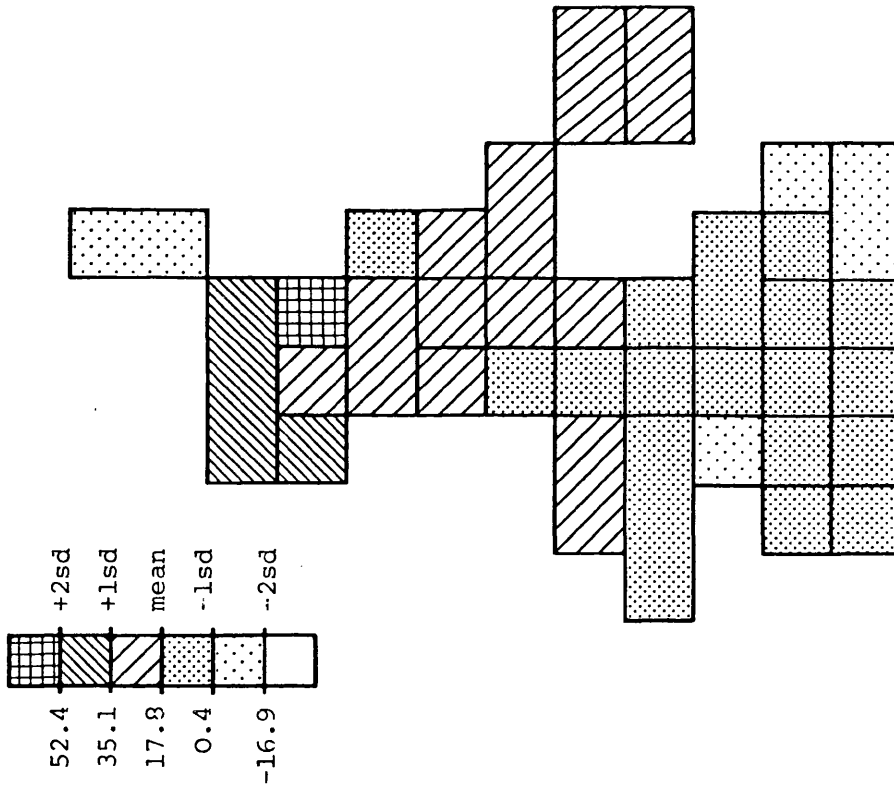


Figure 7.21 : Distribution of social class 5 as a percentage of the total economically-active:1851, grid



At enumeration-district level, classes 1 and 2 were seen to occupy similar areas of the town. The index of dissimilarity obtained at grid-square level and the mapped spatial distribution of classes on a grid-square basis, however, reveals that, within the broad areas where these two classes were mainly located, there was segregation at a finer scale. In the prestige area in the north-western extension of the southern part of the town, Class 2 was overwhelmingly concentrated in Grid-square 39 on the townward side (Picton Place, Northampton Place, the top of Union Street, Pell Street, Cradock Street) and Class 1 was located further out in Grid-squares 49 and 51 (Heathfield, Mount Pleasant). Class 2 is also, as is to be expected, more closely associated with the commercial centre of the town than is Class 1, Grid-square 36/37 (Castle Square, Castle Bailey Street, Temple Street, lower section of High Street) and Grid-square 23 (Wind Street) having high concentrations of this class. Evidence from the rate books,²³ and the fact that Castle Square, Castle Bailey Street and Wind Street were scavenged daily (excepting Sunday), confirm these streets as forming the hub of the business district.²⁴

At this scale of analysis, Class 3 shows a high level of concentration. Since almost all industrial groups involve some class 3 members, it is not very constructive to look for explanation of this in terms of the spatial location of types of work. However, the concentration of class 3 in the north centre of the town (Grid-squares 47, 48 and 38) can possibly be explained by the concentration of workshops in this fringe area of the CBD (the larger ones - carpenters' and wheelwrights' yards, smith's shops and a marble yard are marked on the 1852 Local Board of Health maps). Further support for this is given by the

dominance of building and manufacturing in these three squares (see Figure 7.31). There is, however, no evidence to prove that the workers in these yards and workshops lived within a few streets of their place of employment.

In the case of Grid-square 75, in the Greenhill area of the town, the class 3 concentration is partially explained by the fact that this small neighbourhood, at the junction of the Carmarthen and Llangyfelach Roads, was older than the surrounding area and largely inhabited by Welsh people either local or migrant and, unlike surrounding squares, had few Irish families. Its economically-active were mainly weavers or colliers with a few other artisans such as tailors, shoemakers and carpenters.

The comparative distribution of Class 4 and Class 5 is interesting in that one would, perhaps, initially expect both of these classes to be forced into the poorest housing-areas and, therefore, to occupy roughly the same grid-squares. A comparison of Figures 7.20 and 7.21 shows that this is only partly true. The distribution, particularly of Class 4, may be inaccurate since it is extremely difficult to ascertain from nineteenth-century census returns whether a person is in Class 4 or not, especially in the case of artisan trades. However, although the distribution may be subject to an unknown amount of error, there are valid explanations for the distribution as it stands. The grid-squares in the south of the town showing an above-average percentage in Class 4 are all enclaves of poorer housing; Grid-square 17 contains the courts between the newly built William Street and James Street, Grid-square 25 is the area just south of the market containing Greenfield Street (which contained a row of tiny cottages) and also containing

Wassail Square (part of which was cleared under the Artizans' and Labourers' Dwellings Improvement Act in 1879), and finally, Grid-square 24 contains William Street, Little Madoc Street and part of Gething Street, the latter two of which, especially, contained new housing of mean proportions. One would expect that, poor as these grid-squares were in terms of housing, the dwellings would command a higher rent than their counterparts in the north of the town and, while semi-skilled workers could afford this, unskilled could not. Also, if it was the case that workers rented homes as near to their employment as they could, then the semi-skilled work available in the town's workshops would attract such workers to the south of the town.

The concentration of Class 4 workers in Grid-squares 45/46 is due to the predominance of dock workers and bargemen (Figure 7.35) and that in Grid-squares 61/62 to the predominance of colliers, a proportion of whom are semi-skilled, living in Pentre Guinea on the eastern bank of the river. (Although most of the area covered by these grid-squares is west of the river, almost all the population they contain lives on the eastern bank). This grid-square also contains one or two bargemen and coal weighers. Vivian's Town (Grid-squares 82/84) has a high percentage of class 4 due to the prevalence of copper-smelting and the opportunities for semi-skilled employment it offered.

In contrast, the distribution of class 5, while overwhelmingly concentrated in the north of the town, was more particularly concentrated in the Irish sector. 58 per cent of Grid-square 74's inhabitants were Irish born as were 28 per cent of Grid-square 76, 12 per cent of Grid-square 79 and 11 per cent of Grid-square 71. In view of the fact that these percentages are for the total population including children, the 5 per cent in Grid-square 68, 8 per cent in Grid-square 55 and

7 per cent in Grid-square 45/46 are also significant. No area of the town with a significant number of Irish families has less than 20 per cent of its economically-active in Class 5. However, by no means all labourers, scavengers and hawkers were Irish and there were no Irish on the sample in Grid-square 57/58 where over 30 per cent of the economically-active fell into Class 5. This area at the crest of the hill behind the town, Gibbet Hill, contained rows of workmen's cottages, some of which were of very poor quality and in the 1870s were declared unfit for human habitation.²⁵ The mapping of social classes at grid-square level, therefore, substantiates the north-south division noted at enumeration-district level but points to a greater degree of segregation between the classes than it was possible to discern at enumeration-district level.

During the discussion of social class, explanation has been aided by the association of occupation, industrial group and social class, and the underlying assumption was that place-of-residence and work-place were in many cases linked, either through both being located in the same premises, or through each being located in the same street or adjacent streets. It is necessary, therefore, to test, as far as possible, whether this is true and also to what extent and among which groups it is true since this is a measure of the 'modernity' of the town.

6. Journey-to-work and the spatial distribution of industrial groups

Maps of industrial groups (based on Armstrong's classification) are given in Figures 7.22-7.29 at enumeration-district level for the whole borough and in Figures 7.30-7.34 at grid-square level for the town only. Mining and agriculture + breeding have only been drawn for the whole borough since they are thinly represented in the town.

Figure 7.22 : Distribution of workers in agriculture and breeding as a percentage of the total economically-active: 1851, enumeration districts.

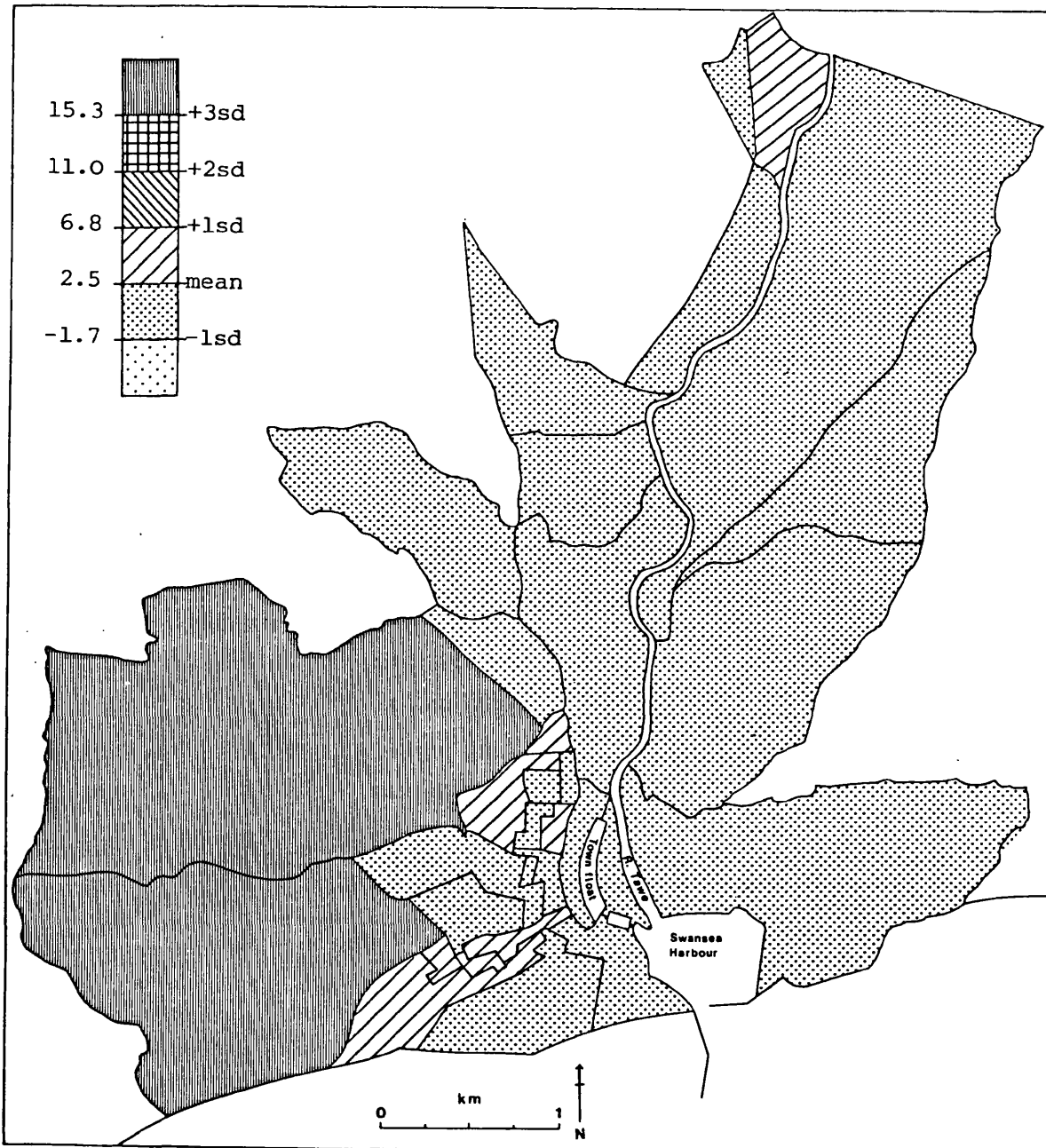


Figure 7.23 : Distribution of workers in mining as a percentage of the total economically-active:1851, enumeration districts.

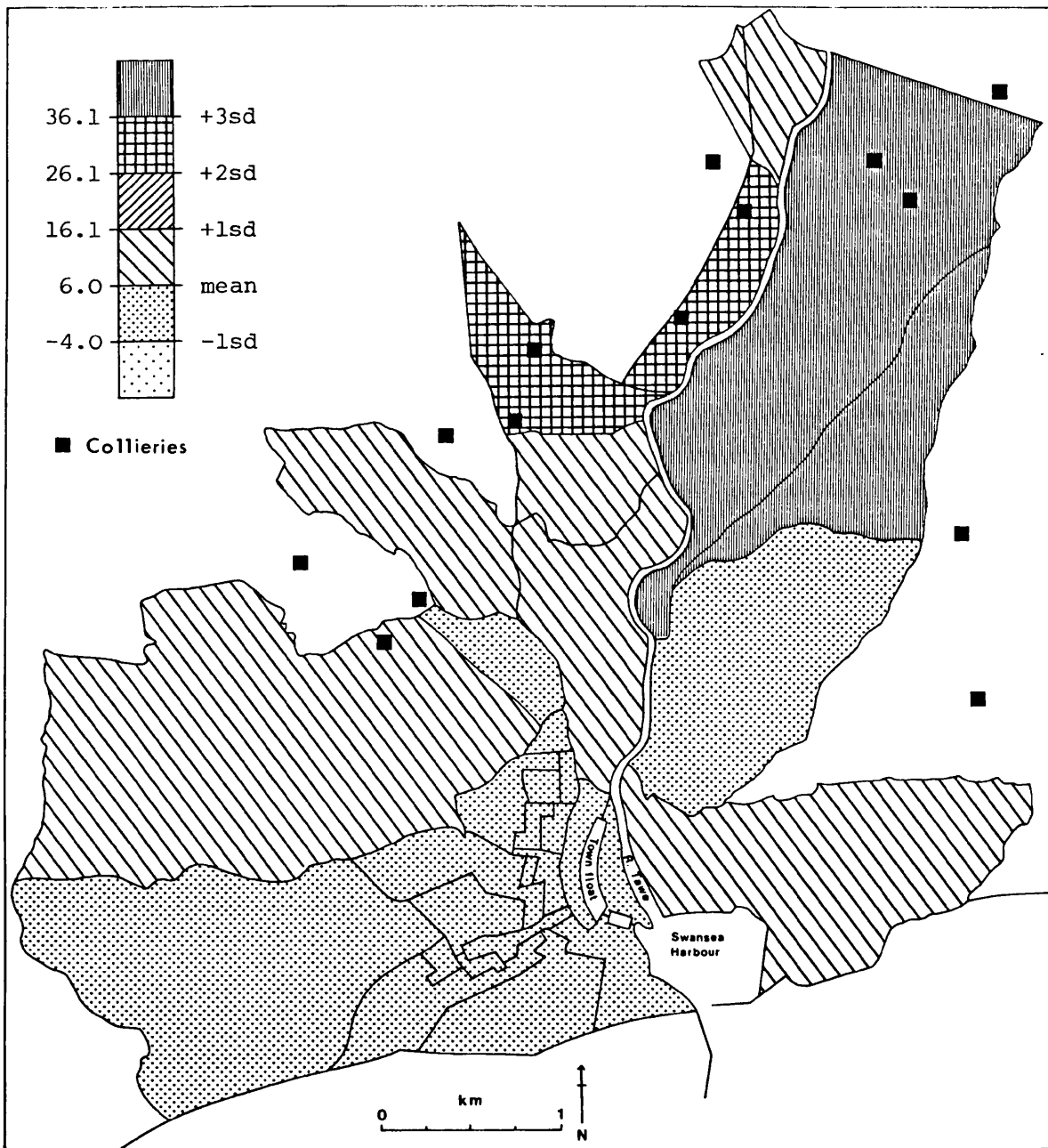


Figure 7.24 : Distribution of workers in building as a percentage of the total economically-active:1851, enumeration districts.

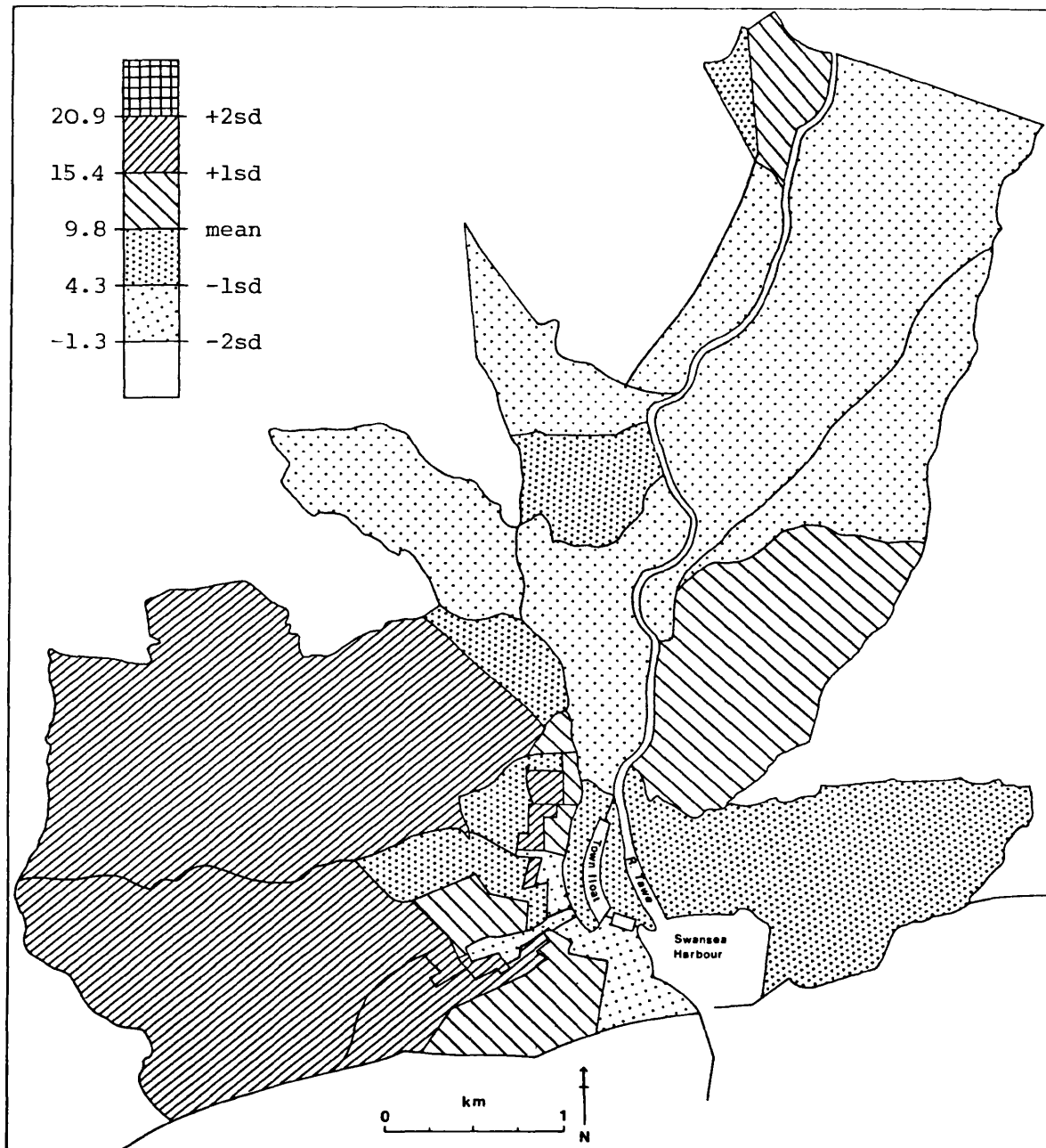


Figure 7.25 : Distribution of workers in transport as a percentage of the total economically-active:1851, enumeration districts.

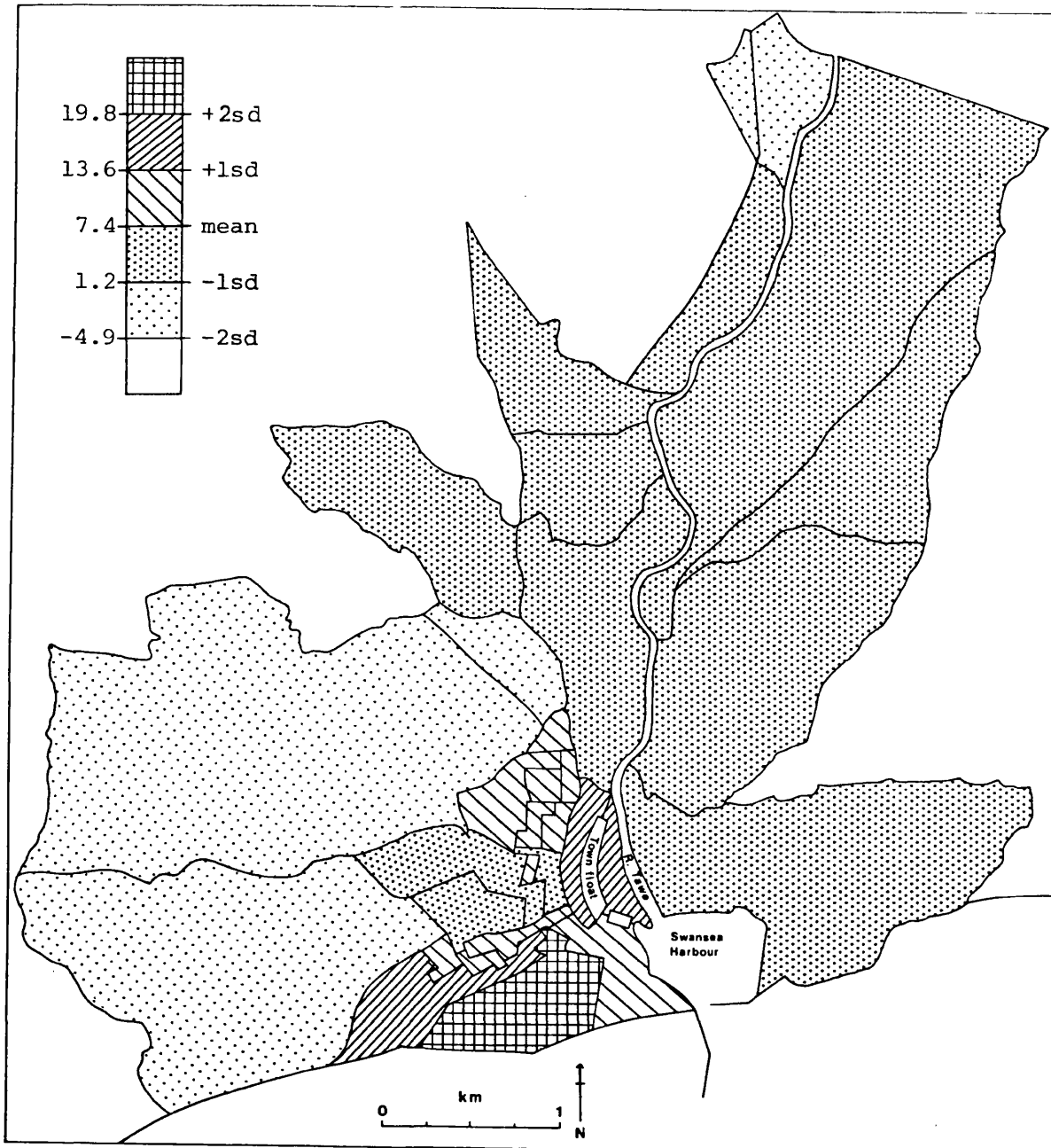


Figure 7.26 : Distribution of workers in manufacturing as a percentage of the total economically-active:1851, enumeration districts.

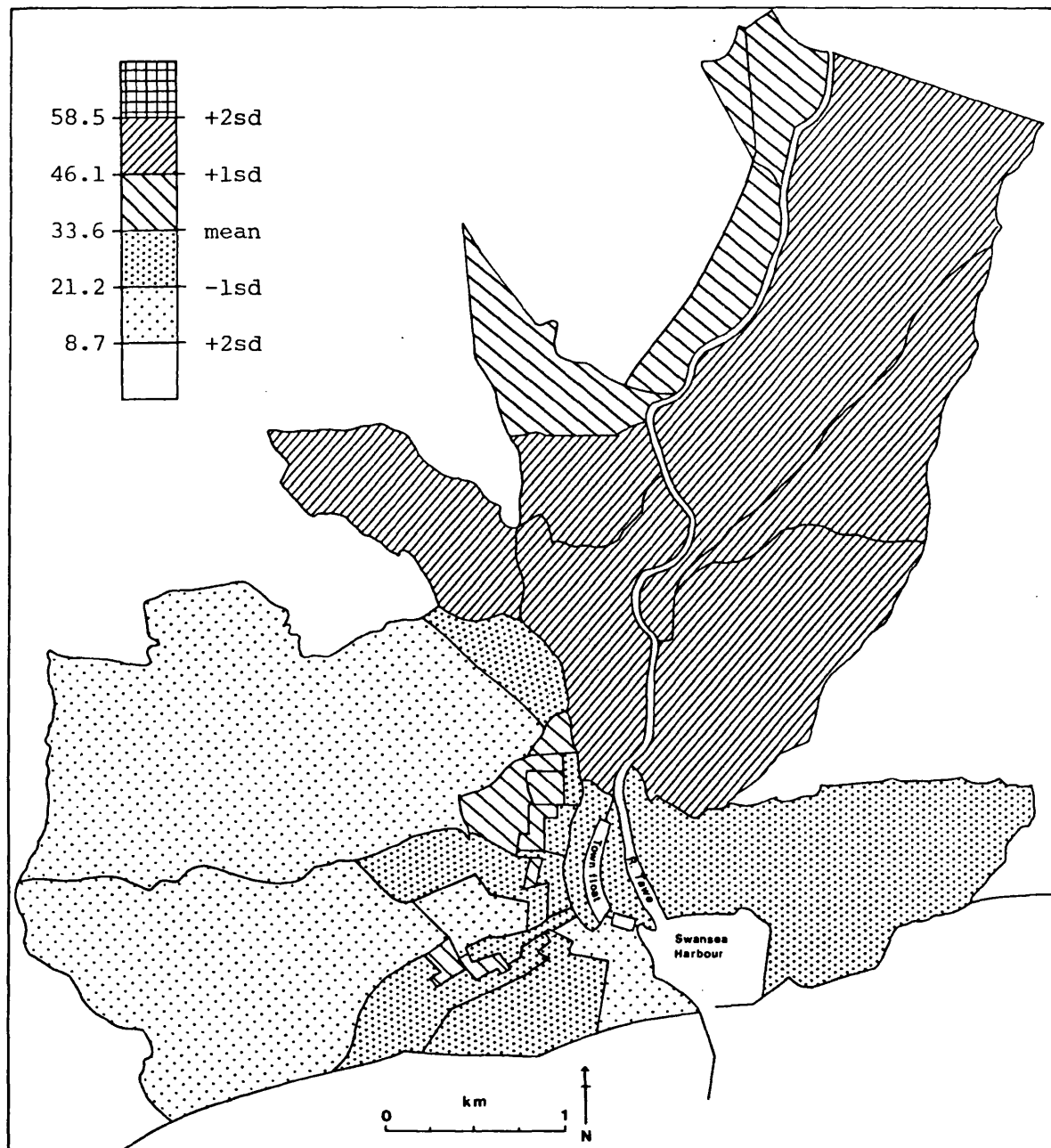


Figure 7.27 : Distribution of workers in dealing as a percentage of the total economically-active:1851, enumeration districts.

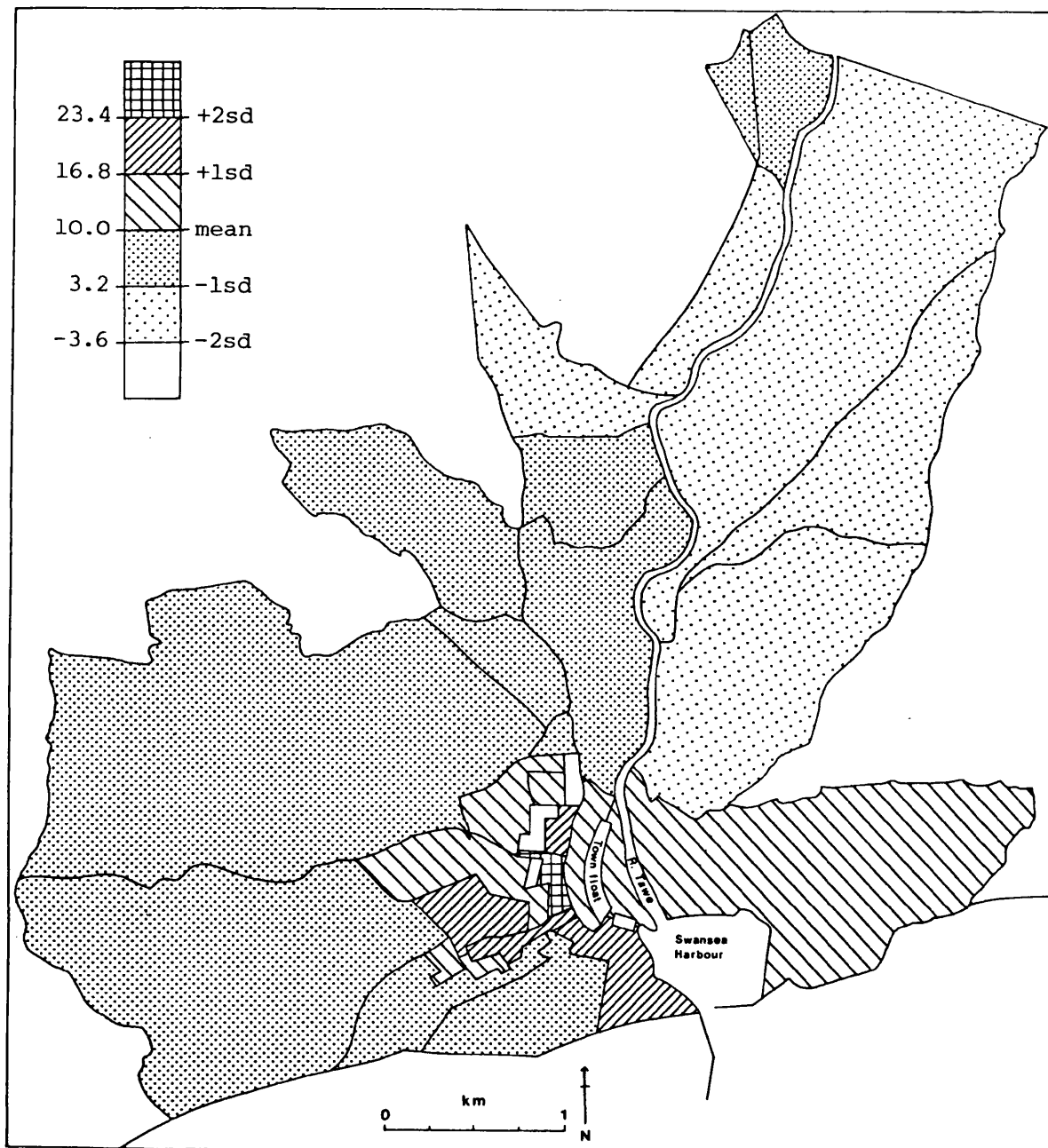


Figure 7.28 : Distribution of workers in public service and the professions as a percentage of the total economically-active:1851, enumeration districts.

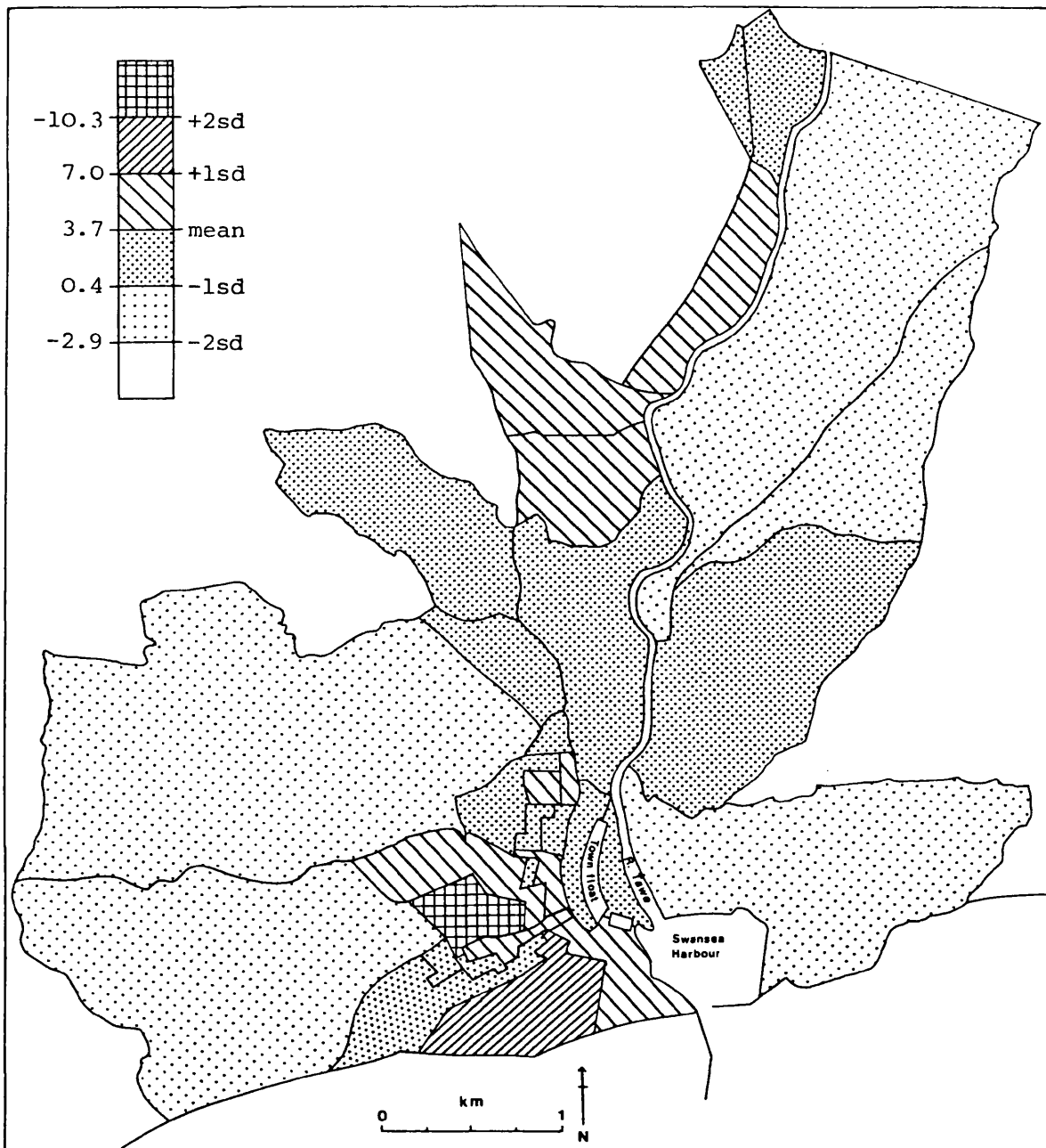


Figure 7.29 : Distribution of workers in domestic service as a percentage of the total economically-active:1851, enumeration districts.

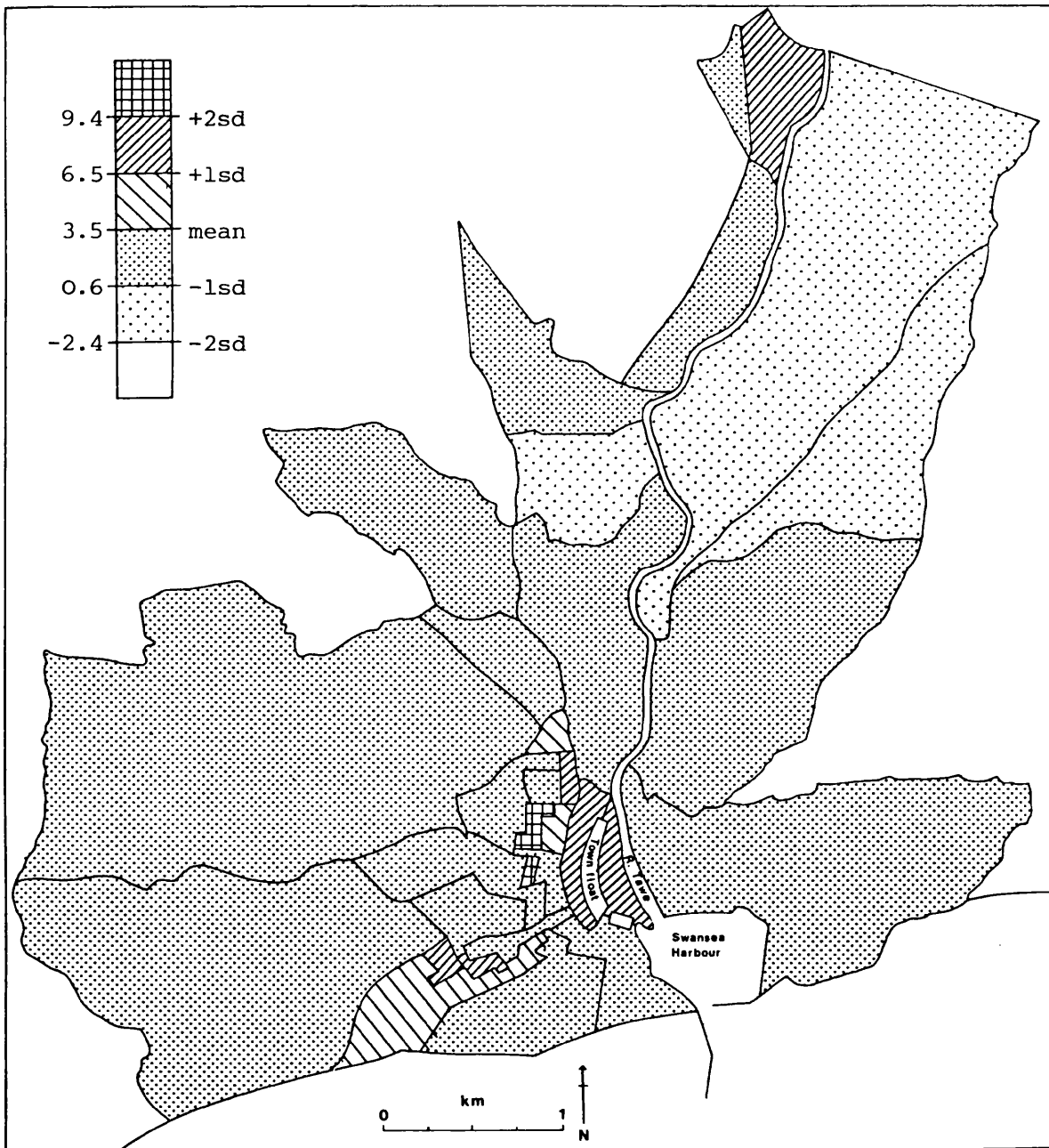


Figure 7.30 : Distribution of heads-of-household in building as a percentage of all economically active heads:1851, grid

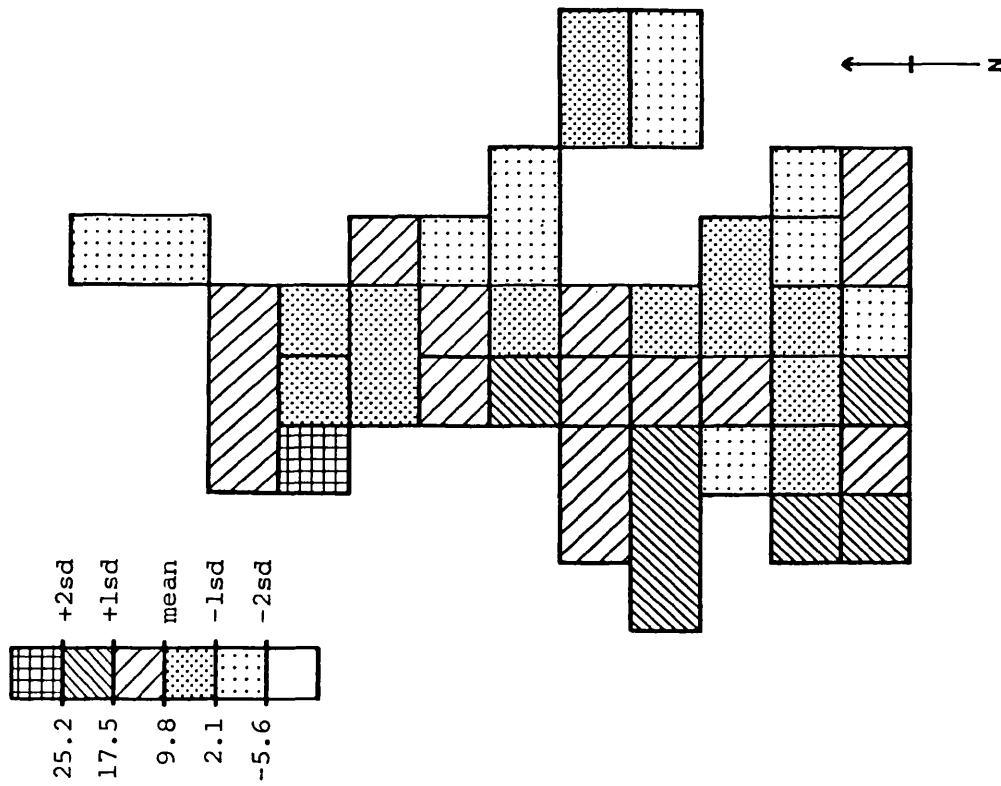


Figure 7.31 : Distribution of heads-of-household in manufacturing as a percentage of all economically active heads:1851, grid

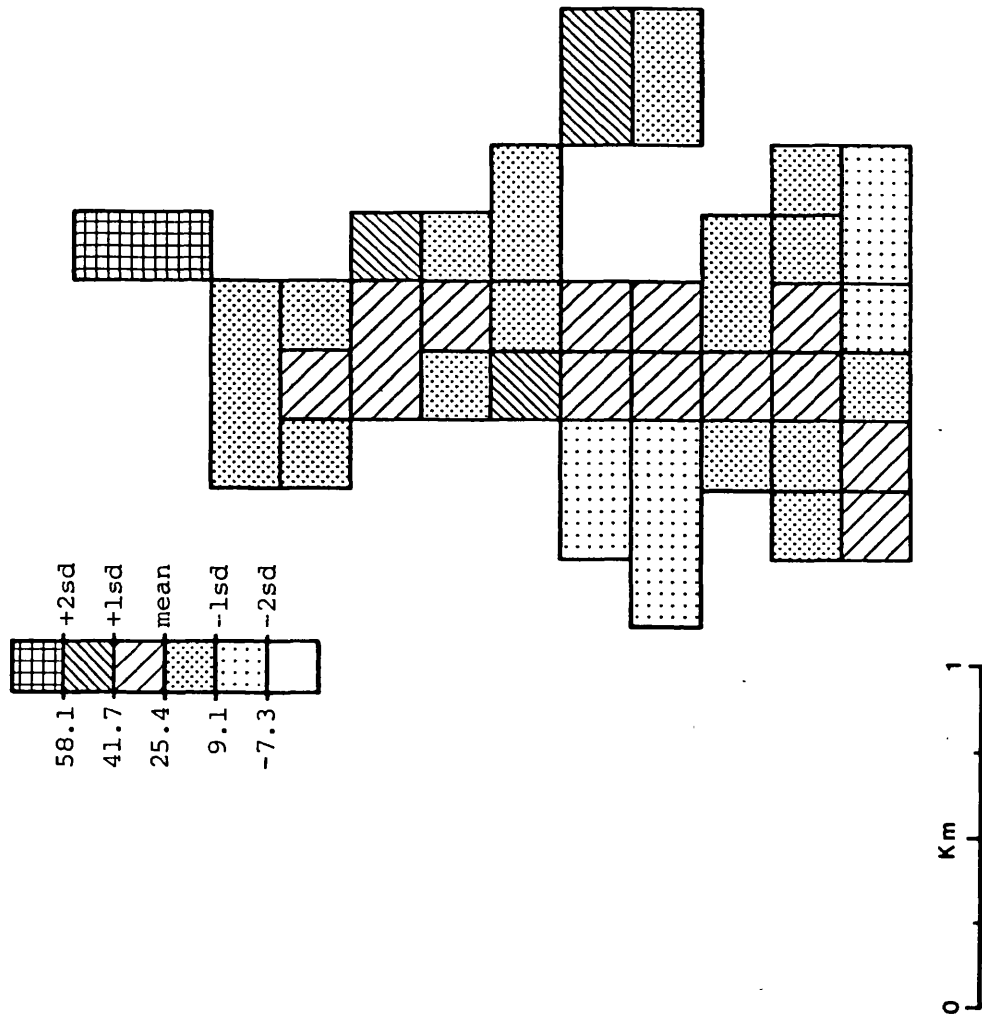


Figure 7.32 : Distribution of heads-of-household in transport as a percentage of all economically-active heads:1851, grid

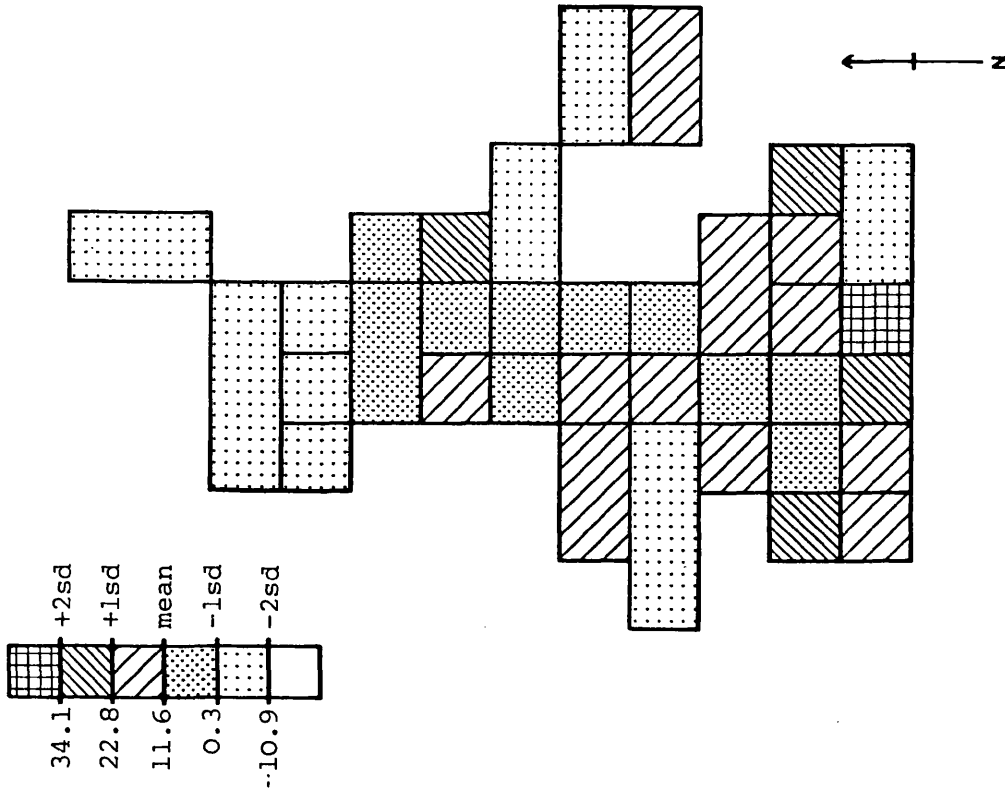


Figure 7.33 : Distribution of heads-of-household in dealing as a percentage of all economically-active heads: 1851 grid.

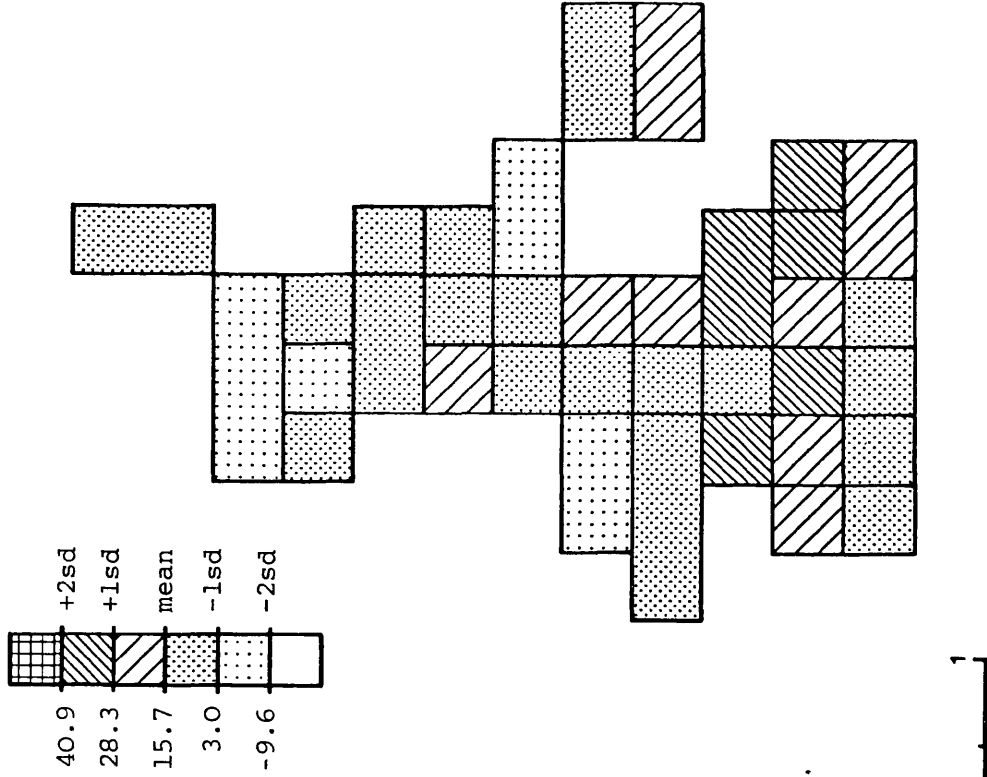


Figure 7.34 : Distribution of heads of household in public service and the professions as a percentage of all economically-active heads:1851, grid

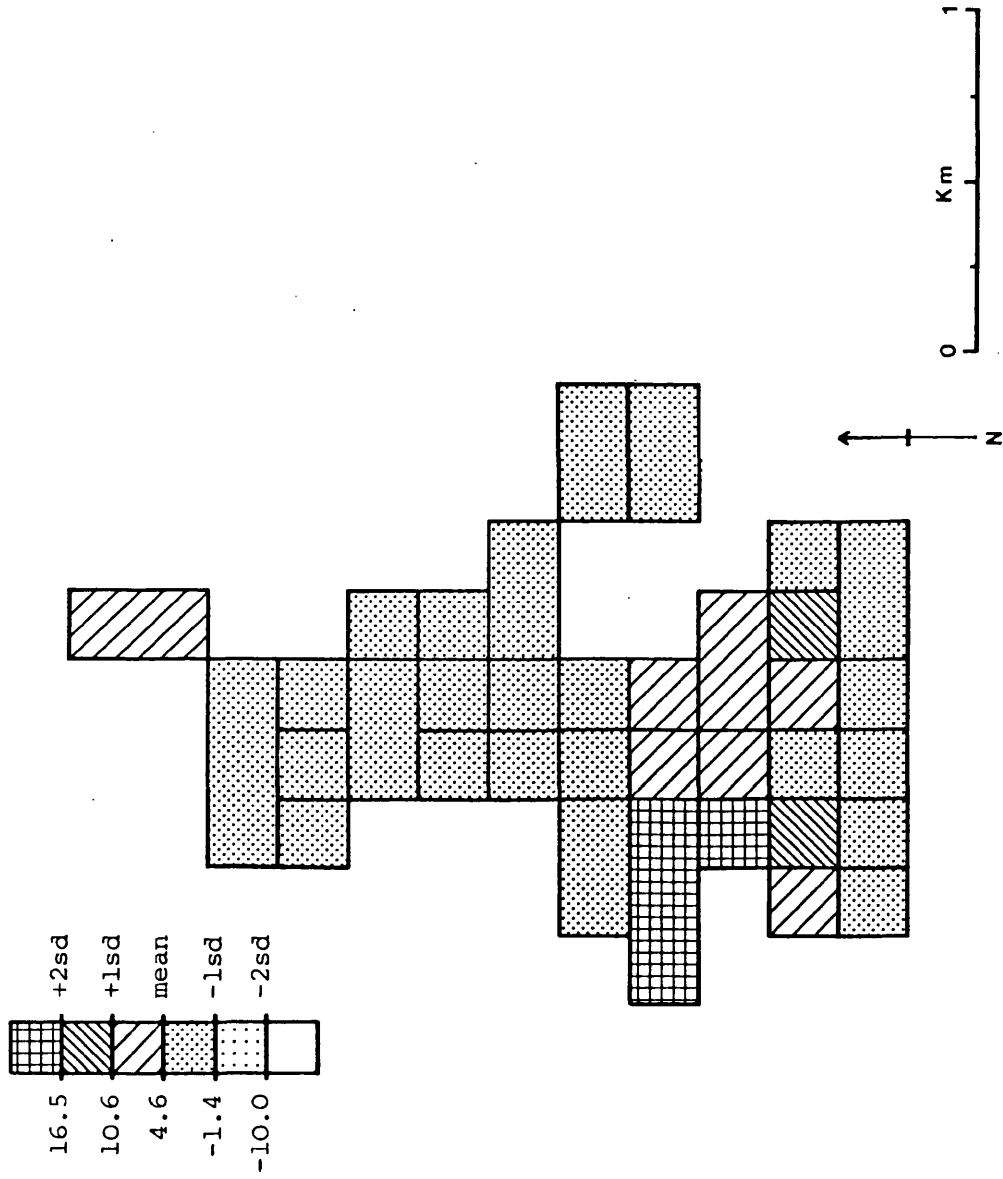


Figure 7.35 : Distribution of workers in sea-related occupations as a percentage of the total economically-active:1851, enumeration districts.

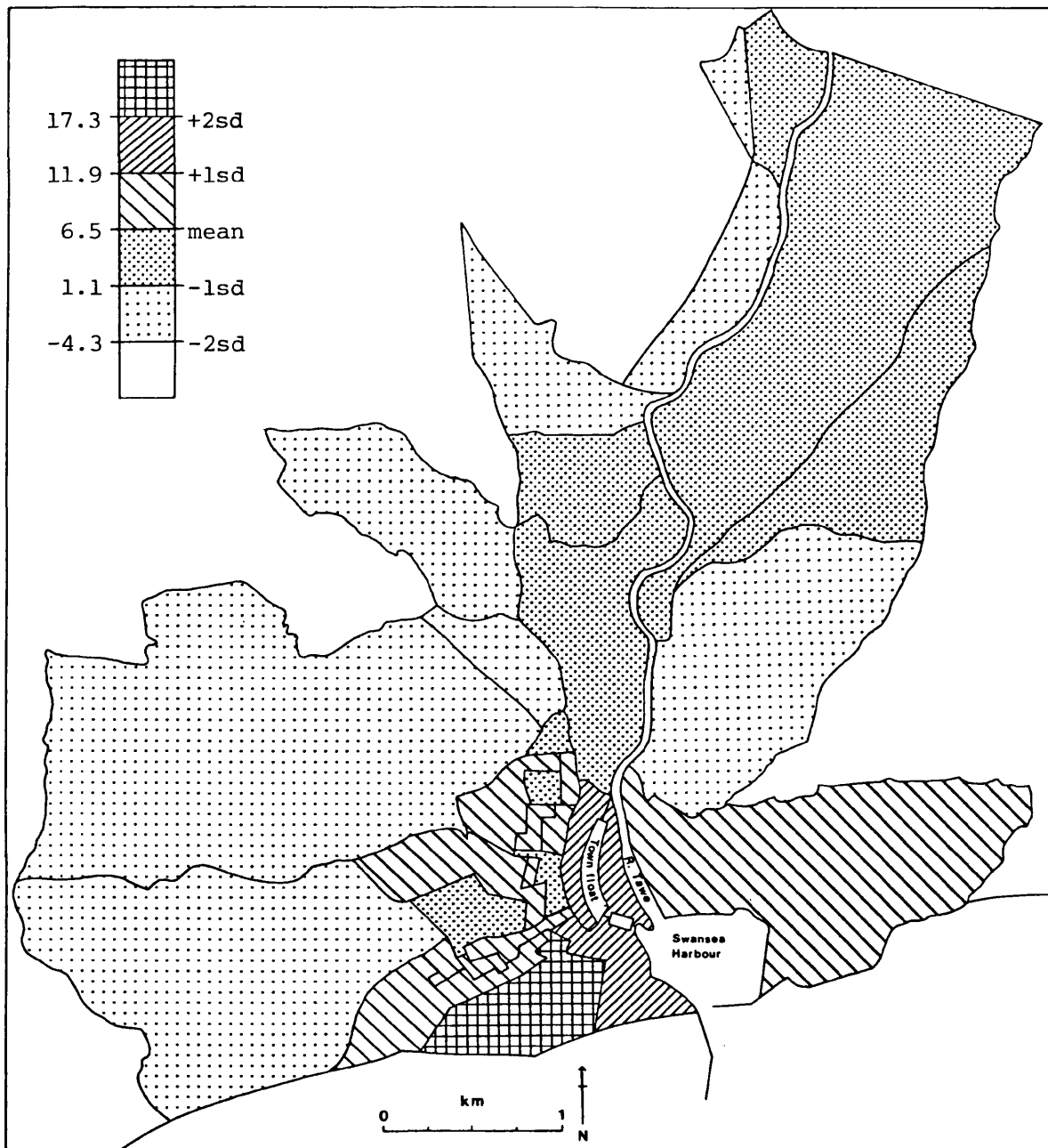
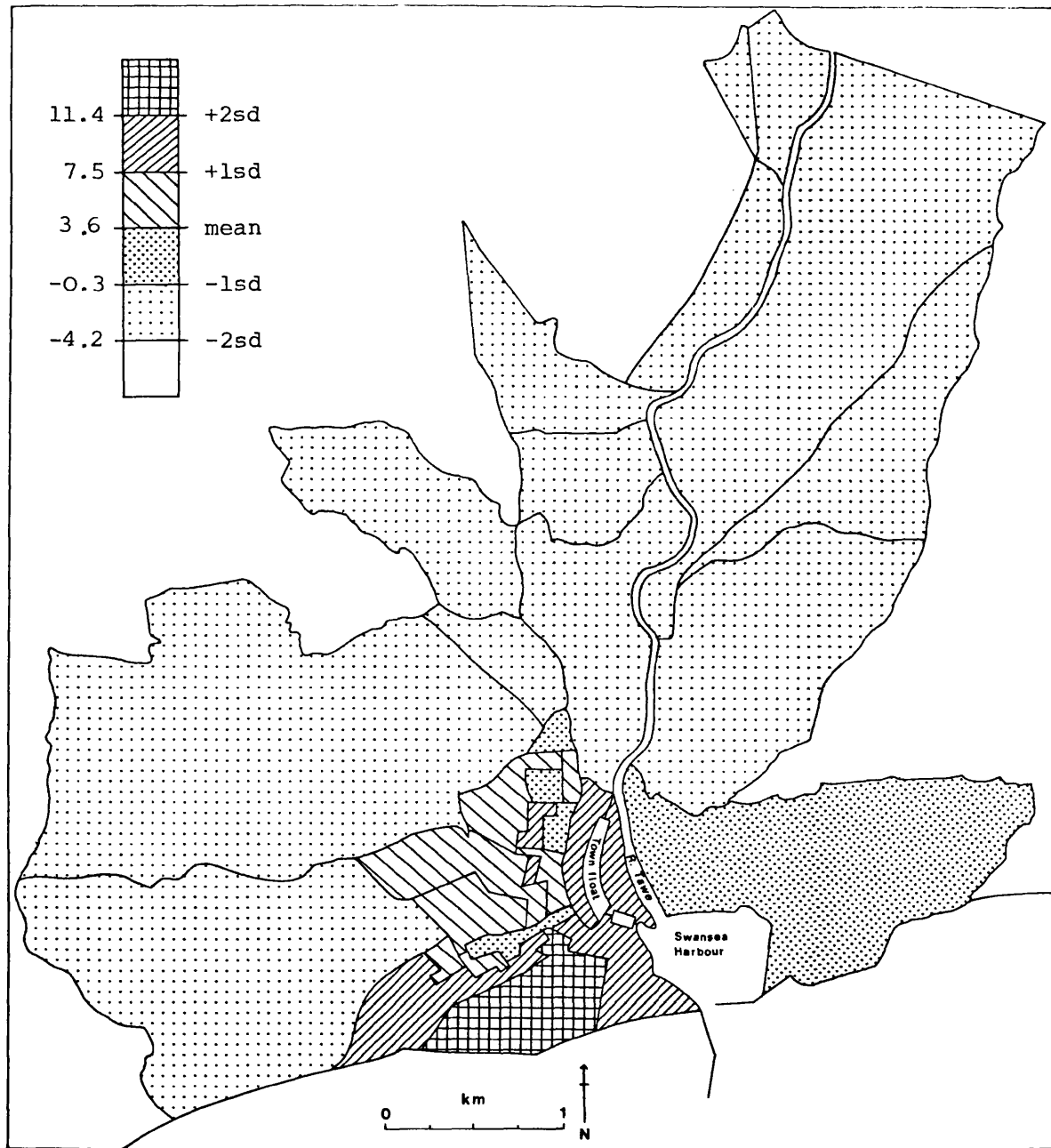


Figure 7.36 : Distribution of mariners as a percentage of the total economically-active:1851, enumeration districts.



The distribution of workers in agriculture and breeding shows rather dramatically that the complaints about the effect of the copper smoke on agriculture were not unfounded. Prevailing south-westerly winds meant that Llansamlet received most of the copper smoke and, when the wind was south, south-westerly, Morryston received it. The town itself only received smoke on the relatively rare occasions when the wind was north-easterly. Thomas Williams stated in 1854 that the north of the borough was a grassless smoke desert, and -

"within the limits of the area bounded by Morryston to the north, Pentre to the west and Bonymaen to the east, a stunted hedgerow shrub, or a solitary, unbarked, withered tree only, now lives to assert the expiring sway of vegetable nature".²⁶

Immediately east of the Tawe, the marshiness of the ground is an additional factor operating to prevent the farming of the land.

The distribution of mining workers (Figure 7.23) shows a close link between place-of-residence and place-of-work. The location of collieries has been marked on the map and it can be seen that those enumeration districts containing pits had markedly higher concentrations of colliers than adjoining enumeration districts without pits. Unfortunately, however, although there is obviously a relationship here, the distribution as shown may be inaccurate since the location of collieries at this date is known but it is not known whether certain pits were operational or disused. It is interesting that the town itself is not without colliers and some new arrivals to the town obviously found accommodation temporarily in lodging houses.

The distribution of workers in transport (Figures 7.25, 7.32) shows a wide dispersal throughout the town. Most of the transport

workers were in sea-related occupations, the railway having only just reached the town in 1850. While there is a degree of concentration of transport workers on the Strand in E.D.11 along the edge of the North Dock (Town Float), the highest percentage of transport workers occurs in the south of the town on the Sandfields in E.D.2. The concentration on the Strand is lost in the grid-square map since this street is split between five squares, but the concentration in the south of the town is seen to be more particularly centred on the southern edge of this area in Rutland Street, Rutland Place, Edward Street, Wellington Street and Garden Street. The disaggregation of the transport group into specific occupations shows that those on the Strand were mainly dock workers, bonded store keepers and other land-based workers, as were those in St. Thomas (Grid-squares 45/46), while those in the Rutland Street area were mainly mariners (15 per cent of the total economically-active in E.D.2 were mariners). (Figure 7.36). Mariners are the main constituent of the transport workers group in all other areas of the town, except those previously mentioned. It is apparent that shortening the journey-to-work was not important among this group, which is what one would expect, given the infrequency with which such journeys would be made. Mariners cannot, however, be said to be living long distances away from the docks, since no area of the town is more than a mile away and there were no mariners living in the outer borough.

The distribution of building workers (Fig. 7.24, 7.30) shows a strong link with the westward expansion of the town but a more particular link between place-of-residence of building workers and the presence of work opportunities close by is demonstrated by a comparison of the following list of building plans approved by Swansea Local Board of Health 1850-1851 and Figs. 7.24 and 7.30.

Table 7.3
Building Plans approved by Swansea Corporation, 1850-1851

<u>Area</u>	<u>Street</u>	<u>Number of houses</u>
Sandfields	Clarence Street	1
	Camden Place	2
	Camden Terrace	1
	Gam Street	12
	Island Street	2
	Kynaston Place	6
	Little Gam Street	2
	Madoc Street	1
	Oystermouth Road	1
	Paxton Street	5
	Unnamed Street	102
	William Street	7
	Total	142 houses
Town Centre	Frog Street	1
	Gower Place	5
	Wassail Place	5
	Waterloo Street	5
		Total
Western Prestige Area	Brunswick Street	6
	Cwmdonkin	Not stated
	Ffynone Road	1
	Ffynone Street	1 Street
	Ffynone Estate	2 Streets
	Northampton Place	1
	St. Helens	1
	White Gardens	1
	White Stile Fields	2
	Cradock Street	7
	Heathfield	1 Street
	Total	19 houses + 4 streets

Table 7 (continued)

<u>Area</u>	<u>Street</u>	<u>Number of houses</u>
North Town	Bethesda Place	1
	Baptist Well	5
	Baptist Well	1 street
	Carmarthen Road	34
	Charles Street	5
	Dyfatty Field	1
	Greenhill	4
	Graig Place	2
	High Street	2
	Llangyfelach Road	1
	New Street	2
	Pant-y-Glasdwr	4
	Tontine Street	2
	Well Street	14
	Total	<u>77 houses + 1 street</u>
Outer Borough	Foxhole	13
	Green Street (Morrison)	3
	Gwindu Road	5
	Landore	7
	Mysydd Field, Pentre	2
	Morrison	15
	Pentre Guinea Road	4
	Pentre Road	2
	St. Thomas	1
	Total	<u>52 houses</u> (27)

It is not possible from this source to tell which houses were under construction on census day but it is an exhaustive list of houses which might have been under construction at this date.

Taking the Sandfields area first, Kynaston Place is located in Grid-square 16 and Island Street, Camden Terrace and Camden Place are immediately south of this square across the Oystermouth Road. William Street is in Grid-square 18 and Paxton Street and the unnamed Street with 102 houses (Recorder Street) are immediately south of this square, and partly to the south of Grid-square 17. Clarence Street is also in Grid-square 17. Gam Street and Little Gam Street are in Grid-square 27 and Madoc Street is immediately west of this square. It can be seen, therefore, that all the houses likely to have been under construction on census day on the Sandfields, with the exception of the one house on Clarence Street, are in squares with a percentage of building workers more than one standard deviation positively away from the mean for the whole town, or in extra-peripheral areas immediately adjacent to these squares.

In the case of the western prestige area, Heathfield is in Grid-square 51 and the Ffynone Estate and White's Gardens are immediately south-west of this square. White Stile Fields run westwards from south of Grid-square 51 to St. Helens and Brunswick Place is on the southern edge of these fields, a quarter of a mile out from the edge of the town. Cradock Street is in Grid-squares 39 and 49 but the part being built at this time was in the northern section (Grid-square 49). Northampton Place is in Grid-square 39.

Moving to the north of the town, the high concentration of building workers in Grid-square 76 coincides with the 34 houses under construction on Carmarthen Road (which is located in this square and in the extra-peripheral area west of it) and the five houses and one new street being built on the lands belonging to Baptist Well Farm immediately to the south. Nineteen houses may have been under construction in Grid-square 74 (Charles Street and Well Street) but this square does not possess a concentration of building workers. However, when it is remembered that 58 per cent of this square's inhabitants were born in Ireland and that the overwhelming majority of them were general labourers, one would not expect such a concentration to be found.

Turning to the rest of the borough, there is again an obvious connection between the residential location of building workers and house building potentially under-way at the time of the census. E.D.17 (Brynmill, St. Helens) and E.D.18 (Waunwen, Townhill) stand out as having the highest concentration of building workers and this is explained by the presence of Ffynone Estate in particular in E.D.17 and the Baptist Well Estate and Carmarthen Road (south-west side) in E.D.18. In the north and east, Morriston and Foxhole are the only areas with above-average numbers of building workers and it can be seen from the figures in Table 7.3 that 18 houses may have been under construction in Foxhole and 18 houses in Morriston and that the only ones in Morriston for which an address is given are in the lower part of the town (Green Street). Seven houses are listed within Landore (E.D.21) and five within St. Thomas, and indeed, these areas do have slightly more building workers than the rest of the borough.

The distribution of building workers does, therefore, seem to point to a close association between place-of-work and place-of-residence, though this is unproven since there is no evidence to prove that any individual worker was engaged on a particular building project. It must be remembered, however, that only house-building has been considered here and that many building workers may have been otherwise engaged. Some of those at Waunwen, for instance, were employed in railway construction on the line through Cwmbwrla and others at Waunwen were described as plate layers (roads). Industrial premises may also have been under construction and since it is known that the Black Vale Works at Cwmbwrla (E.D.16) and Lambert's Port Tennant Works (E.D.26) both opened in 1852, it is likely that they were under construction in the previous year. In the outer borough, distances between settlements, in the absence of transport, would lead one to expect some in-movement of skilled workers for larger building projects. In the town, however, each part is within relatively easy walking distance of all others and the streets were paved and lit, yet there is still a strong association between the two. It does seem, therefore, that unless the relationship is spurious, there must have been a high level of intra-urban mobility and that heads-of-household sought to live close to work within the limits of the rent they could afford. High levels of intra-urban mobility have been found in other mid-Victorian cities²⁸ and, with the levels of material possessions being very low and most housing being privately rented, it is easy to see that this could have been the case. In the instance of building workers, there may have been the additional factor that most streets were built piece-meal, one or a few houses at a time, and it was often the case that the person building the houses would take out a mortgage for the cost of building, live in one house

himself and rent out the others to pay off the mortgage. Such a person could, therefore, be living in one house while building an adjacent house. Finally, high mobility among building workers is substantiated by the work of other researchers, casual work and vagrancy being the rule among certain occupational sections of the trade.²⁹

Moving on to the distribution of manufacturing workers, the dominance of metal-smelting in the outer borough is immediately apparent. In the town itself, reference was made earlier to the possible link between class 3 and the workshop area encircling the core. The 1852 Board of Health maps enable one to locate certain types of employment and, if one were to map the location of the whole population falling into each employment group for which the places-of-work were known, it would be possible to arrive at an approximation of journey-to-work patterns for these workers. The 20 per cent sample population taken here, obviously, is not satisfactory for such a particularised exercise but, nevertheless, some instances from the sample will be detailed.

The only rope-makers on the sample were located in Thomas Street (Grid-square 17) and Emma Street (Grid-square 74). The towns two rope-walks at this time were located, firstly, at the rear of Thomas Street running east-west between Wellington Street and the town ditch, access being gained at the corner of Thomas Street and Wellington Street, and, secondly, between Cwm Road and the Burlais Brook, north of Hafod Bridge. Emma Street was just across the brook from this rope-walk.

The town's potteries were the Mead William (Nole Pleasant) located at the bottom of Dyfatty Street in Grid-square 64, the Glamorgan Pottery located across the railway line from the end of Pottery Street in Grid-square 62 and the Cambrian Pottery situated a quarter of a mile

further up the river. Of the 23 pottery workers appearing on the sample, only two live outside the zone occupied by Grid-squares 67, 68, 69, 62, 63, 64, 55 and 56. The two located outside this zone appear on Belle Vue Street in Grid-square 48 adjacent to the zone. These two workers, therefore, are the only ones living more than 300 metres away from a pottery (assuming each pottery to be central to its grid-square) and even they are only a maximum of 500 metres away (next but one square).

There are many other instances to be found on the census of certain types of workers living close to known work locations for their stated occupations, particularly in the case of tanners, coach builders, flour millers/merchants, hatters, woollen weavers, brewers, sail makers and shipwrights but the evidence is in no case conclusive. There are also, however, instances of workers with certain occupations living a long distance away from their place-of-work, for example, a gaoler living on Llangyfelach Street in Grid-square 79 at the northern extremity of the town. It is not possible on the basis of the evidence stated here to draw any valid conclusions as to the strength of the link between place-of-residence and place-of-work but it does seem that, at least in the case of two groups tested here, (pottery workers and workers in building trades) the journey-to-work was short. This assumption is, to some extent, supported by evidence given in contemporary reports. There are frequent references to the building of houses falling short of demand and preventing workers from living close to their employment, implying that a short journey-to-work was the norm and was, perhaps, the major consideration in choosing a residential location, given that a certain level of rent was affordable.³⁰ This situation is to be expected where transport³¹ is lacking but not to the extent that it seems to be operating in certain sectors.

There are several factors other than the desire to live close to work which would have increased the strength of the spatial link between home and work. First, it is clear from Rate Books, and the linkage of the census with the 1852 Local Board of Health Maps, that master craftsmen established their workshops at the rear of their residential plots and that shopkeepers lived above their shops. This is probably more the result of the ownership or leasing interest in particular plots of land than a conscious decision to live and work on the same premises. Second, there is a tendency for the owners of large manufactories to build houses for their workforce close to the works (Vivian's Town, Grenfell Town). It is not clear, however, whether the practice of building and renting out property to workers extended to the employees of petty entrepreneurs. It does seem plausible, however, that some of the owners of small businesses would be in a position to finance the building of small numbers of houses to rent out at an economic rent and that they would be more likely to indulge in such speculative building in their own quarter of the town and rent to their own employees. The documentation on the clearance of areas under the Artisans' and Labourers' Dwellings Act gives the occupations and addresses of the owners of the properties and many are small businessmen and were living nearby.³² However, it has not been possible to follow this up with research into any employment links between landlord and tenant. Finally, there is the fact that much employment was of a casual nature and required one to be close at hand in order to secure it.

7. Conclusion

Despite the difficulties in defining and measuring social class in Swansea (especially in the outer borough) at mid-century, valid conclusions can be drawn from the analysis. The town is essentially in transition between pre-industrial and modern with the central area retaining much of its pre-industrial residential structure. One can generalise that, as the expansion of the town was paralleled by the emergence of a more modern industrial structure, in which the majority of persons were not ascribed a certain status and line of employment, and work-place and residence were rarely fused, a more modern residential structure developed with one sector of the town forming a prestige housing zone and others forming working-class suburbs. This produced a pattern in which the scale of residential class segregation varied between the inner and outer built-up area, with a pre-industrial fine mesh of class segregation being maintained at the centre, in which, for the most part, wealthy households fronted the main thoroughfares and poor households were relegated to congested, burgage infill developments at the rear. There was still a strong element of pre-industrial fusion of place-of-work and place-of-residence, in which the location of the work element is dominant in the choice of site, and this was a strong factor in keeping the tradesmen element of class 2 and the professional element of class 1 in the centre of the town. In the outer area, class segregation was on a broader scale with lower working-class houses mainly to the north of the town and a better breed of working-class house in the south-west, in the area known as Sandfields.³³ Within these new working-class extensions of the town, classes 1 and 2 were almost absent, these classes having established their own suburb along the flank of

the Gower turnpike, from which the working class, apart from domestic servants, were largely excluded.

While the more modern outer areas were less constrained by workplace/residence linkages than was the core area, work-place still exerted a strong influence on the choice of residential location, especially among class 3 households, through the tendency to minimise the length of the journey to work. This is obviously partly the result of the lack of transport but, in the examples discussed above, the shortness of the journey seems to imply that additional factors must also have been operating to produce this effect. Class 5, on the other hand, is relatively free of work-place constraints on residential location, since a short journey to work can only be achieved by those who have sufficient economic resources to retain some choice of residential location and, unless very frequent residential moves are undertaken, the location of employment must be relatively stable, which is not the case with casually-employed general labourers. Because their economic position allowed them very little choice, the majority of this class was forced into the least desirable area of the town, the poorly planned and badly constructed northern extremity.

The analysis, therefore, has revealed quite distinct social-class areas away from the commercial core of the town. Social class, however, is more strongly linked to migrant status in the nineteenth century than it is at the present day and the emergence of social-class areas may be partly the result of migrant segregation. The presence of the Irish in the north of the town and their strong association with class 5 is a case in point and their presence in the Greenhill area may have depressed the status of the surrounding area for ethnic as well as class reasons, those

households whose rent-paying ability afforded greater choice, being able to reinforce their perceived cultural distance from the Irish with a corresponding spatial distance. The strength of the relationship between migrant or ethnic groups and class is obviously an important factor and this will be investigated in the following chapter.

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CHAPTER 8
MIGRANT STATUS IN 1851

In this chapter, the effect of migrant status on residential location is explored. In the first part of the chapter, the nature and scale of migration to Swansea is discussed and the major migrant groups are defined according to their birthplace origin. In the following two parts, the degree of residential segregation existing between migrant groups and the way this segregation is manifested spatially is explored. Following this, demographic and socio-economic differences and similarities among migrant groups, which might reinforce or reduce segregation, are discussed and finally a multiple regression analysis is used to identify the main causes of migrant-group segregation.

1. The birthplace origin of migrants

Slightly more than 40 per cent of the population of the municipal borough was born outside it. Table 8.1 gives a breakdown of the birthplaces of the population.

Table 8.1.
Birthplaces of the sample population, 1851

<u>Birthplace</u>	<u>No.</u>	<u>%</u>
Swansea St. Mary and Swansea St. John	2298	40.20
Llansamlet and Llangyfelach	1128	19.73
Total born within the Municipal Borough*	3426	59.94
Parishes of Llandilo-Talybont, Llangwig, Loughor	49	0.86
Gower	174	3.04
Elsewhere in Glamorganshire	182	3.18
Total born in Glamorganshire outside Swansea M.B.	405	7.09

<u>Birthplace</u>	<u>No.</u>	<u>%</u>
Total born in Glamorgan	3831	67.02
-Carmarthenshire	450	7.87
Pembrokeshire	142	2.48
Monmouthshire	44	0.77
Brecknockshire	23	0.40
Cardiganshire	36	0.63
Radnorshire	5	0.09
Montgomeryshire	7	0.12
Merionethshire	1	0.02
Carnarvonshire	2	0.03
Anglesey	5	0.09
Denbighshire	6	0.10
Flintshire	28	0.49
Total Wales-born outside Swansea M.B.	1154	20.19
Cornwall	109	1.91
Devon	201	3.52
Somerset	65	1.14
Gloucestershire	58	1.01
Bristol	65	1.14
London	61	1.07
South of England, not including those above	121	2.12
Midlands	66	1.15
North of England	51	0.89
Total England-born	797	13.94
Scotland	16	0.28
Ireland	228	3.99
Overseas	39	0.68
Total migrants	2234	39.08
Birthplace unknown	56	0.98

* Note: This total is an over-estimate as parish boundaries do not coincide with the boundary of the municipal borough. St. John's lies almost completely within the Borough and the parish of Swansea St. Mary covers a large area west of the town as far as the Clyne river but its extra-municipal part (almost half the total) is thinly populated and only a small amount of error is anticipated from this source. A larger error will derive from the population born in the extra-municipal parts of Llan-samlet, where a quarter only of the area lies within the borough, and Llangyfelach where approximately one fourteenth lies within the borough. Again, however, most of the population lives within the municipal parts and only a small amount of in-migration is expected from the outer parts of Llangyfelach Parish since those parishes on its outer fringe contributed very little to the population of the borough. Since the difference between migration and residential mobility is determined by scale, one can set the distance threshold at a level which would class all movements from the extra-municipal to the municipal parts of St. Mary, Llangyfelach and Llan-samlet as examples of intra-urban residential mobility rather than migration. The non-migratory population is, therefore, referred to as the Local-born rather than the population born in the municipal borough.

The figures in Table 8.1 show that approximately half of the non-locally-born sample population was born elsewhere in Wales and that the majority of these come from South Wales with very few migrants being born in Mid and North Wales. Within South Wales, the predominant movement was eastwards from Carmarthenshire and Gower. There is a lesser westward movement from the Vale of Glamorgan, the coastal strip of Glamorgan and Monmouthshire. In the eastern section of South Wales, Cardiff, Merthyr Tydfil and Newport provided alternative opportunities for industrial employment. Within North Wales, it is apparent that Flintshire provided more migrants to Swansea than the other counties and this is explained by the presence of metal-smelting at Greenfield which encouraged the interchange of skilled workers between the two areas.

Most of the English migrants (who form 34.8 per cent of total migrants) come from the South of England and particularly the South West. The only other significant migrant group is the Irish who form 10.0 per cent of the total migrants.

Life-time migration from Pembrokeshire, Carmarthenshire and Glamorganshire is shown on a grouped ecclesiastical parish basis in Figs. 8.1, 8.2 and 8.3. Fig. 8.1, while highlighting the major centres of population (Cardiff, Merthyr, Margam, Neath, Llandeilo, Carmarthen, Kidwelly, Haverfordwest, Pembroke, Fishguard) which, because of their population size, one would expect to provide most of the migrants, also shows a possible connection between the propensity to migrate to Swansea and the presence of communication links. The route of the turnpike road from Pembroke through Carmarthen and Llanelli is clearly seen, as is the route along the coastal strip of Glamorgan and also the Loughor and Twyfi valleys. In 1852, two coaches daily left Swansea for

Figure 8.1 : Origin of South Wales-born migrants residing in Swansea in 1851: Percentage contributed by each parish group within Carmarthenshire, Glamorganshire and Pembrokeshire to the total population born in this area.

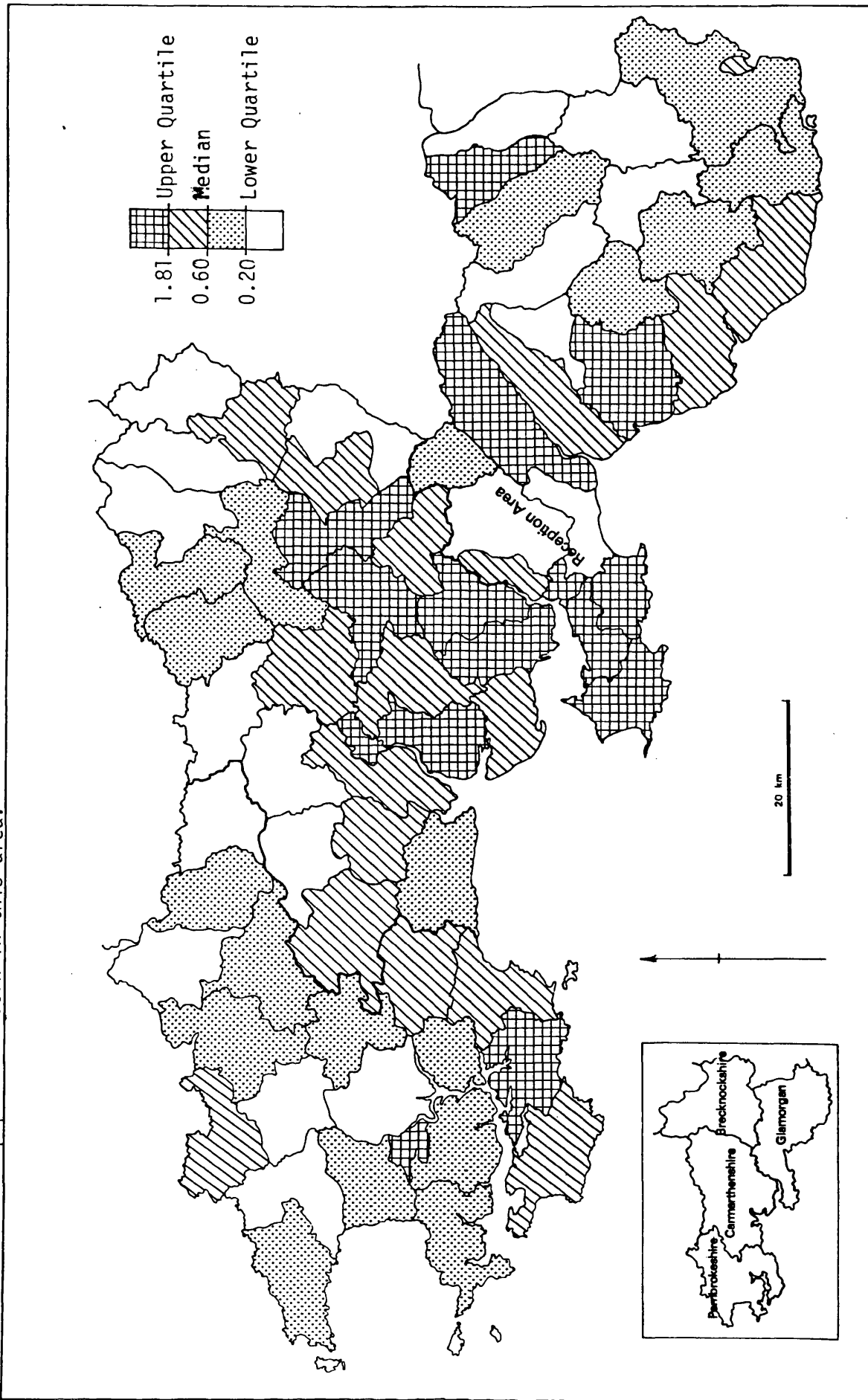


Figure 8.2 : Number of migrants born in Pembrokeshire, Carmarthenshire and Glamorganshire parishes and recorded in Swansea in 1851 expressed as a percentage of the total population of their parish of birth (Parishes grouped) : Quartiles.

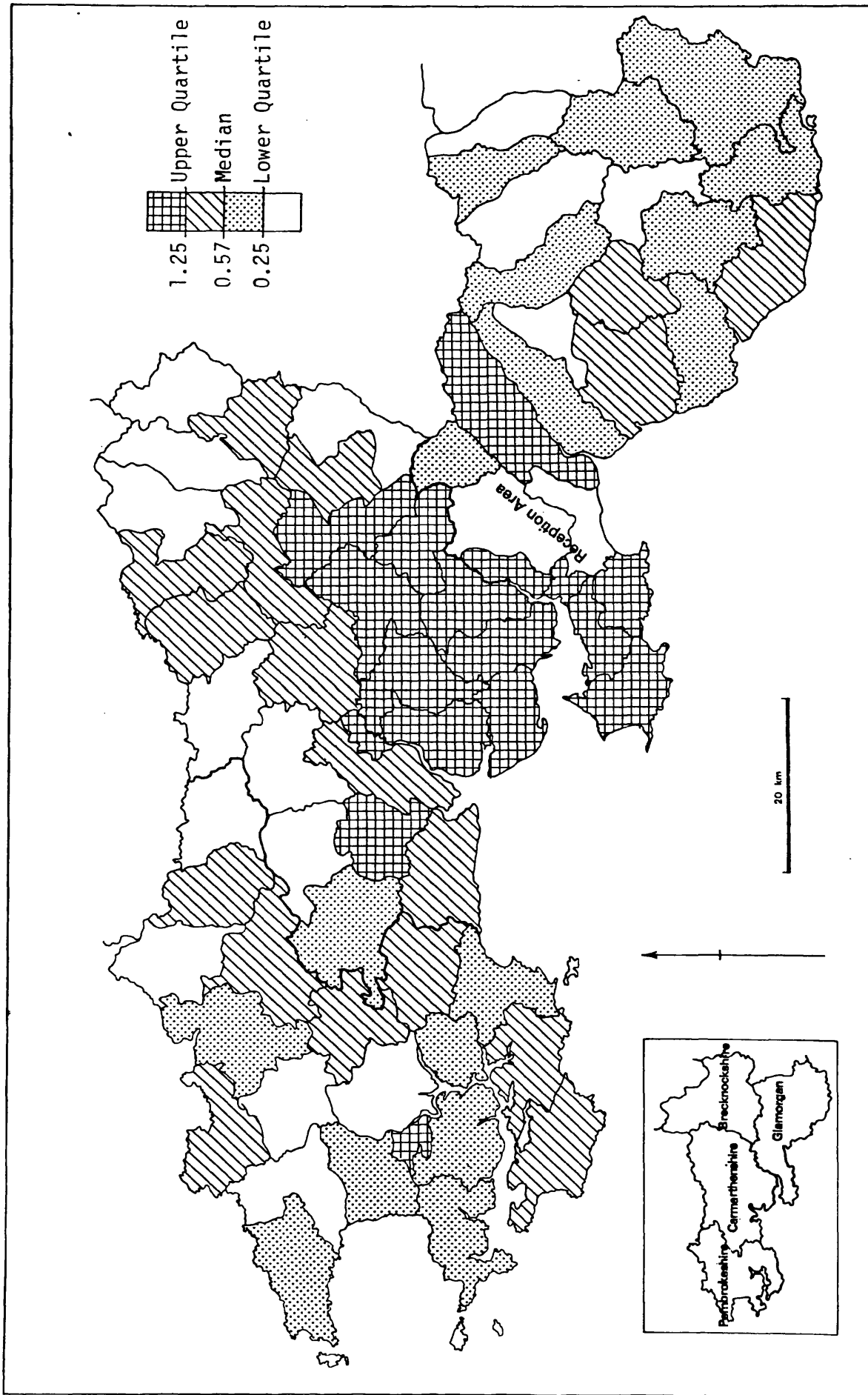
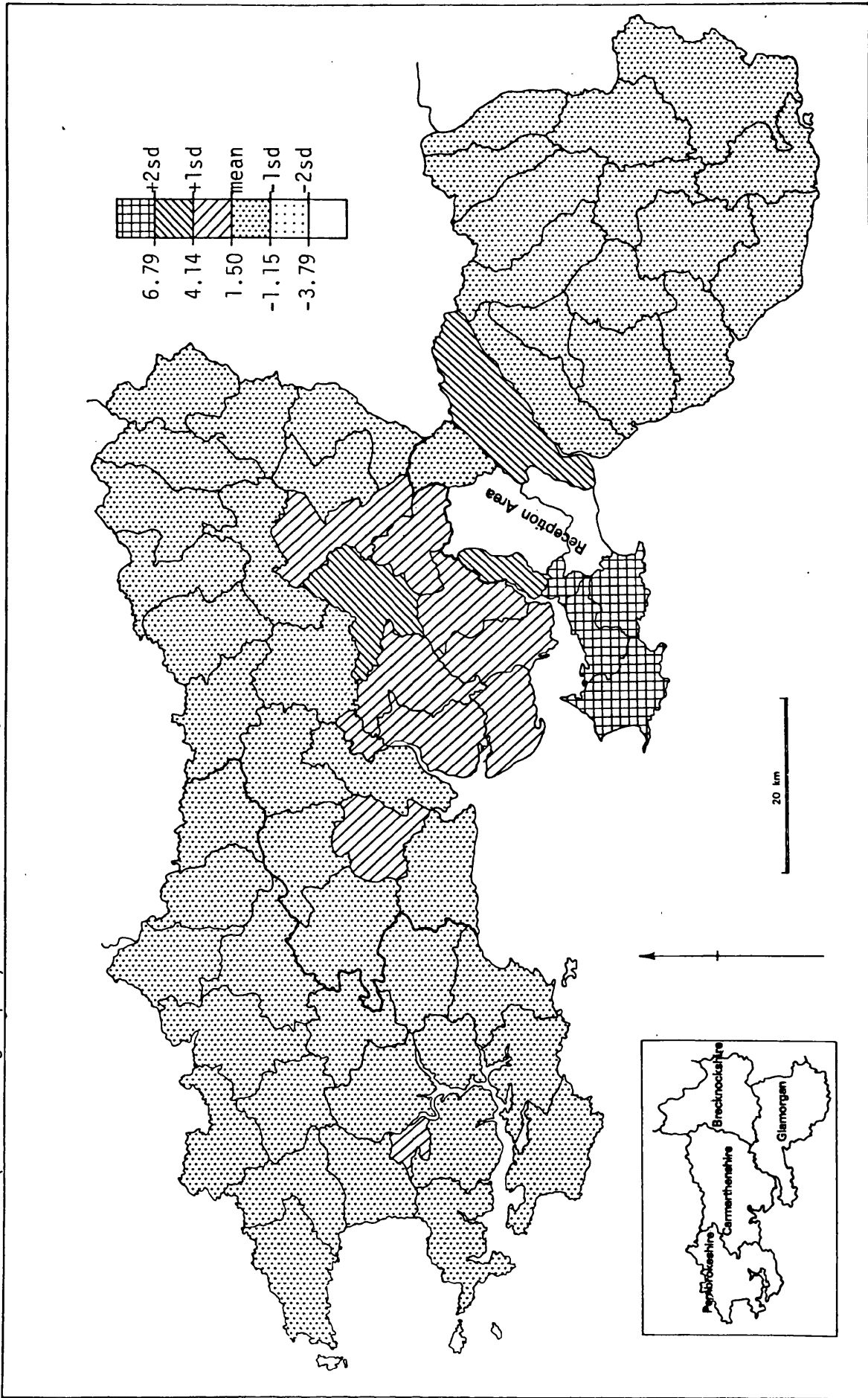


Figure 8.3 : Number of migrants born in Pembrokeshire, Carmarthenshire and Glamorganshire parishes and recorded in Swansea in 1851 expressed as a percentage of the total population of their parish of birth (Parishes grouped): Standard deviations.



Pembrokeshire via Llanelli, Kidwelly and Carmarthen and there was also a regular service from Swansea up the Loughor valley to Llandeilo.¹

Whilst not suggesting that migrants travelled by coach, the presence of regular coach services is probably an indication that these routes were heavily used lines of communication.

