

dimensions of

social

exclusion

and urban change

Acknowledgements

This report is an overview of the lessons learnt from a series of ‘community mapping’ exercises undertaken in the partner municipalities of Newcastle upon Tyne (UK) and Rotterdam (Netherlands), and supported by the SMC Kiruna (Sweden).

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(Newcastle City Council, Newcastle upon Tyne 2002).

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A Programme of Trans-national Activities.	
B Crilly, Michael and Wren, Trevor (2000) ‘Dimensions of Social Exclusion and Urban Change’. Paper presented to ‘ <i>How to integrate environmental aspects into spatial planning using indicators, environmental objectives, SEA and GIS</i> ’, international invitation conference, May 4-5, 2000 Stockholm, Sweden.	
C Crilly, Michael., Johnston, Lorraine and Wren, Trevor (2000) ‘Citizenship and Learning Networks’. Paper presented to ‘ <i>Children, Social Exclusion and Citizenship. Learning to be citizens – educational approaches to social exclusion</i> ’. University of Sunderland’, international conference, November 10-11, 2000.	
D Record of GIS mapping exercises undertaken by Spatial Modelling Centre (SMC) Kiruna, Sweden.	

Summary

This report introduces a practical model for action-research in contacting and collecting the views of excluded youth within the context of city-wide urban regeneration initiatives and social policy development in Europe. The project adapted qualitative inquiry into social situations of excluded youth, to add colour and meaning to empirical data. The aim was to acquire an improved understanding of 'soft' systems and the process of social exclusion within Europe using two case study cities through 'mapping' the views, perceptions, attitudes and values of excluded groups.

The project adopted an open-ended approach to develop methods for contacting groups / individuals and gathering this missing 'soft' information in Newcastle (UK) and Rotterdam (Netherlands). This approach was instigated and developed with academic and technical support from SMC Kiruna, (Sweden).

Retrospectively, this is presented as a network model to build research-subject contacts within (i) area based networks; (ii) 'excluded youth' networks, and (iii) formal education networks. Mixed and multi-methods have been developed, tested and adapted in practice using these networks. This popularising of qualitative survey and action research techniques not only helps the case-study municipalities in understanding the social situation (sub-culture) of socially excluded groups; but becomes part of a mutual learning process between citizens and the municipality.

These methods are then presented as a flexible *toolkit* of resources appropriate to different cities and transferable throughout Europe. This is because they are all immediately accessible, open-

ended, visual, spatial, interactive and designed as a way of prompting individuals and groups to think about their place within the urban system, spatially (geophysical neighbourhoods), temporally (their personal chronology of key events), socially (relationships and networks) and systemically (including cause and effect).

These techniques provide an alternative means of using configurations of indicators ('mapping' indicators around five key themes self-defined by excluded groups (i) education, (ii) crime, (iii) participation, (iv) employment and (v) social trends) that mix qualitative and quantitative material. These facilitate a developmental approach to understanding the *dimensions of social exclusion and urban change* within European Cities.

A series of key policy findings common to both case study cities are drawn from this research exercise.

- Effective engagement with excluded youth is possible if we adopt a different professional approach that is flexible and non-judgemental. Part of this approach is the use of an 'open' definition of exclusion that is not based on limited empirical data.
- Municipal support is necessary for open learning and the development and maintenance of 'learning networks' within cities. However, changes in organisational culture and attitudes are necessary to break dependency and paternalistic views and encourage mutual learning.
- Systemic and dynamic relationships between the multiple causes and effects of social exclusion are best explained and communicated through the configuration of interrelated indicators.

1. Introduction

This report is not meant to be an academic account of research into issues of social exclusion in European Cities and it is not interested in the intellectualisation of exclusion. Rather, it is an attempt to describe an on-going process of *action-research* into the experiences, priorities and understanding of young people in the cities of Newcastle and Rotterdam, drawing out a number of important findings of relevant to policy makers at *European, national and local* levels. This *action-research* is underpinned by the belief that we can *learn* from the experiences, values, attitudes and views of young people.

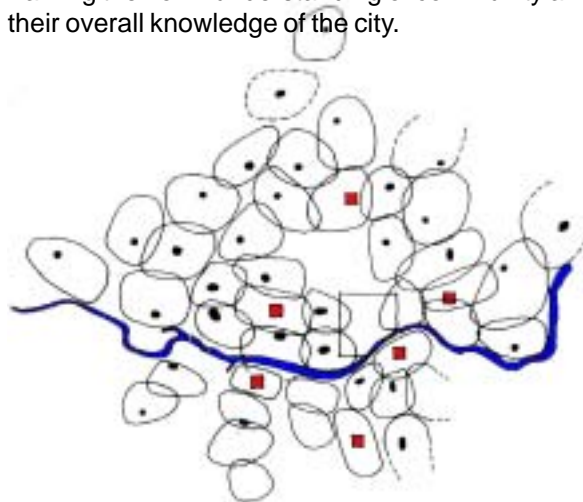
The default for urban youth is exclusion in a variety of forms. There are young people who are excluded from formal education, uninvolved in processes of local governance, outside of the labour market, familiar with criminality, restricted in choices by substantial structural barriers; be they child care difficulties, paternalistic or professional attitudes or growing up in the 'wrong area'.

The simple fact of being young itself creates exclusion (DETR 1998). The challenge is to understand why this is, where it is a problem, and then to begin to look at ways to use the understanding and insight gained from the views of excluded youth to make better policy decisions.

This *action-research* also seeks to understand the process of social exclusion from multiple perspectives or dimensions and to see how an organisational perspective overlaps and differs from the perspective of excluded youth.

The city of communities

This understanding of excluded youth has arisen within a much wider context of urban regeneration proposals within the city of Newcastle (the background to which is described in detail in appendix B) and has been greatly influenced by the well established social policy and inquiry research within the city of Rotterdam (For example; Berg *et al* 1996, Idenburg 1990). There is a growing need for municipalities to gain an understanding of how their city is comprised of discrete communities and how individuals within these communities conceptualise the city as a 'network' or behavioural unit, each framing their own understanding of community and their overall knowledge of the city.



Example of 'mapping' a city of communities in Newcastle upon Tyne

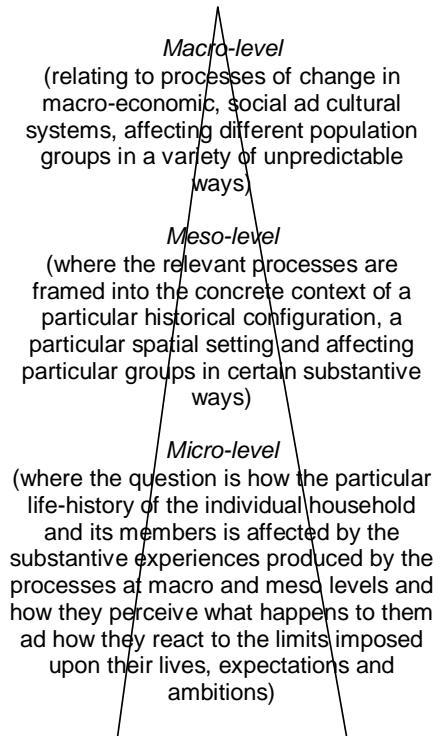
This theoretical 'grounding' of the processes adopted in this project have emerged in national and European spatial policy as the notion of the *poly-centric city* where functional communities are expressed spatially at a variety of scales and

layers. Implicit within this 'layered' community model is greater and more inclusive involvement with urban change, regeneration and on-going management of the urban system. The policy context stresses broader community involvement together with the widest understanding of the social and physical contexts (Gottdiener 2000, Punter 1996). This policy context raises the challenge for this project in the operationalisation the idea of *'poly-centric communities'* for community mapping exercises, and in so doing has drawn on examples from Seattle (Lawrence 1996), Manchester (Hunt Thompson Associates 1992) and Glasgow (Frey 1999).

This 'grounding' has to work within the European and national policy context that stresses spatial planning as a key mechanism for managing urban change (DETR 2000, European Commission 1995) while also maintaining an awareness of the dangers of over-reliance on spatial and physical elements of community (Porterfield and Hall 1995, Hall 1992), and not ignoring the city's communities of interest and the inherent inequality of many community participation processes (Comerio 1987).

The 'grounding' provides a strategy for handling information (Easterby-Smith *et al* 1987, Glaser and Strauss 1967, Denzin 1972) to overcome some of the procedural and institutional barriers to involvement, including an understanding of the operation of complex organisations. It also provides a starting point for developing an action-research method that stresses holistic understanding by giving comparable weight to perceptions, attitudes and qualitative information. For understanding to be holistic and systemic, it must also be concerned with linking cause and effect within regeneration and exclusion processes.

The *informed-city* requires evidence on which to base strategy and local decisions. As such, it is interested in policy relevant applied research at all levels; municipality and community; to assist our mutual understanding of urban dynamics and to guide current regeneration initiatives.



Layers of influence and potential analysis of social exclusion identified by Rotterdam City

Thus the departure point for this project was to develop a 'layered' approach to understand the city and the local context as both functional spatial communities and communities of interest.

In so doing, this understanding will influence how participation takes place, as well as the range of substantive interventions or options proposed. This increasingly involves the use of spatial information to allow for intra-urban comparisons between urban communities and neighbourhoods. Initial work in Newcastle (Crilly and Wren 2000) highlighted the potential for spatial and visual material to assist in the collection, communication and understanding of complex and inter-related physical and socio-economic issues. Already being able to eloquently set out *what* is happening in the city, through empirical evidence, the municipalities under study began asking *why* things are happening – developing a much more qualitative and intuitive approach. *Mapping* indicators of exclusion was one of the most direct and effective means of communicating what is happening within a complex urban system and one means by which communities can become qualitatively involved in understanding and shaping urban policy (Crilly and Mannis 2000) by beginning to answer the qualitative '*why*' questions.

Yet, this is contrary to many European experiences where community involvement in urban regeneration comes too late in the process "once the parameters ... (*of plans*) ... had been established" (Barlow 1995 p34) or where communities are excluded by formal and overly technical, institutional structures for consultation and participation (Healey 1990).

This project is designed to meet this challenge and develop action-research methodologies that; (i) maintain the complexity of urban change by linking

qualitative and quantitative measures; (ii) allows for self-definition by communities; (iii) illustrates the links between discrete indicators; and (iv) portrays the dynamic nature of exclusion.

Redefining the idea of mapping

Every map is an abstraction of reality. It seeks to simplify and describe reality in a manner that is useful in understanding reality and communicating this understanding to decision-makers.

The project expanded the idea of 'mapping' to one that helps us to 'visually' understand society (Dorling 1998) by helping to link empirical and qualitative material as both are able to be represented spatially and diagrammatically on a consistent basis. The idea of spatial and temporal networks and structures are also suitable for 'mapping' and as such can be incorporated in the development of the multidimensional and layered understanding of the city.

To be suitable, maps have to (i) be holistic (systemic) to represent functional relationships between issues; (ii) help to simplify a multiplicity of complex overlaying information; and (iii) include the consistent treatment of physical, spatial and non-spatial networks. In addition, the design of the *information maps* has to be non-technocratic and immediate to ultimately be useful for informing and making decisions.

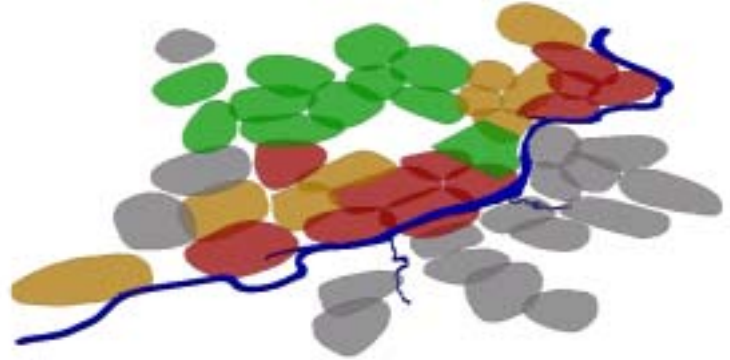
In response, the development of spatial indicators of social exclusion provided;

- The visualisation of these indicators in a manner (spatial /cartographic) that helps to explain social and regeneration policy implications to all levels of urban decision-

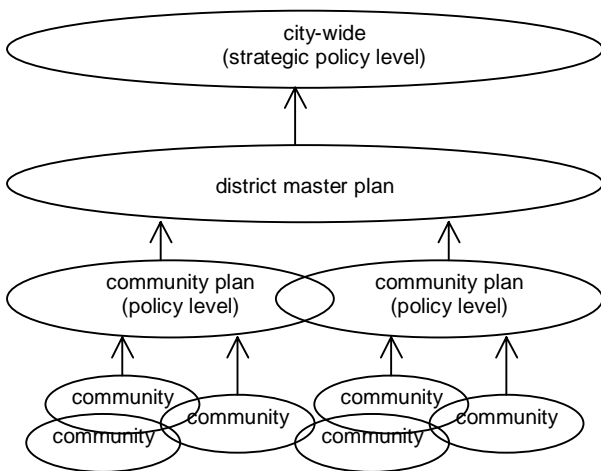
makers and assist with European comparison between different urban communities and area based regeneration initiatives.

- Heuristic (intuitive and qualitative) material as learning resource for strategic and area-based initiatives.
- The identification of unanticipated short-term impacts of long-term proposals and plans.
- The explicit linking of multiple and diverse data sets to provide fresh insights, based on common spatial patterns, to urban policy issues.