The effect of the population size of the origin area has been removed in Figs. 8.2 and 8.3. In Fig. 8.2 Haverfordwest, Carmarthen, Kidwelly, Llanelli and Llandeilo are all above the mean and within the upper quartile in terms of the propensity of their population to migrate to Swansea, showing that their position on the previous map was not solely due to their having large populations. The heaviest migration to Swansea is from Gower. For all parishes on the peninsula, the number of persons born within the parish and resident in Swansea in 1851, when expressed as a percentage of their population in 1851, is greater than 7.5 per cent. For the parishes at the neck of the peninsula, it is over 10.0 per cent. The next most productive area of life-time migrants to Swansea, in these terms, is the parish of Llandilo-Talybont on the Glamorgan side of the river Loughor, and this is followed by several ecclesiastical parish groups in south-east Carmarthenshire. These are Carmarthen St. Peter, Llandyfaelog/St. Ishmael/Kidwelly, Llannon/LLanedy/Llangennech, Llanarthney/Llanfihangel-Aberbythych/Llangathen/Llandyfeisant/Llanfihangel-Cilfargan, and Llandeilo-Fawr. The percentage for these four parish groups is in each case between 2.5 and 5.0. The only parish group east of Swansea with a population born within it, but living in Swansea in 1851, greater than the equivalent of 2.5% of its resident 1851 population, is the parish group Neath/Cadoxton.

It can be argued, therefore, that life-time migration to Swansea was heaviest from adjacent parishes (excluding those to the north), the Gower Peninsula, rural parishes of south-east Carmarthenshire and the town of Carmarthen. In view of the fact that Swansea was probably the first urban/industrial place of residence for most of the migrants coming from rural Gower and Carmarthenshire, and that migration between industrial areas was heavy at the time, the total number of people making the move to Swansea must have been very great from these parishes. If Holmes's findings on population turnover rates in Ramsgate are anything like typical,² then many of those migrants resident in Swansea at the time of the census would not be permanent settlers. They are a small part of what was probably a continuous stream of mobile labour moving east from the depopulating rural area of West Wales. The decrease in the population of some of the Gower parishes is specifically attributed in the 1851 census to the migration of people to Swansea; for example, "the decrease of population in the Parish of Llangennith is ascribed to emigration and the removal of families to Swansea".³

Mobility between the Welsh industrial towns was heavy at the time, the scale of movement having been demonstrated, in the case of movement from Glamorgan to Monmouthshire, by Freidlander and Roshier.⁴ There is no reason to suppose that equally high levels of mobility did not exist in the Swansea area but migration histories need to be studied to confirm this. Migration histories for heads migrating with their families can be partially derived from the birthplaces of their children. On this basis 16.1 per cent of non-Welsh migrant married heads with children had lived elsewhere in Wales before arriving in Swansea and a large proportion of these had moved more than once within Wales. Since

only those places where a child was born and survived until 1851 and had not by then left the parental home, are recorded in this manner, the true percentage was probably much higher. However, some families will have been erroneously included in the figure since the relationship to the head column in the census is often in error and some children from previous marriages of the wife may not be recorded as such.

In the case of Welsh-born migrant heads with families, 13.9 per cent had made one or more moves within Wales since becoming married. Most non-initial moves within Wales are between towns or industrial areas and it is, therefore, apparent that in the case of many migrant married heads with families the problem of adjustment to urban life would not occur. It is also apparent, however, that, as one would expect, the Welsh-born migrant heads who had lived elsewhere in Wales come mainly from the more distant locations. Those from Gower, in particular, were unlikely to have lived elsewhere. (This supports Ravenstein's Law that migration occurs in steps).⁵ In view of this, one would expect Gower-born heads to be more segregated within the urban residential structure, since their residential background is more clear cut than their more travelled counterparts, giving them a clearer parochial identity and, also, they are likely to be experiencing urban life for the first time. This and other factors affecting the residential location of migrant groups will be explored in the following section.

2. Residential segregation of migrant groups

The following tables give indices of dissimilarity for migrant groups at enumeration-district level for the borough and at 200 metre grid-square level for the built-up area of the town.

Table 8.2

Indices of dissimilarity between major birthplace groups at
enumeration-district level : Municipal Borough, 1851

		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Local-Born	(1)		22.01	37.02	43.91	48.28	54.98
Rest-of-Wales-Born	(2)	22.01	-	21.34	28.44	49.08	43.77
S.W. England-Born	(3)	37.02	21.34	-	29.04	58.39	43.39
Rest-of-England-Born	(4)	43.91	28.44	29.04	-	61.04	34.12
Ireland-Born	(5)	43.28	49.08	58.39	61.04	-	70.52
Overseas-Born	(6)	54.98	43.77	43.39	34.12	70.52	-

Table 8.3

Indices of Dissimilarity between major birthplace groups at 200m
Grid-Square level : Town only, 1851.

		<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>
Local-Born	(1)	-	16.96	27.71	31.05	46.39	46.39
Rest-of-Wales-Born	(2)	16.96	-	22.84	26.51	52.63	50.12
S.W. England-Born	(3)	27.71	22.84	-	26.70	58.77	46.75
Rest-of-England-Born	(4)	31.05	26.51	26.70	-	66.04	45.36
Ireland-Born	(5)	46.39	52.63	58.77	66.04	-	70.31
Overseas-Born	(6)	46.39	50.12	46.75	45.36	70.31	-

Note: 'Rest-of-Wales-born' comprises of all persons born within Wales outside Swansea St. Mary, Swansea St. John, Llangyfelach and Llansamlet parishes.

'South-West-England-born' comprises of all persons born within Cornwall, Devon, Somerset and Gloucestershire.

'Rest-of-England-born' comprises of all persons born in England and Scotland outside the above-named four counties of South-West England. As the number born in Scotland is very small, and this is, therefore, a predominantly English group, the word 'Scotland' has been removed from the reference name.

The concentration of all migrant groups in the town itself is illustrated by the higher indices in Table 8.2 than in Table 8.3 between the Local-born and all migrant groups. (The figures are not strictly comparable though, since the scale of analysis, as well as the extent of the area, has been changed). The Irish have clearly the highest dissimilarity index followed by the Overseas-born, and this is typical of towns of the period in which these two birthplace groups are present.⁶ Figures for the Overseas-born, however, are to be treated with caution since the number in the group is only 39. The actual level of segregation between the Irish and all other groups is higher than these indices suggest since children are included in the figures, many of whom in the Irish quarter, would be born in Swansea, or elsewhere in South Wales, of Irish parents and would be ethnically Irish and treated as Irish by others. This partly accounts for the lower level of segregation between the Irish and the local-born and Welsh-born. Indices of dissimilarity for migrant groups minus children have, however, shown that the Local-born and Wales-born are less segregated within the town than other birthplace groups, even without this factor.

It is obvious from Tables 8.2 and 8.3 that, the nearer to Swansea the birthplace area, the less segregated from the Local-born the migrant group. There is, however, also distinct evidence that there were 'migrant areas' in the town which received large numbers of both English and Welsh migrants, this being reflected in the lower level of segregation between the two English migrant groups and the Rest-of-Wales-born than between the English groups and the Local-born. This is more true of the indices for the whole borough because of the concentration of migrants in the town mentioned above, but it is also true within the town.

Table 8.4

Indices of Dissimilarity between Welsh migrant sub-groups and major birthplace groups
at enumeration-district level: Municipal Borough, 1851

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(1)	
Local-born	(1)	-	55.85	26.14	17.09	34.84	45.53	43.96	48.28	54.98	37.02	53.72	44.
Gower-born	(2)	55.85	-	49.38	49.89	48.88	50.41	61.93	65.64	48.01	33.32	63.54	35.
Rest-of-Glamorgan-born	(3)	26.14	49.38	-	21.59	34.28	44.38	44.32	53.45	47.43	33.49	43.58	37.
Carmarthenshire-born	(4)	17.09	49.89	21.59	-	28.34	37.84	42.23	46.04	48.05	29.87	43.11	34.
Pembrokeshire-born	(5)	34.84	48.88	34.28	28.34	-	45.62	49.52	48.95	54.80	35.53	54.85	42.
Monmouth and Brecknock-born	(6)	45.53	50.41	44.38	37.84	45.62	-	50.26	51.01	49.22	36.10	39.39	29.
Mid and North Wales-born	(7)	43.96	61.93	44.32	42.23	49.52	50.26	-	66.16	51.72	45.40	63.89	48.
Ireland-born	(8)	48.28	65.64	53.45	46.04	48.95	51.01	66.16	-	70.52	58.39	66.95	59.
Overseas-born	(9)	54.98	48.01	47.43	48.05	54.80	49.22	51.72	70.52	-	43.39	41.07	35.
S.W. England-born	(10)	37.02	33.32	33.49	29.87	35.53	36.10	45.40	58.39	43.39	-	49.31	27.
London-born	(11)	53.72	63.54	43.58	43.11	54.85	39.39	63.89	66.95	41.07	49.31	-	39.
Rest-of-England-born	(12)	44.14	35.57	37.32	34.11	42.66	27.57	48.54	59.91	35.96	27.01	39.85	-

Table 8.5

Indices of Dissimilarity between Welsh migrant sub-groups and major birthplace groups
at 200 metre grid-square level: Town Only, 1851

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Local-born	(1)	-	47.61	24.58	18.56	34.24	40.40	36.98	46.39	51.15	27.31	53.61	32.
Gower-born	(2)	47.61	-	49.15	52.17	49.78	58.88	56.95	68.47	49.99	37.73	69.77	44.
Rest-of-Glamorgan-born	(3)	24.58	49.15	-	24.10	34.53	46.19	40.90	53.93	55.68	33.94	50.58	36.
Carmarthenshire-born	(4)	18.56	52.17	24.10	-	39.81	41.93	35.89	49.02	53.91	31.36	56.74	32.
Pembrokeshire-born	(5)	34.24	49.78	34.53	39.81	-	48.62	58.42	49.02	55.59	37.88	68.61	48.
Monmouth and Brecknock-born	(6)	40.40	58.88	46.19	41.93	48.62	-	45.29	60.22	63.54	40.91	61.14	40.
Mid and North Wales-born	(7)	36.98	56.95	40.90	35.89	58.42	45.29	-	69.74	56.58	40.32	47.56	31.
Ireland-born	(8)	46.39	68.47	53.93	49.02	49.02	60.22	69.74	-	70.31	58.77	79.92	64.
Overseas-born	(9)	51.15	49.99	55.68	53.91	55.59	63.54	56.58	70.31	-	46.75	56.07	48.
S.W. England-born	(10)	27.31	37.73	33.94	31.36	37.88	40.91	40.32	58.77	46.75	-	57.67	26.
London-born	(11)	53.61	69.77	50.58	56.74	68.61	61.14	47.56	79.92	56.07	57.67	-	51.
Rest-of-England-born	(12)	32.58	44.41	36.13	32.69	48.84	40.77	31.08	64.14	48.66	26.70	51.69	-

It was noted earlier that the Gower-born may be more segregated than other Welsh migrant groups since their move to Swansea would in many cases be their first migratory move and their first experience of urban life. Tables 8.4 and 8.5 give indices of dissimilarity for a more detailed breakdown of Welsh migrants including the Gower-born, and Table 8.6 gives indices of segregation for the same.

Table 8.6

Indices of segregation for Welsh migrant sub-groups and major birthplace groups at enumeration-district and 200 metre grid-square level, 1851

<u>Birthplace</u>	<u>Enumeration-district level</u>		<u>Grid-square level</u>	
	<u>Index</u>	<u>Rank</u>	<u>Index</u>	<u>Rank</u>
Local	26.99	10	18.11	12
Gower	49.49	3	45.67	4
Rest-of-Glamorgan	22.26	11	23.97	10
Carmarthenshire	13.34	13	20.48	11
Pembrokeshire	28.47	9	33.42	7
Monmouth & Brecknock	38.09	6	38.94	5
Mid and North Wales	42.13	5	38.21	6
All non-local Wales	16.49	12	15.59	13
Ireland	49.03	4	49.25	2
Overseas	50.05	2	48.98	3
South-West-England	31.43	8	24.97	9
London	50.43	1	52.54	1
Rest-of-England	37.48	7	30.68	8

Note: 'Local' comprises Swansea St. Mary, Swansea St. John, Llangyfelach and Llansamlet parishes.

'Gower' comprises Llanrhidian, Oystermouth, Bishopston, Pennard, Ilston, Penmaen, Llanmadog, Cheriton, Llangenydd, Rhossili, Llanddewi, Port Eynon, Penrice, Oxwich, Nicholaston and Reynoldston parishes.

'Rest-of-Glamorgan' comprises all parishes in Glamorgan not detailed above.

'Mid and North Wales' comprises Cardiganshire, Radnorshire, Montgomeryshire, Merionethshire, Carnarvonshire, Anglesey, Denbighshire and Flintshire.

In parts of the analysis, Monmouthshire and Brecknockshire are added to this Welsh subgroup and, in these instances, the group is referred to as the East, Mid and North Wales-born.

It can be seen from these tables that the Gower-born are indeed the most segregated of the Welsh-born migrant groups, with a higher segregation index at enumeration-district level than the Irish, and this is not simply due to the smallness of the group. (The Pembrokeshire-born and Monmouthshire and Brecknockshire-born groups are smaller). The Gower-born do, however, come from a more discrete area and would, therefore, perceive themselves as having more in common with each other. It is apparent that, although Wales-born migrants as a whole are a weakly segregated group, and noticeably less segregated than the Local-born, the Welsh group conceals quite high levels of segregation among groups from different parts of Wales. The fact that Wales-born migrants from different areas of Wales tended to congregate in separate areas of the town (Tables 8.4 and 8.5) has the effect of cancelling out segregation at the more aggregate level. The Carmarthenshire-born population, and, to a lesser extent, the population born in Glamorgan outside Swansea and Gower, are noticeably less segregated than other Welsh migrant groups and non-Welsh migrant groups at both levels of analysis.

Within the group born in England and Scotland outside South-West England, only the London-born are a sufficiently numerous group to allow separate analysis and it can be seen that they are the most highly segregated group at both levels of analysis. Later analysis will reveal that this is almost certainly due to their strong association with Social Class 1 and Social Class 2 and their consequent concentration in the two prestige areas of the town detailed earlier.

Certain of the Wales-born migrant groups come from more Anglicised areas and it is interesting that those coming from such Anglicised areas are less segregated from each other than from groups born

in truly Welsh areas. The Gower-born, for instance, are less segregated from the Pembrokeshire-born and those from the Vale of Glamorgan than from the Carmarthenshire-born and the Mid and North Wales-born, even though the Carmarthenshire-born themselves are a weakly segregated group. Contemporary reports claim that the south of the town was more English-speaking than the north and that the town as a whole was more English-speaking than the outer borough.⁷ Whether this is reflected in a preponderance of England-born migrants and migrants from English-speaking areas of Wales in the south of the town is investigated in the following section.

3. The residential location of migrant groups

The residential location of the major migrant groups is illustrated in three sets of maps. Figures 8.4 to 8.9 show the distribution of migrant groups at enumeration-district level for the whole borough and Figures 8.19 to 8.20 show the distribution at grid-square level for the town only. Tables 8.7 and 8.8 give the actual percentages on which these distributions are based. The grid-square maps, while providing more detail for the town, also allow comparison to be made with the 1871 distributions given in Chapter 11. The third set of maps shows the residential location of household heads according to migrant status. This third set of maps is included for the following three reasons:

(i) Sampling was carried out on a household basis and the mapping of heads removes the distortion produced by the clustered sample of population.

Table 8.7

Major Birthplace Groups as a percentage of total population by enumeration district,
1851

Enumeration District	Local-born	Rest-of-Wales -born	S.W. England -born	Rest-of England-born	Ireland -born	Overseas -born
1. Wind Street	37.50	24.19	14.92	14.92	0.40	3.63
2. Rutland Street	49.84	18.97	11.90	10.29	2.57	0.32
3. Wassail Street	49.59	26.42	11.38	7.32	0.41	0.81
4. James Street	40.19	29.57	21.26	5.32	0.33	0.33
5. Calvert Street	41.84	27.04	12.24	8.16	1.02	2.55
6. Pleasant Street	48.89	22.22	8.89	10.67	3.11	0.44
7. Waterloo Street	53.31	19.16	9.41	8.01	1.74	1.05
8. Union Street	43.42	21.01	10.36	11.76	1.68	1.68
9. Back Street	69.20	17.75	2.54	1.09	4.71	0.00
10. High Street	35.40	31.06	10.56	8.07	7.45	2.48
11. Strand	62.63	13.64	15.15	4.04	1.52	0.00
12. Jockey Street	63.64	15.36	5.45	5.00	4.09	0.00
13. Tontine Street	51.75	24.13	9.09	3.15	3.49	0.35
14. New Street	43.50	18.50	21.00	2.50	3.50	0.50
15. Greenhill Street	59.23	16.96	4.46	1.79	7.74	0.30
16. Charles Street	41.77	15.56	2.67	1.78	36.00	0.00
17/18. Brynmill, Townhill	53.36	17.79	3.85	7.21	9.62	0.00
19/20. Hafod, Cwmbwrla	76.04	17.97	0.92	2.76	0.00	0.46
21. Landore	73.89	13.27	6.19	0.44	3.54	0.44
22/23. Treboeth, Plasmarl	84.53	13.26	1.66	0.00	0.00	0.00
24. Lower Morriston	84.53	9.68	5.16	0.65	0.00	0.00
25. Upper Morriston	87.65	9.16	1.19	0.00	0.00	0.00
26. Port Tennant	51.66	25.59	5.69	9.48	1.89	0.47
27. Foxhole	65.33	25.63	5.03	1.00	0.00	0.50
28/29. Llansamlet	87.73	5.45	3.64	1.36	1.36	0.00

Note: The percentages do not total to 100. The residue is made up of those stating 'unknown' for their birthplace and those whose stated birthplace was illegible or ambiguous.

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Table 8.8

Heads in major birthplace groups as a percentage of all
heads by enumeration district 1851

<u>Enumeration District</u>	<u>Local- born</u>	<u>Rest-of Wales- born</u>	<u>S.W.Eng. -born</u>	<u>Rest-of- England- born</u>	<u>Ireland- born</u>
1. Wind Street	38.46	23.07	17.31	19.23	0.00
2. Rutland Street	28.81	27.12	11.86	11.86	5.08
3. Wassail Street	31.03	32.76	15.52	13.79	0.00
4. James Street	14.52	38.71	30.65	6.45	0.00
5. Calvert Street	34.14	29.27	14.63	17.07	0.00
6. Pleasant Street	36.36	34.09	15.91	9.09	4.54
7. Waterloo Street	48.00	18.00	10.00	8.00	4.00
8. Union Street	25.86	24.14	15.52	18.96	1.72
9. Back Street	41.82	32.73	9.09	3.64	5.45
10. High Street	35.14	32.43	13.51	10.81	2.70
11. Strand	40.00	20.00	22.86	8.57	2.86
12. Jockey Street	44.90	28.57	2.04	8.16	6.12
13. Tontine Street	35.94	43.75	14.06	1.56	3.12
14. New Street	31.71	24.39	24.39	4.88	2.44
15. Greenhill Street	34.38	35.94	7.81	3.12	9.37
16. Charles Street	28.89	22.22	2.22	4.44	35.55
17/18. Brynmill/ Townhill	55.81	18.60	4.65	4.65	11.63
19/20. Hafod, Cwmbwrla	58.70	34.78	2.17	2.17	0.00
21. Landore	55.32	34.04	4.25	2.13	4.25
22/23. Treboeth, Plasmarl	72.22	25.00	2.78	0.00	0.00
24. Lower Morriston	69.70	24.24	3.03	0.00	0.00
25. Upper Morriston	80.77	13.46	3.85	0.00	0.00
26. Port Tennant	44.19	32.56	13.95	4.65	4.65
27. Foxhole	59.09	27.27	11.36	2.27	0.00
28/29. Llansamlet	82.22	11.11	4.44	0.00	2.22

Figure 8.4 : Distribution of the population born in Wales outside Swansea Municipal Borough as a percentage of the total population :1851, enumeration districts.

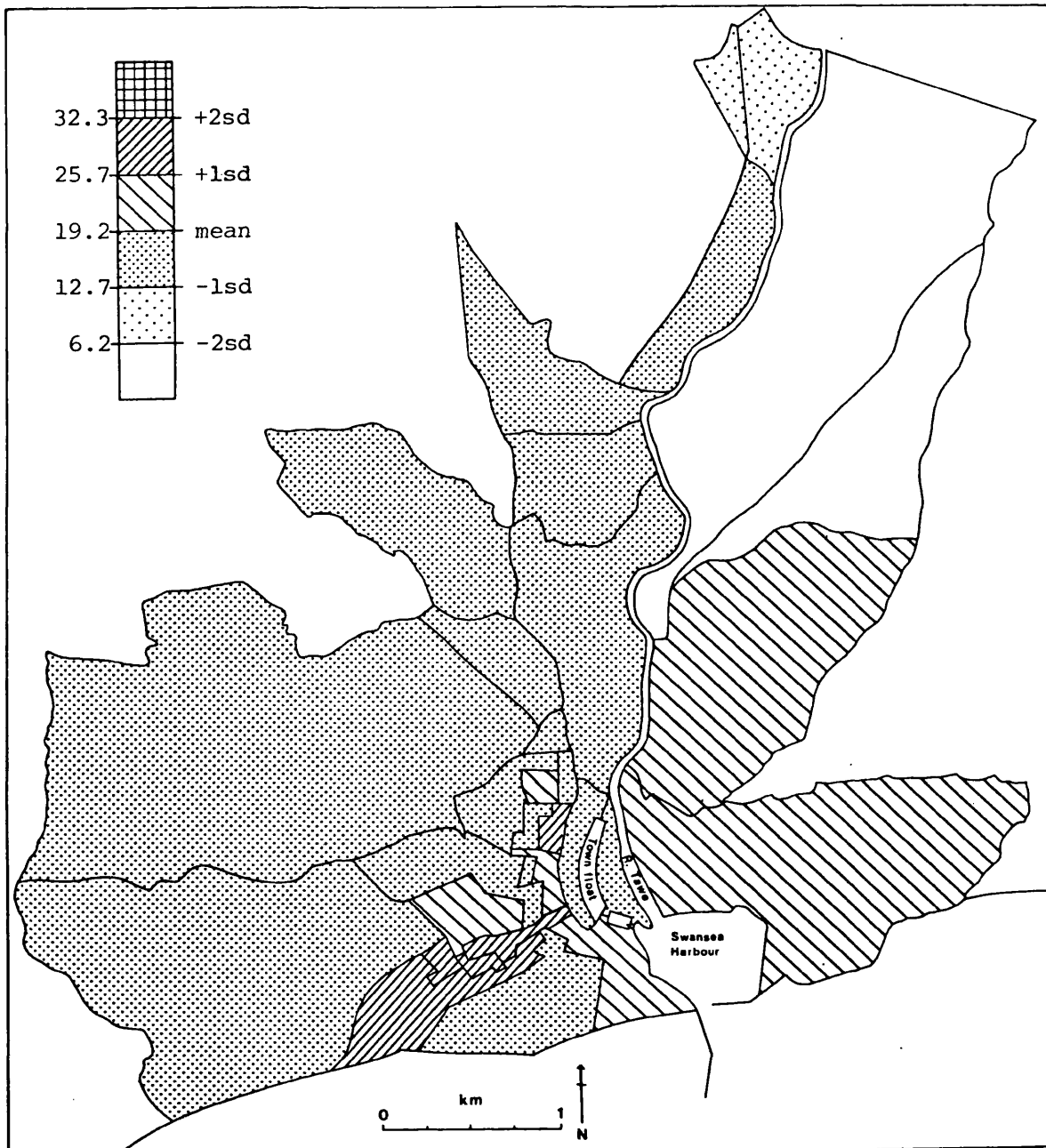


Figure 8.5 : Distribution of the population born in South-West England as a percentage of the total population:1851, enumeration districts.

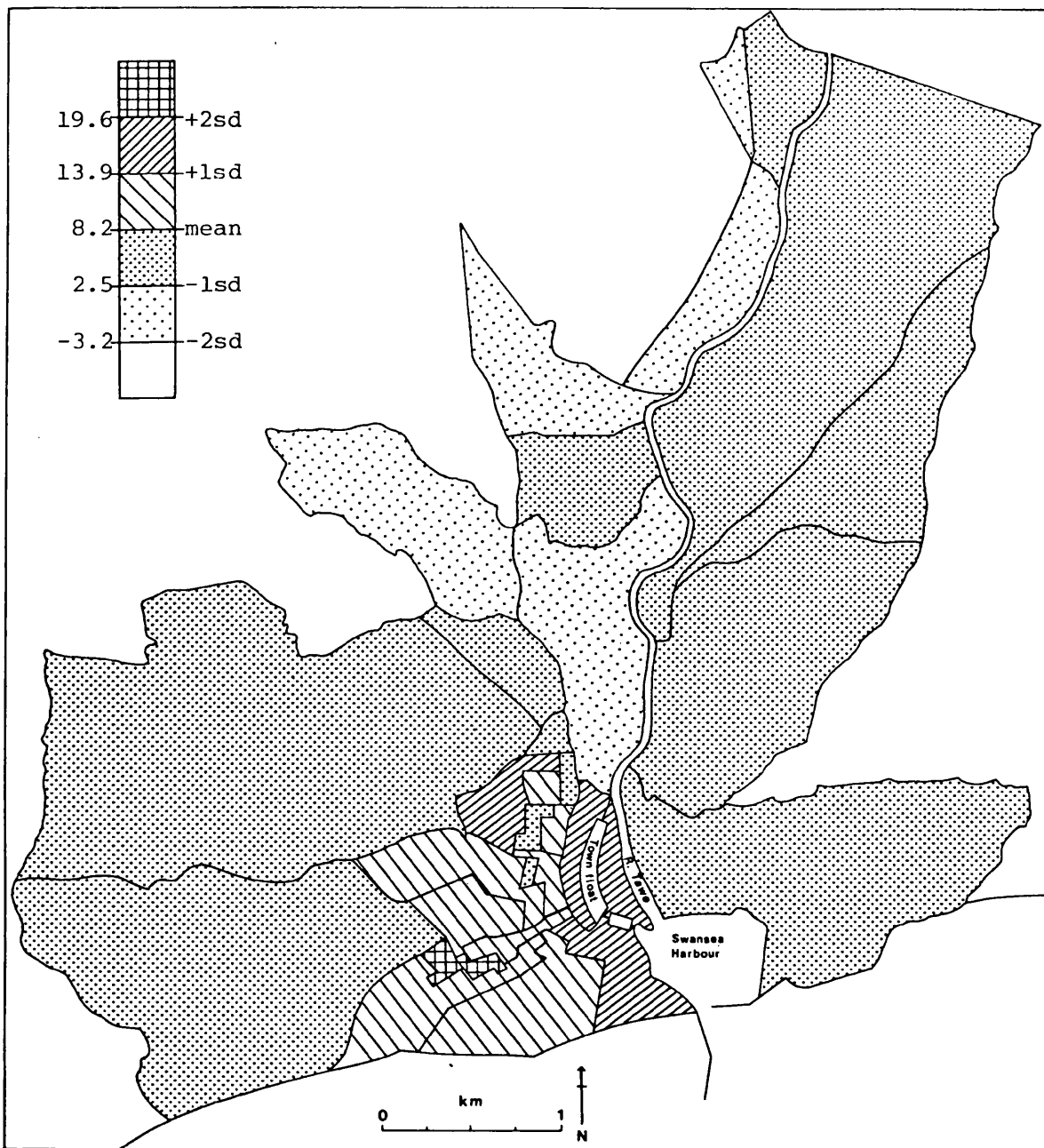


Figure 8.6 : Distribution of the population born in England outside South-West England as a percentage of the total population:1851, enumeration districts.

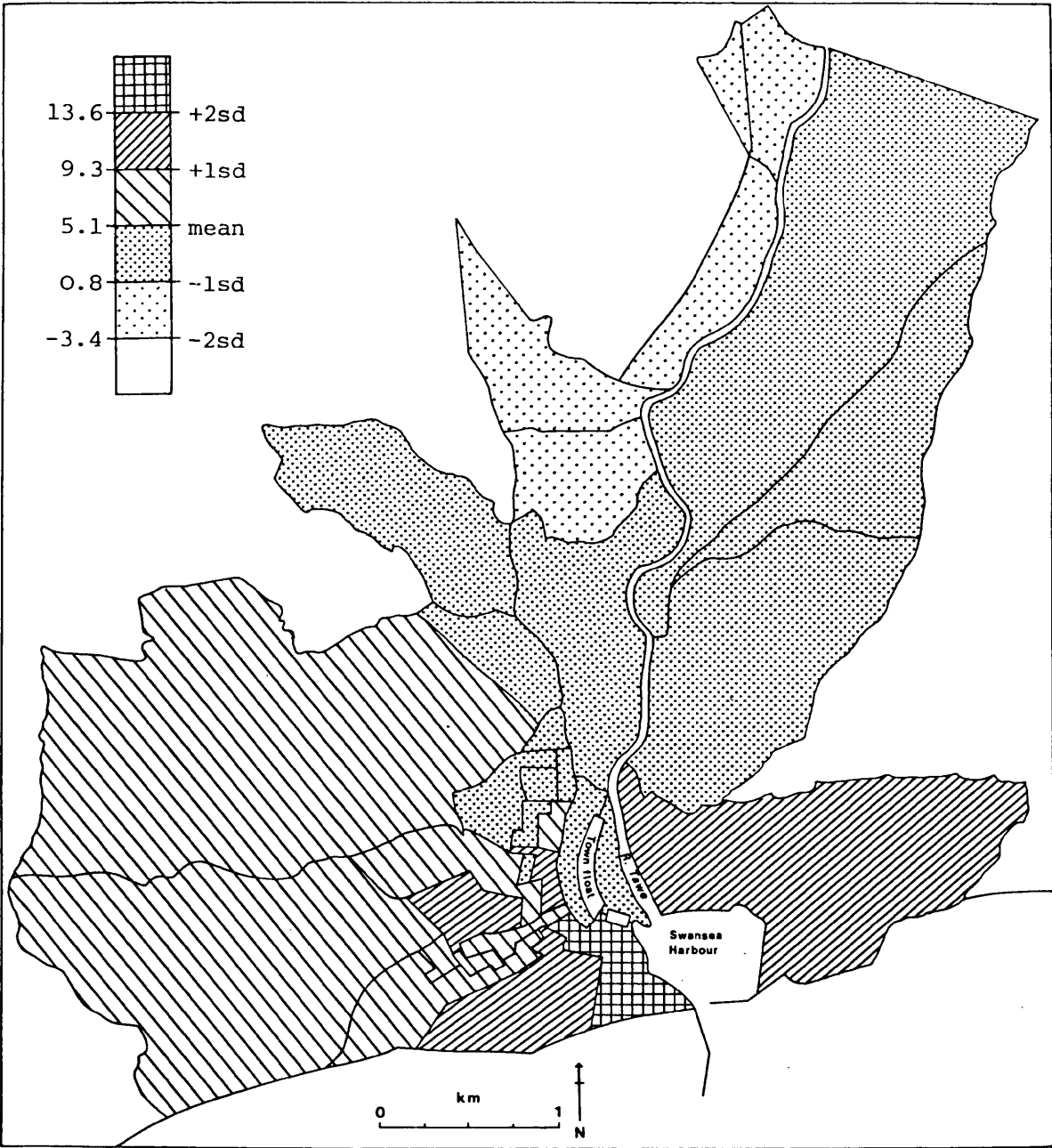


Figure 8.7 : Distribution of the population born in Ireland as a percentage of the total population:1851, enumeration districts.

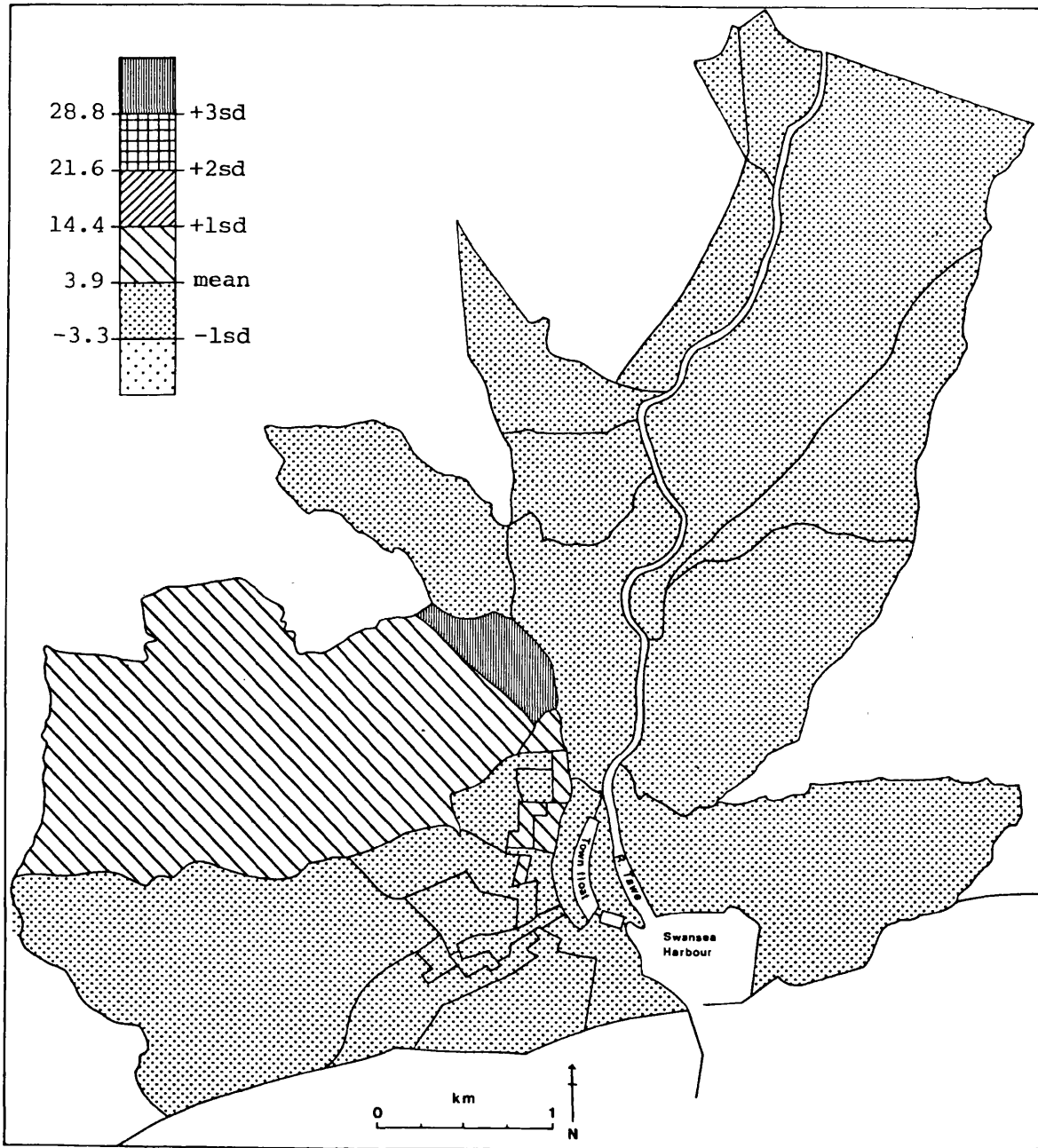


Figure 8.8 : Distribution of the population born Overseas as a percentage of the total population:1851, enumeration districts.

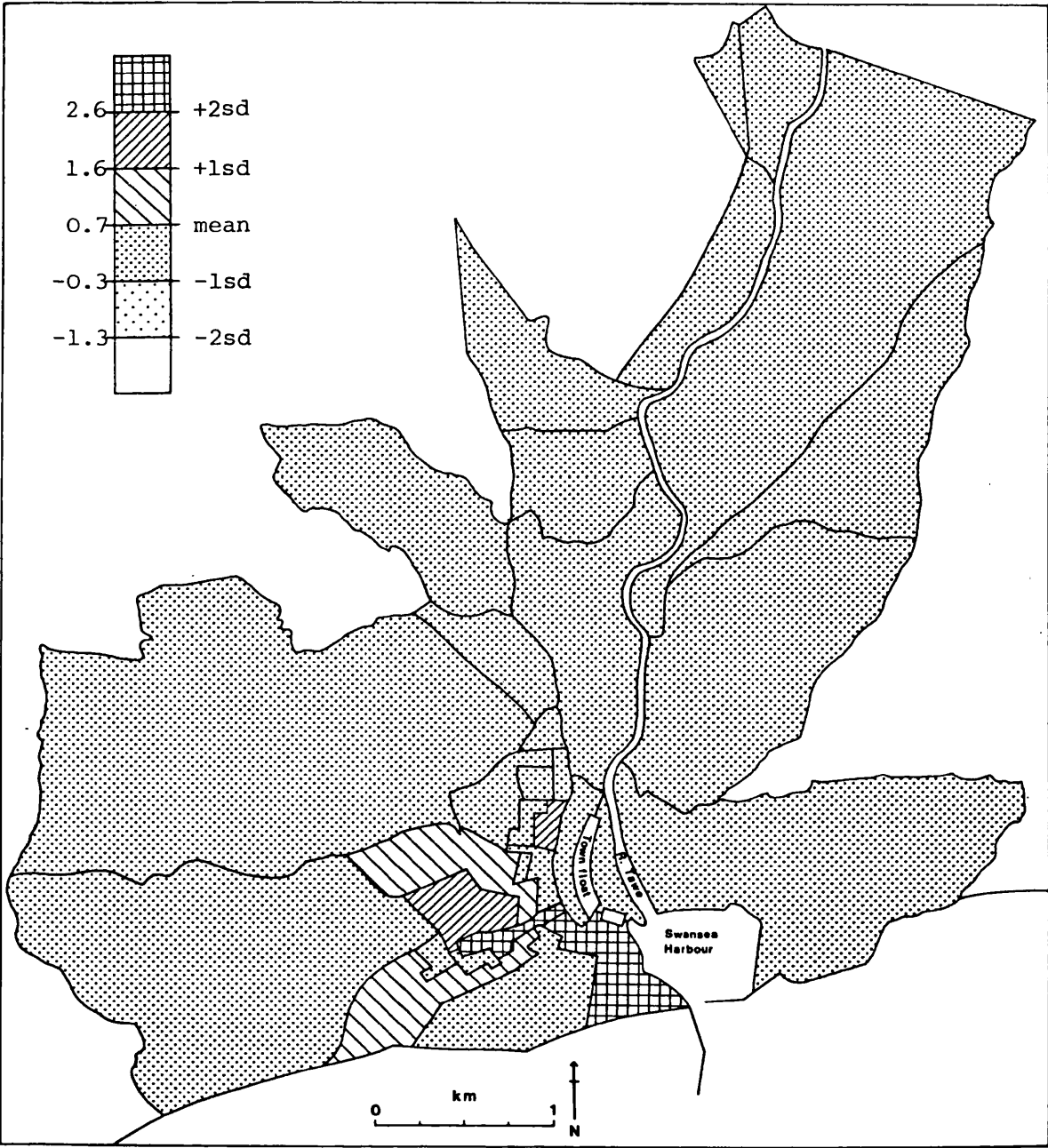


Figure 8.9 : Distribution of the population born within the borough as a percentage of the total population:1851, enumeration districts.

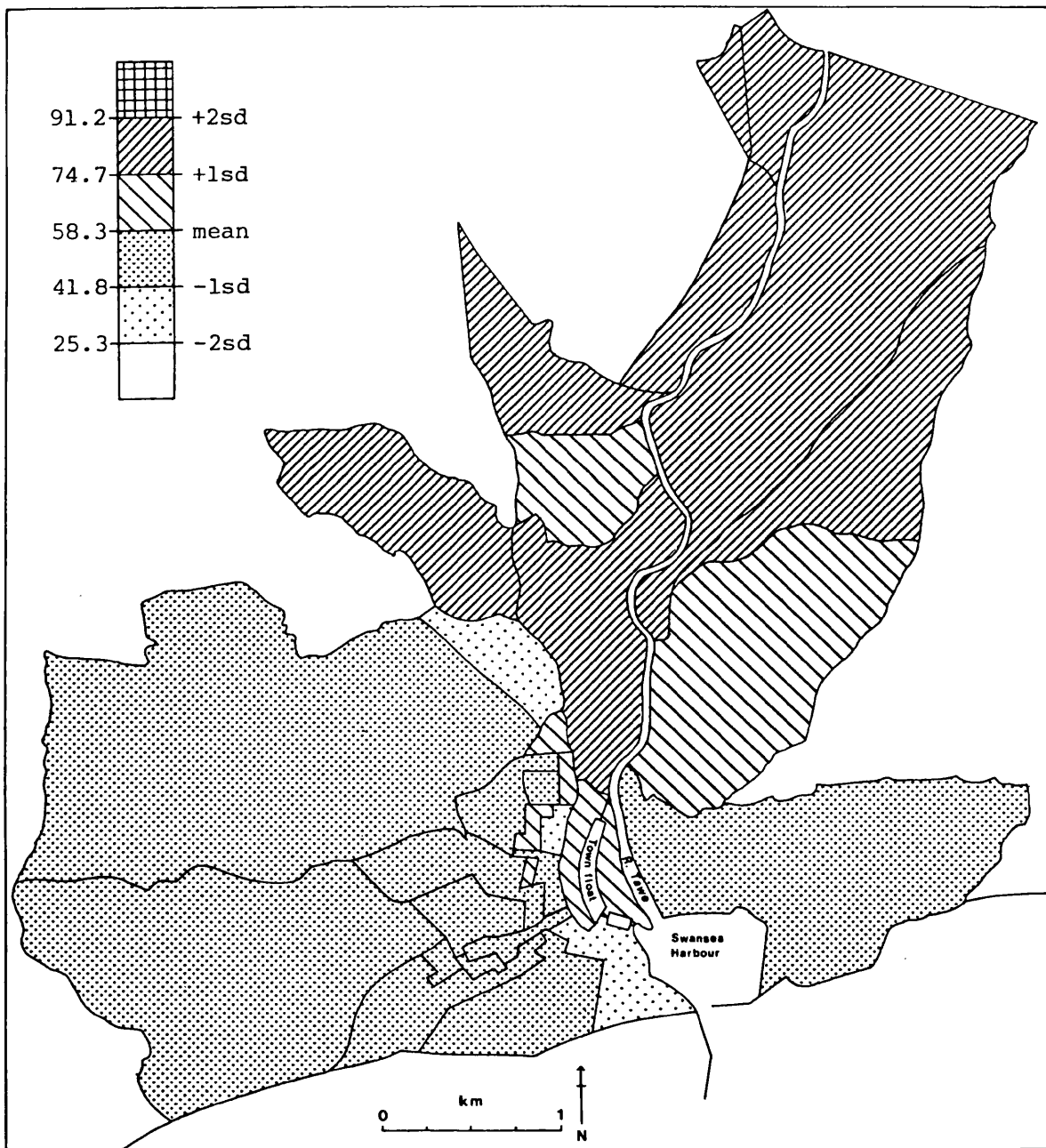


Figure 8.10 : Distribution of heads born within the borough as a percentage of all heads:1851, enumeration districts.

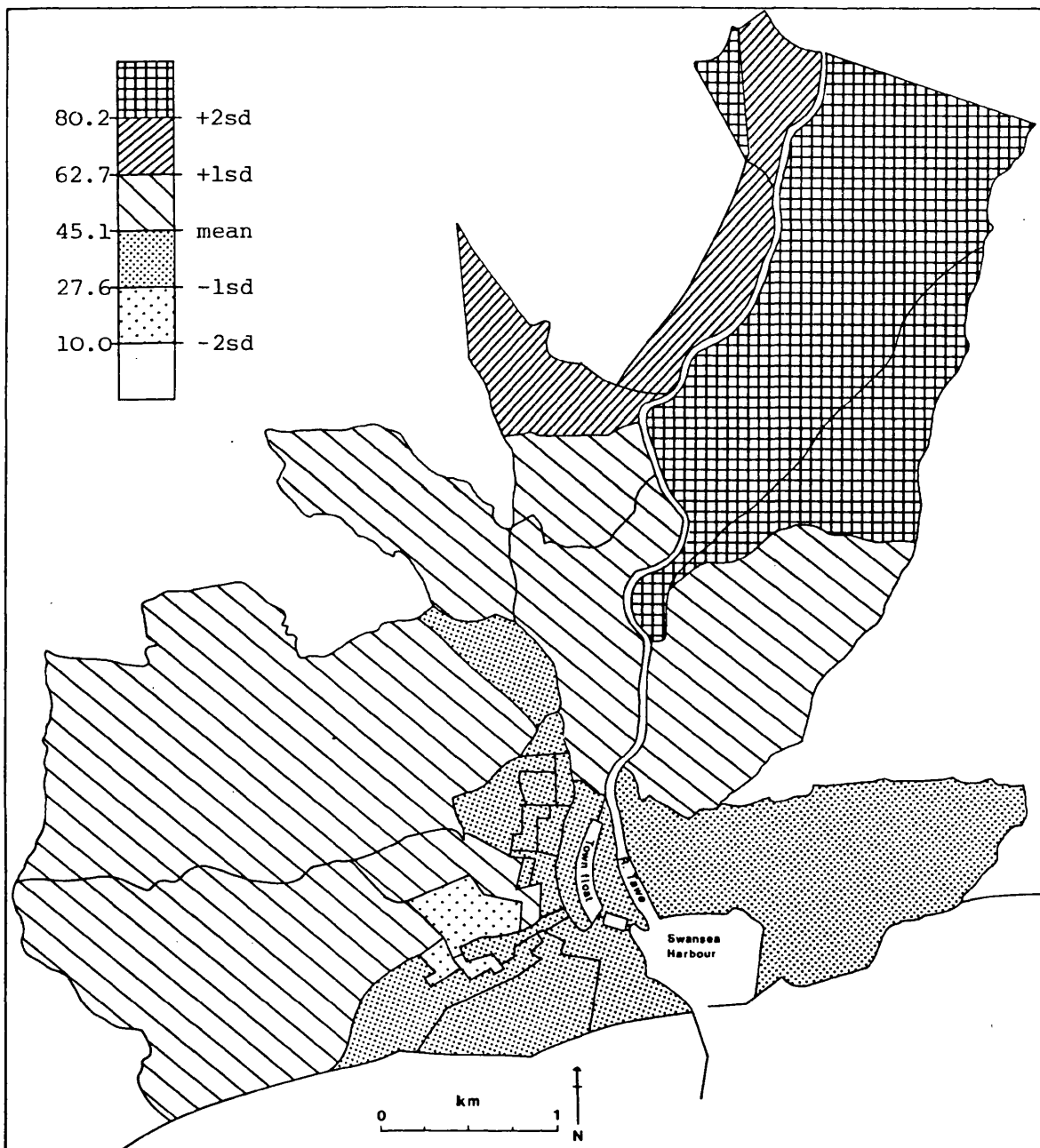


Figure 8.11 : Distribution of heads born in Wales outside Swansea Municipal Borough as a percentage of all heads:1851, enumeration districts.

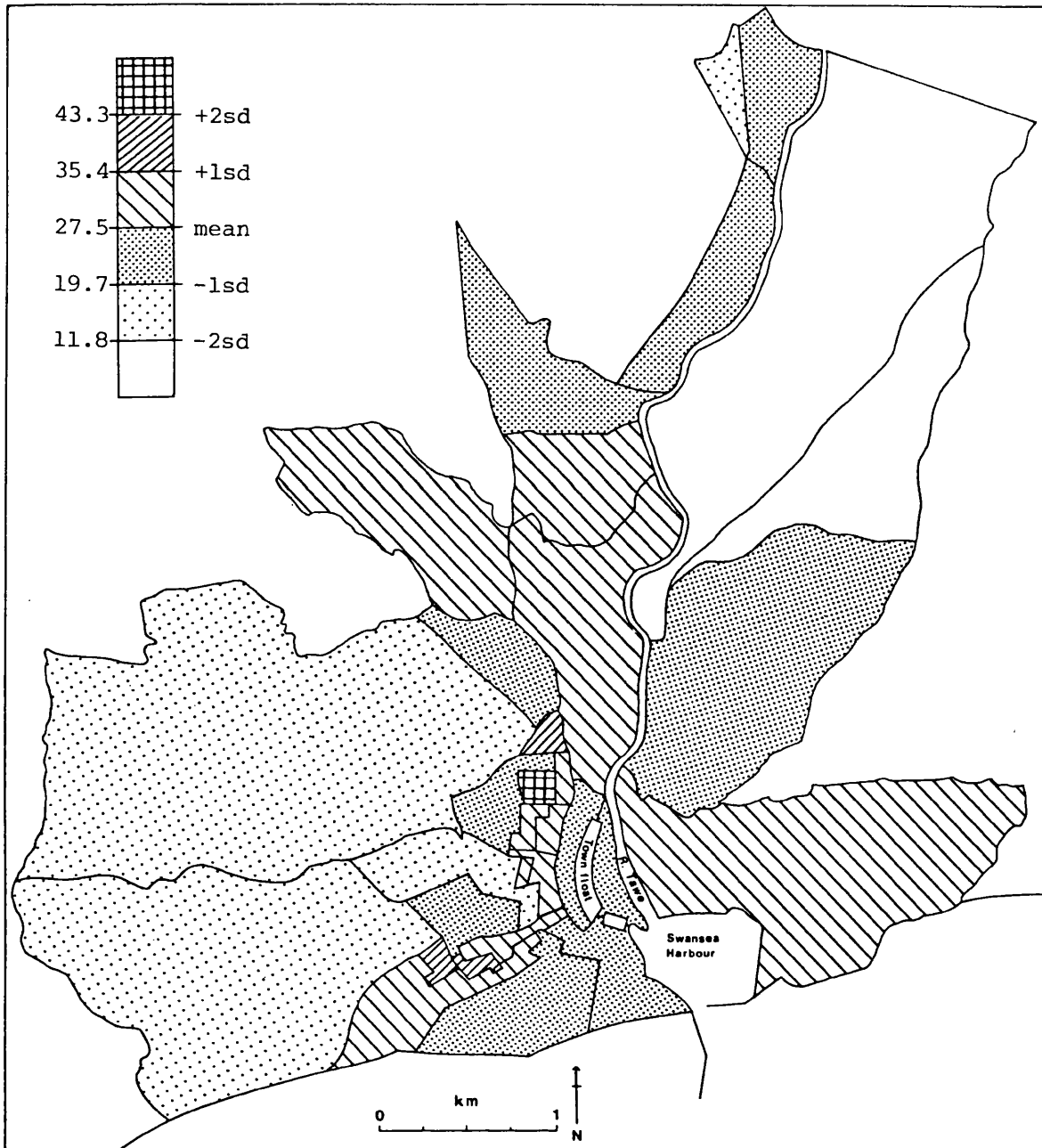


Figure 8.12 : Distribution of heads born in South-West England as a percentage of all heads:1851, enumeration districts.

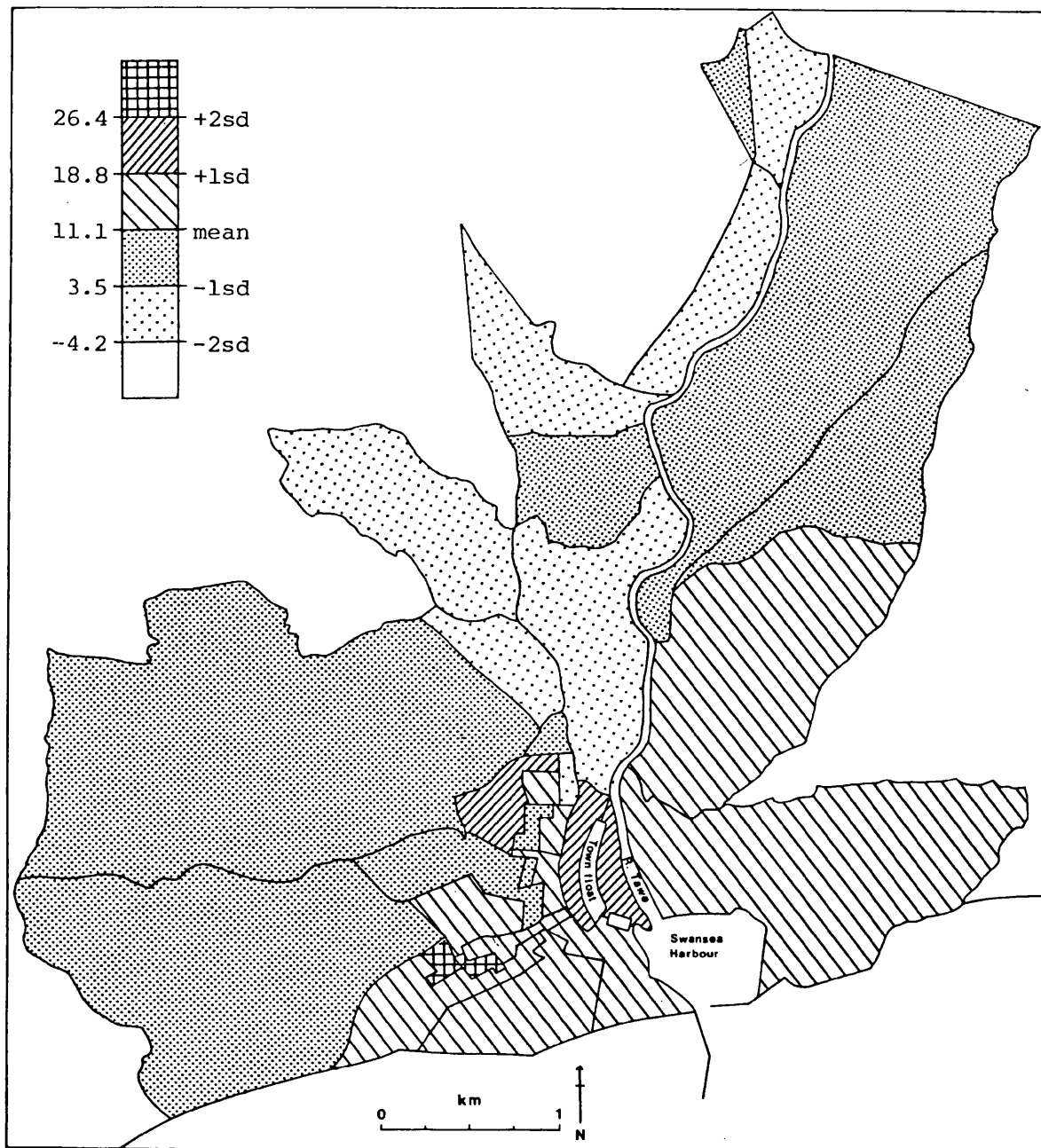


Figure 8.13 : Distribution of heads born in England outside South-West England as a percentage of all heads:1851, enumeration districts.

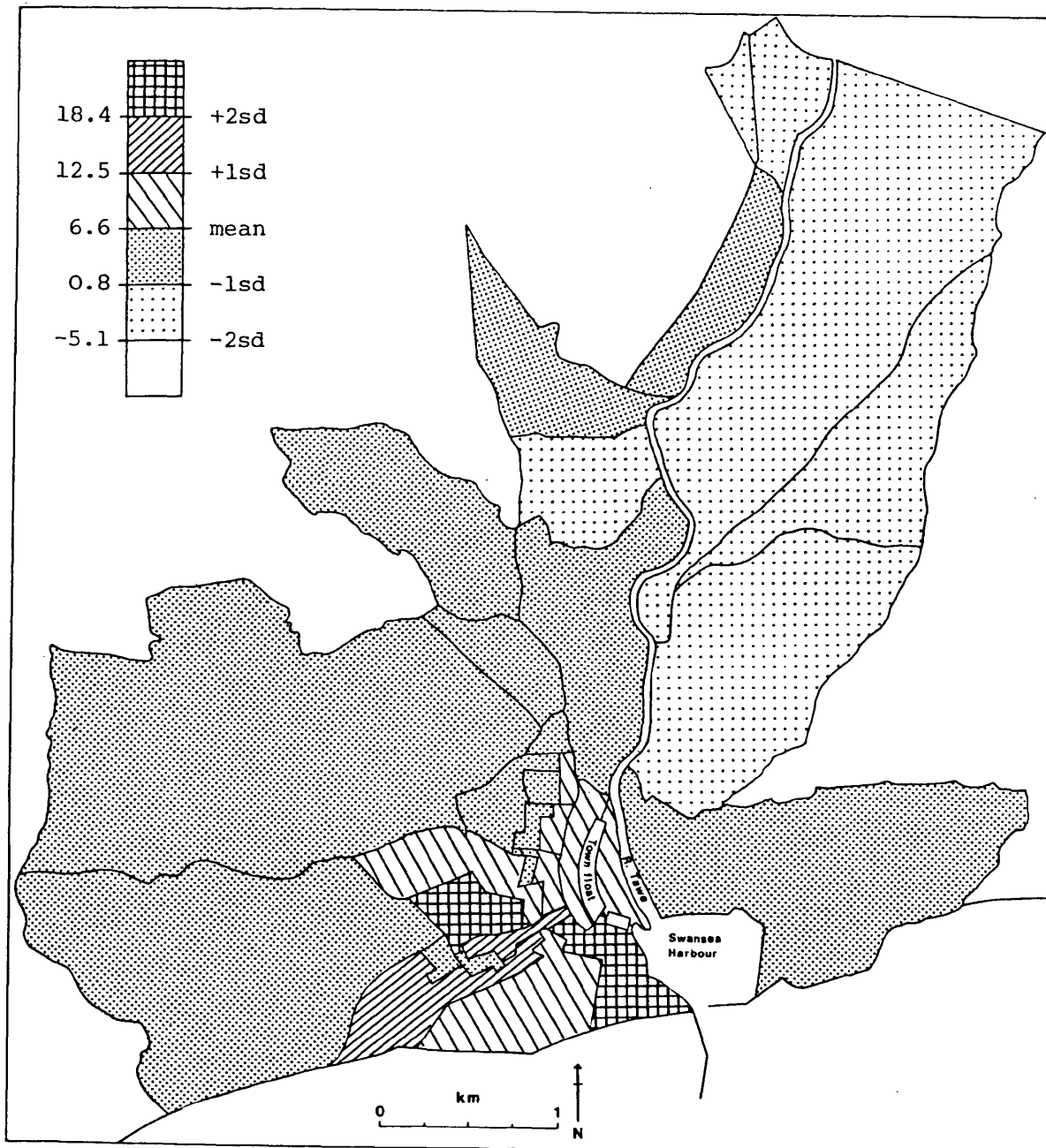


Figure 8.14 : Distribution of heads born in Ireland as a percentage of all heads:1851, enumeration districts.

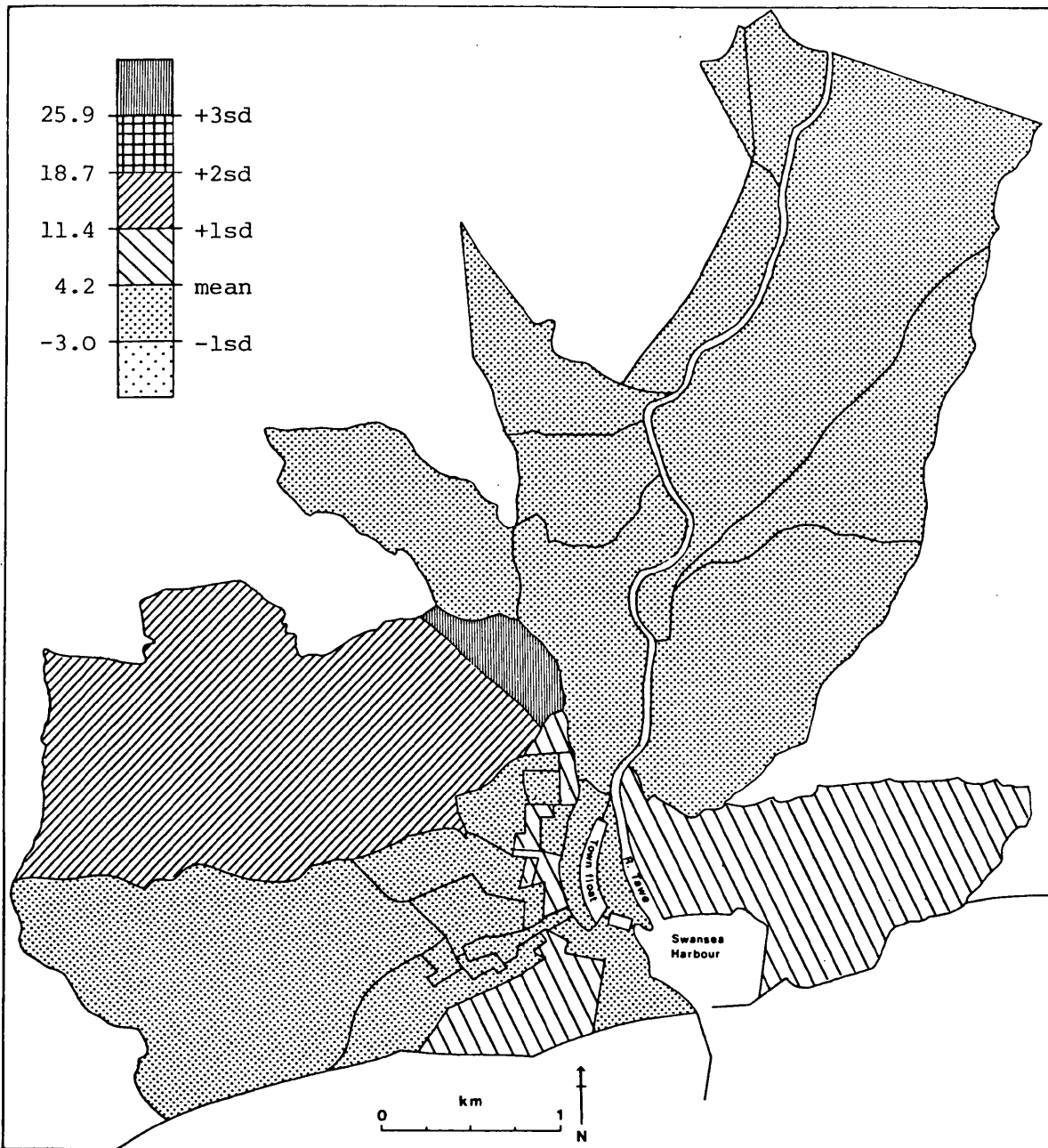


Figure 8.15 : Distribution of the population born within the borough as a percentage of the total population:1851, grid

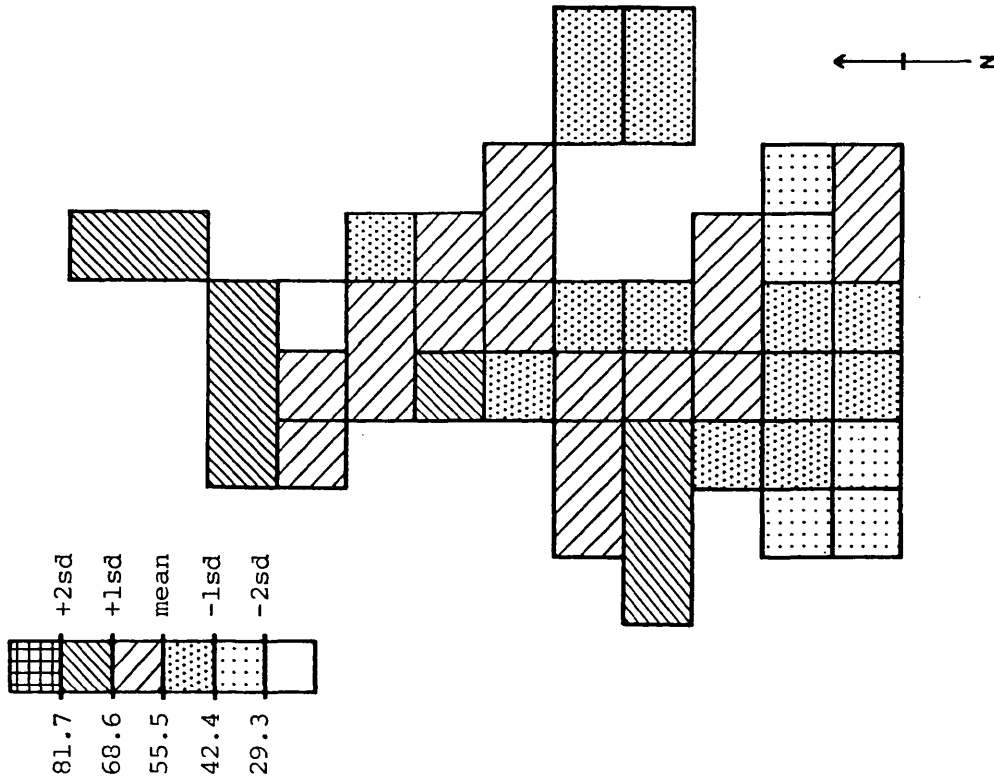


Figure 8.16 : Distribution of the population born in Wales outside Swansea Municipal Borough as a percentage of the total population:1851, grid

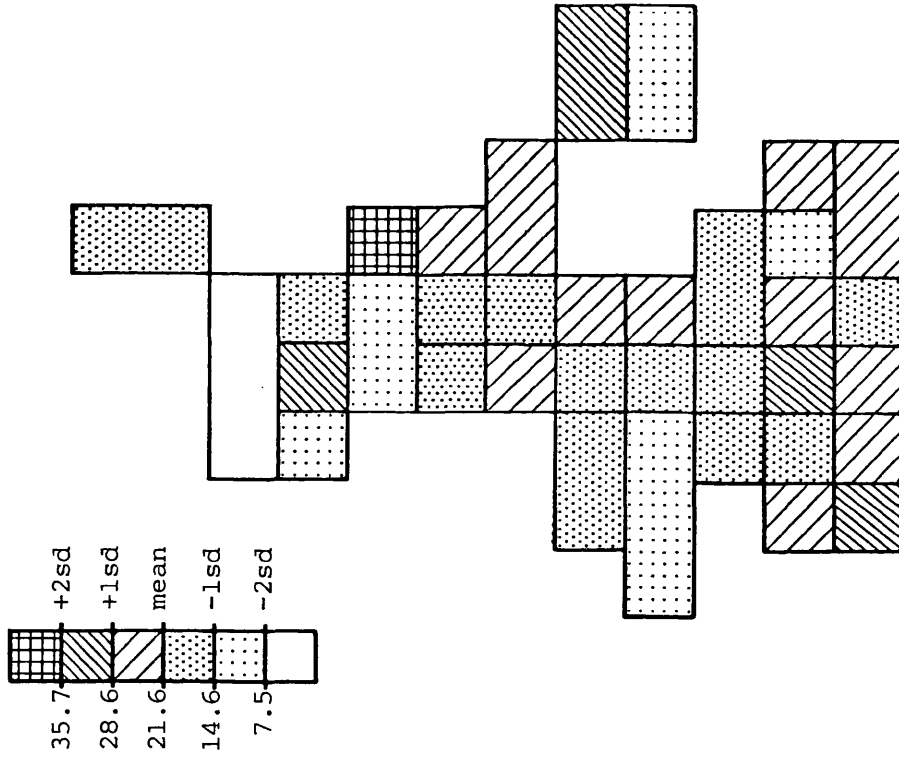


Figure 8.17 : Distribution of the population born in South-West England as a percentage of the total population:1851, grid

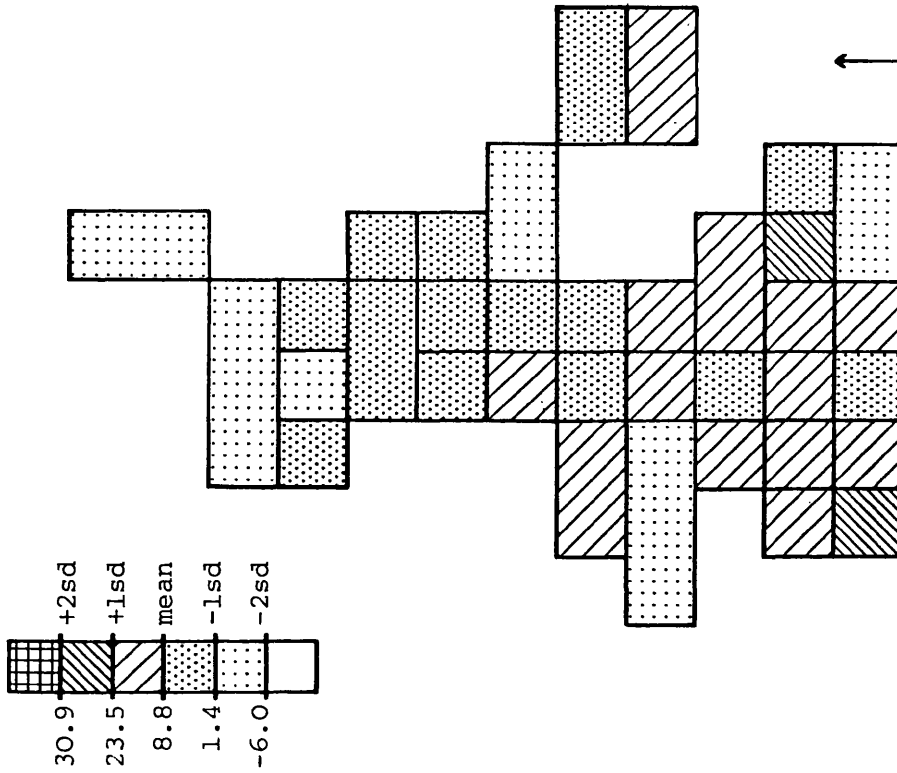


Figure 8.18 : Distribution of the population born in England outside South-West England as a percentage of the total population:1851,grid

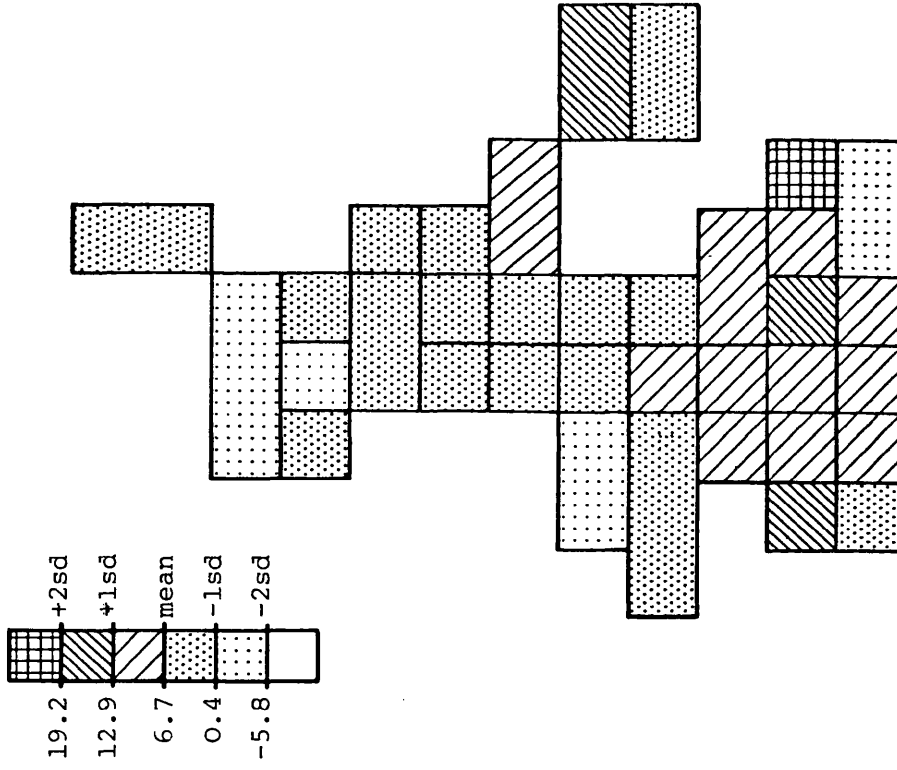


Figure 8.19 : Distribution of the population born in Ireland as a percentage of the total population:1851, grid

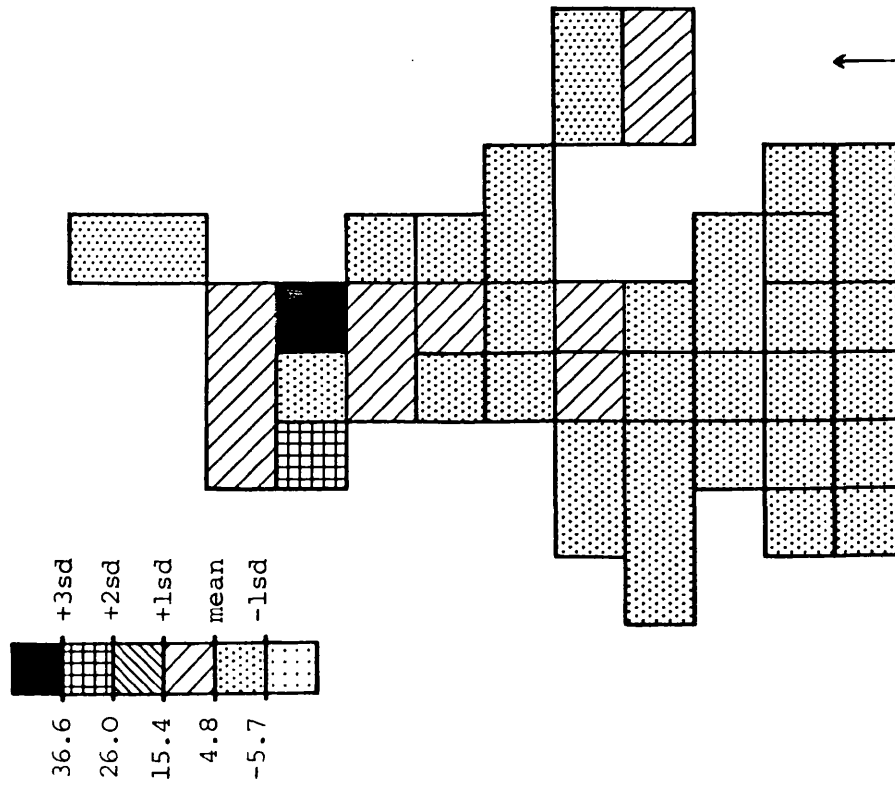
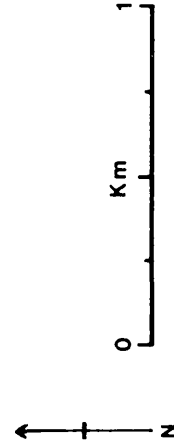
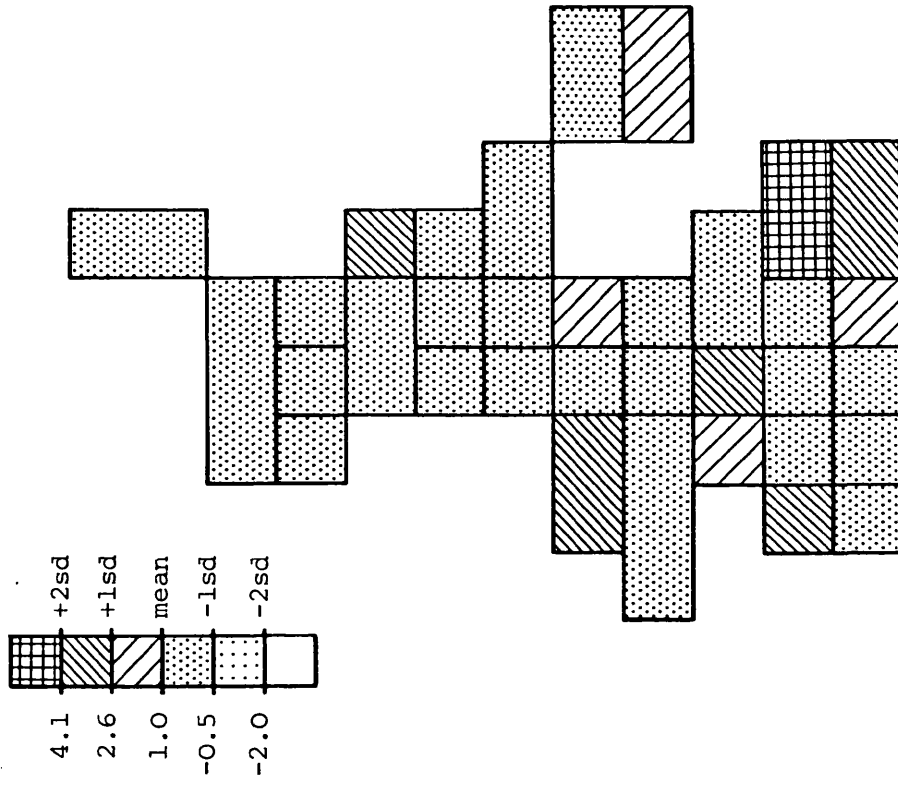


Figure 8.20 : Distribution of the population born overseas as a percentage of the total population:1851, grid



(ii) The primary interest here is in the effect of migrant status on residential location. Because of this it is desirable to isolate heads, since it can be assumed that the head is the most influential co-residing group member in choosing a residential location and his/her choice is less constrained by other factors than is the choice of other household members.

(iii) Birthplace statistics for the total population tend to highlight those areas where in-migration has been most recent since these areas will not contain large numbers of Swansea-born children of migrant families. Other areas in which migrants settled at an earlier date, and where many children have been born in migrant families, may function as migrant areas just as strongly as newly-settled areas. This is because these children would be regarded by others as having the same migration background as their parents and indeed would inherit much of their parents' culture. For instance, children of Carmarthenshire-born migrants were likely to speak Welsh as their first language, even if they resided in an area of the town where the English language was predominant, and children of Irish parents would follow the Catholic faith and inherit their parents' disadvantaged position in society. Therefore, if the county or country from which one inherits one's culture is seen to affect life-style, life-chances and residential location, birthplace in the case of children is not always meaningful for this purpose. This problem, of course, is not confined to children and one has no means of telling from the census whether adult birthplaces are meaningful in this sense, not only because some of the adults may have been brought up in a culture alien to their surroundings, but also because they may have moved in infancy. However, although one can do little to improve birthplace as

a surrogate for cultural and other social characteristics, a closer approximation of the residential location of cultural groups can be achieved by omitting children from the figures, and the fact that birthplace-defined migrant groups often display strong relationships with other variables, suggests that, at an aggregate level, birthplace is meaningful in terms of life-style, social standing and residential location.

The relationships revealed by the three sets of maps and Tables 8.7 and 8.8 are discussed below. The residential location of the six major birthplace groups, i.e. the Local-born, the Rest-of-Wales-born, the South-West-England-born, the Rest-of-England-born, the Ireland-born and the Overseas-born, is discussed in turn. In the case of the Wales-born migrants, a further set of maps is provided for the previously defined sub-divisions of this relatively diverse group.

(a) The Locally-born population

The main feature of the residential distribution of the locally-born population is its domination of the northern outer borough. The migrant population, especially the non-Welsh migrant population, is overwhelmingly concentrated in the town. In the Outer Borough, 73.82% of the population is locally-born compared with 49.87% in the town itself. The locally-born percentage is as high as 87 per cent in three of the northern districts in the outer borough and is over 75 per cent in eight of the eleven districts in the "smelting" area of the outer borough. The lack of any migrants other than Welsh migrants in most of the outer borough is possibly in part due to the "Welshness" of the area and the primacy of the Welsh language and culture. However, the lack of

migrants in general, and non-Welsh migrants in particular, in the outer borough is also possibly related to the distribution of employment opportunities. The domination of the northern outer borough by the locally-born group suggests that the smelting works were not significantly manned by migrant labour. This is partly to be expected, since most of the work in the smelting industry was skilled or semi-skilled and, unlike such artisan trades as carpentry and tailoring, the skill was unlikely to be possessed by persons coming from outside the smelting areas. However, it is hard to imagine how such large industrial undertakings (by mid-nineteenth-century standards) could have grown up in a formerly rural area without substantial in-migration of labour and continue to expand through most of the nineteenth century. The date at which each works was established, however, suggests that an initial in-migration of labour during the eighteenth century and first decade of the nineteenth century, produced a pool of skilled labour which would be locally sustained by the apprenticing of copper workers' sons and other local youths, and the expansion and multiplication of works up to 1851 would be sustained by the natural increase in the local population, experienced in the nineteenth century. The main works opened as follows: White Rock 1720, Forest 1747 (extinct from 1845), Middle Bank 1755, Upper Bank 1777, Rose 1795, Hafod 1810, Landore 1811, Morfa 1834.⁸ It is obvious from these dates that sudden upward fluctuations in labour-force requirements caused by the opening of new works and, therefore, possibly requiring significant in-migration of labour, would have no effect on the 1851 totals of migrants, except in the case of the Morfa works. Contemporary comment supports the view that little difficulty would have been encountered in attracting local labour into the copper works, since the standard of living afforded by their workforce was superior to that of

other equally skilled artisans,⁹ and the dispersal of workmen during periods of slack trade was prevented by the payment of "play" wages.¹⁰ Evidence of the tendency for sons to follow their fathers into the works is found in the Census sample and commented on in coeval documents.¹¹ Furthermore, John has asserted that the gradual development of the copper industry, over more than one-and-a-half centuries, made the short distance movement of skilled labour inevitable. When the Fforest Copper Works opened in Swansea in 1717 it obtained most of its chief men from Sir Humphrey Mackworth's Melin-y-gryddan works at Neath.¹²

Within the town, the locally-born population show a tendency, as might be expected, to be most strongly represented in the older parts of the town. Its representation is particularly weak in the newly-constructed Sandfields area of the town, especially the most recent addition to it - the south-western corner.

(b) Wales-born migrants

The Wales-born migrants are the only migrant group significantly represented in the outer borough. They are present in relatively large numbers in three of the enumeration districts in the smelting area and this suggests that any shortfall in the local labour supply to the works was being met mainly by short-distance migration. (These migrants were not necessarily employed in the smelting works, however, as the works employed just under half of the economically-active in these districts). Since some degree of skill was required, one would expect most of the migrant copper-workers to come from other areas where non-ferrous metal-refining was present, i.e. from elsewhere in western Glamorgan (excluding Gower), South West Carmarthenshire and coastal Flintshire.¹³ This is indeed the case as Table 8.9 shows.

Table 8.9

Persons employed in metal-smelting works as a percentage
of the total economically-active by selected birthplace
groups, 1851

<u>Birthplace</u>	<u>Per cent</u>
1. Swansea)	6.3
2. Llansamlet and Llangyfelach) Local-born	32.9
3. Llandilo-Talybont, Llangwig, Loughor	23.1
4. Gower	2.1
5. Rest-of-Glamorgan	19.1
6. Carmarthenshire	12.6
7. Pembrokeshire	5.1
8. Monmouthshire	0.0
9. Brecknockshire	0.0
10. Mid and North Wales	16.7
11. South-West-England	8.7
12. Rest-of-England	0.0
13. Ireland	5.9
14. Overseas	7.7
15. Unknown, illegible or ambiguous	2.5

These figures reveal that approximately one fifth of the economically-active Glamorgan-born migrants (categories 3 and 5), excluding those from Gower (category 4), were employed in the smelting works and further breakdown of these figures shows that the majority of the metal workers in birthplace category 5 were from the ecclesiastical parish-group Neath/Cadoxton, where other smelting works are to be found. (The Crown, The Mines Royal, Bankhart's-Red-Jacket, Taibach-Vivian & Sons). The high proportion of metal workers in the Llandeilo-Talybont/Llangwig/Loughor parish-group can be linked to the presence of the

Spitty Works at Loughor and, similarly, the Carmarthenshire metal-workers come mainly from the Llanelli-Pembrey area where copper works are also to be found.¹⁴ (Neville & Sons, Mason & Elkington). The metal workers in category 9, Mid and North Wales-born, are composed almost entirely of skilled copper workers born in Flintshire and residing in Foxhole (E.D. 27). 27.0 per cent of the Mid and North Wales-born are found in this district, the district accounting for only 3.4 per cent of the total population.

If it is true that the presence of second generation migrants dilutes the percentages, then the head-of-household distributions show a former reception area for Wales-born migrants in the outer borough in the copper-smelting districts of Pentre Estill/Hafod/Landore (E.D.s 19, 20, 21) where a third of household-heads are Wales-born in-migrants. On the other hand, Welsh migrant heads are less strongly represented than Welsh migrants in Foxhole and the fact that the number of Flintshire-born persons in this district (whom, in this case, form the majority of Welsh migrants) had increased by 1871, suggests that this particular influx may have taken place in the immediate period flanking 1851.

Within the town, the widespread distribution of the Wales-born confirms the picture, revealed by the indices of dissimilarity and segregation, of a low level of segregation between this group as a whole and other birthplace groups. Even though the Wales-born collectively are a weakly segregated group, one would still expect Welsh migrants to show a tendency to gravitate towards the northern sector of the town which was reputedly more Welsh than the English-dominated southern part. According to the total population distributions, this does not appear to be the case, although the highest concentration of Welsh migrants does

occur in Grid-square 70 in the north of the town. Comparison of the head-of-household distributions with the enumeration-district distributions, however, does reveal that, lower Greenhill (E.D.15) and the Tontine Street area (E.D.13), contain much stronger concentrations of Welsh-headed migrant-households than Welsh migrants. This suggests that the centre of the northern part of the town was, indeed, formerly an important reception area for Welsh migrants.

It was noted earlier that the Wales-born migrant population, when broken down into smaller birthplace groups, showed quite high levels of segregation between its constituent parts. Figures 8.21 to 8.26 examine whether those migrants from the Anglicised areas of Wales were more heavily represented in the south of the town.

Gower and Pembrokeshire are the most Anglicised areas, followed by Glamorganshire (which includes both Anglicised and Welsh areas). In the case of the Gower-born population, there is an obvious concentration in the southern half of the town and also, as was indicated by the index of segregation, strong clustering in one area of the town, namely the Gam Street area (Grid-square 27) where 21.2 per cent of the population are born in Gower. There is a less heavy concentration in Grid-square 17 where 14.2 per cent of the population are Gower born. This is expressed at enumeration-district level by 21 per cent of all heads in E.D.4 having been born in Gower. The Pembrokeshire-born population show a marked relative absence from the commercial area of the town but, even so, still retain more of a tendency to concentrate in the south, 65.8 per cent of their number living south of the northern edge of Grid-squares 55, 56, 57, 58 (excluding those east of the river). Their

Figure 8.21 : Distribution of the population born in Glamorgan outside Swansea and Gower as a percentage of the total population:1851, grid

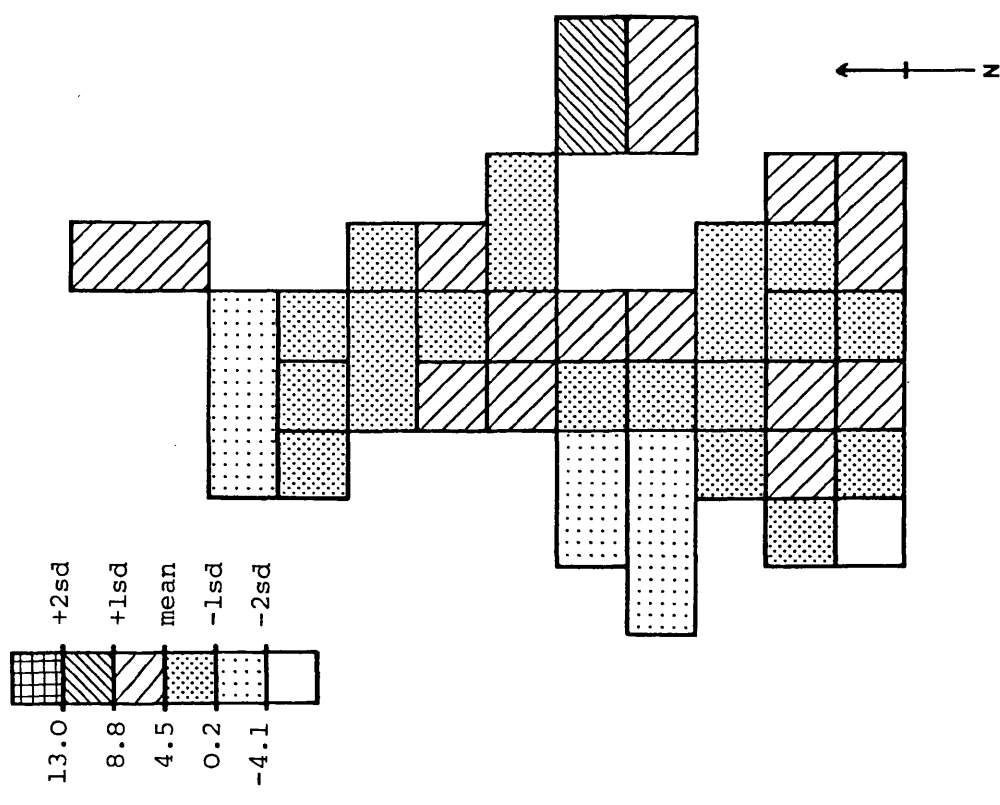


Figure 8.22 : Distribution of the population born in Gower as a percentage of the total population:1851, grid

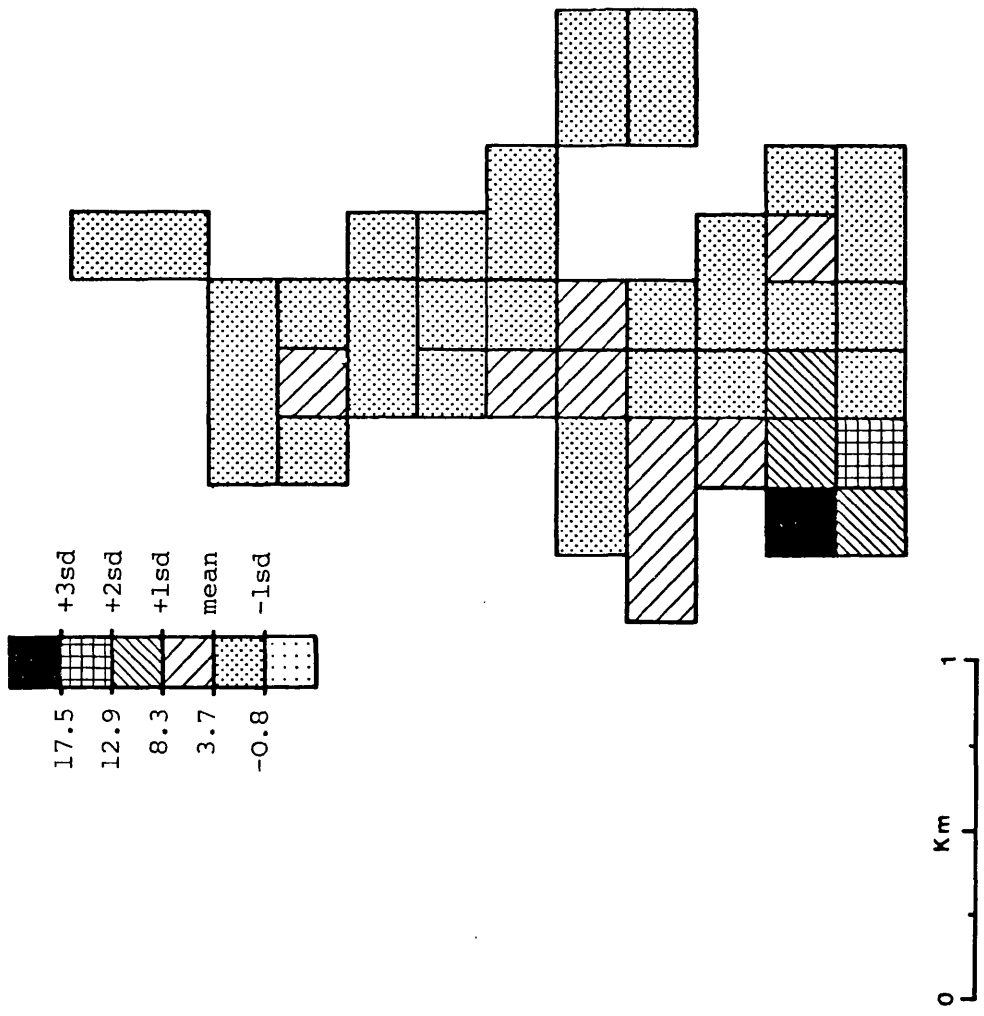


Figure 8.23 : Distribution of the population born in Carmarthenshire as a percentage of the total population:1851, grid

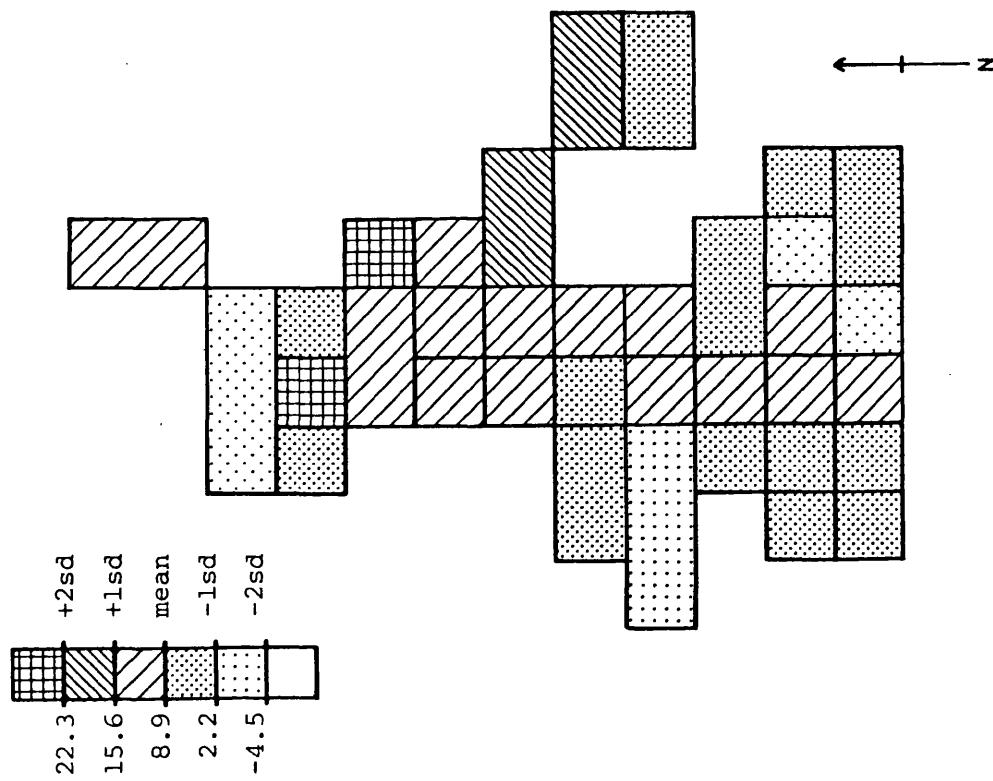


Figure 8.24 : Distribution of the population born in Pembrokehire as a percentage of the total population:1851, grid

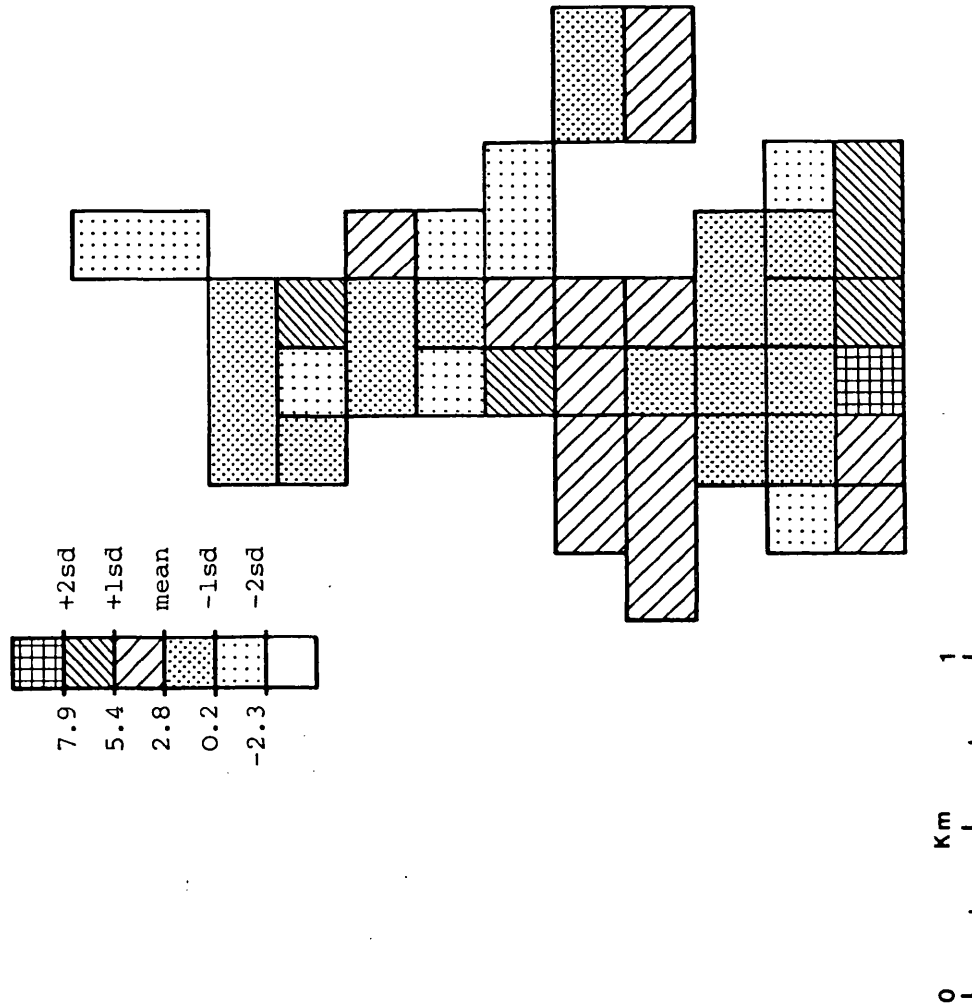


Figure 8.25 : Distribution of the population born in Monmouthshire and Brecknockshire as a percentage of the total population: 1851, grid

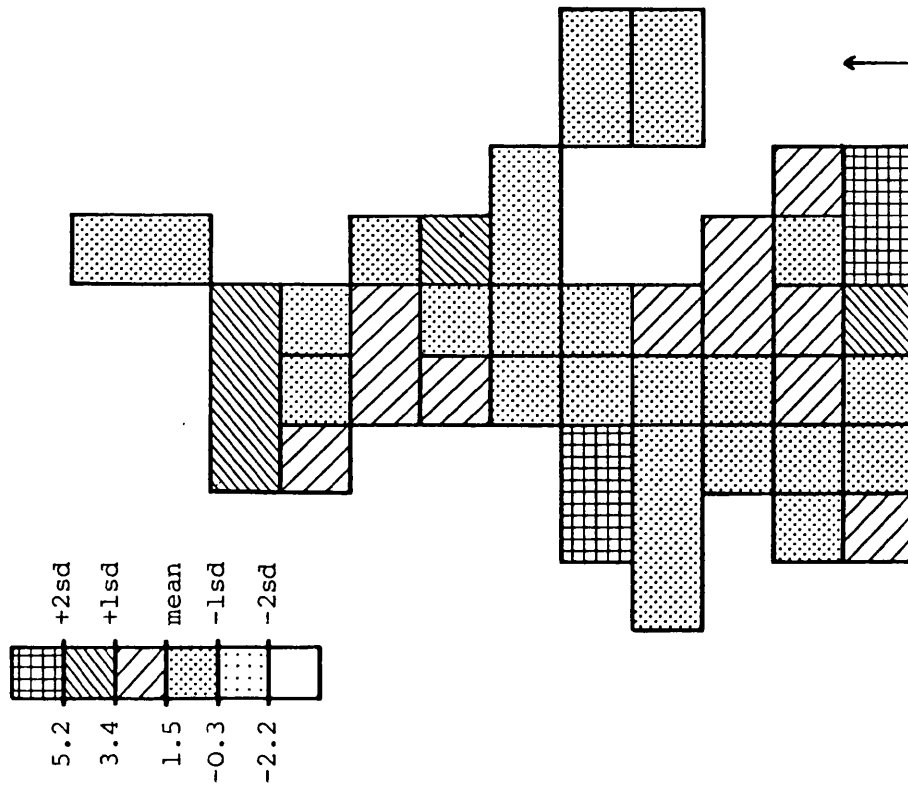
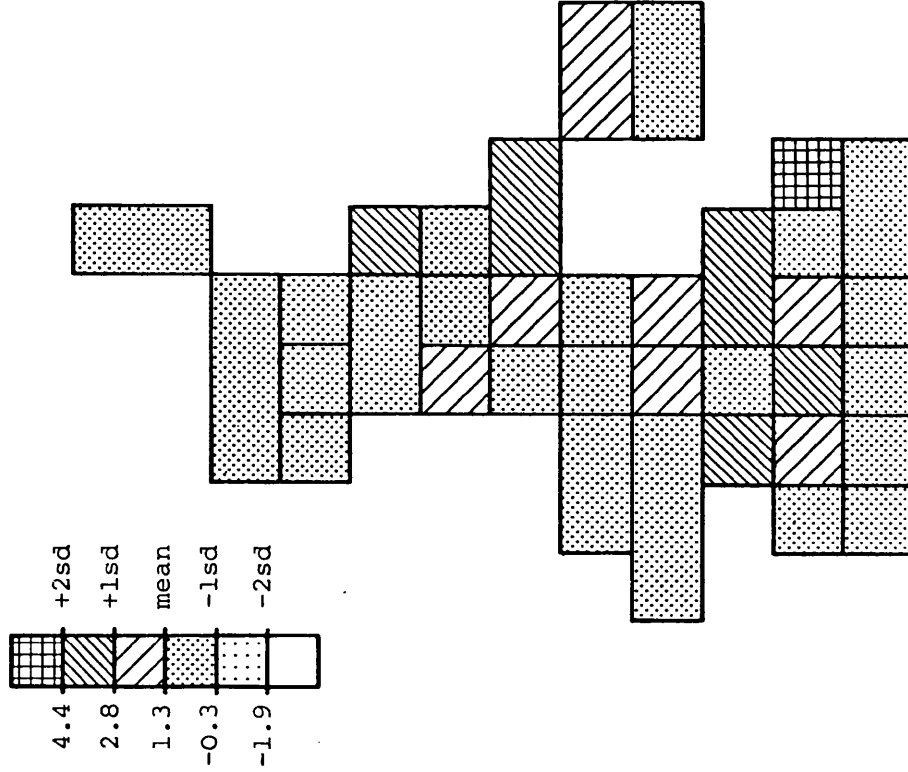


Figure 8.26 : Distribution of the population born in Mid and North Wales as a percentage of the total population: 1851, grid



heaviest concentration is in Grid-square 16 on the Sandfields where they form 10.7 per cent of the total population. An interesting aspect of their distribution is the relatively high concentration in the Irish-dominated Charles Street area, Grid-square 74, where the Pembrokeshire-born form 6.3 per cent of the population, only a small part of which is accounted for by Pembrokeshire-born children of Irish parents. The main feature of the Glamorgan-born migrants, excluding those from Gower, is their tendency to settle in the metal-smelting areas of Hafod (Grid-square 82/84) and St. Thomas (Grid-squares 47/48, 53/54) but they otherwise show no particular tendency to reside in English or Welsh areas.

Of the non-Anglicised Welsh migrant-groups, the Carmarthenshire-born are the only group to show a greater tendency to settle in the north of the town and they form over 20 per cent of the population in four northern squares of the town.

It seems, therefore, that there is a tendency for migrants from the less Welsh areas of Wales to settle in the south of the town, where the English language predominated and Conformist religion was dominant. It is not possible from the census data, however, to tell whether south-town-resident, Welsh migrants were English-speaking, or to what extent each part of the town was dominated by either language.

There may be other explanations, however, for the location of the observed concentrations of some of the Wales-born subgroups. One wonders whether the heavy concentration of the Gower-born in the Gam Street area has simply occurred due to a phase of building on the Sandfields coinciding with a flow of migrants from Gower, or whether the position of this area between the two forks of the Gower turnpike

(Oystermouth Road, St. Helen's Road) was instrumental in the settling of Gower families there. Coaches to Oystermouth were frequent (8 daily) and passenger transport was also available on the Mumbles Tramroad.¹⁵ It is likely that migrants from Gower to Swansea would have previously visited the centre of Swansea and the Sandfields area would, if they came via the turnpike or the tramway, be prominent in their mental maps of the town, and this could make it, for them, the obvious residential area in which to settle.

It is noticeable also that the Carmarthenshire-born are heavily represented in Grid-squares 75 and 70, through which the turnpike from Carmarthen passes on its way into the town. It is unlikely that Carmarthenshire migrants had previously visited Swansea, but it is a plausible hypothesis that such migrants would search for rented accommodation in the first available area on reaching the town. A similar process may have occurred with Glamorganshire-born migrants (many of whom came from Neath parish), since they had the choice of crossing the Tawe at Morryston (Wych Tree Bridge) and following the 'New Road to Neath' down through the Hafod or, alternatively, of crossing in Swansea at its mouth by following the road from Llansamlet down through Foxhole and St. Thomas. This may account for their indicated presence in St. Thomas and the Hafod. However, Swansea was still a sufficiently small town at this time for migrants to become familiar with all parts of it quickly and the residential location of Glamorgan-born residents is more easily explained by the possession by this group of metal-smelting skills. The distribution of Gower-born and Carmarthenshire-born migrants may indeed simply reflect the English and Welsh biases of the two halves of the town.

(c) Rest-of-England-born migrants

The Rest-of-England-born have above-average outer borough representation in three districts, the English presence in districts 17 and 18 (Brynmill, Uplands, Townhill) is linked to the strong relationship between this migrant group and social classes 1 and 2 and the presence of villas and estates in this area. The head-of-household distribution shows that the exclusion of servants and relatives, in particular, removes the influence of the large, high-class households in the outer borough.

Within the town, the strong link between the England-born and social classes 1 and 2 is again apparent, although this relationship is partially lost at grid-square level, due to the positioning of the grid-lines. This class bias among the England-born is contributory to the marked relative absence of England-born migrants in the north of the town, but it is likely that their stronger south-town presence is more generally due to an avoidance of the "Welsh" area of the town.

(d) South-West-England-born migrants

The South-West-England-born show a marked absence in the outer borough, according to the total population distribution, but the head-of-household distribution shows that there was formerly significant migration into the two south-eastern enumeration districts of the outer borough (Foxhole, St. Thomas/Port Tennant) and their presence in St. Thomas and Port Tennant is possibly explained by the links between this group and workers in sea-related occupations. It will be remembered from Table 8.9 that 8.7 per cent of South-West-England-born economically-active persons were employed in metal-smelting. The majority of these were residing in Foxhole.

Within the town, the residential location of South-West-England-born migrants is best illustrated by the grid-square map, since the wider span of percentages produced by the lack of South-Western English in the outer borough gives the impression of strong representation in almost all areas of the town. The South-West-England-born migrants show a much weaker presence in the high-class areas of the town than their counterparts born in the rest of England, but, like the Rest-of-England-born, they show a south town preference. One area of the north of the town, however, has a strong South-West-England-born presence and this is, in fact, due to a heavy concentration in one particular street, namely New Street on the western edge of the northern extension of the town.

(e) Ireland-born migrants

The Ireland-born, like the other non-Welsh migrant groups, are largely absent from the outer borough. The above-average percentage in E.D.18 (Townhill) where 9.6 per cent of the total population is Irish, is entirely due to the positioning of the enumeration-district boundaries, almost all the Irish families in this district being found on its eastern edge (Carmarthen Road). The families are living, therefore, in the Greenhill area of the town rather than in the outer borough.

The extreme concentration of the Irish in the Greenhill area of the town, revealed by the enumeration district map, is shown in Figure 8.19 to be especially concentrated in Charles Street, Emma Street and Michael Row (Grid-square 74). 30.2 per cent of the total Irish population living in the town live in these three streets. A further 13.7 per cent live on the Carmarthen Road at Waun Wen in Grid-square 76. In Grid-square 74, 58.3 per cent of the population are Ireland-born and

in Grid-square 76, 28.6 per cent are Ireland born.

Comparison of the head-of-household distribution with the total population distribution shows that the Ireland-born population is more strongly concentrated in the north of the town in the Greenhill area and the courts adjoining High Street and Back Street than are Irish-headed households. This suggests that there was some upward social movement of Irish families associated with a move out of the Irish area.

(vi) Overseas-born migrants

The spatial distribution of the Overseas-born is not considered to be as meaningful as the other distributions due to the small size of the Overseas-born population but the high concentration in Grid-squares 22 and 23, resulting in Overseas-born percentages of 6.4 and 4.3, respectively, is unlikely to be entirely spurious, and the location of these squares points to a connection between this group and the town's function as a port. This is supported by the fact that 23.1 per cent of the Overseas-born economically-active population of the borough is engaged in sea-related occupations, a higher percentage than that for any other group.

4. Birthplaces of various types of co-residing group members compared

Table 8.10 compares the percentages of heads and wives, servants, relatives and lodgers falling into selected birthplace categories with the total population falling into those categories.

Table 8.10

Birthplaces of selected types of household member compared,
1851

<u>Birthplace</u>	<u>Heads + Wives</u>	<u>Servants</u>	<u>Relatives</u>	<u>Lodgers</u>	<u>Total Population</u>
Swansea, Llansamlet, Llangyfelach	44.79	42.74	59.26	26.70	59.94
Llandilo-Talybont, Llangwig, Loughor.	1.02	2.75	2.02	0.52	0.68
Gower	4.32	5.50	3.03	3.14	3.04
Rest-of-Glamorgan	4.23	5.10	4.71	3.93	3.18
Carmarthenshire	12.68	14.51	5.05	9.68	7.87
Pembrokeshire	3.35	5.88	1.68	7.07	2.48
Monmouthshire	0.68	0.39	0.00	1.57	0.77
Brecknockshire	0.49	0.78	0.34	0.00	0.40
Mid and North Wales	1.94	3.53	1.35	2.88	1.57
South-West-England	11.47	8.63	12.46	15.71	8.72
London	1.12	1.96	1.68	2.62	1.07
Rest-of-England	6.07	3.14	4.38	8.64	4.44
Ireland	4.66	3.92	3.37	14.14	3.99
Overseas	0.97	0.39	0.34	2.62	0.68
Unknown	2.19	0.78	0.34	0.78	0.98

Several features of interest emerge from this Table. The heads and wives, servants and lodgers groups all contain a lower proportion of the Local-born than does the total population, and this is undoubtedly due to the total absence of children in the first two groups and their relative absence among lodgers. Relatives, on the other hand, possess an almost identical proportion of Local-born to the total population. The high percentage of locally-born relatives could, however, also indicate that the tendency for 'rooted' families to live as extended families was

stronger than the tendency for relatives to follow established migrant families and live with them, perhaps on a temporary basis. It is assumed that the number of extended families migrating together would be small, single people being the most migratory.¹⁶ It is noticeable that the number of South-West-England-born relatives is disproportionately high, implying that the tendency for relatives to follow pioneering migrants was high.

Servants display a stronger tendency to come from nearby areas (Gower, Llandilo-Talybont/Llangwig/Loughor, Rest-of-Glamorgan, Carmarthen-shire) than do the other groups and a stronger bias towards Welsh birth-places in general than do the other groups.

Lodgers, on the other hand, are more likely to come from more distant locations than are other groups of household members, the proportion of their number coming from all areas outside the two counties of Carmarthen and Glamorgan exceeding the proportion of heads and wives coming from these areas. In the case of the Ireland-born population, lodgers are approximately three times more likely to have been born in Ireland than are heads and wives and three-and-a-half times more likely to come from Ireland than the sample population as a whole. This concentration of lodgers among the Irish is typical. Richardson, for example, found that over a quarter of the Irish population in Bradford in 1851 were lodgers.¹⁷ The lodger group is characteristically made up of whole families living as lodgers of other families, rather than consisting mainly of single migratory males and 'tramping artisans'. The mean number of lodgers for Irish-headed households is 0.82, that for the total sample of households being 0.32.

5. Socio-economic characteristics of migrant groups

As stated earlier, there is a connection between a person's birthplace and his economic-wellbeing. Table 8.11 cross-tabulates the economically-active from selected birthplaces with the Registrar General's five-fold classification of social classes.

This table reveals that non-Welsh migrants (excluding the Irish) are more successful socio-economically than both the Welsh migrants and the locally-born population. Apart from the Irish, the groups which have the lowest social-class structure are those from West, Mid and North Wales. The low social status of the Ireland-born is revealed by almost two-thirds of their number falling into class 5 and a total absence of class 1 members.

Table 8.11
Social class composition of Welsh migrant subgroups and major birthplace groups, 1851

<u>Birthplace</u>	Per cent				
	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3</u>	<u>Class 4</u>	<u>Class 5</u>
Unknown	2.56	15.38	71.80	7.70	2.56
Swansea	6.76	12.81	51.78	13.70	14.95
Llansamlet and Llangyfelach	2.00	5.50	50.00	30.00	12.50
Gower	4.44	15.55	38.90	25.56	15.55
Rest of Glamorgan	2.43	17.07	41.47	26.83	12.19
Carmarthenshire	2.76	8.96	56.55	15.17	16.55
Pembrokeshire	2.63	5.26	65.79	13.16	13.16
East, Mid and North Wales	4.54	9.09	61.37	11.37	13.64
South-West-England	1.55	20.93	48.07	18.61	10.85
Rest-of-England	8.69	32.35	39.71	4.41	14.71
Ireland	0.00	4.17	23.96	11.35	60.42
Overseas	8.33	16.67	66.66	0.00	7.69

The Rest-of-England-born have the highest percentage in both class 1 and class 2 but the South-West-England-born, Overseas-born, Gower-born and Rest-of-Glamorgan-born migrants also have high percentages in Class 2. The large percentage of the Rest-of-England-born falling into classes 1 and 2 (41.4 per cent) is mainly composed of migrants from the urban areas of England. Among the London-born, for instance, 58.3 per cent are in classes 1 and 2, almost all the remainder falling into Class 3. These figures support the view that higher social status is obtained by those with previous urban experience.¹⁸ (Birthplace, however, is a very crude measure of the presence of such experience).

The tendency for the metal-smelting works to be manned by locally-born persons (Llansamlet and Llangyfelach-born) and persons from other smelting areas of western Glamorgan is reflected in the high class 4 percentages given for these birthplace groups. The Gower-born also have a high class 4 percentage (25.6 per cent) and analysis of their occupations shows that this is due to a large number of them seeking similar occupations on arrival in Swansea to those they may have expected to enter had they stayed in Gower. 17 per cent are agricultural labourers, gardeners, fishermen, carters and draymen. With the exception of gardening, they entered these occupations to a greater extent than any other birthplace group.

Table 8.12 shows the percentages of economically-active persons falling into Armstrong's nine industrial groups for selected birthplace categories.

Taking each industrial group in turn, in the case of agriculture and fishing, the above-noted tendency of the Gower-born to enter

Table 8.12

Breakdown of birthplace by industrial group : Welsh migrant sub-groups and major birthplace groups, 1851

Per cent

Birthplace	Agriculture and Fishing	Mining	Building	Manufacturing	Transport	Dealing	Industrial Service	Public Service & Professions	Domestic Service
Swansea	2.66	3.42	14.83	33.46	9.89	16.73	8.74	4.18	6.08
Llansamlet, Llangyfelach	2.15	15.59	6.45	50.53	3.76	11.83	7.53	0.54	1.61
Gŵer	13.95	2.33	9.30	16.28	23.26	18.60	9.30	2.33	4.65
Rest-of-Glamorgan	9.80	3.92	11.76	35.29	9.80	17.65	5.88	3.92	3.92
Carmarthenshire	3.57	1.43	12.86	40.00	4.29	17.14	14.29	3.57	2.86
Pembrokeshire	2.86	2.86	22.86	34.29	11.43	5.71	8.57	5.71	5.71
East, Mid and North Wales	6.25	0.00	6.25	43.75	9.38	15.63	9.38	6.25	3.13
South-West England	2.40	1.60	6.40	42.40	15.20	16.80	6.40	4.00	4.80
Rest-of-England	1.32	0.00	10.53	28.95	10.53	26.32	6.58	10.53	5.26
Ireland	4.26	0.00	6.38	14.89	6.38	14.89	46.81	0.00	6.38
Overseas*	0.00	0.00	0.00	40.00	20.00	30.00	0.00	10.00	0.00
Unknown	2.56	2.56	5.13	2.56	64.10	10.26	0.00	7.69	5.13
All birthplaces	3.53	4.49	10.51	35.82	11.27	16.14	10.03	4.30	3.92

* Figures only given for completeness. Standard errors invalidate their use.

occupations in this group to a greater extent than other birthplace groups; is shown to be true, to a lesser extent, of the other Glamorgan-born migrants. The East, Mid and North-Wales-born and the Irish also entered agriculture to a greater extent than the population as a whole.

The already mentioned presence of carters and draymen among the Gower-born population is shown to be part of a more general association of this group with transport. (23.3 per cent of the Gower-born economically-active are employed in transport, approximately half of whom are mariners). The other birthplace group with a strong bias towards transport is the South-West-England-born population, with 15.2 per cent of its economically-active in this industrial group. The South-West-England-born are more strongly connected with sea transport, however, with three-quarters of their transport workers being so engaged.

All groups, excepting the Pembrokeshire-born, have a strong association with dealing and the above-average number of employment opportunities offered by the dealing sector is a consequence of the town's port function. The increase in general trade, which the presence of the port produced, is reflected in high densities of public houses and lodging houses and more merchants, factors and agents than a town of this size would normally sustain. Although almost all birthplace groups are affected by this, the Rest-of-England-born are noticeably more strongly associated with dealing. (The correlation between the percentage of the total population born in England outside south-west-England and the percentage of the total population in dealing is 0.723, significant at the 99 per cent level). A similar situation has been found in other Welsh towns.¹⁹ Detailed analysis of the dealing sector shows that, although almost all birthplace groups are well represented in the sector, they

occupy different parts of it, these parts reflecting the class differences between birthplace groups noted earlier. The England-born are running shipping and other agencies, major public houses/hotels (in the vicinity of Wind Street and Castle Bailey Street) and non-convenience stores such as draperies. On the other hand, almost half the Swansea born in dealing are grocers, lodging-house keepers²⁰ and unlicensed victuallers, as are two-thirds of those born in the outer borough parishes and the rest of Glamorgan. Approximately half of the Irish in dealing are hawkers and pedlars.

Manufacturing is strongest among the local population of the outer borough, where the metal works account for most of the manufacturing employment. Within the town it is strongest among those birthplace groups whose artisans possessed manufacturing skills to a greater relative extent than building skills and among those who are not strongly associated with the extremes of the social-class scale. Among the Swansea-born population, the building trades have a relative predominance, with stone masons accounting for 17 per cent of all non-metal-works artisans (only slightly less than shoe-making, which is absolutely the most numerous non-metal-works, artisan occupation among the total population) and house-building occupations, as a whole, account for 40 per cent of all Swansea-born artisans outside the metal works. The Pembrokeshire-born and Gower-born also have a greater relative tendency to enter building trades than manufacturing trades, the Gower-born having the lowest percentage in manufacturing of all birthplace groups other than the Irish. The South-West-England-born and the Mid and North Wales-born, on the other hand, each have a stronger relative tendency to enter manufacturing than building trades and the South-West-England-born have a strong tendency to enter one manufacturing trade in particular. While

shoe-making is the most numerous trade among non-metal-works artisans, accounting for 19 per cent of their number, the South-West-England-born population entered it to a greater extent than any other birthplace group, 31.2 per cent of their non-metal-works artisans being so engaged. (23 per cent of all shoe-makers were born in South-West England). There are other instances of association of birthplace groups with particular artisan trades. The Carmarthen-born, for example, while entering both manufacturing and building trades to a greater extent than the population as a whole, dominate one particular occupation, namely tailoring. 17.0 per cent of their non-metal-works artisans are tailors and 47 per cent of all tailors are Carmarthenshire-born. This is associated with a more general dominance in textiles and clothing (excluding footwear), as a whole, 36 per cent of all weavers, for example, being Carmarthenshire-born.

As regards the extremities of the social scale, Table 8.12 confirms the domination of the public services and professions by the English. The industrial service group, at the other end of the social scale, is mainly composed of general labourers and the very high percentage for the Irish and the higher percentage for the Welsh migrants than the English migrants, confirm the position revealed by the social-class table.

In general terms, the distribution of birthplace groups among industrial sectors and occupations can be seen to reflect the association between residence and workplace noted earlier. In the case of the non-migrant population, those born in the outer borough parishes of Llansamlet and Llangyfelach entered the locally available employment (mining, metal manufacture, chemical manufacture) in large numbers, but hardly any of them took advantage of the employment opportunities available in the rapidly growing port only one to four miles distant. Consequently,

Llansamlet and Llangyfelach-born persons are found in sea-related occupations or living in the town in very small numbers. Similarly, persons born within the town very rarely moved within the borough to take up employment in the metal-smelting works or commuted to the works. The 6.3 per cent who did work in metal-smelters (Table 8.13) are largely found in St. Thomas (which falls within Swansea St. Mary parish) and the Hafod (some of which falls within Swansea St. John parish) and, therefore, may not be town-born in the strictest sense.

Table 8.13
Comparison of percentages employed in sea-related occupations
and metal-works by selected birthplace groups

<u>Birthplace</u>	<u>Percentage employed in</u>	
	<u>Metal Works</u>	<u>Sea-related Occupations</u>
Swansea	6.3	11.8
Llansamlet, Llangyfelach	32.9	2.3
Gower	2.1	19.2
Rest-of-Glamorgan	19.1	7.2
Carmarthenshire	12.6	4.4
Pembrokeshire	5.1	7.7
East, Mid and North Wales	16.7	9.2
S.W. England	8.7	10.1
Rest-of-England	0.0	10.1
Ireland	5.9	4.0

Table 8.13 also demonstrates the Welsh bias of the metal-smelting industry and the English bias of the port. The position of the South-West-England-born is interesting, however, since 8.7 per cent of the economically-active in this group are employed in the metal works, three quarters of these being in copper. This is probably due to the fact that copper and tin ores were still being supplied from Cornwall.

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These connections between birthplace and occupation suggest a very parochial outlook among job-seekers. It seems that, wherever employment was available in the immediate vicinity (and both the inner and outer boroughs were experiencing expanding employment opportunities at this time), the population tended not to look beyond their parish boundaries to obtain a choice of pursuits. Among migrants, the same parochial outlook is apparent, in certain groups, through the tendency to enter occupations which were common in their place-of-birth.

6. Demographic characteristics of migrant groups

Table 8.14 gives details of household size and structure for selected migrant groups. Table 8.15 gives the percentages of families in each life-cycle stage for migrant groups and Table 8.16 gives the percentages of heads in selected age groups for these migrant groups.

Table 8.16 indicates that the migrant population as a whole has fewer heads over 55 years old than the local population and distinctly fewer over 65. The migrant population also has fewer under 25. As a result 76.9 per cent of migrant heads fall into the 25-54 age-range as opposed to 71.1 per cent of local heads. The migrant head-of-household population is more evenly spread over this middle age-range than is the local head-of-household population. The lack of migrant heads in the older age-groups is to be expected in view of the fact that large-scale migration to urban areas escalated after the Napoleonic wars and the general theory that young people are more migratory.²¹ The relative absence of migrant heads in the 20-24 age-group is explained by the fact that migrants of this age-group were less likely to have achieved head-of-household status than their local counterparts (having migrated as single

people) and many would be living as lodgers or as relatives of other migrants.

Table 8.14
Household size and structure breakdown for selected birth-
place groups, 1851

<u>Birthplace</u>	<u>Mean Household Size</u>	<u>Mean Family Size</u>	<u>Mean No. of children</u>	<u>Mean No. of servants</u>	<u>Mean No. of lodgers</u>
Swansea	4.95	4.16	2.21	0.28	0.33
Llansamlet and Llangyfelach	4.93	4.64	2.67	0.08	0.15
Gower	4.84	4.06	2.11	0.17	0.36
Rest-of-Glamorgan	4.12	3.48	1.52	0.24	0.31
Carmarthenshire	4.80	4.07	2.16	0.15	0.32
Pembrokeshire	4.59	4.10	2.08	0.10	0.31
East, Mid and North Wales	4.04	3.33	1.51	0.37	0.17
South-West-England	5.25	4.32	2.28	0.20	0.37
London	5.23	4.85	3.15	1.77	0.00
Rest-of-England	5.52	3.96	1.94	0.61	0.55
Ireland	5.41	4.65	2.53	0.04	0.82
Overseas	4.62	4.00	2.08	0.23	0.15
Unknown	4.56	3.91	1.95	0.15	0.30
All birthplace groups	4.94	4.19	2.24	0.23	0.32

Within the migrant section, however, there are distinct variations in age-composition among birthplace groups. There is a suggestion, in the case of some migrant groups with both old and young components, that migration has taken place in waves.

Table 8.15
Life-cycle stage breakdown for selected birthplace groups
1851

	<u>Life-cycle stage</u>				<u>per cent Birthplace</u>	
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Swansea	10.99	10.86	30.26	13.81	9.87	25.00
Llansamlet, Llangyfelach	2.70	9.46	40.99	13.51	11.71	21.63
Gower	6.38	8.51	36.17	12.76	12.77	23.37
Rest-of-Glamorgan	9.09	7.28	34.55	7.28	10.91	30.91
Carmarthenshire	4.46	9.55	36.94	10.83	14.65	23.57
Pembrokeshire	0.00	15.38	35.89	12.82	7.69	28.20
East, Mid and North Wales	7.50	17.50	27.50	12.50	7.50	27.50
South-West-England	5.11	16.79	42.33	14.60	8.76	12.41
Rest-of-England	6.09	14.63	35.36	13.42	8.54	21.95
Ireland	3.92	17.64	43.14	15.68	9.80	9.80
Overseas	7.69	23.08	38.46	0.00	15.38	15.38
Unknown	0.00	17.50	47.50	15.00	7.50	12.50
Total all birthplaces	5.89	12.13	36.65	12.98	10.61	21.73

Key: 0 = Head has no family

1 = Wife under 45 no children, or 1 only under one year old, at home.

2 = Others with children at home but none over 15 years old

3 = Others with children at home, some but under half over 15 years old

4 = Others with children at home, half or more than half over 15 years old

5 = Wife over 45, no children at home or adult offspring only at home.

This is true of the Pembrokeshire-born and the Rest-of-Wales-born (and, to a lesser extent, the Gower-born). The Carmarthenshire-born heads, on the other hand, follow closely the age-structure of the local population, possibly indicating a steady stream of migrants from this

area, or a tendency for all age-groups to migrate. (This is rather a simple view, since it assumes that the spatial boundaries adopted for classifying migrant groups are meaningful. It could easily be the case that the migrant streams are from quite different origins within these areas and occurred at different times. Also, it ignores the earlier evidence that a large proportion of Welsh migrants had migrated more than once). The 'bulge' in the Rest-of-Glamorgan-born population in the 45-64 age-range, reinforces the idea, expressed earlier, that the expansion of the copper industry in the early 1830s could have caused the short-term movement of skilled workers from different parts of Glamorgan.

Table 8.16
Age-group breakdown for selected birthplace groups, 1851

<u>Birthplace</u>	<u>Age-group</u> per cent					
	<u>15-24</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65+</u>
Swansea	5.26	22.37	27.96	19.74	13.16	11.51
Llansamlet & Llangyfelach	5.40	24.32	27.93	20.27	11.26	10.81
Gower	6.38	19.15	23.40	27.66	10.64	12.77
Rest-of-Glamorgan	0.00	20.00	25.45	27.27	21.82	5.45
Carmarthenshire	3.18	22.93	27.39	21.66	16.56	8.28
Pembrokeshire	5.13	17.95	25.64	20.51	15.38	15.38
East, Mid and North Wales	5.00	30.00	25.00	17.50	7.50	15.00
South-West-England	5.84	31.39	30.66	16.79	9.49	5.84
Rest-of-England	3.66	29.27	25.61	29.27	7.32	4.88
Ireland	3.92	37.25	25.49	23.53	7.84	1.96
Overseas	0.00	23.08	23.08	30.77	15.38	7.69
Unknown	2.50	25.00	35.00	32.50	2.50	2.50
Total all birthplaces	4.54	24.94	27.63	21.73	12.05	9.09
Local population	5.32	23.19	27.95	19.96	12.36	11.22
All migrants	3.93	26.32	27.38	23.15	11.80	7.41

There is a distinct bias towards the younger end of the Head-of-Household age-range among the South-West-England-born suggesting that migration from that area may have been accelerating and the Irish are also a young migrant group with over 40 per cent of their heads under 35 years of age (compared with just over 30 per cent in the population as a whole).

One would expect these age-structure differences between household heads belonging to different migrant groups to be reflected in life-cycle stage. Any such differences in life-cycle structure between migrant groups would, if family status is proved to be a dimension of residential differentiation, be a factor in the segregation of migrant groups.

The percentages falling into each life-cycle stage (Table 8.15) confirm the position suggested by the age-structure of heads. The Irish and South-West English populations have a greater relative number of families in the early three life-cycle stages than the population as a whole, the East, Mid and North Wales-born and the Pembrokeshire-born have a disproportionately high number of families in both the newly formed and final stages, and the Rest-of-Glamorgan-born have a disproportionately high percentage in the last two life-cycle stages.

The most striking feature of Table 8.15, however, is the much lower rate of family formation among the Swansea-born population (and also the non-Gower, Glamorgan-born migrants). This could indicate that it was easier for the Local-born population to achieve head-of-household status and, therefore, fewer of its adult, single males would be living as lodgers or with their parents. The higher than average number of heads under 25 years old in the local population, tends to suggest that this may have been the case, but the higher percentage of young heads

could, on the other hand, indicate earlier marriage among the Local-born and, in fact, there were proportionately more married heads under 25 in the local population than the population as a whole. These two factors are not mutually exclusive, however, and it could be that the higher number of heads under 25 is due to both earlier marriage and a greater tendency for unmarried, local young men to establish their own households. These factors are, perhaps, both a cause and a result of greater success in the housing market, not necessarily linked to class and income. Such success is not, however, reflected elsewhere in the data and the increase in young, single male heads which it might produce could, in any case, only account for a small part of the indicated percentage of family-less heads.

In contrast, the other locally-born group, that from Llansamlet and Llangyfelach, has a very high rate of family formation, as have some of the migrant groups (Pembrokeshire-born and, to a lesser extent the Irish). The low percentage of family-less heads is partly due to a stronger tendency towards extended family formation in these groups.

7. Causes of migrant-group segregation

The previous two sections have revealed both socio-economic and demographic differences among migrant groups. These differences would lead to residential segregation of migrant groups independently of any cultural differences which may create voluntary or enforced segregation. It is unlikely, however, that such high levels of segregation as those existing in Swansea in 1851 were solely the result of the variations in socio-economic and demographic structure among these groups, and some segregation must be attributable to cultural elements.

Quantitative measures of cohesion within and prejudice between migrant groups are hardly possible, and assessment of cultural elements must rely on the interpretation of qualitative evidence.

The assessment of the role of cultural factors in residential segregation has normally been based on the assumption that the closer the cultural characteristics of the incoming population to those of the local population, the lower the degree of segregation will be. However, migration was on such a scale in mid-nineteenth-century England and Wales that this framework is not appropriate. In the town of Swansea, as opposed to the Borough, the local, adult population were in a minority, although no single migrant group exceeded their number, and the process of Anglicisation was well advanced. The non-Anglicised portion of the local population would, therefore, be forced to segregate to maintain its culture in the same way as the migrant population. Table 8.6 did, in fact, show that the Local-born were more segregated than the Rest-of-Wales-born, although this was shown to be partly due to the various Welsh groups settling in different areas.

Three models of migrant segregation were discussed in Chapter 3, the ethnic-community model, the ghetto model and the reception-area model.²² The last of these does not involve the segregation of any particular migrant group but involves the more general segregation of migrants as a whole from the locally-born residents; any association with one particular migrant group is the result of particularly strong flows from one area of origin at the time of study. The High Street and Strand area of Swansea may conform to this model since it possesses a below-average percentage of the local population and an above-average percentage

of Welsh, Irish, Foreign and South-West English migrants and the concentration of 'beggar hotels' in the area suggests the presence of a strong, transient, lower-class element. The ethnic-community model states that its members display voluntary residential cohesion in order to maintain their culture and that they form a microcosm of the entire town, retaining their own upwardly mobile elements. The ghetto model, on the other hand, incorporates the assumption that its occupants are culturally and socio-economically different from the host population and, for both reasons, are segregated from it. They are socially deprived and unable to leave the ghetto area due to their disadvantaged position and prejudice against them. The ghetto model has obvious relevance for the Irish community in Swansea, but it is more difficult to speculate on the relevance of the ethnic-community model.

A recent study of nineteenth-century Liverpool has used step-wise multiple regression to assess the extent to which migrant group segregation can be explained by socio-economic and demographic variables, and qualitative information to assess the strength of cultural factors in explaining segregation.²³ The Irish community was found to exemplify the ghetto situation and the Welsh migrants were found to have formed an ethnic community. A similar approach has been adopted here, although it must be emphasised that the results detailed below are not claimed to be precise since linear multiple regression, by virtue of its modelling constraints, is not a suitable technique for explaining migrant segregation since segregated groups are not normally distributed. However, an attempt has been made to meet the constraints of the model. A large number of variables was measured and normalised as far as possible by using Log 10, square root and square transformations. Before transformation, 0.1 was added to all the values of each variable (0.1 is well within the range of the standard errors) in order to alleviate the

problem of recurrent zeros on J-shaped variables (notably the Ireland-born as a percentage of the total population). After transformation, no variable had a skewness value or a kurtosis value greater than ± 0.3 (when kurtosis is set to zero). After transformation all variables were standardized. Correlation matrices were then examined and all correlations greater than ± 0.4 removed. Analyses were then made on different combinations of variables and a surprising degree of stability in the value of R^2 and the order in which variables of a particular type emerged was obtained. Details of a typical run are given below. The results are for 200 metre grid-square data relating to the built-up area of the town only. (The discontinuity occurring on almost all variables, between the town and the outer borough, causes variables to correlate with each other where no relationship would otherwise exist and the outer borough is, in any case, of lesser relevance to the study of migrant segregation). A full definition of the variables is given in Appendix C.

Table 8.17

Stepwise multiple regression on birthplace groups, 1851:
Summary of Results

Dependent Variable : Ireland-born as a percentage of total population.

<u>Independent variables</u>	<u>B</u>	<u>SEB</u>	<u>Mult R</u>	<u>R²</u>	<u>Simple R</u>
Social class 1	-0.75517	0.22742	0.59382	0.35262	-0.59382
Social class 3	-0.65998	0.22354	0.71712	0.51426	-0.14404
Sex ratio	-0.18304	0.22338	0.74451	0.55430	-0.48295
Population aged 0-14	0.45396	0.28119	0.75336	0.56755	0.44927
Single-person-households	-0.49973	0.27709	0.76975	0.59251	-0.21306
Household size	0.37534	0.23525	0.80220	0.64352	0.07144
Multiple occupation	0.23755	0.19552	0.82807	0.68570	0.08250

Dependent Variable: Rest-of-England-born as a percentage of total population

<u>Independent variables</u>	<u>B</u>	<u>SEB</u>	<u>Mult R</u>	<u>R²</u>	<u>Simple R</u>
Social class 1	0.60766	0.17955	0.85256	0.72686	0.85256
Population aged 0-14	-0.24058	0.22226	0.88009	0.77456	-0.61578
Social class 3	-0.22711	0.17701	0.89054	0.79306	-0.46160
Multiple occupation	-0.08888	0.16452	0.89967	0.80940	0.09834
Single-person-households	0.19122	0.22803	0.90109	0.81196	0.33964
Household size	0.15571	0.18523	0.90740	0.82337	0.11112

Dependent variable : Wales-born as a percentage of total population

Population aged 0-14	-0.73166	0.30113	0.54028	0.29190	-0.54028
Household size	-0.50260	0.25096	0.65725	0.43198	-0.38925
Population aged 65+	-0.29233	0.23857	0.70835	0.50176	0.11113
Social class 1	0.50193	0.24327	0.75278	0.56668	0.44750
Social class 3	0.36314	0.23983	0.79033	0.62462	-0.04577
Sex ratio	-0.27410	0.23901	0.81321	0.66131	0.08974
Single-person-households	-0.17458	0.30894	0.82279	0.67699	0.44747
Multiple occupation	0.06335	0.22290	0.82437	0.67958	0.25509

Dependent variable : South-West-England-born as a percentage of total population.

Social class 1	-0.51015	0.39298	0.44786	0.20058	-0.44786
Social class 3	0.56830	0.39748	0.55795	0.31131	0.36400
Single-person-households	0.29303	0.27648	0.63216	0.39963	0.17445
Household size	-0.22036	0.27457	0.64670	0.41822	0.10405
Multiple occupation	-0.16099	0.24922	0.66973	0.44854	-0.00267
Population aged 0-14	-0.10635	0.41655	0.67781	0.45943	-0.24684

Dependent variable : Local-born as a percentage of total population

<u>Independent variables</u>	<u>B</u>	<u>SEB</u>	<u>Mult R</u>	<u>R²</u>	<u>Simple R</u>
Multiple occupation	-0.41147	0.30879	0.36659	0.13439	-0.36659
Social class 3	0.29144	0.33224	0.46384	0.21515	0.29455
Single-person-house-holds	-0.22383	0.42799	0.50185	0.25185	-0.18763
Population aged 65+	0.41082	0.33050	0.57508	0.33071	-0.04540
Sex ratio	-0.22897	0.33110	0.61239	0.37502	-0.27902
Household size	0.11726	0.34767	0.61623	0.37974	0.17837
Social class 1	-0.05068	0.33701	0.61753	0.38134	-0.30649
Population aged 0-14	0.06185	0.41717	0.61863	0.38270	0.35279

The Irish group is very well explained by the socio-economic and demographic variables, 68 per cent of the variance being explained (Multiple R = 0.83). The major explanatory variables to emerge are socio-economic, social class 1 accounting for 35 per cent of the variance and social class 3 a further 16 per cent. In runs where class 5 was a selected variable, it alone accounted for over 40 per cent of the variance. Examination of the residuals shows that the Irish area at Greenhill was very well predicted (the residual is 0.0307 in one of the squares) though the core is slightly over-predicted.

The sex-ratio emerges as the third most important explanatory variable and is possibly a socio-economic and demographic variable combined. The negative slope indicates a predominance of males, and this is partly due to the almost total lack of servants among the Irish, the effect of which is not entirely removed by the first two class variables, since the spatial distribution of class 2, among whom servants are common, varies in some important respects from the class 1 distribution.

With the class element removed, the relative lack of females is contrary to what one would expect in a nineteenth-century migrant group, but it is not surprising in view of the circumstances in which the Irish were leaving their homeland, the widespread destitution forcing all those able to emigrate to do so and, presumably, this resulted in relatively equal numbers of males and females. The tendency for the circumstances in Ireland to force whole families to migrate is reflected in a positive slope on the fourth variable, the population aged 0 to 14 years old. This variable also reflects the predominance of adults of child-bearing age noted earlier for this group. Little, however, is added to the amount of explained variance by this variable, or the fifth variable, single-person-households. The final two variables are both concerned with the crowded condition of the Irish, household size reflecting the large number of families living as lodgers of other families and multiple occupation obviously reflecting the sub-division of their meanly-proportioned dwellings.

The Rest-of-England-born group is also very well predicted by the chosen variables, 82 per cent of the variance being explained. The strong relationship between high social class and English households is revealed by the strength with which the percentage of the total economically-active in class 1 emerges as the first explanatory variable, accounting for 73 per cent of the variance. The combination of large numbers of servants in English households and a relative lack of family formation is revealed in a negative regression coefficient on the second variable, the population aged 0-14 years old (Simple R = -0.615). The lack of family formation is also revealed by the combination of the two positive slopes for household size and single-person-households (lodgers

and servants not included). The third and fourth explanatory variables to emerge incorporate the residual social-class variation unaccounted for by the first explanatory variable.

Examination of the residuals shows that the prestige areas, where English migrants mainly settled, are well predicted (Wind Street area, Picton Place area) and the only large residual is a high positive residual (1.194) in the commercial centre in the region of Calvert Street. It was noted earlier that this area contained some very poor quality housing around St. Mary's church in close juxtaposition with high-class housing and the presence of the former is probably responsible for this under-prediction.

The chosen socio-economic and demographic variables produce a 68 per cent level of explanation for the Welsh migrant group, equal to that of the Irish. Demographic factors emerge as being the most important, the predominance of young adults emerging as the major characteristic. This results in negative slopes on the first three variables (strong in the case of the first two variables). The second variable, household size, however, is also a social-class variable, being related to servant ownership. The late emergence of the two socio-economic variables, class 1 and class 3 as a percentage of the total economically-active, reflects the position shown earlier in Table 8.11, where Welsh migrant groups were shown to have a more even distribution over social classes than other birthplace groups.

The South-West-England-born population is less well explained by the chosen variables than any of the other migrant groups. The inclusion of class 2 as a percentage of total economically-active among

the explanatory variables would, undoubtedly, have improved the level of explanation, since there is a high correlation between it and the percentage of population born in South-West England. However, this variable is too highly correlated with class 1 to be included and correlates more highly with other independent variables than does class 1. The negative regression coefficient on the most important explanatory variable, class 1 as a percentage of the total economically-active, confirms the position noted earlier that the South-West-England-born population did not share the elitist position of their English counterparts.

The locally-born population is much less well explained than are the migrant groups, indicating the lack of strong association with any class group or family status group. Several variables cluster around a simple R of 0.35 and the variable, multiple occupation, is not a clear candidate to emerge as the first explanatory variable, Class 1 and the population aged 0-14 being of similar importance. The emergence of multiple occupation as the most important variable, however, does, perhaps, reflect the favourable position of the local population in the housing market. The positive slope on the population aged 0-14 is expected in view of the fact that the majority of children, both in indigenous and migrant households, would be locally-born.

It seems, therefore, that, as a group, the local population was relatively unconstrained in its choice of residential location by class or family factors, and this is the result which one would expect in view of the relatively low-level of segregation indicated earlier. The degree of segregation (segregation index = 18.11) is not, however, so

low as to preclude the possibility that some cultural cohesion was present, and as indicated earlier, the Welsh element of the local population could well have felt the need for this.

The illustrated multiple regression exercise, therefore, reveals that the distribution of migrant groups is more fully explained in terms of socio-economic and demographic variables than is the distribution of the local population and that the Rest-of-England-born migrant group is the most fully explained group, followed by the Irish and Welsh migrant groups. This ordering in terms of degree of explanation remained stable which ever combination of variables was fed into the regression. The types of variables and order of emergence also showed remarkable stability between different analyses, class variables always being the first to emerge in the case of the Irish and English and demographic variables being the first to emerge in the case of Welsh-born migrants. Whereas such stability implies that the results are not spurious, it is not easy to attach meaning to them. The difficulty lies in proving causality. The fact that socio-economic variables account for so much of the variation in the distribution of Irish and English (excluding South-West English) migrants does not mean that a strong link between class and birthplace was the cause of segregation. Cultural factors could have been acting to create the same end result and may have done so, even if migrant groups had been more evenly distributed among social classes. In the case of the Irish migrants, however, their low socio-economic standing must have limited their choice of residence through the amount of rent which they could afford to pay. However, with such a large proportion of housing being of low quality, this cannot alone explain their very high levels of concentration in the Charles Street area. It is obvious

that, either cultural cohesion or hostility by the non-Irish population, must have been operating to cause such segregation. The fact that the Charles Street area was well predicted, and in parts over-predicted by the socio-economic variables, does not invalidate this assumption, since the Irish created the strong class-bias of the area through settling in it in such large numbers. The area was not physically any worse than many other areas, but its class structure was less diverse than other similar housing areas due to the presence of the Irish, who were almost invariably unskilled labourers. The undoubted importance of cultural antagonism in the segregation of the Irish was discussed in Chapter 3 and it is known that there was considerable hostility towards the Greenhill Irish which persisted well into the present century. It seems likely that such antagonism perpetuated a ghetto situation well after class constraints were relaxed. With class and culture operating together to cause Irish segregation, the characteristics of the Irish population are then seen to influence the distribution of demographic and other variables. The explanatory variables which emerge after the class variables in the regression do not, therefore, emerge because they are causes of migrant segregation, but emerge as consequences of migrant segregation. Subdivided dwellings did not attract the Irish, rather the Irish created subdivided dwellings in areas where they settled.

In the case of the Rest-of-England-born, their greater financial resources obviously led them to settle in areas of high-class housing and it is doubtful whether they would have become as highly segregated without this class distinction. It must be remembered that prestige housing in many cases abutted court housing, and it would have been perfectly feasible given the existing housing stock for an ethnic community to develop. The fact that South-West English migrants are relatively

weakly explained by socio-economic variables and are less segregated from the rest of the population than the Rest-of-England-born are, leads one to conclude that, without the strong association with social class 1, non-South-Western, English migrants would have been more dispersed.

The high level of explanation achieved by the independent variables in the case of Welsh-born migrants is of dubious utility, although the typical characteristics of migrant dominated areas where class constraints are not a strong factor, such as a predominance of young adults, which are revealed, are thought to be valid. What makes the results less useful, from the point of view of understanding migrant segregation, is the fact that the group is known to be heterogenous in cultural terms and high levels of segregation are known to exist between its constituent parts. However, to divide the Welsh group into more realistic cultural entities is not feasible due to the reduction which would occur in the sample size of each group. One may, however, hazard that the areas where Welsh migrants predominated were 'reception areas', with, perhaps, a bias towards Welsh-speaking migrants, and that such Welsh-born migrants chose between areas according to the rent they could afford to pay, there being no class bias in the group as a whole which would limit choice at the aggregate level. The presence of large numbers of migrants in these reception areas would then create a bias in the distribution of demographic characteristics and family status.

The step-wise regression illustrated here does not include any occupational or industrial-sector variables, and it has already been shown that there were some strong connections between occupation and birthplace. Other regression analyses did include occupational and industrial variables, but they could not be included alongside class variables,

which were occupation-based, and, therefore, highly inter-correlated with occupational and industrial groups. (Public service and professions with classes 1 and 2, dealing with class 2, manufacturing with classes 3 and 4 and industrial service with class 5). Class does not account for all the variance in occupational and industrial groups, however, and it is possible that, since migrant groups have been shown to associate with particular occupational or industrial groups and journey-to-work has been shown to have an influence on residential location, some of the unexplained variance could be due to occupational or industrial bias.

Whereas the regression analysis shows that certain socio-economic, demographic and family characteristics may have been causes or consequences of migrant segregation, it does little to advance an understanding of the operation of cultural factors. As stated earlier, it is difficult to measure cultural insularity or antagonism between groups but one available measure is the degree of inter-marriage.

Marriages have been classified to reveal the number of marriages within and between the major birthplace groups and Chi-square tests applied to reveal whether the number of inter-marriages is simply a reflection of the size of each birthplace group (age adjusted), that is, that the number of marriages between two groups is a result of the number of opportunities of marriage between the groups. In all cases the null hypothesis is rejected and proved significant at the 0.1% level.

Table 8.18 shows the degree to which birthplace groups had over- or under-married each other by expressing the observed frequencies as a percentage of the expected frequencies.

Table 8.18

Inter-marriage between birthplace groups : Observed frequencies
per 100 expected frequencies

<u>Migrant Group</u> <u>Married into</u>	<u>Migrant group from which the person originates</u>				
	<u>LB</u>	<u>RWB</u>	<u>SWEB</u>	<u>REB</u>	<u>IB</u>
Local-born	-	104.86	61.73	54.83	39.64
Rest-of-Wales-born	133.62	-	97.29	112.71	29.49
South-West-England-born	69.67	85.75	-	333.82	410.96
Rest-of-England-born	83.87	135.54	454.56	-	430.12
Ireland-born	17.94	10.40	163.49	126.98	-

The table reveals that the local population has 'over-married' into the Welsh migrant group and 'under-married' into all other migrant groups. The Welsh migrant group has over-married into the local population and the English population and under-married into the South-West English and Irish populations. The South-West-England-born and the Rest-of-England-born have mutually heavily over-married, the South-West-England-born have also over-married the Irish, and the Rest-of-England-born have over-married all migrant groups. Finally, the Irish have heavily over-married both English migrant groups and heavily under-married local and Welsh groups. It is apparent that there is a tendency for migrant groups (except Welsh migrants) not to marry into the indigenous population, and the indigenous population is also reluctant to marry migrants, except in the case of their fellow Welshmen. There is also the expected tendency for the two English migrant groups to inter-marry. The

apparent tendency for the Irish to over-marry the English is possibly over-stated since the fact that some Irish heads with England-born wives have English children and, therefore, must have arrived via England could indicate that they have married England-born second generation Irish.

While relative levels of inter-marriage reveal something about the cultural distance between migrant groups, the proportions of between-group and within-group marriages show something about the insularity of migrant groups. In this case the figures must be based on individuals rather than on marriages.

The results are given below.

Table 8.19

Cultural insularity : percentage rates of within-group marriage

<u>Migrant group</u>	<u>Percentage marrying within group</u>
Local-born	69.71
Rest-of-Wales-born	59.92
South-West-England-born	58.29
Rest-of-England-born	39.34
Ireland-born	81.39

As one might expect, the Irish stand out as the most self-contained migrant group and, as indicated earlier, this percentage is probably lower than it should be due to the impossibility of identifying second generation Irish. The locally-born population is the next most

insular but, since the local population is numerically larger than the other birthplace groups, the local population would have had a wider choice of partners within their group. The low percentage of English migrants marrying within the group is expected in view of the fact that this group had over-married all other migrant groups, and it suggests that most English migrants were arriving as unmarried persons or had migrated in steps. Their level of inter-group marriage also lends support to the view that this group would not be highly segregated if it were not for its class position.

The above evidence on the degree of inter-marriage between groups tends to support the idea that cultural factors were important in the segregation of the Irish and also that there was a tendency towards a split between the indigenous and migrant populations. There is also some evidence of cultural distance between the Welsh and English populations. Again, however, there is no proof of causality and one can only speculate as to whether the lack of Irish inter-group marriages was a consequence of segregation brought about by other factors or was a contributor to segregation through the operation of cultural cohesion. The most likely answer is that it was a self-reinforcing interaction. The tendency towards insularity in the local population supports the earlier contention that their degree of segregation was stronger than could be expected on socio-economic status and family-status grounds.

8. Conclusion

This analysis shows that social status, migrant status and family status are not independent of each other and there is a particularly strong interaction between migrant status and social status. The English migrants are strongly associated with social classes 1 and 2 and the Irish

are largely confined to social class 5. This means that, since segregation according to social class has been proved to be strong, these two migrant groups would be highly segregated from each other regardless of any cultural differences. It also means that, if cultural differences among migrant groups are important causes of segregation, social classes would tend to be segregated whether the population was class-conscious or not. In the case of Irish segregation, there is strong evidence for assuming that migrant status is a stronger cause of segregation than is social class. The prejudice against the Irish for cultural reasons²⁴ made it harder for them to compete in the labour market and the lower wages which they were, therefore, able to command, restricted their choice in the housing market. Furthermore, the Irish are more strongly segregated than their restricted rent-paying ability would necessitate and their almost total confinement to the immediate neighbourhood of Charles Street in Greenhill can only be explained by voluntary cohesion, or by enforced segregation by the non-Irish population. Once segregated, the opportunities open to the Irish would be further limited through restricted information.²⁵

The Rest-of-England-born, on the other hand, are probably more segregated for social status reasons than for migrant status reasons, their high rent-paying ability enabling them to settle in the prestige housing areas. The high level of inter-marriage between this group and other migrant groups and the fact that South-West-England-born migrants (who are not as socio-economically successful as their counterparts born in the rest of England), are weakly segregated by comparison, suggests that the Rest-of-England-born would be less segregated if it was not for their class

position. The favourable class position of the Rest-of-England-born is not due to cultural attributes, but has more to do with their migration history. These migrants came mainly from urban areas and had generally migrated over longer distances than South-West-England-born migrants or Welsh migrants, and, in the nineteenth century, migrants with previous experience of urban life fared better socio-economically. Also, long-distance migrants (excluding emigrants) tended to be skilled or professional persons.

The migrant status/social status interaction is further reinforced by the occupational biases of migrant groups, since workplace still exerted a strong influence over residential location and class is occupationally based. The predominance of sea-related occupations in the Overseas-born group, for instance, accounts for their above-average representation in the area adjacent to the docks. There is also a more general tendency for migrants to pursue occupations which they would have been able to pursue had they not migrated and, to the extent that places of work for various occupations are not evenly distributed spatially, this contributes to migrant segregation. The link between birthplace, occupation and residential location is largely responsible for the lack of migrants in the outer borough, the dominant economic activity dictating the skill required and, therefore, offering few employment opportunities for those with no previous metal-smelting experience.

Class status and migrant status are also linked as dimensions of residential differentiation through the tendency for various types of non-kin household member to occur most commonly at one end of the class scale and to have different migrant status. Servants tend to be

non-migrants, or short-distance migrants, while lodgers, who occur most frequently in households with social class 3, 4 or 5 heads, tend to come from more distant locations.

Migrant status is also related to family status. Migrant groups possess different age profiles giving rise to different proportions of households in each life-cycle stage and family formation is stronger in some birthplace groups than others. Family status is, however, more strongly influenced by social status than migrant status and the inter-relationships between these two dimensions and family status are discussed in the following chapter.

Whereas migrant segregation can be seen to be accentuated or reduced by both social class and family status variations among birthplace groups, other factors unrelated to the main dimensions of residential segregation can be seen to influence the degree of segregation. One of these is the interaction between building cycles and the variation in the flow of migrants from different origins. It is known from documentary evidence that house building did not match demand and that a growing housing shortage developed in the 1860s which, in the mid 1870s largely disappeared, despite an increasing flow of migrants.²⁶ Little documentary evidence is available for the period prior to 1851 on the magnitude of the divergence between housing supply and demand, but it is plausible that building cycles occurred and certain groups who migrated in waves would have found themselves differently placed in terms of degree of residential choice. Certain groups with low rent-paying ability may have been confined to the courts of central areas while others of the same class, arriving at a different time, colonised new low-price housing on the outskirts.

Housing availability must also be a factor in the establishment of "mixed migrant areas", which received large numbers of both English and Welsh migrants. The presence of such areas is reflected in lower levels of segregation between the two English migrant groups and the Welsh migrants than between the English groups and the local population.

Whereas a substantial proportion of migrant segregation can be attributed to factors unconnected with cultural attributes, there is strong evidence that much of the remainder is due to purely migrant status factors. The Irish "ghetto" in the far north of the town is an obvious example of cultural factors playing a major role in segregation and such factors perpetuated a high level of segregation long after the class constraints were relaxed. Among the non-Irish population, the main cultural division was caused by language differences, the Welsh language dominating the north of the town and the English language the south. This resulted in migrants from the Anglicised area of Wales, notably Gower, settling predominantly in the south of the town, while those from truly Welsh areas, such as Carmarthenshire, many of whom would be monoglot Welsh, settled in the north. This is particularly true of non-recent migrants, who possibly had had less contact with English-speakers. Other cultural attributes, apart from language, divided the English and Welsh populations, notably religion. The spatial distribution of places of worship for the various denominations does not, however, clearly show a stronger bias towards Nonconformity in the north than in the south, Nonconformist chapels being common in both parts of the town. However, the fact that of the three Anglican churches, two are in the south of the town (Church Street and Trinity Place) and the one in the north (St. John's,

Upper High Street) conducted only a proportion of its services in Welsh, suggests that Conformist places of worship were indeed catering mainly for the English-speaking population. The Nonconformist chapels also show a north/south divide in terms of the language in which their services were conducted. The Welsh Wesleyan Chapel was located off Upper High Street on Tontine Street with its school house on Llangyfelach Street while the English Wesleyan Chapel was on Goat Street in the centre of the town. The Chapel of Welsh Independents was also located off Upper High Street on Ebenezer Street, while its English equivalent was on Castle Bailey Street. The English and Welsh Baptists had two chapels each, both in their respective halves of the town. The schools of the town also reflected the English/Welsh biases of the north and south and the 1847 report on Education gives detailed evidence of this. It states at the outset that:

"At present in the upper part Welsh chiefly is spoken; from about the centre of the town to the sea English prevails".²⁷

The evidence of segregation according to language, therefore, suggests that a migrant's first or only language must have been an important consideration in choosing a residential location. Language must also have had an influence on the employment opportunities open to migrants and may help to explain why certain birthplace groups predominate in certain occupations.

In the case of language differences, therefore, and also in the case of anti-Irish prejudice and, perhaps, cultural cohesion among the Irish group and some of the Welsh migrant subgroups, migrant status factors do seem to be important. In attempting to understand the social

geography of Swansea in 1851 and the distribution of types of residential area, therefore, migrant status does appear to have some independent significance though the other main dimensions of social class and family status make their contributions.

Notes to Chapter 8

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CHAPTER 9

FAMILY STATUS IN 1851

The influence of family status on the residential differentiation of the city is of lesser importance in the nineteenth century than it is in the twentieth century. This is because the majority of the population was economically unable to match life-cycle stage with residential location, the choice between a familist and non-familist life-style was not effectively available and, furthermore, various attributes of the family-status dimension such as family size and family structure were not independent of social class. It is not appropriate, therefore, to discuss family status as a dimension shaping the evolution of residential areas in the sense that one might for a twentieth-century city. There remain, however, various aspects of the household and family which are relevant to an understanding of residential variation in the nineteenth-century city. These include the effects of capitalism, industrialisation and urbanisation on the family, and a set of relationships between social class, occupation, and migrant status, on the one hand, and household size and structure, family size and structure and life-cycle stage, on the other. The broad characteristics of capitalism, industrialisation and urbanisation in nineteenth-century Britain and their relationship with family life have already been discussed (Chapter 4). Whereas the influences of macro processes and structural features of this kind are pervasive and cannot easily be related in detailed ways to an institution such as the family, it is possible for Swansea at mid-century to examine some of the effects attributed to urbanisation and to see whether these effects were

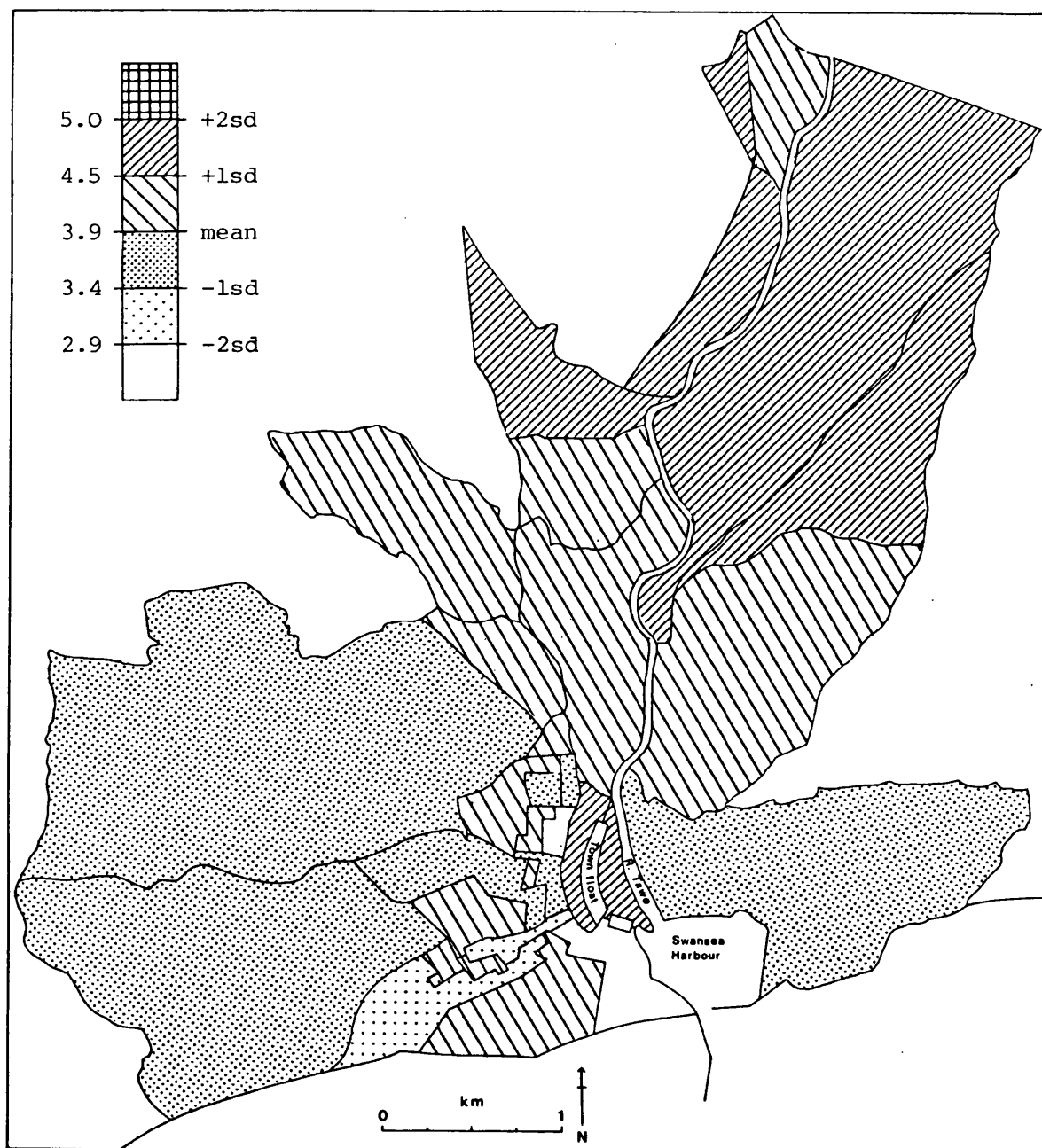
Note: Throughout this section, the families referred to are not only heads-of-household families but also subsidiary lodger families found within households. All references to 'heads', therefore, mean heads-of-family not heads-of-household.

reflected in residential patterns. In the following discussion such effects are investigated as part of the examination of spatial variation in family size, fertility, mortality, family structure, household size and household structure. Covariation between these factors and social class, occupation and migrant status is also investigated and assumptions made about the importance of such covariation in the shaping of residential areas.

1. Variations in Family Size

Family size in the Municipal Borough in 1851 ranges from one person to thirteen persons with a mean of 3.94 persons. Figure 9.1 illustrates the distribution of mean nuclear family size on an enumeration-district basis. It is apparent from this map that the average family is larger in the outer borough than in the town. The average size of family within the town is 3.82 and that in the outer borough 4.18. However, it is only in the metal-smelting and mining area of the outer borough that family size is larger than the average for the borough as a whole, and it is noticeable that the rest of the outer borough has a below-average mean family size. Within the town, family size varies widely between districts, two districts having very low mean family sizes of below 3.0 while one district has a mean family size of over 4.5. As stated previously, these variations cannot be explained by a tendency for those following non-familist life-styles to segregate or by a tendency for families to choose residential locations according to life-cycle stage, since the majority of the population was too financially restricted for such choice to be effective and, also, was unable to opt for a non-familist life-style. Several factors were, however, undoubtedly playing a role in creating the observed marked variation in family size.

Figure 9.1 : Distribution of mean nuclear family size:1851, enumeration districts.



Average family size is governed by a complex interrelationship between fertility, mortality, age of marriage, rate of family formation, rate of re-marriage and deliberate measures to limit fertility. Each of these factors is influenced by social class, occupation, migrant status and various aspects of 'urban life'.

(a) Urbanisation and family size

In nineteenth-century Britain, congested urban areas are thought to have reduced fertility and increased mortality, particularly infant mortality,¹ and the process of urbanisation is said to have weakened the family as an institution and retarded family formation.² Any relationship between urbanisation and family size is likely to be complex and impossible to identify in any detail from the present data, but tentative investigation of the hypothesis that the more 'urban' an area, the lower the average family size, can be attempted. This can be done by spatial rather than temporal comparisons since different parts of the municipal borough are urbanised to varying extents. The higher average family size of the outer borough has already been mentioned, and its lower density and in parts 'rural life-style' may have been a factor in this. Within the town, however, the detrimental effects of urbanisation on family size are not obvious and must be balanced against the possible desire of heads with families to live in suburban locations. The High Street area does have a very low mean family size (2.70) which can be related to the fact that 24.3 per cent of heads are family-less and housing density, over-crowding, subdivision of houses and the taking-in of lodgers are strong (21.7 per cent of the total population are lodgers). On the other hand, the adjacent Back Street area (E.D.9) and Strand area (E.D.11) are only slightly less 'urban' with a high average family size (4.42 and

4.66 respectively). Two low-density areas, Mount Pleasant and the Western Sandfields (E.D.s 7 and 3), also have low average family size and, although there is some kind of urban/semi-rural distinction in terms of family size, there is no clear, consistent link between the degree of urbanisation and family size within the town.

The distribution of mean nuclear family size, however, should not be looked at in isolation from life-cycle stage and the age distribution of the population, since large areas are recently built and settled and may contain a large proportion of newly-formed families which, although typified by low mean nuclear family size, are not necessarily areas where fertility and family life are weak. Such areas may indeed have been selected for residence because of their suitability for family life. Figure 9.2 shows the distribution of families in the first life-cycle stage. (Those where the wife is under 45 years old and there are no children or one infant only under one year of age). It can be seen that in the case of at least one newly built 'suburban' area, the Western Sandfields, the low mean family size indicated on Figure 9.1 is partly due to a large presence of newly-formed families (24.1 per cent are childless or have one infant only); the area has high potential fertility. Many of these newly-formed families may not, however, have established a firm residential foothold in the urban environment and may undertake more frequent moves than maturer established families. While their distribution is obviously of interest, the distribution of "mature" families is, perhaps, a better test of the strength of the relationship between life-cycle stage and the age of the residential area. Figure 9.3 shows the spatial distribution of families in which half, or over half, of the children are fifteen years old or more. The highest concentrations

Figure 9.2 : Distribution of families in which the wife is under 45 and there are no children at home or 1 child only under 1 year old at home as a percentage of all families:1851, enumeration districts.

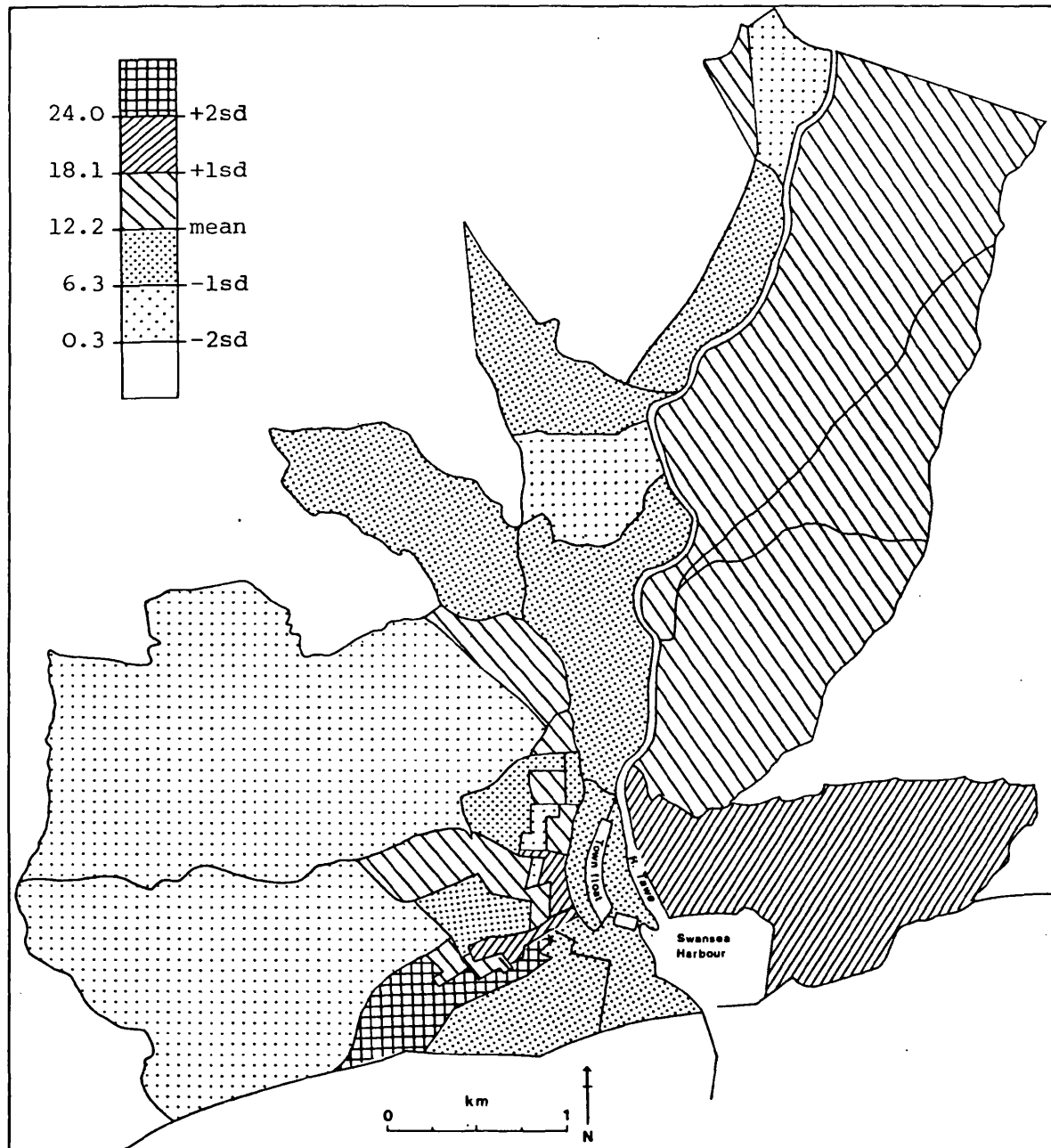
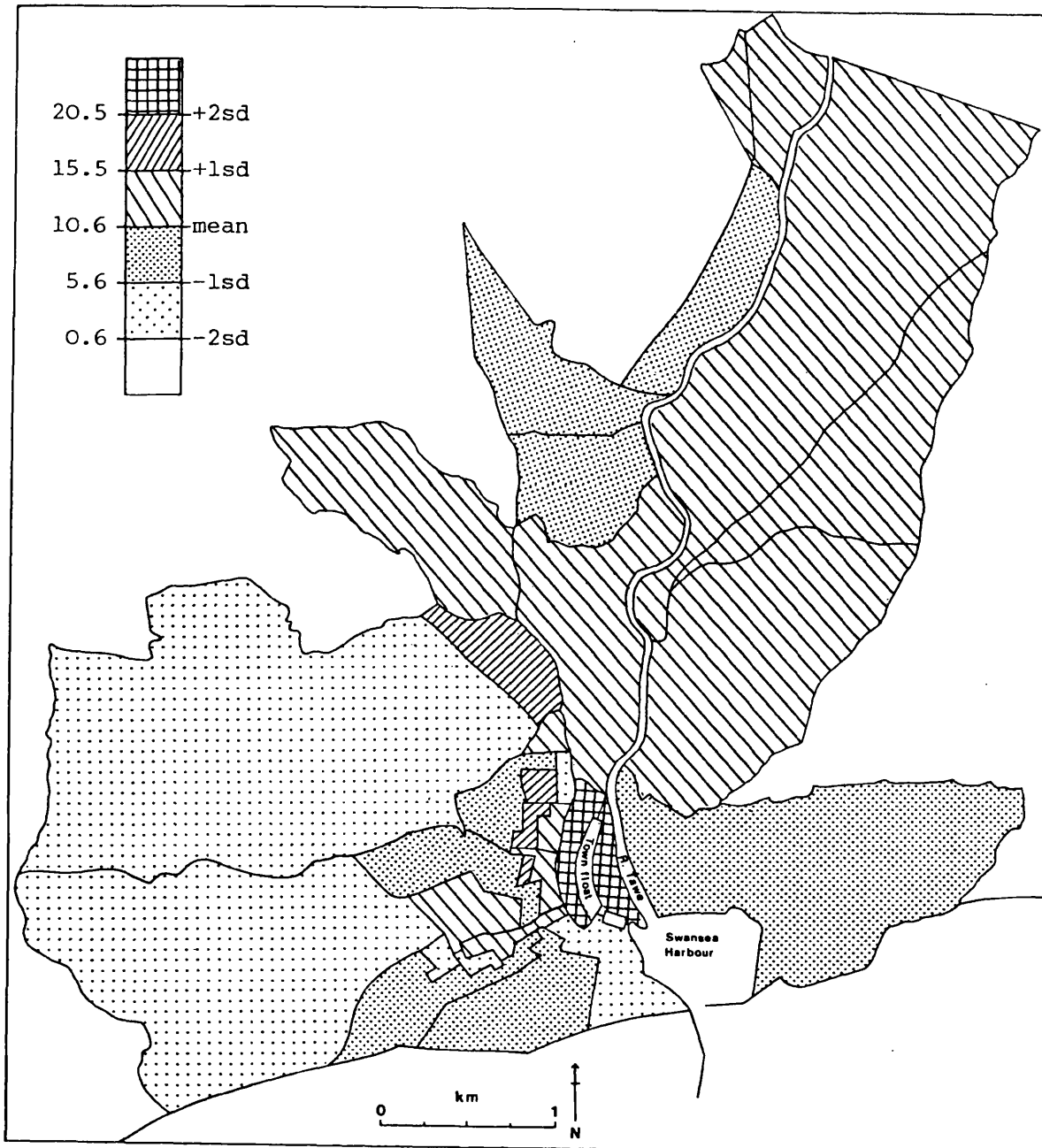


Figure 9.3 : Distribution of families in which over half of the children at home are 15 years old or more as a percentage of all families:1851, enumeration districts.



of such families are indeed found in the older areas of the north flanking the main commercial streets (E.D.s 9, 11, 13). While the central commercial areas (E.D.s 5, 6, 10) also have above-average percentages of these families, they have lower levels than the mainly residential, older areas since they contain a large number of single heads. The only enumeration district in the 'old town' with a below-average percentage of these "mature" families is Wind Street (E.D.1) and here the low occurrence is caused by a very high percentage of single heads (21.2 per cent) and a very high percentage of families in the final life-cycle stage in which the wife is over forty-five years old and any children present are over twenty years of age. There is, therefore, a distinct relationship between the older areas of the town and above-average numbers of families in the later life-cycle stages.

Further light may be shed on this relationship by age-distribution maps. Figures 9.4 and 9.5 illustrate the spatial distribution of the population aged nought to fourteen years and the population aged sixty-five and over. In the case of the child population, only those in nuclear families are included and their number is expressed as a percentage of the nuclear family population. This is necessary in order to remove the emphasis placed on working-class areas due to the much greater presence of extended families and non-kin household members in high-class areas. The distributions have been mapped at grid-square level to give more detailed coverage of the town, since it is that area which is of primary interest here. The distribution of the population aged sixty-five plus shows a concentration in the 'old town', particularly the Wind Street and Castle Bailey Street areas. There is also a distinct reduction in the presence of this final age-group westwards across the Sandfields and a

Figure 9.4 : Distribution of the head's family population aged 0-14 as a percentage of the total head's family population: 1851, grid

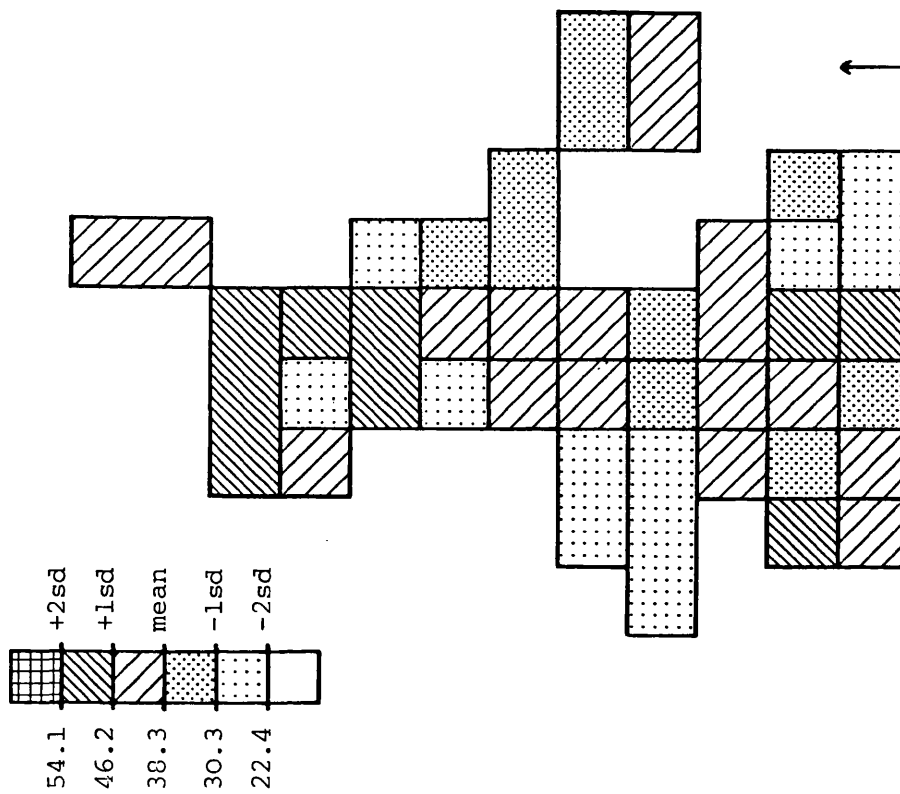
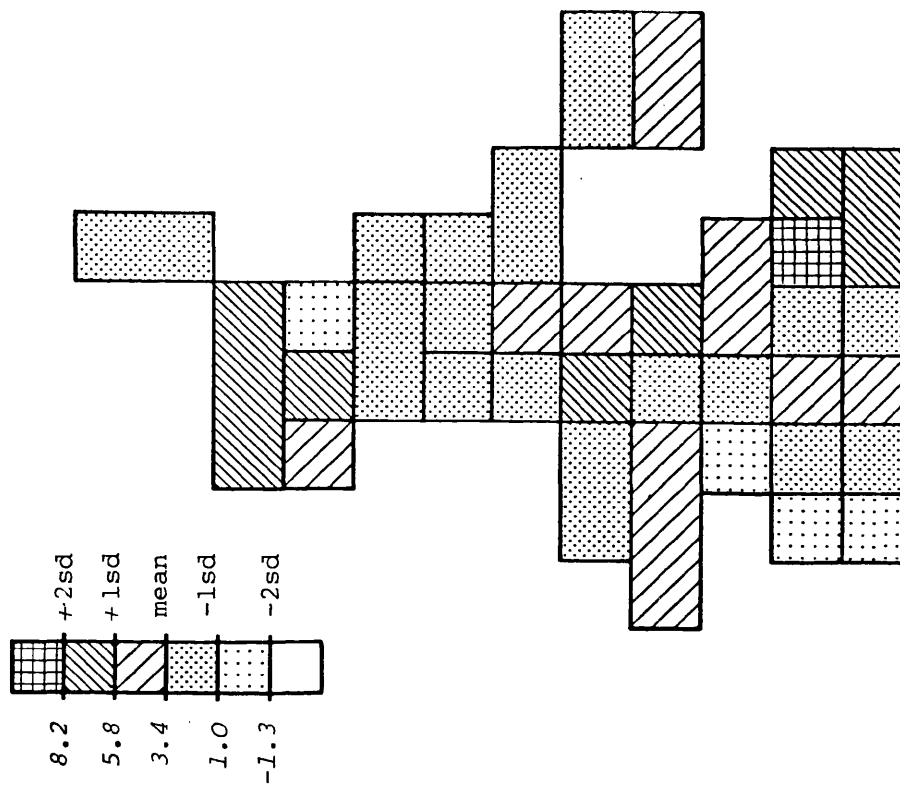


Figure 9.5 : Distribution of the population aged 65 or more as a percentage of the total population: 1851, grid



0 Km 1

N

relative absence from the newer areas of the north and the heart of the Irish area in particular. The only outer areas with above-average numbers of persons aged sixty-five and over are the long-established residential area at the base of the Llangyfelach Road in the north, which is mainly inhabited by local people, and the high-class area at the base of Mount Pleasant. The latter, combined with the very high concentration in Wind Street, may reflect lower death-rates among the higher classes.

The distribution of the child population, on the other hand, is less clearly related to the age of residential areas and, although the highest concentrations do occur away from the central 'old town', many other factors are clearly operating to produce the observed distribution. One obvious possible influence is class, a marked lack of children in the high-class areas being apparent, even though the influence of non-nuclear family members has been removed. Another is migrant status, the influence of the Irish in the far north of the town possibly being of more importance than the newness and more suburban nature of this area.

There is some evidence, therefore, that the rapid expansion of the town, caused largely by net in-migration, resulted in areas being initially heavily settled by young migrants and this gave a strong life-cycle bias to such areas which had little to do with a conscious decision by heads to live among families similar in composition to their own, or to live in an area 'suited to family life'. It is suggested that high levels of intra-urban and inter-urban mobility would rapidly diversify the life-cycle composition but that there would be sufficient persistence of families in the same neighbourhood, if not in the same houses, to leave some bias in the life-cycle composition. It cannot be discounted,

however, that such bias could be also partly preserved by the in-movement of families in a similar life-cycle stage to that already predominating and this would indicate that such bias was not merely an inactive by-product of other processes. Nowhere outside the most recently settled areas, however, is life-cycle bias strongly developed and, if a life-cycle dimension of residential differentiation does exist, it is in a very weak form.

(b) Occupation and family size

Some of the observed spatial variation in family size may be the result of occupational factors since fertility varied between occupations in the nineteenth century and occupational groups are not evenly distributed throughout the borough. Within the outer borough it is noticeable that the mining areas have the largest average nuclear family size, the highest district average in the borough being located in Treboeth (E.D.22) (4.69), followed by Lower Llansamlet (E.D.29) (4.53). Several studies have pointed to the link between fertility and occupation and mining has been singled out as an occupation group with high fertility.³ This fact has been attributed to the lack of female employment in mining areas, the attainment of maximum earnings early in adult life, the rural origin of migrants to mining areas (the migrants combining a desire for larger families learned in a rural environment with higher incomes) and higher morbidity and debility in these occupations, which favour earlier marriage. The rest of the enumeration districts in the outer borough may also owe their large average family size to their occupational structure since agricultural labourers and skilled metalworkers (blast furnacemen, puddlers, rollers) have also been singled-out

in other studies as having high fertility.⁴ However, high fertility does not ensure large families since it is only when higher than average fertility is coupled with average or below-average mortality that mean family size increases. Both mining and metal manufacture at this date carried a high health risk but, in the case of metal manufacture at least, the relatively comfortable standard of living obtained by the skilled workers would have reduced the incidence of illness and premature death. The high fertility and favourable health of the metal-working settlements was commented on by Williams reporting on the effects of the copper smoke in 1854.

"Early marriages are common ... a family of ten children is a light burden in this favoured locality. Early employed, the children at a juvenile age, come to the release of the parents".⁵

Table 9.1 gives the average family size for industrial groups for the whole borough.

Table 9.1
Mean family size by industrial group, 1851

<u>Industrial Group</u>	<u>Mean Nuclear family-size</u>
Agriculture	3.54
Mining	4.68
Building	4.48
Manufacturing	4.37
Transport	4.29
Dealing	3.02
Industrial Service	4.13
Public Service and Professions	3.69

It can be seen from this table that mining does have the largest family size but that agriculture, although normally possessing high fertility, has a lower average family size than the borough as a whole, showing that higher death-rates were, perhaps, present among this lower working-class group. Dealing and Public Service and the Professions have small average family size which lends support to the hypothesis that the middle-classes tried to limit their fertility and the lower death-rate they experienced did not, therefore, result in large families.⁶ Certain middle-class occupations have been identified as having particularly low fertility and these include civil servants, clerks and merchants.⁷ The small number of people in these occupations falling on the sample, however, does not allow verification of this. The large family size of manufacturing and building workers is probably indicative of lower death-rates among skilled workers, coupled with no attempt to limit fertility. The more rural location, and, perhaps, greater affluence of metal-workers, is reflected in a higher average family size among metal-workers (4.51) than workers in manufacturing as a whole (4.37). Occupation obviously does have an influence on family size in that certain occupations command higher wages and, therefore, allow more dependants to be supported and kept in health but, in the case of mining and metal manufacture, the less rural nature of the area in which these occupations are located, is probably more important than the level of occupational wages and occupationally-linked death-rates. The markedly rural life-style of the mining areas in particular has already been described.

There is evidence from the Medical Officer of Health reports that death rates were, in fact, much lower for the outer borough than for the town. The first available reports give death rates for 1869 and these are:

Swansea Town and Franchise	27.1 per 1000	(8)
Hamlet of Clase and Parish of St. John	18.4 " "	} Outer borough
Llansamlet	22.3 " "	

The means for the period 1869 to 1873 are:

Swansea Town and Franchise	25.0 per 1000
Hamlet of Clase and Parish of St. John	18.7 " "
Llansamlet	22.3 " "

Within the outer borough these figures suggest that the predominantly metal-smelting area of Clase had a lower death-rate than the predominantly mining area of Llansamlet. The Medical Officer of Health attributes the lower, outer borough death-rates to the less-congested living conditions. From the point of view of sanitation and infra-structure, the outer borough was very inferior to the town. The officer informs us that:

"even the new parts of Landore and Morryston (within the Hamlet of Clase) are undrained, the streets, with a few exceptions are unpaved, and in some cases not properly levelled. The provision for the storage of house refuse is very imperfect and the cesspool nuisance is general".⁹

(c) Family size and social class

The relationship between family size and social class is difficult to investigate in the case of the present sample since so many economically-active heads in the outer borough, who are known to be in class 3 or class 4, cannot be definitely placed in either. Ignoring the unallocated heads, the following mean nuclear family sizes are produced for each class.

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Table 9.2

Mean Nuclear family size by social class, 1851

Social Class 1	3.62
Social Class 2	3.89
Social Class 3	4.01
Social Class 4	3.97
Social Class 5	3.58

As in other studies, it is social class 3 which has the largest families,¹⁰ having retained the high fertility of the lower classes without experiencing their high mortality. The higher ranks, although possessing lower mortality, tended to marry later and also limit their fertility. The lower working-class, on the other hand, experienced the highest mortality and was most affected by the fertility-limiting adverse effects of urbanisation, which more than counterbalanced its earlier marriage and longer child-bearing period.

In the outer borough, the group whose class cannot be defined has the very high mean nuclear family size of 4.51. When this unallocated group is split proportionately between classes 3 and 4, the adjusted mean family sizes for class 3 and class 4 become 4.08 and 4.19 respectively. That is, when class-undefined metal-workers are added to the figures, class 3 no longer has the largest average family size, class 4 exceeding it. This is caused by the numerical dominance of re-allocated metal-working class 4s over non-metal working class 4s and the fact that reallocated class 4s receive a higher average family size because of their association with class 3. There is, however, no practical way of assigning different mean family sizes to each half of the undefined class since the number of metal workers whose class is

occupationally defined is too small to use as a means of doing so. The defined class 3 and class 4 groups as a whole in the outer borough do have very different mean family sizes, but very few members of these groups are metal-workers. It is not, however, impossible that class 4 did have a mean family size greater than that of class 3 since the average head in metal-working is known to have a larger family and class 4 is dominated by metal-working while class 3 is not.