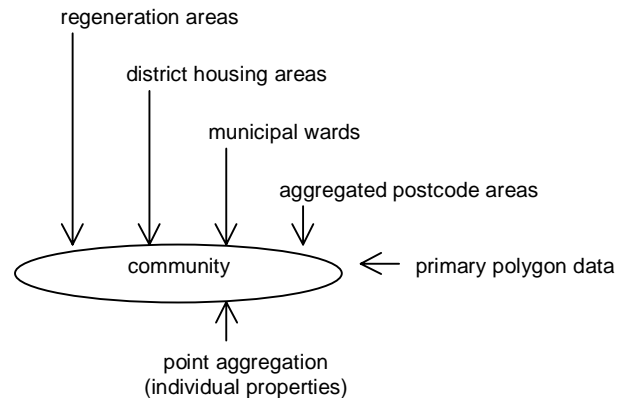
This 'grounding' is to ensure that methods for understanding social exclusion are linked to the tackling of the causes of exclusion at all the necessary levels of action, ranging from the European Commission to local communities.



Example of qualitative spatial indicator in the perceptions of urban communities in Newcastle (green – strong, amber – stable, red – weak)



Summary framework for the scale of collection, aggregation / disaggregation of spatial indicators (full details of the development of the framework is included in appendix)



Example of layered spatial information based upon a polycentric community map of Newcastle.

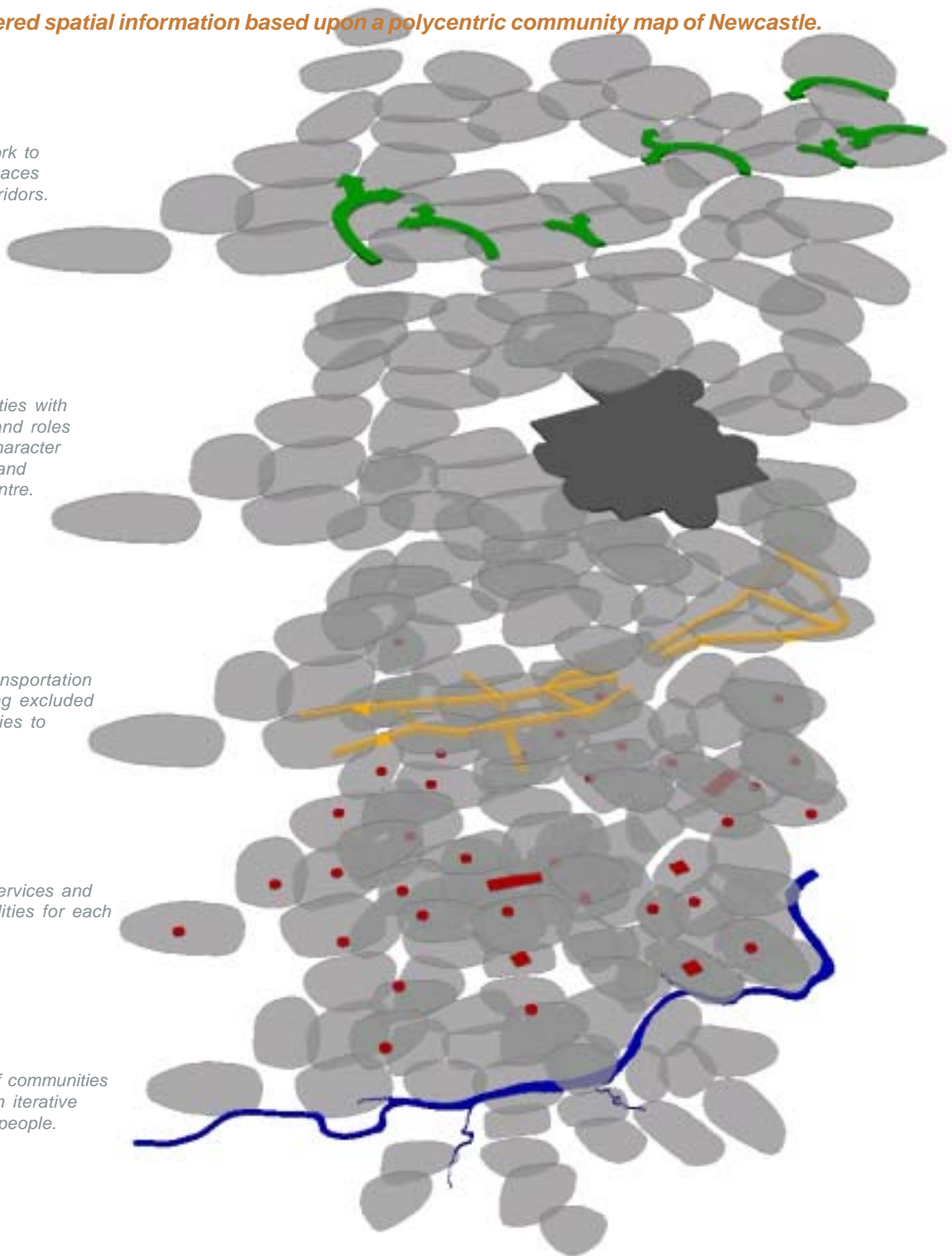
'Greenspace' network to link public open spaces and ecological corridors.

Inner-city communities with specific functions and roles due to individual character (housing makeup) and proximity to city centre.

Principal public transportation corridors connecting excluded riverside communities to city centre.

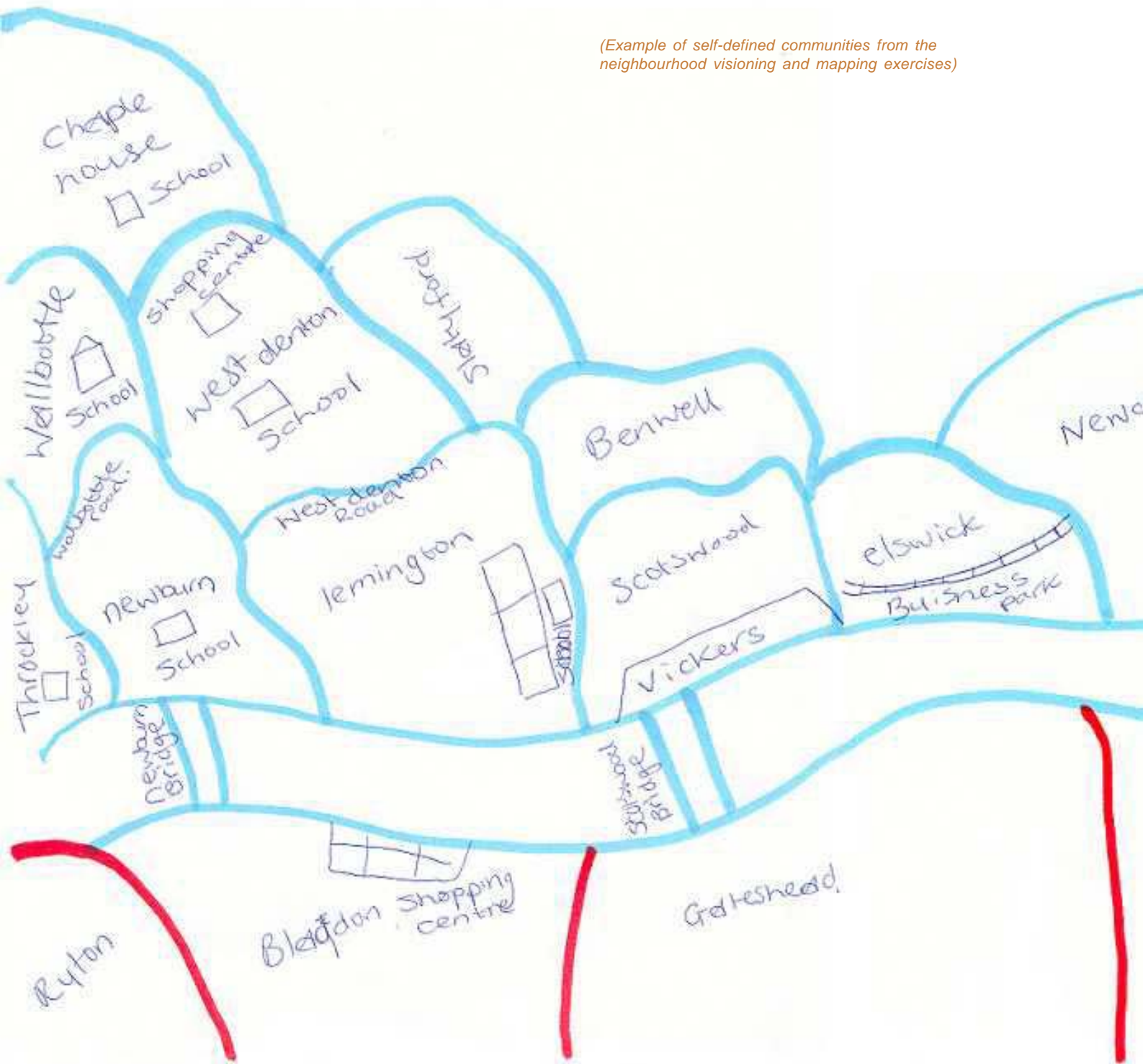
Centre for public services and essential local facilities for each spatial community.

Base map of city of communities self-defined through iterative process with local people.



Dimensions of Social Exclusion and Urban Change - Introduction

(Example of self-defined communities from the neighbourhood visioning and mapping exercises)



2. Project Design

The project proposal put to the European Commission was based upon the central idea of 'neighbourhood visioning' (Carley and Kirk 1998, LGMB 1996) – a process that intended to place community qualitative views and aspirations; including those of groups understood by the municipalities to be 'excluded'; central to urban planning and regeneration plans.

Inherent in this idea is the use of established community networks and the extension of these to ultimately cover all population groups (geographical communities and communities of special interest) to have a 'learning network' as a means for involving citizens in municipal decision making and for sharing understanding about social situations.

The project initially set out to test a range of methods to (i) establishing contact with hard to reach groups; (ii) engage with and record the personal experiences of these 'excluded' groups, and (iii) structure this 'learnt' understanding in a manner that was visual and suitable for comparative evaluation between the two case study cities – Rotterdam (Netherlands) and Newcastle upon Tyne (UK). The work in structuring this data was supported by a Swedish academic partner at SMC Kiruna.

Explanation of research tasks

Initial preparatory activities included internal organisational networking to access and manipulate existing data that may be useful in the selection of the most appropriate areas for neighbourhood visioning within the case study cities.

The comparative aspects of the project and the initial tasks were co-ordinated by email between the project partners in advance of area selection. There were contrasting areas within the cities selected. Newcastle choose to investigate a single district within the city due to the homogenous nature of the district, while Rotterdam selected distinct neighbourhoods.

Identification and selection of neighbourhood study areas

In Newcastle, the inner East End of the city was initially chosen for investigation, with a detailed look at the Byker neighbourhood. This district of over 30,000 households has strong neighbourhood and family network structures in place. Many of these semi-formal networks (in the form of residents' associations and voluntary sector organisations) were being approached for consultation as part of the city-wide regeneration activities.

The project team was interested in those groups and individuals that fell outside of this hierarchical consultation process and beyond the established contact networks within the district.

In part, this was achieved by an area specific approach in the Byker estate. This local authority estate was subject to major redevelopment during the late 1970's and early 1980's. Through this process, it became an important national and international case study for urban change - with many area specific studies looking at the area from the perspective of the regeneration processes and the impacts of physical change on the local communities.

The links between the scales of intervention (both physical regeneration and communities) at district,

neighbourhood and community levels of an area undergoing significant urban change became an important aspect of selecting this area for the project.

In contrast, three neighbourhoods were selected in Rotterdam to undertake neighbourhood visioning exercises.

Schiemond is a geographically distinct area, characterised by low housing rents. It provides the transitory home for 'urban nomads'. This is a Dutch phrase that has similar meaning to that of 'churning' in the Newcastle context. In effect, there is a high turnover of residents, the population is highly dynamic and there is little community stability. Often these 'urban nomads' are those individuals who have been moved on through the processes of urban regeneration elsewhere in the city-region. Physically, the area has good housing but poor local services and it is cut off from the city by a major highway. The area exhibits no strong sense of community, yet it has a number of characteristics that are common throughout it's 1400 households. There are many different ethnic origins represented in the area, many being single parent households with high levels of unemployment and a correspondingly high dependency on the welfare system.

Bospolder / Tussendijken was the second neighbourhood(s) for study within the city of Rotterdam. The physical area dates to the turn of the century and has been a strong 'blue-collar' area prior to world war 2. Since the 1960's, it has been primarily settled by immigrant labour (Turcs, Moroccans and Surinamese). The housing is poorly maintained (due in part to the lack of consistent public funding) and the area also exhibits a high degree of unemployment. Although, the community

and family structures are stronger in the area but tending to single parent households within the younger generations. There is a total of 7000 households in the area.

The third area, Crooswijk, is a popular neighbourhood with relatively strong internal organisation, politically active and very evident with residents active in public affairs, principally to ensure the protection of the interests of the neighbourhood. Although there is a mix of immigrants and indigenous Dutch, it is strongly professional and supported by a private welfare system. The neighbourhood is close to the city centre and it has a large number of facilities (neighbourhood as well as city centre facilities). Unemployment is average for the city (15%) with a high percentage of elderly households.