There is very little documentary evidence on class-differential birth-rates and death-rates in Swansea at mid-century. The Medical Officer of Health's reports only contain absolute figures for deaths in two broad class groups. These are given below for 1874.

	<u>Total Deaths</u>	<u>Deaths under Five years</u>	<u>% of deaths under five to total deaths</u>
Trading and professional	368	161	43
Labouring and Artisan	1329	717	53

The Medical Officer of Health's definition of "trading and professional" must be very broad since, if age structure and death rates were the same for both classes, 21 per cent of the population would fall into the trading and professional class. The figures do, however, suggest that the death rate was higher for artisans and labourers, since groups with high mortality tended to have a higher proportion of their deaths occurring among children and the infant mortality of artisans and labourers in the table is shown to be proportionally higher than that of tradesmen and the professions. Figures on deaths during an earlier period of the nineteenth-century are available from the Health of Towns

Commission Report which gives numbers of deaths and the mean age of death from various causes for three social groups for the period 1839-1843. (The figures are derived from the Mortuary Registers). The table detailing this information is reproduced in Table 9.3. The table reveals a sharp gradation in the mean age at death for all ages, a gap of almost twenty years separating the gentry from labourers and artisans. This is shown to be mainly due to differences in infant mortality.

It may be that some of the differences in nuclear family size between classes are due to age-structure differences between classes. An older age-structure, or a high percentage of newly-married couples among a certain class, would probably result in a smaller average family size for that class. Since the average age of marriage is, according to other studies, later for the upper classes,¹³ this is best looked at in terms of life-cycle stage. Table 9.4 shows the percentages of families falling into each life-cycle stage for each of the five social classes, the class of the family being that of its head.

These figures show that the differences in mean family size between classes are, indeed, partly due to differences in the life-cycle stage composition of classes. Class 4 and class 3 do have a smaller percentage of families in life-cycle stages 1 and 5, that is, those stages where children living at home are fewer. This is, perhaps, to be expected since the older age-structure of classes 1 and 2, implied by the higher percentages in life-cycle stage 5, is probably partly due to lower death rates in these groups which result in more heads surviving into the final life-cycle stage. Class 5, however, has proportionally the most families in this stage while, presumably, also possessing the

Table 9.3

Deaths in Swansea by cause, age, sex and social class, 1839-1843 : Reproduced from the ¹²
 Report of the Health of Towns Commission 1845

Population, 1841 18,278	Total deaths from all causes dur- ing 5 years	Mean age at death	Decline		Consumption		Epidemics	
			Number of deaths	Mean age	Number of deaths	Mean age	Number of deaths	Mean age
Gentry	3	-	-	-	-	-	-	-
			44	-	3	-	2	-
			39	33	3	28	2	25
Tradespeople	42	-	-	-	-	-	-	-
			43	-	4	-	9	-
			30	41	4	24	13	-
Labourers and Artisans	136	-	27	-	4	-	22	-
			27	41	4	24	22	12
			8	-	1	-	106	-
Gentry	285	-	117	-	25	-	60	-
			125	34	26	31	166	9
			-	-	-	-	-	-
Females	18	-	-	-	-	-	-	-
			-	-	2	-	2	-
			46	41	2	25	2	28
Gentry	24	-	1	-	-	-	8	-
			43	-	6	-	9	-
			34	36	6	25	17	12
Tradespeople	80	-	22	-	-	-	106	-
			22	34	6	25	74	-
			12	-	-	-	180	-
Labourers and Artisans	259	-	102	-	9	-	106	-
			397	45	9	-	74	-
			656	28	9	30	180	11

Table 9.4

Life-cycle stage composition of social classes, 1851

<u>Life cycle stage</u>	Per cent				
	<u>Class 1</u>	<u>Class 2</u>	<u>Class 3*</u>	<u>Class 4*</u>	<u>Class 5</u>
1	14.6	15.7	13.3	10.3	11.9
2	41.7	29.5	38.0	42.1	38.1
3	6.3	13.0	13.8	15.7	9.6
4	6.3	10.3	11.3	11.2	9.5
5	20.8	23.9	17.3	16.7	26.8
6	10.4	7.5	6.4	3.9	4.2
1 + 5	35.4	39.6	30.6	27.0	38.7
1 + 5 +6	45.8	47.1	37.0	30.9	42.9

1 = wife under 45, no children or one child only under one year of age

2 = others with children at home but none over 15 years old

3 = others with children at home, some but under half over 15 years old

4 = others with children at home, half or more than half over 15 years old

5 = wife over 45, no children or adult children only at home

6 = Head has no family

* = adjusted through the inclusion of class 6.

highest death rate. This unexpectedly high percentage of class 5 families in the final life-cycle stage, however, is probably caused by changes in social status during the life-cycle, which result in families moving out of classes 3 and 4. Downward movement into class 5 would be caused by the death of the husband (incomplete families are included in the figures) forcing the widow into charring, hawking or pauperdom, and, as stated previously, class 5 does contain a disproportionately high number of female heads. Downward movement would also occur through ageing skilled workers becoming unfit for the employment for which they are trained. Upward social mobility, out of the artisan class, would occur via the inheritance of a business and via entrepreneurial success and both would contribute to the proportionately greater number of families in the final life-cycle stage in classes 1 and 2. Obviously, social mobility would occur in both directions throughout the class spectrum, but it is likely that the net movement after the age at which occupational training is complete, would be out of the artisan classes. The figures for life-cycle stage 6, heads without families, reveal that the smaller family size of classes 1 and 2 is also due to a lower rate of marriage, a later average age of marriage, or a combination of both, for these classes.

Social class and family size are also linked through the marked effect which the number of dependants has on the economic well-being of families in the lower three status groups, and among these groups family size was a major cause of poverty. Rowntree estimated that 22 per cent of poverty in York in 1901 was caused by family size¹⁴ and Booth in 1889 estimated that 27 per cent of poverty in London was due to 'questions of circumstance', including family size and death or debility of the wage-earner combined with low pay and irregular work.¹⁵ Increase in

family for labourers, therefore, was likely to precipitate a move on economic grounds and such a move would be to an area less attractive for family life, since the cheapest housing was normally to be found in the ageing areas of the centre and the burgage infill plots. It is to be expected, therefore, that areas with large numbers of children would exist in low-status, central areas, where families were economically 'trapped'. The Back Street area (E.D.9) and the Strand area (E.D.11), both of which have a large average family size, are examples of such areas. Both contain housing of very mean proportions, several decades older than that further north, are badly provided with ashpits and privies and are interlaced with courts.

(d) Migrant status and family size

Nuclear family size is also linked to migrant status. A detailed breakdown and discussion of family size according to the birthplace of the head was given earlier, and all that need be added here is an indication of mean nuclear family size for birthplace groups. (Those given earlier include non-nuclear kin).

Table 9.5 shows that families with locally-born heads have a larger average family size than those with migrant heads but the marked divergence in the average family size of families with town-born, as opposed to outer borough-born, heads shows that this is mainly due to rural/urban differences. Since very few outer borough-born persons lived in the town, this larger average family size for the Llansamlet and Llangyfelach-born is possibly due to both a desire for larger families learned in a rural environment and a more rural location in which to achieve target family size. The Swansea-born heads do, in fact, have

smaller average families than migrants and this may be because many of the migrant group are of rural origin and a proportion of their number lived in the outer borough. It is not worthwhile pursuing rural/urban birthplace differences between migrants and their effect on family size since one has no idea how long any individual stayed in his place of birth. One can, however, pursue the effect of semi-rural residence at the time of the census. The average family size of migrant families living in the town is 3.82 (exactly equal to that of the Swansea born) and 3.90 for those migrant families living in the outer borough. Although there is a divergence here, it is much less marked than the divergence in family size among the local population.

Table 9.5
Mean nuclear family size by birthplace group, 1851

<u>Birthplace Group</u>	<u>Mean Nuclear Family size</u>
Swansea-born	3.82
Llansamlet and Llangyfelach-born	4.40
Local-born	4.07
Rest-of-Wales-born	3.71
South-West-England-born	4.04
Rest-of-England-born	3.89
Ireland-born	4.35
Overseas-born	3.85
All non-local-born	3.87

As stated earlier, one cannot identify how much of this semi-rural/urban difference in average family size is due to 'urban' influences and how much is due to other co-varying factors, such as occupation. The high fertility of skilled metal-workers has already been

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mentioned and some of the difference in average family size must be due to the concentration of this group of occupations in the outer borough. Although much of the divergence in family size between birth-place groups can be attributed to factors unconnected with migrant status, some of the variation is undoubtedly due to migrant status. The very low mean family size of the Rest-of-Wales-born, for instance, is not explained by rural/urban differences or occupational differences since, of all migrant groups, the Rest-of-Wales-born has the largest outer borough presence and the largest number employed in high-fertility skilled metal-working and mining occupations. It is also a group particularly dominated by classes 3 and 4. Also, the Irish, while having a markedly higher average family size than other migrant groups, live predominantly within the town, are not well represented in high fertility occupations and are largely confined to social class 5.

(e) Summary

Several factors, therefore, contribute to the spatial variation in nuclear family size. There is some evidence that urbanisation retarded family formation and reduced family size, but the effect of this is obscured by the relationship between family size and poverty by which working class families with a large number of dependants were forced into the poorest housing, most of which was to be found in and around the town centre. Family size also varied among the various social classes, industrial groups and migrant groups and, to the extent that these are not evenly distributed over the urban area, spatial variation in family size results. A far greater influence on the distribution of family size, however, is possibly the rapid growth of the town and the fact that the majority of this growth was the result of in-migration.

Newly-built suburban areas were rapidly settled by in-migrants and, since in-migrants as a whole are age-biased towards young adults, this results in areas developing with distinct life-cycle stage biases. Although both out-migration and intra-urban migration, though unmonitored in this study, are believed to be high, sufficient persistence can be expected in the life-cycle composition of such migrant-colonised areas to produce distinctly discernible spatial variation in family size at any particular point in time. The number of children in an area is, therefore, more likely to be the result of the length of time the area has been settled, together with its social class, occupational and migrant composition, than a result of its suitability for family life.

2. Family Structure

Extended families form 17.1 per cent of all families on the sample and 5.1 per cent of individuals on the sample are living in households as non-nuclear relatives of the head. This represents a slightly lower incidence of extended family formation than has been found in other towns of the period. In York in 1851, 21.6 per cent of families were extended families¹⁶ as were 20 per cent in Leeds.¹⁷ In Hull in 1851 6.5 per cent of individuals were living as extended family members.¹⁸ Two-generation families, whether nuclear or extended, account for 70.9 per cent of all families, the remainder being composed of one-generation families (23.4 per cent) and three-generation families (5.6 per cent). Table 9.6 compares Anderson's urban and rural Lancashire sample population with the Swansea M.B. sample population according to his five categories of family-structure type.¹⁹

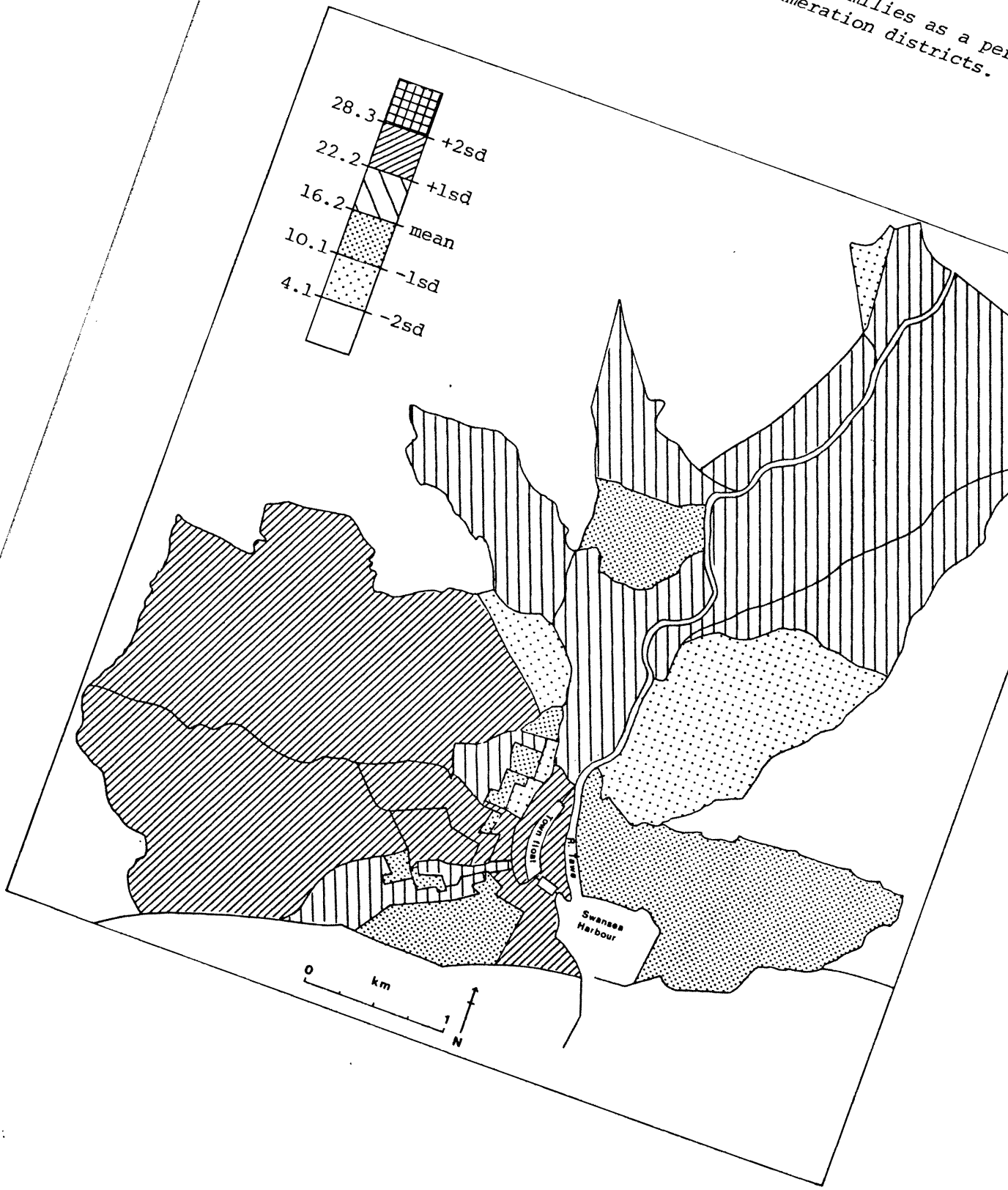
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Table 9.6

Family structure : Swansea compared with Anderson's

	<u>Lancashire sample</u>	<u>1851</u>	
	<u>Agricultural Villages</u>	<u>Preston</u>	<u>Swansea</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Head alone or only with un-related persons	5	4	7
Childless married couples only	12	10	12
Married couples (or widowed persons) with unmarried children only	56	63	65
Stem families (two lineally-related, ever-married persons plus other kin, if any)	6	10	7
Composite families (other combinations of kin)	21	13	10

Figure 9.6 illustrates the spatial distribution of extended families as a percentage of all families. Within the town, the high-class residential areas have the highest percentage of extended families, followed by the commercial core. Within the outer borough, the western area has the highest percentage of extended families and this may also be a result of class bias. Within the northern outer borough, there is, perhaps, a relationship between the percentage of migrants and the percentage of extended families, since migration has the effect of attenuating kinship ties. Such a relationship is not, however, apparent in the division between the outer borough and the town, the outer borough having far fewer migrants while possessing a lower percentage of extended families (14.6 per cent compared with 16.7 per cent for the town).

Of extended families as a per
lies:1851, enumeration districts.



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(a) Urbanisation and family structure

Work on other nineteenth-century cities has suggested that urbanisation may have encouraged extended family living as female employment opportunities necessitated the presence of kin as child-minders to cover for working wives.²⁰ On the other hand, family ties are thought to have been weakened by the changed social conditions which urbanisation brought about, resulting in an increase in family-less heads and attenuation of kinship ties.²¹ The social and economic distancing of kin, which occurred with the breakdown of the pre-industrial status-ascription system, may not, however, have had a significant effect on extended family formation. This is due to the fact that, although interrelations between kin were probably easier to maintain in pre-industrial society and possessed a functional role, there is no evidence to prove that kin groups lived as extended family units in pre-industrial times more frequently than in industrial times.²² It is possible, therefore, that the lack of female employment opportunities in the outer borough may have retarded extended family formation in that area, but this would be counter-balanced by the greater attenuation of kinship ties in the town due to the more modern social structure created by urbanisation. Since extended families form a small percentage of all families and other influences on extended family formation are numerous, it is unlikely that any such consequences of urbanisation would be discernible in the data.

(b) Class and family structure

Extended families are most common among the upper class, and this accords with Laslett, who claims that, in industrial society,

extended family living is associated with the accumulation of wealth.²³

Table 9.7 gives the percentage of families which are nuclear and extended for each class.

Table 9.7
Family-structure type by social class,
1851

	<u>Nuclear families as</u> <u>% of all families</u>	<u>Extended families as</u> <u>% of all families</u>
Social Class 1	72.92	27.08
Social Class 2	78.08	21.92
Social Class 3	84.45	15.55
Social Class 4	85.84	14.16
Social Class 5	83.93	16.07
Social Class 6	89.74	10.26
Adjusted Social Class 3	85.19	14.81
Adjusted Social Class 4	87.47	12.53

The low percentage of extended families among class 6, the skilled and semi-skilled metal-working and mining group, possibly reflects the lack of female employment opportunities in the outer borough and the fact that few such workers were self-employed and had the opportunity to offer employment to kin. Female employment opportunities may have been a factor in forming the large extended family percentage for class 2, since many class 2 heads are engaged in dealing, a major provider of female employment. The large percentage could also be a consequence of master craftsmen gaining this class designation if they employ more than a certain number of people, since their position as employers

obviously gave them an opportunity to employ their own brothers and nephews, who might live in, especially if they are unmarried.

Another factor encouraging extended family formation is the death or debility of a key adult member of the household, since mortality increases with a decrease in social status. This could account for the higher incidence of extended families among class 5 than among the rest of the working class. Female-headed households and incomplete families are, indeed, more common among this class. Fifty-seven family groups, out of a total of 1232 family groups (4.6 per cent), can be interpreted as extended families in which a relative is taking the place of a dead parent. The distribution of such families between classes is illustrated below.

Table 9.8

Families in which a relative can be interpreted as taking the place of a dead adult as a percentage of all families within each social class

<u>Social Class Group</u>	<u>Per cent</u>
Class 1	2.08
Class 2	3.42
Class 3	5.04
Class 4	3.54
Class 5	5.36
Class 6	3.84
Adjusted Class 3	4.87
Adjusted Class 4	3.66

The death of a key adult member does seem to be a factor encouraging extended family formation among class 5. The low percentage for class 4 is undoubtedly due to the favourable death-rate of the outer borough and the higher proportion of this class than any other class living in the outer borough.

(c) Migrant Status and Family Structure

Extended families are more common among the locally-born population due to the attenuation of kinship ties caused by migration. Table 9.9 shows the percentages which are nuclear and extended for major birthplace groups. The birthplace of the family is taken as being that of the head.

Table 9.9

Family-structure type by birthplace group, 1851

<u>Place of birth</u>	<u>% of families which are nuclear</u>	<u>% of families which are extended</u>
Unknown	92.50	7.50
Swansea, Llansamlet, Llanyfelach	81.37	18.63
Rest-of-Wales	84.62	15.38
South-West England	83.94	16.06
Rest-of-England	85.36	14.64
Ireland	84.31	15.99
Overseas	84.62	15.38

The relative lack of extended families among English-born heads' families is surprising in view of the fact that this group was strongly associated with social class 1. However, it will be remembered from the section on the inter-marriage of migrant groups that it seemed probable that many English migrants had arrived as single people or had migrated

in steps. This would obviously cause greater attenuation of kinship ties.'

When one looks at the type of relative found in migrant as opposed to indigenous families (Table 9.10), it becomes obvious that the practice of relatives following pioneering migrants applies most to siblings of the head, 41.0 per cent of all migrant relatives being brothers or sisters of the head or his wife. These differences, however, do not imply corresponding differences in extended family structure. This is because local 'stem' families are most likely to have the most senior male as head, the younger married couple having established themselves in the parental home, whereas migrant 'stem' families, as Table 9.11 shows, are almost as likely to have the younger adult male as head, the parents of the head having followed his migrational move and become part of his household. This explains the stronger presence of parents in migrant households and the greater number of sons and daughters-in-law and grandchildren in local households. It also partly explains the much larger presence of brothers and sisters-in-law in migrant households since, where the elder married couple are the householders, such persons would be nuclear-family members.

Figures for the migrant group as a whole conceal considerable variations among birthplace groups; the South-West England-born and the Ireland-born having very high percentages of stem families with the younger ever-married couple as head (80 per cent and 75 per cent respectively). Table 9.12 shows how these differences are reflected in the figures for the type of relative found in households of major birthplace groups.

Table 9.10

Comparison of type of relative (defined by relationship to head) occurring in local and migrant households, 1851

<u>Relationship to head</u>	Per cent		
	<u>All families</u>	<u>Local families</u>	<u>Migrant families</u>
Grandparent or in-law	1.00	0.65	1.49
Parent or in-law	13.38	10.46	14.93
Son- or daughter-in-law	4.01	6.53	1.49
Grandchild	19.73	22.87	15.67
Brother or sister or in-law	33.44	28.10	41.04
Uncle or Aunt	1.67	2.61	0.75
Niece or Nephew	25.08	26.14	23.88
Cousin	1.00	1.96	0.00
Other	0.67	0.65	0.75
All	100.00	100.00	100.00

Table 9.11

Comparison of the proportions of stem family types in local and migrant households, 1851

<u>Type of head</u>	<u>% of all local stem families</u>	<u>% of all migrant stem families</u>
Younger ever-married male/female	53.33	63.33
Elder ever-married male/female	46.67	36.67

Table 9.12

Non-nuclear kin by relationship to the head : Breakdown
by major birthplace groups, 1851

<u>Relationship to head</u>	<u>Per cent</u>				
	<u>Local- born</u>	<u>Rest-of Wales- Born</u>	<u>S.W. England -born</u>	<u>Rest-of England -born</u>	<u>Ireland -born</u>
Grandparent or in-law	0.65	2.98	0.00	0.00	0.00
Parent or in-law	10.46	8.95	27.03	6.25	21.42
Son- or daughter-in-law	6.53	0.00	0.00	12.50	0.00
Grandchild	22.87	20.89	8.11	18.75	7.14
Brother or sister or in-law	28.10	32.84	51.35	37.50	57.14
Uncle or Aunt	2.61	0.00	0.00	6.25	0.00
Niece or Nephew	26.14	34.33	13.51	18.75	7.14
Cousin	1.96	0.00	0.00	0.00	0.00
Other	0.65	0.00	0.00	0.00	7.14
All non-nuclear kin	100.00	100.00	100.00	100.00	100.00

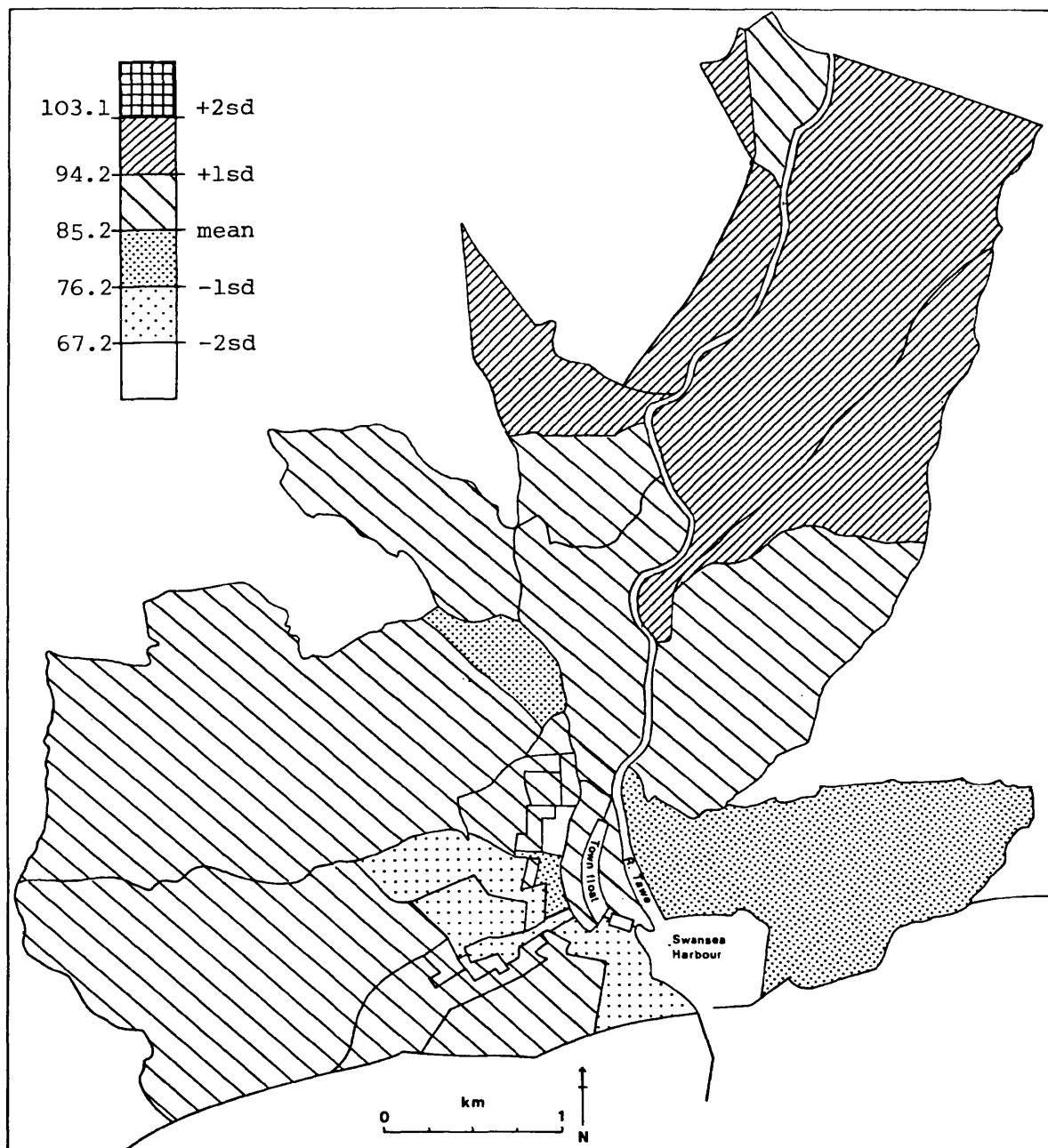
Strong similarities are apparent between the South-West-England-born and the Ireland-born and the figures point to a predominant pattern of young pioneering migrants being followed by other kin. It is known that this was the case with the Irish and it seems that a similar process could have taken place, in different circumstances, among the South-West England-born. Some of the differences apparent in Table 9.12 would disappear, however, if controlled by age. For instance, it will be remembered from Chapter 8 that there is a larger elderly presence among the Rest-of-Wales-born and this birthplace group would have had more opportunity than other migrant birthplace groups to establish extended stem families in which the elder adult male is the head, his family having grown up since his arrival in the town as a young male.

3. Household Size and Composition

Household size in the Municipal Borough varies from one person to nineteen persons with a mean of 4.94 persons, slightly higher than in most studies.²⁴ The average household is slightly larger in the town as a whole than in the outer borough, the respective mean sizes being 5.00 and 4.80. This is undoubtedly due to the greater presence of non-family members, particularly servants and lodgers, in town households. Within the town, the largest mean household sizes occur in Grid-squares 22, 27, 36/37 and 39, all of which are high-class or commercial areas. Not all high-class areas have high mean household sizes, however, squares 23 and 49/50/51 having well below average mean sizes.

The spatial variation in the numerical presence of non-family members is illustrated in Figure 9.7 which shows the extended family as a percentage of total population. Non-kin household members are sparsest in the outer borough and in the most rural parts of the outer borough in particular, the extended family population forming 97.3 per cent and 97.2 per cent of the population in Llansamlet and Treboeth, while forming only 92.6 per cent in the more modern Hafod area. The extended family population accounts for the lowest percentages of the total population in the High Street area of the town, previously identified as an area of weak family life. Here only 66.5 per cent of individuals are family members, two-thirds of the remainder being lodgers. The distribution of the extended family as a percentage of the total population suggests that the degree of urbanisation is a factor inducing a greater presence of non-kin household members but various additional influences are quite clearly operating. The most important is class. The western outer borough, for instance, has lower percentages of

Figure 9.7 : Distribution of the extended family population as a percentage of the total population:1851, enumeration districts.



individuals living as family members than does the northern outer borough, mainly due to the presence of servants in its upper-class households. This effect is even more obvious in the town itself, the middle-class districts 1, 5, 8 and 7 all having less than 75 per cent of their individuals living as members of families. Table 9.13 gives a class breakdown of household size and structure.

Table 9.13

Differences in Household Size and Structure among Social Class Groups, 1851

	<u>Class</u> <u>1</u>	<u>Class</u> <u>2</u>	<u>Class</u> <u>3</u>	<u>Class</u> <u>4</u>	<u>Class</u> <u>5</u>	<u>Class</u> <u>6</u>
Mean household size	5.89	5.91	4.96	4.71	4.29	5.04
Mean extended family size	4.04	4.26	4.24	4.19	3.81	4.68
Mean nuclear family size	3.62	3.89	4.01	3.97	3.58	4.51
Mean number of children	1.94	2.05	2.25	2.30	1.90	2.77
Mean number of wives	0.71	0.68	0.77	0.67	0.68	0.95
Mean number of relatives	0.42	0.36	0.23	0.22	0.23	0.16
Mean number of lodgers	0.17	0.27	0.42	0.35	0.43	0.06
Mean number of servants	1.56	0.76	0.12	0.07	0.05	0.05
Mean number of visitors	0.08	0.39	0.17	0.08	0.10	0.05

According to Table 9.13, household size varies directly with social class, the lower nuclear family size of the higher classes being more than offset by the greater incidence of resident domestic servants and extended family members among their number. It is interesting to note that the mean numbers of servants per class recorded here are very similar to those found by Armstrong in York.²⁵ This may indicate that Armstrong's system of allocating households to classes does²⁶ have

validity in terms of style-of-life in cities with very different industrial structures to that of York.

Lodgers have been found most commonly among the working class in other studies of the period. A recent study of Wakefield in 1851-61 linked lodgers with an inability of householders to pay the rent²⁷ and lodgers were found to be particularly associated with households in classes 4 and 5 in Cardiff.²⁸ In Hull they were most common among the skilled working-class households.²⁹ In Ramsgate, however, no association was found between the presence of lodgers in households and the social class of households.³⁰ This is, however, possibly related to the town's resort function. In this study lodgers are, indeed, most common among the working classes and are very marginally most common among class 5. Although class 5 as a whole may have more economic need for taking in lodgers as an additional source of income, it is among the Ireland-born section of the class that lodgers are most frequent, the rest of class 5 having a comparatively small number of lodgers among its households. Fig. 9.8 shows the distribution of lodgers as a percentage of total population at grid-square level within the town and it can be seen that many class 5 residential areas of the north have very few lodgers while Grid-square 74, the heart of the Irish area, has a very high lodger-presence (24.3 per cent). (The mean number of lodgers per Irish household is 0.82 compared with 0.32 for all households, Table 8.14). The second major concentration of lodgers is in the High Street area of the town at the northern end of the commercial area. This concentration is partially lost at grid-square level but is apparent in Grid-square 61/62. On the whole, apart from the Irish area, lodgers are most common in the older parts of the town, but they are also present in large numbers

Figure 9.8 : Distribution of lodgers as a percentage of the total population: 1851, grid

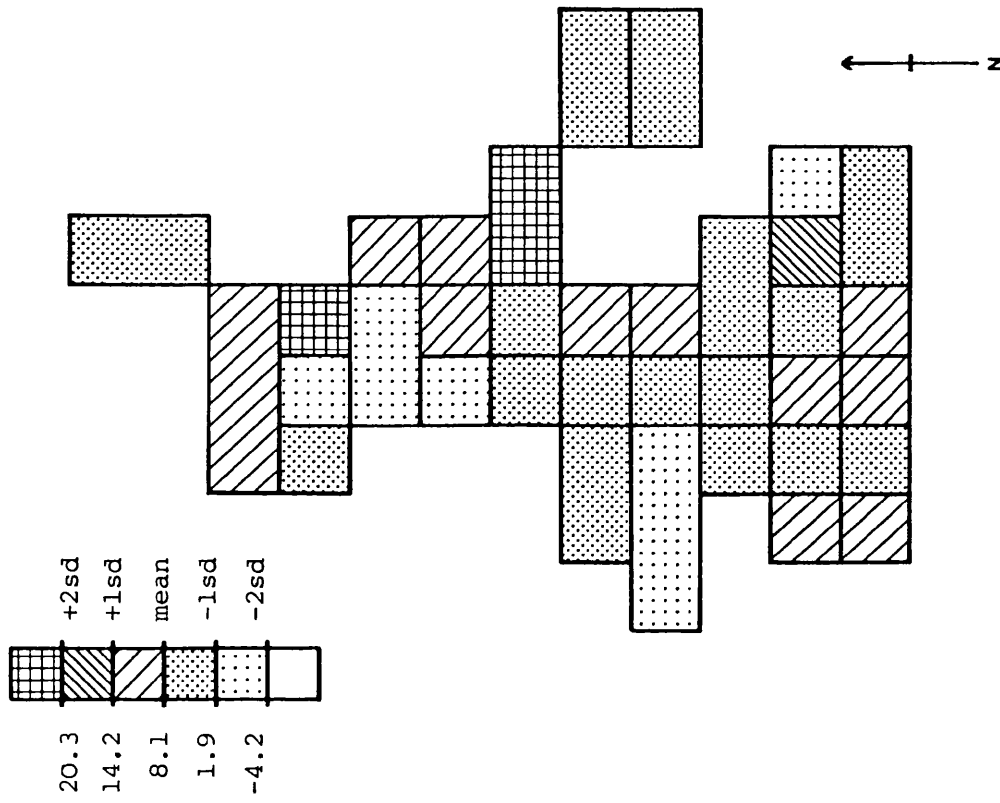
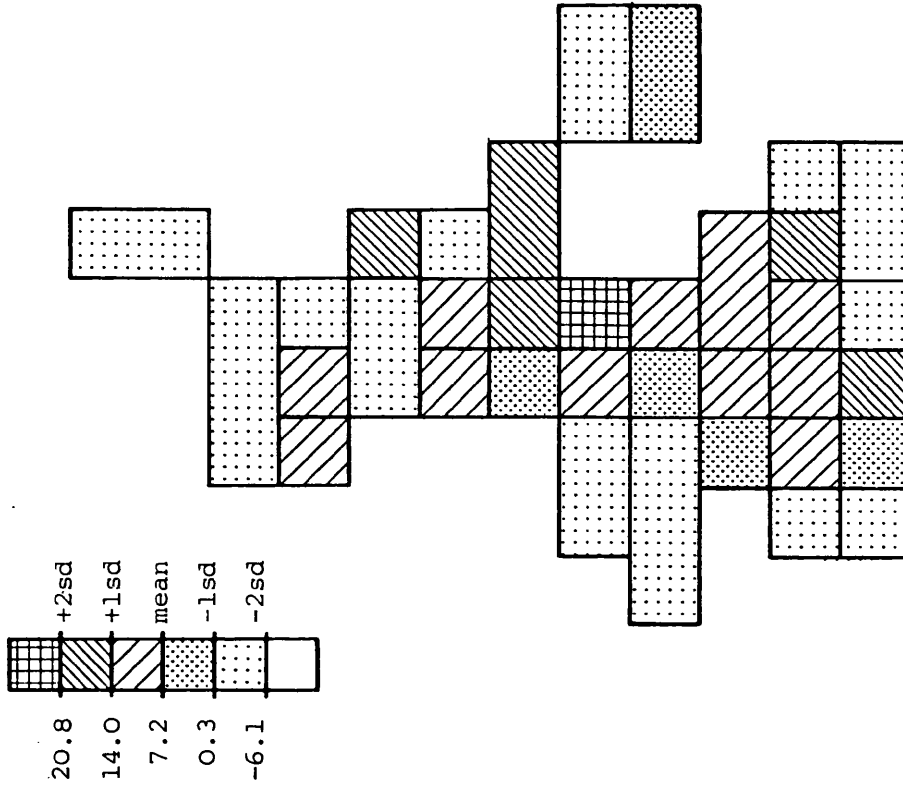


Figure 9.9 : Distribution of heads-of-household with no resident kin as a percentage of all heads: 1851, grid



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in two recently-settled squares of the western Sandfields. Lodger presence is, therefore, less class dependent than is the presence of the other main group of non-kin household members, resident domestic servants. Although lodgers are more common among the working class, they are most common among a certain migrant section of the working-class and also among working-class households living in particular areas, notably the northern section of the central area. Nineteenth-century towns tended to develop lodging-house areas which served, among others, travelling tradesmen and skilled and semi-skilled artisans travelling in search of work.³¹ Upper High Street is, to some extent, such an area. It will be remembered from Chapter 8, however, that 26.7 per cent of lodgers were locally born and many of these are found living in this central area. Many of these must have had kin living within the borough and this fact, combined with the very high percentage of heads with no co-resident kin in High Street and other parts of the central area, suggests the development of distinct areas in which family life is very weak.

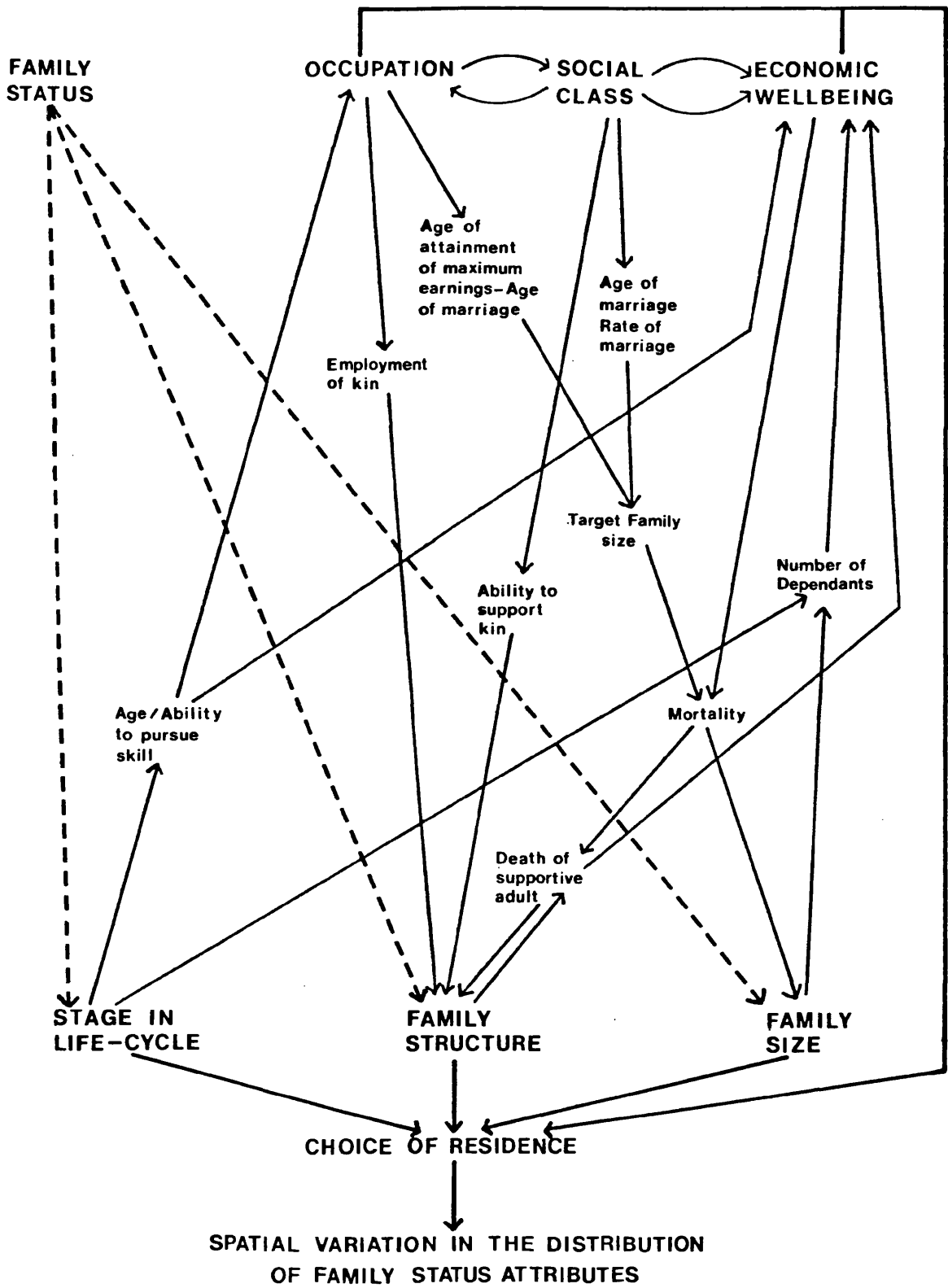
4. Conclusion

The analysis has shown that household size, family size and life-cycle stage vary spatially within the borough but that much of this variation seems to be co-variant with social class and migrant status. Migrant segregation affects the spatial distribution of non-kin household members through the frequency of lodgers in Irish households and servants in English households, the distribution of mean family size through the variant target family size of ethnic and migrant groups, the distribution of family structure through the attenuation of kinship ties

and the distribution of life-cycle stage through the markedly variant age-profiles of migrant groups. A degree of spatial variation in the distribution of all four of these family attributes can, therefore, be expected as a result of the segregation of migrant groups already observed. A far greater influence on the family status dimension, however, is exerted by social class and the linkages between these two dimensions are explored in Figure 9.10.

Social class and occupation directly influence family status factors since several of the factors controlling family size and family structure are partially class-dependent. This results in variation in the frequency of certain family types among class-defined and occupationally-defined residential areas. For example, the rate of marriage, age of marriage, target family size, fertility rate and mortality rate vary between social classes and occupational groups, combining to produce different mean family sizes for these groups. Similarly, the employment of kin and the economic ability to support kin affect family structure. Household structure and complexity are affected, in the case of lodgers, by the necessity to generate additional income and, in the case of servants, by the ability to support luxury expenditure. The size and structure of the family and household is, therefore, to a substantial extent class-dependent. Of greater consequence for the residential distribution of family status factors, however, is the relative absence of income redistributors, which cushion the effects of changes in the balance between supportive and dependent family members. This, combined with a normally low level of income among the working class, imposes severe restraints on residential choice for a large section of the population. Large families were a major cause of poverty and in the absence of modern income supplements such as tax relief for dependants,

Figure 9.10: Social Status influences on the spatial distribution of Family Status attributes



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family allowances and supplementary benefits each additional child could be a major economic strain on working-class families. Structural changes in the family and the ability and opportunity of adult members to work could also have a drastic effect on living standards. While unemployment benefits, sickness benefits and pensions were paid by such organisations as friendly societies and trade societies, the majority of the population fell outside such schemes and, where they did apply, they generally provided an inadequate level of support. For most, the only source of income, when others failed, was parish relief. It is apparent, therefore, that there would be a greater tendency than there is at the present day for large families and one parent families to congregate in the lowest-priced housing, and it is unlikely that unskilled and semi-skilled labourers, or those experiencing irregular employment, would have been economically able to reside in locations suited to family life, since these were in the outer areas of newer housing which, except in the case of Greenhill, were likely to command a higher rent. Furthermore, such a move would have been made less likely by the very change which made it desirable, since extra dependants would reduce the amount of income available for rent. Increase in family for labourers was, therefore, more likely to precipitate a move on economic grounds than environmental grounds, and such a move would be to an area less attractive for family life, the cheapest housing being found in the ageing areas of the centre and the burgage infill plots. This resulted in localities with large numbers of children and families with widowed heads in low-status central areas where families were economically 'trapped'. The Back Street area and the Strand area are examples of such neighbourhoods.

It is apparent, therefore, that the family status dimension of residential differentiation is severely constrained, firstly, because

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the factors governing family type are partially dependent on social class and migrant status, causing family-type variation between social-class-defined and migrant-status-defined residential areas and, secondly, because changes in the family as it progresses through the life-cycle can have a profound effect on economic well-being, effectively preventing the emergence of a life-cycle dimension of residential differentiation. It would be wrong, however, to assume that the family status dimension is totally absent. There is evidence that, in three respects at least, family status may have played an active role in residential differentiation. Firstly, there is evidence that some of the spatial variation in family status may be due to the presence of factors more congenial to family life in the less urban areas, average family size being large and few persons living outside the family group in the outer borough. Secondly, whereas it was not economically possible for the majority of heads with young families to choose a residential location suited to stage in the family life-cycle, it was still possible that, within the confines of even the cheapest housing, families would choose to live among those similar to themselves in life-cycle terms and the poverty pockets in the central north with large numbers of children may be partly the result of this, since other cheap, central housing was also available but was heavily colonised by 'beggar hotels' and small families. There is, however, little evidence in the town as a whole to support the contention that, within their economic constraints, families chose to live among those similar to themselves in family terms and the segregation of poor families into pockets within the central area may be due to the third factor, the concentration in central areas of those not choosing a familist life-style. There is distinct evidence that areas weak in

family-life with large numbers of single adults living outside the kin group existed in the central area. Such areas are juxtaposed with those in which large lower-working-class families predominate. The importance of changes within the central area in the initial emergence of a life-cycle dimension of residential differentiation has also been noted in Wolverhampton. Shaw concludes that the separation of the social status and family status dimension largely takes place via the movement of high-class households out of the city centre, resulting in a central area

"no longer characterised by high status but by the greater age of its population, the absence of children, high female-headship rates, many servants and loners." 32

It is clear that there are family status influences on residential area formation in Swansea in 1851 but such influences do not constitute a strong dimension of urban residential differentiation. The clearest expression of the dimension is the concentration of non-familists in relatively discrete neighbourhoods of the town centre. The lack of a more wide-ranging spatial expression may be partly due to the relatively small size of Swansea in 1851 but, even if large-scale suburban development had already taken place, the strong links between social status and family status and, in particular, the link between family size and poverty would prevent the emergence of an independent family status dimension among a large section of the population.

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Summary to Section B

The previous three chapters have demonstrated that the 1851 town is characterised by distinct segregation according to social class and migrant status but that segregation according to family status is largely limited to a concentration of non-familists in discrete neighbourhoods within the town centre. The primary features of the spatial pattern of residential differentiation are summarised below.

In terms of social class, the scale of segregation varies between the inner and outer parts of the town, a 'pre-industrial', fine mesh of social-class segregation being preserved at the centre while a more modern pattern of class segregation obtains in the newer 'suburbs'. The suburban accretions to the north are mainly lower working-class while those to the west are middle class in their northern section and upper working-class in their southern, seaward section. The growth of the town is, therefore, distinctly sectoral in class terms with a discrete segment of high-class housing striking out westwards towards the higher ground of the seaward-facing slopes. The development of this high-class sector, however, is embryonic in 1851 and the majority of the upper-ranks still live within the mixed-class central area and on the Burrows, a high-class central neighbourhood developed earlier in the century as an attempt to create an exclusive residential zone without losing the advantage of centrality. The retention within the town centre of the majority of the upper and middle classes reflects the continuing strength of the linkages between home and work. These linkages are also important in determining residential location in the 'suburbs', particularly in the case of social classes 3 and 4.

In terms of migrant status, segregation is most clearly demonstrated by the extreme concentration of the Irish in the northern extremity of the town but there are also distinct spatial clusterings of Welsh migrant subgroups, such as the Gower-born in the Gam Street area. At a broader scale, there is a general separation of the English and Welsh populations based primarily on language and religion. The English-speaking population dominates the south and the centre of the town while the Welsh-speaking population dominates the north of the town and the outer borough.

These patterns of residential differentiation reflect a strong relationship between migrant status and social status. The English migrant group has a strong upper-class bias which contributes to its concentration in the centre, south and west of the town. The Irish are largely confined to social class 5 and this, combined with strong cultural prejudice against them, results in a 'ghetto' situation. At a more particular level, certain occupations are dominated by specific migrant groups, such as the Carmarthenshire-born in tailoring. In such cases, occupational status and migrant status mutually reinforce segregation.

There is also a relationship between social status and family status and, to a lesser extent, between migrant status and family status. In both cases family status plays little part in determining residential location, spatial variations in family status factors being primarily a reflection of their relationship with social status and migrant status. Furthermore, the low level and irregularity of income among the working class combined with the absence of income redistributors which cushion the effects of changes in the balance between

supportive and dependent family members prevents the emergence of a life-cycle dimension.

The spatial organisation of the 1851 town, therefore, reflects a situation in which, firstly, the indigenous population is to some extent being dominated by the wealthy element of a particular migrant group and economic position is partly dictated by cultural background; secondly, migrant groups in general are not sufficiently adjusted to urban life to remove the necessity for them to segregate; thirdly, workplace continues to exert a strong influence over residential location and, fourthly, the majority of the population are very severely restricted in terms of residential choice due primarily to low pay, irregular work and a lack of social-welfare mechanisms.

Differences between the old and new parts of the 1851 town and the results of work on other nineteenth-century cities would suggest that the following changes were taking place in mid-nineteenth-century Swansea; firstly, the spatial scale of class segregation was increasing; secondly, the functional and spatial ties between home and work were weakening; thirdly, the segregation of migrant groups was declining as their longevity of settlement increased leading to greater assimilation and also as the town expanded making it less practical for single concentrations to be preserved and, finally, the interdependence between social status, migrant status and family status was declining. These and other elements of change are further explored in the following section which examines the spatial dimensions of social class, migrant status and family status in 1871.

EVOLVING PATTERNS OF RESIDENCE IN A NINETEENTH-
CENTURY CITY : SWANSEA 1851-1871

Volume 2

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SECTION C

This section reports on the detailed empirical analysis for 1871 for the same three themes of social class, migrant status and family status with continuing attention to spatial distributions and some attempt to identify processes of change

SOCIAL CLASS IN 1871

1. Introduction

This chapter presents the analysis of social-class patterns in 1871 and, from the basis of this analysis, draws comparisons with the 1851 patterns which have already been described. What are presented for Swansea are two static pictures of the social class 'geography' of the urban area but, from the evidences, inferences regarding processes of residential change can be made. It must be noted that there are sources of error, notably in deficiencies of occupation information, which make it difficult to separate skilled from semi-skilled workers, and incomplete addresses affecting allocation to grid-squares which make detailed comparisons difficult. Furthermore, the systematic sample, after allocation to grid-squares, bears no relation to the spatial units of aggregation used.*

While the distributions for 1851, inevitably were analysed in isolation since no information has been collected for social-class

* Note: Since the households in the census are presented in enumeration-district order, the most that one can be in error in estimating the total number of households in an enumeration district from a twenty per cent sample is four households. However, once the households are reallocated to grid-squares, the error is variable between squares and the upper limit of the error is undefined. An example of this affecting the analysis is the case of Grid-squares 63/64 (St. Thomas). These squares have more cases in 1851 than in 1871, despite the fact that house-building occurred in the squares in the intervening years. This is partly due to the southern boundary of the squares clipping the tops of post-1851 streets with none of the houses on these streets, which fall within the squares, being present on the twenty per cent sample. Inconvenient and inestimable though such errors are, they are not considered to be serious enough to undermine the analysis, since the sampling fraction is large and the number of households in each unit, after amalgamation of grid-squares is sufficient to produce meaningful results.

distributions at a previous date, the residential distribution of social classes in 1871 is best seen against a background of the previously analysed spatial distribution for 1851 and, also, of changes in the distribution of the total economically-active among the five social classes and the physical change in the structure of the town taking place between the two dates.

(a) Physical expansion

The most important factors of physical change in the town are outward suburban expansion and the subdivision of houses in the older part of the town, both necessitated by the rapid increase in population (20,241 over the twenty-year period). Other morphological changes occurred, such as the excavation of the South Dock. In the case of the outer borough, population growth caused the expansion of all industrial villages and the suburbanisation of parts of four 1851 enumeration districts formerly considered to be outside the built-up area. These are E.D.s 16, 17, 20 and 26 (Brynmill/Uplands, Brynmelin, Hafod/Vivian, St. Thomas). In the case of the town, the grid-squares which were peripheral in 1851 saw extensive suburban growth and, because the increase in population outstripped the housing supply, many squares fully developed in 1851 experienced an increase in their numbers of households by 1871 due to the subdivision of their housing stocks. The only grid-squares to experience decline were Grid-squares 23, 24 and 47, in the commercial core. Figs. 10.1, 10.2 show the estimated absolute changes in the number of households per grid-square and the percentage change between the two dates.

Figure 10.1 : Absolute changes in the number of households between 1851 and 1871 by grid.

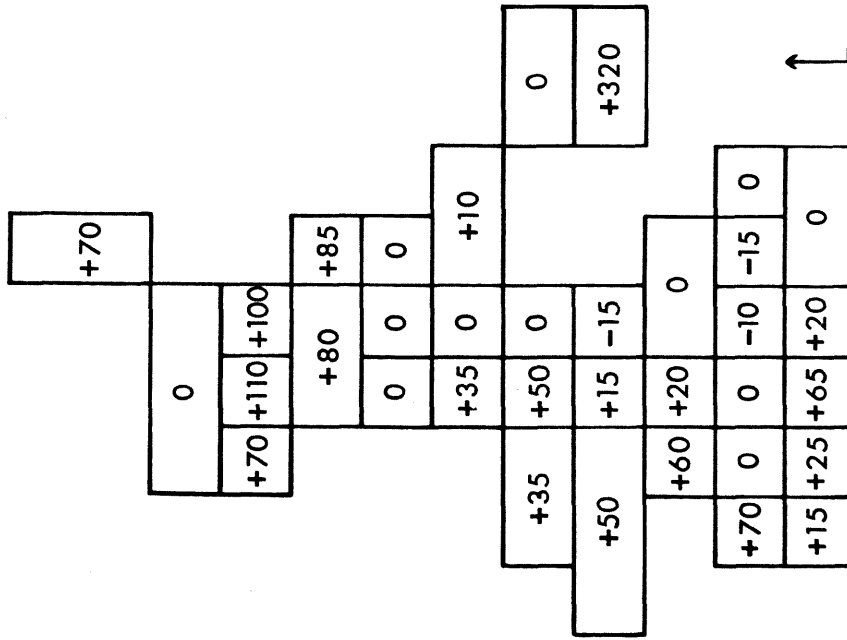
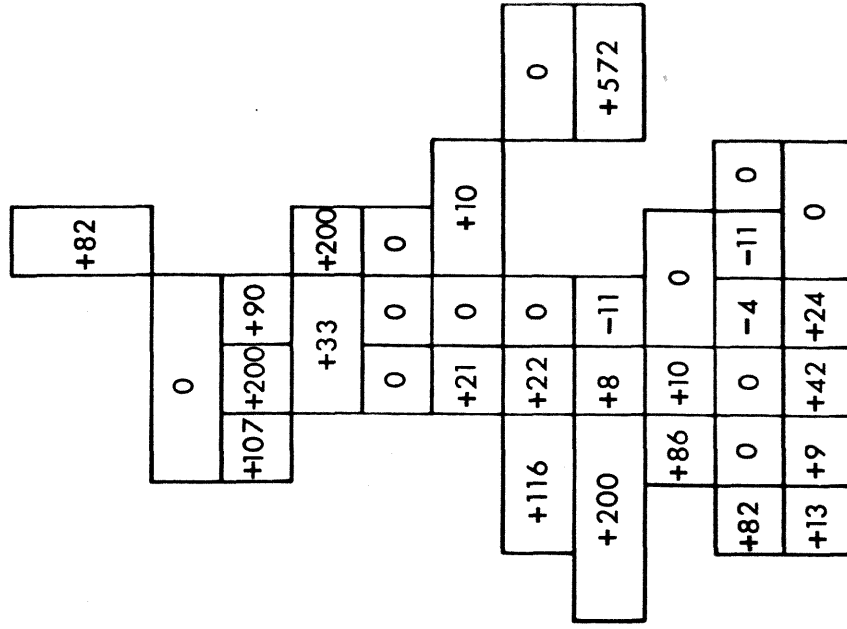


Figure 10.2 : Percentage changes in the number of households between 1851 and 1871 by grid.



(b) Changes in the social-class distribution of the economically-active population

Table 10.1 compares the distribution of the economically-active population among the five social classes in Swansea in 1851 and 1871.

Table 10.1
Comparisons of the class distribution of the sample
economically-active : Swansea 1851 and 1871

	<u>Swansea 1851</u>		<u>Swansea 1871</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
Social class 1	76	3.27	107	3.05
Social class 2	182	7.82	268	7.64
Social class 3	1128.5	48.52	1896	52.06
Social class 4	598.5	25.73	587	16.74
Social class 5	341	14.66	719	20.50
Total	2326	100.00	3507	100.00

It can be seen from this table that the proportions in the first three classes are relatively little altered over the twenty-year period but that class 4 has declined substantially and class 5 has increased to the extent that it accounts for 1 in 5 of the economically-active. The small proportions in classes 1 and 2 in 1851 gave the town a bottom-heavy class profile typical of rapidly-growing industrial cities¹ and this has been accentuated in 1871 by a slight relative decline in the top two classes coupled with the substantial increase in the class 5 percentage. One interesting feature is the slight absolute decline in class 4 economically-active persons despite a 50 per cent increase in the total number of economically-active. This can only be accounted for by the

impossibility of separating class 4 from class 3 accurately, not only in the metal-smelting trades but in manufacturing as a whole.² However, the number of persons for which accurate information on occupation is available, justifies the separate treatment of these classes.

2. Class segregation and residential location in 1871

Figs. 10.3-10.8 illustrate the distribution of social classes as a percentage of the total economically-active at enumeration-district level for the whole borough in 1871. The enumeration-district boundaries in the outer borough are sufficiently similar to those in 1851 to allow visual comparison, the majority of changes involving subdivision of enumeration districts. For changes within the town, however, reference should be made to the grid-square maps (Figs. 10.9-10.14), the grid-overlay being the same at both dates. To aid comparison with 1851, the extent of the 1851 grid is identified by the thicker grid-lines in the 1871 maps. Straight comparison of the 1851 and 1871 grid-square percentage distributions of social classes is, however, misleading due to the changes in the total economically-active taking place in many of the 1851 grid-squares. The large population increases experienced by some of the squares mean that, in percentage terms, a class may decline within a square while actually increasing in absolute number within it and tightening its hold on part of the square, while being encircled by housing belonging to a different social class. Obviously, both the overall change in the class profile of the grid-square and the absolute change experienced by one class within it are important and, in order to clarify these absolute and relative changes within squares, an accompanying set of maps has been drawn (Figs. 10.15-10.19). These maps show the nature of the changes occurring in each square in terms of absolute and relative net

Losses and gains and are designed to show which areas were being invaded or relinquished by each class.

The changing levels of segregation between classes are illustrated in Tables 10.2 - 10.3. Table 10.2 gives indices of dissimilarity for social classes based on 1871 grid-squares and Table 10.3 gives percentage-point differences in the indices of dissimilarity between 1851 and 1871. Comparison of the two sets of indices can, however, lead to false conclusions since various factors can cause change in the indices without there being any measurable alteration in the actual level of segregation present. For instance, the number of grid-squares is greater in 1871 than in 1851 and this may have inflated the indices for 1871.³ This factor, however, since it applies to each index in turn, will not invalidate the comparison of percentage-point differences in Table 10.3 and, where a negative value is recorded, the sign must be valid. Furthermore, the increased sample size of all groups will have greatly offset, if not completely offset, the increase in the number of spatial units, the ratio of units to population being approximately the same at both dates. Lack of comparability is more likely to stem from the changed distribution of population between social classes, which results in changed relative sample sizes, the indices not being independent of sample size. Again, however, the changes in the relative sizes of the social classes are not great enough to invalidate non-marginal changes in the indices between the two dates.

Figure 10.3 : Distribution of social class 1 as a percentage of the total economically-active:1871, enumeration districts.

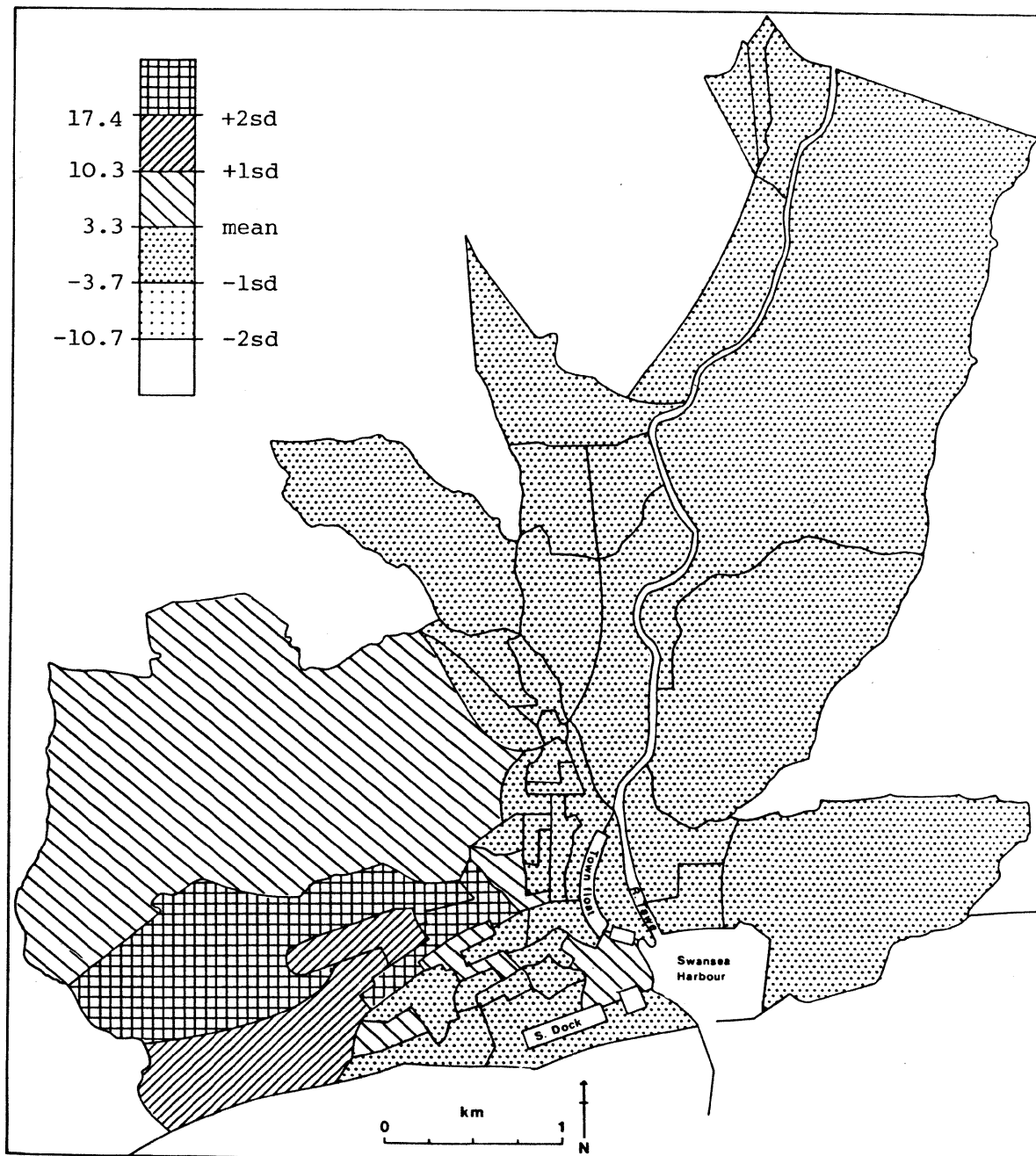


Figure 10.4 : Distribution of social classes 1 and 2 as a percentage of the total economically-active:1871, enumeration districts.

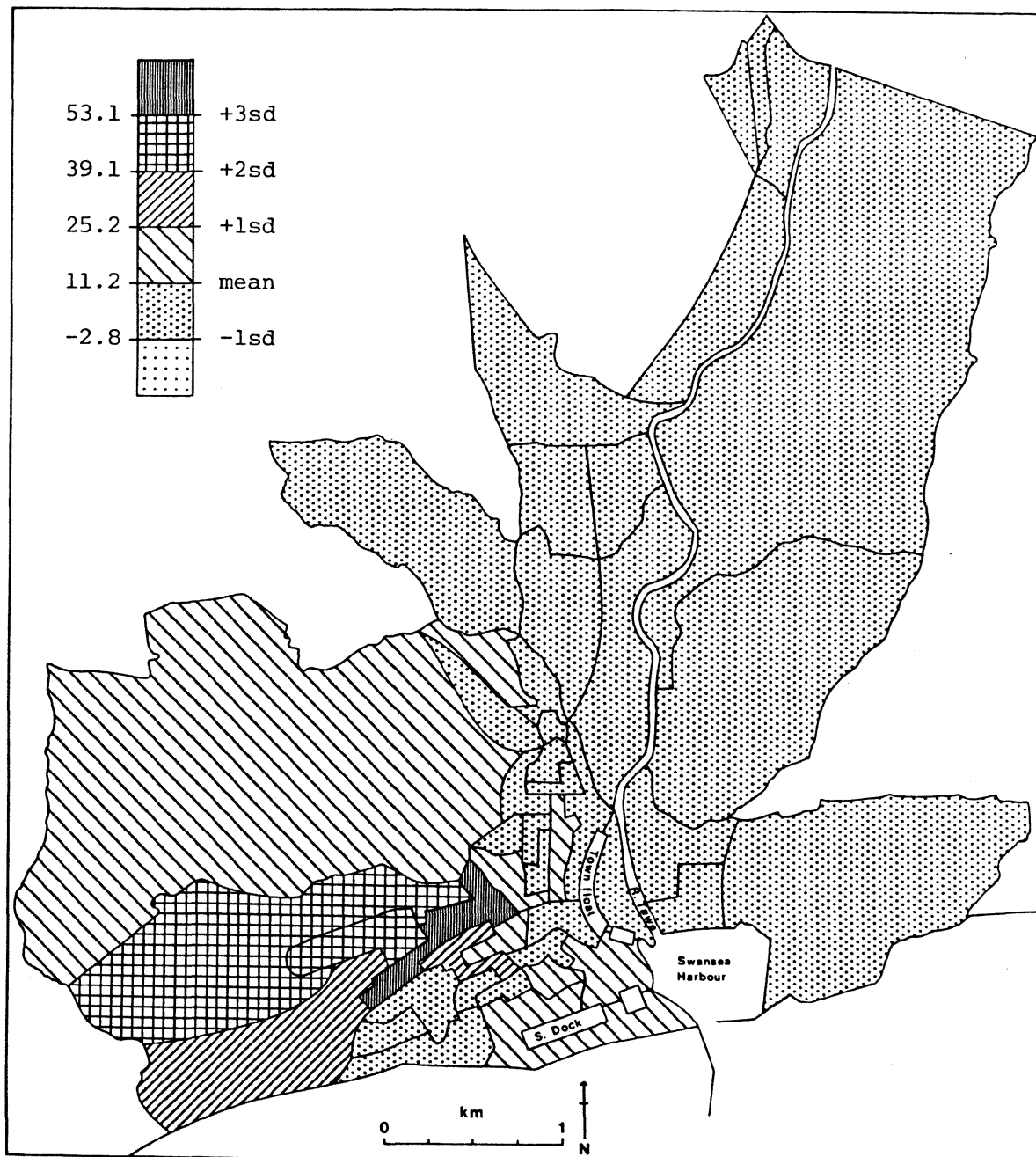


Figure 10.5 : Distribution of social class 2 as a percentage of the total economically-active:1871, enumeration districts.

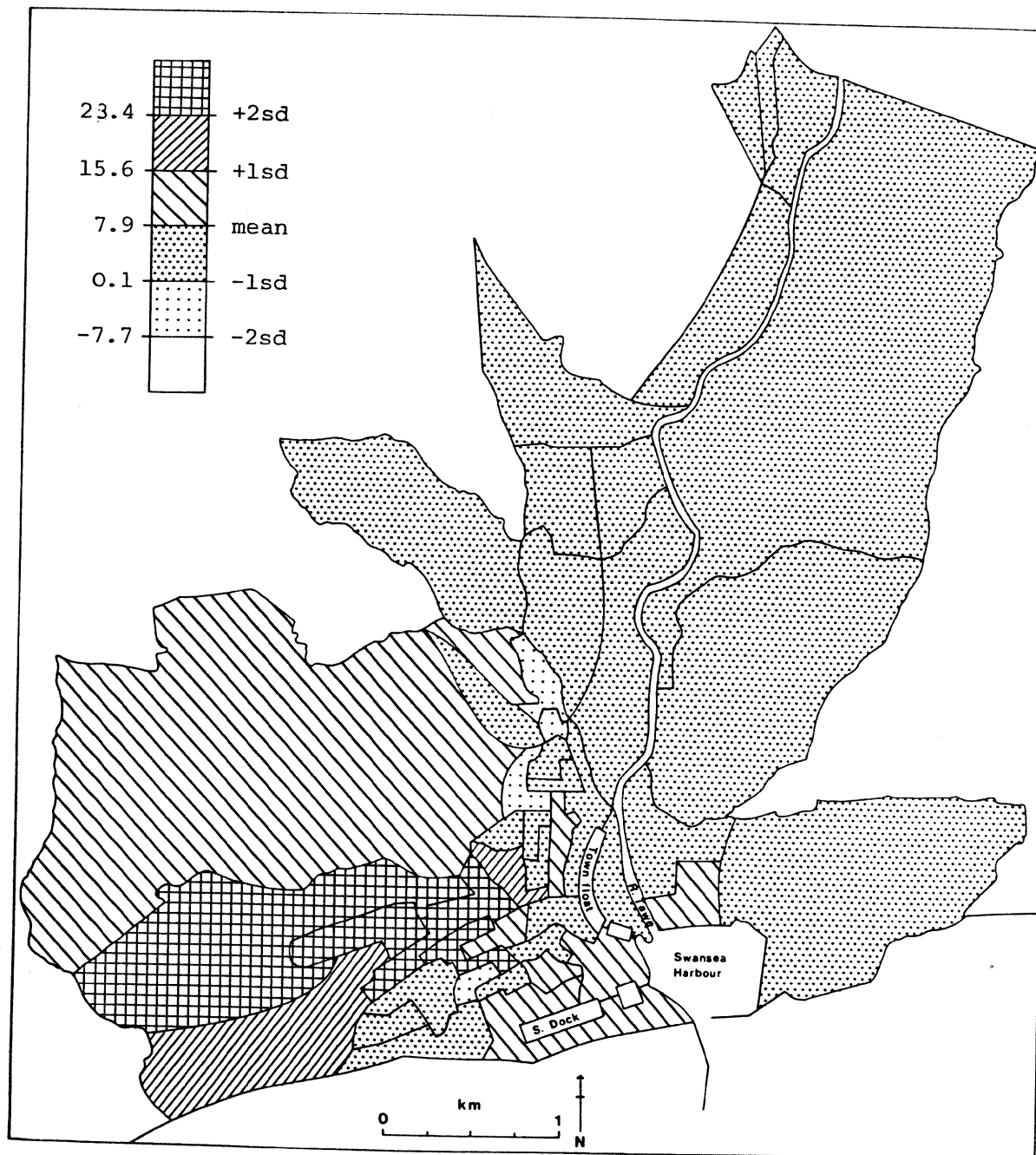


Figure 10.6 : Distribution of social class 3 as a percentage of the total economically-active, 1871, enumeration districts.

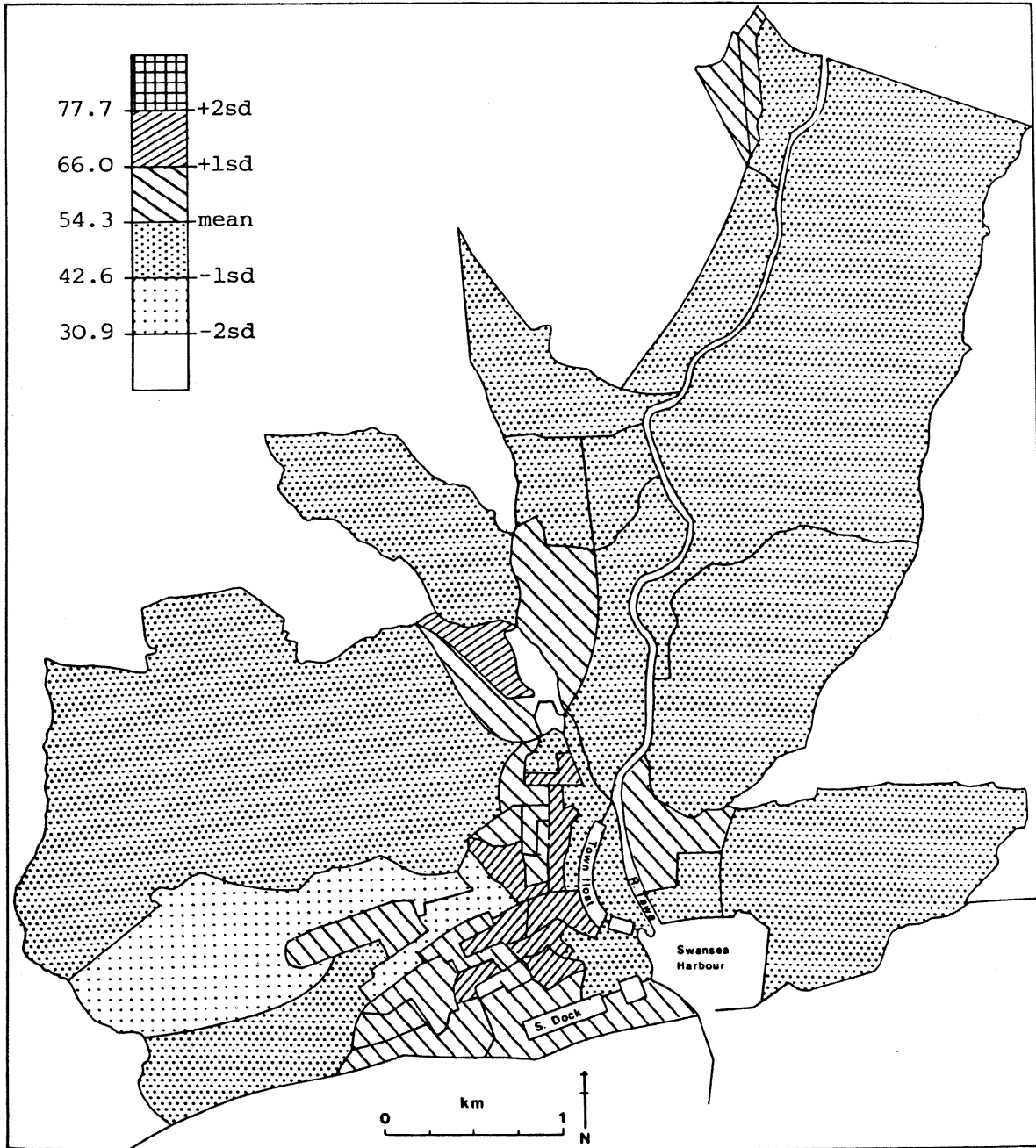


Figure 10.7 : Distribution of social class 4 as a percentage of the total economically-active:1871, enumeration districts.

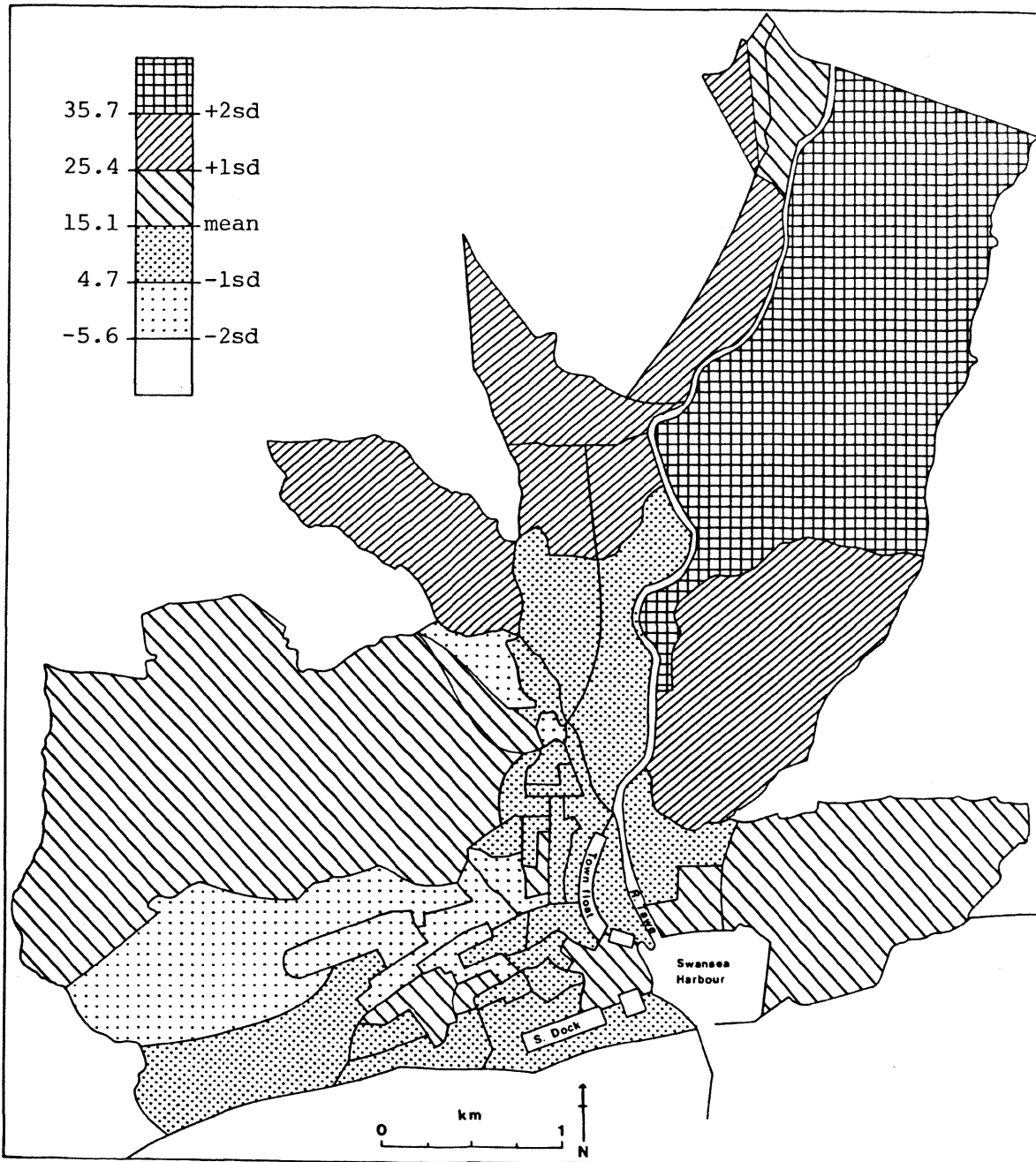


Figure 10.8 : Distribution of social class 5 as a percentage of the total economically-active, 1871, enumeration districts.

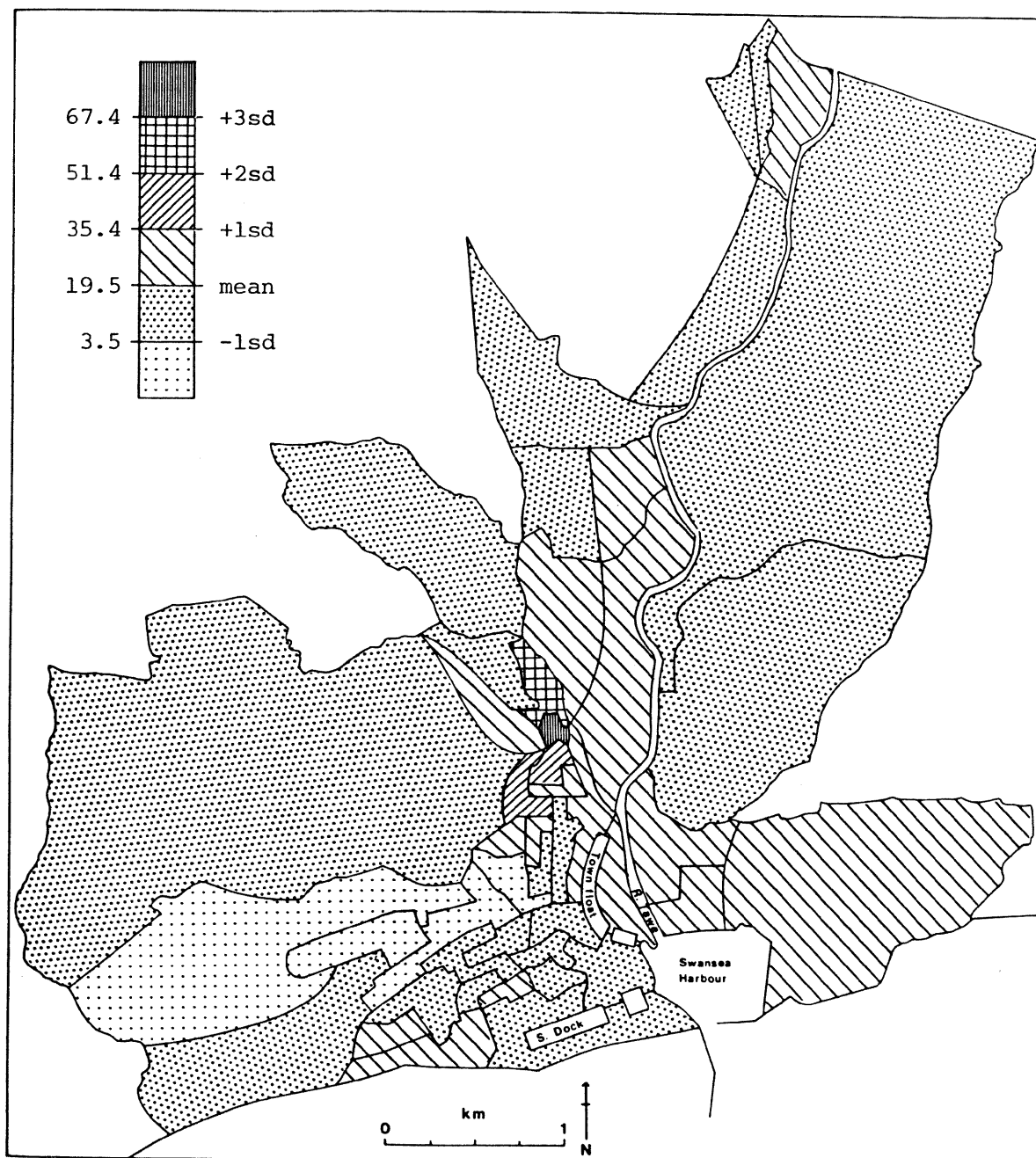


Figure 10.9 : Distribution of social class 1 as a percentage of the total economically-active:1871, grid

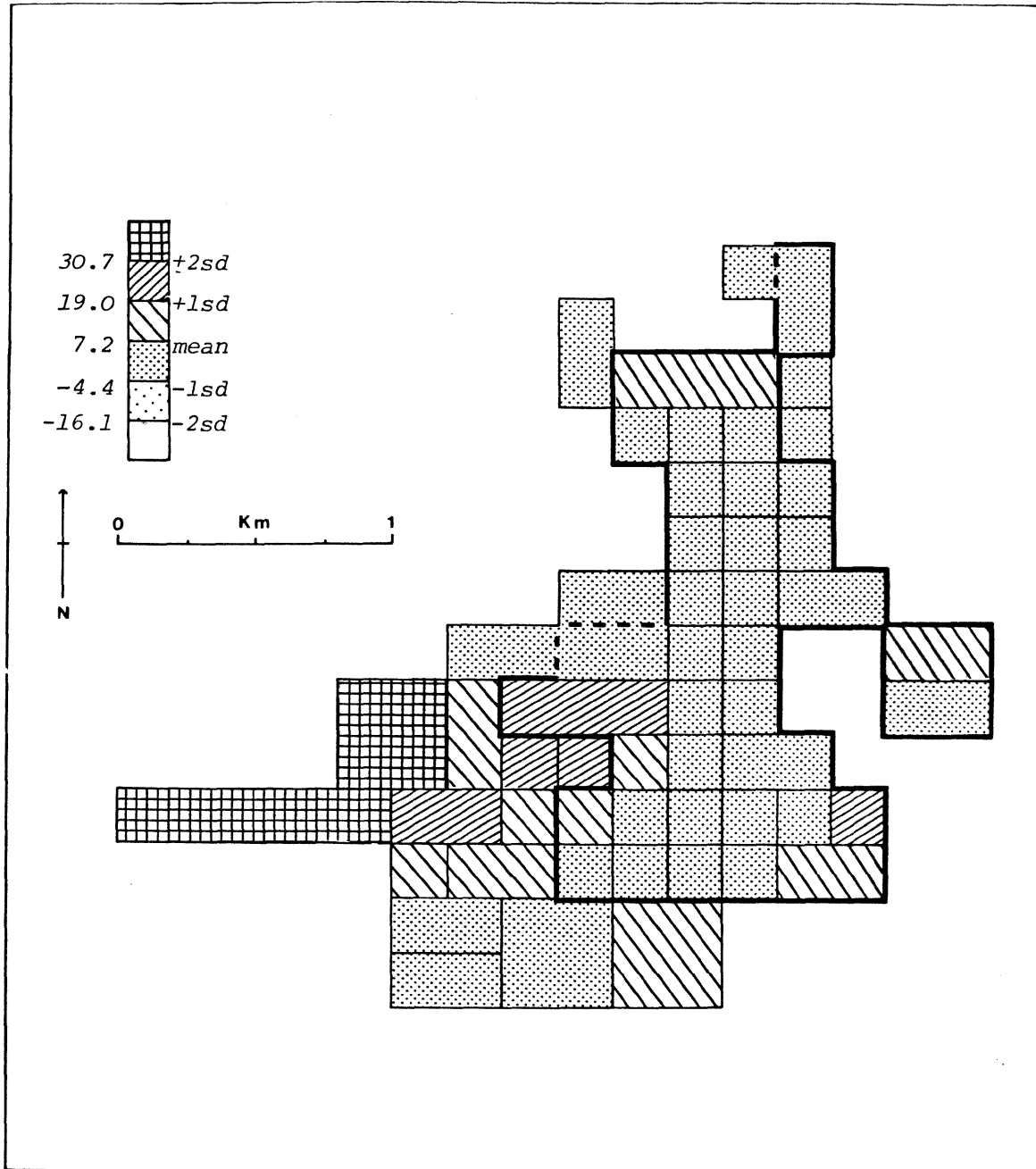


Figure 10.10 : Distribution of social classes 1 and 2 as a percentage of the total economically-active: 1871, grid

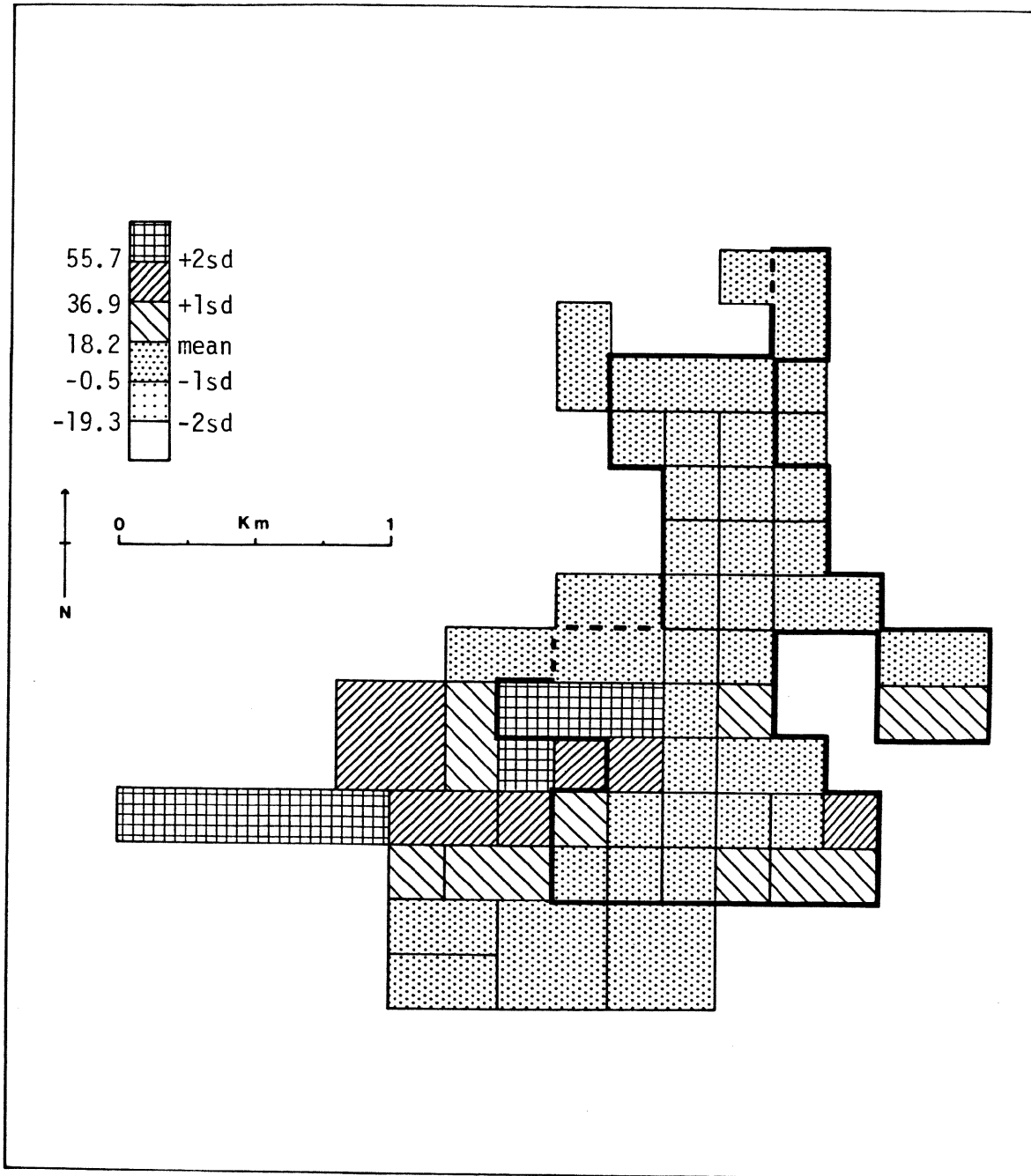


Figure 10.11 : Distribution of social class 2 as a percentage of the total economically-active:1871, grid

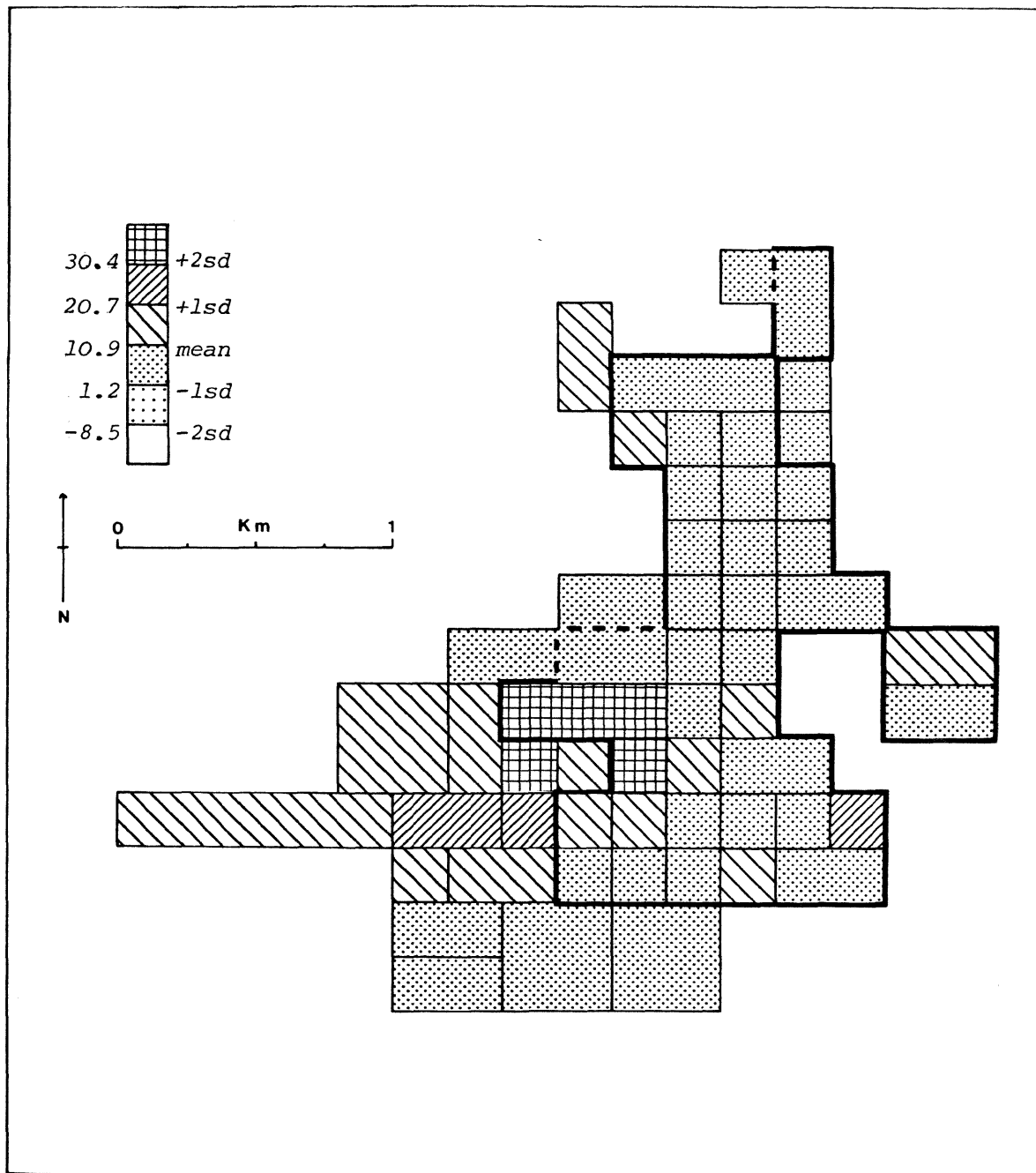


Figure 10.12 : Distribution of social class 3 as a percentage of the total economically-active:1871, grid