These neighbourhoods were selected for envisioning activities on the basis of; (i) civil registry data (quite extensive in Rotterdam, containing data on "biosocial characteristics" and household structure, unemployment, housing and income, ethnicity); (ii) the existing GIS data sources containing information on social problems (e.g. health, education etc.); (iii) a construct scale, scoring the social economic status of a neighbourhood measured against the cities' average (9 parameters, data gathered since 1986); (iv) the objectives of political/policy interventions in these neighbourhoods since 1980; and (v) prior research data.

In Newcastle, much of the secondary data collected was descriptive and narrative; albeit somewhat dated due to the popularity of the area for social and anthropological study during it's redevelopment.

In both Newcastle and Rotterdam, primary sources were collected for each of the neighbourhoods under investigation to provide a baseline of formal statistical material. Much of this secondary empirical data pertaining to the neighbourhoods was based upon municipal boundaries rather than the communities as perceived and understood in a 'sociological' sense.

All statistical data pertaining to these three neighbourhoods have been collected and tabulated (interpretative texts are also available in Dutch on a similar basis to the neighbourhood visioning exercises undertaken in Newcastle). As such, many of the boundaries in both of the cities were considered 'soft', blurred and overlapping. This did create some significant data handling issues and required the self-identification of community boundaries as a basis for aggregation / disaggregation and collection of data as appropriate.

In addition to the scoping and collection of existing data sources, each of the city based teams began an assessment of existing community and voluntary sector networks within each of the anticipated neighbourhood study areas. As both case-study project teams were based within municipal organisations, the formal networks were approached to assist in the identification of those groups and 'excluded' individuals falling outside of existing networks. This was critical in the specific identification and targeting of excluded groups, likely to provide a fresh insight to understanding social change (and the underlying causes) within the city.

Selection of target 'excluded' focus groups

Initial team analysis of those groups and individuals engaging with the municipality in Newcastle highlighted the absence of youth groups. This was critical as a significant sector of the community (activists) already involved in the formal and semi-formal networks were suggesting that young people were 'part of the problem' for the area as a whole and specific neighbourhoods within the district.

This prompted identification of young males (early school leavers through to late 20's) and young women (single parents and school-age mothers) as a focus for follow-up visioning exercises. These were to be contrasted with the views of those community activists, councillors and 'regeneration professionals' within the consultation networks.

Through analysis of the empirical data in the previous section, the project team in Rotterdam were able to exactly describe the "dimensions of urban change" in concrete terms, characterise the present excluded population and its development, and identify the poor dependent categories.

To get as close to the Newcastle data as possible, the Dutch team had to decide to select at least three groups of potential members for focus-activities.

One aspect of Dutch culture is the presence of many diverse 'volunteer' groups that have become institutionalised to the point where they are often used by local government to debate certain issues. They have become "professionalised" in mannerisms, vocabulary and in reflecting the underlying political agendas. As such, they were unsuitable for contacting 'excluded groups' in a manner that provided fresh understanding of the

social situation. In response, the project team in Rotterdam decided to establish new groups out of the following categories (of non-joiners); (i) teenage mothers; (ii) parents out of one parent households; and (iii) male young unemployed. They were selected out of the excluded households in the three neighbourhoods and brought together for 'open' discussion (they were in effect a series of self-selecting groups - for answering a request to talk is a voluntary activity).

Undertaking the events

The Newcastle project team combined a range of methods for contacting and collecting information from the 'target' groups. These included one-to-one interviews and focus groups (as described later in this report). In every case, an 'open' and iterative approach to the visioning was adopted to allow the young people to set their own agenda in discussions.

In terms of procedure, the Rotterdam project team 'projected' some issues for the various groups and had them talk with the professional researchers and amongst themselves about their own condition and their own explanation of their situation. They had them discuss the policies and provisions, developed by the municipality (income maintenance, education, housing, public health provisions, culture and recreation, social services), in order to get their vision about exclusion from their point of view and personal experience, and in their own language.

The Dutch team undertook what they described as the 'easiest' event with teenage mothers, where they organised a "coming out" party with a local TV station and some activities for the children (to keep them busy). There were about 15 girls in the discussion group out of 50 in the party. Later they

were interviewed individually to establish background characteristics on teenage motherhood in the city and social exclusion.

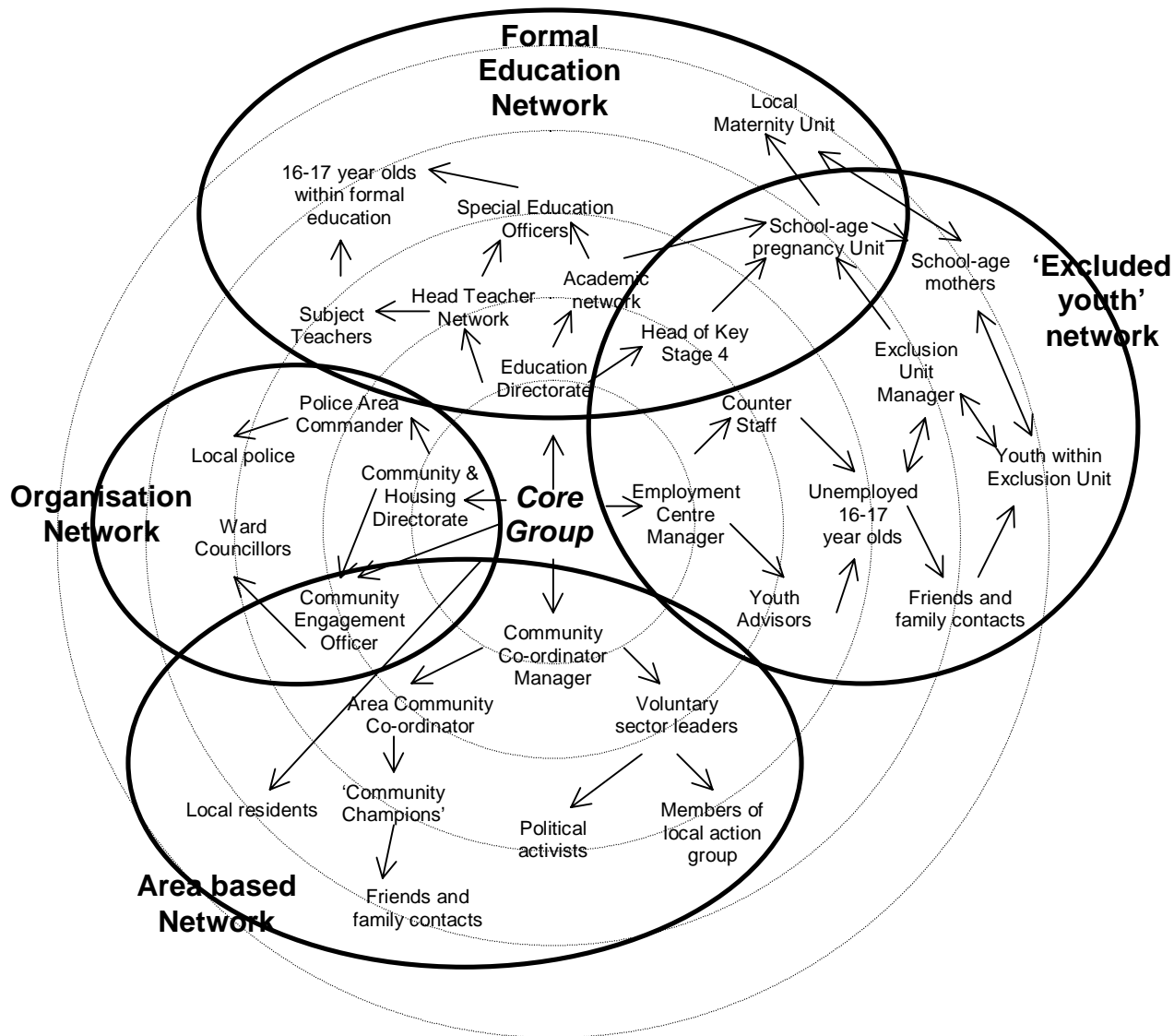
Following the same event, the Rotterdam team organised a discussion group with one parent mothers. This proved more difficult to get them together and talking. They used a local meeting point, run by a church organisation (about 15 women present). In terms of content, they followed a similar procedure as with the teenage mothers. To get some of the background(s) of this social category, we "piggy-backed" a couple of questions onto another research-project about the same issues, carried out by this research group. In this context the team gathered about sixty "life-histories", in which people talk about themselves, their life-experience, their expectations - without using the term social exclusion. (A direct consequence of the life-history method is the ability to relate individual lives to the "dimensions of urban change").

Unfortunately, the Dutch team had difficulties in engaging with young males. The research team felt they 'failed' because the excluded group they approached 'do not want to participate' (most youngsters are of ethnic origin and do not easily trust researchers or municipal activities). We are still looking for other possibilities to get in touch with some of them.

Outcome from the 'visioning events'

A host of 'messy' data sources was provided for the support SMC team in Kiruna from both of the case study cities. This included a large set of digital data in a variety of formats including; ArchView GIS (shape & dbf files), SPSS databases, text/word documents (translated and untranslated).

3. Methods of Contact



(‘Action Research’ Networks illustrated by example from as 1st – 5th level contacts from the project team in Newcastle)

It will always be a truism that there are difficulties in making direct contact with excluded groups. Yet there are a number of ways to overcome some of these inherent obstacles to inclusion.

In the project, the teams within the city case study areas followed principles (rather than a structured and formal research plan) of developing an action-research network to reach excluded groups based on; (i) the failure to make direct contact to 'excluded groups', where open invitations had success in engaging local activists but were excluding in their own way for other sectors as they required people to be part of an 'informal municipal consultation network' that required some basis of prior involvement; and (ii) in the quality of the information gained and required. New knowledge is principally gained whenever a research network makes *new* rather than re-examines *existing* links.

The common challenge was to change our municipal methods of approaching excluded groups and the nature of engagement with these groups.

Thus the project began by using existing contact networks within the partner cities. This proved a better use of time, it built upon trust that often already existed (clarity and openness) and was complemented by incentives to individuals who took part in the research exercises. In building, linking and extending these contact networks there was a high degree of flexibility – being both opportunistic and informal.

Retrospectively it is possible to describe the dynamics within this action-research network (more details are included in appendix c) and the range of issues that were addressed in the building and

maintaining of the networks. In this, there is a distinction between formal (distinguishable between internal and external) and informal links within the action-research network.

Formal networks

Formal networks worked due to the very obvious incentives that they were within a relevant policy context for salaried staff. Yet there was also a suspicion or awareness of the potential for abuse of information or those working outside of defined professional roles – mostly from professional groups themselves. These formal networks presented a challenge to systemic research as it was regularly seen as unprofessional or irrelevant to individual issues (defined by statutory responsibilities) and often the internal professionals acted as filters or barriers to such open-ended and unstructured research.

Possible causes of this were an awareness of research fatigue within the community; the unrecognised function / role and benefit of open-ended research, and a fear of going beyond professional boundaries and individuals' strictly defined corporate roles within the organisation. In part, these responses are often overarching characteristics of a large political (and thus complex) organisation and they provide challenges for 'learning' culture and corporate / managerial support within organisations in the formal network to move towards an organisational culture that values partnerships and multi-disciplinary research.

Informal networks

These were expanded from formal contacts within the municipalities, often to external professionals. In so doing it raised issues of non-statutory duties,

a corresponding lack of interest and the importance of the role of specific financial incentives.

In both cases, we can understand professionalism based upon approach, inherent values (of the profession or the host organisation), the proximity to 'excluded groups' and the level of direct involvement (*table below*).

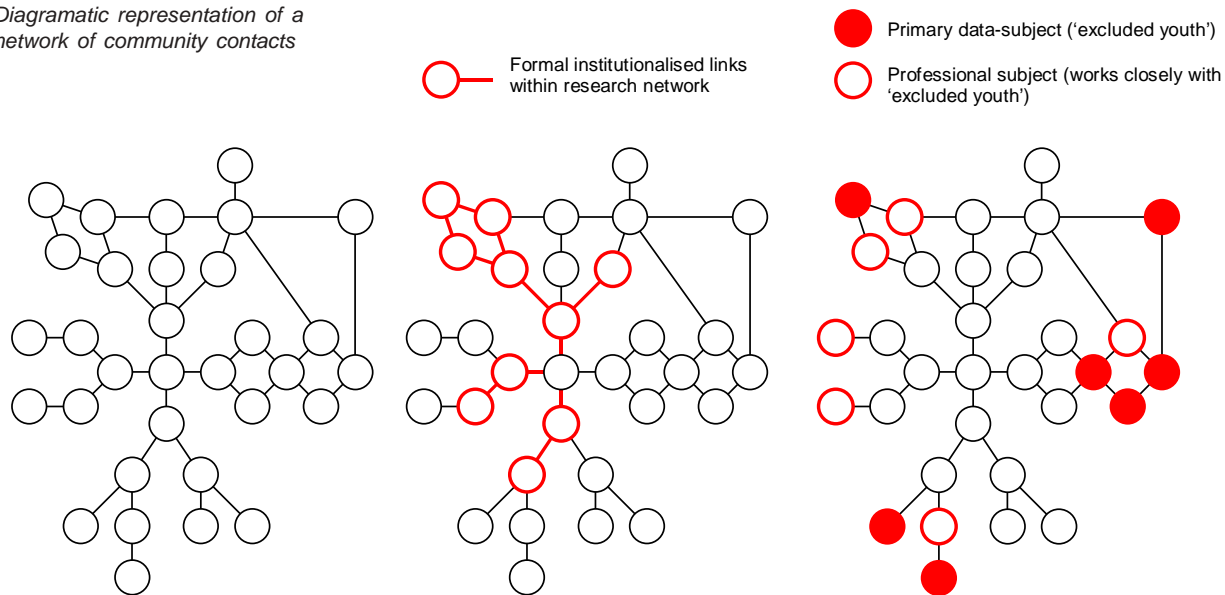
Excluding professionalism	Inclusive professionalism
Hierarchical (creates barriers)	Unhierarchical (removes barriers)
Expert-based	Multi-disciplinary
Objective	Emotionally involved (non-objective but pragmatic)
Corporate (working for organisation)	Non-corporate (working for partnership)
Passive involvement ('teaching')	Active involvement ('learning')
Output focussed	Process focussed

The role of the project teams within the case study cities was building these action-research networks by linking individuals informally. This was both internally within their own organisations and externally to collaborative groups and eventually to individuals. To work effectively, the project teams had to be multi-disciplinary / skilled and possibly cross-organisational in order to strengthen research and learning networks by reducing functional / professional distinctions and associated suspicion.

In almost every case of building a contact with 'excluded youth' (with the notable exception of pre-16 youth within formal education), the 'data subject' fell outside of any existing formal organisational or professional networks and structures. However, the combined formal and informal networks helped to make this contact possible.

Building a research network to gain contact with excluded youth as 'data-subjects'

Diagrammatic representation of a network of community contacts

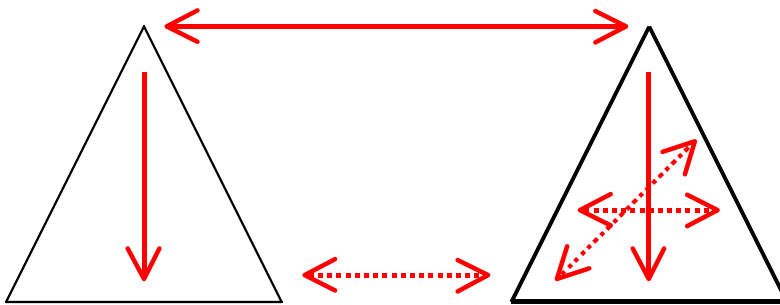


What this process demonstrates is that a latent capacity does exist within formal and informal organisational networks to reach close to excluded youth within our cities. However, success in this process requires a sustained role in open-ended research (and from the Dutch perspective, recognition matched with sufficient resources), and an informal and implicit protocol for collecting and sharing information based on trust and flexibility. In addition, individual relationships within the network do require maintenance and dangers exist in an over-formalisation of the action-research network

and an increasing inflexibility arising from an overly precise (written) protocol.

In practice, the difficulties of changing culture within the municipalities are due to the diversity of individual views of corporate values of 'innovation' and 'flexibility', particularly where the implicit understanding of these corporate values is not as flexible in the job as the post holders are assuming.

Building professional research and learning networks within complex and hierarchical organisations

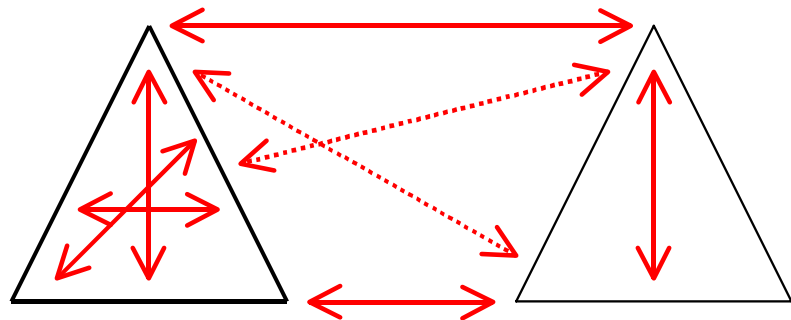


Hierarchical organisations and the exchanges of information within and between individuals within these organisations.

Currently dominated by formalised, high-level links - partly based upon the 'etiquette' of networking and partnerships. May include some examples of Internal of internal networks.

Examples of organisations beginning to 'join-up' with additional and complementary links and networks.

Strengthening internal exchanges and encouraging informal and opportunistic links between all levels of learning organisations.



4. Methods of Collection

The aim of the project was to fill 'gaps' in the shared understanding of urban communities by a variety of participative and consultative methods. This was particularly bias towards gathering a range of qualitative views, perceptions and attitudes from excluded youth contacted via a combination of formal and informal networks.

This was achieved by the continuing development and use of a *toolkit of techniques* (Crilly and Mannis 2000) that borrowed from similar spatial and mapping approaches, albeit with improved understanding rather than direct substantive change as the remit for the methods and events. In practice, the most successful methods were those adapting urban design-based approaches (For example; Prince's Foundation *et al* 2000, Puthod *et al* 2000, NEF 1998, Wates 1996a & 1996b, Dunlop and Salter 1996, Cowan 1990) that attempt to "... keep things as visual as possible" (Inglis 2000 p3). This mixed, multi-method and interdisciplinary approach (Philip 1998) needed to be both pragmatic and flexible to use those methods which are effective in the real world and that accept the blurring of any artificial distinction between consultation and information provision – into a more holistic learning process (Lemon and Longhurst 1995).

A range of methods were designed to form the basis of inquiry into three broad areas of concern. These concerns were often the basis for second or third level questioning, particularly if the interviewee(s) required prompting in order to provide some detail of attitudes and values that underpin their actions and experiences. The concerns were addressed in common follow-up questions about

neighbourhood (geophysical or spatial networks), social networks (friends and family) and organisations within each of the case study cities. While it is acknowledged that these are not discrete areas, they did provide some level of consistency in the methods of questioning between different data-subjects and cities (albeit the actual form of the question varied between different interviewers).

Accordingly, many of the methods used were required to perform a number of introductory functions. They were ice-breakers, visual prompts, aid-memoirs and ways of opening the discussion with the data-subjects into the three broad concerns of neighbourhoods, social networks and organisations. The format generally fell into a focus group format or an informal individual interview as a conversation.

These action research methods should be understood within a growing body of similar work aimed at community engagement and more interactive, iterative and participative methods (Chambers 1994, Elliot 1991).

The data collection (and dissemination) methods in these formats included; responding to mapped data; responding to photographic 'landmarks'; photographic recording; drawing own 'cognitive' community maps; community perceptions - colouring positive and negative aspects of community and photographing positive and negative aspects of community; phenomenological questioning - personal interviews and focus groups; chronological 'lifeline' mapping; network 'organisational' mapping; and systemic 'linkages' mapping.

There are many lessons gained by the use of the multiple methods. These included the development, application, and testing of several techniques to give a combined approach to investigate and produce a snapshot of the total environment of an individual. This also helped train the researchers in the practice of interview techniques without formal training. The process taught us how to do the process better – it was practice-development (this approach is recommended). The table (page 20) summarises the advantages and disadvantages of a variety of approaches (full details contained in appendix c).

Characteristics of methodology ‘toolkit’

In reflecting on which methods work, there are a number of shared qualitative characteristics of the methods. There are differences between theoretical approaches and what happens in practice in the use of the ‘toolkit’. In practice there are limitations. ‘Mapping’ methods of all types can be a very powerful tool that can be applied to statistical and decision-making applications but realising their potential depends on many factors; (i) applying information to decision making processes; (ii) appreciation of the value of information; (iii) enthusiasm and commitment at all levels; (iv) co-operation and co-ordination in the form of partnerships; (v) intuitive / visual to ensure ease to use; and (vi) a transferability that depends on low-cost and simplicity.

However, this toolkit is not just methodological. It has to be concerned with a broader process (or protocol) (Crilly and Wren 2000) of sharing information and understanding from multiple perspectives and thus building trusted networks between organisations and individuals with these

perspectives. This is an argument for a ‘toolkit’ of mechanisms and processes for neighbourhood management (Social Exclusion Unit 2000a) where positive attributes of ‘self-confidence, community pride and the acquisition of new skills’ (Church *et al* 2000) are achieved by meaningful and valuable participatory methods.

The output from this necessarily unstructured and open-ended approach is ‘messy’ data. The social researcher has a range of diagrams (network and suggested causal), coloured maps, life histories, photographs, interview transcripts (of variable quality and consistency), focus group notes, and published secondary sources.

In the context of this project, there were the added complications of language barriers (both within and between cities) that made it difficult to fully share secondary sources and documented / transcribed accounts of the primary data that was collected. Even following translation of some of these accounts, there were still difficulties of interpreting and analysing this data - due to the loss of meaning in the translation process and the specific cultural context to which the information related. However, it should be noted that this experience of ‘messy’ qualitative data was similar in many ways to the sharing of the supporting statistical material. This posed a number of challenges for the Swedish team in developing the comparative framework and basis for data handling and visual / spatial representation.

Dimensions of Social Exclusion and Urban Change - Methods of Collection

Overview of shared trans-national data collection 'toolkit'

Method	Strengths and Weaknesses	Materials	Case-studies	Further reading - precedent
Focus Group	Combination of direct (recorded) and indirect (observable) responses, including participant observation and recording.	Discussion prompts.	Townsend (2000)	Spradley (1980) Bogdan & Taylor (1975)
Issues mapping (including open-ended approaches to interview)	Reduces respondents' anxiety. Builds rapport and trust. Increased response rate. Decreases the potential for error. Experience makes the routing of questions easier. Can ask within limits for clarification. Answers can be recorded. Reduces variation, can probe further. Appropriate for visual methods to be used. Standardised questions – less skilled interviewers. Misunderstanding is less likely. No editing or summarising. Good for getting personal information. Identifies attitudes as 'self-descriptions'. Time consuming and thus potentially costly. Repetitive boredom. Time lines - jog respondents memories. Apathy. Sincerity.	Set of laminated 'issues'. Examples and blank copy. Digital camera.	Le Riche (1995), Nevin <i>et al</i> (1999), Madanipour & Bevan 1999) Inglis (2000)	Similarities with discourse analysis Eyles (1985) Burgess (1984) Bem (1971) Bryman (1988) Henwood (1996)
Cognitive mapping (spatial representation)	Immediate and responsive to certain individuals who are less verbally responsive. Useful for comparison following analysis. Can be time consuming and challenging.	Paper and pens. Example.	Konttinen (1985) Bender <i>et al</i> (1997)	Downs & Stea (1973) Downs (1982) Lynch (1981)
Chronological mapping (lifelines including content analysis of secondary sources)	Flexible approach. Jog respondents memories. Encourages interactive approach and thus can trace history. Visual and immediate (see at a glance). Easy to use in a one-to-one context. Identifies problems. Could use variations of this method for any audience. Learning process. People can find out things they forgot!	Sample map. Blank copies.	Stone <i>et al</i> (2000)	Stake (1995) Plummer (1983) George (1959)
Community mapping (colouring)	Easy to use. Generates ideas to improve areas. Visual and colourful. Easy for participant to engage. Tests knowledge of local area. Encourages lateral and comparative thinking. Repetitive boredom for facilitator. One instruction at a time.	Pens (red, amber, green). Post-it notes (red, green).	Frey (1999) Lawrence (1996)	Lee (1968 and 1976)
Causal mapping	Visual means of linking issues outside of the remit of longitudinal study. May pass judgement on drawing. Needs to be kept neat for others to read. Repetitive.	Paper and pens. Example.	Lemon and Longhurst (1995)	Laszlo <i>et al</i> (1996) Derrida (1978)
Network mapping (links to friends, family and organisations)	Possible use for spatial and non-spatial networks and highlighting the strengths of networks.	Example. Blank copies.	Burgess <i>et al</i> (1988)	Golledge & Zannaras (1973) Golledge (1978)
Photographic mapping and Landmark mapping (disposal cameras)	Image selection and recognition. Designed to show community values and elicit an attitudinal response to visual imagery. Can give a personal meaning to places. Provides a basis for group discussions or questionnaire design. Potential for additional digital video and web-based applications. Subjective responses from individuals.	Single-use cameras Digital video camera	Greenhalgh and Worpole 1996) Big Issue (2000), Newling (2000)	Lynch (undated) Fischer (1994)

(Examples of 'community mapping' exercises)



5. Methods of Structuring Findings

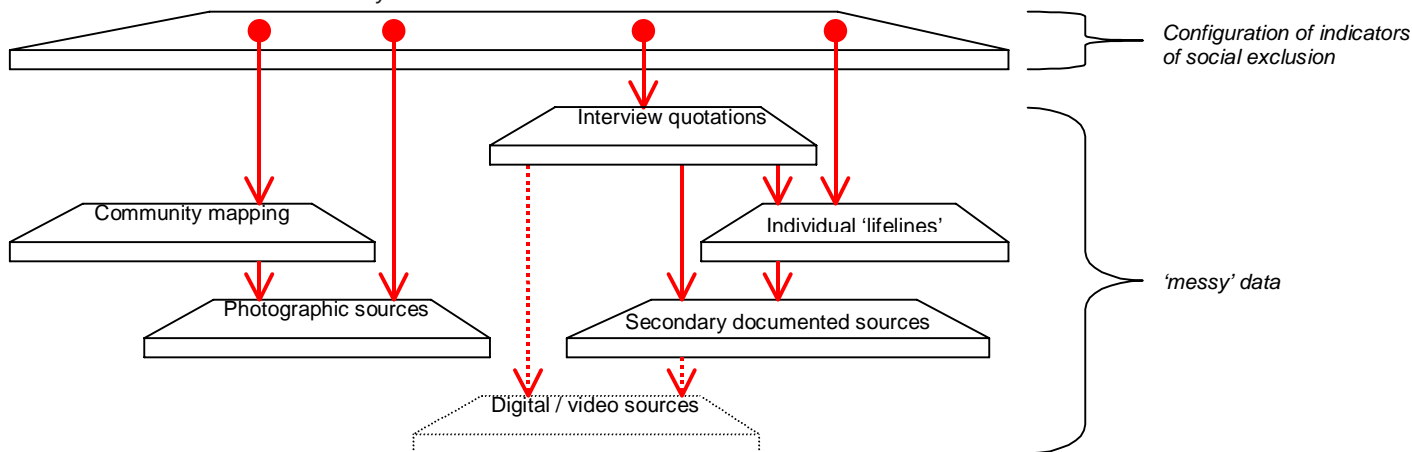
The wealth of collected qualitative material from the application of the 'toolkit', requires a structure to help analyse and communicate the information in a way that maintains the complexity of life histories and individual perspectives. The nature of the collected information, in a variety of 'messy' and inconsistent formats, has required a systemically structured *data-map* as a summary. This provides an entry point into the underlying 'mixed and multiple' methods which are retained in as close to the original format of collection.