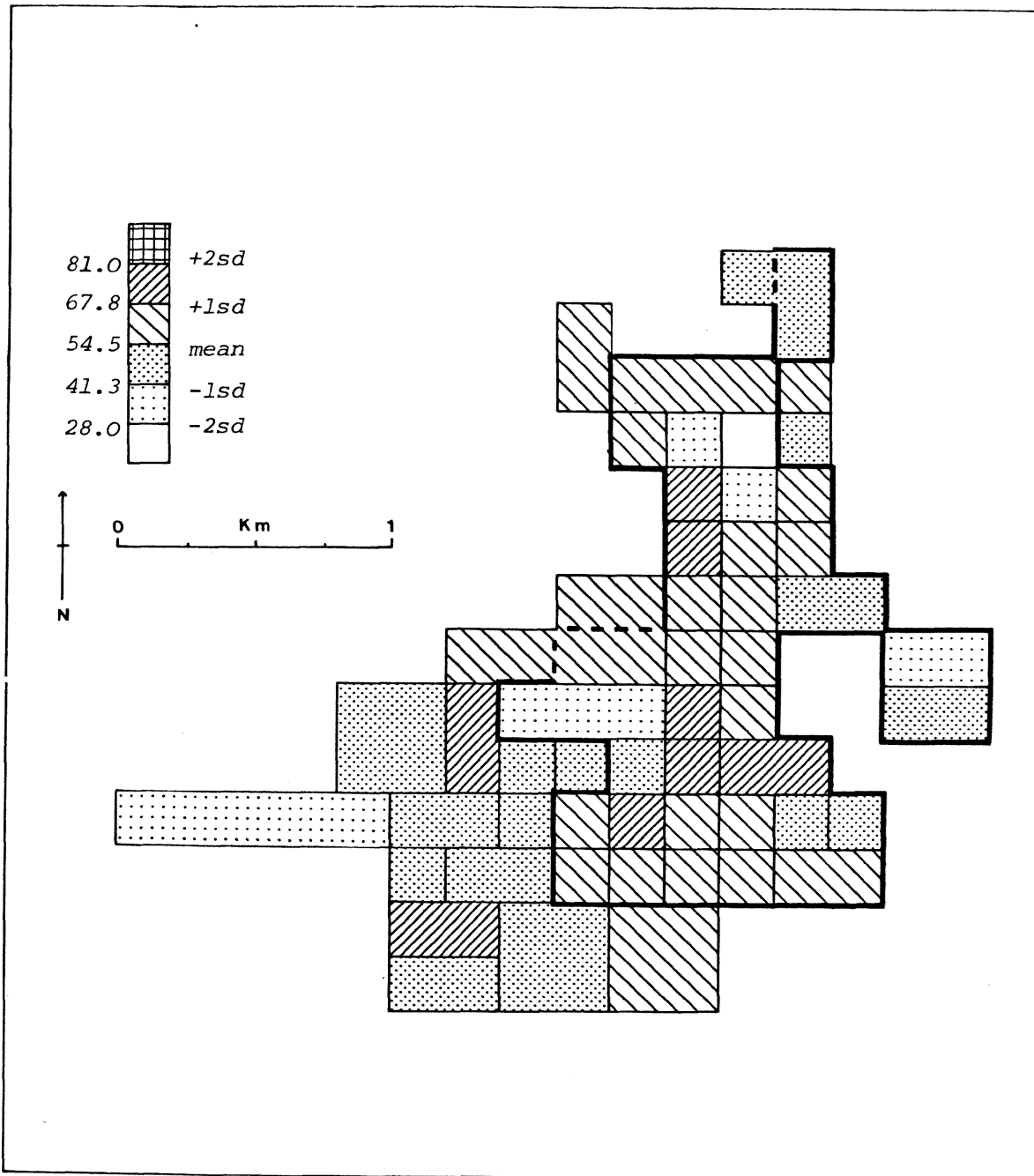


Figure 10.13 : Distribution of social class 4 as a percentage of the total economically-active:1871, grid

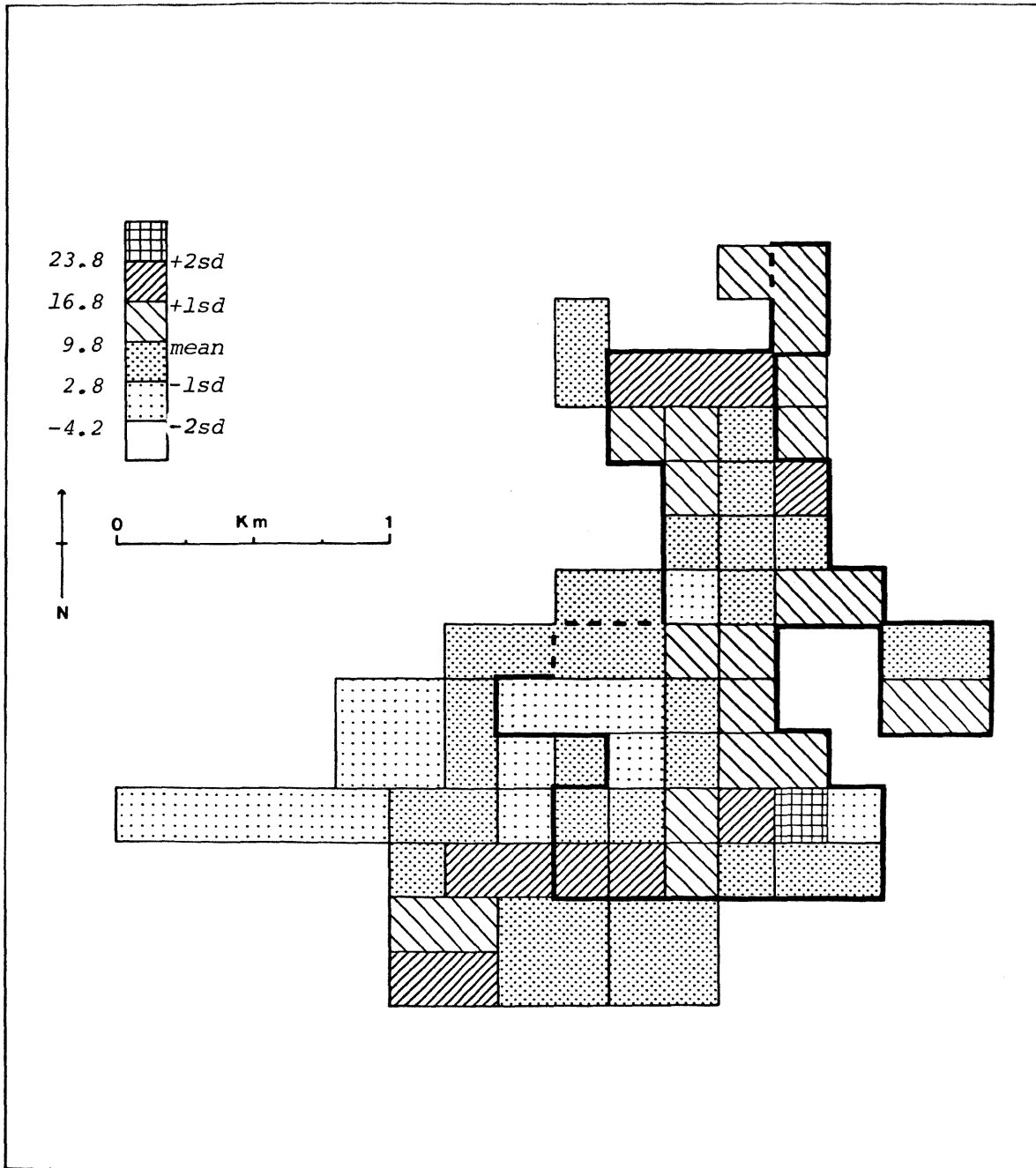


Figure 10.14 : Distribution of social class 5 as a percentage of the total economically-active:1871, grid

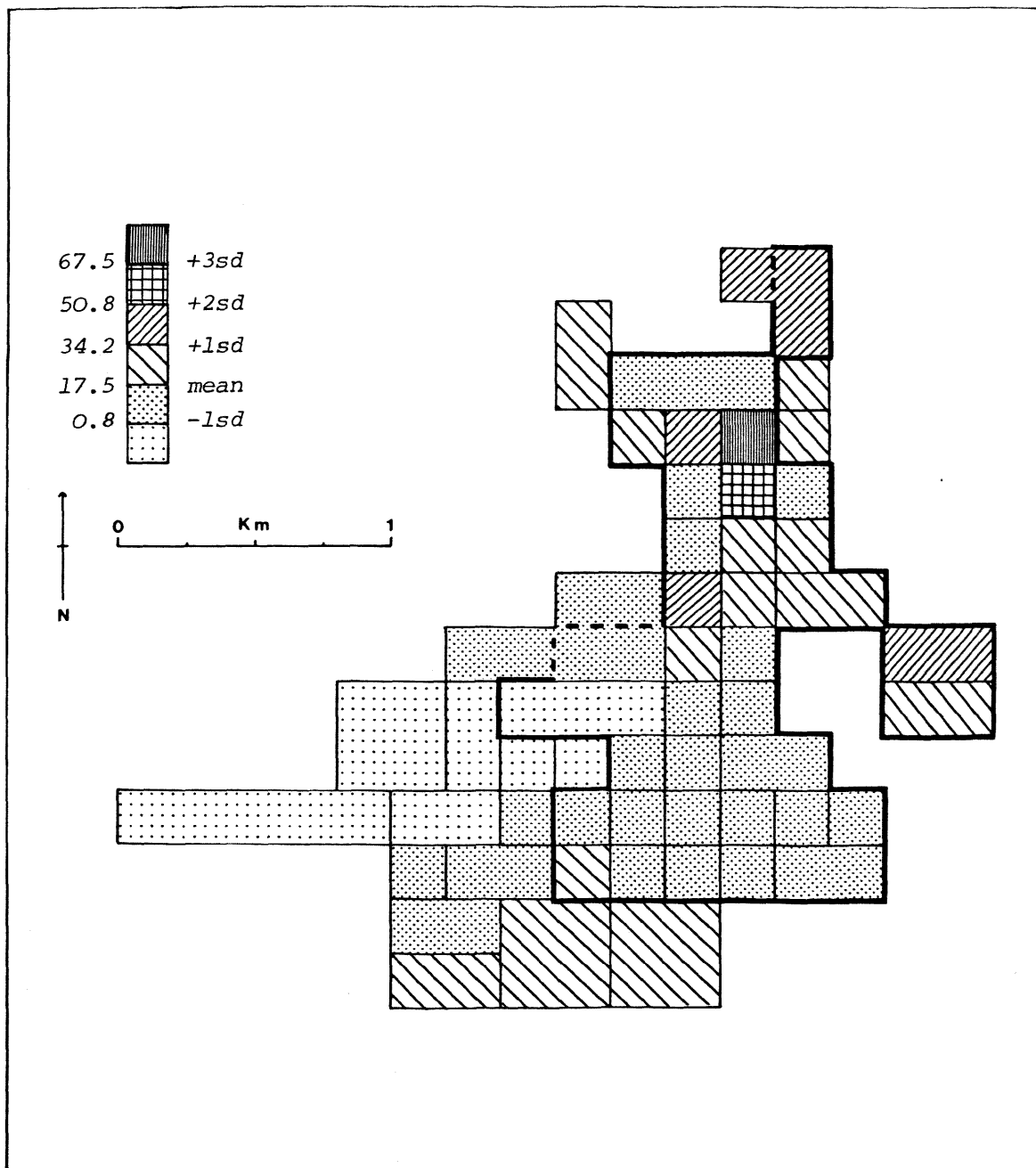


Figure 10.15 : Absolute and relative changes in the distribution of social class 1 : 1851-1871, grid

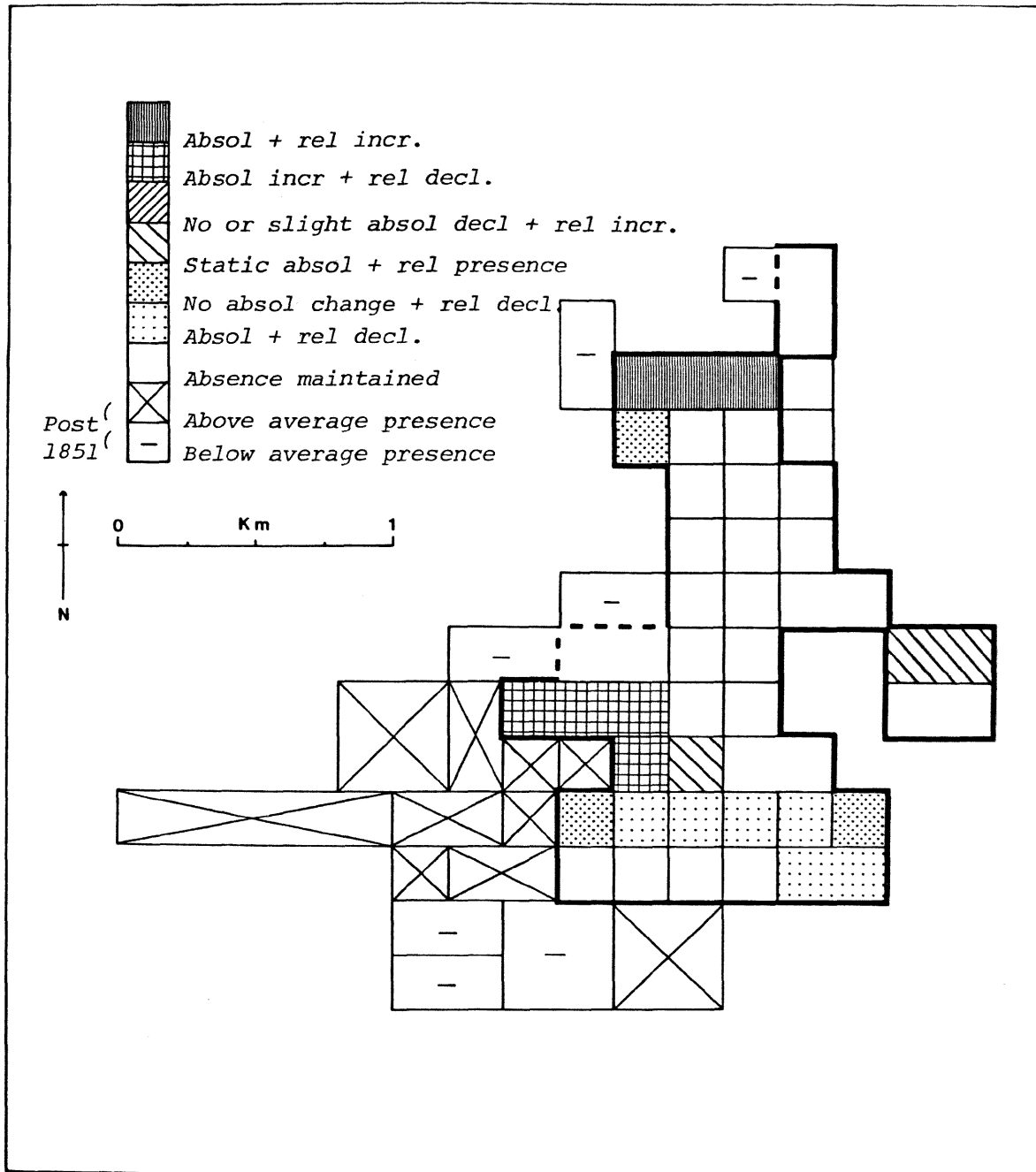


Figure 10.16 : Absolute and relative changes in the distribution of social class 2:1851-1871, grid

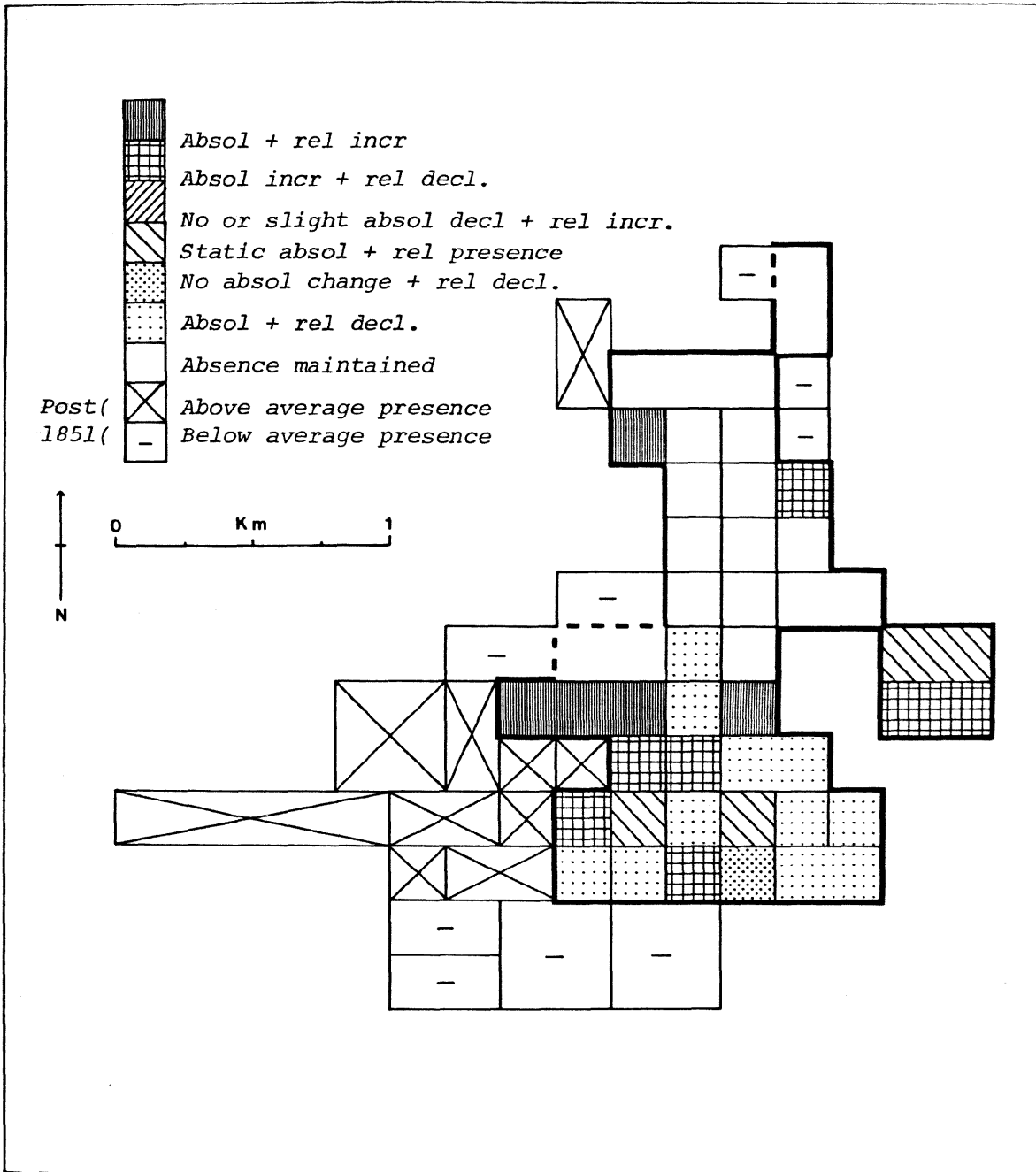


Figure 10.17 : Absolute and relative changes in the distribution of social class 3:1851-1871, grid

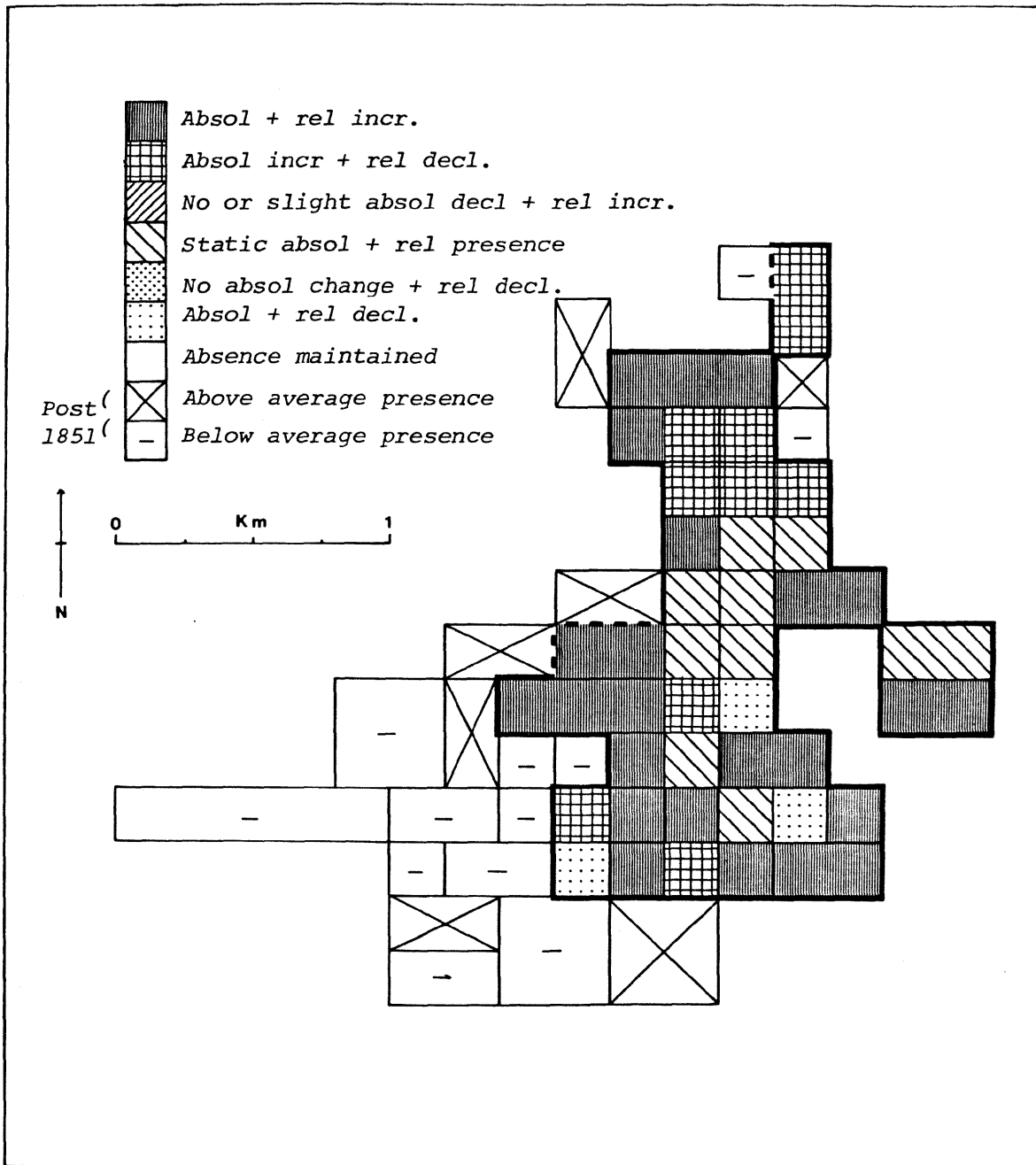


Figure 10.18 : Absolute and relative changes in the distribution of social class 4:1851-1871, grid

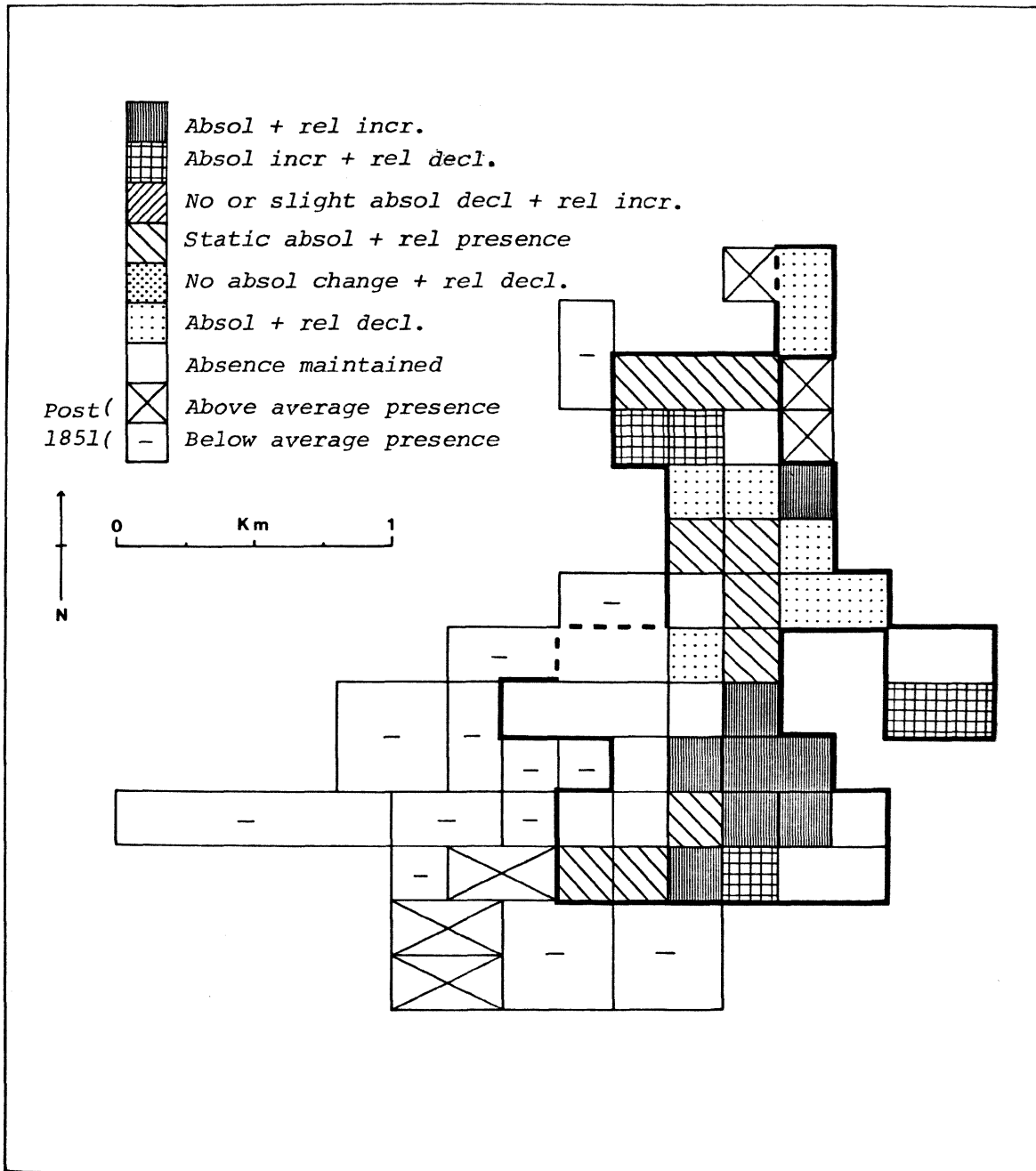


Figure 10.19 : Absolute and relative changes in the distribution of social class 5:1851-1871, grid

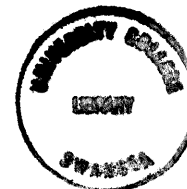
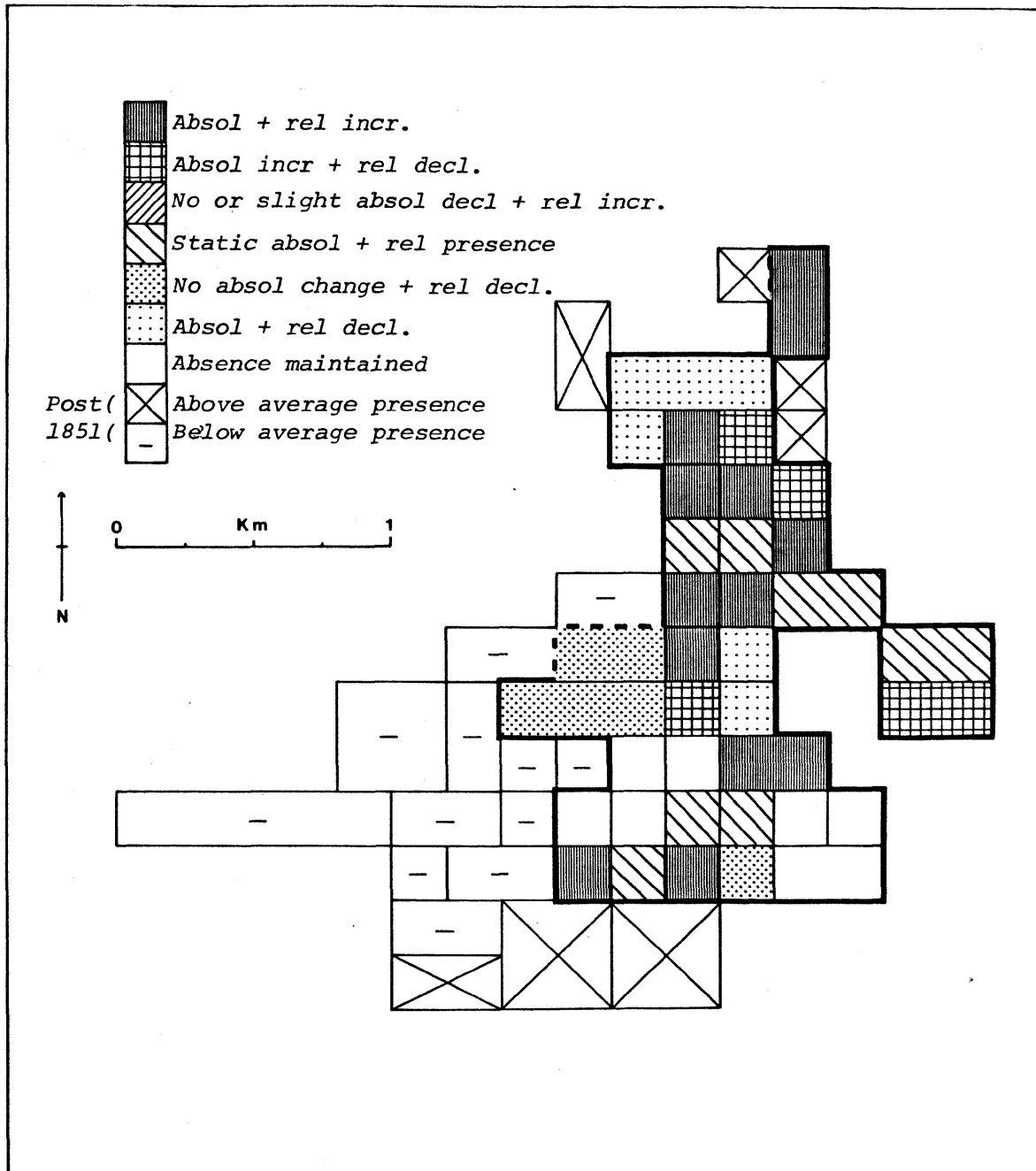


Table 10.2

Indices of dissimilarity between social classes at 200 metre grid-square level : Town only, 1871

	<u>Social Class 1</u>	<u>Social Class 2</u>	<u>Social Class 3</u>	<u>Social Class 4</u>	<u>Social Class 5</u>
Social class 1	-	44.62	64.82	73.59	80.42
Social class 2	44.62	-	35.44	49.92	62.99
Social class 3	64.82	35.44	-	25.49	38.56
Social class 4	73.59	49.92	25.49	-	42.11
Social class 5	80.42	62.99	38.56	42.11	-

Table 10.3

Percentage-point differences in the indices of dissimilarity between social classes in 1851 and 1871, 200 metre grid-square level

	<u>Social Class 1</u>	<u>Social Class 2</u>	<u>Social Class 3</u>	<u>Social Class 4</u>	<u>Social Class 5</u>
Social class 1	-	+0.94	+5.39	+5.65	+3.48
Social class 2	+0.94	-	+0.52	-3.97	-1.62
Social class 3	+5.39	+0.52	-	-10.78	-0.45
Social class 4	+5.65	-3.97	-10.78	-	-6.41
Social class 5	+3.48	-1.62	-0.45	-6.41	-

(a) Social Class 1

Comparison of the 1851 and 1871 enumeration-district percentage distributions (Fig. 10.3 and 7.1) reveals that the exodus of social class 1 from the old town, the beginnings of which were seen in 1851, is well advanced by 1871 and that the preference for the seaward-facing,

higher ground on the west of the town has been confirmed. A significant class 1 presence, however, is still retained on the Burrows (E.D.1).

The grid-square analysis shows that the strongest class 1 presence occurs along the Gower Turnpike at Uplands and on the land to the north of the turnpike immediately east of Uplands House (i.e. St. James' Crescent, Belgrave Terrace, Richmond Villas, Gwydr Gardens, Uplands). Detailed plotting of Class 1 households, however, shows concentrations of Class 1 households on particular sections of streets, such concentrations being lost at grid-square level. The most notable concentration occurs on the central, north-side section of St. Helen's Road in Grid-square 19/20. There is a suggestion that class 1, as the pioneer of westward expansion, created ribbon development along the major routes out of the town around which development of a less prestigious nature later took place, diversifying the class structure of the area. The class 1 presence does not, however, decline in areas of early pioneering development (such as Picton Place, Northampton Villas, Mansel Street (Grid-squares 39, 49/50/51)) in absolute terms as prestige housing is built further out, the class being able to maintain its territory and expand through the rapid increase in its number. This process results in a pattern in which class 1 occupies opulent, imposing residences on major thoroughfares and is surrounded by housing of an inferior class, such as had previously been the case in central locations. However, the surrounding housing in the suburban case is almost exclusively occupied by classes 2 and 3 whereas, in central locations, squalid housing belonging to the poorest class was often found behind the prestige houses fronting the major streets. The tendency for class 1 to develop major street frontages results in a lack of true middle-class suburbs as such but the desirability of such homogeneous prestige-areas had been recognised by

this class earlier in the century, the development on the Burrows representing an early attempt to create such a suburb. This early example, however, was not designed as a residential suburb in the modern sense since it was also a business zone and workplace and residence were fused in the same premises or were closely linked spatially. By 1871, however, there are the beginnings of a true prestige residential suburb developing on the land to the north of Walter's Road where the Uplands Freehold Estate, the Ffynone Estate and St. Georges Freehold Lands were being built upon (Grid-squares 43/44/52).

The increase in class 1 economically-active persons between 1851 and 1871 (estimated at c.155 persons) was, therefore, largely absorbed by post-1851 development west of the town between Mansel Street and Uplands and also through absolute increases in squares colonized by class 1 before 1851 on what was then the western periphery and in which the class 1 presence has become swamped by housing belonging to classes 2 and 3. Fig. 10.15, however, also shows a class 1 growth-area in the north of the town in the vicinity of Llangyfelach Road. Here a small class 1 influx has created relative and absolute increases in the class 1 presence. Reference to Fig. 10.9, however, will show that the numbers involved are small. It could be the case that the spatial extension of the town coupled with minimal transport provision had necessitated the presence of professional people in this populous, northern area.

Evidence from Fig. 10.15 shows that the colonization of the western suburbs by class 1 was partly brought about by the abandonment of prestige, central locations, as well as by an overall increase in the class 1 total economically-active. No direct evidence on intra-urban mobility has been produced, since this requires the lengthy process of

names-linkage between the censuses, but it is unlikely that the absolute decline in class 1 numbers in the grid-squares indicated is solely due to death and retirement of the 1851 economically-active, coupled with their non-replacement by economically-active persons of the same class. The fact that such non-replacement of class 1 persons leaving the workforce indicates that the areas were losing desirability as residential areas for house-seekers in this social class, suggests that the areas would also have lost desirability for class 1 persons already living within them and thus caused outward movement.

The prestige area on the Burrows had by 1871 lost Class 1 households in both absolute and relative terms. The heaviest losses were from the southern part adjacent to the new South Dock (estimated at 15 E.A. net) and to the west of the Burrows in the Wind Street area (estimated at 30 E.A. net). The north-eastern section, around the Guildhall, retained its absolute level of class 1 economically-active persons but their relative standing in the grid-square was greatly reduced by an influx of class 3 persons. The losses from the Burrows area were associated with a more general class 1 decline in the central area of the town in grid-squares where class 1 never had a large relative presence. It is estimated that there was an overall, absolute net loss of c.40 class 1 persons from Grid-squares 32, 33 and 34.

One would expect the loss of class 1 persons from the mixed-class areas of the old town and the colonization of westerly, suburban areas from which classes 4 and 5 were largely excluded and, in the most westerly areas, class 3 were largely excluded, to result in an increase in the overall level of segregation of this class. The indices of dissimilarity given in Table 10.2 show that this is indeed the case, the indices

having increased between class 1 and all other classes. In the case of class 2, the increase is marginal since, as will be seen, class 2 participated strongly in the westerly suburban development. The index is relatively high between these two classes at both dates, however, due to the strong association between class 2 and the commercial core.

(b) Social class 2

As with class 1, class 2 maintained its relative absence in the outer borough (Fig. 10.5), the 1851 outer borough districts which show a strong class 2 presence in 1871, having gained this presence through the suburban extension of the town. Class 2 also shares the westerly movement of class 1, though in a less definite form. Class 2's strongest presence is in the Heathfield, De-la-Beche Street area which was on the western fringe and heavily colonised by class 1 in 1851 and in the adjacent area (Mansel Street), which was the strongest class 2 area in 1851. Class 2 is also strongly represented in the townward part of the post-1851 development along Walter's Road towards Uplands. The parts of the western suburbs where class 2 is less well represented are those in which class 1 is most highly concentrated, particularly the Uplands/Richmond Villas locality where, presumably, the very large detached and semi-detached villas were beyond the reach of class 2.

Fig. 10.16 also shows absolute class 2 increases in two northerly squares of the town and in Grid-square 45/46, east of the river in St. Thomas. All of these increases occurred in rapidly-developing areas and the magnitude of the population increase well outstripped the influx of class 2, except in Grid-square 76 on the Carmarthen Road, where class 2 formed 12 per cent of the economically-active in 1871. This class 2 influx also affects the next grid-square along the Carmarthen

Road, Grid-square 81, a largely undeveloped square in 1851. 15 per cent of this square's total economically-active were in class 2 in 1871.

This development, like the class 1 increase on the Llangyfelach Road, is surprising in view of its close proximity to the Irish area in Greenhill and it is, perhaps, a result of the tendency of the upper classes to colonize the frontages of the main routes into the town. The housing here, however, was not of an imposing design and the class 2 presence may be linked to commercial development brought about by the increasing volume of traffic along the route.

Class 2 shares the Class 1 exodus from the Burrows area now blighted by the Llanelli railway and the South Dock. Like class 1, it still retains a strong presence in Grid-square 22 but, unlike class 1, it has suffered an absolute, as well as relative, decline in all the Burrows squares.

The heaviest class 2 losses, however, are from the old commercial core (Wind St., Castle Bailey St., Temple St.,) and it is estimated that there was an absolute net loss of 115 class 2 economically-active persons from this core area over the twenty-year period. This is partly offset by an increase in the absolute number of class 2 persons in the northern and western growth areas of the C.B.D., Grid-squares 38 and 47, resulting in a relative, as well as absolute, growth in the latter. These two squares contained commercial streets in 1851 but their importance increased over the period as the westerly movement of the upper classes into Uplands and the middle classes into the Sandfields increased the importance of Oxford Street and as the importance of High Street developed after the opening of High Street Station. It seems that there was still a requirement for, or a desire by, class 2 persons

engaged in dealing to live and work in the same premises and this resulted in class 2 persons moving into the growth areas of the C.B.D. However, the overall trend was towards increasing separation of home and work, resulting in a reduction in class 2 persons in the formerly-important class 2 residential area of the commercial core; one can hypothesise that the increase in class 2 economically-active persons in the growth areas of the C.B.D. would have been greater if the commercial development had occurred at an earlier date.

Class 2 also shows an absolute and relative decline in the south-western Sandfields area. Small parts of the Sandfields development were of a higher quality, particularly the area around Clarence Terrace (Grid-square 17) and this resulted in a small (but well-below average) class 2 presence in 1851. The slight popularity of this area, however, was short-lived and the few class 2 persons residing there in 1851 had largely disappeared by 1871.

Class 2 losses are also heavy in Grid-squares 48 and 56, north of the town centre, where there has been both an absolute and relative decline. Grid-square 48 (Trinity Place, Belle Vue Street), like the Burrows, was an early attempt to create a prestige area in a central location, though on a much smaller scale, and, like the Burrows, its "fashionability" was supplanted by suburban development and, while this area was not affected by large-scale non-residential development in the manner of the Burrows, its proximity to the rapidly decaying, and soon to be cleared, Orchard Street, Back Street and Queen Street area, must have been a factor in its decline. The northernmost of the two squares experienced heavy in-movement of class 5 while the southernmost was colonized by class 3.

In summary, one can say that class 2 was still strongly associated with the central part of the old town, particularly its commercial area, but such association was being weakened by the increasing separation of home and work. This resulted in the movement of class 2 persons into the western suburbs, in particular. Within this western area, they were largely excluded from the most opulent areas and their housing tended to abut both that of class 1 and that of class 3. This, coupled with the invasion of its 'strongholds' within the town by classes 3, 4 and 5, resulted, as Table 10.2 shows, in a reduction in the level of segregation between this and the lower three social classes, even though the processes underway were eventually leading to an increase in the segregation of this class as the abandonment of central locations was completed and more homogeneous suburban areas developed with the continuing growth in population.

(c) Social class 3

Comparison of Figs. 10.6 and 7.4 reveals that, as the outer borough becomes more populous and its class structure more diversified, the areas most dominated by class 3 were increasingly confined to the town and the pre-1851 town, in particular. Within the town, the growth in population between 1851 and 1871, and the fact that half of the economically-active fall into class 3, is sufficient to cause absolute increases in class 3 numbers in most areas existing in 1851. While not all grid-squares experienced new building, all squares, excepting three, experienced an increase in the number of households residing within them. The strongest class 3 increases, in relative terms, occurred in areas being vacated by classes 1 and 2 (Grid-squares 22, 13/14, 36/37) and in other areas where classes 1 and 2 maintained a presence but were losing

ground in relative terms as streets of lower standard housing were formed behind the main thoroughfares (Grid-squares 25, 26, 27, 39, 49/50/51). However, despite these increases, class 3 did not attain an above-average presence in the true prestige areas of the old town. Therefore, as in 1851, class 3 was present in large numbers in almost all areas but dominated those areas, outside the prestige housing-areas, where housing was not of the worst quality. In the post-1851 area of the town, class 3 was notably absent in relative terms from the Walter Road, Uplands, Mansel St., Heathfield area. The post-1851 housing-areas most favoured by this group were the Vincent Street area of the Sandfields and the western side of the northern part of the town, where new streets were being laid out on the flank of The Graig. There were also large increases in the absolute class 3 presence in St. Thomas and the Hafod (c.385 E.A. and 205 E.A., respectively) but these areas also received large numbers of other economically-active persons, particularly class 5 in the case of the Hafod and class 2, 4 and 5 in the case of St. Thomas, preventing domination by class 3.

There are only two areas in the town, within the 1851 limits, in which class 3 declined in relative and absolute terms and in both cases the decline is slight. These are Grid-squares 23 and 47, both of which were losing population as their building stock was increasingly used for commercial purposes. (It will be remembered, however, that Grid-square 47, while declining in overall terms, was receiving increasing numbers of class 2, this again being due to its increased commercial-standing).

(d) Social class 4

As in 1851, class 4's presence is most strongly felt in the northern outer borough where metal-smelting and mining offered semi-skilled employment and the means of creating and reallocating class 6 ensures that their presence is not seriously under-represented. Class 4's percentage presence has been reduced, however, in those areas of the industrial outer borough where suburban expansion has taken place, resulting in an influx of persons not directly associated with the metal-smelting industry (Hafod/Vivian's Town, St. Thomas).

Within the town, class 4 has experienced a general movement into the commercial area, attaining an above-average presence in eight squares of the core where this class was previously relatively absent. This can be attributed to the subdivision of property previously occupied by households of higher social-status and to the more general decay of the Frog Street area and the courts off York Street and Wind Street. The class 4 influx into Grid-square 23, coupled with the outward movement of classes 1, 2 and 3, gives it its highest concentration in the town.

The 1851 class 4 presence on the Sandfields in the vicinity of James Street and William Street (Grid-squares 17 and 18) has been retained and extended to include the post-1851 development in Grid-square 19/20 (Richardson Street, Little Madoc Street, Upper Argyle Street) to the north of the Arsenal. The housing on Little Madoc Street, in particular, was cramped and of an inferior nature to that on the rest of the Sandfields, which itself was only of middling standard. One other new area of the Sandfields, Rodney Street and Fleet Street, on the southern edge (Grid-square 5/6), also attracted a large class 4 percentage-presence. Of the areas in the town where new building occurred outside the Sandfields,

class 4 most heavily colonized the area adjacent to the Neath Road and the Strand, especially the Hafod Street area (Grid-square 70).

As mentioned previously, many class 4 persons within the town will have been treated as class 3 economically-active persons and the class 4 distribution within the town will obviously have been affected by this. The problem only affects one section of class 4, however, namely the artisan trades. The distribution should be correct for dock workers, bargemen, laundresses and other non-artisan, class 4 persons. The under identification of semi-skilled craftsmen also affects the indices of dissimilarity for this class and is, perhaps, largely responsible for the 10.78 percentage-point fall in the index between classes 3 and 4 over the twenty-year period.

(e) Social class 5

The concentration of class 5 in the north of the town, which was apparent in 1851, is still present in 1871 and the area of highest concentration is still in the Irish-dominated Greenhill area. However, by 1871, class 5 had achieved above-average presence in eleven squares of the south town, most of these in post-1851 development and all of them on the Sandfields. Although class 5's presence in the commercial core is weak at both dates, a slow process of colonization by class 5 was taking place, as Fig. 10.19 shows. While an absolute and relative increase in class 5's presence was occurring in Grid-square 36/37, significant absolute increases were also present in Grid-squares 24 and 25.

Another area of class 5 colonization is the Orchard Street/Back Street/Queen Street area of the town (Grid-squares 48 and 56), just to the north of the town centre. This area was of early construction

and rapidly decaying. The class 5 percentage in Grid-square 56 had increased from 15.2 per cent in 1851 to 32.2 per cent in 1871.

Class 5 had also made rapid inroads into the Hafod area of the town. This industrial village, previously dominated by skilled and semi-skilled copper-workers, became more diversified as the physical extension of the town along the Neath Road engulfed it.

There are two areas in which class 5 shows absolute and relative decline - the area adjacent to the High Street and the area at the junction of the Carmarthen and Llangyfelach Roads. Both are possibly due to upgradings in the rental level of property in the areas, the former caused by the opening of High Street Station and the latter by the increased importance of the Carmarthen Road as the volume of traffic along it increased. The upgrading of the High Street area, after the opening of High Street Station, is confirmed by the increased class 2 presence in the area and was commented on in contemporary documents as the following quotation demonstrates:

"A great impetus was given to this part of the Principality by the opening of the South Wales Railway in 1851 and Swansea appears to have received its full share of the advantages which railway communication confers under the most favourable circumstances. The improvement of that part of the town near the railway station is very manifest; several new shops of a superior class having been built, and others improved and altered in order to keep pace with the growing importance of that neighbourhood".⁴

A similar process of upgrading following the opening of a railway terminal has been observed by Carter and Wheatley for Terrace Road in Aberystwyth.⁵

The increased importance of both the High Street area and the Carmarthen Road/Llangyfelach Road/Neath Road intersect was confirmed

in the late 1870s by the improvement schemes implemented under the "Artizans and Labourers Dwellings Act". Under the clearance schemes, the areas which were most in the public eye, and would, therefore, achieve maximum visual improvement, were chosen in preference to areas where housing was of a poorer quality and the streets just as narrow.

3. The distribution of non-occupationally-based class indicators

As in 1851, it is desirable not to rely solely on the occupationally-defined classes for an estimation of the nature of residential differentiation according to social class, not only because information on occupation is incomplete, but also because occupation is not as reliable a social-class surrogate in the nineteenth century as it is today. However, while for Swansea in 1851 large scale Local Board of Health maps are available from which measures of housing condition could be derived, in 1871, only the census-based variables are available, these being households living in subdivided dwellings as a percentage of all households, women and children in the labour force as a percentage of the total economically-active and resident domestic servants as a percentage of the total population. Figures 10.20-22 show the distribution of these variables at grid-square level in 1851 and 1871. As means and standard deviations change, visual comparison of the 1851 and 1871 distributions can be misleading and changes in the percentage presence of a particular variable are better identified in Table 10.4. This table also gives the percentage of economically-active persons falling into classes 4 and 5.

The 1871 distribution of households in multi-occupation generally corresponds with the same areas of the mid-century town as in

Figure 10.20 : Distribution of households in multi-occupied dwellings as a percentage of all households : 1851 and 1871 compared, grid

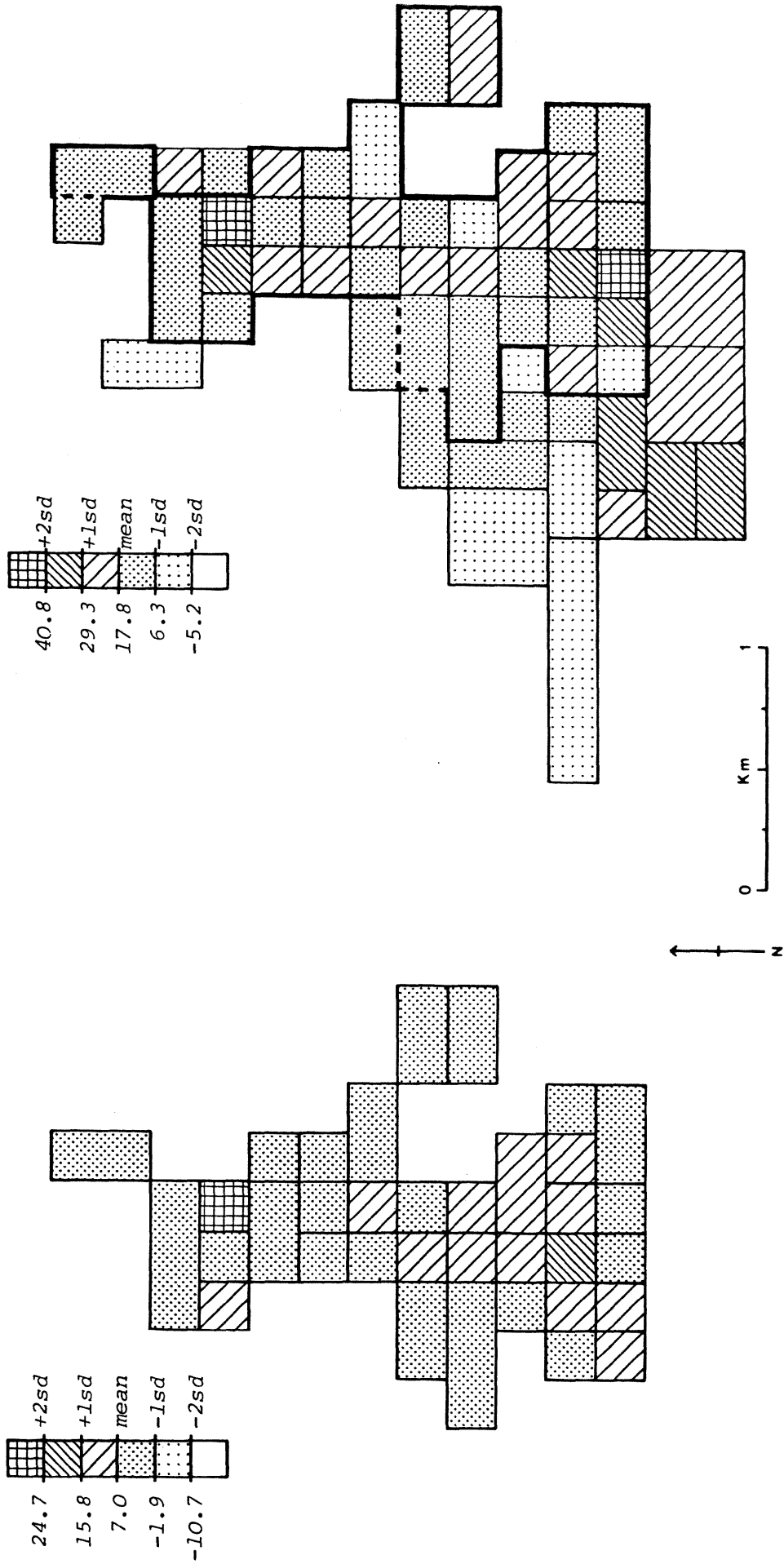


Figure 10.21 : Distribution of women and children in the labour force as a percentage of the total economically-active: 1851 and 1871 compared, grid

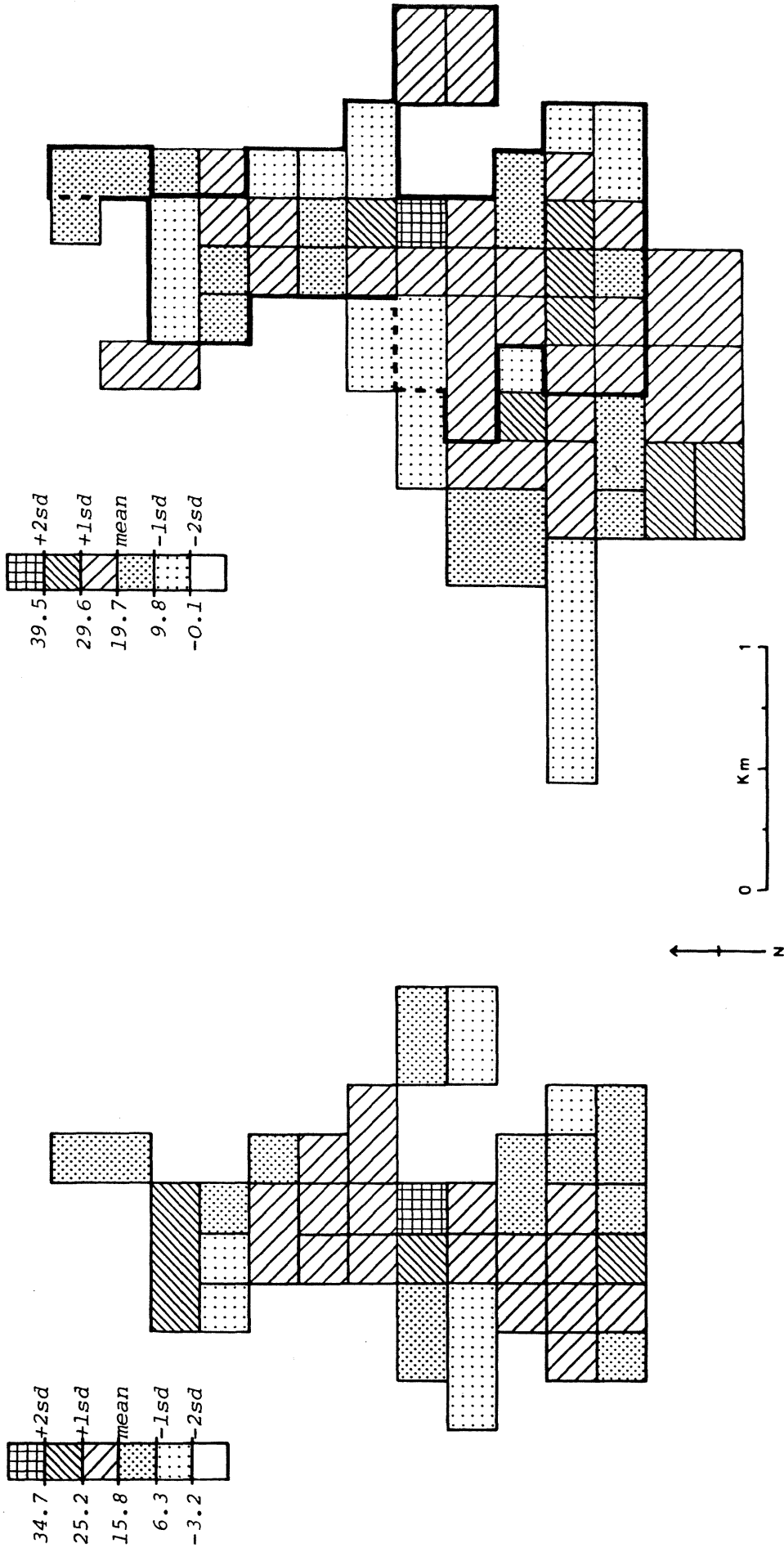


Figure 10.22 : Distribution of resident domestic servants as a percentage of the total population : 1851 and 1871 compared, grid

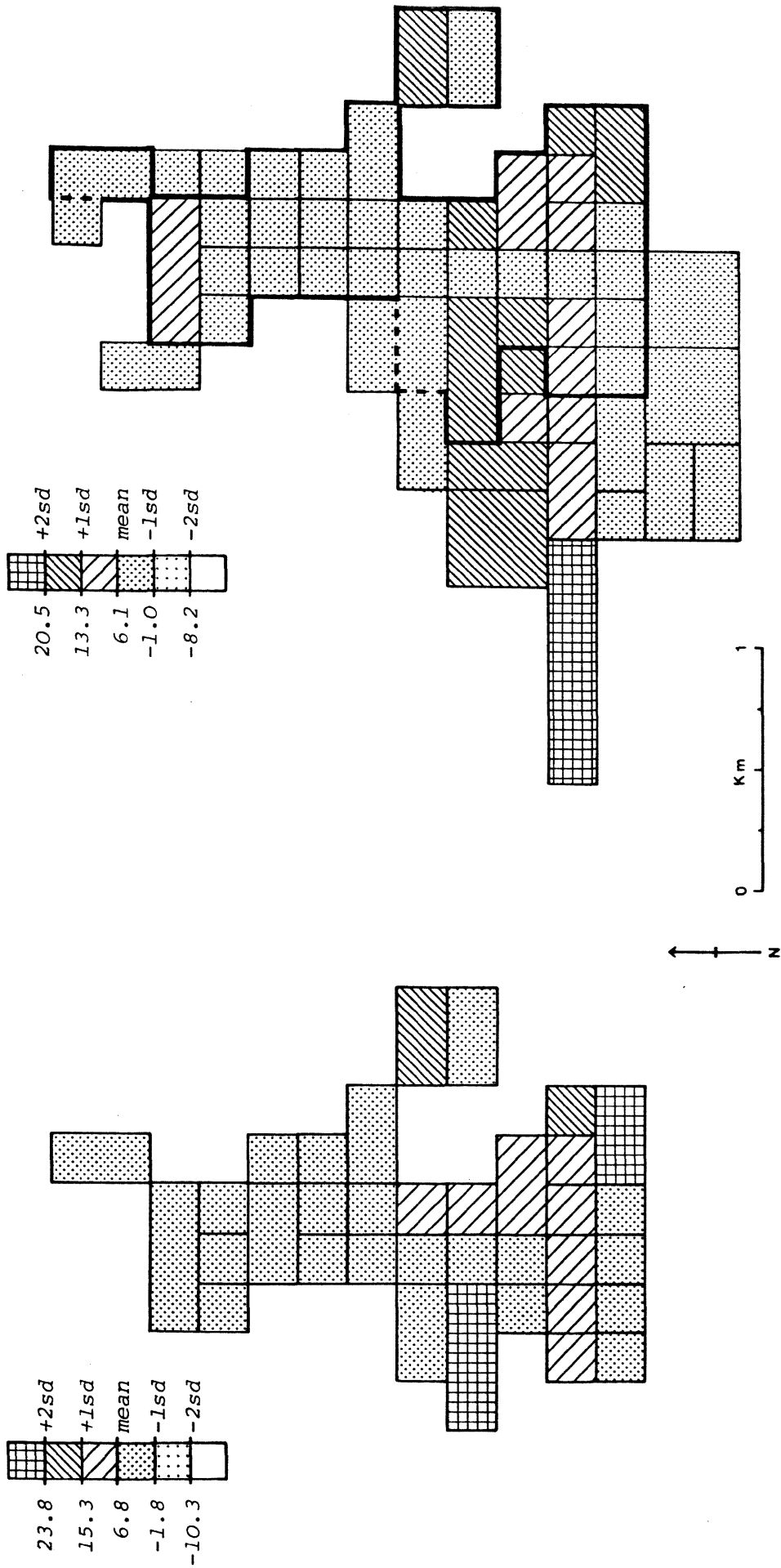


Figure 10.23 : Distribution of social classes 4 and 5 as a percentage of the total economically-active: 1871, grid

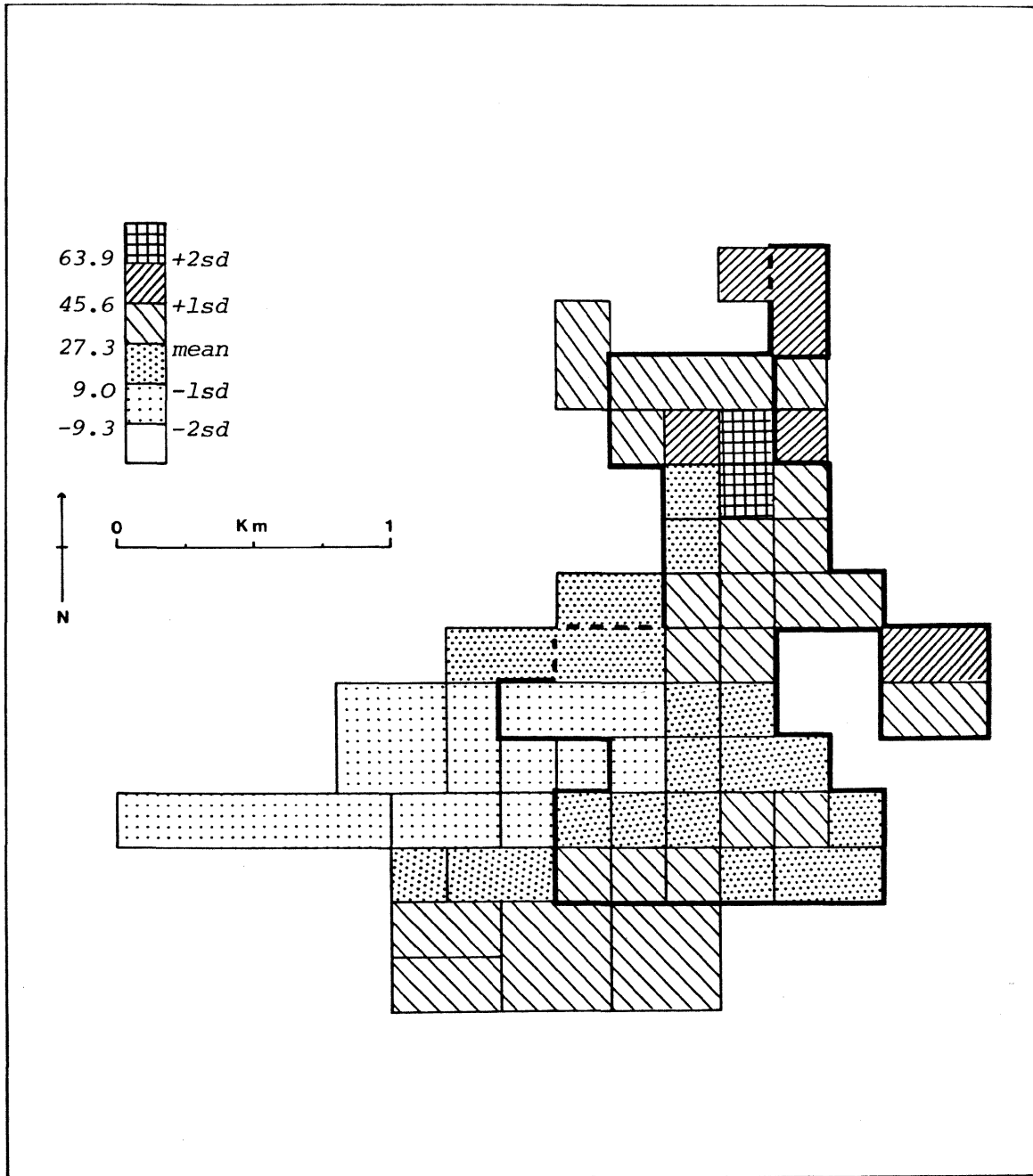


Figure 10.24 : Distribution of lodgers as a percentage of the total population : 1871, grid

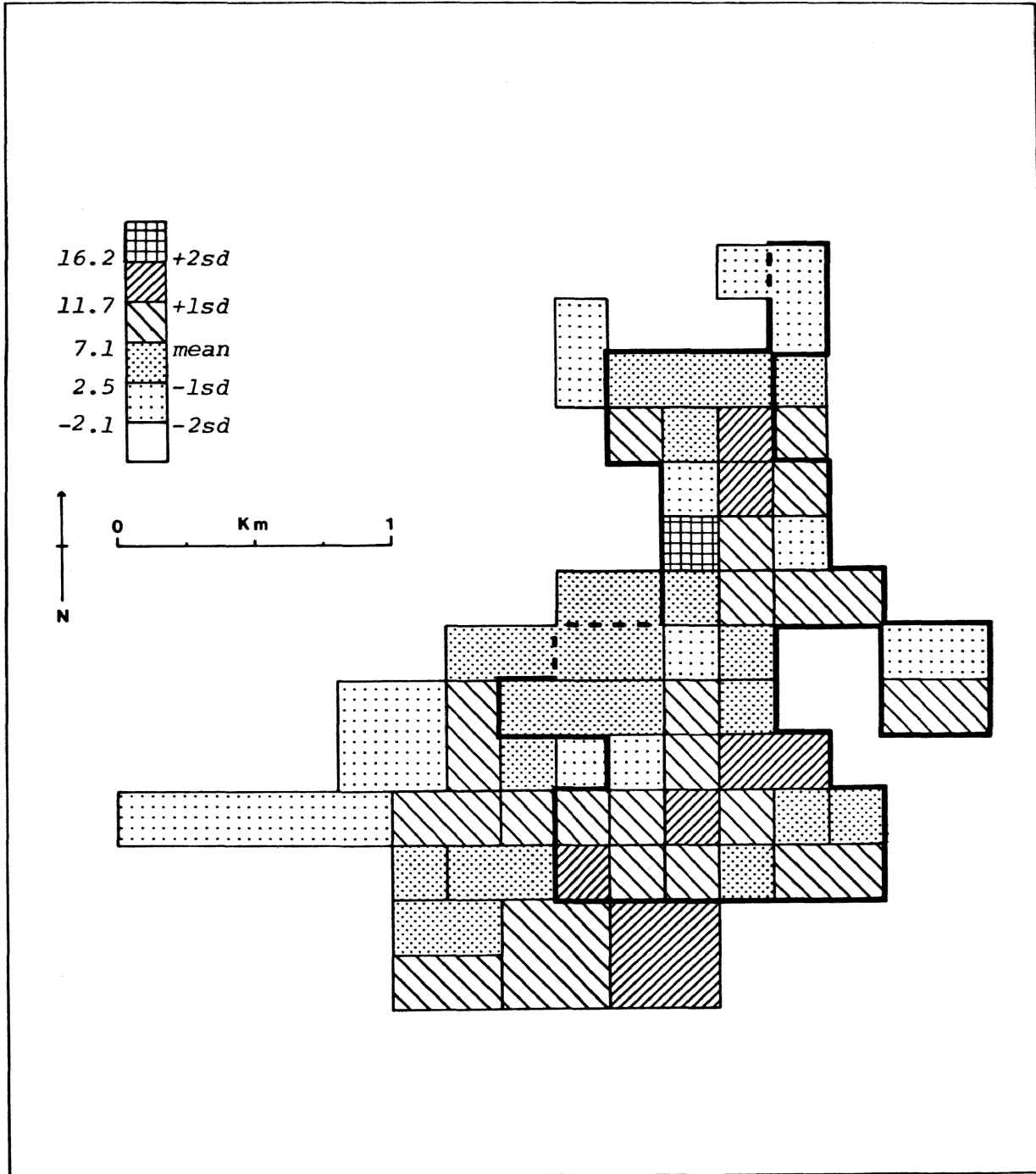


Table 10.4

Percentage presence of non-occupationally-based class indicators : Grid-square level,
1851 and 1871

Square	Households in subdivided dwellings as a % of all households		Women & children in the labour force as a % of the total economically-active		Resident domestic servants as a % of the total population		Social class 4 & 5	
	1851	1871	1851	1871	1851	1871	1851	1871
1/2/7/8	-	24.00	-	20.21	-	0.73	-	29.79
3/4/9/10	-	26.47	-	24.53	-	1.20	-	35.85
5/6	-	36.84	-	25.42	-	1.56	-	42.37
11/12	-	39.13	-	33.33	-	0.00	-	28.57
13/14	0.00	16.67	11.11	0.00	32.14	14.81	14.81	18.18
15	5.88	17.39	6.66	21.95	1.08	1.64	1.64	12.19
16	3.23	41.30	25.39	15.58	1.50	0.92	0.92	31.17
17	11.32	31.67	23.91	26.73	0.84	1.10	1.10	33.66
18	9.09	0.00	11.63	22.64	0.00	0.72	0.72	41.51
19/20	-	31.82	-	16.13	-	4.85	4.85	25.81
21	-	26.09	-	16.13	-	4.8	4.8	19.35
22	0.00	11.11	0.00	0.00	21.28	18.92	18.92	8.33
23	14.81	27.27	12.96	20.00	9.40	13.40	13.40	40.00
24	13.04	19.05	18.46	30.86	9.28	6.42	6.42	34.57
25	24.32	35.89	20.27	35.16	9.34	3.23	3.23	19.78
26	9.38	12.12	17.54	35.29	10.71	6.17	6.17	10.29
27	0.00	18.18	20.00	21.82	7.69	7.10	7.10	9.09
28	-	16.67	-	23.68	-	8.57	8.57	2.63
29/30	-	3.23	-	22.00	-	9.94	9.94	6.00
31-35	-	0.00	-	0.00	-	34.72	34.72	0.00
36/37	10.00	21.05	14.63	17.78	11.81	7.18	7.18	22.22
38	15.38	8.89	19.18	20.45	5.99	5.67	5.67	13.07
39	0.00	10.71	24.00	21.43	5.88	14.09	14.09	2.38

1851, but the overall level of subdivision has increased. The centre of the Irish area at Greenhill (Grid-square 74) is still the most subdivided housing-area with the 40.9 per cent of households in multi-occupation in 1851 having risen to 45.5 per cent in 1871. In the south of the 1851 town, the high level of multi-occupation identified at mid-century in Grid-square 25 is still present but has increased from 26.3 per cent to 35.9 per cent and spread to the south and south-west (Grid-squares 16, 17). House-sharing in the town centre in 1851 has again intensified by 1871 and has expanded into the prestige Burrows area (Grid-squares 22, 23), confirming the previously-noted decline in the class structure of this part of the city. In the north of the central business district, the commercial growth noted earlier in Grid-square 47 has produced a marked reduction in the level of multi-occupation and this is also true, to a lesser extent, of the western periphery of the C.B.D. In the post-1851 areas of the town, the Sandfields stands out as the area of greatest subdivision, the level reaching almost 40 per cent in Grid-squares 11 and 12. This, combined with the marked influx of class 5 into the Sandfields, supports the view that the advantage which the southern working-class areas held over the northern in 1851 has largely disappeared by 1871, the non-residential development along the sea front and the low-lying, poorly-drained site having contributed to its decline. However, map evidence shows that, despite the unattractiveness of much of the site, the housing was in general larger and better planned than much of the north and this may have contributed to the level of the multi-occupation, since the poorer, cramped housing of the older parts of the north left little scope for subdivision.

In this context, it is interesting that the one area in the Sandfields which has a low level of subdivision (Grid-square 18) is not, as might initially be expected, of higher class-status, but contains the only pocket of court housing in the Sandfields (the James Street area), almost half of its housing stock being located in courts.

The size of housing cannot, however, explain the relative lack of subdivision in the newer areas of the north and it seems that the suburban development which engulfed the industrial settlements of Hafod and Cwmbwrla took on some of the characteristics of the outer borough, house-sharing being relatively absent. These newer areas of the north are, as will be shown later, largely inhabited by locally-born people and the lack of migration into them possibly contributed to their lack of subdivision.

The renting of part of a house or the subletting of the upper floor was not the only means by which a household could meet its rent commitment, the taking in of lodgers being another common expedient.⁶ Figure 10.24 shows the distribution of lodgers as a percentage of the total population and it can be seen that many of the working-class areas which had lower levels of subdivision had large numbers of lodgers. In the south of the town, this is particularly true of the eastern part of the Sandfields adjacent to the South Dock and the William Street area (Grid-square 18) and, in the north of the town, it is true of Grid-squares 61/62, 69, 71, 73 and 76. The reverse is also evident, and Grid-squares 11/12, 19/20, 21, 72, 75 and 77 have quite high levels of subdivision and a lower incidence of lodgers.

The distribution of women and children in the labour force as a percentage of the total economically-active, exclusive of resident

domestic servants, is illustrated in Figure 10.21. The percentage of women and children in the labour force rose slightly between the two dates from 19.0 per cent to 22.3 per cent. Within the 1851 town, their residential distribution remains similar at both dates, with the highest concentration occurring adjacent to the North Dock. In the post-1851 built-up area, the distribution again adds weight to the contention that the southern town working-class areas had lost their superiority over the northern by 1871, the south-western corner of the Sandfields, in particular, having high levels of female and child labour, as well as considerable multi-occupation of dwellings.

The final variable, resident domestic servants as a percentage of the total population is represented in Figure 10.22. The distribution lends support to the conclusions already reached on the movement of social classes 1 and 2, namely the decline of the Burrows area, the consolidation and extension of the northern part of the western suburbs as a high-class, residential area, the increased class-status of the lower part of High Street (north C.B.D.) and the slight up-grading of the area at the base of the Llangyfelach and Carmarthen Roads.

therefore,
On the whole, these additional class-related variables support the conclusions derived from the social-class distributions. They also point, however, to variations in economic well-being within the working-class areas which, in some cases, are contrary to what one would expect from the class distributions. The major divergence concerns the north of the town, where those grid-squares with large percentages in class 4 and 5 have comparatively low percentages on the two non-occupationally-based indicators of low social-status. This is particularly true of the Hafod area (Grid-square 82/84/85) but also of Grid-squares 76, 77,

78/79/80 and 81/83. Two class 3 dominated areas of the town have high levels of subdivision. These are, the new housing on the flank of the Graig, Grid-squares 69 and 72, where 70.8 per cent and 82.4 per cent of the economically-active, respectively, fall into class 3, and the Rodney Street area of the new Sandfields, Grid-square 11/12, which also has a high incidence of child and female labour. Certain higher-class areas also rank above the mean on the female and child-labour variable, notably Grid-square 41 but also Grid-squares 28, 29/30 and 42, in the inner, western, prestige suburbs. This is not due to domestic service, since resident servants are excluded from the figures. These squares do, however, contain large numbers of businessmen and those engaged in dealing, in particular, tended to count the adult females in their families as economically-active in their firms. In these areas of the town, therefore, this variable is not primarily an indicator of low social-status. The discrepancies detailed above, affecting the lower-class areas, can be accounted for by a combination of the following factors.

There are large overlaps between the three status-levels of the working class in terms of relative prosperity due to several factors discussed later, and the partial lack of correspondence between the occupationally-based and non-occupationally-based class variables may merely be a reflection of this, combined with housing-structure factors, primarily house-size, which affect the level of subdivision. A further factor is likely to be variation in rental levels, higher rents on newly-built properties possibly inducing subdivision. Factors unconnected with class or housing will influence the non-occupationally-based class variables, the most important possibly being the distribution of migrant groups, and part of the variance in the house-sharing variable,

and possibly also the female and child-labour variable, is due to migrant status variation. Finally, the occupationally-based class variables, like the non-occupationally-based ones, are not pure measures of social class; work-place and migrant status, in particular, affect their residential distribution.

In conclusion, therefore, while the non-occupationally-based class variables confirm the major class-divisions of the town identified by the occupationally-based class distributions in terms of prestige and working-class residential areas, they also produce some evidence on status distributions within these broad divisions which conflict with the evidence produced by the distribution of the five social classes. However, much of the divergence is likely to be due to co-variance with non-class factors.

4. The changing scale and degree of class segregation

As in 1851, the town is in transition between a pre-industrial and a modern pattern of residential differentiation according to class. The separation of the classes, occasioned by the class biases of the northern and western extensions of the town, has continued and the suburbs now stretch over 2km from the centre in both of these directions. However, as the upper classes leave, the town itself becomes less segregated according to class, at grid-square level, as the lower classes invade the prestige areas. Since a substantial number of class 1 and 2 economically-active persons still remain within the town centre, the diffusion of classes 3, 4 and 5 into most areas of the pre-1851 town, leads to a general lowering of the dissimilarity indices among classes. However, as in the case of class 1, the exclusiveness of the suburb

just beginning to emerge in the St. James' Crescent area and its distance from other residential development, coupled with the more advanced abandonment of central locations by this class, leads to an increase in class 1 segregation. This tendency for the scale of segregation between the upper classes and the working classes to increase, while the scale of segregation within the working class declined, is a feature recognised in other towns of the period which were undergoing rapid development.⁷

Although dissimilarity indices are declining overall at grid-square level, excepting in the case of class 1, in the newer areas of the town, segregation is increasing at this level as housing is built in more homogeneous tracts. The earliest post-1851 development tended to be far more mixed in character than that which followed in the 1860s, suggesting that class areas defined on a broader scale were becoming increasingly recognised during the period. The area adjacent to the gas works on Oystermouth Road, which developed in the early 1850s, is a case in point. Langdon Place fronting the Oystermouth Road is provided with gardens at the front and 'kitchen extensions' at the rear. Directly behind it is Recorder Street, where the houses are mostly one third of the size of those on Langdon Place (in floor-space terms), had no 'kitchen extension' and were flush with the street. To the north of these is Clarence Terrace, similar in design to Langdon Place, and to the rear of this comparatively spacious terrace is court-housing branching off William Street. Another example is the early development north of Walter Road, built between 1850 and 1853 (Ffynone Street), which is similarly mixed in character, though each element is one stage up-market from its equivalent in the Langdon Place area. In contrast,

the 1860s westward development is mainly composed of streets strikingly homogeneous in design and whole groups of streets of similarly proportioned houses. An example of this is the former White Stile Fields area, Page Street/Nicholl Street/George Street/Henrietta Street, linking Walter Road with St. Helens Road. It seems, therefore, reasonable to surmise that the desire to live among persons of similar class (largely economically defined) was becoming stronger over the period. However, this may be simply an outcome of the increasing size of the town and it may be that those persons previously inhabiting large houses in the central streets, which had court housing behind the rear walls of their back premises, considered themselves just as strongly segregated as their suburban counterparts later did. The change is, therefore, one of scale, rather than degree, of segregation. The importance of this has been outlined recently by Carter and Wheatley, who effectively demonstrate the presence of segregation according to socio-economic status on a front street-back street basis in central Merthyr Tydfil and in Aberystwyth,⁸ and Dennis has recently put forward evidence, from documentary sources, which indicates that, although the upper classes and working classes may have lived in close proximity, they rarely interacted.⁹ The literature on class relations and class consciousness discussed in Chapter 2 is also relevant in this respect.¹⁰

Although the scale of segregation is increasing within the suburban parts of the town, the class composition of the new, enlarged, western and northern extensions as a whole is more diversified. Whereas, in 1851, class 5 was largely confined to the centre and north and classes 1 and 2 were almost exclusively confined to the centre and west, by 1871 class 5 had made substantial inroads into the southern part

of the western suburbs (Sandfields) and classes 1 and 2 had established a small colony in the north. The upper-class influx into the north can be explained by the increased size of the town combined with minimal transport provision. The class 5 influx into the south can be explained by the diminishing desirability of the Sandfields as the Llanelli Railway cut the area off from the sea, visually and physically, while the proximity of the new South Dock and the increased rate of building in the west, coupled with its increasing distance from the north and centre, necessitated the presence of casual labourers in this western area.

In summary, therefore, while the scale of segregation was increasing as housing was built in larger, more homogeneous tracts, the increased size of the town necessitated the presence of all classes in both of the suburban expansion areas, whereas in the smaller 1851 town, classes 1 and 2 were largely confined to westward expansion and class 5 to northward.

5. The strength of linkages between home and work

Both the class 5 influx into the poorer post and pre-1851 housing on the Sandfields and the much smaller, upper-class influx into the north of the town suggest that the spatial link between home and workplace was still strong. Figures 10.25-10.31 explore this link in a superficial way.

The residential distribution of mining workers is much the same as it was in 1851, there being few such workers living outside enumeration districts containing pits. Building workers are concentrated in the areas where construction was underway, excepting the high-class expansion-areas. The residential location of manufacturing workers was

Figure 10.25 : Distribution of workers in agriculture and breeding as a percentage of the total economically-active:1871, enumeration districts

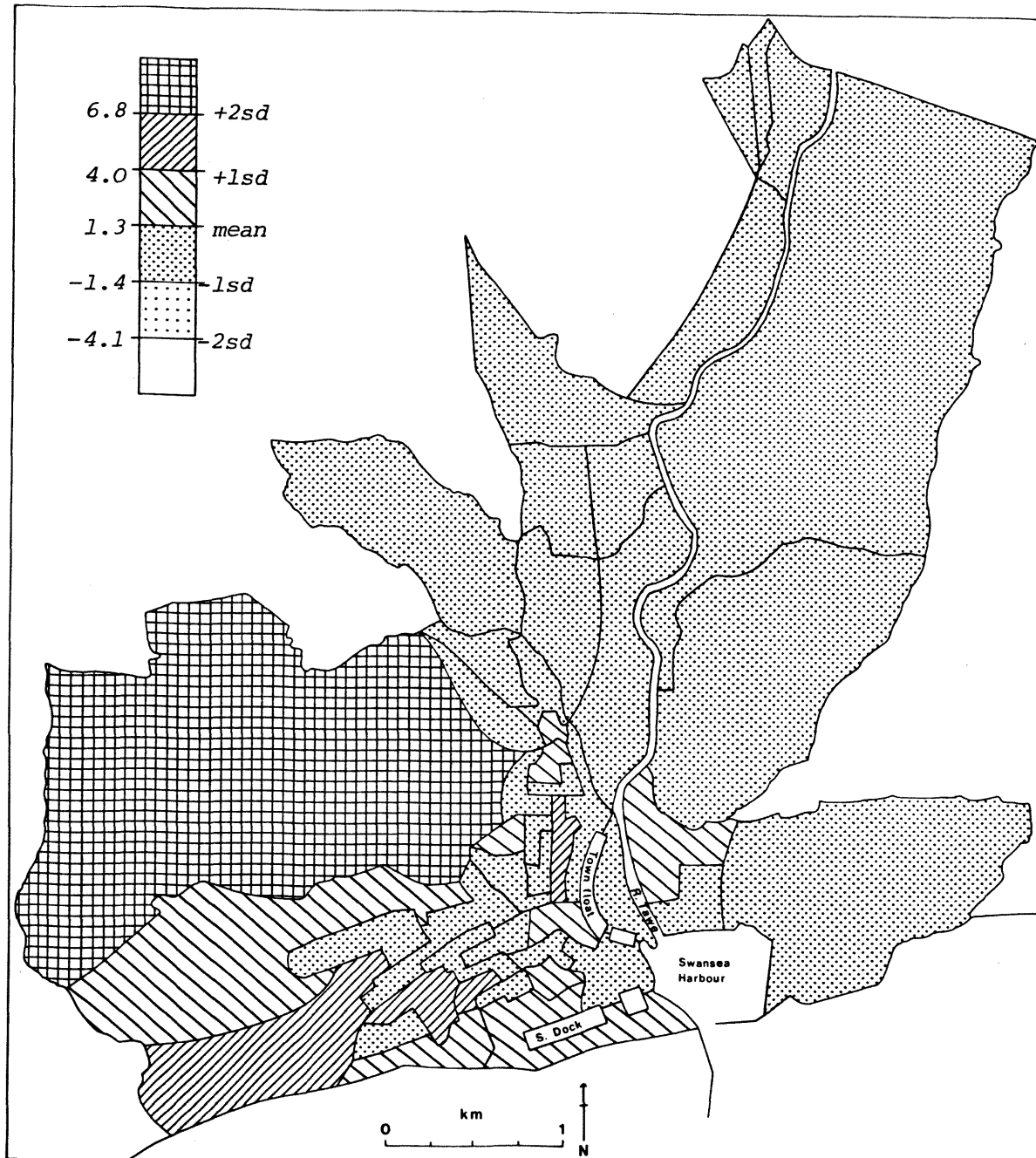


Figure 10.26 : Distribution of workers in mining as a percentage of the total economically-active:1871, enumeration districts

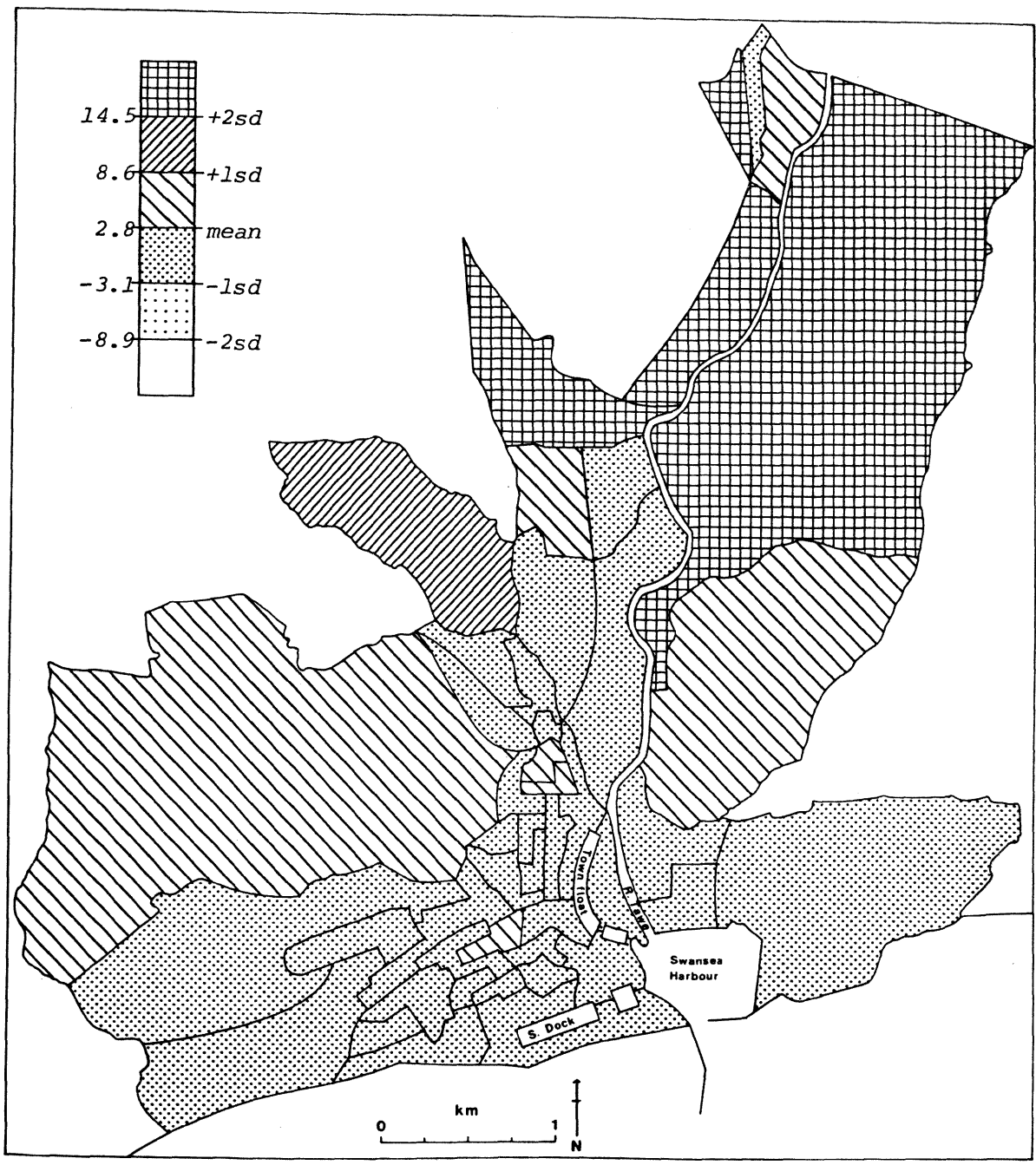


Figure 10.27 : Distribution of workers in building as a percentage of the total economically-active:1871, enumeration districts

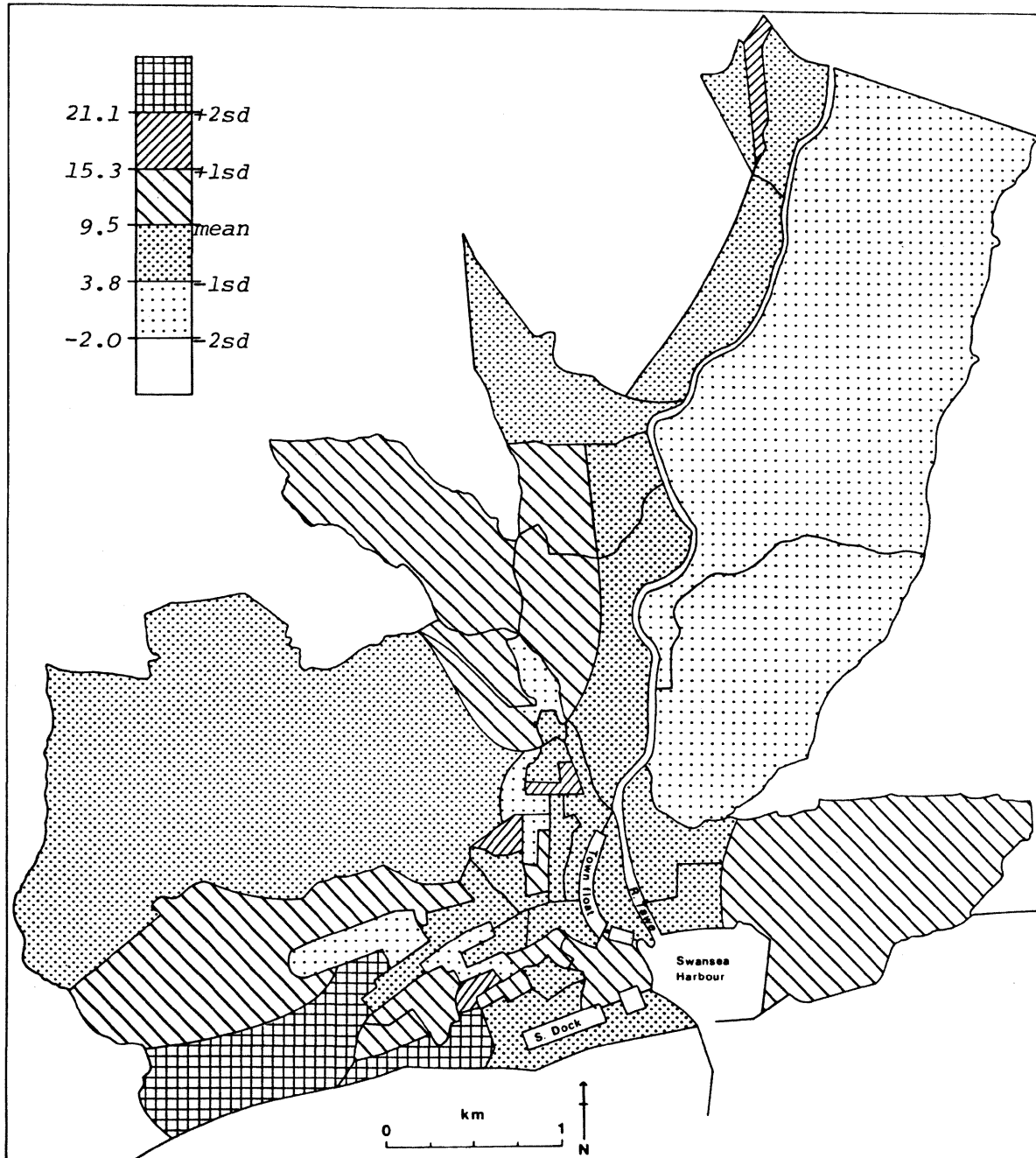


Figure 10.28 : Distribution of workers in manufacturing as a percentage of the total economically-active: 1871, enumeration districts.