This *data-map* has a similar hierarchical structure to a web site and suggests the world wide web as one of the most appropriate format for structuring data in a multi-layered way or a framework for a spatial or GIS information system, albeit with an understanding of both the strengths and weaknesses of utilising information technology for access and understanding (Clark 1998, Copas 1993, Nijkamp and Rietveld 1984). Thus, this provides the basis for the project web-site design and structure, as well as a data archive.

The methods adopted; the research networks and qualitative collection methods; generated an open-ended youth agenda. These are the issues that are most important to 'excluded youth' and provide a set of self-defined indicators around 5 key themes; (i) education; (ii) crime; (iii) participation; (iv) employment; and (v) social trends . These were defined and revised in collaboration between the two case study cities with the intention of; (i) accurately reflecting the 'youth' agenda recorded using the 'open' methods described; (ii) providing a structure for a detailed and didactic exploration of the underlying data; and (iii) to provide a flexible basis for comparison between European cities using this configuration of indicators.

The areas of indicators have been arranged under a series of descriptive headings and under-laid with a range of primary and secondary 'messy' data. Some direct examples are included from Rotterdam and Newcastle. Much of this material has been 'mapped' by the SMC in Kiruna. The quantity of material produced by the Swedish team was too extensive to include fully within this summary report. However, a full list of statistical 'data maps' produced by the SMC is contained in appendix d.

'data map' to show how messy data was structured for each of the case-study cities

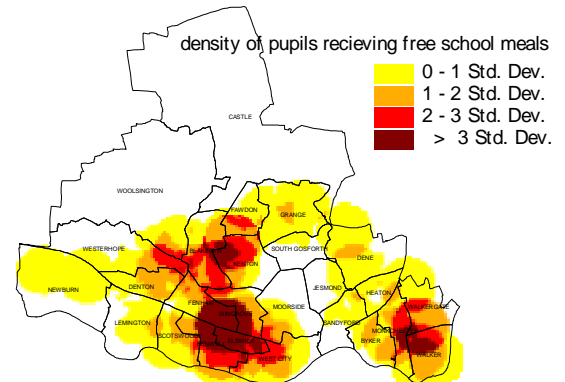
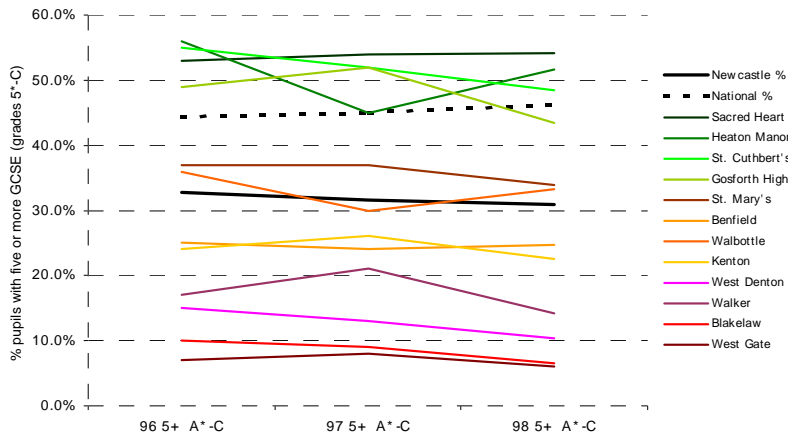
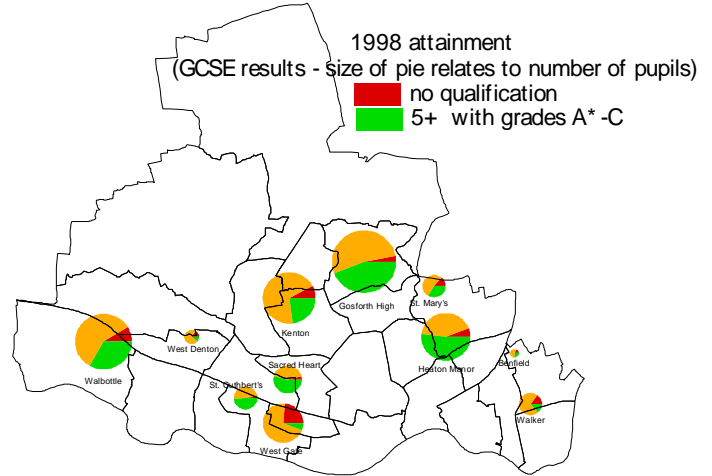


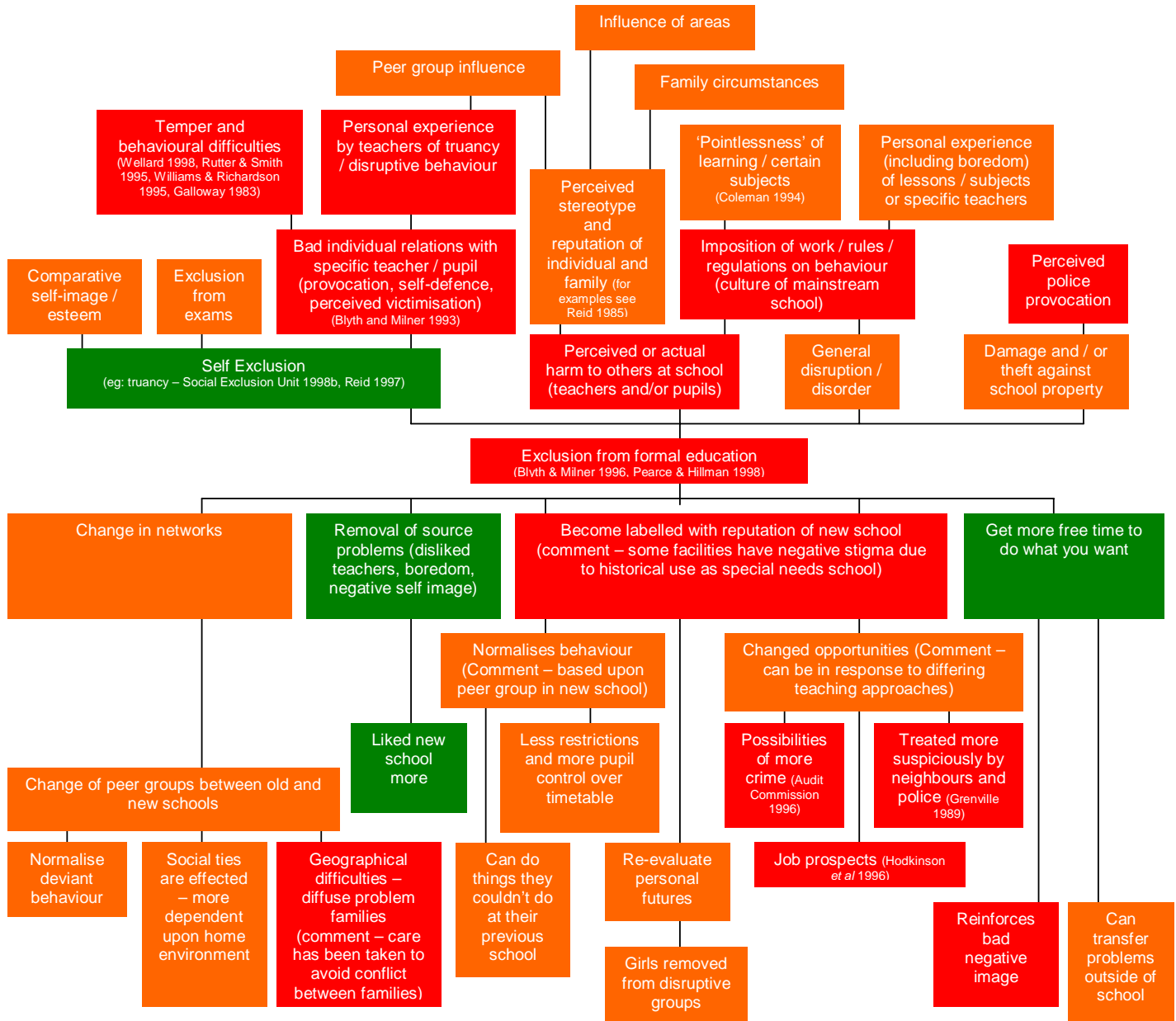
Indicator 1 - Education

“School absenteeism is a complex, multi-disciplinary, multi-causal phenomenon influenced by social, institutional, environmental, psychological, and legislative factors.”
 (Reid 1997 p4)

The first cluster of indicators relates to education. This includes a configuration of mixed quantitative and qualitative indicators of education that have explicit references to overall values and attitudes towards learning, and creative and thinking skills (supporting basic literacy skills). References were suggested to (i) attainment levels (qualitative and quantitative), (ii) participation in the education system (length and attendance), (iii) truancy and bullying, and (iv) comparative involvement in formal and informal learning processes.

There were significant links between key educational indicators and other policy concerns, particularly the direct connections to youth crime. This was particularly true for those pupils interviewed who had direct experience of exclusion from the mainstream school system.

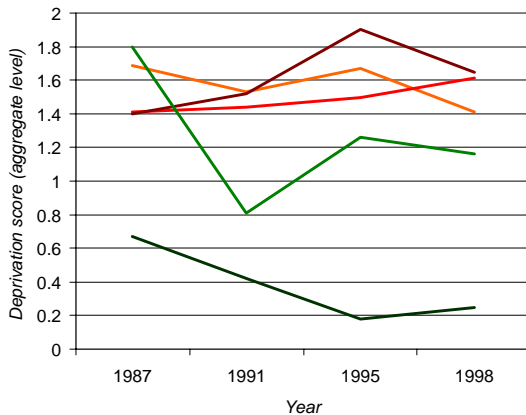
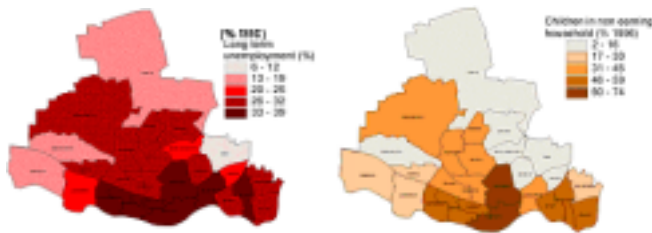




Common 'causal map' of personal histories of youth exclusion from formal education

Indicator 2 - Employment

Employment and career issues were dominated by the individual specifics of income levels and personal boredom. Unemployment had explicit links to the benefits system and implicit links to their current situation, skills levels, training requirements and future expectations.

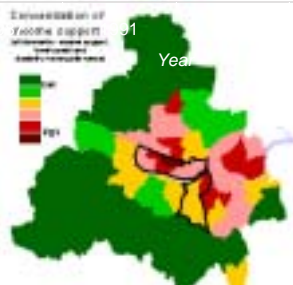
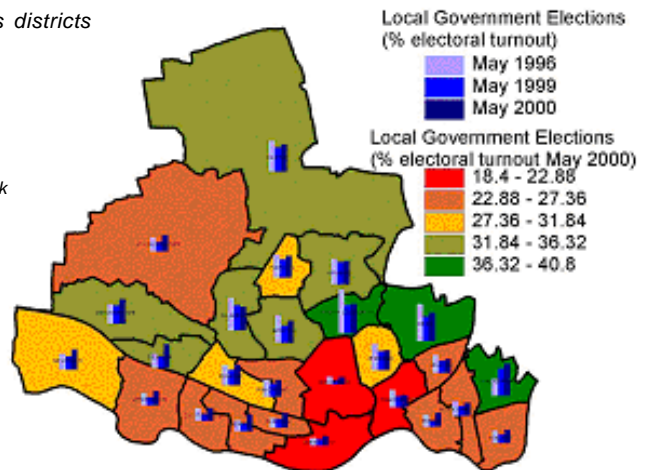


Relative deprivation index for Rotterdam's districts

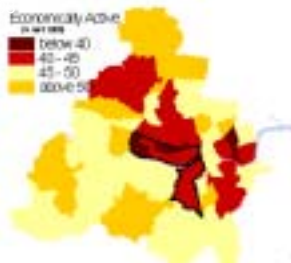
Indicator 3 - Community Participation / Demography / Organisational

There were many overlapping indicators and references to show limited level of youth involvement in urban governance and local decision-making (Madinapour and Bevan 1999) – seen in the potential for involvement (skill / accessibility) and voting levels.

Many young people had a strong negative perception of authority and organisations, in spite of dependency, paternalism and mis-trust in the working of local democracy and spatially defined exclusion at a neighbourhood level (Leysdon and Thrift 1995). There were links to social learning and attitudes to both indicators of structured and unstructured education (Davies and Gathorne 1997).



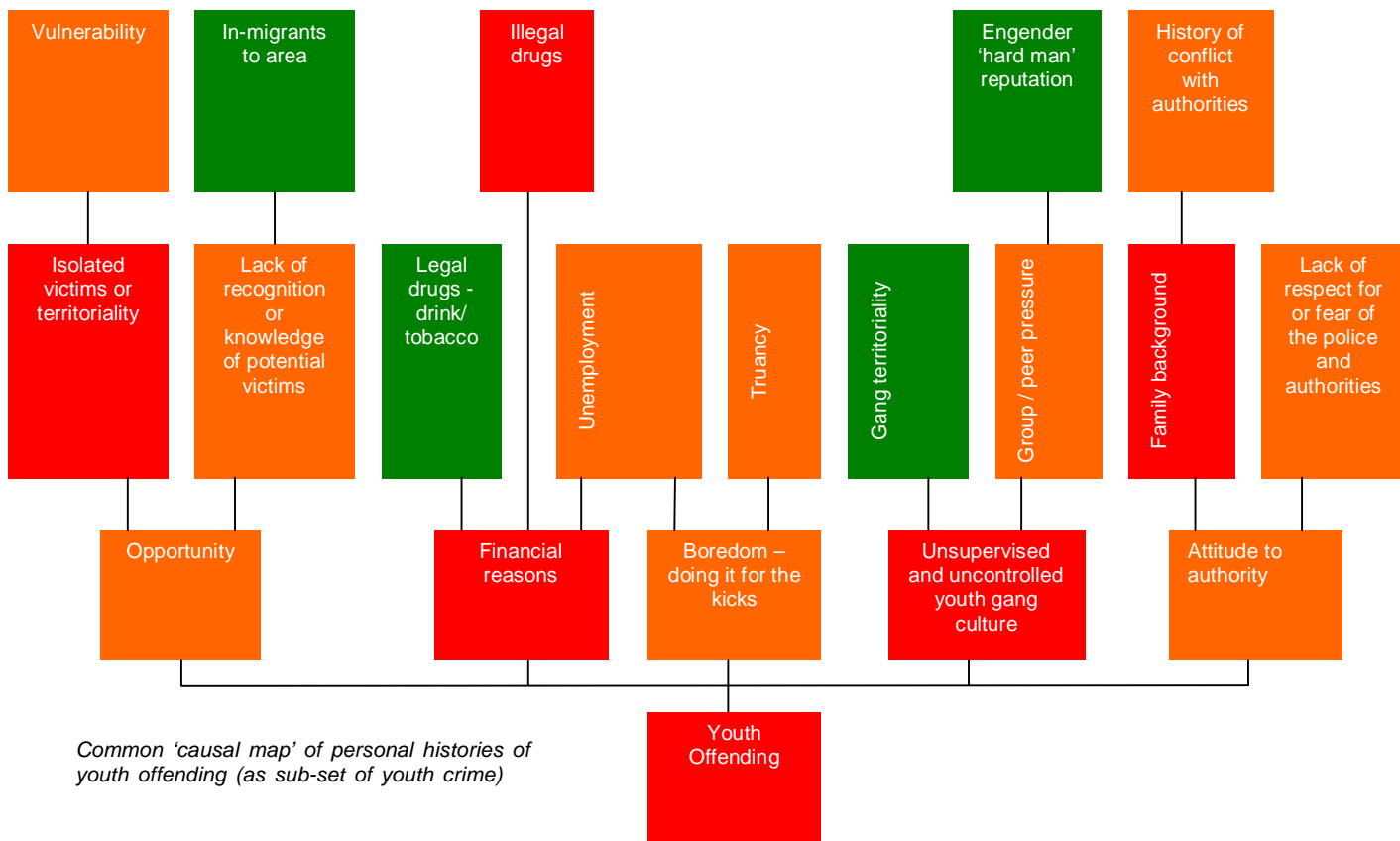
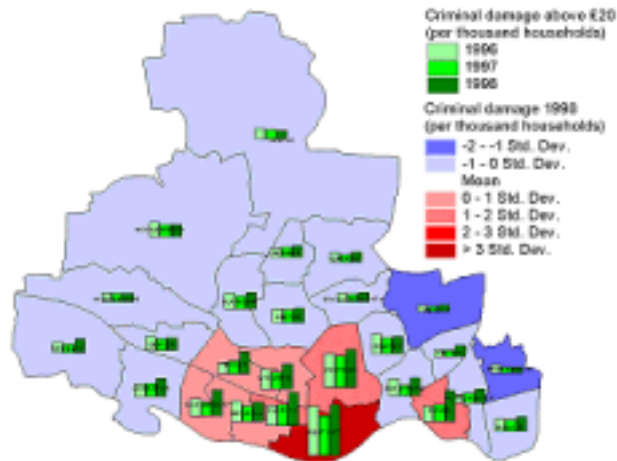
High levels of long-term unemployment



Low levels of economically active

Indicator 4 - Crime

The remit of crime issues raised by research subjects covered, youth as offenders; youth as victims, including specific incidence and type of crime (recorded police based records - actual and perception of crime) with an emphasis on the use of drugs and illegal substances.



Indicator 5 - Social Trends

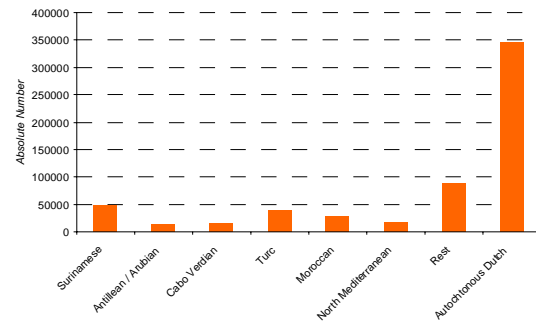
This final configuration of indicators is a loose grouping of socio-demographic issues affecting youth culture and youth sexuality. It included socio-ethnic makeup, school-age pregnancy as a overview of moral choices and risks associated with young 'school-age' mothers; developing an understanding of family and support networks, specifically their views of and values exposed in support networks and peer groups. It also attempted to place the influence of these collection of indicators on the future of the city and the city region as a whole. There were suggested links between the cluster of education indicators and strategic concerns of the municipality – middle class depopulation.

Where appropriate, the above series of indicators have also been linked in a series of systemic 'causal maps' to begin to suggest cause and effect in relation to specific issues of significance to excluded youth groups. These are illustrated on the following pages and examined in detail within the supporting reports.

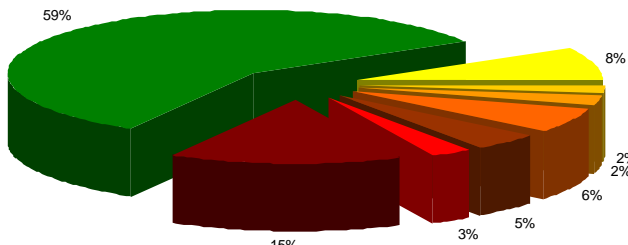


Population density in Newcastle upon Tyne based upon 1991 census figures at enumeration district level

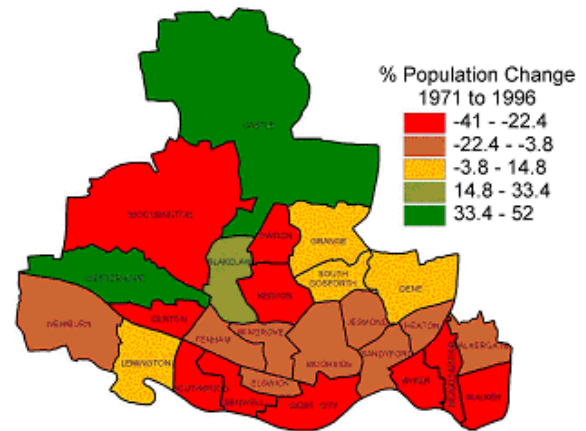
Foreign population of Rotterdam (1998)

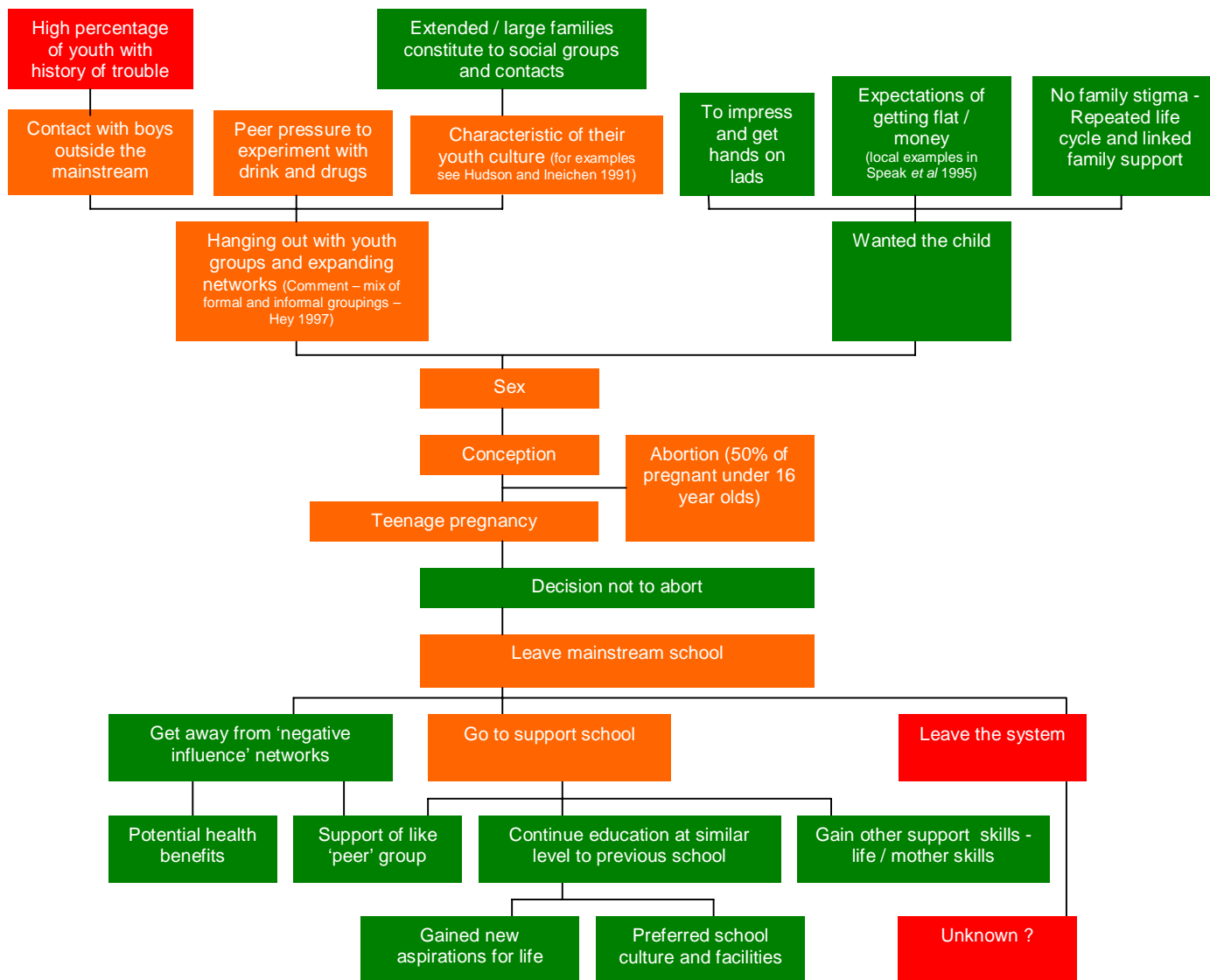


Foreign population of Rotterdam (1998)