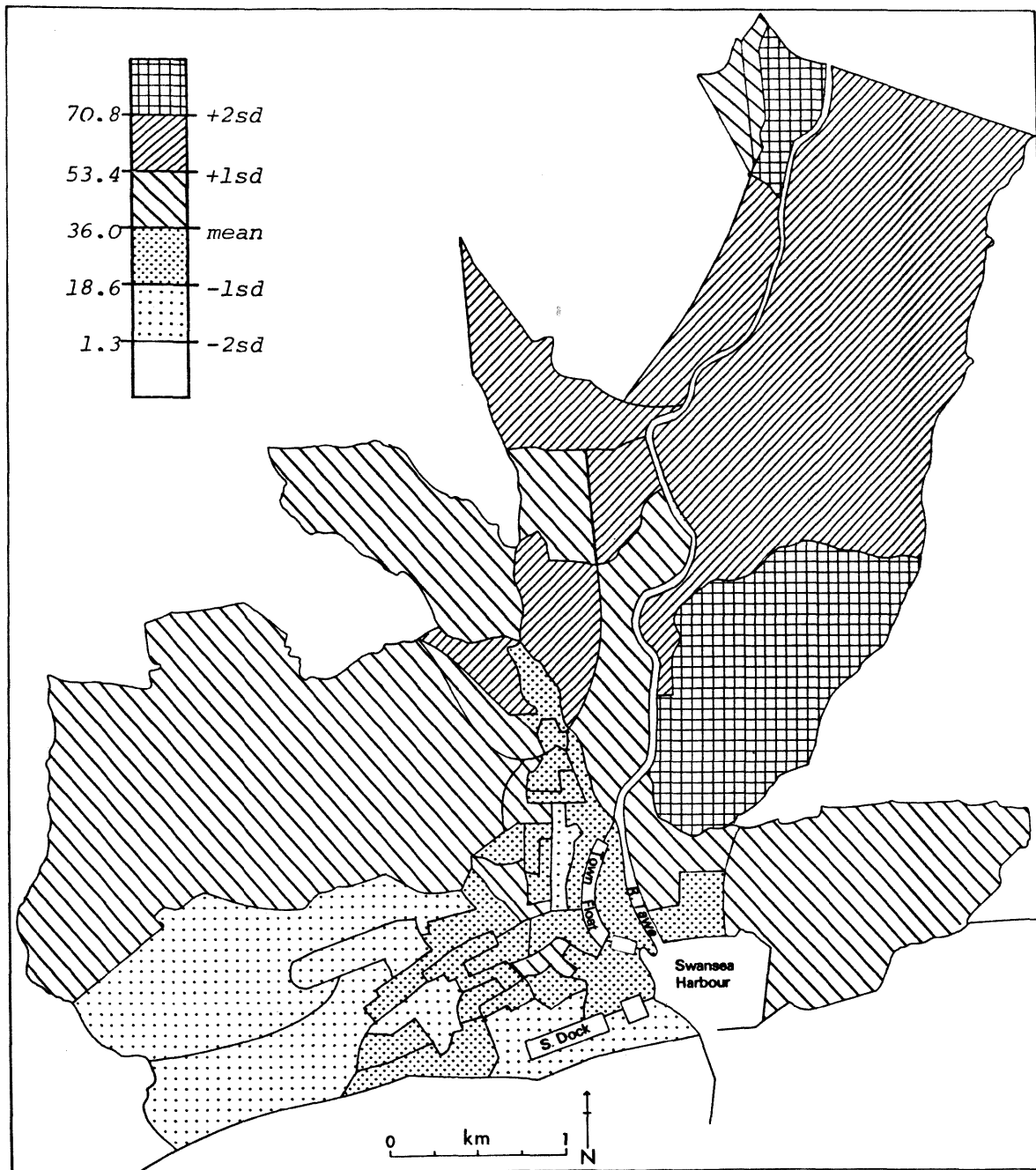


Figure 10.29 : Distribution of workers in transport as a percentage of the total economically-active: 1871, enumeration districts

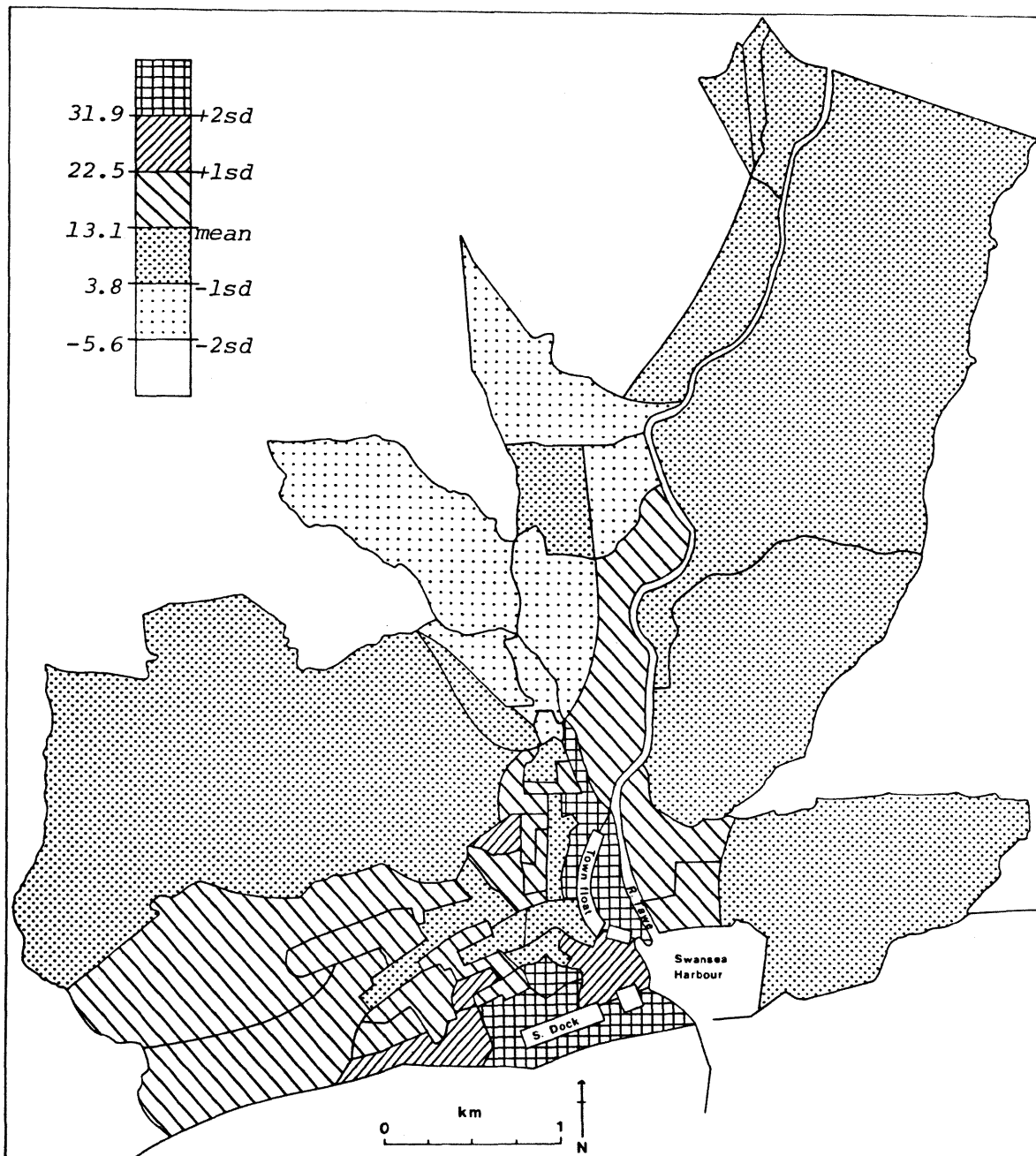


Figure 10.30 : Distribution of workers in dealing as a percentage of the total economically-active:1871, enumeration districts

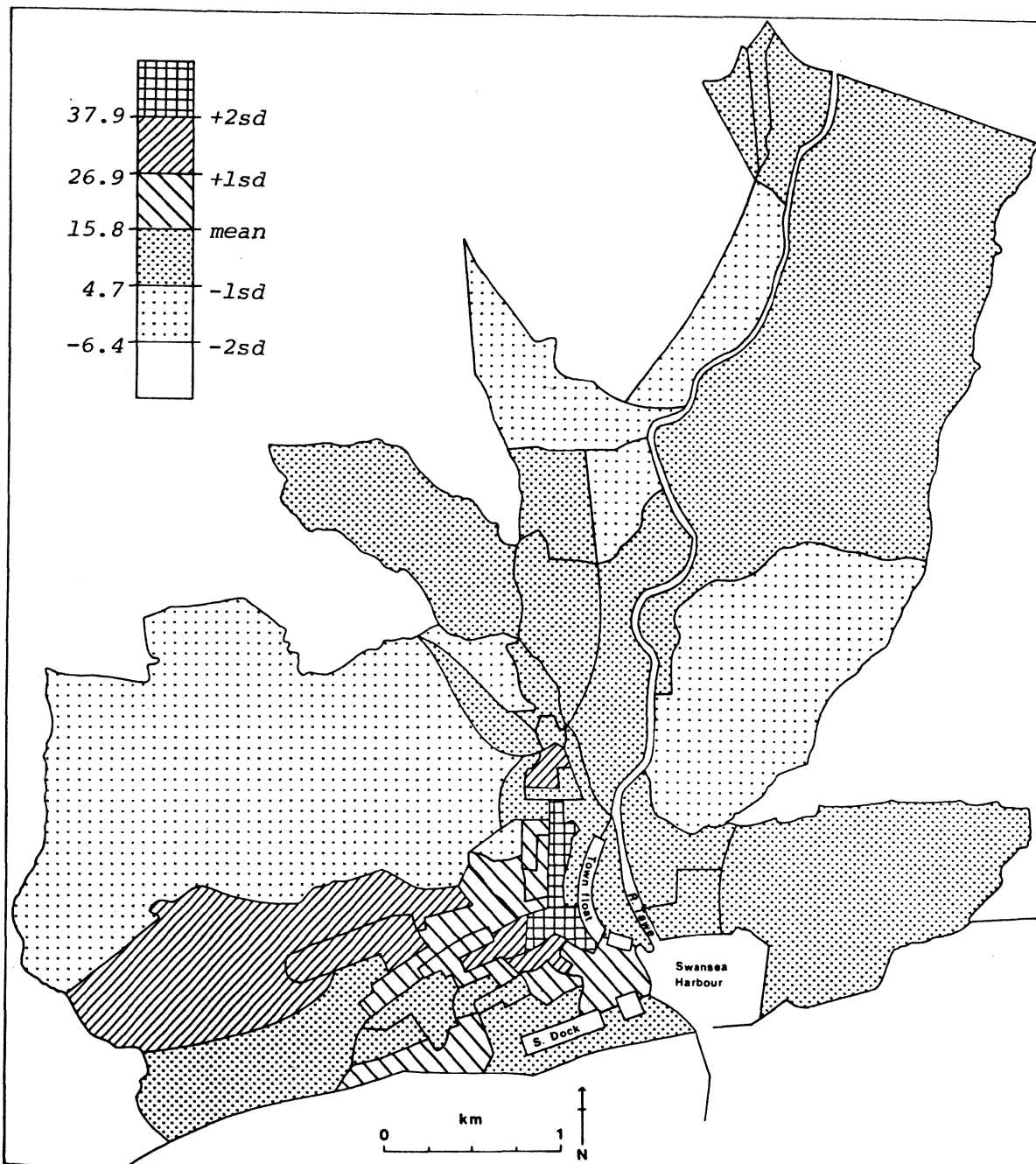
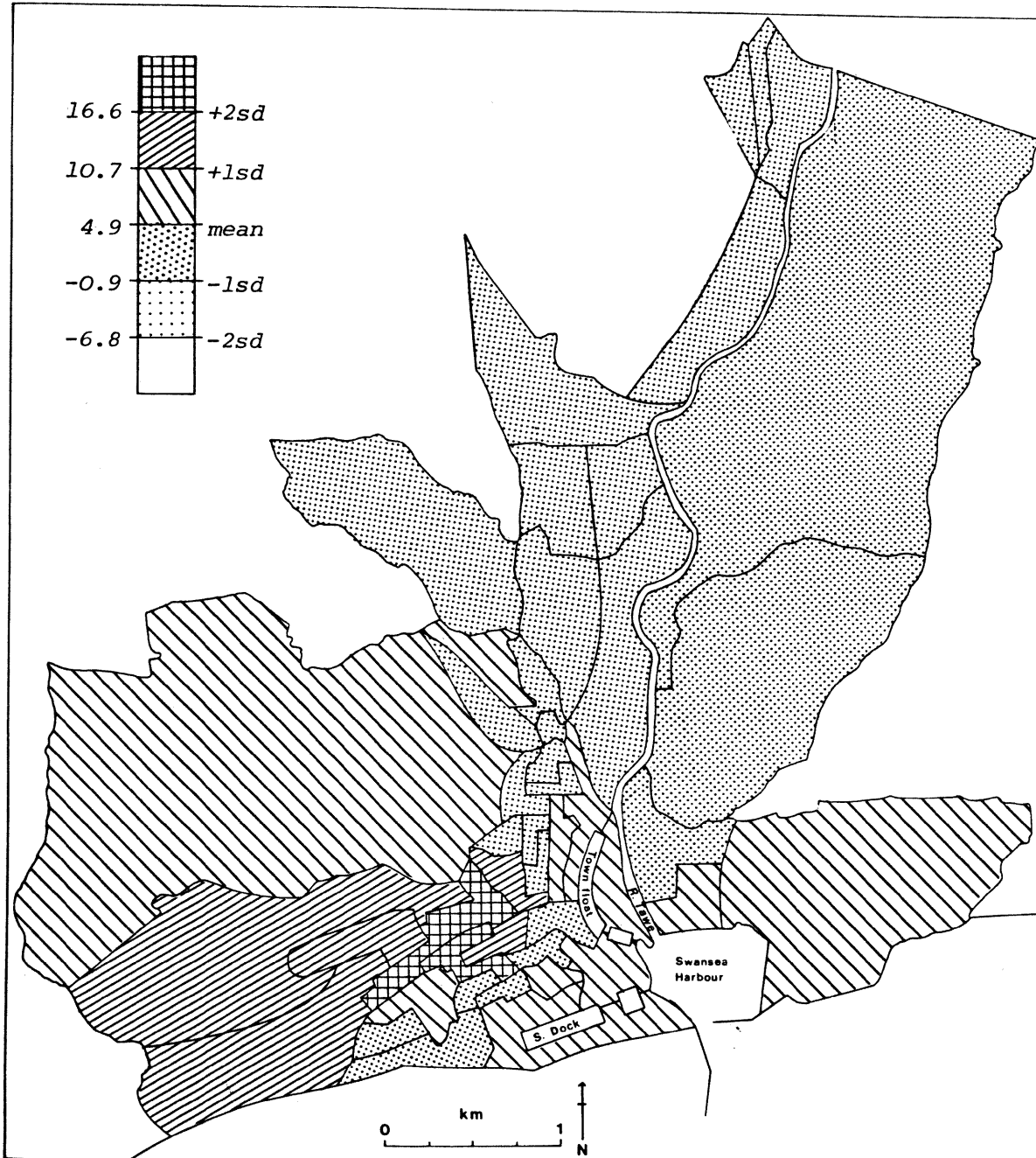


Figure 10.31 : Distribution of workers in public service and the professions as a percentage of the total economically-active:1871, enumeration districts



still strongly linked to the location of metal-smelting works and the location of workshops within the town centre. Transport workers as a whole, as in 1851, were very heavily concentrated around the docks and river with the mariners among their number living further out than the land-based workers (notably in the New Street area). There is, however, some evidence that the higher-class workers in transport were leaving the Wind Street/Burrows area in favour of Uplands and Ffynone, a phenomenon not present in 1851. Workers in dealing continue to show a strong association with the commercial core, but many workers in this industrial group are found living in the western suburbs. The distribution of workers in public service and the professions is little changed from that in 1851, with a strong concentration in the Dillwyn Street and Mansel Street area, the only difference being the extension of public service and professional workers into the newly-built Walter Road area.

The evidence would seem to suggest, therefore, that separation of home and work was strongest in the upper classes and it is, indeed, mainly within this class that such separation would be desirable, since it was only they whose financial circumstances allowed a large degree of residential choice and only they who could afford the spacious development that suburban-living offered. The housing for the working classes was fairly uniform in design, always terraced, almost always flush with the street and often gardenless at the rear, whether it was suburban or not. In such circumstances, little environmental advantage was to be gained by living far from work. As in 1851, the proximity of home and workplace for the bulk of the working classes is inexplicable in terms of the lack of public transport since the town, even in its now much-extended state, was still small enough to allow persons to walk to the centre,

the docks, or even from the west to the north, in an acceptable journey-to-work time. While the phenomenon must have been partly the result of the fact that greater convenience was gained by living close to work, while no environmental advantage was forfeited, it must, in large part, have been a 'hangover' from pre-industrial days when home and work had strong functional links. Although such functional links were rapidly disappearing with the increasing scale of economic activity and the increasing division of labour, some links did still exist to encourage a close spatial proximity between the two. The most important were the building of houses by employers for their workers, the casual nature of much employment, necessitating the workers to be close at hand to take advantage of work opportunities, and the remaining predominance of the one-man business and small family-business in which part of the residential plot became the centre of business operations, no larger site being necessary. Allied to this is the tendency for a son to follow his father's line of work and, with such family allegiance to a particular trade, a short journey to work was easily achieved by these households for all working members. As in 1851, the tendency for the Head-of-Household to employ his own sons and daughters, nephews and nieces and also for children to follow their parents' line of employment is evident on the sample survey, particularly in the dealing sector, but also in certain manufacturing industries, particularly shoe-making, tailoring and weaving, and in the building trades of joinery, carpentry, masonry and painting. The evidence seems to suggest, therefore, that journey to work and fusion of home and workplace in the same site, were still strong constraints on residential location.

This finding is supported by the results of work on other towns. Warnes concluded that place of work was still a major constraint on residential location in mid-nineteenth-century Chorley¹¹ as did Jackson in mid-nineteenth-century Wigan and St. Helens. In St. Helens he found that there was a greater degree of areal separation of the glass-workers from the chemical workers than from the town's small professional community.¹² A close clustering of mariners around the harbour has been identified in Aberystwyth¹³ and, in Merthyr Tydfil in 1851, each ironworks was associated with its own working community.¹⁴ In a different milieu, Ogden found strong occupational segregation in nineteenth-century Paris.¹⁵

6. Other constraints on the residential location of social classes

(a) Environmental factors

The development of social-class areas shows a distinct avoidance of certain environmental features by the classes which can afford to choose their residential locations. A distinct preference is shown for a combination of sea view, well drained site and freedom from smoke. The importance of such factors has frequently been commented on before in both Britain and America,¹⁶ and Ward has commented that;

"In a town with substantial topographic diversity, the distinction of the high and low areas, especially at a time of ill-developed drainage, came to have important social implications. The high and low areas of the town provided the material advantages which conditioned the process of residential differentiation".¹⁷

In Swansea, almost all high-class housing which is not in the central area is on the higher ground, facing the sea and, in numerous

instances, houses occur only on the side of the street which faces the bay (which also, in most cases, happens to be south). This is true not only of the western prestige suburbs but also of the high-class housing east of the river in the upper part of St. Thomas, on the slopes of Kilvey Hill. The high ground on the sides of the Swansea valley is not used for high-class housing, however, since it does not have a sea view and suffers from the effects of industrial smoke and other disadvantages associated with proximity to heavy industry. The Kilvey Hill high-class area, focussing on Maesteg House, was not completely free of detrimental, industrial effects, receiving smoke on the numerous occasions on which the wind was WSW. The western prestige-area, on the other hand, only received it on the rare occasions when the wind was NE.¹⁸ This, combined with inferior accessibility from the central area and the development of docks at St. Thomas later in the century, retarded the development of, and subsequently brought about the demise of, this high-class enclave. (The barrier created by the river had, however, initially contributed to the establishment of this high-class, residential area at a time when the proximity of home and work-place was prevalent).

Certain discrete elements in the environment can also be seen to influence the siting of high-class areas.¹⁹ As previously noted, in 1851 there was a suggestion that the Burrows development may extend itself along the coast in the direction of Oystermouth and certain relatively-prestigious terraces had sprung up along the Oystermouth Road. However, the arrival of the railway, the South Dock, and the adverse social impact of the Prison and the Infirmary, prevented the continuation of this development. The environmentally detrimental effect of the

railway was recognised at an early stage, the Borough Surveyor complaining that:

"It is to be regretted that this railway has not been altogether diverted ... as if it be constructed according to the present plans it will be necessary for the safety of traffic on the turnpike road to erect a high fence between the road and the railway, thereby excluding the present beautiful view of the bay".²⁰

A final environmental influence was the availability of piped water and the extent of the town drains. The western prestige-suburbs (and the town) were served initially by Brynmill Reservoir and the building of Cwmdonkin Reservoir at a higher altitude was a feature encouraging the development of high-class housing on the land north of Walters Road.

(b) The Housing Market

Another important influence on the observed pattern of class residential location is undoubtedly the housing market and, while investigation of the contemporary workings of the housing market is beyond the scope of this study, it should be emphasized that the availability of different types of housing affects the evolving pattern of class segregation. For instance, in times of housing shortage, the least competitive group will suffer over-crowding and enforced segregation to an increasing extent as rental levels rise forcing them into central pockets of decaying housing. Obviously, however, the relationship is reciprocal and the evolution of classes will shape the housing market as demand for certain types of housing is created by changes in the size of various groups of differing rent-paying ability. There is, therefore, an important interaction between housing availability and location

and the resolution of choice and constraint in the residential location of households from various status groups.

Several studies have recently been conducted into the role of the housing market in the formation of residential areas in the nineteenth-century city which point to the importance of economic change and structural industrial change in shaping the evolving pattern of housing. Pritchard relates the development of new, terraced housing on Leicester's periphery to industrial change within the city.²¹ Jackson in a study of Wigan and St. Helens concludes that differences between the two towns according to the extent to which working-class residential areas, defined along social-status lines, had emerged by 1871 are related to "various elements in the histories of their respective housing markets" which in turn are "largely dependent on the changing industrial structure and fortunes of the towns through the nineteenth century".²² In Swansea, in this context one might postulate that the development of large-scale metal industries to the north of the town, and their continuous expansion, created the first uniform tracts of working-class housing and perpetuated their development throughout the nineteenth century.

The role of landowners and estate managers has also been the subject of recent research and Cannadine has argued that the "combined influences of population growth, landowner's preferences and middle-class attitudes and actions" created an "unprecedented degree of residential segregation".²³ In the case of the Calthorpes' estate at Edgebaston, such segregation began to develop in the second decade of the century and survived until the late nineteenth century, when the intrusion of

public transport allowed the working classes to pressurise this formerly secure enclave of middle-class life.²⁴ In most cities, the tendency was for landowners to seek to preserve the long-term value of their estates through attracting middle-class leasehold housing with strict covenants controlling the use to which such housing could be put.²⁵ Such policies were partly responsible for the shortages of cheap, working-class housing which developed in many cities causing severe overcrowding. The extent to which landowners could exercise control, however, was dependent on whether their policies and the siting of their estates coincided with the aspirations of their potential tenants and also on the amount of land they owned within the city in question and the ownership configuration of the remainder. A dominant landowner in a city, such as the Duke of Norfolk in Sheffield,²⁶ could obviously not attract middle-class housing to the whole of his estate, but in many towns with one dominant landowner, zoning policies ensured that middle-class areas developed and survived.²⁷ On the other hand, major landowners may be ineffectual in controlling development and Springett has shown how the Ramsden Estate in Huddersfield had originally a virtual monopoly on land but failed to exercise control, and later, as the town expanded, competition from other landowners forced the estate to provide land on terms dictated by the builders.²⁸

That land ownership combined with a middle-class desire for exclusive neighbourhoods is an important feature of Swansea's development is unquestioned and, although no detailed study has been undertaken, its influence was noted in the development of the Burrows prestige housing-area in Chapter 7. In the case of the western prestige-area, the combined efforts of land societies (Glamorganshire Land Society and

St. Georges Freehold Land Society) and Sir James Walters, who owned the Ffynone Estate, assisted in the development of the first suburban, middle-class neighbourhood.

7. The evolving class-structure

It has been hypothesised that, as the process of industrialisation advanced, domestic industry was replaced by factory industry, the scale of production increased and manufacturing and retailing became increasingly separate. This brought about the increasing division of labour and the diversification of the class structure and a person's social status came to depend more on achievement than ascription, allowing social movement between the status levels (Chapter 2). The identification of such a process from census data is extremely difficult, largely because the means of identifying social classes are very crude and, once defined, the status classification tends to shape the analysis and influence the results. In the analysis of the 1851 data, an attempt was made to test the meaningfulness of the five-class categorization and it was found that, although distinct differences between the classes were present according to measures of living standards, the major status division occurred between classes 2 and 3. It was, therefore, concluded that, as so much of nineteenth-century, contemporary, factual documentation and fiction implies, there were two major classes of people; on the one hand, artisans and labourers and, on the other, tradespeople and professional men. Within these two major groups, minor class-variation occurred. The town at mid-century was, therefore, at an intermediate stage between the feudal, two-tier system consisting of a small, ruling elite and a large, class-homogeneous majority²⁹ with no movement between the two and the modern system of finely-graded status levels and much greater social mobility. The

elite of the 1851 town contained self-made industrial entrepreneurs and the successors of pre-industrial merchants, as well as those who were rich by birth, the latter now forming a small minority of the wealthy class and entry into this class was, therefore, increasingly a matter of achievement rather than ascription. Among the workers, the increasing scale of production, witnessed by the large, outer-borough, industrial concerns and the non-domestic workshops encircling the town centre, introduced work roles requiring different levels of skill, whereas in early domestic industry, one person or family would perform all functions in the production process and also sell the finished product.³⁰

An understanding of the evolution of residential differentiation in the city, during its period of rapid population growth and industrial change, would be greatly aided by a knowledge of the changes in class structure that were taking place. However, little material can be gathered to aid such a study and the only indication from the analysis that changes along the indicated dimension were, in fact, taking place between 1851 and 1871, are the following. Firstly, the decline in indices of dissimilarity between all classes, excepting class 1, at grid-square level, might imply that gradations between and within classes were increasing; secondly, there is evidence from the maps of residential class-location that a bridging class, composed of the lower end of class 2 and the wealthier element of class 3, was emerging and creating a suburb for itself on the land between the St. Helens and Walters Roads. Slight support is also offered by changes in the servant keeping propensity of each class, as Table 10.5 shows. The increased discrepancy between the proportions in classes 1 and 2 and between classes 3 and 4 in 1871, and the slight narrowing of the gap between classes 2 and 3, may

indicate that an intermediate stage between classes 2 and 3 was gaining ground.

Table 10.5

Percentage of households in each social class keeping
no resident domestic servants

Percentage of households keeping no
resident domestic servants, 1851 & 1871

	<u>1851</u>	<u>1871</u>
Social Class 1	35.4	32.9
Social Class 2	52.7	55.8
Social Class 3	88.7	89.7
Social Class 4	93.8	96.5
Social Class 5	95.8	98.5
Social Class 6	94.9	98.5

However, all three pieces of evidence are merely suggestive and the 1871 class-distribution, like that of 1851, is still primarily dichotomous. The emergence of a true class-continuum must await a weakening of the strongly-capitalist socio-economic system.

8. Change within the outer borough

The discussion thus far has concentrated on the town itself since the grid-square analysis covers that area only and it is the development of social areas within the expanding town which is the primary concern. However, the industrial villages of the outer borough were also affected by substantial population growth and the following section seeks to elucidate class changes associated with their growth.

Table 10.6 shows the class percentages in the outer borough enumeration districts, in 1851 and 1871. The districts used are those of 1851 and the 1871 data has been reallocated to the 1851 districts for this purpose. Some of the 1851 districts have been amalgamated since the resulting areas constitute more suitable units of analysis.

On the western side of the river, the Hafod/Pentre-Estyll/Cwmbwrla area was heavily affected by the outward growth of the town, all three settlements being more or less linked to the built-up area by 1871, the population and the workforce having risen fourfold in the intervening twenty years. Although the metal-smelting works in the area had grown substantially during the period, this growth did not occur at as great a rate as the population growth and this, together with a lack of growth in the mining sector, led to a relative decline in the dominance of these two major, outer borough industries. This is especially true of mining which, in 1871, occupied 3.5 per cent of the workforce, compared with 10.7 per cent in 1851. The effect of this on the class structure of the area was to produce a decline in the class 4 percentage, as semi-skilled work at the metal smelters and the mines became of lesser relative importance, and a dramatic upsurge in the class 5 percentage, as the Hafod became an extension of the northern, lower-class suburbs.

In 1871, the northward expansion of the town had not reached beyond the Hafod and, therefore, Landore, the industrial settlement to the north, remained free of suburbanisation. The doubling of its population during the two decades was the result of expansion in metal smelting, its absolute complement of miners having remained static, in common with the other areas of the outer borough. In 1871, therefore,

Table 10.6
Social-class change in the Outer Borough, 1851-1871

Enumeration District	1851 E.D. No.	Social Class 1		Social Class 2		Social Class 3		Social Class 4		Social Class 5	
		1851	1871	1851	1871	1851	1871	1851	1871	1851	1871
Brynmill/Townhill	(17/18)	2.44	14.20	6.10	17.75	26.83	47.93	41.46	12.43	23.17	7.69
Hafod/Cwmbwrla	(19/20)	0.00	0.23	4.00	4.75	44.67	53.32	39.33	18.51	12.00	23.10
Landore	(21)	5.80	1.60	6.25	7.60	31.77	49.18	28.26	27.04	23.19	19.67
Treboeth/Plasmarl	(22/23)	1.85	0.00	1.85	1.52	50.92	48.48	37.96	34.85	7.41	15.15
Lower Morriston	(24)	1.64	0.00	1.64	3.42	50.00	56.16	36.88	22.60	9.84	17.80
Upper Morriston	(25)	1.23	0.00	4.94	1.29	50.00	59.74	26.54	33.77	17.28	5.19
Port Tennant	(26)	2.08	1.60	6.25	7.60	31.77	49.00	39.06	15.00	20.83	26.80
Foxhole	(27)	1.54	0.00	3.08	3.00	49.23	45.00	29.23	34.00	16.92	18.00
Llansamlet	(28/29)	0.00	0.00	1.26	1.61	46.83	45.16	44.30	43.55	7.59	9.68

the class profile of this area remained characteristic of the metal-smelter-dominated, outer borough districts of 1851. The area was, however, one of the few to experience a reduction in its class 5 percentage but the decline was not large and was, possibly, due to railway construction in the area during the early 1850s inflating the number of labourers present at the time of the 1851 census. The same explanation possibly accounts for the upper-class decline in the area (surveyors and engineers having been present in 1851).

Further removed still from the influence of the town was the mining settlement of Treboeth, where the population increase was relatively slight and, possibly, largely accounted for by natural increase. Its class profile remained largely unchanged except that, in common with the borough as a whole, its class 5 percentage increased. A shift in emphasis occurred in its industrial structure, however, as mining declined in relative terms (40.7 per cent of the TEA in 1851 and 30.6 per cent in 1871) and the metal works of Cwmbwrla and Landore attracted more of its workforce.

The remaining settlement west of the river is the small town of Morryston. There the population increase was steady between the two dates but not dramatic (one-and-a-half fold). Signs of urbanisation were apparent in Lower Morryston, denoted by a slight reduction in the typical 1851, outer borough class-profile. This involved a reduction in class 4 and an increase in class 2. The community remained, however, very heavily dependent on zinc, copper, lead, tin and chemicals.

East of the river, the St. Thomas/Port Tennant area, like the Hafod on the western bank, received considerable urban overspill,

resulting in a three-fold increase in its population. The St. Thomas part of the district became almost a microcosm of the city itself, with its own prestige enclave on the flank of Kilvey Hill and a large, class 5 element. As the industrial structure became more diversified, the class 4 percentage declined.

To the north, neighbouring Foxhole witnessed almost a doubling of its population but, as with Landore, its increase in total economically-active was primarily absorbed by the expanding smelting-works. Its industrial structure remained little changed, except for a relative decline in building workers counterbalanced by an increase in transport workers. The outward advance of the built-up area, which engulfed its southern neighbour, left the district largely untouched.

The remaining northern district, Lower Llansamlet, is the remotest and least altered of all the outer borough districts, no significant change having occurred in its class profile. The universal population increase of all the other districts was here replaced by a slight decline. Although the class proportions remained the same, there was a shift in the industrial structure, which, as in the other main mining settlement of the borough, Treboeth, involved a relative decline in mining counterbalanced by an increase in manufacturing.

In the west of the borough, the Townhill/Uplands/Brynmill area was heavily affected by suburban expansion. The area represented at 1871 in Table 10.6 is not identical to that represented at 1851, since the reallocation of 1871 data for this area would require more work than the results warrant and the class balance shown is believed to be a sufficiently accurate reflection of the process underway. The six-fold

increase in the class 1 percentage, the three-fold increase in the class 2 percentage and the dramatic drop in the class 4 percentage as the agricultural workers and gardeners became increasingly outnumbered (Agriculture and breeding fell from 22.0 per cent to 8.1 per cent of the TEA) is obviously the result of the westerly advance of the prestige suburbs. However, as might be expected, the parts of the district beyond the reach of the suburbs remained very similar in class and industrial structure over the two decades and, in this sense, the western borough was unchanged, the only difference being the alteration in the position of the urban fringe.

In the borough as a whole, therefore, there was little change in the class structure outside the settlements engulfed by the town. The class structure of the northern outer borough remained dominated by the requirements of the metal smelters and the western outer borough remained lower working-class, with a sprinkling of class 1 households in isolated residences. Industrial change had affected the northern outer borough, resulting in a relative decline in mining and a growth in metal smelting and, within metal smelting, there had been a sharp fall in the percentage of workers in copper. (93.2 per cent of all metal-manufacturing workers were copper workers in 1851, compared with 50.3 per cent in 1871). Neither change, however, had an impact on the social-class structure.

Those industrial settlements in the 1851 outer borough which became joined to the town did not become suburbs of it and had contributed to the fusion by their own vigorous growth, stimulated by the expansion of their industries, not by those of the town. Industrially they remained islands in the borough, surrounded on their townward side by

Lower-class suburbs whose class structure and industrial structure were sharply divided from their own. The social-class structure of the Hafod and Cwmbwrla districts, as a whole, had altered substantially over the two decades under study but, in 1871, these settlements still existed as separate and distinct metal-smelting communities, though the open land surrounding them was, in part, replaced by townward-looking, suburban housing. However, while such industrial villages maintained a functional distance from the town, in other respects they were easily absorbed within it, since they were 'urban' in many respects before becoming part of the urban area. Their houses were built in a modern, urban style, their workforces were accustomed to urban working-conditions and, possibly, urban cultural-outlook, although this outlook was distinctly more 'Welsh' than most of the town.

Beyond the edge of the built-up area, the distinctive character of the outer borough remained little changed, and in Treboeth and Llansamlet, the remotest areas of the borough, one can speculate that "the miners cot" still exemplified "the rude architecture of another age".³¹ The urban area, in the absence of regular and frequent transport facilities, remained crisp-edged and had little effect on settlements half a mile beyond its present reach. There was, therefore, no 'suburban' development around the village nuclei, the population expansion experienced by Foxhole, Landore and Morryston being the result of the independent growth of the communities themselves.

As in 1851, although the industrial nuclei were urban in many respects, it is meaningless to look for industrial or pre-industrial patterns of residential class structure within them and the comments made in this context in Chapter 7 are equally relevant in 1871.

Additionally, social-class divergence between outlying settlements remains in favour of metal smelting as opposed to mining communities, Landore and central Morryston having the most resident domestic servants as a percentage of total population and Treboeth having none at all.

9. Summary and Conclusions

(a) Broad spatial trends

The borough in 1871, as in 1851, is broadly divided in terms of spatial patterns of class residential location between the town and the outer borough and, within the town, the spatial scale of class segregation increases outwards from the centre. The fine 'pre-industrial' mesh of segregation in the central area is, however, in the process of being replaced by predominantly non-residential, commercial areas and more homogeneous working-class residential areas. The removal of upper-class households to the western suburbs, seen in embryo form in 1851, is well advanced by 1871.

The increasing size of the town, combined with minimal transport provision, means that the comparatively simple spatial arrangement found in 1851, in which the old town was multi-class and segregated at a fine scale and in which the new suburbs were segregated at a broader scale with the upper classes confined to the west and the lowest class almost exclusively confined to the north, gave way to a pattern where, although the north and west class biases still prevailed, it was necessary for all classes to be represented in both major suburban accretions.

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(b) Primary features of class residential location

In 1851, it was found that, although status gradations within the working class and upper class existed, there were basically two classes of people. In 1871, the social structure is still primarily dichotomous but there are tentative signs that the gulf between artisans and labourers, on the one hand, and professional and tradespeople on the other, is being bridged and that a more finely-graded class continuum is emerging. The main features of the residential location of the major two classes are as follows:

(i) Labourers and artisans

For the working classes, residential choice was severely limited by a combination of low financial-resources and high rents created by housing shortage and, since over-crowding was the normal state of the working class, each household would tend to choose the best accommodation it could afford. A range of housing for each level of working-class income was available in central and suburban locations. However, since working-class, 'suburban' housing was almost as cramped as central housing, little was to be gained by adding to commuting costs. Apart from having a more constrained choice, the working class had less to gain from locational choice than the upper class, since their residential location tended to be far more fluid than that of the upper class, frequent moves being made in response to changes in their competitive ability.³² With a large proportion of the working class being casually employed, work was intermittent and many households moved frequently as their economic well-being fluctuated. Changes within the family, such as the death of the head, the birth of children, or the entry of older children into employment, profoundly influenced the economic competitiveness of the family in the housing market, financial aid from outside the household being confined to the poor rate, for

which comparatively few qualified. Therefore, if residence within a particular house was to be of short duration, less importance would be placed on the choice of site. However, there is evidence that most intra-urban moves were short-distance, many involving moves within the same few streets³³ and this implies that neighbourhood preferences may have been operating. Alternatively, this may merely reflect the greater convenience of short-distance moves or the desire to remain close to work. The fact that housing standards varied at a fine scale within the old, central part of the town and varied between streets, and sometimes parts of streets, in the newer, suburban, lower-class areas, and the fact that almost all working-class housing was privately rented, made possible such economically-precipitated, frequent, short-distance moves. Furthermore, the subdivision of houses, with increasing pressure on housing, contributed to the variation in rents available within areas. It was only in the prestige housing-areas that homogeneity of housing at a broad scale and, therefore, relative uniformity of rents or purchase price, was achieved. (The vastly greater financial resources of the upper class, however, resulted in a wider absolute range of rents within high-class housing than among low-class housing). However, despite the vagaries to which the working class' economic competitiveness was subject and the variety of rents available at a small scale, segregation between the different occupationally-defined status levels of the working class was distinctly present. This is because periods of work-shortage tended to occur at the same time for all affected classes and the overlapping of living standards between classes caused by family factors is not sufficient to obliterate class 'boundaries'.

The growth of the town between 1851 and 1871 meant that the actual range of residential locations increased for all sections of the working class, including class 5, parts of the Sandfields being heavily occupied by this previously north-town class. However, while the range had increased, the actual number of housing opportunities had fallen over the period, as the rise in population out-stripped the increase in lower-class housing provision. By 1871, 26.8 per cent of class 5 households were living in subdivided dwellings, compared with 18.5 per cent in 1851, and the class 3 and 4 percentage in multi-occupation had risen to almost 20 per cent (18.1 per cent for class 3, 19.6 per cent for class 4, compared with 6.9 per cent and 8.0 per cent respectively, in 1851). Two class 3 areas had high levels of subdivision (the western Sandfields and the flank of the Graig) and it may be the case that sub-letting of the upper floor was a major means by which classes 3 and 4 avoided moving house when their fluctuating income-per-head caused rent arrears and may help to explain why casual work and largeness of family did not cause lower segregation levels between artisans and labourers than those observed.

(ii) Professional and Tradespeople

For classes 1 and 2 relative financial independence allowed maximum residential choice and three distinctly different residential options were available. First, there was the option of choosing a spacious, purely residential suburban home, remote from business operations, in a neighbourhood of distinctive class-character. Second, there was the possibility of combining home and workplace in central locations where class segregation was at a finer scale, and, finally, there was the diminishing intermediate option of choosing a relatively

central site in the declining Burrows development where combined home and work premises were mixed with purely residential premises. The increasing congestion of the central area as the town's commercial importance grew, the ageing of the central building stock and the invasion of prestige areas by the working classes, meant that the suburban option was rapidly gaining ground for environmental reasons and the rising value of land in the C.B.D. made the area less viable for large, residential premises. The upper classes also helped to precipitate their own move to the suburbs by developing the vacant land on their burgage plots, the profit made by such infill development providing finance towards a new suburban villa. The increased congestion caused by infilling would also encourage those who did not develop their central plots to join the move to the suburbs. By 1871, 45.4 per cent of classes 1 and 2 were living in prestige 'suburban' housing (defined as Grid-squares 19-21, 27-35, 39-44, 49-52). The corresponding percentage for class 1 is 67.0 per cent. However, linkages between home and work, though declining, were still strong among parts of this class, particularly those engaged in dealing, and the increase in class 2 residents in the growth areas of the central business district suggests that many upper-class persons were still choosing to create combined home and work premises.

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CHAPTER 11
MIGRANT STATUS IN 1871

1. Introduction

In this section the residential distribution of migrant groups in 1871 is explored and compared with the previously-analysed distribution for 1851. Explanations are put forward for changes in the nature of the various migrant groups and their residential location. Inter-relationships with other dimensions of residential differentiation are examined with a view to establishing an understanding of the role of migrant-status factors in the shaping of residential areas.

Whereas in 1851 detailed birthplace information for all household members was used in the analysis, in 1871, full birthplace information was only preserved for the head-of-household. Birthplace information for the household as a whole was recorded in the form of totals falling into the six major birthplace groups (Local, Rest-of-Wales, South-West England, Rest-of-England (and Scotland), Ireland and Overseas), a distinction also being made between the Swansea-born and the Llansamlet and Llangyfelach-born and the birthplace of the head being included in the totals (see Chapter 6). As a consequence, throughout this section, all birthplace analysis involving subgroups of the major birthplace categories relates to the head-of-household population only.

As with the analysis of social-class patterns, the 1871 migrant-status distributions are better understood against a background of the 1851 distributions which preceded them and by which they are, obviously, strongly affected and also in the light of physical changes to the urban areas and the changes in the numerical balance between

birthplace groups. Physical changes to the urban area are detailed in Chapter 10 and changes in the birthplace composition of the population are detailed below.

2. The birthplace composition of the 1871 population and 1851 population compared

Tables 11.1 and 11.2 compare the birthplace composition of the 1871 sample population with that of 1851, Table 11.1 being based on the total population and Table 11.2 on Heads-of-Household. Table 11.1 indicates that, while the percentage of the total population born outside the borough has remained stable at or around 40 per cent, there have been important changes in the composition of the locally-born population and also variations in the rate at which various migrant groups have grown, resulting in relative, as well as absolute, changes in the size of migrant groups.

The fastest rate of growth has occurred among the Overseas-born who have achieved a threefold increase in their numbers and have expanded at two-and-a-half times the rate of the population as a whole. Other major birthplace groups with a rate of increase greater than that for the population as a whole are the Swansea-born, the South-West-England-born and the Rest-of-England-born. The Ireland-born, the Rest-of-Wales-born and the Llansamlet and Llangyfelach-born have increased at a lower rate than the population as a whole, the latter, in particular, having achieved a very slow rate of increase. The increased rate of migration from England may be a consequence of the improved over-land communications following the opening of the railway in 1850.¹

Table 11.1 Birthplace composition of the total sample population, 1851 and 1871

<u>Place of Birth</u>	<u>1851</u>		<u>1871</u>		<u>Change as a % of 1851 figure</u>
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	
Swansea	2298	40.20	4681	46.31	+103.70
Llansamlet & Llangyfelach	1128	19.73	1302	12.88	+ 15.42
Total Local-born	3426	59.94	6066	60.01	+ 77.06
Rest-of-Wales	1154	20.19	2029	20.07	+ 75.82
South-West England	498	8.72	938	9.28	+ 88.35
Rest-of-England & Scotland	315	5.51	606	5.99	+ 92.38
Total England-born	813	14.22	1544	15.27	+ 89.91
Ireland	228	3.99	349	3.45	+ 53.07
Overseas	39	0.68	121	1.20	+210.26
Total migrants	2234	39.08	4043	40.00	+ 80.98
Birthplace unknown	56	0.98	83	0.82	+ 48.21
<hr/> Grand total	5716	100.00	10109	100.0	+ 76.85

Table 11.2

Birthplace composition of the sample head-of-household population
1851 and 1871

<u>Place of birth</u>	<u>1851</u>		<u>1871</u>		<u>Change as a % of 1851 figure</u>
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	
<u>Welsh sub-groups</u>					
Swansea	304	25.61	496	24.54	+ 63.16
Llansamlet & Llangyfelach	222	18.70	234	11.58	+ 5.41
Gower	47	3.96	89	4.40	+ 89.36
Rest-of-Glamorgan	55	4.63	107	5.29	+ 94.54
Carmarthenshire	157	13.23	201	9.95	+ 28.03
Pembrokeshire	39	3.29	93	4.60	+138.46
East, Mid and North Wales	40	3.37	74	3.66	+ 85.00
<hr/>					
<u>Major groups</u>					
Local	526	44.31	730	36.12	+ 38.78
Rest-of-Wales	338	28.48	564	27.91	+ 66.86
South-West England	137	11.54	323	15.98	+135.77
Rest-of-England	82	6.91	183	9.05	+123.17
Ireland	51	4.30	126	6.23	+147.06
Overseas	13	1.10	32	1.58	+146.15
Unknown	40	3.37	63	3.12	+ 57.50
<hr/>					
All	1187	100.00	2021	100.00	+ 70.26
<hr/>					

The differences in the rates at which the migrant groups have grown indicate an increasing Anglicisation of the borough. Not only have the England-born migrants as a whole increased more rapidly than the Wales-born migrants, but the migrant groups from the Anglicised areas of Wales have increased more rapidly than the migrants from the non-Anglicised areas. While the Carmarthenshire-born are still the most numerous Wales-born group, their majority has been reduced by more rapid rates of increase among the Gower-born, the Pembrokeshire-born and the group born in Glamorgan outside Swansea and Gower. The other largely non-Anglicised, Wales-born group, the East, Mid and North Wales-born, when Monmouthshire is removed, also has declined as a percentage of the total population.

Comparison of Tables 11.1 and 11.2 reveals differences between the rates of growth of the Head-of-Household populations and total populations in the various birthplace categories. It indicates that, although, as one might expect, the migrant group as a whole has experienced a more rapid growth among its heads than its total population and the local population has experienced the opposite, two sections of the migrant population have experienced a faster rate of growth in their total populations than their head-of-household populations. These are the Wales-born migrants and the Overseas-born migrants. This situation must indicate a large lodger presence among these groups, a significant migration of whole families, or a combination of the two. It seems plausible that potential migrant families would be most likely to contemplate either a short-distance move to the nearest town or a radical solution, such as emigration, and the census does, in fact, attribute depopulation of the rural areas adjacent to Swansea to emigration and the removal of families to Swansea.² In the case of the Wales-born

migrant group, the number of non-head-of-household members would be augmented by the children of those migrant households, both Welsh and non-Welsh, who had moved around in Wales before arriving in Swansea. The non-kin Wales-born element will be augmented by resident domestic servants, many of whom would be drawn from the surrounding rural area. The 1851 sample revealed that servants were twice as likely to come from Gower and Carmarthenshire than was the population as a whole and, in fact, were more likely to come from all the Welsh migrant areas, except Monmouthshire, than the population as a whole (Table 8.10). They were also more likely to come from all migrant areas of Wales except Monmouthshire, than were heads and wives. It is likely, therefore, that many Wales-born migrants would be living in households not headed by Welsh migrants.

The rapid increase in the non-head Overseas-born population is likely to be mainly due to a disproportionately large number of foreign lodgers. Table 8.10 indicates that, in 1851, lodgers were almost three times more likely to have been born overseas than were heads and wives and about four times more likely to have been born overseas than was the population as a whole. Table 11.11 reveals that, in 1871, there was a greater incidence of lodgers among households with overseas-born heads than any other group.

There has also been a significant change in the composition of the non-migrant population. The slow growth of the Llangyfelach and Llansamlet-born has resulted in a marked decline in the percentage of the total population born in these two parishes, the percentage falling from 19.7 per cent in 1851 to 12.9 per cent in 1871, resulting in the group being numerically smaller than the England-born migrants. The

rapid increase in the Swansea-born population has, however, maintained the proportion of Local-born in the total population. This swing in the composition of the locally-born population in favour of those born in Swansea is a result of the situation observed in 1851 in which migrants were comparatively absent from the outer borough. The heavy migration into the town has resulted in large numbers of Swansea-born second and third generation migrants while the increase in the outer borough locally-born population is mainly dependent on the natural increase of the indigenous population. The comparatively slow rate of increase in the Llangyfelach and Llansamlet-born population, however, also could be due, in part, to an increasing tendency for individuals born in the northern outer borough to record their birthplace as Swansea rather than Llangyfelach or Llansamlet. The increased number of Swansea-born persons in the northern outer borough enumeration districts lends support to this and it is possible that second generation migrants, in particular, would be likely to do this. (Swansea-born individuals were found living in the northern outer borough in very small numbers in 1851). If such a tendency was present, it suggests a less parochial outlook among the outer borough population than existed in 1851.

While migrants were comparatively poorly represented in the outer borough in 1851, the slow rate of growth among the local-born, northern outer borough population, compared with the much faster rate in the northern outer borough population as a whole, indicates that migration into the outer borough must have quickened after 1851. While the Llangyfelach and Llansamlet-born population increased by only 15.4 per cent over the twenty-year period, that of the northern outer borough (defined as E.D.s 19/20 to 28/29 inclusive in 1851 and E.D.s 31-44 inclusive in 1871) increased by 108.2 per cent. Some of this

increased migration into the 1851 outer borough is, of course, a consequence of the spread of the town itself into the outer borough, particularly into Hafod and St. Thomas, but Landore and Morryston also grew quite rapidly over the period.

The proportional swing in the locally-born population towards the Swansea-born, caused by a greater presence of locally-born second and subsequent generation migrants in the town, indicates that the local population, as defined by birthplace, may no longer be a meaningful social group. As might be expected, the locally-born population has increased more rapidly than have locally-born heads, the percentage of heads born locally having fallen from 44.3 per cent to 36.1 per cent, and a large number of these heads will be second or subsequent generation migrants. To what extent second generation migrants, adult or child, can be considered local, obviously depends on each individual case. The offspring of Irish and foreign parents, in particular, are more likely to think of themselves as second generation migrants than as locals. The English and Welsh migrant groups, however, have, as previously indicated, quite high rates of inter-group marriage and many of their children, therefore, will not have clear-cut, parental migration-backgrounds. On the other hand, if distinct residential segregation is found among the various English and Welsh migrant groups, then one must assume that some form of cultural cohesion may be present, which would imprint a non-local identity on locally-born children, but for third and subsequent generations such imprinting must be minimal. From the census, it is only possible to identify locally-born second generation migrants where they are still co-residing with their parents and one must accept that any 'pure for generations' local stock among the

locally-born will remain a hidden minority. Such problems are not, however, confined to the identification of the culturally-local population. They affect all migrant groups both through the under-counting of their number born away from the place from which they derive their cultural identity and through over-counting due to the inclusion of those whose residence in their place of birth was fleeting or, who in their place of birth, were segregated second or subsequent generation migrants. However, while detracting from the usefulness of birthplace-defined groups for analysis purposes, these data deficiencies do not seriously invalidate the results since the majority of individuals will be meaningfully classified and those who are not will be largely those with mixed cultural-backgrounds.

3. Changing levels of migrant segregation

Table 11.3 gives indices of segregation for the six major birthplace groups at enumeration-district level for the borough in 1851 and 1871. Table 11.4 gives the same information at grid-square level for the town.

As indicated in Chapter 10, although these tables give a comparison of the segregation indices of 1851 and 1871, caution is required in attaching meaning to changes in the magnitude of indices, since changes in the spatial framework, the number of spatial units and the size of the population and its distribution between migrant groups will create change in the indices independently of any alteration in the actual level of segregation present. These considerations also affect changes in the relationship between indices within each group of indices. Change in the number of units will have been offset by the

Table 11.3

Indices of segregation for major birthplace groups at
enumeration-district level : Municipal borough, 1851
and 1871 compared

<u>Birthplace</u>	<u>1851</u>		<u>1871</u>		<u>Change</u>
	<u>Index</u>	<u>Rank</u>	<u>Index</u>	<u>Rank</u>	
Local	26.99	5	21.60	5	-5.39
Rest-of-Wales	16.49	6	14.05	6	-2.44
South-West England	31.43	4	26.59	4	-4.84
Rest-of-England	37.75	3	31.48	3	-6.27
Ireland	49.03	2	58.52	1	+9.49
Overseas	50.05	1	43.81	2	-6.24

Table 11.4

Indices of segregation for major birthplace groups at
200 metre grid-square level : Town only, 1851 and 1871
compared

<u>Birthplace</u>	<u>1851</u>		<u>1871</u>		<u>Change</u>
	<u>Index</u>	<u>Rank</u>	<u>Index</u>	<u>Rank</u>	
Local	18.11	5	17.07	6	-1.04
Rest-of-Wales	15.59	6	17.56	5	+1.97
South-West England	24.97	4	25.93	3	+0.96
Rest-of-England	28.25	3	24.92	4	-3.33
Ireland	49.25	1	54.79	1	+5.54
Overseas	48.98	2	46.03	2	-2.95

increased sample-size, however, and, as far as change in the spatial framework goes, experimental alteration of the 1871 grid configuration has revealed a high degree of stability in the rank order and magnitude of segregation and dissimilarity indices for all groups other than the Overseas-born whose small number (121) obviously makes its results potentially volatile. Although the level of error involved in the comparisons is not quantifiable and cannot be substantiated, and no spatial analysis framework will produce the 'correct' set of segregation indices at any particular scale (especially for a study area experiencing rapid change and expansion), the rank order of segregation indices at each date and scale, and non-marginal changes in magnitude, are treated as valid. The problem of comparability between indices of dissimilarity and segregation does, however, mean that comparison of the segregation levels measured here with those measured in other work on nineteenth-century cities is not worthwhile. A general observation may, however, be made that the order of magnitude of segregation for the major birth-place groups in Swansea is mirrored by that found at the same dates in Cardiff.³

At enumeration-district level, the rank order of migrant segregation indices remains unaltered, apart from the reversal of the two most segregated groups, the Ireland-born and the Overseas-born. There is also a high degree of stability in the relative intervals between indices. The general level of segregation, however, has fallen for all groups apart from the Ireland-born, who have become considerably more segregated. This suggests that the Irish have remained largely confined to the Greenhill area, resulting in an increase in the number of spatial units from which they are excluded as the town expands.

The Overseas-born, the Rest-of-England-born and the Local-born have also experienced non-marginal reductions in segregation. In the case of the Overseas-born and the Rest-of-England-born, the comparatively large increase in their number will have facilitated the reduction in their segregation. The reduction in the Rest-of-England-born segregation, however, has more to do with changes in the class structure of the group. The decline in the degree of segregation of the local-born must be due partly to the progressive increase in the proportion of second and subsequent generation migrants among its number. The reduction in Local-born segregation is not, however, sufficient to place the group below the Rest-of-Wales-born in the rank order of segregation levels, the Rest-of-Wales-born also having become less segregated. This continued lower level of segregation among the Rest-of-Wales-born than the Local-born is somewhat surprising in view of the fact that any 'culturally-local' element among the Local-born will be well submerged by 1871 and large numbers of locally-born children will be present, even in newly-settled migrant areas. The situation, however, may have much to do with the continued, though reduced, domination of the outer borough by the Local-born (the Local-born have become marginally the least segregated group in the town) and the inevitable concentration of the Local-born in the older areas of the town which have been settled for more than a generation. Such segregation, therefore, has little to do with either positive or negative cultural or socio-economic characteristics of birth-place groups but is a natural consequence of the rapid growth of the town. The persistently-low segregation-level of the Rest-of-Wales-born, on the other hand, possibly indicates that it is still a culturally diverse group with segregation among its constituent parts cancelling out segregation at the aggregate level. Another factor is, undoubtedly,

the large number of Rest-of-Wales-born individuals found living in households headed by members of other birthplace groups.

At grid-square level in the town, two adjacent pairs of migrant groups have exchanged rank-order placings, the Local-born having replaced the Rest-of-Wales-born as the least segregated group and the Rest-of-England-born having become less segregated than the South-West-England-born. Both changes are, however, marginal and little emphasis can be placed on them, though plausible explanations for the reversals do emerge from the subsequent analysis. It will be noticed that the Ireland-born and Overseas-born rank-order placings agree with the 1871 enumeration-district placings and the reversal of the two in 1851 at enumeration-district level may be due to a lack of Overseas-born in the outer borough which has largely disappeared by 1871.

Two birthplace groups, whose segregation indices have declined in the borough as a whole, have increased their degree of segregation in the town. These are the Rest-of-Wales-born and the South-West-England-born and, in both cases, this could indicate an increased outer-borough presence. It is interesting, however, that, while the percentage-point changes at grid-square level in the town are different from those at enumeration-district level in the borough, and two indices declining in the borough have increased in the town, there is congruence between the two sets of data according to the rank order of changes on a positive-negative continuum and also approximate agreement on the rank-intervals.

Preliminary scanning of the indices of segregation, therefore, suggests a greater migrant presence in the outer-borough, except in the case of the Irish, whose segregation has further intensified. Within

the town, it suggests a less segregated residential distribution for the Rest-of-England-born and fairly stable levels of segregation for all other birthplace groups, other than the Irish. The rank order of segregation indices has remained broadly similar with the Ireland-born and the Overseas-born remaining the most highly segregated groups and the Local-born and the Rest-of-Wales-born remaining the least segregated. The next section explores how this segregation is expressed in the spatial pattern of residential location.

4. The changing residential location of birthplace groups

The residential distribution of the six major birthplace groups is illustrated at enumeration-district level for the Municipal Borough in 1871 in Figures 11.1-11.6 and at 200 metre grid-square level for the built-up area of the town in 1871 in Figures 11.7-11.12. As in the social-class distributions illustrated in the previous chapter, the thicker lines on the 1871 grid delimit the extent of the 1851 grid. The 1851 grid-square distributions appear in Figures 8.15-8.20.

Indices of dissimilarity among migrant groups are detailed in Tables 11.5 and 11.7 at enumeration-district level and grid-square level, respectively, and percentage-point differences between these indices and the 1851 indices are given in Tables 11.6 and 11.8. The comments regarding such comparisons made in connection with the segregation indices are equally relevant here.

(a) The Local-born

Analysis of the residential distribution of the Local-born serves to highlight those areas of the borough where current or recent in-migration was not strongly present. It does not serve to identify

Figure 11.1 : Distribution of the population born within the borough as a percentage of the total population:1871, enumeration districts

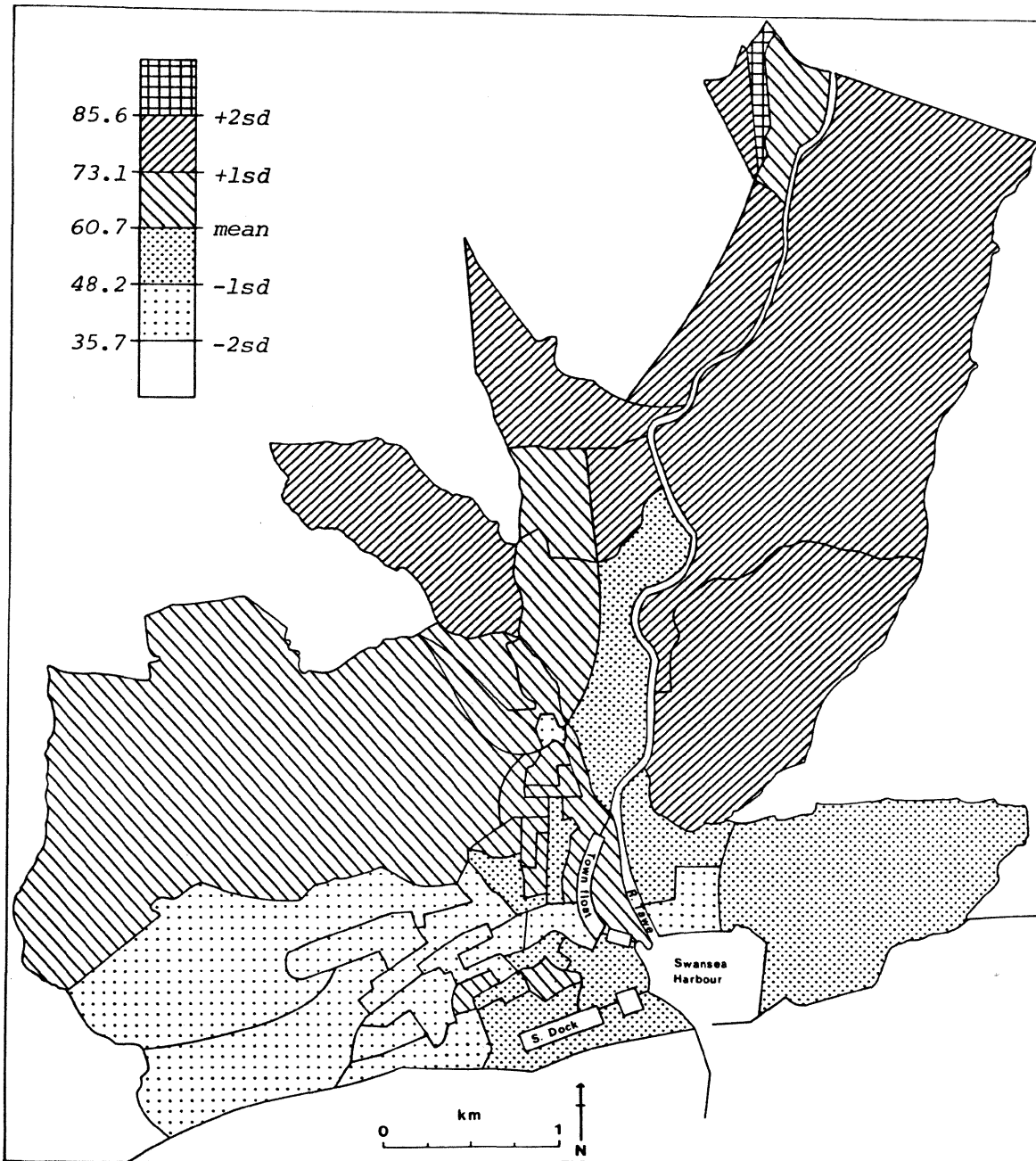


Figure 11.2 : Distribution of the population born in Wales outside Swansea Municipal Borough as a percentage of the total population:1871, enumeration districts

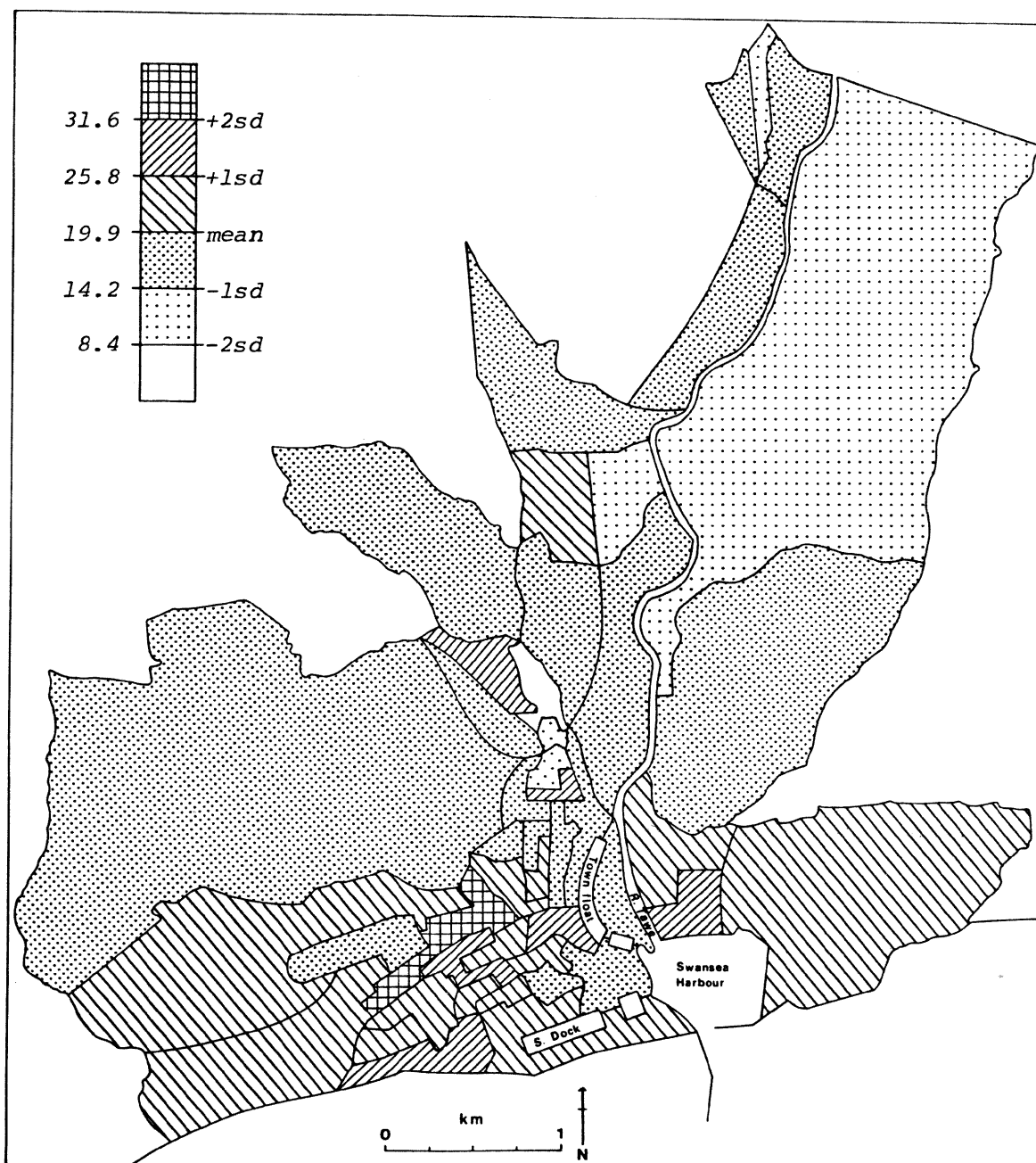


Figure 11.3 : Distribution of the population born in South-West England as a percentage of the total population: 1871, enumeration districts

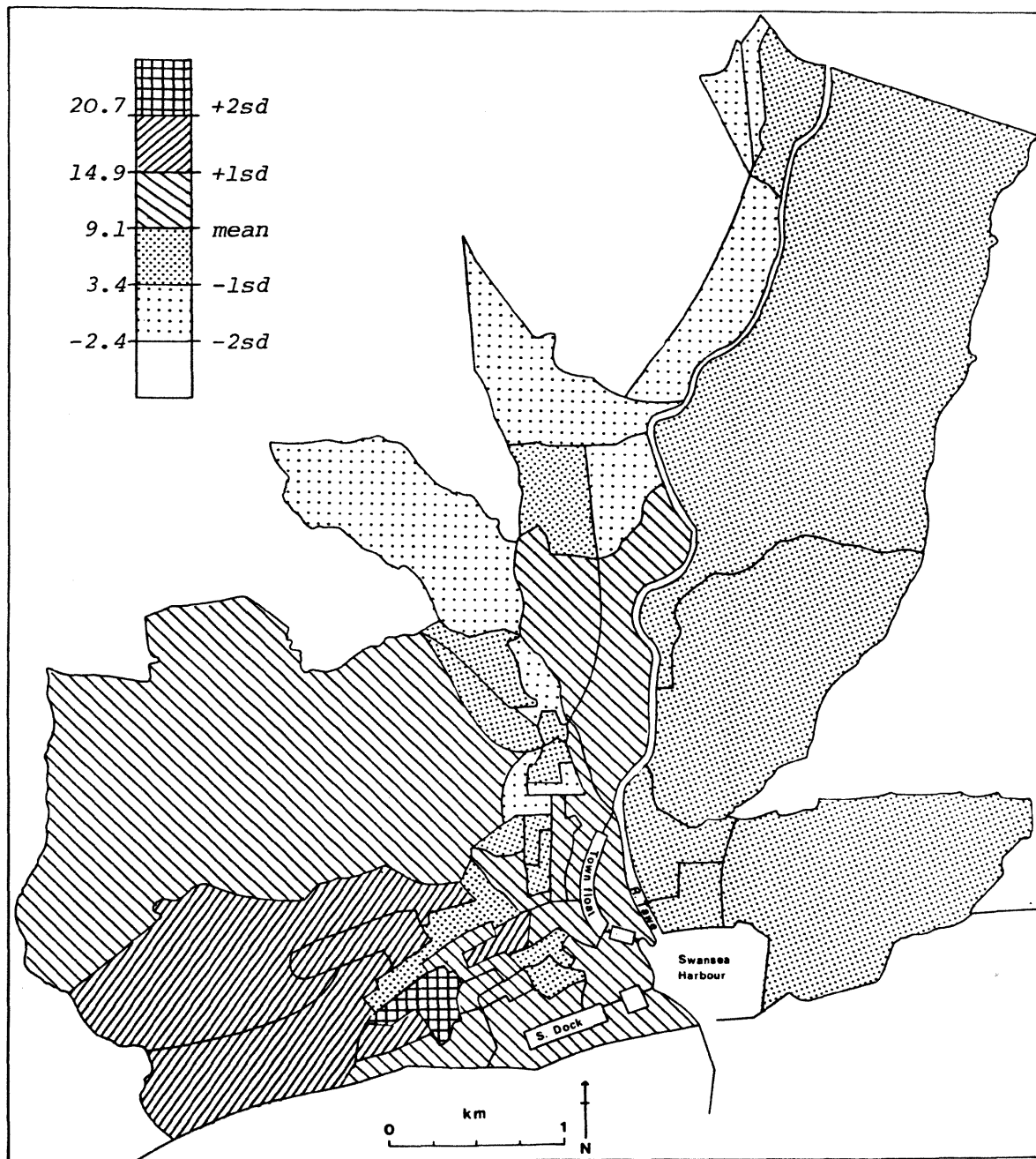


Figure 11.4 : Distribution of the population born in England outside South-West England as a percentage of the total population:1871, enumeration districts

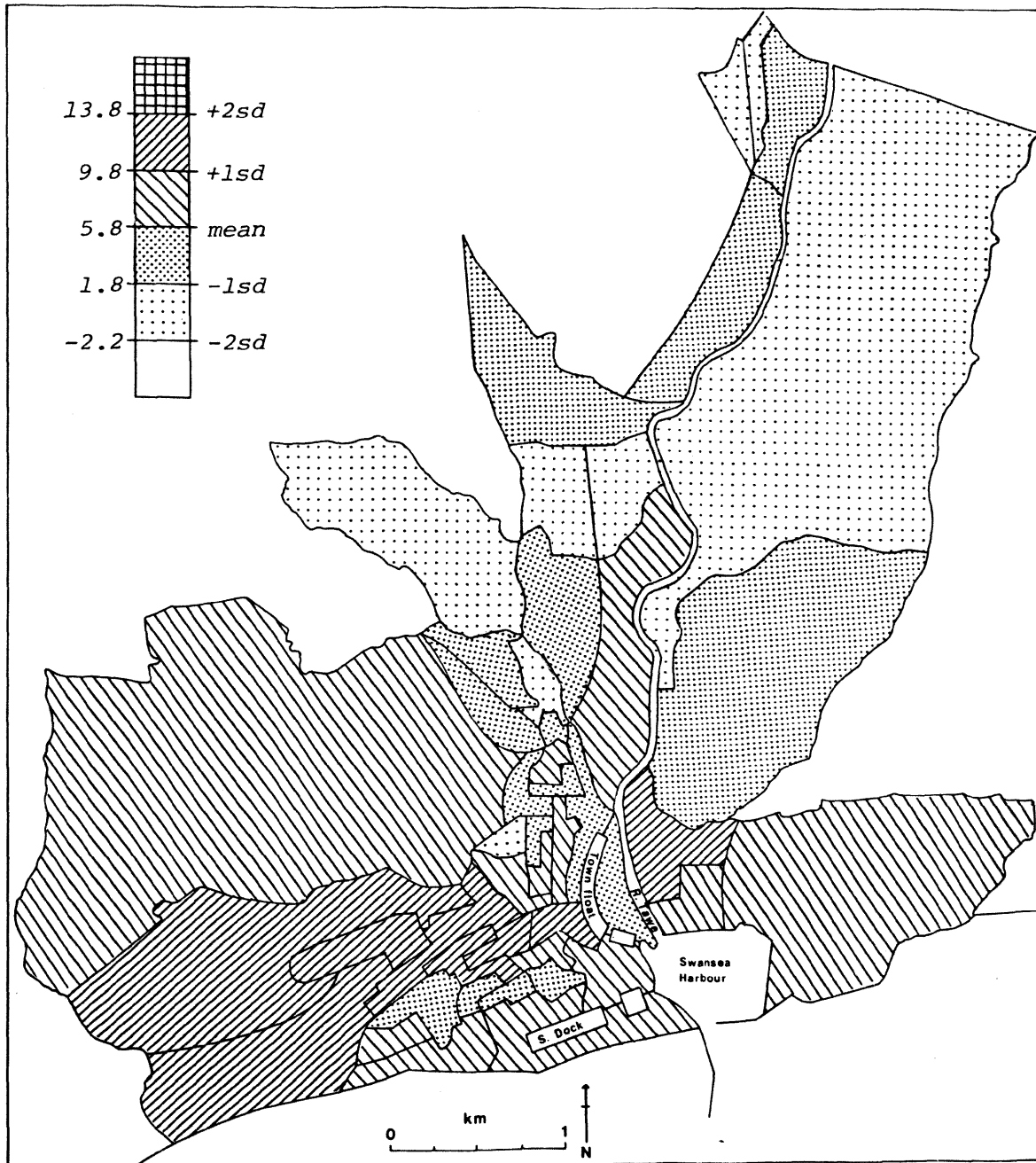


Figure 11.5 : Distribution of the population born in Ireland as a percentage of the total population:1871, enumeration districts

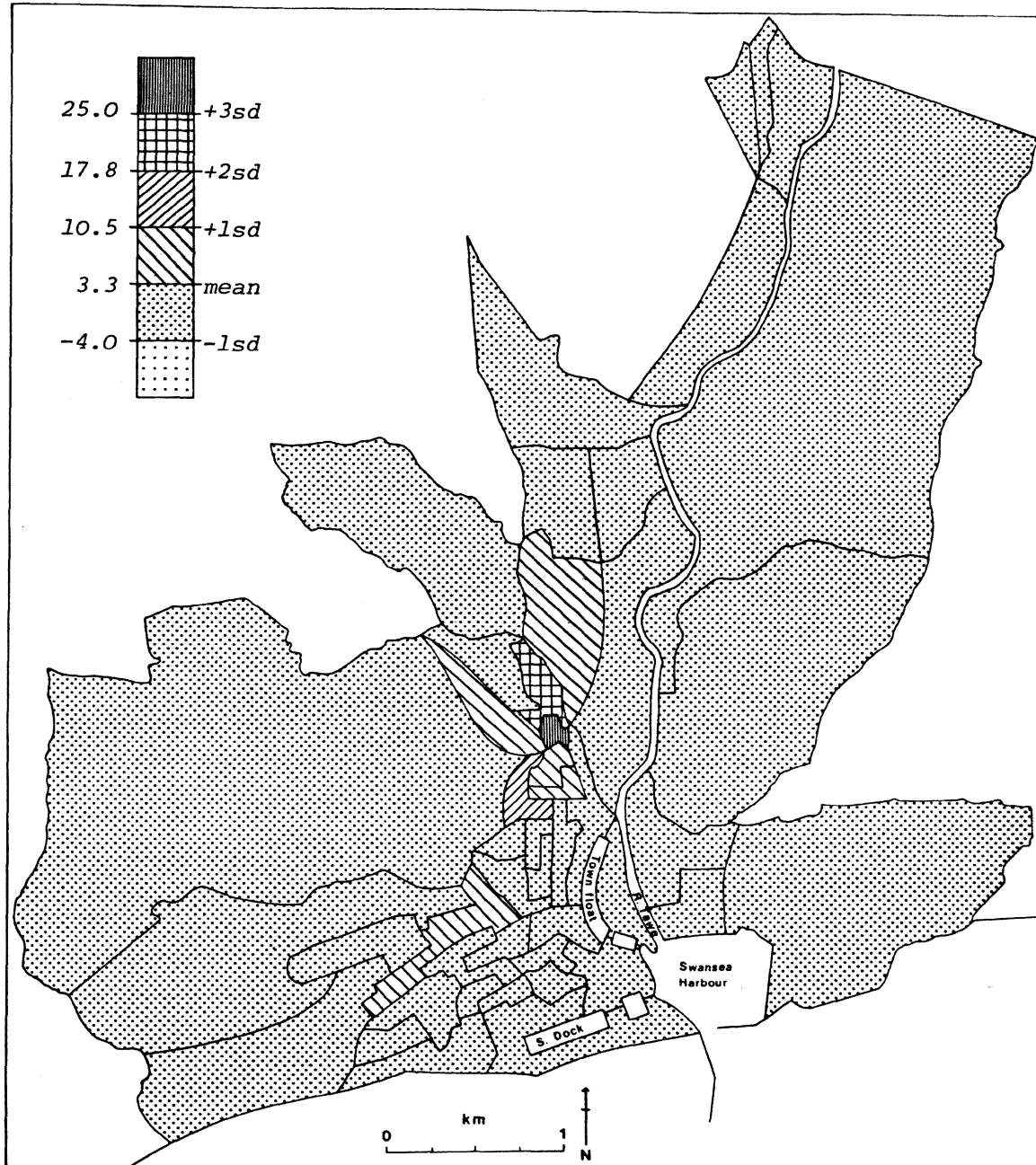


Figure 11.6 : Distribution of the population born Overseas as a percentage of the total population:1871, enumeration districts

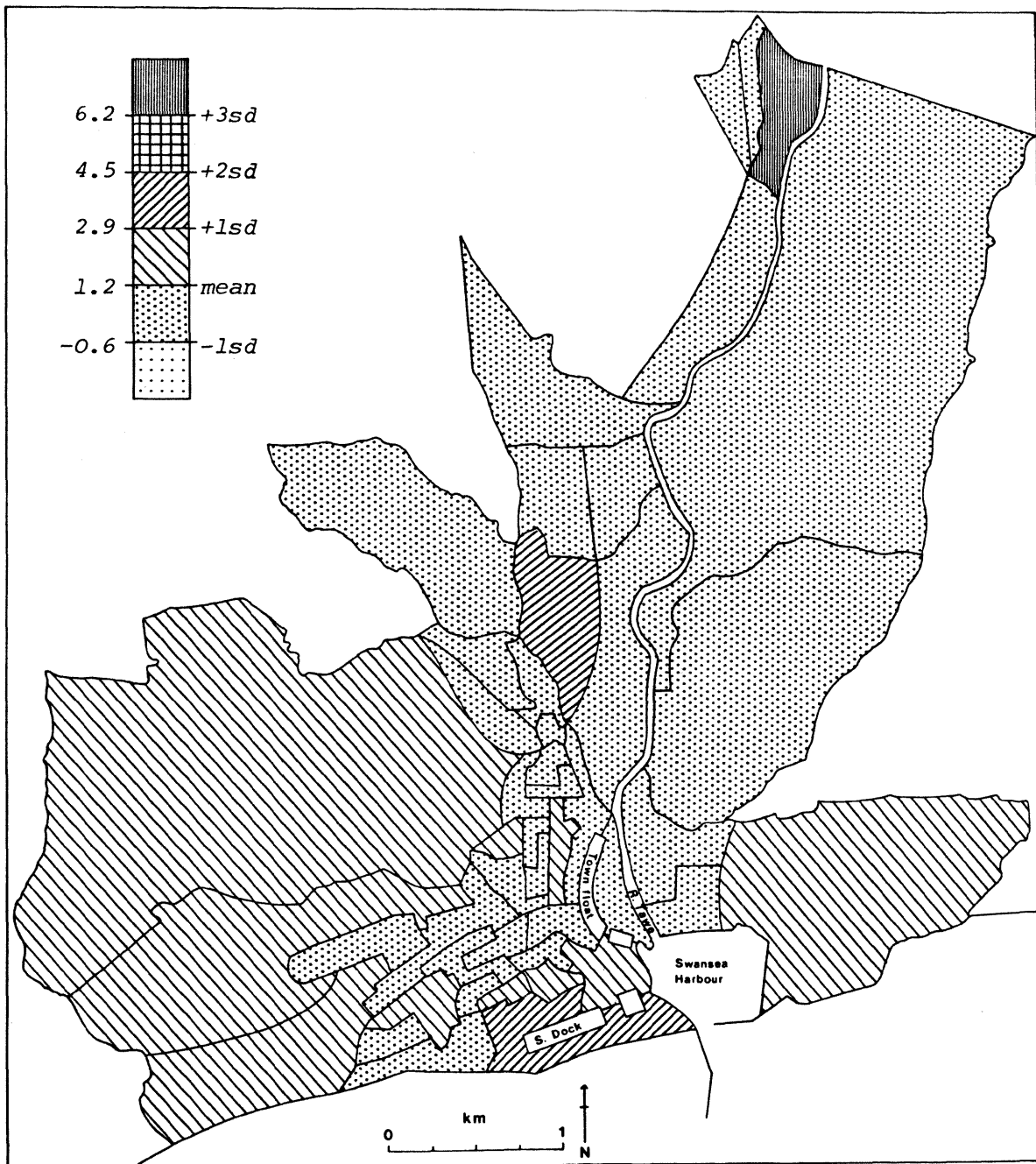


Figure 11.7 : Distribution of the population born within the borough as a percentage of the total population: 1871, grid

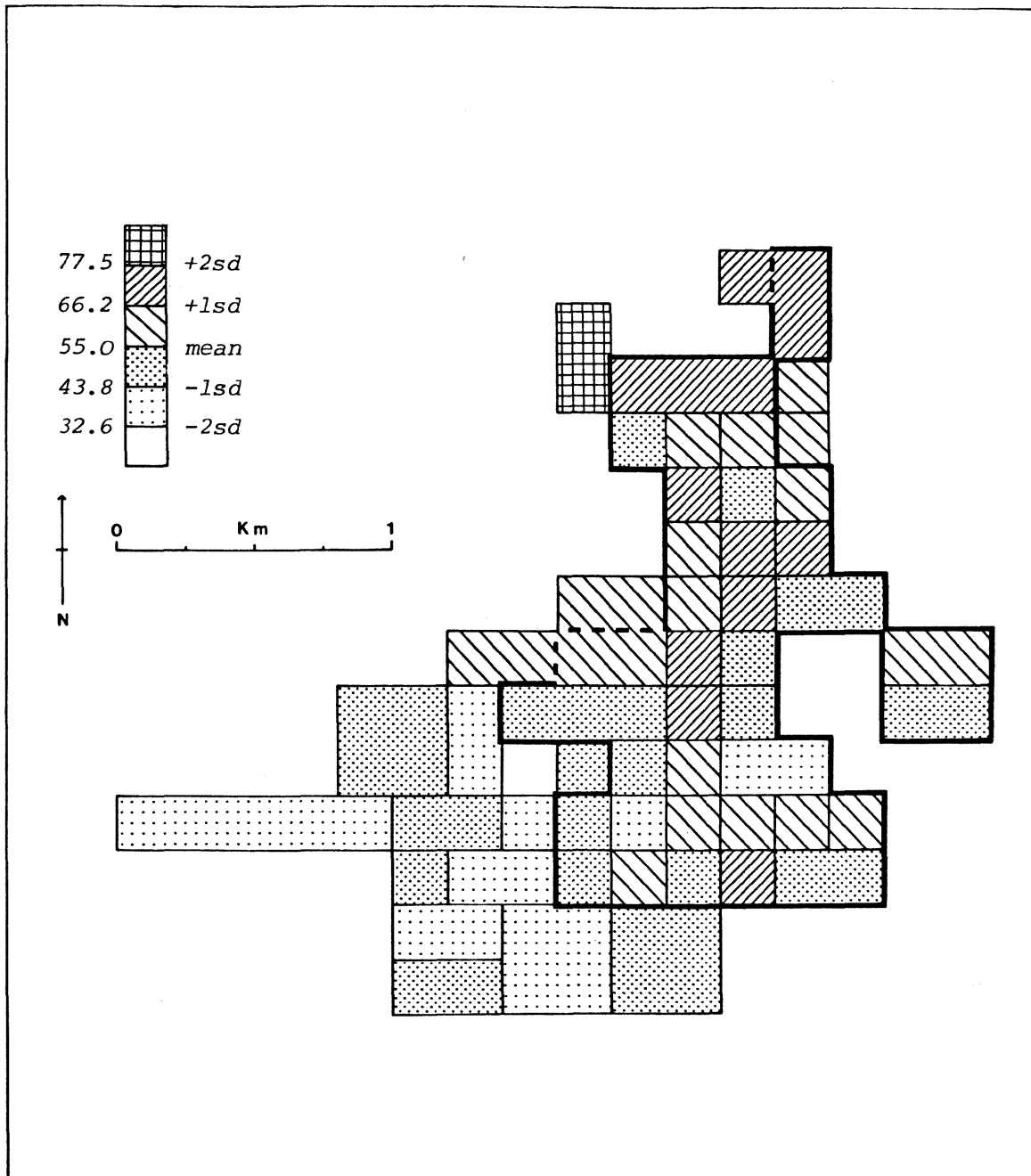


Figure 11.8 : Distribution of the population born in Wales outside Swansea Municipal Borough as a percentage of the total population : 1871, grid

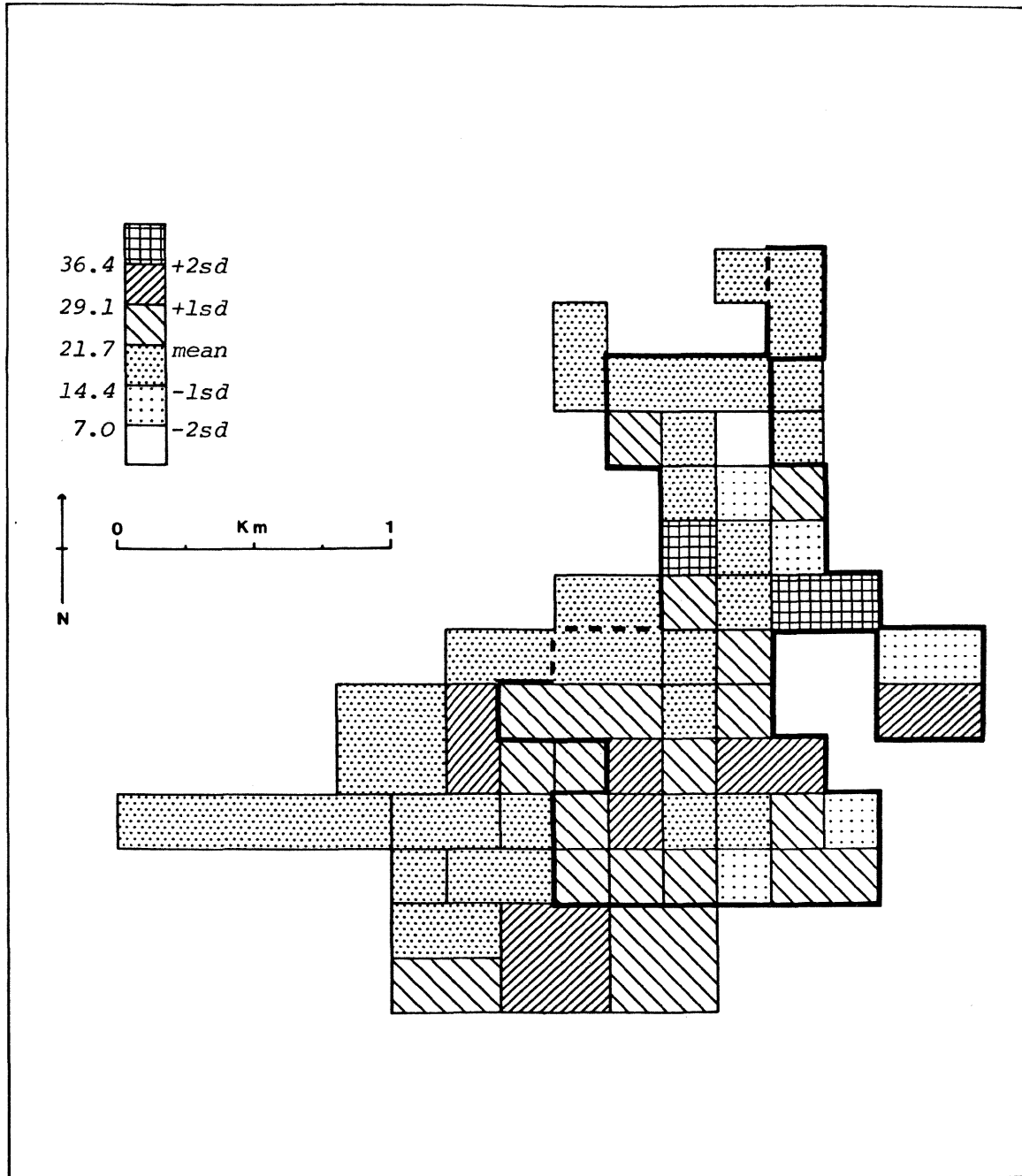


Figure 11.9 : Distribution of the population born in South-West England as a percentage of the total population: 1871, grid

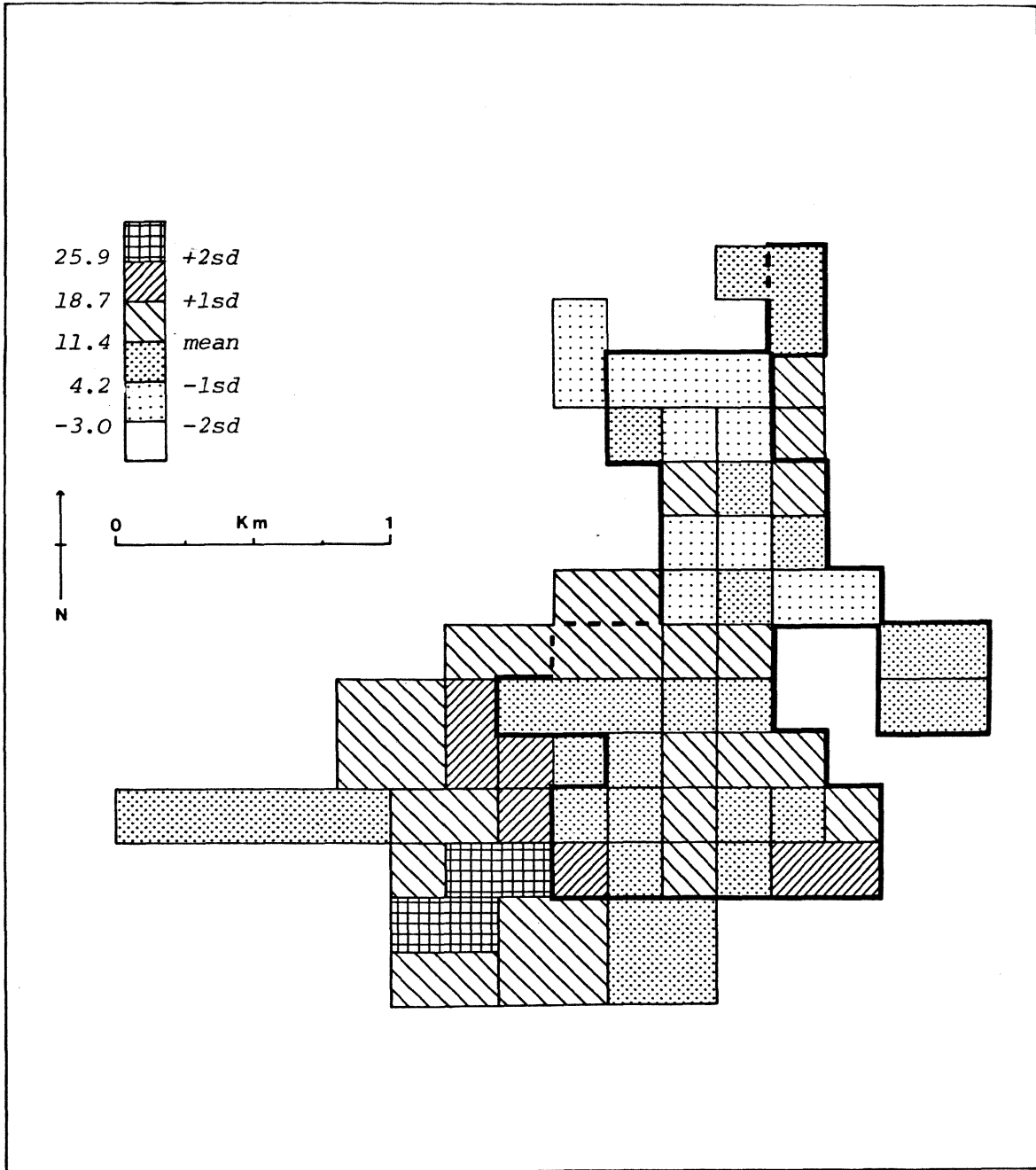


Figure 11.10 : Distribution of the population born in England outside South-West England as a percentage of the total population:1871, grid