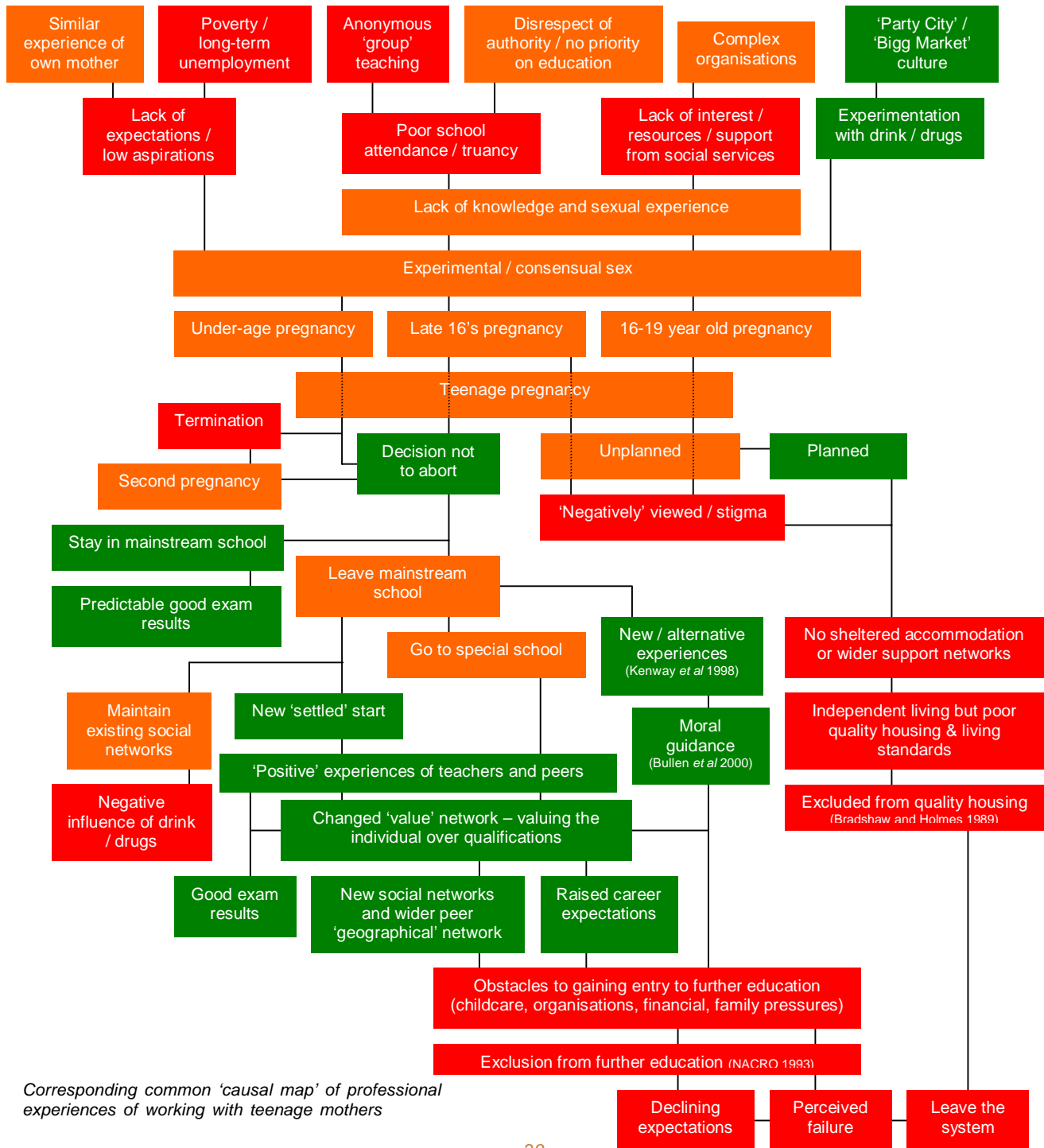
Surinamese Antillean / Aruban Cabo Verdian Turc Moroccan North Mediterranean Rest Autochtonous Dutch





Common 'causal map' of personal histories of teenage pregnancy from the experience of the mother (each element reflects a 'gateway' into exploration of raw data)

Dimensions of Social Exclusion and Urban Change - Methods of Structuring Findings



Corresponding common 'causal map' of professional experiences of working with teenage mothers

6. Comparative Assessment of Project

In this project, both case study cities began with a shared approach to the theoretical ‘underpinning’, the systemic nature of urban change and the need to include subjective views into urban policy decisions. Yet as the work developed, the activities and focus of the different teams diverged due to the locality specific agendas and cultural / organisational differences.

This was due in part to the iterative and heuristic nature of this kind of social research and policy development. The processes were characterised by regular feedback based upon lessons learnt as a result of undertaking this work. Yet, retrospectively, it was possible to set out a number of important policy-relevant findings applicable to both cities (set out in the next section of this report) and to review the different stages to the project as it was initially designed.

Stage 1 - Neighbourhood visioning

Although the project proposal established a preferred approach to gathering qualitative information from excluded groups within the two cities, of primary importance was the assumption that urban change has to be understood systemically and holistically. The challenge was to collect and link ‘hard’ data with many of the subjective factors that actually influence the day to day decisions of individuals. Yet it was clear that any approach will be limited in the extent to which all excluded groups can be represented. The visioning material had to reflect the experience of excluded groups but also make it clear that this is still a partial and limited (albeit more complete than reliance on empirical data sources) understanding of the social situation.

In this context, the methods and details of collecting this qualitative material has to be communicated together with the analysis.

This importance of understanding aspects of metadata; including the systematic recording of metadata as part of the information gathering process; was a shared experience that required methodological support in data handling.

Stage 2 - Neighbourhood mapping

The divergence of specific experiences of excluded groups / individuals between the two cities caused a ‘redefinition’ of the idea of ‘mapping’ during the project. The key attributes of mapping was retained - that there are immediate, visual and thus a basis for quick ‘gut-reaction’ comparisons. They were then a basis for exploring the raw and experiential data in more detail.

The shared experiences, analysis and policy recommendations (contained within this report) relate to the situation of the excluded households, in terms of causes, mechanisms and outcomes of exclusion. Where possible, this has sought to explicitly link primary and secondary data sets (including the empirical social, economic, demographic, and cultural profile of the chosen neighbourhoods in terms of the “dimensions of urban change”) within causal diagrams. These causal maps are the basis for data exploration (the basis for metadata functionality) by providing a structured link to personal ‘life histories’.

From the Rotterdam work, the research team has produced a record of the focus group work with of teenage mothers and mothers in one parent families (together with a background paper on the basis of some of their life-histories).

This is matched by a series of reports from the Newcastle-based team covering (i) school-age mothers; (ii) young unemployed; (iii) youth excluded from formal education; (iv) 'citizenship' groups within formal education networks and (v) the corresponding views of politicians and professionals.

In both cities, the responsibility of producing the reports and the format was based upon the desire to inform and influence policy at a local level. The anticipated influence over policy was primarily through the development of a better and more holistic understanding of the social processes of urban change, the relationship between urban change (linking municipal management issues with a wider regeneration agenda) and the relative importance and influence of exclusional factors and groups. All of the supporting report (internal to the municipalities) contained metadata records.

One key issues from the differing requirements for informing policy within the municipal organisations was the 'ownership' over the definition of social exclusion and how the dynamic nature of the social processes influencing exclusion is understood. This is based upon a shared analysis on the qualitative data gathered and from the perspective of the people affected and interviewed.

Stage 3 - Neighbourhood analysis

Each of the case study cities experienced significant challenges in relating the personal experiences and life histories of excluded individuals to the institutional work of the policy maker within local government - in terms of informational techniques, language, political perceptions and the use/abuse and weighting given to the mixed and messy the data sources.

There was a common requirement for methodological and technological support within the municipal organisations.

This included (i) information technology ('learning' packs, training tools, structured and accessible databases) that helped to explain the idea of systems thinking as applied to urban change; and interpersonal capacity building that matched the quality and nature of the data with the ability of the policy-makers (including political representatives) to understand and undertake analysis.

Most important in the analysis and the application of the project findings was the confidence given to the material. It had to be authentic to be applicable. As such, the trust placed in the research is paramount - to ensure 'open' methods and the standard of the research is maintained in spite of limited time and resources.

7. Policy Concerns over Indicators

“There is a good deal of blather about attacking social exclusion but in the end Going for Growth is about the role and even perhaps the very survival of Newcastle City Council as an organisation.” (Byrne 2000 p4) or even more dramatically in avoiding the slow death of the city (Power & Munford 1999, Power 1999).

While the project has grown into a ‘learning process’ in understanding excluded youth perceptions, attitudes, priorities and values, there a number of cross-cutting issues arising from the work within each of the case study cities that begin to challenge some to the ways and means policy-makers and organisations understand the processes of exclusion. Many of these concerns are transferable to other cities and organisations seeking to understand the processes of exclusion.

Institutionalised exclusion

Within some organisational cultures, the absence of processes for engagement has led to a belief that certain groups are irretrievably excluded. This is similar in concept to the ‘*culture of poverty*’ (popularised in use by Lewis 1969 & 1966), where social groups have an internalised culture repeating and reinforcing between generations (Rigdon 1988). The internalised culture of excluded groups is characteristically negative, based in part by the definition of this culture by organisational structures that adopt a thematic ‘professional’ view, and professional or class based strata (Badcock 1984). Often this professional view is of ‘data-defined poverty’ using as default, limited, empirical measures for understanding some of the patterns but not the wider causes of deprivation and poverty (Kochan 2000). Other times, it is set in the organisational goals (Etzioni 1961) and the political

or moral value bias implicit within such goals (Albrow 1968).

A *vicious circle* like this is not necessarily self-perpetuating (Gans 1991) – it can be broken out of, or more specifically learnt out of. But only if an understanding of the processes of exclusion is gained in an open-ended manner that does not pass judgement on either excluded groups or organisations working with these groups. Any understanding of how urban sub-cultures operate, requires a review of top-down policy that is more sophisticated than the perpetuation of middle class and professional class norms and attitudes or action against values that run counter to these politically dominant norms (Sawhill 1989) or ideas of citizenship (Borja 2000, DETR 2000b). And yet, there is a danger of passing such judgement and reinforcing ‘paternalistic’ values under social exclusion that ignores the complex views and real life indicators. Without this complex pattern, the only outcomes are social stereotypes and associated stigmatisation – what could be called ‘institutionalised exclusion’.

One possible common response to institutionalised exclusion is the development of a working definition of social exclusion that is not judgemental in its scope and both ‘open’ and dynamic. In effect it should be self-defined by those experiencing exclusion rather than an imposed policy definition.

Up until now, the description and definition of social exclusion and its parameters has been almost exclusively the work of social scientists and policy makers. The parameters used do not often surpass the usual analytical, statistical data sets – although, sometimes they are illustrated with phrases drawn from individuals who have the day to day experience of poverty (for it is invariable those

defined from the perspective of economic indicators that are identified as 'excluded').

Organisational 'learnt' understanding

The development of *action-research* as element of social learning (Smith *et al* 1999) is an important aspect of much of the work of any municipality undergoing substantive restructuring, with implications for the working of urban sub-cultures. To allow this to happen, municipalities need to provide time and space for 'professional' reflection (participant observation for those involved in the urban regeneration process) and valuing the importance of qualitative research to policy decisions. Superficially this is at odds with bureaucratic and hierarchial organisations (Smith 1970).

Thus, in part it is not just gaining a fuller understanding of social exclusion but about changing corporate (municipality) values to learning, to become more 'permeable' to wider networks (Selznick 1966) and the support given to experimental research aimed at the understanding of conditions of social situations - municipal values that are dynamic (within a changing political culture) but at a basic level recognise the need for understanding the diversity of social situations; including the values of excluded groups; and the multiplicity of advantages for developing a learning society and city.

Configuration of indicators

In such complex social situations, causality and connections are difficult to identify. This suggests a complex and 'overlapping' policy response to link rather than separate issues. In part this can be achieved by thinking of indicators as dimensions –

collected and presented as continua (relative 0-1/ multiplicity of mixed good-bad life-story endings) rather than absolute empirical measures. All with possible positive outcomes and causes (for example, the complexity within the causal maps as illustrated). As such, indicators should be capable of a level of refinement and resolution, and include / value mixed and multi-methods.

Grouping indicators should also avoid any social stratification by providing a balanced view between 'excluded' and 'professional' groups (sociology of knowledge — highlighting the differences between 'excluded' groups and 'professional' groups – based upon their social-strata position too 'top-down' and 'distant'). This multiplicity of perspectives and viewpoints can only be provided if; (i) we value pragmatism and 'width' as complementary to 'depth' of knowledge and understanding; (ii) we challenge the tendency to empericalise subjective and qualitative understandings; and (iii) by maintaining the source material in the form closest to it's original form.

The importance is the principle of clustering and presenting the indicators as a mixed set of inter-related measures rather than in isolation.

Citizenship and learning culture

Social exclusion is a dynamic process where many of the factors associated with exclusion are not primarily physical or economic issues but rather inherited attitudes from within the social (family and neighbourhood) situation. These attitudes can be in the form of (i) negative attitudes to authority and strategic organisations, including potential employers; (ii) poor self-esteem and accordingly low expectations for education, employment and living standards; and (iii) negative area image and

identity, often in a manner that is disparaging both internally and externally to the community. For example, institutionalised exclusion within the formal education system develops into the exclusion in employment by raising trends towards polarisation, mobility and individualisation (after Virtanen 1996) within society. In response, we should understand and learn from individual employment transitions (Evans *et al* 1997)

The combined effect is an attitudinal culture of exclusion (or culture of poverty) that repeats itself between different generations in an example of 'self-learning' where individuals are restricted from meeting their full potential. The significance of these more attitudinal and qualitative dimensions of social exclusion are not fully appreciated within decision-making structures.

In response, we need to increasingly understand transitions and networks within society and interact with these soft urban systems and not simply area-based activities. Critical to this is the development of information into an understanding of how the hard and soft social urban systems interact. "The information society needs to become a learning society" (Bynner 1998 p433). We should stress the dynamics of information, research and understanding as a fundamental part of a learning culture, for individuals and organisations, within the broader dynamics of youth culture

Summary

The project supported work that looked at the development of a multi-dimensional understanding of social exclusion, with a particular focus on youth experiences within the context of urban restructuring and regeneration activities. This trans-national work identified 'gaps' in our understanding

of social exclusion as a process and developed a number of methodological tools (data collection and analysis) to improve our *qualitative* understanding of transitions of excluded youth in a variety of social situations.

The use of 'open methods' to understand the views, attitudes and experiences of young people provided a 'scoping' exercise in setting a youth agenda that in a number of important aspects was at odds with local, national and European policy designed to address the concerns and situations of these same groups. To a large degree this apparent conflict between the views and understandings of policy-makers and excluded youth is due to the abstraction of data, a loss of personal detail and corresponding complexity in the variety of youth experiences whenever information is generalised and communicated to policy-makers and professionals working with excluded youth.

Initial attempts were made to develop techniques of structuring complex qualitative social information in a way that simplified the quantity of interview / focus group and additional data without losing the significant details. These were largely visual 'mapping' or pictorial methods designed to improve our (policy-makers and excluded youth groups) intuitive understanding of the social situation in its entirety, including suggested causal links between issues and experiences.