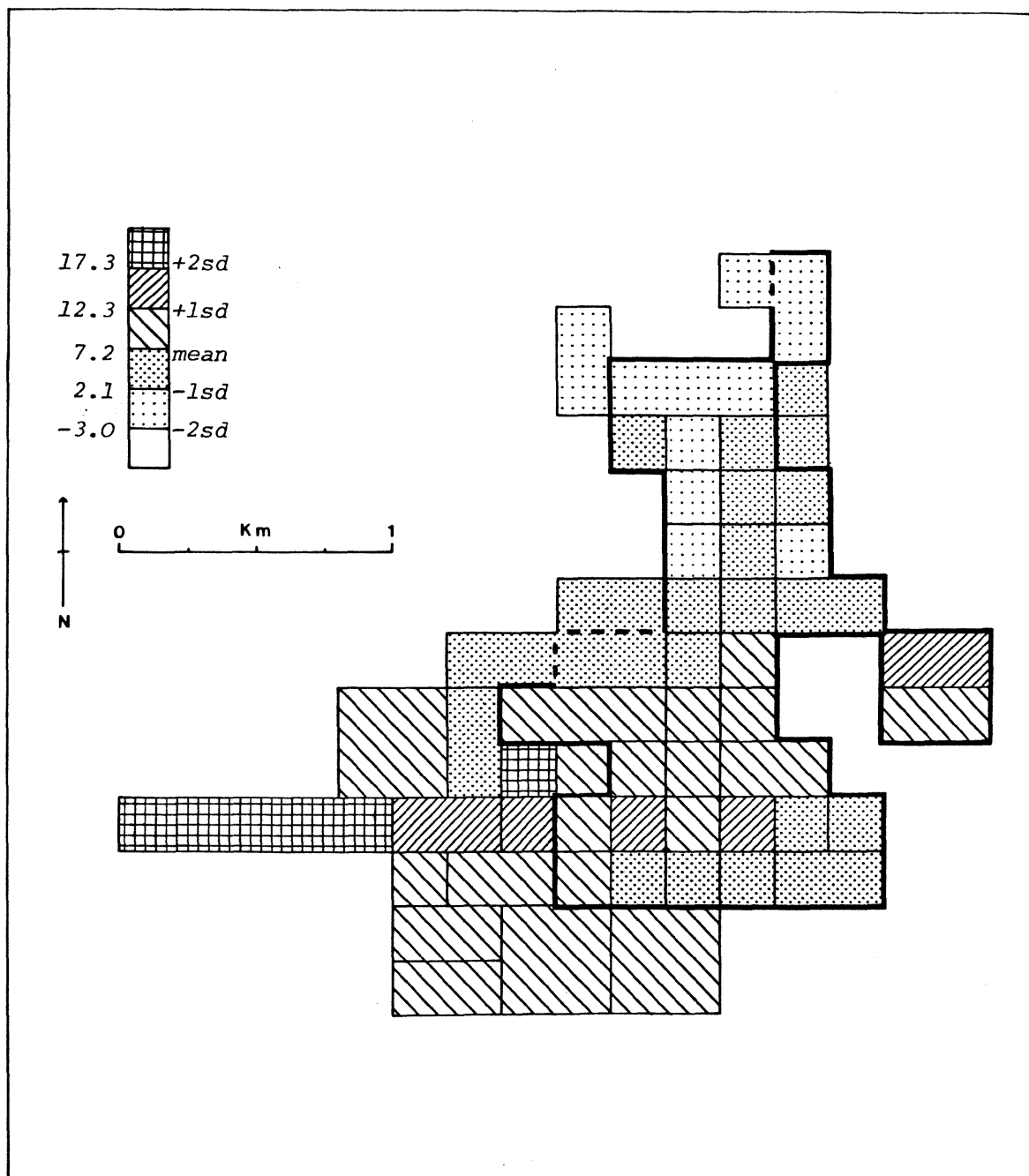


Figure 11.11 : Distribution of the population born in Ireland as a percentage of the total population:1871, grid

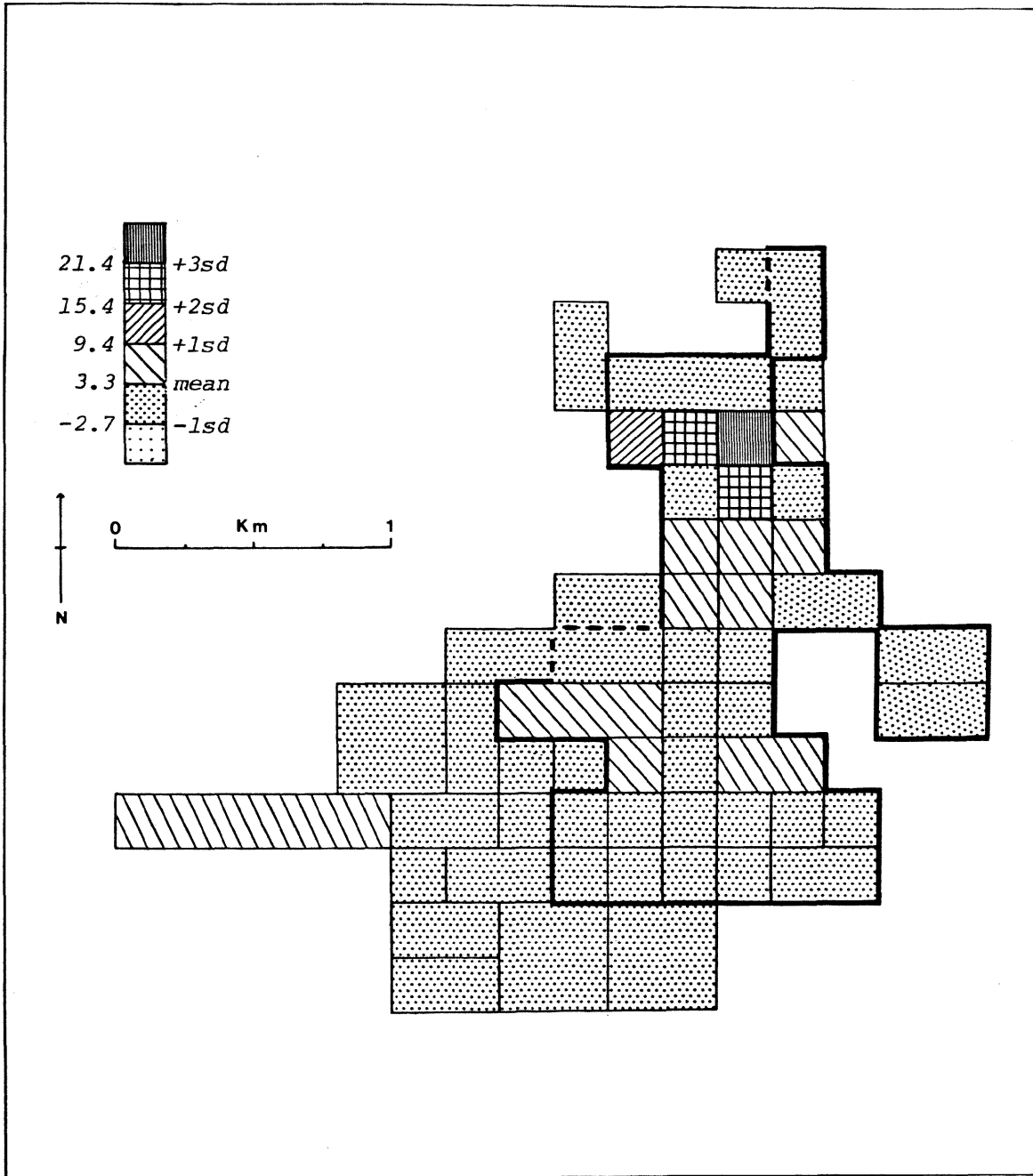


Figure 11.12 : Distribution of the population born Overseas as a percentage of the total population:1871, grid

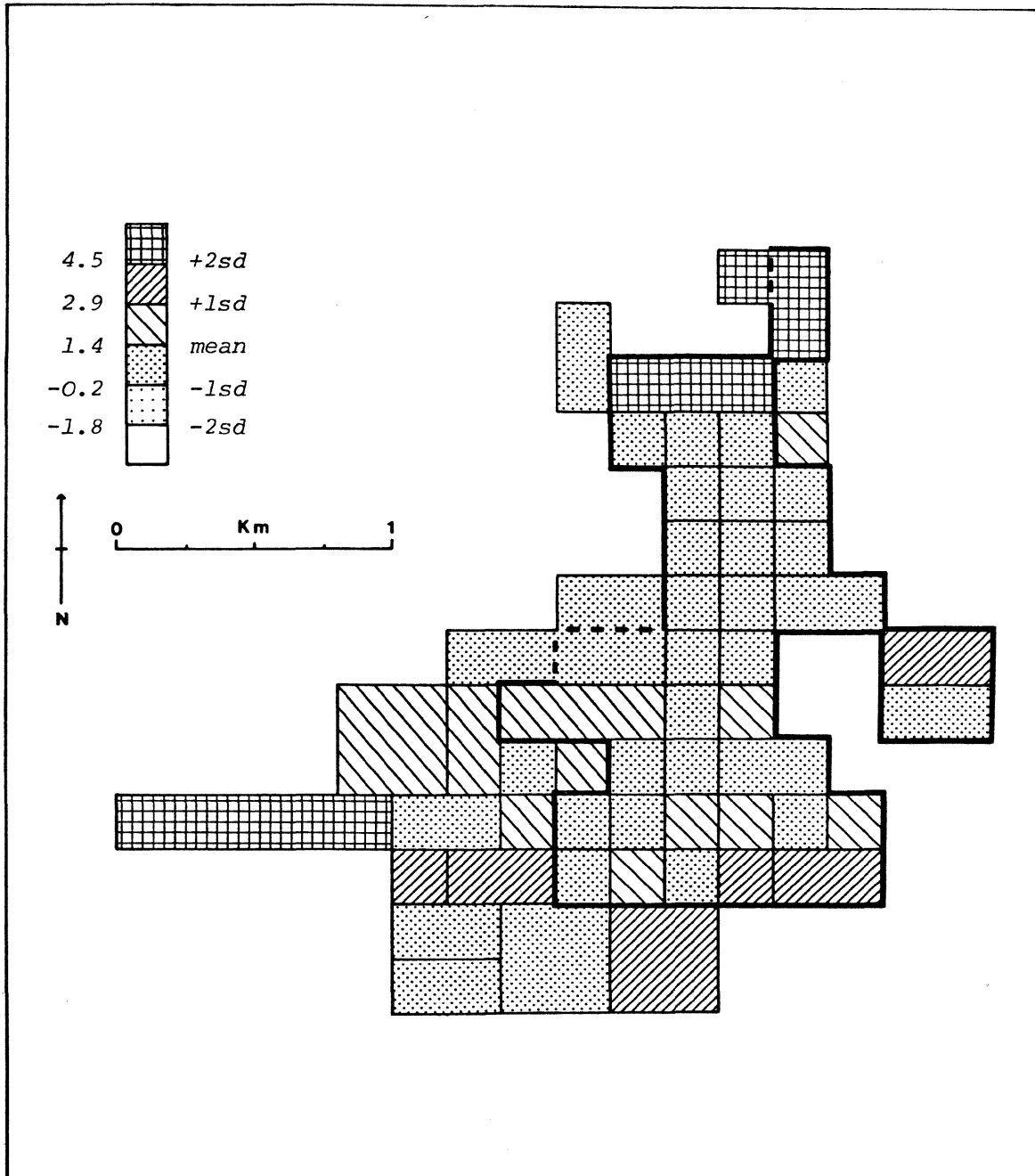


Table 11.5

Indices of dissimilarity between major birthplace groups at enumeration-district level : Municipal Borough, 1871

<u>Birthplace Group</u>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Local-born	-	18.03	30.54	37.32	58.65	46.43
(2) Rest-of-Wales-born	18.03	-	20.26	23.96	60.67	44.84
(3) South-West-England-born	30.54	20.26	-	21.54	67.10	38.64
(4) Rest-of-England-born	37.32	23.96	21.54	-	62.94	47.31
(5) Ireland-born	58.65	60.67	67.10	62.94	-	73.24
(6) Overseas-born	46.43	44.84	38.64	47.31	73.24	-

Table 11.6

Percentage-point differences in the indices of dissimilarity between major birthplace groups in 1851 and 1871 at enumeration - district level for the Municipal Borough

<u>Birthplace Group</u>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Local-born	-	-3.98	-6.48	-6.59	+10.37	-8.55
(2) Rest-of-Wales-born	-3.98	-	-1.08	-4.48	+11.59	+1.07
(3) South-West-England-born	-6.48	-1.08	-	-7.50	+ 8.71	-4.75
(4) Rest-of-England-born	-6.59	-4.48	-7.50	-	+ 1.90	+13.19
(5) Ireland-born	+10.37	+11.59	+8.71	+1.90	-	+ 2.72
(6) Overseas-born	-8.55	+1.07	-4.75	+13.19	+ 2.72	-

Table 11.7

Indices of dissimilarity between major birthplace groups at
200 metre grid-square level : Town only, 1871

<u>Birthplace Group</u>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Local-born	-	19.67	27.94	29.65	51.93	46.14
(2) Rest-of-Wales-born	19.67	-	24.50	23.16	58.93	47.37
(3) South-West-England-born	27.94	24.50	-	25.45	65.78	47.11
(4) Rest-of-England-born	29.65	23.16	25.45	-	61.67	43.70
(5) Ireland-born	51.93	58.93	65.78	61.67	-	73.46
(6) Overseas-born	46.14	47.37	47.11	43.70	73.46	-

Table 11.8

Percentage-point differences in the indices of dissimilarity
between major birthplace groups in 1851 and 1871 at 200 metre
grid-square level for the town

<u>Birthplace Group</u>	(1)	(2)	(3)	(4)	(5)	(6)
(1) Local-born	-	+2.71	+0.23	-1.43	+5.54	-0.25
(2) Rest-of-Wales-born	+2.71	-	+1.66	-3.35	+6.30	-2.75
(3) South-West-England-born	+0.23	+1.66	-	-1.25	+7.01	+0.36
(4) Rest-of-England-born	-1.43	-3.35	-1.25	-	-4.37	-1.66
(5) Ireland-born	+5.54	+6.30	+7.01	-4.37	-	+3.15
(6) Overseas-born	-0.25	-2.75	+0.36	-1.66	+3.15	-

areas defended by a culture-conscious, indigenous population.

Identification of the areas which were dominated by the Local-born twenty years (i.e. almost 1 generation) earlier, however, does allow differentiation between the 1871 areas which are long-standing local strongholds and those which were largely migrant reception-areas in the recent past and which can be assumed to be composed largely of second generation migrants and their children. The presence of such 'second generation migrant-areas', however, implies that a tendency for the children of migrants reaching adulthood to establish households in the immediate area, rather than move to the newer housing-areas, must have been present, removing the tendency for housing to become available for subsequent waves of migrants. However, in a town where the population was expanding at a far greater rate than could be achieved by natural increase, the newer areas must always be heavily dominated by migrants and the older areas by locals, unless a very strong centripetal movement of households, in all life-cycle stages, already living in the town is present, leaving a continually replenished reservoir of available housing at the centre. While such a situation may occur in a sedately-expanding, urban area, it is very unlikely to exist in a town where the population is doubling every twenty years or so.

The 1871 Local-born distribution, therefore, can largely be seen as a reflection of the length of time that various areas have been settled. In the outer borough, those areas which saw the most rapid building in the previous twenty years have markedly lower percentages of Local-born (Hafod E.D. 36, 37, Pentre E.D. 39, St. Thomas E.D.31-33) and in the town, the strongest Local-born areas are in the oldest

parts of the north, to the east and west of High Street (Orchard Street (E.D: 15), Queen Street (E.D. 18), Mariner Street (E.D. 17), Powell Street (E.D. 20)) and south of the commercial core (Wassail Street (E.D. 2)). All of these areas, except Wassail Street, had strong Local-born presences in 1851 and, if any identity-conscious, local population does still exist as descendants of a relatively stable, pre-industrial, merchant-town population, then it is in these areas that they are liable to be found. Identification of these areas, however, reveals that they are not simply old areas of the town, they are the oldest lower-class areas of the town. High Street, the commercial core and Wind Street have lesser Local-born percentages and yet stem from an earlier date. It is noticeable that the marked relative absence of the Local-born in the high-class Burrows area in 1851 is matched by a marked absence from the post-1851 western prestige suburbs in 1871, and the slight increase in the Local-born presence on the Burrows, between 1851 and 1871, may have more to do with its decline as a high-class neighbourhood than with its increasing age as a residential area. The intensification of the commercial activity in the Central Business District and the concomitant increase in social class 2 households may also have contributed to the marked Local-born decline in Grid-square 36/37.

An association between the Local-born and an absence of upper-class members was noted in 1851 and it seems that the Local-born still retained a lower-class bias, despite a much greater dilution of its ranks by second generation migrants from more economically-successful birthplace groups. Table 11.9 gives a class breakdown of birthplace groups in 1851 and 1871 and confirms that the situation found in 1851, in which the Local-born had the lowest percentage of its number in

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Table 11.9

Social-class composition of major birthplace groups, 1851
and 1871 compared : Municipal Borough

	Per cent		
<u>1871</u>			
<u>Birthplace</u>	<u>Social Classes</u> <u>1 & 2</u>	<u>Social Classes</u> <u>3 & 4</u>	<u>Social Class</u> <u>5</u>
Local	11.35	74.84	13.80
Rest-of-Wales	15.21	69.88	15.21
South-West-England	18.96	59.80	21.24
Rest-of-England	28.74	62.06	9.20
Ireland	3.33	32.50	64.17
Overseas	23.33	70.00	6.67
All	15.53	66.94	17.53
<u>1851</u>			
Local	14.55	71.52	13.93
Rest-of-Wales	15.09	70.75	14.15
South-West England	22.48	66.68	10.85
Rest-of-England	41.04	44.12	14.71
Ireland	4.17	35.42	60.42
Overseas	25.00	66.66	7.69
All	17.52	67.30	15.18

classes 1 and 2, excepting the Irish, has persisted through to 1871 and the percentage in the upper two classes has, in fact, declined. The Local-born has, however, a lesser percentage of persons in social class 5 than the population as a whole and the group is predominantly a skilled and semi-skilled working-class group. As the figures relate to the borough, some of this bias towards the central classes is due to the predominance of the Local-born in the class 3 and 4 dominated metal-works section of the outer borough. Part of the upper-class deficiency among the Local-born is also attributable to the fact that the majority of the Irish who were born outside Ireland and are living in Swansea in 1871 are found among the Local-born group. (The local-born sample presence in Grid-square 74, the heart of the Irish 'ghetto', rose from 19 to 146 (14.8 per cent to 57.0 per cent) between 1851 and 1871). The presence of second generation Irish does not, however, seem to have noticeably augmented the Local-born labouring percentage and one is left with the conclusion that those persons born locally, as a whole, were less enterprising than their migrant counterparts. This does not mean, however, that the Local-born formed a small minority of classes 1 and 2, since the size of the Local-born group, combined with the relatively small size of classes 1 and 2, means that the Local-born are the largest constituent part of these classes. However, their class 1 and 2 percentage is lower than not only other smaller birthplace groups but also lower than for the population as a whole. A similar situation has been identified for Cardiff at the same date where the Local-born were found to have a lower class-profile than all other birthplace groups except the Irish.⁴ In Ramsgate, the Local-born were strongly associated with class 3 but tended to live in the poorer areas among classes 4 and 5, the better working-class areas being left to migrants.⁵

The Locally-born group, therefore, does retain different characteristics to the migrant population and, although its segregation is primarily a natural consequence of the rapid growth of the town and the concomitant absorption of the steady stream of migrants into its burgeoning, poorly-built suburbs, some bias unconnected with such physical growth is apparent. The lower-class bias in the group favoured the north of the town in 1851 but, despite the class degeneration of the Sandfields, this northern bias is still markedly present in 1871 and is underlined by the fact that some northern squares, which are newly colonised in 1871, or which are peripheral 1851 squares which saw considerable new development, have above-average, Local-born presences (Grid-squares 69, 70, 73, 77) and, in a few cases, well above-average Local-born presences (Grid-squares 72, 78/79/80, 81/83). This shows that the Local-born distribution is not merely a consequence of the longevity of settlement in an area combined with a lower-class bias among the group and suggests that the natural increase in the Local-born population, whether truly local or subsequent generation migrant, was being retained in the expansion areas of the north of the town.

In summary, therefore, the Local-born derive the major part of their segregation from the fact that the bulk of the town's population expansion was due to in-migration and the vast majority of new households were accommodated in newly-built, suburban accretions, the capacity of the old area of the town to absorb new building having been long exhausted. Within the town, therefore, the oldest areas are those with the highest Local-born presence and those areas which in 1851 were migrant-dominated, in many cases, by 1871 have achieved an above-average Local-born presence due to the retention within them of second and subsequent generation migrants (e.g. Grid-squares 15, 17, 25, 64, 70).

Since most of the oldest neighbourhoods are in the north of the town, this sector possesses the strongest Local-born presence and this is reinforced by the fact that the pre-1851 neighbourhoods in the north of the town absorbed fewer new households through subdivision than did the pre-1851 neighbourhoods of the south (Fig. 10.1). This undoubtedly allowed greater absorption of migrants into the established areas of the south than the established areas of the north. However, two factors distort this pattern. First, the Local-born have a lower-class bias and they are, therefore, relatively absent from the high-class areas of the town, old or new. Second, the natural increase achieved by the Local-born led to the colonisation of newly-developed grid-squares adjoining the Local-born, north-town stronghold, implying that a preference existed among the Local-born population for remaining in the neighbourhood of birth.

(b) The Rest-of-Wales-born

The Wales-born migrants form almost exactly half of all migrants and a fifth of the total population in both 1851 and 1871. As a consequence, in no enumeration district outside the Irish quarter do they form less than 10 per cent of the total population and they have a low segregation index and comparatively-low dissimilarity indices with all birthplace groups, other than the highly-concentrated Irish and foreign groups. While the group is found in appreciable numbers all over the borough, however, it does possess some marked concentrations. There is no particular pattern to these concentrations, however, and they occur in the commercial core, the western prestige area, the Sandfields, the northern suburbs and two newly-developed areas of the suburbanised outer borough (Cwmbwrla, St. Thomas). It seems that, as

in 1851, there may be a tendency for the Wales-born migrant sub-groups to form concentrations in different areas of the borough, which at the aggregate level cancel out segregation.

A few preliminary observations on the 1871 distribution of the Wales-born migrant group as a whole are worth making, however, prior to discussion of the distribution of the subgroups. There are four major changes in the distribution of the group as a whole between 1851 and 1871: firstly, the group, while still biased towards the town, has made substantial inroads into the outer borough; secondly, within the area of the 1851 town, there has been an exodus from the Burrows and an influx into the commercial core and adjacent areas, involving substantial absolute and relative increases in Grid-squares 41/42, 43, 44, 34, 35; thirdly, the Welsh-born presence on the 1851 Sandfields has remained remarkably stable in percentage terms implying that migration into the area, much of which could have been absorbed by subdivision, continued over the period; finally, in the new areas of the town, the Wales-born migrants have established a strong presence in the south-western Sandfields and in the Mansel Street/Christina Street/St. Helens Road area (E.D.13). The intensification of the Rest-of-Wales-born presence in the commercial core and the high concentration in E.D.13 (31.8 per cent) suggests an association between the Rest-of-Wales-born and social classes 1 and 2. Table 11.9 does, in fact, reveal that the Rest-of-Wales-born are the only birthplace group to increase their class 1 and 2 percentage between 1851 and 1871, but, at both dates, they have a lesser percentage than the English and Foreign migrants. For the larger birthplace groups, however, bias in the group as a whole towards the upper two classes is not necessary for concentration in prestige

areas to occur since these areas form a small minority of areas and only a small proportion of the larger birthplace groups is required to achieve high percentages in them.

As in 1851, five subgroups of the Welsh migrant-group suggest themselves for analysis, these being the Gower-born, the Pembrokeshire-born, the Glamorgan-born outside Swansea and Gower (referred to as the Rest-of-Glamorgan-born), the Carmarthenshire-born and the population born in the remainder of Wales (referred to as the East-Mid-and-North-Wales-born) the largest constituent parts of which come from Monmouthshire and North-East Wales. The first three of these subgroups are considered to originate from more Anglicised areas of Wales than the latter two. As previously noted, the distribution of these groups can only be analysed on the basis of heads-of-household, and the following discussion, therefore, refers to that section of the population.

Starting with the 'Anglicised' Wales-born groups, the Pembrokeshire-born remain a highly-segregated group, their main area of concentration occurring in the poor-quality housing around Bethesda Street (E.D.21) in the north of the town, where 23.1 per cent of all heads are Pembrokeshire-born, compared with 4.6 per cent in the borough as a whole. Other lesser concentrations occur in St. Thomas/Port Tennant (E.D.s 31, 32, 33), where 10.4 per cent of heads are Pembrokeshire-born, and the Madoc Street area in the centre of the Sandfields (E.D.9), where 11.5 per cent of heads are Pembrokeshire-born. In both 1851 and 1871 their distribution is obviously class-related. In 1871, 24.1 per cent of Pembrokeshire-born heads fall into class 5, a higher percentage than for any analysed group other than the Irish. They also have the distinction of having the third-lowest percentage in classes 1 and 2, the Llansamlet

Table 11.10

Social-class composition of the head-of-household population
by major birthplace groups and Welsh subgroups : Municipal
Borough, 1871

<u>Birthplace</u>	Per cent		
	<u>Social Classes 1 & 2</u>	<u>Social Classes 3 & 4</u>	<u>Social Class 5</u>
Swansea	14.22	68.88	16.89
Llansamlet & Llangyfelach	4.95	88.12	6.93
Gower	11.39	72.15	16.46
Rest-of-Glamorgan	21.68	66.26	12.05
Carmarthenshire	14.91	72.37	12.71
Pembrokeshire	9.20	66.66	24.14
East, Mid & North Wales	18.84	73.91	7.25
South-West England	18.96	59.80	2.24
London	42.86	53.57	3.57
Rest-of-England	26.03	63.70	10.27
Ireland	3.33	32.50	64.17
Overseas	23.33	70.00	6.67

and Llangyfelach-born and the Ireland-born having lower percentages (Table 11.10). The south-town bias of the Pembrokeshire-born at mid-century has disappeared, however, only 47 per cent of Pembrokeshire-born heads living south of the northern edge of grid-squares 47-51 (excluding squares east of the river), compared with 57 per cent of all heads.

The Gower-born, like the Pembrokeshire-born, were highly concentrated in 1851, in this case in the William Street/Gam Street area of the Sandfields and they remain so in 1871. Despite the large increase in the population of the town, the smallness of the source area and the extent to which migration had already taken place in 1851, the Gower-born have increased their percentage presence in the borough from 3.9 per cent of heads in 1851 to 4.4 per cent in 1871. The William Street concentration has extended southwards into Bathurst Street, westwards into Madoc Street and eastwards into Garden Street. In only one north-town enumeration district (Carmarthen Road (E.D. 25)) does the Gower-born percentage rise above its percentage for the borough as a whole and, in some districts, Gower-born heads are absent. There is, however, a slightly above-average Gower presence in two outer-borough settlements, Vivian's Town and Pentre. The Gower-born, like the Pembrokeshire-born, have a class profile inferior to the population as a whole and their distribution reflects an avoidance of higher-class residential areas. Unlike the Pembrokeshire-born, however, they retain a distinct preference for the 'English', southern part of the town.

In contrast to the Gower and Pembrokeshire-born, the Rest-of-Glamorgan-born are most heavily represented in the outer borough, as indeed they were in 1851, but within the outer borough they are mostly confined to Landore, Treboeth and Morryston, the first of these being the most important. The above-average presence in St. Thomas in 1851 has disappeared by 1871 due to the massive increase in the population of this area between the two dates. Within the town, they are best represented in the higher-class areas, Mansel Street, Walter Road and Uplands (21.7 per cent of their heads fall into classes 1 and 2) and also

the Strand area adjacent to the North Dock. Elsewhere they are confined to a sprinkling of households. Their distribution, therefore, as in 1851, seems to be dictated by their occupational structure and journey-to-work considerations.

The Carmarthenshire-born are the most numerous Welsh migrant-group. They are well represented in most areas of the borough but are particularly concentrated in the north of the town, where they form between 10 per cent and 20 per cent of the population in all areas other than High Street (E.D. 16) and the Irish quarter. Outside the north, they are best represented in the western part of the business district, in Oxford Street, Dillwyn Street and Mansel Street (E.D.s 11, 10, 13) and also in Wind Street (E.D.1). They are poorly represented in all areas of the Sandfields and the outer, western suburbs. The highest concentration of Carmarthenshire-born, however, occurs in the outer borough in Vivian's Town (E.D.37) where 20.6 per cent of all heads are Carmarthenshire-born. Other metal-smelting areas also contain high percentages of Carmarthenshire-born heads. Landore (E.D.41) has 17.1 per cent, Meusydd (E.D.39) has 16.1 per cent, White Rock (E.D.35) has 17.9 per cent and Port Tennant (E.D.33) has 17.1 per cent. It is obvious that the post-1851 expansion of the smelting works involved a large in-migration from the surrounding area of Wales but particularly an eastward movement from Carmarthenshire.

Despite significant colonisation of the outer borough, the Carmarthenshire-born were a shrinking segment of the population, increasing their number by only 28 per cent over the twenty-year period, while that of the population as a whole increased by 70 per cent. This relative decline was not common to all Wales-born migrant subgroups

and, consequently, while in 1851 the Carmarthenshire-born formed 46.5 per cent of Welsh migrants, in 1871 they formed 35.6 per cent. With so much of their post-1851 migration being directed to the outer borough, this resulted in a relative decline in the Carmarthenshire-born presence in many squares of the 1851 town.

The only other significant Wales-born migrant group is the East, Mid and North Wales-born. The North-East Wales part of this group, as in 1851, is identified with Foxhole (E.D. 34), most of its heads being engaged in skilled work at the smelters. Within the town, a group of five households (i.e. twenty-five in the population as a whole) is found in Queen Street in E.D.18, but otherwise there are only scattered East, Mid and North Wales-born households in the town. With a small migrant group such as this it is unwise to place any emphasis on the Queen Street concentration.

Various occupational and class factors can be identified, therefore, which will cause variation among the residential distributions of the migrant subgroups. As in 1851, life-cycle and family-structure factors also influence the distribution of migrant groups. Tables 11.11, 11.12 and 11.13 illustrate the household structure, life-cycle composition and age composition of the Welsh migrant subgroups and the major birth-place groups in 1871. The Carmarthenshire-born have an ageing profile, 27.9 per cent of Carmarthenshire-born heads being over fifty-five years old, compared with 19.7 per cent of the total population and there is a particular deficiency of Carmarthenshire-born heads in the 35-44 age-group. In terms of life-cycle stage, almost one third of this group's heads (29.9 per cent) fall into the final stage and only 8.0 per cent fall into the early family-formation stage. This suggests that migration

Table 11.11

Household composition of the major birthplace groups and
Welsh subgroups : Municipal Borough, 1871

<u>Birthplace</u>	<u>Mean Household size</u>	<u>Mean Family size</u>	<u>Mean No. of children</u>	<u>Mean No. of servants</u>	<u>Mean No. of lodgers</u>
<u>Welsh subgroups</u>					
Swansea	4.88	4.43	2.39	0.18	0.22
Llansamlet & Llangyfelach	4.99	4.71	2.67	0.08	0.17
Gower	5.02	4.39	2.44	0.13	0.46
Rest-of-Glamorgan	4.82	4.19	2.13	0.29	0.18
Carmarthenshire	4.51	4.13	2.09	0.16	0.31
Pembrokeshire	5.13	4.39	2.47	0.12	0.59
East, Mid and North Wales	5.26	4.46	2.30	0.28	0.32
<u>Major Groups</u>					
Local	4.91	4.52	2.47	0.14	0.20
Rest-of-Wales	4.86	4.27	2.24	0.19	0.36
South-West England	5.17	4.47	2.44	0.20	0.43
Rest-of-England	5.83	4.21	2.16	0.22	0.41
Ireland	5.46	4.75	2.75	0.06	0.61
Overseas	5.34	4.06	2.06	0.41	0.63
Unknown	5.17	4.75	2.12	0.25	0.43
All	5.00	4.43	2.38	0.18	0.34

Table 11.12

Life-cycle composition of the major birthplace groups and
Welsh subgroups : Municipal Borough, 1871

<u>Birthplace</u>	<u>Life-cycle stage</u>				<u>Per cent</u>	
	<u>0</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
<u>Welsh subgroups</u>						
Swansea	6.45	11.49	38.51	14.92	8.06	20.56
Llansamlet & Llangyfelach	2.56	8.97	34.19	16.24	10.26	27.78
Gower	2.25	10.11	44.94	8.99	7.87	25.84
Rest-of-Glamorgan	5.61	11.21	39.25	5.61	8.41	29.91
Carmarthenshire	5.47	7.96	35.32	10.45	11.44	29.35
Pembrokeshire	3.22	11.83	43.01	10.75	11.83	19.35
East, Mid & North Wales	8.11	13.51	33.78	13.51	10.81	20.27
<u>Major Groups</u>						
Local						
Rest-of-Wales						
South-West England	4.95	11.15	47.37	9.29	9.29	17.96
Rest-of-England	5.46	15.30	39.89	8.74	9.84	20.77
Ireland	2.38	7.14	43.65	19.84	11.90	15.08
Overseas	9.38	37.50	40.61	9.38	3.13	0.00
Unknown	0.00	7.94	55.55	6.35	7.94	22.22
All	4.85	11.18	40.48	12.12	9.45	21.92

0 = Head has no family

1 = Wife under 45 no children or 1 only under one year old at home

2 = Others with children at home but none over 15 years old

3 = Others with children at home, some but under half over 15 years old

4 = Others with children at home, half or more than half over 15 years old

5 = Wife over 45, no children at home or adult offspring only at home.

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Table 11.13

Age breakdown of heads-of-household for major birthplace groups
and Welsh subgroups : Municipal Borough, 1871

<u>Birthplace</u>	<u>Age Group</u>			<u>Per cent</u>		
	<u>15-24</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65+</u>
<u>Welsh Subgroups</u>						
Swansea	7.86	24.60	29.64	17.74	11.29	8.87
Llansamlet & Llangyfelach	5.13	25.64	22.22	24.79	12.39	9.83
Gower	2.25	21.35	30.34	26.97	10.11	8.99
Rest-of-Glamorgan	5.61	28.97	19.63	24.30	8.41	13.08
Carmarthenshire	5.97	22.39	21.89	21.89	13.93	13.93
Pembrokeshire	4.30	32.26	26.88	15.05	15.05	6.45
East, Mid & North Wales	1.35	17.57	31.08	29.73	13.51	6.76
<u>Major Groups</u>						
South-West England	4.95	29.41	29.72	19.81	10.84	5.26
Rest-of-England	2.73	24.04	28.96	27.87	8.74	7.65
Ireland	3.17	20.63	25.40	31.75	14.29	4.76
Overseas	0.00	37.50	46.88	12.50	3.13	0.00
Unknown	0.00	36.51	31.75	19.05	9.52	3.17
All	5.00	25.73	27.46	22.12	11.43	8.26

from this source was falling off. The Rest-of-Glamorgan-born also have a strong presence in the last life-cycle stage (29.9 per cent) but, unlike the case of the Carmarthenshire-born, there is evidence of a resurgence in in-migration evidenced by a high percentage-presence in the 25-34 age-group. Similarly, the Pembrokeshire-born have strong young and old elements. The remaining two groups, the Gower-born and the East, Mid and North Wales-born, both have a slight bulge in favour of the middle age and middle life-cycle groups. These differences in the age and life-cycle structure of birthplace groups suggest, therefore, that flows of migrants from different areas of Wales do not coincide and that arriving batches of migrant subgroups would be differently placed as regards housing opportunities and would be likely, therefore, to settle in different areas. It is impossible to estimate the extent of the combined influence of arrival time and the housing market, since the age-structure and life-cycle breakdowns of 1871 are the net result of what were possibly very complex outward, as well as inward, flows of migrants.⁶ It is unlikely, however, that the suggestion that migrant groups arrived according to different wave-like patterns is spurious, or that housing factors and arrival time were without influence on residential patterns. Life-cycle differences between migrant groups are, of course, not only of interest because of the circumstantial evidence which they provide on fluctuating migrant-flows, but also because family-status factors may be active in the shaping of residential areas. Family-status factors do vary between residential areas (Chapters 9 and 12) but such variation is found to be very closely related to social status and migrant status, with social status and migrant status dominant in the actual formation of residential areas.

The subgroups of the Wales-born migrants, therefore, show broadly similar characteristics to those displayed in 1851, the Gower and Pembrokeshire-born retaining highly segregated pockets in the town and the Rest-of-Glamorgan-born and the East, Mid and North Wales-born showing a distinct preference for discrete concentrations in the outer borough. Changes have, however, occurred. The Carmarthenshire-born, while retaining a northern preference within the town, have strengthened their presence in the outer borough. The Gower-born, while remaining highly concentrated in the Sandfields (59.2 per cent of their number are located here in 1851 and 60.5 per cent of their heads in 1871), have become more dispersed in the rest of the town. While almost all of their non-Sandfields presence in 1851 was located elsewhere in the south town, or in the New Street area of the north town, in 1871 they are present in small numbers in almost all areas, including parts of the northern, outer borough, from which they were totally absent in 1851. The Pembrokeshire-born, largely a south-town group in 1851 with concentrated pockets in the north town, have established a strong, relatively-isolated presence in the Bethesda Street area of the north town, adjoining the Irish quarter. (It will be recalled that, in 1851, the Pembrokeshire-born had an unusually-large presence in the Irish quarter). Otherwise, like the Gower-born, they have become more widely dispersed, colonising parts of the outer borough, in this case St. Thomas and Port Tennant. The segregation of the Wales-born migrants as a whole, therefore, is declining at enumeration-district level in the borough, as the segregation index implies, and the importance of the English/Welsh division between the south town and the north town, and between the town and the outer borough, seems to be reduced. Class and

occupational factors continue to play an important role in the distribution of each group, low class-profiles affecting the Gower-born and Pembrokeshire-born and occupational bias towards metal-smelting affecting the East, Mid and North Wales-born and the Rest-of-Glamorgan-born, in particular, and the Carmarthenshire-born to a lesser extent.

(c) The South-West England-born

As in 1851, the South-West-England-born are largely confined to the town and the south-western part of it, in particular. The highest concentration occurs in E.D.9 (Madoc Street, Western Street) where over 25 per cent of the population is South-West-England-born and 44.2 per cent of heads are South-West-England-born. In the adjacent Vincent Street area (E.D.8), 38.0 per cent of heads are South-West-England-born, as are 40.0 per cent in the Walters Street area (E.D.27) and 32.6 per cent in the Brynymor area (E.D.29). This is expressed at grid-square level by 26.3 per cent of the population in Grid-square 11/12 and 30.1 per cent of the population in Grid-square 19/20 being born in South-West England. It is apparent, therefore, that the concentration on the Sandfields, observed in 1851, reaching its most intensive level in Grid-square 18 at the south-western tip, has spread west and south as the town has expanded and as the South-West-England migrant presence has continued to rise. Tables 11.12 and 11.13 imply that migration from South-West England was particularly strong during the 1860s, a distinct 'bulge' appearing in life-cycle stage 2 and in the head-of-household age-group 25-34.

In 1851, the enumeration-district and grid-square distributions for the north of the town were, in part, contradictory, demonstrating

the effect which a change in the spatial overlay can produce. In 1871; such disagreement between the pattern produced by the two spatial overlays does not occur. The 1871 distributions clearly show an above-average presence in the Upper Strand, Hafod Street area of the north of the town where post-1851 building has taken place (Grid-squares 70, 73, 77, E.D.20). An above-average South-West-England-born presence has also emerged in enumeration districts 32, 36, 37 of the former outer borough (St. Thomas, Hafod). This suggests that this large and continually-expanding migrant group took advantage of new housing wherever it occurred in the town or the settlements gradually being engulfed by the town. It took much greater advantage, however, of the new housing in the south-west than any other expanding area of the town.

Within the area of the 1851 town, a significant decline in South-West-England-born presence is apparent, in both absolute and percentage terms, in the commercial area, and in particular, in Grid-squares 23 and 24. The fact that other early-settled squares in the surrounding area have not suffered the same decline and, indeed, in many cases have increased their absolute and percentage presence of South-West-England migrants (e.g. Grid-square 16), suggests that this marked decline may be due to factors other than the death of migrants present in 1851, coupled with a lack of net migration into the area. It may be the case that the decline is connected with the class 2 exodus from the area, the South-West-England-born presence being strong in the new, class 2 residential areas of the inner, western, prestige suburbs. For most of the 1851 town, however, continued in-migration is apparent, almost all grid-squares having experienced population increases and marked increases in their percentages of shared dwellings. In fact, 60 per cent of the South-West-England-born presence is living within the confines of the

1851 town and a large part of this percentage must be accounted for by post-1851 in-migration. The greater population density of the older areas, however, gives emphasis to the post-1851 town on the percentage-distribution maps.

The segregation level of the South-West-England-born has remained stable between the two dates at grid-square level in the town, but in the borough as a whole it has declined, no doubt mainly due to the inroads made by this group into the most populous parts of the former outer borough. (Hafod, St. Thomas). Its dissimilarity indices with other groups are again largely unchanged at grid-square level within the town, except for an increase in segregation between it and the Irish experienced by all birthplace groups. At enumeration-district level, however, a significant fall is recorded between the South-West-England-born and the Local-born and Rest-of-England-born. The decline between the South-West-England-born and the Local-born is connected with the greater South-West-English presence in the outer borough and that between the South-West-England-born and Rest-of-England-born may be due to the increased similarity of their class structures (Table 11.9), the post-1851 South-Western-English migrants being of similar class status to the post-1851, Rest-of-England-born migrants.

(d) The Rest-of-England-born

The distributions for the Rest-of-England-born show three major features. Firstly, the Rest-of-England-born group, like most other migrant groups, remains predominantly town-based but has made tentative inroads into the two areas of the outer borough which are rapidly becoming suburbs of the town (St. Thomas/Port Tennant and Hafod).

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Secondly, there is a continued south-town preference which is best illustrated at grid-square level. (The greater variance in the enumeration-district distribution, due to the absence of Rest-of-England-born migrants in the northern, outer borough, causes areas in the north of the town to appear above the mean which would appear below it if the figures were based on the town only). Thirdly, the relationship between the Rest-of-England-born and high-class areas, apparent in 1851, has continued. The decline of the Rest-of-England-born on the degenerating Burrows is apparent at both levels of analysis, as is the colonization of the western, prestige suburbs. The group also remain closely connected with the Central Business District. However, while the Rest-of-England-born remain the birthplace group most closely associated with classes 1 and 2, they are not as strongly associated with these classes as they were in 1851, the percentage of their number in the two upper classes having fallen from 41.0 per cent to 28.7 per cent (Table 11.9). The major part of the post-1851, Rest-of-England-born migrants appear to have been absorbed into classes 3 and 4.

The decline of the Rest-of-England-born on the Burrows is associated with a more general decline on what was in 1851 the southern Sandfields. Elsewhere in the 1851 town they have maintained their percentage presence or absence. In the post-1851 parts of the town, the Rest-of-England-born have colonized the new areas of the Sandfields to an above-average extent, in addition to the prestige areas, though nowhere in these densely populated grid-squares do they achieve a concentration equal to that in the prestige areas. The enumeration-district distribution, and to some extent the grid-square distribution reveals a band of low Rest-of-England-born presence separating the upper-class,

English presence, stretching from Castle Bailey Street in the commercial core (Grid-square 36/37) through to the Uplands in the western, prestige suburbs (Grid-square 34/35), from the lower-class English presence in the post-1851 southern Sandfields.

The Rest-of-England-born group shows a greater decline than any other group in its level of segregation between 1851 and 1871 both at enumeration-district level and grid-square level and all its dissimilarity indices with other groups have declined, apart from those between it and the Overseas-born and Ireland-born at enumeration-district level. This reduction in segregation is undoubtedly associated with the relative decline in upper-class households among its ranks.

(e) The Ireland-born

The Ireland-born group is the most highly segregated migrant group and its members have achieved negligible assimilation into the wider urban area in the twenty-year period since 1851. This has resulted in an increasing number of areas from which its members are excluded as the town expands and the segregation index of the group has risen approximately ten percentage-points at enumeration-district level and five percentage-points at grid-square level, between 1851 and 1871 (Tables 11.3, 11.4). The Irish area at Greenhill, centering on Bridge Street/Well Street, has expanded outwards, encompassing in its core streets to the south and west. The six enumeration districts focussing on Bridge Street contain 69.3 per cent of the Ireland-born (E.D.s 19, 21, 22, 23, 24, 25) and 32.1 per cent live in enumeration district 23 itself. At grid-square level, 55.3 per cent live in Grid-squares 71, 74 and 75 while 46.5 per cent live in Grid-squares 84 and 87 alone.

In addition to being largely constrained residentially to a handful of streets in the town, the Irish are almost exclusive residents of those which they inhabit. In square 74, for instance, 89.5 per cent of the population is composed of Ireland-born and Local-born persons, most of the Local-born being accounted for by second and third generation Irish, the Local-born presence in this grid-square in 1851 being under 15 per cent. Much of the remaining 10 per cent of the population in the square can be accounted for by the presence of the children of Irish parents for whom Swansea was not the first place of residence on leaving Ireland and also of Irish spouses born elsewhere.

Although the Irish area has expanded outwards to some extent, much of the increase in the Irish population has been absorbed by increasing subdivision of houses. By 1871, the percentage of households in shared dwellings reached 45.5 per cent in Grid-square 74 and 37.1 per cent in Grid-square 75. The overall percentage of Irish households living in shared dwellings is 31.7 per cent, considerably higher than for any other group, the nearest competitor being the Overseas-born with 25 per cent, the percentage for the population as a whole being 16.7 per cent. There is also a strong lodger presence in Irish households, the mean number of lodgers per Irish household being 0.61 compared with 0.34 for all households (Table 11.11).

The Irish population which does not live in the immediate area around Bridge Street, lives elsewhere in the north of the town or in Pentre and Hafod. Only 6.2 per cent live south of the southern boundary of Grid-squares 55-60 and approximately half of these are resident domestic servants.

In class terms, as well as segregation terms, the position of the Irish has worsened, an increased percentage of their number falling into social class 5 (64.2 per cent) while only 0.8 per cent achieve class 1 designation and 2.5 per cent achieve class 2 designation (Table 11.9).

(f) The Overseas-born

Small groups such as the Overseas-born suffer in analyses of percentage distributions since, on the one hand, emphasis may be given to areas where the population density is lower but the true presence of the group is merely a random scatter, and, on the other hand, legitimate concentrations may be lost in densely-populated areas. The three enumeration districts isolated by Figure 11.6, however, do contain genuine Overseas-born clusters. These are a cluster of ten (i.e. fifty) in the Bathurst Street area adjacent to the South Dock, another cluster of ten in Vivian's Town/Pentre and a larger concentration of twenty-six sample Overseas-born individuals in the lower part of Morriston (E.D.42). In this latter cluster, the Overseas-born form 10.4 per cent of the population. The association of the Overseas-born with the docks was present in 1851. Their particular association with the metal-smelting areas of the northern outer borough is, however, a new development, though a small number of foreign-born metal-workers were present in 1851.

The concentration in lower Morriston centres on Barracks Houses where eleven households have foreign heads (actual number rather than sample number), seven of these being Belgian and four German. A further three German households are found in Llangyfelach Road and

Neath Road, four Belgian households in Davies Street, Castle Street and Neath Road and one Dutch household on Davies Street. Twelve of these seventeen households have lodgers from the same country as the head and all the economically-active, excepting one, are skilled workers (mainly foremen and furnacemen) at the spelter smelter, the exception being a skilled copper-smelter. All heads are recent migrants, most married, and some having migrated with young families. Table 11.12 shows that 37.5 per cent of all households with Overseas-born heads are in the early family-formation stage (life-cycle stage 1) while none are in the final life-cycle stage. In terms of age-groups (Table 11.13), 84.4 per cent of Overseas-born heads are under 44 years of age compared with 58.2 per cent in the population as a whole.

The concentration in Vivian's Town is similar to that in Morryston, all its members being German or Belgian and all being skilled metal-workers. The presence of both clusters suggests a more than local deficiency in skilled labour to supply the still-expanding works.

The presence of the Overseas-born in all three areas of the town where they occur in appreciable numbers suggests that their clustered residential location is based on occupational similarity and proximity to work and, except in the case of lower Morryston, may have little to do with enforced or voluntary migrant segregation. The extreme concentration in Barracks houses in particular, however, suggests that the families involved were deliberately forming a tightly-knit community, and the presence of lodgers in almost all households suggests that the community acted as a known reception point for new migrants. It may also, on a small scale, be regarded as the beginnings of an 'ethnic community'.

4. Conclusion

Between 1851 and 1871, the overall level of migrant segregation declined in the town and the borough, the Irish being the only birth-place group to show a significant increase in segregation while several show a distinct decline. The Rest-of-England-born group experienced the most marked decline in their degree of segregation.

There are several reasons for the decline in segregation which occurred. Firstly, the divergence in the class profiles among birthplace groups lessened between 1851 and 1871. Most importantly, there was a reduction in the Rest-of-England-born association with high-class areas, the vast majority of English migrants arriving after 1851 being in classes 3, 4 or 5. The class position of the South-West-England-born also fell, the group gaining a large labouring element between the two dates.

Secondly, the increasing size of the town, combined with the continued close association of place-of-work and place-of-residence, made it less possible for birthplace groups to maintain a single dominant location similar to that of the Gower-born in 1851. By 1871, this birthplace group, while still maintaining a strong association with its now central, Sandfields concentration, was found in diverse locations throughout the town and also in parts of the outer borough (from which it was almost totally absent in 1851). Similarly, the South-West-England-born group, while starting from a less concentrated 1851 distribution, followed a similar pattern of expansion, making substantial inroads into St. Thomas/Port Tennant in particular, and all migrant groups had increased their level of outer-borough presence by 1871, taking advantage

of the new housing available in the suburbanising townward settlements of the outer borough.

Thirdly, a continuing process of Anglicisation, as English migrants increased their numbers at a faster rate than Welsh migrants, led to a weakening of the north-town Welsh-speaking core. The effect of the imbalance among incoming migrants in favour of migrants assumed to be English speaking was strengthened by the tendency for the children of Welsh bilingual parents to adopt English as their first language and one can assume that a large proportion of individuals born to Welsh migrant couples in the 1840s would be English-speaking householders by 1871 with English-speaking children. The Report on the State of Education in Wales comments on this trend;

"I was told that children addressed by their parents in Welsh most commonly replied in English".⁷

While the Welsh language probably still predominated in the north, the increased English presence must have made it a more desirable area of residence for English speakers than in 1851 and the breakdown of community structures based on the Welsh language would reduce the benefits of residence in the north for Welsh speakers. A similar process must have been underway in the outer borough.

Fourthly, in 1851 large-scale migration had only been underway for two decades and the extension of the period means that housing-availability factors will have further diversified the location of arriving groups of migrants. The effect of any unusually-strong flow of migrants during a period of housing availability in a particular location would be diminished. However, since all groups do not seem to have experienced the same temporal pattern of incoming waves, locational

patterns created in this way would differ among groups. A group arriving in large numbers whilst a particular area was under construction would obviously be more likely to dominate that particular area and a migrant group of low competitive-ability, arriving during a period of housing scarcity, would be more severely confined to particular pockets of undesirable housing than would be the case in more favourable years. A segment of the Pembroke-shire-born, for instance, appear to have arrived at a particularly unfavourable time. While levels of urban mobility have been found to be high in similar industrial cities of the period,⁸ many moves are found to occur within a restricted vicinity,⁹ particularly in the case of longer-distance migrants,¹⁰ and there is reason to believe that concentrations caused by the state of housing availability at the time of arrival would persist, even if not in their original intensity. The residential locations of migrant groups, therefore, can be significantly influenced by housing-availability factors, such as building cycles and the release of land for building, and there is likely to be considerable persistence in these locational patterns once created. Since migrant flows fluctuate and are not standard for all areas, this will promote locational differences between migrant groups. Housing factors will also tend to counteract any natural tendency for spatially-discrete migrant communities to emerge, and the longer the period over which migrants have been arriving from a particular source, the more diverse its residential locations are likely to be.

In summary, therefore, the change in the balance between English and Welsh migrants, the change in the class structure of migrant groups, the increasing size of the town and the longer period of time over which migration has taken place, would have reduced migrant segregation

independently of any actual narrowing of the perceived cultural gaps among groups, or of any reduction in overtly expressed preference by individuals for living among those judged to be culturally similar. Migrant segregation, therefore, may have fallen over the period without there being any reduction in the intensity of purely migrant-status factors.

Just as the reduction in the intensity of migrant segregation can be partly attributed to non-migrant-status factors, so can the presence of migrant segregation itself. In 1851, it was found that, due to the presence of class differences among migrant groups, such groups would be segregated to a certain extent regardless of any cultural differences, since segregation according to social status had been proved to be strong. Family-status factors also varied among migrant groups in 1851 and, although family status is believed to be a much weaker dimension of residential differentiation, it, too, will create divergence in the residential patterns of migrant groups. While class divergence among migrant groups has remained similar in kind but reduced in level, the divergences according to family status have altered in type and magnitude. Certain groups have experienced a resurgence of in-migration, giving them strong young and old elements, while others, such as the Carmarthenshire-born, have experienced a steady falling-off in the numbers of new arrivals. Any changes in the nature of the pattern of residential location of migrant groups, therefore, may have been influenced by alterations in the class and age structure of migrant groups. In attributing migrant segregation partly to class and family-status variations, however, it must also be pointed out that class and family-status differences are themselves influenced by migrant status.

The Rest-of-England-born have a high percentage of persons in social classes 1 and 2 because a greater proportion of their number have previous experience of urban living and have migrated long distances and such persons tend to be more economically successful. Their class bias is, therefore, a function of their migrant status rather than some other co-varying factor and, although such bias would not produce segregation if class segregation did not exist, migrant status is active in its inception.

The distance over which migrants have come may influence the evolution of migrant areas other than through co-variance with class. It is plausible that among the lower classes, in particular, a large proportion of whom were illiterate, information on housing opportunities for potential migrants would be passed on to the home population by personal contact and such contact would obviously be most likely to take place in the case of short-distance migration.¹¹ The persistence of the Gower-born group on the central Sandfields, for instance, could have been strengthened by the communication of lodging and dwelling opportunities by the migrant population to the potentially migrant population and the migrant population would be more aware of such opportunities in their own immediate area. Some of the Gower-born may, therefore, be residing in the central Sandfields out of convenience rather than choice.

The level of migrant segregation and its spatial manifestation is, therefore, heavily influenced by factors unconnected with migrant status and by factors which, although connected to migrant status are unconnected with migrant consciousness or with any purely cultural differences which would make migrant groups separate-out spatially for functional reasons. It is extremely unlikely, however, that the separate

clustering of migrant groups observed in the analysis could have been brought about by such factors alone. In 1851, it was suggested that migrant consciousness did have a spatial manifestation and cultural differences were active in shaping the evolving pattern of residential areas. Migrant consciousness, however, could only be "proved" to be present in 1851 in the case of prejudice against and/or cohesion within the Irish community, whose very restricted residential location could not be accounted for in any other way. In addition, cultural differences, notably language and religion, divided the English and Welsh populations. In the case of the English/Welsh divide, while migrant consciousness might have been present, the stated cultural differences would have lessened the possibility of interaction and communication between the groups, regardless of how they viewed each other. In 1871, the anti-Irish prejudice and/or Irish cohesion persisted but the primarily linguistic divide between the English and Welsh populations was less clearly present. While it has been proved, therefore, that migrant status varied quite dramatically across the town and the borough, it has not been proved that migrant-status factors played an important active role in the evolution of residential areas, except in the case of the Irish and the English/Welsh linguistic divide. At both dates, however, other purely migrant status factors were undoubtedly present but their presence cannot be elucidated since migrant consciousness and cultural attributes are not systematically recorded for the population and cannot be inferred from birthplace. While social-class segregation, because of its economic manifestation, can be seen to be operating, migrant status can only be detected with certainty where no other factor or combination of factors can satisfactorily account for the observed pattern. In many cases, however, such 'other factors' are

themselves only speculatively present and migrant-status factors often provide the most plausible explanatory hypothesis. Indeed, the very persistence in the basic pattern of each migrant group's residential location, in a situation where over half the members of each migrant group are post-1851 arrivals, suggests that migrant cohesion must have been operative in the preservation of these spatial patterns. As in 1851, the extreme concentration of the Irish cannot be accounted for by their social status since housing equally bad and, presumably, equally cheap existed in other parts of the town and the persistence, and indeed strengthening, of their confinement to one particular location, coupled with their disadvantaged social position, suggests a ghetto situation. The Gower-born also show strong persistence (but gradual weakening) in their association with one particular pocket of the town but, in this case, absence of significant bias on socio-economic variables suggests cohesion through choice and, therefore, affinity to the ethnic-community model. The ethnic-community model may also be applied to the Overseas-born cluster in lower Morrleston, despite very strong socio-economic bias, since their spatial clustering is far stronger than such bias could create and their status is sufficient to elevate them from an enforced 'ghetto' situation. The Pembrokeshire-born cluster in the vicinity of Bethesda Street has elements of both models. While low economic competitiveness has undoubtedly forced this section of the group into an area of undesirable housing adjacent to the Irish 'ghetto', the distribution of the rest of the group suggests a preference for cohesion and there is no documentary evidence of prejudice against the group. Certain of the numerically-smaller migrant groups do, therefore, show distinct spatial clustering attributable to migrant-status factors and it is likely that other non-analysed subgroups of the major birthplace groups

would also reveal voluntary or enforced migrant-clusters. For the English and Welsh migrant groups as a whole, however, the operation of migrant status in the creation of the observed pattern and development of residential location is less easily identified. The relative absence of English migrants from the outer borough could be primarily the result of employment opportunities and skill requirements, while the relative absence of English migrants from the north of the town, could be mainly the result of class bias. It is very unlikely, however, that the increasing pervasiveness of the English language had by 1871 made all areas of the town equally attractive for English migrants, subject to class constraints, and the continuing, but weakened, English/Welsh divide through the north-centre of the town must contain a cultural element.

In conclusion, therefore, whereas migrant status varies between spatial units, it is difficult to isolate the role which migrant status plays in the shaping of residential areas, since migrant status is not independent of other dimensions of residential differentiation. Various factors can be identified which operate to intensify migrant segregation. These are: social-class bias; occupational bias; age and life-cycle bias; the interaction of arrival time and housing factors; and the means of communicating housing opportunities. Nevertheless, migrant status is undoubtedly operating to create intense clustering among certain discrete migrant groups and also operating to create a more general separation of the English and Welsh populations.

Notes to Chapter 11

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9. Ward, D. (1980) "Environs and neighbours in the 'Two Nations': Residential differentiation in mid-nineteenth-century Leeds". Journal of Historical Geography, Vol. 6, No. 2, p.157; Poble, C.G. (1979) op. cit. (note 8) p.270-271.
10. Dennis, R.J. (1977) op. cit. (note 8) p.355; Pooley, C.G. (1979) op. cit. (note 8) p.271.
11. The importance of personal contact in the finding of residential accommodation has been discussed by Pritchard in: Pritchard, R.M. (1976) 'Housing and the spatial structure of the city' (Cambridge). p.65.

CHAPTER 12
FAMILY STATUS IN 1871

1. Introduction

This chapter presents the analysis of family-status patterns in Swansea in 1871 and compares the distributions with those of 1851 discussed in Chapter 9. In 1851, family-status factors were found to play a minimal role in residential differentiation and the concentration of non-familists in the central area was the only strong spatial manifestation of the dimension. In comparing aspects of the household and family in 1851 and 1871 and identifying the changing relationships which family-status factors bear to social-class and migrant-status factors, the possibility of the progressive emergence of an independent family-status dimension is discussed.

2. Changes in household and family characteristics 1851-1871

Between 1851 and 1871, several changes occurred in the size and structure of the household and family. Table 12.1 gives a comparison of the 1851 and 1871 sample population according to household size and composition and life-cycle stage.

Table 12.1 reveals a five per cent increase in family size and a marginal increase in household size between 1851 and 1871, resulting in a decrease in non-family household members as a percentage of the total population. This change is reflected in the four per cent increase in the extended family expressed as a percentage of the total population. The decrease in non-family members, however, is entirely accounted for

by the decrease in resident domestic servants, the relative presence of both lodgers and apprentices having increased. The absolute number of resident domestic servants increased by only 30.4 per cent over the twenty-year period compared with an increase of 70.7 per cent in the population as a whole. This, undoubtedly, reflects the changes noted earlier in the social-class composition of the population, social classes 1 and 2 having experienced a relative decline and class 5 a marked relative increase.

The increase in family size is probably a result both of slightly lower death rates, particularly a reduction in infant mortality, and a slight shift in the age distribution of the adult population, resulting in relatively more young adults. The shift in the age distribution is a consequence of intensified in-migration. This increase in the young adult age-group is reflected in the 10 per cent increase in the relative presence of families in which all the children are under 15 years of age and in an overall increase in the percentage of families with children. The increase in family size may also be a consequence of the changes in the social-class breakdown of the population mentioned above, the upper classes having fewer children than the working classes. It may also reflect the increasing Anglicisation of the borough, the English families being larger on average than the Welsh families (Table 11.11). A final factor contributing to the increase in family size is the marked relative decline in the number of *childless* heads.

Mean extended family size, like mean nuclear family size, increased over the period, and, in fact, grew at a faster rate than nuclear family size due to the large increase in the number of non-nuclear relatives of the head. However, the relatively larger numbers of kin

are living in relatively fewer extended families. The reduction in the percentage of families which are extended is again possibly related to changes in the social-class structure, extended families being almost twice as common among social class 1 as among social classes 3, 4 and 5. The reduction could also be due, in part, to the process of urbanisation and the weakening of kinship ties brought about by industrialisation.¹ Such hypotheses, however, are unproven in other research and much more detailed study would be necessary to isolate such effects.

3. The spatial distribution of family and household factors

While family size increased in the town as well as the outer borough, the divergence in average family size between the two areas widened, the average for the town (E.D.s 1-27) rising to 3.97 while that for the outer borough (E.D.s 28-44) rose to 4.42. Figure 12.1 shows the 1871 distribution of nuclear family size on an enumeration-district basis. As in 1851, it is the northern outer borough which has the largest average family size and it is noticeable that those areas coming under the influence of the town have lower average family sizes. Within the town, a relationship seems to be developing between suburban locations and above-average family size. Parts of the commercial core (E.D.s 1, 3, 10) and some of the older areas of the north (E.D.s 15, 16) have well below-average mean family sizes, the lowest being Orchard Street (E.D.15) with a mean family size of 3.09. The distribution of mean family size within the town can be seen more clearly in Figure 12.2 where the variable is mapped at grid-square level. The smaller average family size of the central area is immediately obvious, with the lowest average of 2.96 occurring in Grid-square 47 close to the heart of the town and the highest average of 5.09 occurring in Grid-square 21 on the

Figure 12.1 : Distribution of mean nuclear family size:1871
enumeration districts

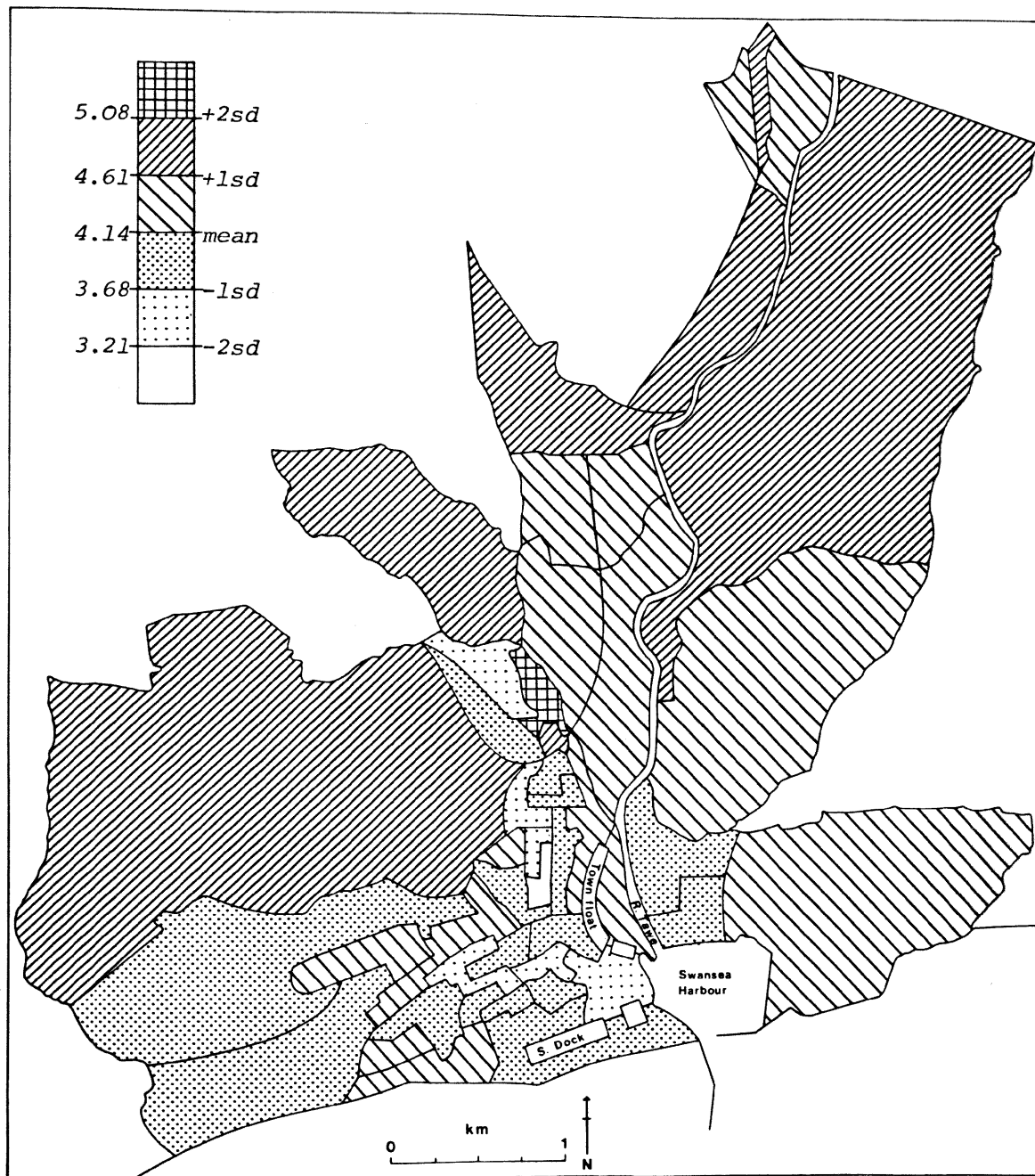
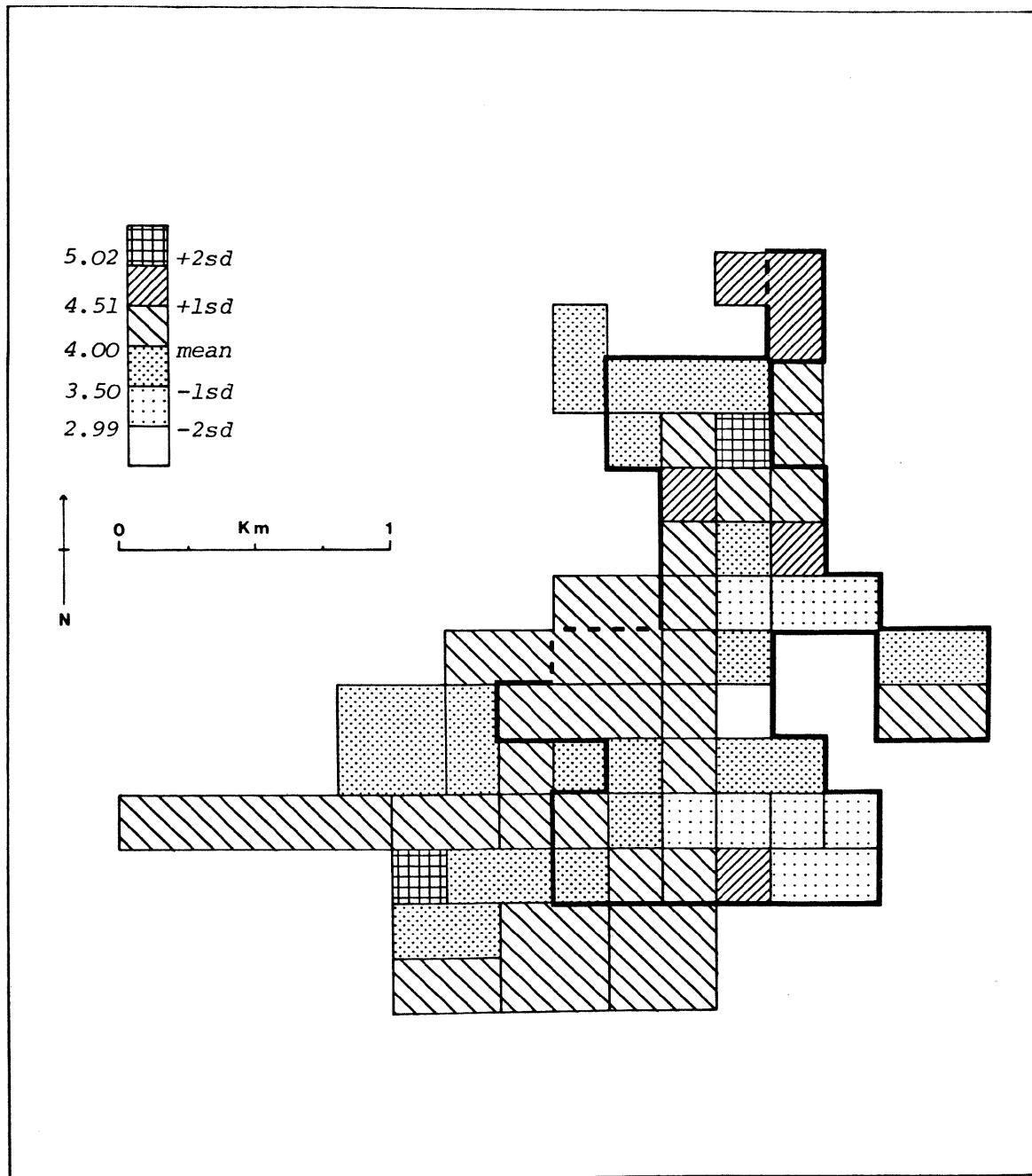


Figure 12.2 : Distribution of mean nuclear family size : 1871, grid



western periphery of the new suburbs. The lines of the pre-industrial town are clearly discernible in the north-south axis from High Street widening southwards into Wind Street and the Burrows, with a westerly offshoot extending along Orange Street and Temple Street into Nelson Street and Oxford Street. A clear relationship, therefore, is discernible between centrality and family size, a divergence occurring between the family size of the central and suburban town, the town and the outer borough and the outer and inner parts of the outer borough. This relationship however, is partially obscured by the operation of other factors influencing family size : the major ones are migrant status; social class/industrial group; and the length of time each area has been settled. The most obvious variation in average family size caused by migrant status factors is the very high average family size of the Irish and their confinement largely to the Greenhill area. This is the major factor in the high average family size (5.05) of Grid-square 74.

In 1851, social class was seen to have a marked influence on the distribution of family characteristics, extended families being more common among the upper classes and nuclear family size being on average smaller for the upper two classes. Table 12.2 gives a class breakdown of family and household characteristics in 1871. Whereas the average family size of all classes has increased, the divergence between the average for the upper classes and working classes is reduced, possibly indicating that the interdependence between social class and family attributes is declining. The divergence between the family size of class 1 and the unadjusted class 3 fell by almost two thirds. The very high mean family size of class 6, the metal-smelting and mining

group, reflects the widening of the gap between the average size of families among town residents and outer borough residents.

Table 12.2
Difference in family and household size and structure
among social-class groups, 1871

Variable	Social class							
	1	2	3	4	5	6	A3*	A4*
Mean household size	6.02	5.53	5.01	4.82	4.79	5.36	5.04	5.02
Mean nuclear family size	4.05	4.07	4.19	4.14	4.21	4.99	4.26	4.46
Mean extended family size	4.43	4.40	4.48	4.35	4.39	5.13	4.54	4.64
Mean number of children	2.32	2.33	2.38	2.39	2.32	3.03	2.44	2.63
Mean number of relatives	0.38	0.33	0.29	0.21	0.18	0.14	0.28	0.18
Mean number of lodgers	0.15	0.25	0.39	0.37	0.36	0.22	0.36	0.28
Mean number of servants	1.24	0.60	0.11	0.04	0.02	0.01	0.10	0.03

* Adjusted through the inclusion of class 6

While, in 1851, class 3 had the largest mean family size of the unadjusted classes, in 1871 it is class 5 which has the highest score. As previously mentioned, class 5 had grown at a faster rate than the rest of the social classes and its increased family size relative to that of other classes could be the result of life-cycle differences, class 5 having increased its proportion of adults in the child-bearing stages. Table 12.3 gives a life-cycle breakdown for the social classes and comparison of this with Table 9.4 confirms this to be the case. The proportion of class 5 in life-cycle stages 1, 2 and 3 increased between 1851 and 1871 while that in all other life-cycle groups declined. A further factor in the large family size of class 5 is the almost complete

Table 12.3
Life-cycle stage composition of social classes, 1871

Life-cycle stage	Social class							Per cent
	1	2	3	4	5	A3*	A4*	
1	12.20	10.68	12.71	9.80	12.62	12.54	10.22	
2	34.15	39.32	42.76	44.44	43.38	43.15	45.39	
3	4.88	9.22	12.60	11.76	12.62	13.05	13.91	
4	13.41	8.25	9.17	7.19	8.31	9.28	8.38	
5	26.83	23.30	15.58	20.92	22.15	17.41	18.20	
6	8.54	9.22	4.97	5.88	0.92	4.57	3.89	

- 1 = Wife under 45, no children or one child only under one year of age
 2 = Others with children at home but none over 15 years old
 3 = Others with children at home, some but under half over 15 years old
 4 = Others with children at home, half or more than half over 15 years old
 5 = Wife over 45, no children or adult children only at home
 6 = Head has no family
 * = Adjusted through the inclusion of class 6.

absence of single heads (0.9 per cent). This is possibly a reflection of class 5's low economic-resources which would encourage single members of this class to live as lodgers and only rent separate accommodation when family commitments make it absolutely necessary.

The life-cycle stage distribution of the social classes also suggests that the narrowing of the gap between the average family size of the upper classes and working classes would have been greater if it

were not for temporal changes in the life-cycle stage distribution of classes. Social classes 1 and 2 had grown more slowly than the population as a whole and, as a consequence of this and other factors, the proportion of class 1 falling into life-cycle stages 4 and 5 increased and the proportion falling into life-cycle stages 1, 2 and 3 declined. Slightly more than 40 per cent of class 1 headed families were in life-cycle stages 4 and 5 in 1871.

In terms of spatial distributions, the large average family size of class 5 could be a factor in the retention of high averages in some of the older parts of the northern town and the low family size of classes 1 and 2 could be contributing to the prevalence of small families in the commercial area, small average family size extending outwards into parts of the western prestige suburbs.

As in 1851, the length of time an area has been settled, as well as its location and migrant and class composition, has an effect on the size of families within it. The speed with which the urban area grew means that life-cycle stage variation is closely linked to the physical age of areas. Certain very recently-built, suburban neighbourhoods record low mean family sizes due to the large proportion of newly-married couples residing within them so obscuring the relationship between centrality and size of family. Figure 12.3 shows the distribution of families in the first life-cycle stage and confirms that the newest areas are dominated by such families. In E.D.9 over 20 per cent of families are childless or have one child only, under one year of age, and E.D.s 12, 25, 26 and 32 are all recently developed and heavily populated by such families. The same factor, however, reinforces the relationship between family size and centrality in other ways, since older areas tend to have more mature families and, therefore, smaller

Figure 12.3 : Distribution of families in which the wife is under 45 and there are no children at home or 1 child only under 1 year at home as a percentage of all families : 1871, enumeration districts

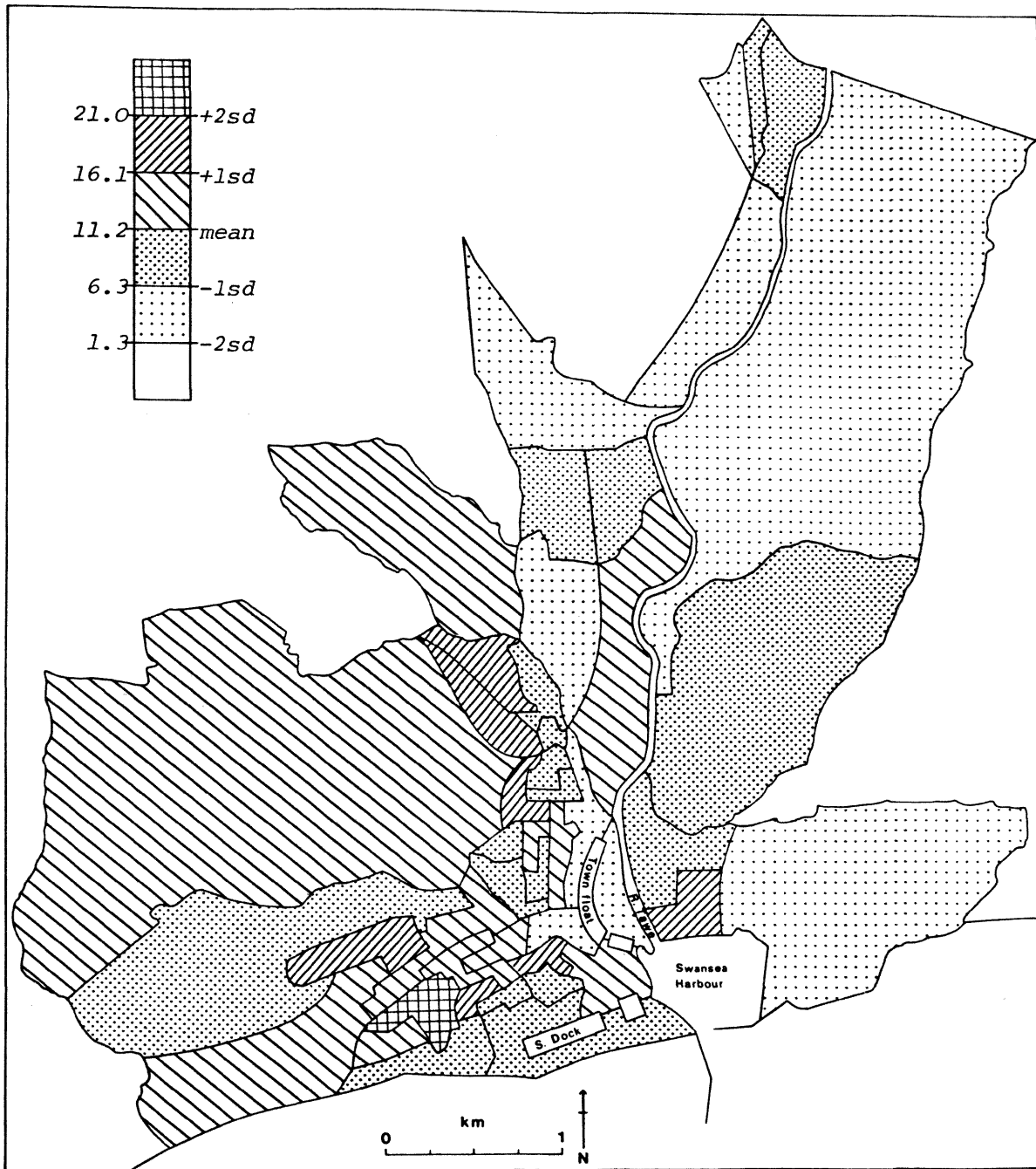
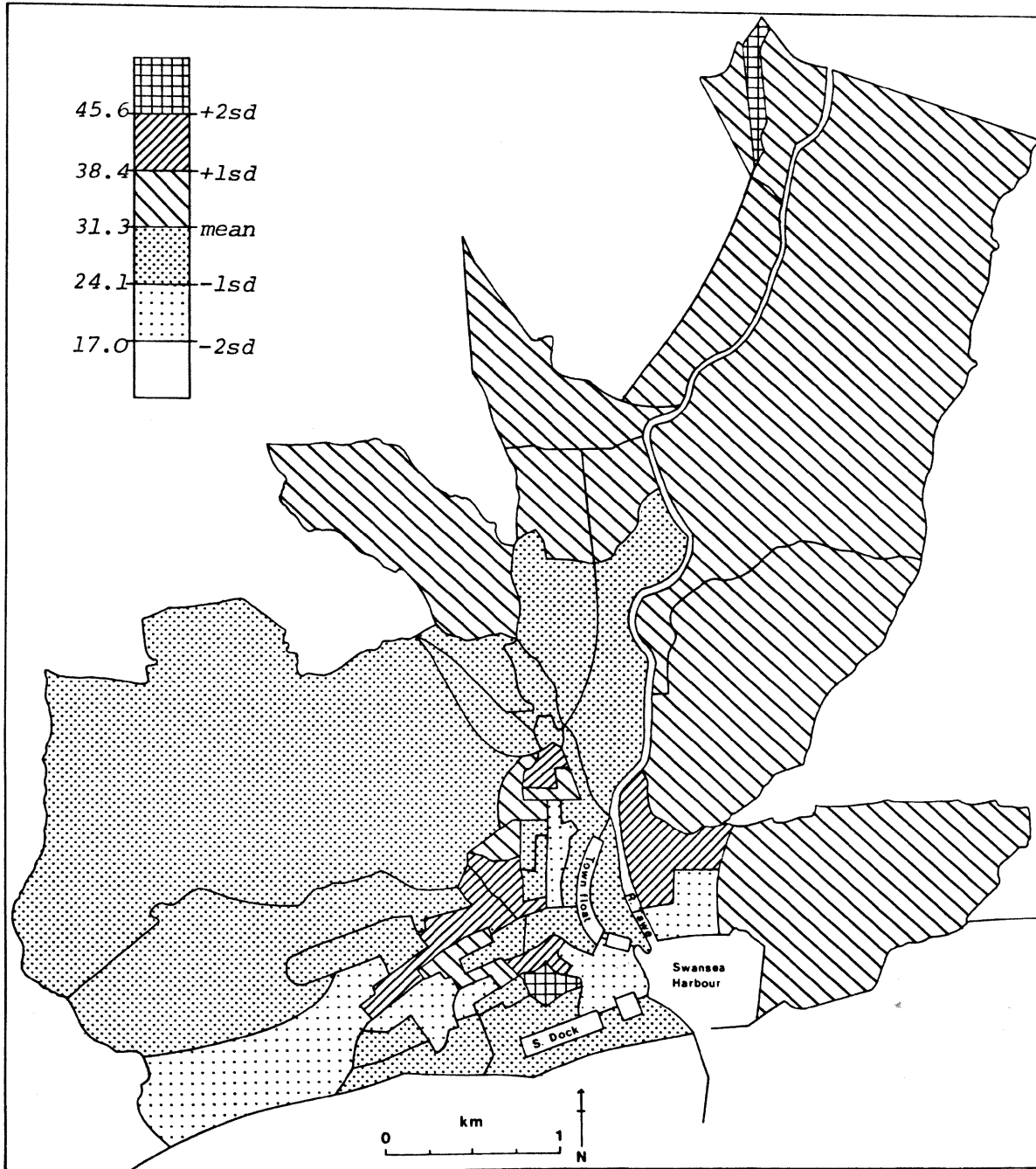


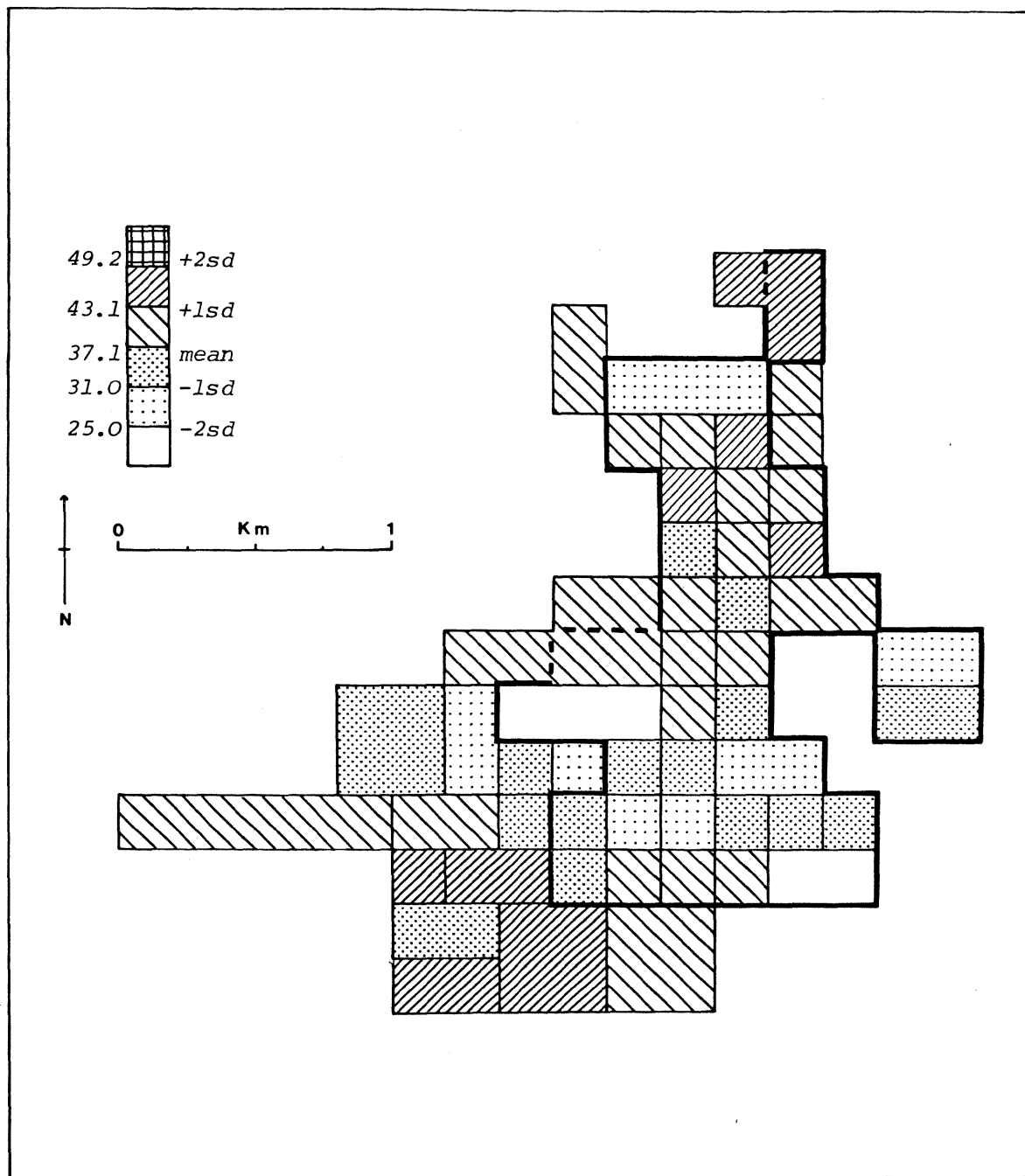
Figure 12.4 : Distribution of families in which all children are over 15 years old or have left home as a percentage of all families:1871, enumeration districts



families, residing within them. Figure 12.4 shows the distribution of families in which all children are over 15 years old or have left home. These are most common in the older parts of the town and in the parts of the northern outer borough beyond the reach of the advancing town. The highest concentration occurs in E.D.2 (Wassail Street) where 50 per cent of families fall into this group. There is circumstantial evidence, therefore, that the physical age of an area serves as an indicator of family size via its relationship with life-cycle stage.

Spatial variation in life-cycle stage is of interest, not only because of its connection with family size, but also because of the hypothesis that heads would choose residential locations according to the life-cycle stage of their families. In 1851, little evidence was found to substantiate such a hypothesis, partly because of the effect of economic restraints on residential choice and partly because the small size of the town and the nature of its working-class, 'suburban' housing resulted in little environmental variation between centre and periphery. Although a weak relationship between mature families and more central locations is observable from Figure 12.4, it is noticeable that parts of the central north are relatively without such families and recent in-movement of young families is suggested by their life-cycle composition. Such a development may be the result of the 'poverty trap' by which working-class families are forced into the poorest housing as their number of dependants increases. Such a hypothesis is supported by the evidence put forward in Chapter 10. It is also supported by the family-size distributions, which record high average family size for many old-town, northern areas, and by the spatial distribution of the child population illustrated in Figure 12.5. The

Figure 12.5 : Distribution of the population aged 0-14 years as a percentage of the total population:1871, grid

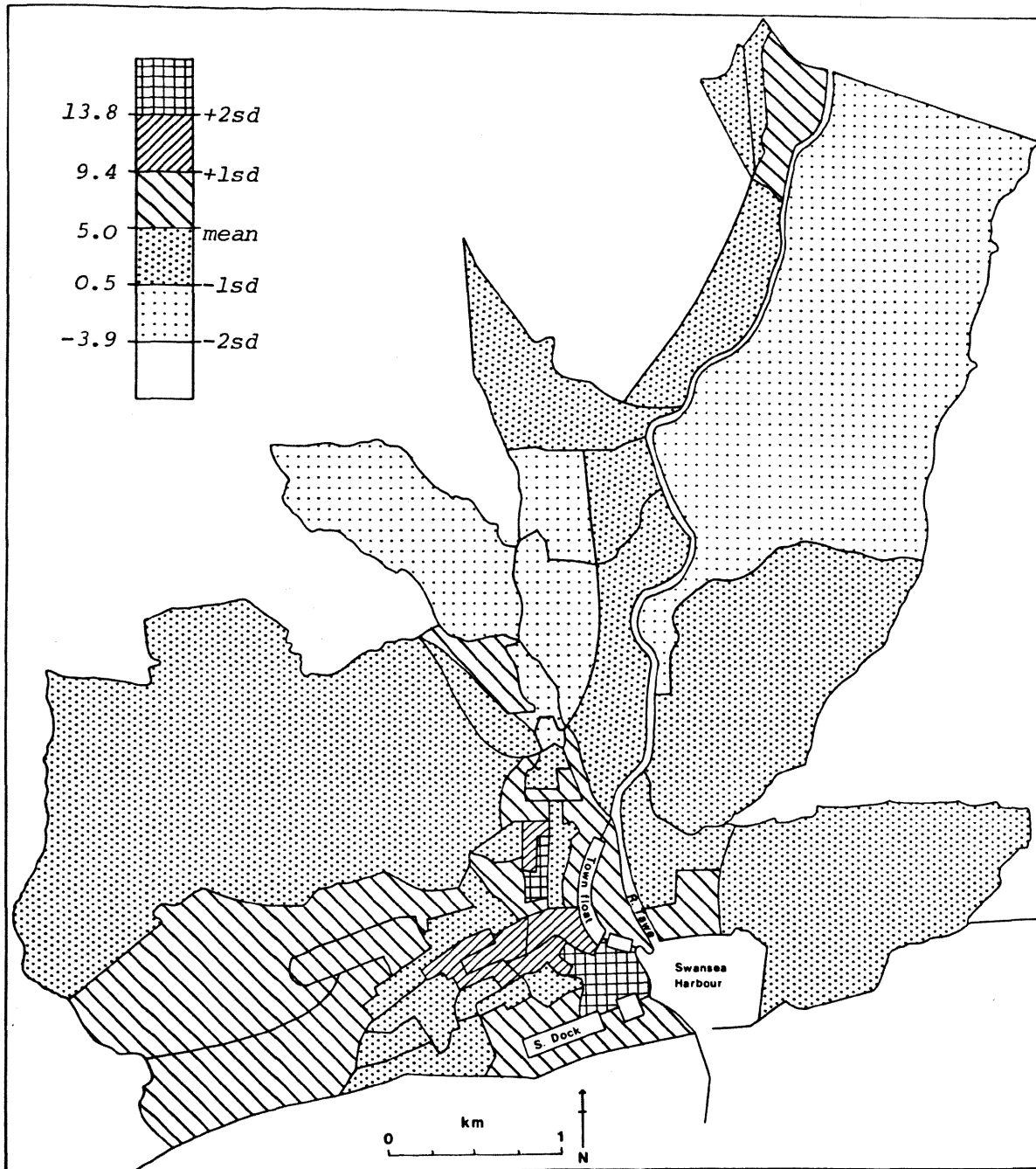


northern area is the only part of the 1851 town with above-average numbers of children. There is, therefore, a tendency for heads with children to reside in non-central locations but this is partly counteracted by economic constraints and there is no evidence to show that it is the result of positive choice rather than the natural consequence of each new, suburban accretion of the rapidly-expanding town being heavily settled by young heads.

Single heads were strongly associated with the town, and with the centre of the town in particular in 1851 and, as Figure 12.6 shows, this is still the case in 1871. The Wind Street end of the commercial core is the district most replete with such heads, 18.4 per cent of all heads in this area being unmarried. The only outer borough district with an above-average presence of single heads is lower Morriston. The presence of large numbers of single heads in the central area is, perhaps, the most conclusive factor demonstrating the weaker family-life prevailing in the centre as opposed to the suburbs. It is, however, also to some extent class-related, single heads being twice as common among classes 1 and 2 as among the lower three classes, and hardly present at all among class 5 (Table 12.3).

Areas where family life is weaker are also, to some extent, characterised by large numbers of lodgers. This is not as true in nineteenth-century cities, however, as it is in cities of the present, even though lodgers were present in much larger numbers in nineteenth-century cities. This is because it was relatively common for young couples and families, as well as single people, to live as lodgers. In 1851, 33.1 per cent of lodgers were not economically active and, while

Figure 12.6 : Distribution of single heads as a percentage of all heads:1871, enumeration districts



the majority of these are wives, just under half are children (13.3 per cent of all lodgers are children). Lodgers are, however, a distinctive group and their relatively concentrated spatial distribution (Figure 10.24) has an effect on the spatial distribution of the main dimensions of residential differentiation. This, together with their large numerical presence, makes it worthwhile outlining the salient features of the lodger group as a whole.

In 1871, 691 lodgers appear on the sample forming 6.8 per cent of the total population within the borough and 8.6 per cent of the total population within the town. Their class and birthplace composition in 1871 is compared with that in 1851 and with that of the population as a whole in Table 12.4. Age breakdowns are not available separately for lodgers in 1871 but these are given for 1851 in Tables 12.5 and 12.6.

The lodger population, like the total population, has experienced a lowering of its class profile over the twenty-year period but, at both dates, lodgers are primarily a lower-class group, almost one-third of the 1871 lodger economically-active falling into class 5. The lodger group also differs from the population as a whole in terms of industrial activity, lodgers being less common in manufacturing and considerably less common in mining and dealing while being more heavily represented than the population as a whole in industrial service, transport and building.

As one might expect, migrants dominate the lodger group to a greater extent than they do the population as a whole. Nevertheless, there is a strong locally-born element in the lodger group, accounting

Table 12.4

Social class and birthplace breakdown of the lodger population in 1871 compared with that of 1851 and that of the 1871 total population

	Per cent		
	<u>Lodger population</u>		<u>Total population</u>
	<u>1851</u>	<u>1871</u>	<u>1871</u>
<u>Social class</u>			
Class 1	2.33	2.22	3.05
Class 2	5.45	3.43	7.64
Class 3	53.11	48.48	52.06
Class 4	13.81	15.35	16.74
Class 5	25.29	30.51	20.50
<u>Birthplace</u>			
Local	25.78	23.30	60.01
Rest-of-Wales	28.65	36.03	20.07
South-West England	15.63	16.93	9.28
Rest-of-England	11.20	9.99	5.99
Ireland	14.06	7.38	3.45
Overseas	2.60	3.33	1.20
Unknown	2.08	3.04	0.82

Table 12.5

Age composition of the 1851 lodger population and 1851 total population compared

<u>Age groups</u>	Per cent	
	<u>Lodger population</u>	<u>Total population</u>
0-4 years	5.73	13.74
5-16 years	7.55	24.33
15-64 years	81.25	58.48
65+ years	5.47	3.45

Table 12.6

Age composition of the 1851 adult lodger population and the 1851 head-of-household population compared

<u>Age group</u>	<u>Adult lodgers</u>	Per cent
		<u>Heads-of-Household</u>
15-24 years	32.12	4.55
25-34 years	32.12	24.94
35-44 years	16.06	27.63
45-54 years	9.39	21.74
55-64 years	3.94	12.05
65+ years	6.36	9.10

for 23.3 per cent of all lodgers and only a small percentage of locally-born lodgers are children born to migrant lodgers. The age structure of the lodger group is strongly biased towards young adults and the 15-24 age group, in particular. The lodger group is also biased towards males.

While the lodger population has different characteristics to those of the population as a whole, its effect on the distribution of the main dimensions of residential differentiation is partially counteracted by the influence which the non-lodger population exerts, lodgers having a tendency to reside with households possessing similar characteristics to themselves. This is particularly true of birthplace where it operates most strongly amongst the Irish and, to a lesser extent, the South-West-England-born, many lodgers in these groups being found lodging with heads of similar or identical (at parish level) birthplace. The tendency for lodgers to reside with households of similar birthplace has also been identified in Cardiff.² Lodgers with

similar occupations to that of their landlords are relatively common, and both factors show the importance of personal contact in the securing of lodgings and, therefore, choice of residential location.³

The frequent similarity in the birthplace and occupation of landlord and lodger does not mean that areas did not exist in which the class and migrant composition was considerably modified by lodger presence. Areas do exist where lodging houses, typically run by Swansea-born females, are concentrated and where the occupants of such lodging houses are of diverse origin and collectively follow a variety of occupations. The High Street area in 1851 is such an area, as is the adjacent Orchard Street and Back Street area in 1871.

There are, therefore, two polar types in the lodger group, the first of which has a minimal effect on the residential composition of an area. The first polar lodger-type is a newly-arrived migrant living among persons similar to himself, accompanied by a wife and, perhaps, children, and who is skilled or semi-skilled and will shortly become a householder. The antithesis is the unskilled labourer, migrant or local, in irregular work, single, living among persons of diverse origin and unlikely to achieve householder status without a change in his circumstances. Most lodgers obviously fall somewhere between these two types, but those leaning towards the former type are more likely to be found in the newly-settled migrant suburbs (for example, the South-Western English dominated parts of the western Sandfields) and those leaning towards the latter are more likely to be found in the decaying parts of the old town and in the vicinity of Back Street, in particular. In the former case their presence will tend to reinforce the existing

social fabric of the area, but increase the young adult element, while in the latter case their presence may substantially modify the residential character of the area.

4. Conclusion

In 1851, it was found that there was little evidence of a family-status dimension of residential differentiation. While there was distinct spatial variation in family size and household size, this variation was found to be the result of birthplace, class and occupational segregation. While weak life-cycle variation was also identified, the strongest expression of family-status variation was found to be the central-area preference displayed by single heads.

In 1871, there is little further evidence to suggest that an independent, family-status dimension of residential differentiation is developing. As in 1851, spatial variation in the life-cycle composition of areas is strongest in the most recently-built areas, where the early life-cycle stages predominate, and this suggests that such variation is the result of heavy in-migration, the life-cycle composition rapidly becoming diversified as intra-urban mobility gets underway. There is, therefore, limited circumstantial evidence to support the view that life-cycle segregation was more than a by-product of other processes. One cannot conclude, however, that other aspects of family life were not important in the choice of residential location. The fact that in other mid-nineteenth-century towns intra-urban mobility has been seen to be largely confined to neighbourhoods,⁴ particularly for the lower classes,⁵ may suggest that kinship and other community ties are important. It is, of course, impossible to trace kinship links between households in

a town the size of Swansea, particularly as a handful of surnames predominate among the Welsh. The possibility, therefore, that related families may have chosen to live in close proximity must be borne in mind. If such an arrangement was common, however, it is unlikely that it would in any way alter the broad pattern of residential differentiation and, indeed, would tend to reinforce the segregation of migrant, occupational and class groups since family networks not only originated from the same area but tended to follow the same group of occupations (a 'hangover' from pre-industrial days) and almost always belonged to the same social class. Any such controls on residential location exerted by kinship networks, therefore, are likely to remain undetected but one must bear in mind that residential configurations, for instance, which may otherwise be interpreted as the result of a necessity to live near work in a "transportless" environment, may, in fact, also be the result of the desire of related individuals to live near to one another and work in the same establishment. As discussed in chapter 4, there is reason to believe that such an arrangement was present in the outer borough, at least, and persisted into the present century, an informant living in Morryston in the late nineteenth century claiming that extended family networks would live in the same few streets, work at the same establishment and attend the same chapel-based social functions.⁶

While the major aspects of family-status variation in 1871 remain similar to those of 1851, with the central-area preference of single heads and others following non-familist life-styles being the most articulate spatial expression of the dimension, there are several observable changes in the relationship between family and other factors which may indicate a gradual strengthening of family status as a dimension

of residential differentiation. Firstly, there is a noticeable widening of the divergence between the average family size of outer-borough as opposed to town residents and, within the town, a more clearly-defined relationship between 'suburbia' and large family size. Secondly, there is a reduction in the co-variation between family size and social status and the divergence between the average family size of working-class and upper-class families is reduced. Such a decline in the linkages between class and family status does not, however, remove or diminish the more important class-related economic constraints on residential location which, for a large section of the population, preclude the selection of housing according to family criteria. Such economic restrictions on choice were possibly stronger in 1871 than in 1851 since house-building did not keep pace with demand, leading to increased competition for housing.⁷ The relationship between class and household size and complexity remains little altered. The divergence in household size between social class 1 and social class 5 is reduced but this is due to the increasing similarity in nuclear family size between classes. The extended family remains largely an upper-class phenomenon, as does the increased household complexity created by the presence of servants, employees and apprentices. There is, however, some evidence that upper-class heads are increasingly leaving their employees behind as they move west to suburbia.

In two respects, therefore, family status may be said to be more overtly present in the residential differentiation of the 1871 town but the major controls preventing its full emergence remain in operation. The economic restrictions on residential choice can, however, be over-emphasised since it has already been stated that, at both dates, a

considerable variety in housing quality existed at a small enough scale, outside the newest suburbs, to allow ethnic communities to develop and, therefore, sufficient variety should also be present to allow areas with predominant family-types to emerge. One must, therefore, conclude that their non-emergence (except in the case of non-familists) indicates that a desire to live among persons of similar migration background over-rode life-cycle considerations. Place of work possibly also figured more importantly in residential choice. It seems, therefore, that only when, firstly, a greater assimilation to urban life occurred, relieving the necessity for birthplace groups to live in close proximity and, secondly, the introduction of cheap public transport and the final disappearance of the 'pre-industrial' ties between home and work occurred, would family-status considerations emerge in a spatially-articulate form.

Notes to Chapter 12

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SECTION D

This section generalises upon the key patterns and processes revealed in the Swansea study area and relates these to available models and theories of the nineteenth-century city.

CHAPTER 13

C O N C L U S I O N

1. Introduction

The previous six chapters have presented detailed empirical results from the Analysis of Swansea's census data for 1851 and 1871. As the results have so far been presented, the emphasis has been upon the depiction of patterns and the identification of processes of change which are particular to the city. The three chosen themes for each census year, social class, migrant status and family status have, in part, been governed by the strengths of available data but, more clearly, by the significance of these 'dimensions' in the research literature and in modern studies of urban-social geography. It remains in this concluding chapter to draw more general themes and findings from this detailed empirical analysis of a particular city.

2. Summary of the empirical findings and review of the causes of residential differentiation

(a) Change in the structure of the society

The census data has revealed that any changes in the spatial organisation of residential areas in Swansea between 1851 and 1871 took place against a background of the following broad societal changes.

- (i) The proportion of the economically-active falling into social classes 1 and 2 fell while that falling into social class 5 rose substantially. This was accompanied by a sharp fall in the level of resident domestic servants as a percentage of total population.

- (ii) While the class structure was primarily dichotomous at both dates with the major division occurring between classes 2 and 3 and finer status gradations occurring within these two broad groups, by 1871 there were some indications that this major divide was being bridged. This may herald the emergence of a more modern system of status gradation in the last decades of the nineteenth century.

- (iii) The population became increasingly Anglicised. This was due not only to an increase in the level of migration from England combined with a decline in migration from Wales but also to a shift in the composition of the Welsh migrant group in favour of migrants from the Anglicised areas of Wales.

- (iv) The average family size increased by 5 per cent. This was mainly a result of class-structure and age-structure changes in the population.

- (v) Extended families declined as a percentage of all families possibly also as a result of class-structure changes.

- (vi) The percentage of persons living outside the kin group declined. This was entirely due to the class-related decline in the level of resident domestic servants as a percentage of total population, the percentage presence of the other major non-kin group, lodgers, having increased.

Alongside these social trends affecting population and society, a number of changes took place in the residential structure of Swansea.

(b) Change in the spatial structure of residential areas

(i) Social Class

In 1851, the town was in the early stages of development from a 'pre-industrial' pattern of residential location according to social class to a more modern residential configuration typical of industrial towns. High-class households lined the main thoroughfares of the centre in characteristic 'pre-industrial' manner and the lowest class, best exemplified by the labouring Irish, was relegated to poorly-built, cramped housing at the periphery of the built-up area. Rapid population expansion had, however, already begun and this had resulted in crowded infill development for lower-class housing occurring at the rear of burgage plots, in Inn yards and on any previously under-developed land in the central area. This created a very fine mesh of social-class segregation at the centre with the upper and labouring classes living in close proximity. At the same time, the upper classes began to abandon the core area in favour of more spacious areas relatively uniform in class composition. In the early part of the century, this resulted in the development of a high-class area on the Burrows. This was an attempt to create an exclusive residential area without losing the advantage of centrality, several important public buildings being sited there to reinforce its spatial linkages with the centre of local power. However, by 1851, the rapid commercial development of the town had begun to threaten the suitability of this area for 'genteel' residence and the suburban move was under-way. This resulted in the first appearance of what was eventually to develop into a broad sector of high-class housing on the higher ground west of the town.

The lower classes, also, had expanded beyond the bounds of the mediaeval town, developing 'suburbs' to the west of the town on the low-lying land of the Sandfields and to the north on the higher ground west of the Tawe river. While all grades of working-class housing occurred in both 'suburban' accretions, lower working-class housing predominated in the north and upper working-class housing predominated in the west. In 1851, therefore, the scale of class segregation varied between the inner and outer built-up areas with all classes closely juxtaposed at the centre and a broader scale of segregation obtaining in the newer, outer area.

In 1871, the town remained in a transitional state but the processes observed in 1851 were well advanced. The high-class sector to the west was well developed, the decadence of the Burrows area was unmistakable and there were markedly fewer high-class households remaining in the central area. The out-movement of the upper classes had, however, not initially created prestige neighbourhoods of distinctive character, these classes having first produced ribbon development along the main routes westwards out of town. These were rapidly engulfed by housing of an inferior nature creating a situation reminiscent of the pre-industrial central area, except that the surrounding housing was occupied by class 3 households to the virtual exclusion of the poorest classes. By 1871, however, discrete prestige suburbs were beginning to emerge on the land to the north of Walter Road. In the central area, the micro-scale segregation of classes in which all classes were represented was gradually being replaced by predominantly non-residential commercial areas and more homogeneous working-class areas. The working-class suburbs of 1851 were much extended by 1871 and the

increasing size of the town combined with minimal public transport provision had necessitated the residential presence of all classes in both the north and the west, the Sandfields working-class area thereby losing its class supremacy over the north. The increasing size of the town had also necessitated the establishment of a high-class pocket in the far north of the town and the physical barrier of the river Tawe had led to the development of a residential nucleus in St. Thomas in which all social classes were represented. In terms of the scale of segregation, the intensity had declined for all classes, except class 1, at both enumeration-district level and grid-square level. This was a consequence of the temporarily greater residential intermixing of classes accompanying the change from one spatial organisation to another, and also of the restructuring of status along more modern lines. The trend, however, was towards a broader scale of segregation. The scale of segregation has, however, nothing to do with its intensity and it is possible that the higher classes in the centre of the 1851 town regarded themselves as just as segregated from their 'inferiors' as did the residents of the post-1851 prestige suburbs.

In the outer borough, the class structure at both dates was dictated by the requirements of the metal-smelting and mining industries and each works or mine drew on the local labour supply of the settlement which had grown up to serve it. While in 1851 all such settlements were spatially discrete islands within the borough, by 1871 the inner settlements had become joined to the town. Those joined to the town did not, however, become suburbs of it and had contributed to the fusion by their own vigorous growth, stimulated by the expansion of their own industries, not those of the town. Industrially they remained islands in the borough surrounded on their townward side by lower-class suburbs

whose class and industrial structures were sharply divided from their own. In the absence of regular and frequent public transport, those settlements beyond the present reach of the town remained little altered over the period, except for the population expansion caused by industrial growth. The class structure of all outer borough settlements at both dates, therefore, remained that dictated by the dominant industry, diversified by the presence of persons providing services for the growing village populations.

(ii) Birthplace

In 1851, residential segregation was identified for all birth-place groups including the local-born, and migrants in general were heavily concentrated within the town. The Ireland-born and Overseas-born were the most segregated groups and the Rest-of-Wales-born and the Local-born were the least segregated. A strong tendency existed for migrants from England and the Anglicised areas of Wales to reside in the south of the town and for Welsh migrants to reside in the north. The South-West-England-born migrants were predominantly located in the Sandfields while those from the Rest-of-England were particularly associated with the prestige areas and the core. The Irish were almost completely confined to the Greenhill area at the northern extremity of the built-up area. Several sub-groups of the Welsh migrant group also displayed intense residential clustering, notably the Gower-born, who were overwhelmingly concentrated in a small area of the Sandfields centring on Gam Street.

By 1871, several changes had occurred in this pattern of residential location. As the rapid growth of the town by net immigration continued, the Local-born became increasingly associated with

the older inner areas and with lower-class inner areas, in particular. Their domination of the outer borough continued, however, but almost all birthplace groups had by now made inroads into the outer borough settlements. The South-West-England-born group retained a stronger association with the south-west of the town than any other residential area but also colonised new housing in the north of the town and in the outer borough settlements being engulfed by the town. The Rest-of-England-born remained predominantly town-based and south-town based, in particular, but their strong association with high-class areas was reduced. The Irish remained tightly confined to the Greenhill area while the Overseas-born established new colonies in the outer borough. The sub-groups of the Wales-born migrant group maintained the basic features of their 1851 distributions but the following changes had taken place. The Gower-born, while retaining their Sandfields concentration, had become more dispersed with a sprinkling of settlers in the outer borough and large numbers in the north of the town, the Carmarthenshire-born maintained a north-town preference but appreciably strengthened their presence in the outer borough, and the Pembrokeshire-born, while still retaining a south-town preference, established a strong cluster in the north town and colonized St. Thomas and Port Tennant in the outer borough.

The overall effect of these changes in the spatial distribution of migrant groups was to reduce the segregation indices of all groups, except the Irish, within the municipal borough at enumeration-district level, and to reduce the segregation of the Rest-of-England-born within the town, the greater dispersal within the town of other birthplace groups having no effect on the index at 200m grid-square level. The segregation index of the Irish within the town markedly strengthened

since their continued confinement to the Greenhill area as the town grew resulted in a greater number of units from which they were excluded.

(iii) Family Status

In 1851, family size varied between the town and the outer borough, the average size being appreciably higher in the outer borough. There were also, however, areas with large average family size in lower-class central areas of the north town. Non-family household members were much more common in the central area than elsewhere and were almost totally absent from the outer borough. Single heads were also more common in the central area but were more common in high-class areas as a whole. No significant residential pattern emerged for life-cycle stage except for a strong bias towards newly-formed families in the most recently settled areas.

In 1871, the basic features of the 1851 spatial patterns were retained but the relationship between centrality and family-size was strengthened, the divergence between the average family-size of the outer borough and the town having widened and, within the town, a more distinct increase occurring in family-size outwards from the centre. Pockets of large family-size in the north centre were still, however, strongly apparent. The distribution of families in the various life-cycle stages, remained largely random. As in 1851, the clearest spatial manifestation of family-status factors was the concentration of single heads in the core area.

(c) Causes of residential differentiation

This summary of the major residential patterns existing in 1851 and the changes wrought in them by 1871 helps to identify some wider questions. How, for example, were these patterns formed and what caused them to change? The major difficulty stems from the fact that social class, migrant status and family status are strongly inter-related and insufficient evidence is available to determine with certainty the strength and direction of the causal linkages. The major sources of correlation between variables can be identified as follows. Firstly, several birthplace groups are strongly associated with particular social classes, for example, the Irish with class 5 and the Rest-of-England-born with classes 1 and 2. No birthplace group is entirely free of social-class bias. This means that migrant segregation would exist for these groups even without the operation of migrant or cultural factors. Secondly, migrant groups have strong associations with particular occupations, for example, the South-West-England-born with shoemaking, the Carmarthenshire-born with tailoring and the Rest-of-Glamorgan-born with metal-smelting. Therefore, if place-of-work still exerted an influence over residential location, as surely it must do in the absence of a public transport network and places of employment for each occupation are not evenly distributed through the urban area, then migrant groups would be segregated. Also, if the scale of production for a particular trade is still domestic and migrant groups are segregated for cultural reasons, then segregation according to occupation will also occur. Thirdly, various life-cycle and family size and composition factors are strongly associated with migrant-status and social-status factors. For example, family size varies inversely with

social class while household size and household complexity vary directly with social class. Lodgers are more frequent in lower-class households and servants and apprentices are more frequent in upper-class households. Certain groups have different fertility and mortality levels and, therefore, different average family size. Migrant groups possess different age profiles and, therefore, also life-cycle stage profiles and household composition varies between migrant groups, extended families and lodgers, for instance, being more frequent among certain migrant groups than others. All of these interrelationships imply that bias in the spatial distribution of one of the interrelated variables will result in a certain amount of bias in the other.

The interrelationships among variables, therefore, complicate the task of isolating the processes by which residential differentiation evolved. The summaries at the end of each chapter have, however, gone some way towards assessing the importance of each variable in the process of social-area evolution and formation and certain causal factors have emerged whose importance is unlikely to have been misconstrued.

The importance of social class in the evolution of residential areas is undeniable and can be easily identified since social status is linked to economic well-being and is, therefore, translated into variations in housing quality on the ground. While the spatial variation in housing at the centre is at a very small scale (though strictly structured so that prestige houses occupy the most important sites) the scale increases outwards into the suburbs, the housing being built in increasingly homogeneous tracts. Whether such increasing homogeneity in housing was created by the demands of the classes themselves or was shaped by the desires of landowners and developers, has not been investigated but work on other cities suggests that the latter factors

may have been important. Estate management certainly seems to have played a role in the development of land in the western prestige area but such factors cannot operate without the complementary presence of a middle-class desire for exclusive residential neighbourhoods.

Social classes can, of course, become segregated without the operation of economic factors since class consciousness could create spatial solidarity among the working class without the presence of economic constraints on their residential location. How strong class antagonism was cannot be ascertained from the census but qualitative data sources suggest that militancy along class lines was not a prominent feature of mid-nineteenth-century Swansea.¹

While segregation induced by class factors is undoubtedly strongly present, the residential separation of the classes has also been aided by non-class factors. For instance, migrant-status factors accentuated class segregation. The prejudice against the Irish and their extreme concentration in the Greenhill area, for example, increased the segregation of social class 5 and also possibly depressed the class composition of adjacent areas; those who could afford to reinforce their perceived cultural distance from the Irish with a corresponding spatial distance, did so.

Social class is also strongly allied to occupation and there is a distinct possibility that some social-class segregation derives from the fact that place-of-residence and place-of-work were still strongly linked. The analysis of the town in 1851 showed that, for certain occupations for which all possible places of work were known, very short journeys to work were the norm. One can assume that, especially in the much extended 1871 town, the lack of cheap public

transport would discourage long journeys to work except, perhaps, for the upper classes who could afford private transport. It was indeed among these classes that spatial ties between home and work were declining most. Walking distance combined with long working hours cannot, however, explain the full extent of the spatial links between residence and workplace and certain linkages have been identified which would reinforce the connection. Firstly, employers often built housing for their employees close to their business premises. Secondly, much employment was of a casual nature and required one to be close at hand in order to secure it. Thirdly, 'pre-residential' functional linkages still existed which would tie residence and workplace to the same plot and the continuing relevance of this for certain trades is illustrated by the fact that combined premises were still being created in the period between 1851 and 1871. There is also documentary evidence that whether due to the above reasons or not, residence close to work was generally desired by the population.² The degree of influence of place-of-work on residential location was variable between classes, however, those with very irregular work and fluctuating work-locations, such as casual labourers, would have had to move very frequently to maintain a short journey-to-work. The continuing importance of a short journey-to-work as the town expands has obvious implications for the maintenance of discrete residential locations for various subgroups of the population, and it may have been an important factor in the increasing residential dispersal of certain birthplace groups such as the Gower-born.

Another undeniable influence on the evolution of residential areas is migrant consciousness. The importance of cultural dissonance in the segregation of the Irish has already been referred to and its degree of segregation can only be accounted for by prejudice against and/or cohesion within the group. This coupled with their class position results in a ghetto situation. Ethnic communities can be fairly confidently identified for the Gower-born in the Gam Street area, the Overseas-born in Barracks Houses, Morryston, and possibly also for the Pembrokeshire-born in the Bethesda Street area. A more general separation of the English and Welsh populations as a whole is created by the language barrier, the Welsh language prevailing in the north of the town and the outer borough and the English language prevailing in the central and south town. Whereas the English language became increasingly pervasive during the period under study, it is very unlikely that the gradual erosion of community structures based on the Welsh language had made all areas of the town equally attractive to English speakers by 1871. Language differences may also help to account for the domination of certain occupations by particular migrant groups. Several other factors associated with migrant status, for example, the extent of previous urban experience, would also contribute to residential segregation.

Other aspects of migrant segregation, however, can be attributed to class factors. The segregation of the Rest-of-England-born within the English-speaking parts of the town is possibly mainly due to upper-class bias in the group. The fact that the group had a high level of inter-marriage with other groups, that its level of segregation fell with a reduction in its proportion of upper-class members and that its counterparts born in South-West-England were less segregated suggest that the group would not be so highly segregated if it were not for

its class position. Employment opportunities were also, undoubtedly, a factor in restricting the residential location of migrants. The skilled nature of much of the work in the metal smelters must have been a factor reducing the outer borough presence of migrants from non-metal-smelting areas.

The role of family-status factors is less easily identified and spatial variation in family and household characteristics has proved less clear cut than that of social-status and migrant-status factors. The major restraint on the spatial expression of the family-status dimension must surely be the strong links between family and household characteristics, on the one hand, and social class on the other, and, in particular, the relationship between family size and poverty. Social class and economic well-being are not the only restraints, however, and it was previously concluded that the desire to live among persons of similar migration background and the desire or necessity of living close to work over-rode family considerations in the choice of residential location. Nevertheless, all spatial variation in family-status factors cannot be interpreted as the result of other co-varying factors and firstly, the strengthening of the general relationship between increasing family size and distance from the centre and, secondly, the marked concentration of those following a non-familist life-style in the centre of the town, mark the emergence of family-status factors active in the formation of differentiated residential areas.

Finally, various aspects of the processes by which the town extended itself and the rapidity with which it did so played an important role in the development of residential areas. Firstly, the speed with which the town grew and the fact that much of the growth was caused by net in-migration means that the newly-developed outer areas were

predominantly settled by young migrant families with obvious implications for the distribution of both migrant and life-cycle groups. Secondly, the rate of physical growth did not always match the demand for housing and there is documentary evidence of housing shortages developing in the 1860s.³ Since migrant groups arrived in different wave-like patterns, this differentially affected their housing opportunities and may have created residential patterns which, despite high levels of intra-urban mobility, have some persistence. Thirdly, the growth of residential areas was constrained by topographical features and by the distribution of non-residential landuses particularly those associated with industry and communication. These were primarily the physical barrier to development created by the river and the sea on two sides of the central area, the ill-drained nature of the Sandfields, the adverse impact of the South Dock and the railways and the nuisance created by industry in the Swansea Valley, particularly its toxic smoke.

The evidence extracted from the census and from other sources, therefore, suggests that of the three major dimensions of residential differentiation identified by social area analysts and factorial ecologists, social class was the most important constraint shaping the evolution of residential areas and family status was the least important. In addition to these dimensions, place-of-work also proved to be important, as did the physical growth process and the rate at which the town expanded. Allied to this latter factor is the role of the housing market and the attributes of land owners and developers.

Further light may be shed on the interrelationships between the major dimensions of residential differentiation and their relative importance by applying principal factor analysis. Such an analysis has

been carried out for 1851 and 1871 at 200 metre grid-square level for the town. At the outset it must be stated that factor analysis can do little to advance our understanding of the actual processes at work since it makes no assumptions about causality and merely offers an insight into the most important structural aspects of the observed variation. This, however, is not its only limitation. The technique and general criticism of it when applied to social science data have been fully discussed elsewhere⁴ and Holmes has discussed its limitations in the context of this particular type of study.⁵ A few comments on its limitations in the present context are, however, necessary.

(i) Analysis of migrant groups has shown that subdivisions of the Welsh migrant group are more relevant to the study of residential differentiation than is the group as a whole. Information on that level of detail cannot, however, be entered into the analysis without increasing the number of variables beyond a workable level given the number of spatial units (cases) being analysed.

(ii) Housing variables are relevant but cannot be obtained. Several housing variables which can be measured for 1851 from the Board of Health maps are not available for 1871. One variable available at both dates, households occupying courts as a percentage of all households, is not suitable for use since bye-laws prevented the construction of courts after 1850 and the variable in 1871, therefore, mainly serves to isolate the 1851 town. This leaves population density per hectare as the only usable housing variable. A housing tenure variable could have been extracted from rate books.

(iii) Although journey-to-work has proved to be important, it is unlikely that occupational variation could reflect this in the factor analysis.

Although it has been shown, for instance, that all pottery workers lived within 500 metres of all possible sources of employment, such minor variables are not suitable for entry into the factor analysis. Where larger employers are involved, occupational variables may be suitable and if the outer borough had been the subject of the factor analysis, variables indicating the percentage presence of metal workers and of mining workers would have been used.

The variables entered into the analysis, therefore, are less than optimal but cannot be easily improved upon. Similarly, the scale of the analysis is not optimal for the purpose envisaged. While each scale of analysis has a validity at its own level of generalisation, investigation of the data has shown that, for the present purpose, 200 metre grid-squares may provide too broad a scale. Certain variables which show strong concentrations in parts of particular squares can have their correlations with other variables over-emphasized if the remaining parts of the squares they concentrate in are also characterised by concentrations of a different nature. Moving the grid lines would greatly alter the strength of such correlations. Moving the grid lines would also greatly alter correlations based on variables which show strong spatial clustering in areas bisected by grid lines. While the spatial scale is not optimal, therefore, and a few instances may exist where the strength of the correlation would be altered by the re-positioning of the grid lines, no grid-line positioning would produce the 'correct' correlations, and reducing the size of the spatial units would be statistically unsound unless the original sampling fraction was increased. (Other studies have, however, used a sampling fraction as low as 1 in 10 in conjunction with a 200 metre grid for a nineteenth-

century town).⁶ The value of the correlations between all variables entered into the principal factor analysis illustrated here were considered at the time of variable selection and no detectable 'spurious' correlations are included.

There are also problems of interpretation. Not only is it difficult to 'label' the emergent factors, partly because the significance and meaning of the input variables can rarely be fully known, but it is also difficult to assess the extent to which ecological correlations are relevant to the interpretation of household location.

The results of the principal factor analysis with varimax rotation are presented in Table 13.1 for 1851 and Table 13.2 for 1871. The same set of variables was entered at both dates and a full definition of these with their respective transformations appears in Appendix D. A comparison of the factor structure for 1851 and 1871 is given in Table 13.3.

Factor 1 in 1851 accounts for 40.5 per cent of the variance and identifies a dimension differentiating the middle-class, low-density, new suburban and Burrows residential areas with a well above-average English presence from the high-density, working-class residential areas. The single most important variable distinguishing this dimension is the presence or absence of resident domestic servants. This finding is in line with that of Tansey in Hull at the same date where the most important dimension of residential differentiation was found to be socio-economic class with resident domestic servants as the single most succinct manifestation of it.⁷ Best has also commented on the importance of servant-keeping as a measure of social class.⁸ The next most

Table 13.1

Principal Factor Analysis with Varimax Rotation on 1851
200 metre grid-square data for Swansea - Factory loadings

	<u>F a c t o r s</u>			
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
Eigen value	4.54	2.48	1.99	1.21
% Variance explained	40.5	22.2	17.7	10.8
Cumulative % explained	40.5	62.7	80.5	91.3
<u>Variables *</u>				
Social Class 1 & 2 as % TEA	<u>0.788</u>	0.210	-0.128	0.095
Social Class 3 as % TEA	<u>-0.435</u>	<u>0.501</u>	0.242	-0.111
Social Class 5 as % TEA	<u>-0.379</u>	<u>-0.703</u>	0.174	-0.236
Res. Dom. Serv. as % TP	<u>0.874</u>	0.177	-0.079	-0.026
% Households sharing	-0.063	-0.224	0.285	-0.092
Women & children as % TEA	-0.224	0.240	<u>0.671</u>	0.171
Population density per Ha	<u>-0.629</u>	0.042	0.277	-0.021
Household size	0.306	0.045	0.008	<u>0.942</u>
Single heads as % all heads	0.029	0.179	<u>0.605</u>	<u>-0.495</u>
Ext. fam. as % all fam.	0.141	<u>0.403</u>	-0.390	0.095
Pop. 0-4 HF as % HF pop.	<u>-0.539</u>	-0.249	-0.267	0.132
Pop. 0-14 HF as % HF pop.	-0.330	<u>-0.436</u>	0.084	<u>0.616</u>
Lodgers as % TP	-0.060	-0.141	<u>0.568</u>	0.007
Sex ratio F:M	<u>0.598</u>	0.178	-0.300	0.170
Irish as % TP	-0.391	<u>-0.753</u>	0.124	0.053
S.W. England-born as % TP	-0.073	0.144	0.045	-0.003
Welsh migrants as % TP	0.092	<u>0.596</u>	0.162	-0.195
Rest of Eng-born as % TP	<u>0.506</u>	0.214	0.077	0.202

* The transformations used are listed in Appendix D

TEA = Total economically-active

TP = Total population

HF = Head's family

Table 13.2

Principal Factor Analysis with Varimax Rotation on 1871
200 metre grid-square data for Swansea : Factor loadings

	<u>Factors</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Eigenvalue	4.73	1.77	1.63	1.38	1.03
% Variance explained	41.6	15.5	14.3	12.1	9.1
Cumulative % explained	41.6	57.1	71.4	83.5	92.6
<u>Variables</u> *					
Social Class 1 & 2 as % TEA	<u>-0.672</u>	<u>0.420</u>	0.076	-0.148	0.190
Social Class 3 as % TEA	0.268	-0.102	<u>0.859</u>	0.082	-0.031
Social Class 5 as % TEA	<u>0.580</u>	<u>-0.434</u>	<u>-0.488</u>	0.067	-0.040
Res. Dem. Serv. as % TP	<u>-0.831</u>	0.353	-0.037	-0.150	0.271
% Households sharing	<u>0.570</u>	-0.016	-0.022	0.040	-0.166
Women & children as % TEA	<u>0.571</u>	<u>0.407</u>	0.192	-0.061	0.226
Population density per Ha	<u>0.757</u>	-0.201	-0.108	0.117	0.132
Household size	-0.058	0.248	-0.109	-0.092	-0.192
Single Heads as % all heads	-0.180	0.067	0.008	-0.051	<u>0.869</u>
Ext. fam. as % all fam.	-0.053	0.334	-0.058	<u>-0.547</u>	0.117
Pop. 0-4 HF as % HF pop.	0.017	0.049	0.131	<u>0.503</u>	0.006
Pop. 0-14 HF as % HF pop.	0.209	0.093	-0.271	<u>0.884</u>	0.003
Lodgers as % TP	0.375	-0.145	0.072	-0.108	0.234
Sex ratio F:M	<u>-0.448</u>	<u>0.704</u>	0.004	0.057	0.252
Irish as % TP	0.309	-0.253	<u>-0.449</u>	-0.008	0.150
S.W. England-born as % TP	-0.061	<u>0.606</u>	0.121	0.022	-0.085
Welsh migrants as % TP	-0.178	0.022	<u>0.530</u>	-0.026	0.138
Rest of England-born as % TP	-0.211	<u>0.771</u>	-0.152	-0.099	0.221

* The transformations used are listed in Appendix D

TEA = Total economically-active

TP = Total population

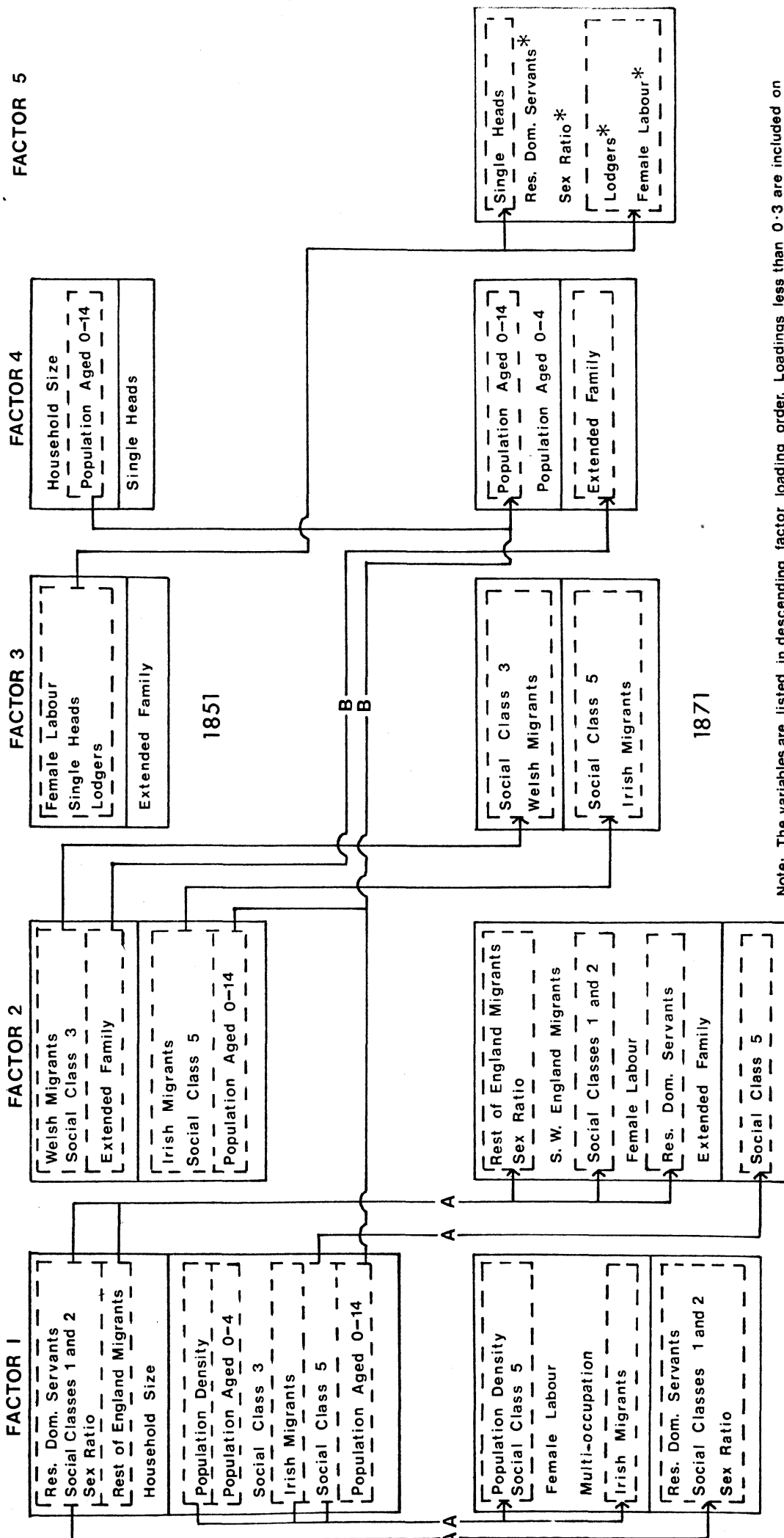
HF = Head's family.

Table 13.3

Principal Factor Analysis, 1851 and 1871. Primary linkages between the factor structures

A = Decreasing interdependence of social class and migrant status

B = Increasing independence of the family status dimension



Note: The variables are listed in descending factor loading order. Loadings less than 0.3 are included on factor 5 and are indicated by an asterisk

important loadings are the percentage of the population in social classes 1 and 2 (positive) and population density per hectare (negative). The smaller size of upper-class families and the older age-profile of their heads is reflected in a high, negative loading on the head's family population aged 0-4 years and a less important negative loading on the head's family population aged 0-14. The high positive loading of the sex ratio is caused by a combination of the well above-average presence of resident domestic servants in high-class households and of lodgers in lower-class households, the former being the most important since servants are not only much more heavily biased towards females than lodgers are towards males, but they are much more exclusively a feature of high-class households than lodgers are of working-class households. Other variables which load significantly on this factor are the percentage born in England and Scotland (positive), household size (positive), the percentages of the total economically-active in classes 3 and 5 (both negative) and the percentage of the population born in Ireland (negative). The factor is, therefore, principally representing a social-class dimension but also has important connections with those migrant-status variables and family-status variables which have previously been shown to correlate with class.

Factor 2 in 1851, accounting for 22.2 per cent of the variance, is another bi-polar factor distinguishing between the skilled and unskilled sections of the working class, the former identified with Welsh migrant households and the latter with Irish migrant households. Both of the first two factors, therefore, combine migrant status and social status variables, social status being dominant in the first factor and migrant status, perhaps, being dominant in the second. Both factors are

also associated with family-status variables, a relative lack of males and young children being associated with classes 1 and 2 in factor 1 and above-average numbers of children and a lack of extended families being associated with social class 5 and the Irish in factor 2.

Factor 3 accounts for 17.7 per cent of the variance and is associated with those central areas of the town which contained large numbers of single heads, lodgers and working women and children. This factor is largely independent of class since these central areas, despite their increasing domination by persons in the above three categories, were still characterised by a 'pre-industrial' residential intermixing of social classes. The large presence of single heads is primarily associated with the dealing sector while that of working women is associated with both the dealing sector and the presence of non-resident domestic service. The most important minor loadings on this factor associate the dimension with a lack of young children and extended families, a bias towards males and high-density living. The factor is, therefore, essentially a family-status factor isolating those areas in which family life is relatively weak but it is also an economic activity/industrial sector dimension identifying those areas which are developing a functional specialisation associated with their centralised location. The fourth factor, accounting for 10.8 per cent of the variance, is another 'family-status' factor identifying that part of the variation in household size and child numbers which is independent of class.

In the 1851 analysis, therefore, social status emerges as the most important dimension of residential differentiation, social-class variables loading heavily on the first two factors. However, social status does not emerge as an independent dimension and, on both of

the factors on which it loads heavily, significant migrant-status and family-status loadings occur, factor 2 being particularly strongly associated with migrant status.

The first factor in 1871, accounting for 41.6 per cent of the variance is superficially similar to that of 1851. Resident domestic servants as a percentage of the total population again forms the single most important variable, followed by population density and the percentage of the total economically-active in social classes 1 and 2. However, the migrant-status variables are no longer present and the family-status element is also missing, working women being more closely connected with class than family status. Examination of factor 2 reveals that the migrant-status/social status interdependence embodied in factor 1 in 1851 is now expressed in factor 2, leaving factor 1 as a predominantly social-status dimension. Social class is not fully independent in factor 1, however, the percentage born in England and Scotland and the percentage born in Ireland having weakly significant negative and positive loadings, respectively. Factor 2, on the other hand, has strong loadings from both the migrant-status and the social-status groups of variables and distinguishes between the predominantly English areas with a high-class element and the predominantly Welsh areas with a low-class element. It can be hypothesised that factor 1 will, in time, become an independent, social-status dimension and factor 2 will, if heavy in-migration continues, become an independent, migrant-status dimension.

Factor 3 in 1871 is very similar to factor 2 in 1851, distinguishing between the skilled section of the working class strongly associated with the Welsh-born and the unskilled working class strongly

associated with the Irish-born. Family-status variables are present, as in 1851, but in weakened form.

The two primarily family-status factors which follow in 1851 as factors 3 and 4 again appear in 1871 as factors 4 and 5 in slightly modified form. Factor 5 in 1871 is similar to factor 3 in 1851, embodying the distinctive characteristics of the central area. The area is most clearly identified by a high presence of single heads and this variable is, in fact, the only one to load above ± 0.4 . Other weaker, but relevant, positive loadings occur for women and children in the labour force, resident domestic servants, lodgers, the sex ratio and the Rest-of-England-born. The factor recognises, therefore, the dual characteristics of the central area serving, firstly, as a place of residence for those members of the dealing sector and the professional sector who have chosen not to move to the periphery (hence the loadings from resident domestic servants, the Rest-of-England-born and single heads) and, secondly, as a lower-class and lodging-house area. The presence of working women is a result of both functions and both are also associated with weak family-life.

The second dimension with heavy loadings from the family-status group of variables emerges as factor 4 in both 1851 and 1871 and is concerned with identifying those areas where children are numerous. In 1871, the heads' family population aged 0-4 and 0-14 load positively and extended families as a percentage of all families loads negatively. This combination of loadings must be partly the result of the greater frequency of extended families and the smaller average nuclear family size of high-class households, as is, perhaps, borne out by the weak, negative loadings of social class 1 and 2 and resident domestic servants on this factor. Apart from this, however, the dimension must be considered to be independent of class.

Examination of the factor structures, therefore, leads to the following set of inferences about the residential dimensions of mid-nineteenth-century Swansea. Social class is the most important variable in determining residential location and, at both dates, it is identified by the presence of resident domestic servants, social classes 1 and 2 and low density living. It is not, however, an independent dimension at either date, being interrelated, to varying extents, with both family-status and migrant-status variables. The three main dimensions of residential differentiation do, however, appear to be separating out over the twenty-year period. In 1851, all three dimensions are represented in the first two factors. In 1871, however, social class alone is strongly represented in the first factor while a mixture of social-class and migrant-status variables load on the second two factors, with family-status variables being filtered out on to factors 4 and 5 and only very minor family-status loadings occurring on the early three factors. This is a rather simplified view of the situation, however, since it is not strictly correct to assign the variables in the analysis to the three major dimensions in the conventional manner. For instance, factor 5 in 1871 and factor 3 in 1851, while composed largely of 'family-status' variables, are as much a reflection of variation in economic activity and organisation as a reflection of family-status variation, and the results presented in previous chapters have shown that spatial variation in certain variables needs careful interpretation.

Whereas, for the reasons stated previously, too much significance cannot be drawn from the factor analysis, it must be acknowledged that the results of the analysis do present a very credible summary of the

residential structure and its temporal development which broadly agree with the findings of earlier chapters and with other research on mid-nineteenth-century, British industrial towns.

3. The relevance of general models on the transition from pre-industrial to modern residential structure

How do the above conclusions about mid-nineteenth century Swansea relate to the growing body of literature on the temporal development of residential areas? Among the 'theoretical' frameworks outlined in Chapter 1 was the concept of spatial transformation from the pre-industrial city of Sjoberg⁹ or Vance¹⁰ to the industrial city of Burgess.¹¹ Recent research has tested the relevance of these models of urban spatial structure in Victorian cities and, as indicated in Chapter 1, similarities have been found.¹² In the case of the present study, reference to these 'ideal types' has been implicit in much of the analysis, especially in regard to the movement of high-class housing. These models, particularly that of Burgess, remain, however, what they were intended to be, theoretical constructs which say something relevant at a generalised level about intra-urban spatial structure in specifically defined hypothetical conditions. Their considerable durability and the frequency with which they continue to be cited in research work, is, however, a tribute to the fact that, like most idealised models, they contain a simplified version of certain phenomena, aspects of which are continually being confirmed in approximate form, by empirical research. For instance, in this study, the lowest social-status group and the highest social-status group in 1851 are predominantly located at the periphery and the centre respectively as in the Sjoberg model, and in 1871, the higher classes are predominantly

located in a sector at the periphery as in the Burgess model amended by Hoyt.

In Chapter 1, the conditions cited by Timms as necessary for the emergence of the Burgess model¹³ were listed and we are now in a position to evaluate how far these were present in Victorian Swansea. The conditions are that the city should be rapidly growing, have an industrial base, an efficient transport system, a heterogeneous population, free-market housing conditions and a value system which stresses newness and spaciousness. That Swansea was rapidly growing, had an industrial base and a heterogeneous population has already been amply demonstrated. In the case of free-market housing, Swansea, along with most nineteenth-century British cities, probably had a freer housing market than had ever existed before or after, housing in earlier times being largely controlled by landholders and guilds and, in modern times, subsidised municipal housing and various other public policies intervene in the market. A value system stressing newness and spaciousness had been gradually emerging from early in the century, starting with the development of the Burrows area and its adjacent pleasure grounds. By the 1840s, the first urban houses with front gardens had been built in Singleton Street and Dillwyn Street in the west. These early front gardens were small enclosures approximately one third of the size of the houses they fronted but, by 1850, houses had been built on Picton Place with front gardens much larger than the houses themselves, the front and rear gardens accounting for as much as four-fifths of the plot. From this date onwards, no houses were built flush with the street in the western prestige area, although the penchant for large, front gardens only intermittently reappeared, the desire for imposing frontages possibly

winning the day. A desire for spaciousness was, therefore, amply evident. Whether it was also a desire for newness is less easily established since spaciousness could not be created without newness. One can fairly safely assume, however, that newness was a complementary attraction. This leaves only one condition lacking, that of an efficient transport system, and this was certainly not present. It is, indeed, the remaining constraints on the spatial separation of home and work (not only that implied by walking distances) which forms one of the most plausible reasons for the non-emergence of residential areas differentiated according to social status throughout the town by 1871 at the scale and degree hypothesised by the Burgess model. In 1871, therefore, vague approximations to an early stage in the development of the Burgess-Hoyt model were present but the conditions necessary for its further emergence were not, the upper classes being the only section of the population whose movement was not constrained by transport deficiencies.

Whilst the spatial structure of Swansea at mid-century showed aspects of the Burgess model, did it also show remnants of the pre-industrial city? In terms of economic organisation, the city was still, to a large extent, pre-industrial. Apart from the large concerns of the outer borough, most manufacturing and distribution was domestically organised, the two often being integrated and the tendency for sons to follow their father's line of employment was strongly apparent - not only in domestic industries but also in the metal works. Most economically-active household members belonged to the same class, perhaps suggesting that upward, social mobility, in terms of occupational change, was not common. In terms of spatial patterns, the majority of the 1851 elite were still living in the major streets of the city centre

surrounded by a much larger lower-class belt of housing, with the poorest group relegated to the furthest extremity of the built-up area. In Sjoberg's city, the large lower-class residential zone is characterised by "finer spatial differences according to ethnic, occupational and family ties".¹⁴ That occupational segregation was present has been amply demonstrated and there is evidence that it was due to more than a lack of transport. Ethnic/migrant segregation was also present and, although it has not been possible to investigate family ties, documentary evidence suggests that these too were important in creating residential sub-areas. In 1851, therefore, if it was not for the as yet small, emergent suburb of upper-class housing in the western periphery, the town would, in many respects, resemble a 'pre-industrial city'. In 1871, while some changes had occurred, these resemblances remained.

Whereas vague approximations to polar ideal types of urban spatial-structure can be identified, therefore, it is unlikely that any model, even one designed for nineteenth-century industrialising towns would provide more than an approximate fit, since the spatial organisation of any city at any date is too dependent on a large set of interacting variables for anything other than the modelling of ideal types to be a possibility. A more fruitful line of enquiry possibly lies in the comparison of mid-nineteenth century Swansea with the stage models of evolving social structure, particularly those such as Timms (1971), which relate to the hypothesised separation of the major dimensions of modern residential differentiation. (see Table 1.1).¹⁵ According to this classification, one would expect nineteenth-century Swansea to approximate to the stage labelled 'Industrialising city'

and be characterised by a 'combined but separating' social-rank and family-status dimension and possibly also by ethnicity and migration dimensions which may or may not be joined. The empirical analysis has shown that Swansea did have a combined social-rank and family-status dimension and that both were more independent in 1871 than in 1851. The social-rank dimension was much the stronger of the two and, although Timms's model does not assign different strengths to the dimensions, other research has demonstrated the superior strength of the social-rank dimension both at this stage of development,¹⁶ and in modern cities.¹⁷ The possibility of a combined ethnicity-migration dimension has also been confirmed by the analysis, the ethnic groups being recent migrants and the migrant groups showing cultural divergence and both forming visible minorities with age-sex imbalances. What Timms's proposed constructions for the 'industrialising city' do not anticipate in the Swansea case is the strong interdependence between social rank and ethnicity/migration, and their gradual separation. It seems, however, that this interdependence was much more a feature of Welsh industrialising cities than industrial cities in the rest of Britain. Whilst in most cities, long-distance migrants generally fared better socio-economically and the Irish, wherever they were present, occupied the lowest rung of the social-status ladder, the tendency for the large body of English migrants to enter dealing and the professions (and, therefore, classes 1 and 2) to a much greater extent than Welsh migrants or locals and their consequent tendency towards spatial separation due to language and other cultural differences (such as religion) as well as class differences, was obviously a feature peculiar to Welsh towns.

Although an association between socio-economic status and migrant status is not incorporated in the model for the 'Industrialising City', it is incorporated in Timms's 'Colonial City' and, indeed, the configuration of constructs and indicants for the Colonial City (Table 13.4) bears a very strong similarity to Swansea's mid-century ecological structure. While nineteenth-century Swansea cannot be described as a colonial city in the normal sense of the term, it must be acknowledged that the processes active within it were of a 'colonial' nature. Much of the capital in metal smelting, if not in mining, was in English (foreign) hands and these same hands also had a rein on local power. The culture and language of an important section of the elite was, therefore, at variance with that of the 'host' population and both the locally-born population and the Welsh migrant population were socially inferior in proportional terms. The extreme socio-economic deprivation of the Irish completes the picture of a culturally-determined class division. It must be re-emphasised that this statement is only true in relative terms. The host population and the Welsh population as a whole had an absolute majority in the upper social groups, but, compared with the English, were considerably less likely to become members of these groups. While nineteenth-century Swansea does, therefore, approximate Timms's transitional 'Industrialising City', its ecological structure more closely resembles the 'Colonial City'.

In modern cities, family status normally emerges as the second most important dimension. Are there signs that this development is emergent in nineteenth-century Swansea?. Certainly in 1871, family status is not the second most important dimension, an independent social-status dimension and two combined social status/ethnicity-migration dimensions accounting for much more of the variance in the

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Table 13.4

Item-construct relationships in the Colonial City (Timms)¹⁸

Construct	Social Rank - Ethnicity - Migration status - Family status			
Indicants	Occupation Education Income	Culturally visible minorities	Native migrants Age-sex imbalance Mobility	Fertility Working Women Marriage

factor analysis than the weak family-status dimension. The interpretation given was that, if migration continued at a high level, the social rank and ethnicity-migration dimensions would separate out on the first two factors, since this is the trend established by the transition from the 1851 factor structure to the 1871 factor structure. However, should migration fall off, this combined with the rampant Anglicisation of the town would greatly diminish the importance of the ethnicity-migration dimension, allowing family status to take its place as the second most important dimension of residential differentiation. The same result would, in fact, be achieved at a later date even if migration continued at a high level for a considerable period (as it did for 30 more years) since the increasing Anglicisation of the town would reduce the importance of migrant status whilst, at the same time, the importance of the family-status dimension would be enhanced by the emergence of a more modern system of status gradation, reducing family-status dependence on class, and the increasing size of the urban area would make environmental considerations in family location more pressing while the development

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of public transport enabled working-class families to take advantage of suburban locations.

In Chapter 1, the necessary conditions cited by Abu-Lughod for the emergence of orthogonal family-status and social-status dimensions were listed.¹⁹ The first of these, residential segregation according to modern ranking systems, was only partially present in Swansea in the period under study; neither a modern spatial scale of status segregation nor a truly-modern system of status gradation could be said to exist. In regard to the second, the lower fertility of the upper classes and their much greater tendency to live in extended families, prevented low correlations between social rank and differences in fertility and family styles. These correlations, however, did decline over the period under study. A high differentiation of residential sub-areas according to housing types only existed in the newer, outer areas and even some of the newest working-class housing was very mixed in type and quality. With regard to the fourth condition, the presence of mobility, whilst it has been shown in other studies that intra-urban mobility was at a very high level, it has also been shown that much of it among the lower classes was confined to neighbourhoods and many members of all classes were tied to certain areas of the city by work locations. A large section of the population would not, therefore, be mobile in the sense that Abu-Lughod meant. The weak emergence of the family-status dimension is, therefore, what one would expect according to the above criteria. The slight strengthening of the dimension between 1851 and 1871 parallels the gradual movement towards fulfilment of the conditions and one can assume that such a development continued over the subsequent decades.

Another retarding influence on the emergence of the family-status dimension also requires comment. Whereas, the factor analysis did not point to a strong connection between family status and ethnic-migrant status (though family-status loadings greater than 0.4 do occur in factor 2 in 1851 - a migrant-status/social-status dimension) this is mainly due to the fact that a variable specifically associated with young adults was not entered into the analysis. Chapters 9 and 12, however, identified life-cycle variation between residential areas with age-specific in-migration and it can be postulated that, while ever heavy in-migration continued, family status would be ecologically linked with migrant status. Such age-sex imbalance is anticipated by Timms's 'colonial city' model.

Mid-Nineteenth-Century Swansea, therefore, like almost all other rapidly-growing towns of the period which have come under study, had embarked on its departure from the spatial and societal organisation of the pre-industrial city but was still a long way from approximating a modern spatial and societal structure. While movement in the indicated direction can be discerned, twenty years is not a sufficiently-long period for change of such a fundamental nature to be fully monitored and seen through to a definitive state of transition.

4. The importance of the internal characteristics of households in determining the pattern of residential location

A good deal of discussion has been directed at residential patterns and the extent to which these are a reflection of migrant-status, ethnicity, social-status, occupation and family-status attributes of individuals and households. While these attributes are the primary sources of residential differentiation, they are also, to differing

extents, causes of residential differentiation. Various other factors not concerned with household attributes have also been identified as influences on the residential structure. The data analysed, however, have produced static pictures of the urban area at two points in time and it is easy to overlook the fact that the residential pattern, particularly in the nineteenth century, was highly dynamic. The aggregate pattern of residential location at any point in time is the cumulative result of individual household movements and, in order to discover how residential areas evolved, one needs to know what were the causes of residential mobility and what were the influences on the direction, distance and frequency of movement. The discussion has primarily focussed on establishing the extent to which social-status, migrant-status and family-status household attributes influenced residential area evolution but little discussion has been directed at establishing the relative importance of these internal household characteristics compared with factors operating outside the household and having an effect on household location. One needs to know, on the one hand, how far households were able to choose residential locations, and to what extent such choice was influenced by the above-listed internal characteristics of households and, on the other hand, to what extent, and in what way, residential movement and locational choice were constrained by external factors, such as the workings of the housing market, the actions of Local Authorities, landowners and developers, the availability of transport, the location of employment opportunities and the morphological change in the urban area accompanying rapid economic growth and population expansion. Furthermore, one needs to know to what extent choice, within the above constraints, was actually exercised.

With so little housing being owner-occupied²⁰ and residential mobility being at a high level,²¹ did the householder feel as strong an obligation and desire to exercise his choice as he would do if he had a stake in property ownership and a reasonably firm prospect of fixed residence for years rather than months? To what extent was he satisfied to take the first convenient opportunity available within the constraints and to what extent did the 'internal constraints' on residential location, other than the unavoidable economic ones, become irrelevant in such a situation? Obviously, the relative extent to which this scenario might apply to various sections of the population is class-related, the upper classes being far more likely to be owner-occupiers than the lower classes and also less likely to make frequent moves.²² The exercising of residential choice among the upper classes would be further encouraged by the symbolic significance which housing carries and aesthetic factors which would, obviously, only play a significant role among those households which could consistently satisfy their physical needs.

It has been emphasised in the analysis at numerous points that, for a large section of the working class, decisions about residential location would be extremely limited. A housing shortage existed and, therefore, even within their very limited economic means, opportunities at any point in time would be few. Frequent moves resulted from income fluctuations caused by irregular work, death or debility of an earner or changes in the number of dependants and the excess of earnings over outgoings would be so marginal as to make a move immediately necessary when such changes occurred. The law was heavily weighted against the tenant, rents were high and tenants could be made destitute by eviction and the distraining of their possessions

if their rent payments fell into unagreed arrears. It seems likely, therefore, that many moves initially made necessary by a change in the circumstances of the household causing financial strain, were finally precipitated by landlord intervention and would be swiftly effected. The limited time available in which to seek alternative accommodation, combined with pressure on residential accommodation, would make choice a minor factor. The situation would be further aggravated by poorly-developed means of transmitting information on housing opportunities, personal contact being of paramount importance.²³ It seems, therefore, that for the vulnerable section of the working class whose level of income, or its irregularity, prevented the achievement of a standard of living consistently, or if ever, above the poverty-line (estimated by Booth and Rowntree to be 20-30 per cent of the population of London and York, respectively)²⁴ moves would often be made in a hurry to locations which were the only available possibilities at that point in time.

It is easy, however, to over-emphasise the importance of forced moves. Firstly, a residential move was not the only solution to the problem; the taking of lodgers or the subdivision of the dwelling, if not already resorted to and if not opposed by the landlord, was an alternative solution. Secondly, a large number of moves among the comfortable working-class must have been to higher rented property and such moves would not be as heavily constrained by time or by available finance. Even among the class continually at risk of poverty, a large proportion of moves would have been upward as fortunes fluctuated. Upward moves, however, although not made under the same pressure, were heavily constrained by many of the factors already discussed. While housing shortages most acutely affect the worst off, since landlords

will charge the maximum rent they can while still achieving full occupancy, they must also have reduced housing opportunities at all levels of working-class income and the reliance on personal contact as a means of transmitting housing opportunities would have restricted choice at all levels of the rental sector. Furthermore, even skilled members of the working class were subject to work shortages and seasonal fluctuations in income periodically reduced their competitive ability and encouraged frequent residential moves.

The upper classes, too, were not free from 'forced' moves. The movement out of the centre and the Burrows area, although possibly a reflection of the 'desire for newness and spaciousness', must also, in many cases, have been a reaction to factors beyond their control. Many moves from the Burrows area must have been a direct result of the loss of the park and promenade and their replacement by the South Dock accompanied by much increased commercial pressure on the area. Similarly, moves from the centre would have been precipitated by increased land values, increasing congestion and the subdivision of older properties for lower-class housing.

Many moves at all levels of the class spectrum (but more at the lower end) can be interpreted, therefore, as 'forced' moves, resulting from factors beyond the control of the household, and this has obvious implications for the formation of residential areas. The remaining moves are the result of the household's own volition but these, too, were in many cases heavily constrained by external factors having little to do with the actual constitution of the household: these are place-of-work, policies and attitudes of landlords and

developers, the impact of non-residential developments, restricted information and time pressure. Furthermore, the incentive to select housing according to the preferences and needs of the household members, within these considerable constraints, was reduced for many by the likelihood of further transience. Added to this is the previously discussed severe restriction on choice imposed on the working classes by low wages. While class is an internal household characteristic, it is in many ways an external constraint, particularly in the nineteenth century, there being very little an individual could do to improve his economic position. Capitalism, then as now, ensured a reservoir of cheap labour and, while individuals might occasionally break out of poverty into prosperity, the vast income disparity in the population as a whole and the magnitude of the population under threat of poverty would remain relatively constant. It is worth recording here that the thirty per cent figure produced by Rowntree for the end of the century represents the absolute minimum in poverty. It assumes, for instance, that the population spent their income in an optimal manner based on accurate information on the nutritional value of food and seasonal price variations. The proportion of the population in relative poverty would obviously be considerably higher. It is apparent, therefore, that the pattern of residential location was very heavily influenced by factors other than locational decisions taken at household level since, although such decisions played a role in all but custodial residential relocations, their effect was very heavily constrained by factors beyond the control or the influence of individual households themselves.

The residential pattern which the above constraints would produce would be one primarily differentiated according to social class but it would also contain migrant-status and family-status variation. Variation in both migrant status and family status would be produced by the age-sex imbalance in the migrant group and the greater tendency of migrants to settle in newer areas where previous migrants have settled since these would be their only personal contacts. Once having located in these areas, their limited information fields would tend to confine them to the neighbourhood. In Swansea, the language barrier would have further restricted information flows. Migrant-status and family-status variation would also result from social-status variation since neither is independent of social class. Landlords may also have increased migrant segregation by excluding minorities such as the Irish in order to protect the rental value of their property. The location of employment opportunities would further restrict the residential location of migrant groups since strong occupational bias existed among certain groups. The observed pattern of residential differentiation in Swansea, therefore, can be accounted for, to a large extent, by factors having little to do with locational preference among households.

It is all too easy, however, to swing the pendulum too far and even in the mid-nineteenth century, when so many of the urban population were preoccupied with fending-off the threat of poverty, the role of decision-making at household level must surely have played an important part in residential location. It is difficult to see how exclusive residential areas, like that emerging on the higher ground in the west, could have developed without a strong demand from higher-class households themselves. The evidence that kin groups lived in close proximity, the extreme extent to which certain migrant groups clung

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together and the strength of community structures based on the local chapel, all suggest that householders' preferences and their pattern of behaviour were influencing the aggregate pattern of residential differentiation. Furthermore, some of the listed external 'constraints' on household location may, in fact, have been partly created by the locational decisions of households. For instance, in domestically-organised industry, in particular, the spatial restriction of employment opportunities in certain trades could be created by the desire of migrant groups with occupational bias to live in close proximity. It is, therefore, difficult to separate causes from effects and, while common sense suggests that the aggregate pattern of residential location is the result of a highly complex set of interrelationships involving variable balances between internal and external constraints on the household and between forced and voluntary residential moves, a clearer insight into the relative contribution of each requires a wider field of investigation. While the internal characteristics of households have been the major concern, the inferences which can be drawn from the results produced by their study, are limited by lack of detailed information on other aspects which have a bearing on residential differentiation. The above discussion and work by other researchers suggest that the workings of the housing market and the dynamic aspects of the city, particularly intra-urban mobility, in-out migration and social mobility, are the two fields which are likely to be most relevant in this respect.

The information analysed in this research and the results obtained are, therefore, the initial stage in what needs to be a wider and continuing field of enquiry. While much has been learnt about the nature of residential differentiation and numerous causes of residential

segregation have been identified, the extent to which each contributed to the final residential configuration needs further clarification. Research is needed on the decennial censuses as they become available in order to trace the continuing pattern of social and residential evolution. Furthermore, research based on completely different data sources is required, firstly, with a view to assessing the role of external constraints, such as the influence of landlords and developers, on household location and, secondly, with a view to assessing the influence of contemporary capitalism on social and residential patterns.

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Appendix A

List of Variables extracted from the Enumerators' Books

(1) Variables extracted in 1851

1. Size of household
2. Size of family
3. Number of households sharing
4. Number of children
5. Number of lodgers
6. Number of servants
7. Number of male servants
8. Presence of Governess
9. Number of relatives (not visiting)
10. Number of visitors
11. Life-cycle stage of head's family
12. Life-cycle stage of subsidiary lodger family
13. Family structure of head's family
14. Family structure of subsidiary lodger family

15. Birthplace of Head-of-Household
16. Sex/marital status of Head-of-Household
17. Social class of Head-of-Household
18. Industrial group of Head-of-Household
19. Industrial sub-group of Head-of-Household
20. Specific occupation of Head-of-Household
21. Age of Head-of-Household

22. Birthplace of wife
23. Social class of wife
24. Industrial group of wife
25. Industrial sub-group of wife
26. Specific occupation of wife
27. Age of wife
28. Birthplace of 1st child
29. Sex/marital status of 1st child
30. Social class of 1st child
31. Industrial group of 1st child
32. Industrial sub-group of 1st child
33. Specific occupation of 1st child
34. Age of 1st child

- 35-41 Variables for 2nd child as for 1st child

- 42-48 Variables for 3rd child as for 1st child

- 49. Relationship to head-of-household of 1st relative
- 50. Birthplace of 1st relative
- 51. Sex/marital status of 1st relative
- 52. Social class of 1st relative
- 53. Industrial group of 1st relative
- 54. Industrial sub-group of 1st relative
- 55. Specific occupation of 1st relative
- 56. Age of 1st relative

- 57-64 Variables for 2nd relative as for 1st relative

- 65-72 Variables for 3rd relative as for 1st relative

- 73. Birthplace of 1st lodger
- 74. Sex/marital status of 1st lodger
- 75. Social class of 1st lodger
- 76. Industrial group of 1st lodger
- 77. Industrial sub-group of 1st lodger
- 78. Specific occupation of 1st lodger
- 79. Age of 1st lodger

- 80-86 Variables for 2nd lodger as for 1st lodger

- 87-93 Variables for 3rd lodger as for 1st lodger

- 94. Birthplace of 1st servant
- 95. Sex/marital status of 1st servant
- 96. Age of 1st servant

- 97-99 Variables for 2nd servant as for 1st servant

- 100-102 Variables for 3rd servant as for 1st servant

- 103-105 Variables for 4th servant as for 1st servant

- 106-112 Variables for 4th child as for 1st child
- 113-119 Variables for 5th child as for 1st child
- 120-126 Variables for 6th child as for 1st child
- 127-133 Variables for 7th child as for 1st child
- 134-140 Variables for 8th child as for 1st child
- 141-147 Variables for 9th child as for 1st child
- 148-154 Variables for 10th child as for 1st child

- 155-162 Variables for 4th relative as for 1st relative

- 163-170 Variables for 5th relative as for 1st relative

- 171-177 Variables for 4th lodger as for 1st lodger

- 178-184 Variables for 5th lodger as for 1st lodger

185-191 Variables for 6th lodger as for 1st lodger

192-198 Variables for 7th lodger as for 1st lodger

199-205 Variables for 8th lodger as for 1st lodger

206. Number of apprentices/assistant

207. Type of apprentice/assistant : 1st apprentice

208. Birthplace of 1st apprentice

209. Sex/marital status of 1st apprentice

210. Social class of 1st apprentice

211. Industrial group of 1st apprentice

212. Industrial sub-group of 1st apprentice

213. Specific occupation of 1st apprentice

214. Age of 1st apprentice

215-222 Variables for 2nd apprentice as for 1st apprentice

223-230 Variables for 3rd apprentice as for 1st apprentice

(2) Variables extracted in 1871

1. Size of household
2. Size of family
3. Number of households sharing
4. Number of children
5. Number of lodgers
6. Number of servants
7. Number of male servants
8. Presence of Governess
9. Number of relatives (not visiting)
10. Number of child relatives (not visiting)
11. Number of apprentices
12. Number of visitors
13. Life-cycle stage of head's family
14. Life-cycle stage of subsidiary lodger family
15. Family status of head's family
16. Family status of subsidiary lodger family

17. Birthplace of Head-of-Household
18. Sex/marital status of Head-of-Household
19. Social class of Head-of-Household
20. Industrial group of Head-of-Household
21. Industrial sub-group of Head-of-Household
22. Specific occupation of Head-of-Household
23. Age of Head-of-Household

24. Number of economically-active children (under 15 years)
25. Number of economically-active wives
26. Number of economically-active females
- 27. Number of females in household
28. Number of males in household
29. Number in household aged 0-4 years
30. Number in household aged 5-14 years
31. Number in household aged 15-64 years
32. Number in household aged 65+ years
33. Number in household born in Ireland
34. Number in household born in South West England
35. Number in household born in Rest-of-England
36. Number in household born in Wales outside Swansea
37. Number in household born in Wales outside Swansea,
Llansamlet, Llangyfelach
38. Number in household born Overseas
39. Number of economically-active household members in social class 1
40. Number of economically-active household members in social class 2
41. Number of economically-active household members in social class 3
42. Number of economically-active household members in social class 4
43. Number of economically-active household members in social class 5
44. Number of economically-active household members in social class 6
45. Number of lodgers born in Ireland
46. Number of lodgers born in South West England
47. Number of lodgers born in Rest-of-England
48. Number of lodgers born in Wales outside Swansea
49. Number of lodgers born in Wales outside Swansea, Llansamlet
and Llangyfelach
50. Number of lodgers born Overseas
51. Number of economically-active lodgers in social class 1
52. Number of economically-active lodgers in social class 2
53. Number of economically-active lodgers in social class 3
54. Number of economically-active lodgers in social class 4
55. Number of economically-active lodgers in social class 5
56. Number of economically-active lodgers in social class 6

Note: Visitors are excluded from all variables except variable 10
in 1851 and variable 12 in 1871.

Appendix B

Coding of variables extracted from the Enumerators' Books

Birthplace

- 0 = Unknown
- 1 = Swansea St. Mary
- 2 = Swansea St. John
- 3 = St. Thomas (Llansamlet)
- 4 = Llansamlet (rest)
- 5 = Llangyfelach
- 6 = Llandeilo-Talybont
- 7 = Llangiwig
- 8 = Loughor
- 9 = Llanrhidian
- 10 = Oystermouth, Bishopston, Pennard, Ilston, Penmaen
- 11 = Llanmadog, Cheriton, Llangenydd, Rhossili, Llanddewi, Port Eynon, Penrice, Oxwich, Nicholaston, Reynoldston
- 12 = Neath, Cilybebyll
- 13 = Briton Ferry, Baglan, Aberavon, Michaelston, Llantwit Lower, Blaen-gwrach
- 14 = Glyn-corwg
- 15 = Ystraddyfodwg
- 16 = Aberdare, Llanwonno
- 17 = Merthyr Tydfil
- 18 = Gelligaer, Llanfabon
- 19 = Margam, Llangynwyd
- 20 = Bettws, Llangeinwyr, Llandyfodwg, St. Brides Minor
- 21 = Llantrisant
- 22 = Coychurch, Peterston-super-Montem, Llanharan, Llanharry, Llanitid, St. Mary Hill, Llangan, Pen-llin, Llansannwr, Llanbleidan, Ystradawain, Cowbridge
- 23 = Kenfig, Pyle, Tythegston, Llaleston, Newcastle, Merthyr Mawr, Coitty, Newton Nottage, Sker
- 24 = St. Brides Major, Ewenny, Wick, Colwinston, Llandaw, Monk Nash, Marcross, St. Donats, Llantwit Major, St. Hilary, St. Alban, Gileston, Eglwys Brewis, St. Andrews Minor, Llysworney, Nash (extra-parochial), Llanfiangel, Llanmaes, St. Mary Church, Flemington
- 25 = Welsh St. Donats, Llantrithydd, Llancarfon, Penmark, Porthkerry, Barry, Merthyr Dovan, Bonvilston, Pendoylan, St. Nicholas, St. Lythans, Cadoxton, Highlight (extra-parochial).

- 26 = Peterston Super Ely, Wenvoe, St. Andrews Major, Sully, St. Fagans, Radyr, Llandaff, Lockwith, Michealston Le Pit, Llandough juxta Cardiff, Penarth, Lavernock, Llanilltan, St. Brides Super Ely, Caerau, Cogan
- 27 = Cardiff St. John, Cardiff St. Mary
- 28 = Eglwysilian, Llantwit Fardre, Pentyrch
- 29 = Rudry, Michealston Fedwy, Lisvane, Llanishen, Whitchurch, Llanederyn, Machen, Bedwas, Roath
- 30 = Glamorgan unknown
- 31 = Cyffic, Marros, Eglwys-Cymmyn, Llandawror, Pendine, Llandawke, Llansadarnen, Laugharne
- 32 = Llanglydwen, Llanboidy, Llangan, Henllan Amgoed, Llanfallteg, Llandissilio, Cilymaenllwyd, Castell dwyron, Egremont
- 33 = Llangynin, St. Clears, Llanfiangel-Abercronin, Llandilo-Abercronin, Mydrim
- 34 = Eglwys Fair-a-churig, Llandwinio, Trelech a'r Bettws
- 35 = Conwil Elvet, Abernant, Llanpumsaint
- 36 = Cenarth, Penboyr, Cilredyn
- 37 = Llangeler, Llanfiangel a'r arth
- 38 = Llanllewddog, Abergwili, Llanegwad, Brechfa
- 39 = Llanllwni, Llanybyther, Llanfiangel-Rhos-y-carn
- 40 = Llanstephan, Llangynog, Merthyr, Newchurch, Llangain
- 41 = Carmarthen St. Peter
- 42 = Llandyfaelog, St. Ishmael, Kidwelly
- 43 = Llangunnor, Llangyndeyrn, Llandarrog
- 44 = Penbre
- 45 = Llanelly
- 46 = Llanon, Llanedy, Llangennech
- 47 = Pencarreg, Llansawel, Llanycrwys
- 48 = Llandybie, Bettws
- 49 = Llanarthney, Llanfiangel Aberbythych, Llandyfeisant, Llangathen, Llanfiangel Cilfargan

- 50 = Llanfynydd, Talley, Llansadwrn
- 51 = Conwil-Gaio
- 52 = Cilycwm, Llanwrda
- 53 = Llanfair-ar-y-bryn
- 54 = Llandingat, Myddfai
- 55 = Llandilo Fawr
- 56 = Llangadock
- 57 = Llanduesant
- 58 = Carmarthen unknown
- 59 = Angle, Castlemartin, Rhoscrowther, Pwllcrachen, Monkton, Stackpole
Elidor, St. Petrox, Bosherton, Twynnell, Warren
- 60 = St. Mary, St. Micheal, Lamphey, Cosheston, Nash, Hodgoston, Carew,
Redberth, St. Florence, Manorbier, Upton
- 61 = Jeffreston, Reynalton, Begelly, Gwmfeston, Penally, Tenby,
St. Issels, Amroth
- 62 = Walton East, Lls-y-Fan, New moat, Lanycefn, Llandissilio,
Bletherston, Clarbeston, Llawhaden
- 63 = Robeston Wathen, Narbeth, Llanddewi-Velfrey, Grinaw, Lampeter
Velfrey, Ludchurch, Grunwear
- 64 = Loveston, Maunton, Newton, Minwear, Martlebury, Yerbeston,
Lawrenny, Coedoantass
- 65 = Spital, Rubaxton, Prendergast, Uzmaston, Boulston, Elebech, Wiston
- 66 = Langum, Burton, Llanstadwell, Rosemarket, Freystrop, Johnston,
Steynton, St. Issels, Haroldston
- 67 = Walton West, Walwyn's Castle, Herbrandston, Robeston West,
Hubberston, Hasguard, Telbenny, St. Ishmaels, St. Brides,
Marloes, Dale
- 68 = Haroldston West, Nolton, Llambston, Camrose, Roch, Trefgarn
- 69 = Haverfordwest St. Martin, Haverfordwest St. Mary
- 70 = Brawdy, Haycastle, St. Lawrence, St. Edrens, Mathry, Granston
- 71 = St. Davids, Llanrian, Llanawel, Llandelay, Whitchurch, St. Eivis,
Llanreithan
- 72 = Letterston, St. Dogwells, Ambleston, Little Newcastle, Puncheston,
Castlebythe, Llanfair-nant-y-gof

- 73 = Llanwnda, St. Nicholas, Jordanston, Manorawen, Llanstinan, Fishguard, Llanllawer, Dinas
- 74 = Newport, Llanychlwydog, Llanychaer, Pontfaen, Morvil, Henry's Moat, Nevern
- 75 = Maenclochog, Llandilo, Llangalman, Mynachlog-ddu, Meline, Witchurch, Llanfrynach
- 76 = Clydey, Penrydd, Castlellan, Llanfiangel-Penbedw, Capel Colman, Manerdivy, Cilgerran
- 77 = Llanfair-Nant-y-Gwyn, Bridell, Eglwysrwr, Bayvil, Llantood, Maylogrove, Monington, St. Dogmells
- 78 = Pembrokeshire unknown
- 79 = Monmouthshire
- 80 = Brecknockshire
- 81 = Cardiganshire
- 82 = Radnorshire
- 83 = Montgomeryshire
- 84 = Merionethshire
- 85 = Carmarthenshire
- 86 = Anglesey
- 87 = Denbighshire
- 88 = Flintshire
- 89 = Cornwall
- 90 = Devon
- 91 = Somerset
- 92 = Gloucestershire
- 93 = London
- 94 = South of England (Kent, Surrey, Sussex, Suffolk, Hampshire, Dorset, Bucks, Herts, Middlesex, Wiltshire, Berkshire, Bedfordshire, Hertfordshire, Essex)
- 95 = English Midlands (Hereford, Worcestershire, Salop, Cheshire, Staffordshire, Nottinghamshire, Derbyshire, Leicestershire, Rutland, Lincolnshire, Norfolk, Huntingdonshire, Cambridgeshire, Northants, Warwickshire).
- 96 = North of England (Lancashire, Yorkshire, Cumberland, Westmorland, Durham, Northumberland).

97 = Scotland

98 = Ireland

99 = Overseas

Note: The subgroups within Glamorganshire, Carmarthenshire and Pembrokeshire are grouped Ecclesiastical Parishes. The spellings used here are contemporary and may not coincide with present-day spellings.

Sex/Marital Status

- 0 = Male under 15 yrs old
- 1 = Female under 15 yrs old
- 2 = Male over 15 yrs old, married
- 3 = Male over 15 yrs old, bachelor
- 4 = Male over 15 yrs old, widower
- 5 = Female over 15 yrs old married
- 6 = Female over 15 yrs old spinster
- 7 = Female over 15 yrs old widow

Age

- | | |
|-----------------|-----------------|
| 0 = 0-4 years | 5 = 25-34 years |
| 1 = 5-9 years | 6 = 35-44 years |
| 2 = 10-14 years | 7 = 45-54 years |
| 3 = 15-19 years | 8 = 55-64 years |
| 4 = 20-24 years | 9 = 65+ years |

Social Class

- 0 = no stated occupation (adults)
- 1 = Social class 1)
- 2 = Social class 2)
- 3 = Social class 3) Coded according to Armstrong (1972)
- 4 = Social class 4)
- 5 = Social class 5)
- 6 = Social classes 3 and 4, allocation uncertain
- 7 = Child below working age

Industrial Group

- 0 = Agriculture and breeding)
 - 1 = Mining)
 - 2 = Building)
 - 3 = Manufacturing)
 - 4 = Transport)
 - 5 = Dealing)
 - 6 = Industrial Service)
 - 7 = Public Service and the Professions)
 - 8 = Domestic Service)
 - 9 = Property owning and Independant)
- Coded according to Armstrong (1972)

Industrial Subgroup

Coded according to Armstrong (1972)

Specific Occupation

- 0 = Blacksmith
- 1 = Blockmaker, staymaker, cutter
- 2 = Brazier, Brass moulder
- 3 = Brickmaker
- 4 = Builder
- 5 = Cabinet maker
- 6 = Carver, guildler, engraver, fancywork maker
- 7 = Carpenter
- 8 = Coach-builder, -painter, -smith
- 9 = Coppersmith, brightsmith, silversmith, whitesmith
- 10 = Cooper, crate maker, basket maker
- 11 = Dressmaker, seamstress, shirtmaker
- 12 = French polisher
- 13 = Joiner
- 14 = Malster, brewer
- 15 = Mason, stone cutter
- 16 = Milliner, glover, hatter
- 17 = Miller
- 18 = Painter and decorator
- 19 = Pipe maker
- 20 = Plasterer
- 21 = Pottery worker
- 22 = Printer, bookbinder
- 23 = Plumber
- 24 = Rope maker
- 25 = Sail maker
- 26 = Sawyer
- 27 = Shipwright
- 28 = Shoemaker
- 29 = Tallow chandler
- 30 = Tailor
- 31 = Tanner, skinner
- 32 = Watchmaker, clockmaker
- 33 = Weaver
- 34 = Wheelwright
- 35 = Wire worker
- 36 = Other artisans

37 = Animal dealer
38 = Agent, Factor (unspecified)
39 = Baker, confectioner
40 = Butcher
41 = Coal factor, dealer
42 = Draper
43 = Flour dealer, corn dealer
44 = Grocer, tea dealer, green grocer
45 = Hardware dealer, ironmonger
46 = Hawker, Huckster, Costermonger, pedlar
47 = Publican, Innkeeper, Beerhouse keeper
48 = Victualler, lodging house keeper
49 = Others in dealing

50 = Bargeman, boatman
51 = Carter, carrier, haulier, drayman
52 = Dock labourer, river and canal labourer, shoring woman
53 = Mariner, seaman
54 = Ostler, groom
55 = Pilot
56 = Shipbroker, agent
57 = Others in rail transport
58 = Others in road transport
59 = Others in water transport

60 = Coal miner
61 = Coal shipper, heaver, weigher
62 = Agricultural labourer
63 = Farmer, farm bailiff
64 = Gardener
65 = Quarryman
66 = Fisherman

67 = Chemical worker
68 = Copper worker
69 = Iron worker
70 = Patent fuel worker
71 = Silver worker
72 = Spelter worker
73 = Tin worker

74 = Accountant
75 = Banker, auctioneer, insurance worker
76 = Civil engineer, geologist, mineral surveyor, surveyor, architect
77 = Local parish official, tax collector, rent collector
78 = Medical practitioner
79 = Owner, proprietor
80 = Policeman, gaoler, county court bailiff
81 = Religious minister
82 = Solicitor, lawyer, attorney, magistrate, articled clerk
83 = Teacher, governess, schoolmaster

- 84 = Charwoman
- 85 = Cook, domestic servant
- 86 = Washerwoman, laundress, mangler
- 87 = Clerk
- 88 = Porter
- 89 = Warehouse worker, banded store worker
- 90 = General labourer
- 91 = Road, railway labourer, excavator, navvie, plate layer
- 92 = Engine drivers, fitters
- 93 = Others gainfully employed

- 94 = Pauper
- 95 = Gentlewoman, gentleman, person of independent means
- 96 = Child below working age
- 97 = Annuitant
- 98 = Retired person
- 99 = Others not in employment

Relationship of relatives to head-of-household

- 0 = Grand parent or in-law
- 1 = Parent or in-law
- 2 = Son-in-law or daughter-in-law
- 3 = Grand child
- 4 = Uncle or aunt or in-law
- 5 = Brother or sister or in-law
- 6 = Niece or nephew
- 7 = Cousin
- 8 = Other
- 9 = Unstated

Life-cycle stage

- 0 = Wife under 45 no children at home
- 1 = Wife under 45 one child only at home under 1 year of age
- 2 = Others with children at home but none over 15 years of age
- 3 = Others with children at home and some but under half over 15 years
of age
- 4 = Others with children at home, half or more than half over 15 years
of age
- 5 = Others with children at home, all over fifteen years of age
- 6 = Head has no family.

Family structure

A. One linear generation families.

- 1 = Man only
- 2 = Woman only
- 3 = Man + wife
- 4 = Man + non-linear child relative(s) (+non-linear adult relative(s))
- 5 = Man + non-linear adult relative(s)
- 6 = Woman + non-linear child relative(s) (+ non-linear adult relative(s))
- 7 = Woman + non-linear adult relative(s)
- 8 = Man + wife + non-linear child relative(s) (+ nonlinear adult relative(s))
- 9 = Man + wife + non-linear adult relative(s)

B. Two linear generation families.

- 10 = Man + wife + child(ren)
- 11 = Widower + children)
- 12 = Widow + child(ren)
- 13 = Man + wife + parent(s) or in-law(s)
- 14 = Man + parent(s)
- 15 = Woman + parent(s)
- 16 = Man + (wife) or woman head + grandchild(ren)
- 17 = Man + wife + child(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 18 = Man + wife + child(ren) + non-linear adult relative(s)
- 19 = Widower + child(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 20 = Widow + child(ren) + non-linear adult relative(s)
- 21 = Widow + child(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 22 = Widow + child(ren) + non-linear adult relative(s)
- 23 = Man + wife + parent(s) or in-law(s) + non-linear child relative(s) (+ non-linear adult relative(s))
- 24 = Man + wife + parent(s) or in-law(s) + non-linear adult relative(s)
- 25 = Man + parent(s) + non-linear child relative(s) (+ non-linear adult relative(s))
- 26 = Man + parent(s) + non-linear adult relative(s)
- 27 = Woman + parent(s) + non-linear child relative(s) (+ non-linear adult relative(s))

- 28 = Woman + parent(s) + non-linear adult relative(s)
- 29 = Man + (wife) or woman head with grandchild(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 30 = Man + (wife) or woman head with grandchild(ren) + non-linear adult relative(s)

C. Three linear generation families.

- 31 = Man + (wife) or woman head + son or daughter + spouse + grandchild(ren)
- 32 = Man + (wife) or woman head + son-spouse + grandchild(ren)
- 33 = Man + (wife) or woman head + daughter-spouse + grandchild(ren)
- 34 = Man + wife + child(ren) + parent(s) or in-law(s)
- 35 = Man-spouse + child(ren) + parent(s) or in-law(s)
- 36 = Woman-spouse + child(ren) + parent(s) or in-law(s)
- 37 = Man + (wife) or woman head + son or daughter + spouse + grandchild(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 38 = Man + (wife) or woman head + son or daughter + spouse + grandchild(ren) + non-linear adult relative(s)
- 39 = Man + (wife) or woman head + son-spouse + grandchild(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 40 = Man + (wife) or woman head + son-spouse + grandchild(ren) + non-linear adult relative(s)
- 41 = Man + (wife) or woman head + daughter-spouse + grandchild(ren) + non-linear child relative(s) (+ non-linear adult relative(s))
- 42 = Man + (wife) or woman head + daughter-spouse + grandchild(ren) + non-linear adult relative(s)
- 43 = Man + wife + child(ren) + parent(s) or in-law(s) + non-linear child relative(s) (+ non-linear adult relative(s))
- 44 = Man + wife + child(ren) + parent(s) or in-law(s) + non-linear adult relative(s)
- 45 = Man-spouse + child(ren) + parent(s) or in-law(s) + non-linear child relative(s) (+ non-linear adult relative(s))
- 46 = Man-spouse + child(ren) + parent(s) or in-law(s) + non-linear adult relative(s)
- 47 = Woman-spouse + child(ren) + parent(s) or in-law(s) + non-linear child relative(s) (+ non-linear adult relative(s))
- 48 = Woman-spouse + child(ren) + parent(s) or in-law(s) + non-linear adult relative(s)
- 49 = Man + wife + child(ren) + grandparent(s)
- 50 = 31 + other son(s) and/or daughter(s)
- 51 = 32 + other son(s) and/or daughter(s)

- 52 = 33 + other son(s) and/or daughter(s)
53 = 37 + other son(s) and/or daughter(s)
54 = 38 + other son(s) and/or daughter(s)
55 = 39 + other son(s) and/or daughter(s)
56 = 40 + other son(s) and/or daughter(s)
57 = 41 + other son(s) and/or daughter(s)
58 = 42 + other son(s) and/or daughter(s)

Note: the above coding covers all common types of nuclear and extended families. Further codes were allocated to uncommon kin groupings not covered by the above scheme, these codes preserving the generalisations embodied in the main scheme.

Type of "Apprentice"

- 1 = Apprentice
- 2 = Journeyman
- 3 = Sales assistant
- 4 = Farm servant
- 5 = Trade servant
- 6 = Articled pupil
- 7 = Other assistant/trainee to professional persons

Appendix C

Variables and Transformations used in the linear multiple regressions

<u>Variable Definition</u>	<u>Transformation</u>
<u>Dependant Variables</u>	
Local -born as a % of total population	None
Rest-of-Wales-born as a % of total population	Log 10
South-West-England-born as a % of total population	Sqrt
Rest-of-England-born as a % of total population	None
Ireland-born as a % of total population	Log 10
 <u>Independant Variables</u>	
*Social class 1 as a % of total economically-active	Log 10
Social classes 1 + 2 as a % of total economically-active	Sqrt
*Social class 3 as a % of total economically-active	None
Social class 5 as a % of total economically-active	Log 10
Servants as a % of total economically-active	None
Economically-active women and children as a % of total economically-active	Log 10
Workers in building as a % of total economically-active	None
Workers in manufacturing as a % of total economically-active	None
Workers in transport as a % of total economically-active	Sqrt
Workers in dealing as a % of total economically-active	Log 10
Workers in industrial service as a % of total economically-active	Sqrt
Workers in public service and professions as a % of total economically-active	Sqrt
*Population aged 0-14 as a % of total population	Log 10
Population aged 15-64 as a % of total population	None
*Population aged 65+ as a % of total population	Log 10
*Sex ratio	Log 10
*Mean household size	Log 10
Extended family as a % of total population	Log 10
Nuclear family as a % of total population	Sqrt
Lodgers as a % of total population	Log 10
Resident domestic servants as a % of total population	None
*Single person households minus servants and lodgers	Sqrt
*Households in multi-occupation as a % of all households	None

* Indicates independent variables used in the illstrated multiple regression.

Appendix D

Variables and Transformations used in the Principal Factor Analysis

<u>Variable list</u>	<u>Transformation*</u>	
	<u>1851</u>	<u>1871</u>
Social classes 1 + 2 as a % of total economically-active	Log 10	Log 10
Social class 3 as a % of total economically-active	None	Sq
Social class 5 as a % of total economically-active	Sqrt	Sqrt
Resident domestic servants as a % of total population	Log 10	Sqrt
Households sharing as a % of all households	Sqrt	Sqrt
Economically-active women + children as % total econ-active	None	None
Population density per hectare	Sqrt	Sqrt
Household size	Sq	Sqrt
Single heads as a % of all heads	None	Sqrt
Extended families as a % of all families	None	None
Population aged 0-4 in head's families as a % of total head's family population	Sq	Sq
Population aged 0-14 in head's families as a % of total head's family population	Sq	Sq
Lodgers as a % of total population	Sqrt	Sqrt
Sex ratio. Females:males x 100	Log 10	Log 10
Population born in Ireland as a % of total population	Log 10	Log 10
Population born in S.W. England as a % of total population	Log 10	Sqrt
Population born in Wales outside Swansea as a % of total population	Log 10	Sqrt
Population born in England outside the South West as a % of total population	Sqrt	Sqrt

* 0.1 was added to values of all variables before transformation.