The project has developed into a follow-up *action-research* project (currently in operation) designed to develop the trans-national European dimensions to the work, particularly in the use of comparative research methodologies, *metadata* standards and process indicators to provide a deeper qualitative understanding of excluded youth social situations.



References

- Albeda, W (1986) *Het Nieuwe Rotterdam* (Gemeente Rotterdam).
- Albrow, Martin (1968) 'The study of organisations - Objectivity or bias?' in Gould, J (Ed.) *Penguin Social Science Survey* (Penguin, Harmondsworth).
- Alibrandi, Marsha., Thompsom, Ann and Hagevik, Rita (2000) 'Documenting a Culture'. *ESRI ArchNews*, Fall p27.
- Andersen, Hans Thor and Kempen, Ronald Van (Eds.) (2001) *Governing European Cities: Social fragmentation, social exclusion and urban governance* (Ashgate, Aldershot).
- Audit Commission (1996) *Misspent Youth: Young People and Crime* (HMSO, London).
- Barlow, James (1995) *Public Participation in Urban Development: The European Experience* (Policy Studies Institute, London).
- Badcock, Blair (1984) *Unfairly Structured Cities* (Basil Blackwell, Oxford).
- Bem, DJ (1971) 'Attitudes as Self-Descriptions: Another look at the attitude-behaviour link' pp 323-334 in Kerry, Thomas (Ed.) *Attitudes and Behaviour* (Penguin, Middlesex).
- Berg, L van den, Braun, E. and J. van der Meer (1996) *Economic attractiveness and social exclusion; the case of Rotterdam* (Eurcur, Rotterdam).
- Bender, Andre., Din, Allan., Favarger, Philippe., Hoesli, Martin and Laakso, Janne (1997) 'An analysis of perceptions concerning the environmental quality of housing in Geneva'. *Urban Studies* 34(3) pp 503-513.
- Big Issue (2000) 'A day in my life'. *Big Issue* 418 pp 12-13.
- Blyth, E and Milner, J (Eds.) (1996) *Exclusions from school: interprofessional issues in policy and practice* (Routledge, London).
- Blyth, E and Milner, J (1993) 'Exclusion from School: A first step in exclusion from society?' *Children and Society* 7 pp 255-268.
- Board, C (1967) 'Maps as Models' pp 671-725 in Chorley, Richard J and Haggett, Peter (Eds.) *Models in Geography* (Methuen & Co, London).
- Bogdan, Robert and Taylor, Steven J (1975) *Introduction to Qualitative Research Methods: A Phenomenological Approach to the Social Sciences* (John Wiley & Sons, New York).
- Borja, Jordi (2000) 'The citizenship question and the challenge of globalization: The European context'. *City* 4(1) pp 43-52.
- Bullen, Elizabeth., Kenway, Jane and Hay, Valerie (2000) 'New Labour, Social Exclusion and Educational Risk Management: the case of "gymslip mums"'. *British Educational Research Journal* 26(4) pp 441-456.
- Burgess, Jacquelin., Harrison, Carolyn M and Limb, Melanie (1988) 'People, parks and the urban green: A study of popular meanings and values for open spaces in the city'. *Urban Studies* 25 pp 455-473.
- Burgess, Robert G (1984) *In the Field: An Introduction to Field Research* (George Allen and Unwin, London).
- Bradshaw, J and Holmes, H (1989) *Living on the Edge – A study of living standards of families living on benefit in Tyne and Wear* (Child Poverty Action Group, London).
- Bronsveld, C (1998) *Hillesluis Rotterdam* (SoZaWe / CSPS, Gemeente Rotterdam).
- Bryman, A (1988) *Quantity and Quality in Social Research* (Unwin Hyman, London).
- Bynner, John (1998) 'Youth in the Information Society: problems, prospects and research directions'. *Journal of Education Policy* 13(3) pp 433-442.
- Byrne, David (2000) 'Newcastle's Going for Growth: Governance and Planning in a Postindustrial Metropolis'. *Northern Economic Review* 30, pp 3-17.
- Carley, Michael and Kirk, K (1998) *Sustainable by 2020? A strategic approach to urban regeneration for British cities* (Policy Press, Bristol).
- Chambers. R (1994) 'The origins and practice of Participatory Rural appraisal'. *World Development* 22(7): pp 953-969.
- Clark, MJ (1998) 'GIS – democracy or delusion?' *Environment and Planning A* 30 pp 303-316.
- Coleman, C (1995) 'Truancy and the School Curriculum' in O'Keefe, DJ and Stoll, P (Eds.) *Issues in School Attendance and Truancy* (Pitman, London).
- Comerio, Mary C (1987) 'Design and Empowerment: 20 Years of Community Architecture'. *Built Environment* 13(1) pp 15-28.
- Commission of the European Communities (2000) *Building an Inclusive Europe* (com(2000)79, Brussels).
- Copas, Conn V (1993) 'Spatial information systems for decision support' pp 158-167 in Medyckj-Scott, David and Hearnshaw, Hilary M (Eds.) *Human Factors in Geographical Information Systems* (Belhaven Press, London).
- Cowan, Robert (1990) 'Urban Design; Participation techniques'. *Architects' Journal* 31 October pp 59-61.
- Crilly, Michael and Mannis, Adam (2000) 'Sustainable Urban Management Systems' pp 202-214 in Williams, Katie., Burton, Elizabeth and Jenks, Mike (Eds.) *Achieving Sustainable Urban Form* (E & FN Spon, London).
- Crilly, Michael and Wren, Trevor (2000) 'Dimensions of Social Exclusion and Urban Change'. Paper presented to 'How to integrate environmental aspects into spatial planning using indicators, environmental objectives, SEA and GIS', international invitation conference, May 4-5, 2000 Stockholm, Sweden.

- Davies, A and Gathorne-Hardy, F (1997) *Making connections: Community involvement in environmental initiatives* (Committee for Interdisciplinary Environmental Studies, Cambridge University).
- Den Uyl, JM (1986) *De toekomst onder ogen: Beschouwingen over socialisme, economie en economische politiek* (Uitgeverij Bert Baker, Amsterdam).
- Denzin, Norman K (1972) 'The Research Act' pp 76-91 in Manis, Jerome G and Meltzer, Bernard N (Eds.) *Symbolic Interaction* (Allyn and Bacon, Boston).
- Derrida, J (1978) *Writing and Difference* (University of Chicago Press, Chicago).
- DETR (2000b) *Indices of Deprivation 2000* (Department of Environment, Transport and the Regions, London)>
- DETR (2000) *Our Towns and Cities: The Future – Delivering an Urban Renaissance* (The Stationary Office, London).
- DETR (September 1998) *Enhancing Public Participation in Local Government* (Department of the Environment, Transport and the Regions, London).
- Dorling, D (1998) 'Human cartography: when it is good to map'. *Environment and Planning A* 30, pp 277-288.
- Downs, RM (1982) 'Cognitive dimensions of space and boundary in urban areas' pp 247-256 in Theodorson, G (Ed.) *Urban Patterns: Studies in human ecology* (Pennsylvania State University Press, Pennsylvania).
- Downs, Roger M and Stea, David (1973) *Image and Environment – Cognitive Mapping and Spatial Behaviour* (Edward Arnold, London).
- Duffy, H (1992) *Divided Cities* (Pisaras Fund, Rotterdam/Chicago).
- Dunlop, Rachael and Salter, Miffa (1996) 'Seeking quality assurance in urban design: consumer culture meets social practice'. *Built Environment* 22(4) pp 315-322.
- Easterby-Smith, Mark., Thorpe, Richard and Lowe, Andy (1987) *Management Research – An Introduction* (Sage Publications, London).
- Elliot, J (1991) *Action Research for Educational Change* (Open University Press, Philadelphia).
- Etzioni, Amitai (1961) *A Comparative Analysis of Complex Organisations* (Free Press, New York).
- Eurocities (1993) *European Social Policy and the City* (Eurocities, Lisbon/Brussels).
- European Commission (1995) *Europe 2000+: Regional Planning for the year 2000* (Office for Official Publications of the European Communities, Luxembourg).
- Evans, Karen., Hodkinson, Phil., Keep, Ewart., Maguire, Malcolm., Raffe, David., Rainbird, Helen., Senker, Peter and Unwin, Lorna (1997) *Working to Learn: A work-based route to learning for young people* (Institute of Personnel and Development, London).
- Eyles, John (1985) *Senses of Place* (Skelton's Press, Wellingborough).
- Fischer, Michael D (1994) *Applications in computing for social anthropologists* (Routledge, London).
- Frey, Hildebrand (1999) *Designing the City: Towards a more sustainable urban form* (E & FN Spon, London).
- Galloway, D (1985) 'Truancy' pp 1-3 in Harre, R and Lamb, R (Eds.) *The Encyclopedic Dictionary of Psychology* (Blackwell, London).
- Gans, Herbert J (1991) *People, Plans and Policies: Essays on poverty, racism and other national urban problems* (Columbia University Press, New York)
- Gans, Herbert J (1972) *People and Plans: Essays on Urban Problems and Solutions* (Harmondsworth, Penguin).
- George, Alexander L (1959) 'Quantitative and qualitative approaches to content analysis' pp 7-32 in Pool, Ithiel de Sola (Ed.) *Trends in Content Analysis* (University of Illinois Press, Urbana).
- Glaser, Barney G and Strauss, Anselm L (1967) *The Discovery of Grounded Theory: Strategies for Qualitative Research* (Aldine, New York).
- Golledge, Reginald G (1978) 'Learning about urban environments' pp 76-98 in Carlstein, Tommy., Parkes, Don and Thrift, Nigel (Eds.) *Making Sense of Time* (Edward Arnold, London).
- Golledge, Reginald G and Zannaras, Georgia (1973) 'Cognitive approaches to the analysis of human spatial behaviour' pp 59-94 in Ittelson, William H (Ed.) *Environment and Cognition* (Seminar Press, New York).
- Gottdiener, Mark (2000) 'Lefebvre and the bias of academic urbanism'. *City* 4(1) pp 93-100.
- Greenhalgh, Liz and Worpole, Ken (1996) *People, parks and cities: A guide to current good practice in urban parks* (HMSO, London).
- Grenville, MP (1989) 'Police Truancy Patrols' *Education and the Law* 1(2) pp 65-67.
- Hall, David (1992) 'How to define community?' *Town and Country Planning* April p 94.
- Healey, Patsy (1990) 'Policy processes in planning'. *Policy and Politics* 18(1) pp 91-103.
- Henwood, Karen L (1996) 'Qualitative inquiry: perspectives, methods and psychology' pp 25-42 in Richardson, John TE (Ed.) *Handbook of Qualitative Research Methods for Psychology and the Social Sciences* (Unwin Hyman, London).
- Hey, V (1997) *The Company She Keeps: an ethnography of girls' friendship* (Open University Press, Buckingham).
- Hodkinson, P., Sparkes, AC and Hodkinson, H (1996) *Triumphs and Tears, Young people, markets and the transition from school to work* (David Fulton, London).

- Hudson, F and Ineichen, B (1991) *Taking it lying down – sexuality and teenage motherhood* (Macmillan, London).
- Hunt Thompson Associates (1992) *Creating the New Heart of Hulme: A report on the community planning weekend* (Hunt Thompson Associates, London).
- Idenburg, Ph (1990) *Sociale Vernieuwing in Rotterdam* (Social Renewal in Rotterdam) (Municipal Council, Rotterdam).
- Idenburg, Ph and Beugels, P (1989) *Het Nieuwe Rotterdam in Sociaal Perspectief: Rapport van de Commissie Sociale Vernieuwing* (Gemeente Rotterdam).
- Inglis, Andy (2000) *Some principles and methods for running efficient, effective and enjoyable consultation events* (Scottish Participatory Initiatives, Dunbar).
- Joseph Rowntree Foundation (2000) *Drugs: dilemmas, choices and the law* (Joseph Rowntree Foundation, York).
- Kenway, J., Willis, S. Blackmore, J and Rennie, L (1998) *Answering Back: girls, boys and feminism in schools* (Routledge, London).
- Klerk, L de (1998) *Over sociale, economische en ruimtelijke processen, materiaal voor planvorming* (Directie Stedelijke Ontwikkeling en Beheer, Rotterdam).
- Kochan, Ben (2000) 'Redrawing the map of local poverty'. *Urban Environment Today* 7 September p9.
- Konttinen, Sirkka-Liisa (1985) *Byker* (Bloodaxe Books, Newcastle upon Tyne).
- Lawrence, Gary (1996) 'The Seattle Approach'. *Urban Design Quarterly* 57 pp 23-25.
- Laszlo, Ervin., Artigiani, Robert., Combs, Allan and Csanyi, Vilmos (1996) *Changing Visions – Human Cognitive Maps: Past, Present, and Future* (Praeger, Westport Connecticut).
- Le Riche, E (1995) *Combating Truancy in Schools: Listening to the voice of the pupil* (David Fulton and Roehampton Institute, London).
- Lee, TR (1976) 'Cities in the mind' pp 159-187 in Herbert, DT and Johnston, RJ (Eds.) *Social Areas in Cities: Spatial Perspectives on Problems and Policies* (John Wiley & Sons, London).
- Lee, Terance (1968) 'Urban neighbourhood as a socio-spatial schema'. *Human Relations* 21 pp 241-268.
- Lemon, Mark and Longhurst, Phil (1995) 'Resources for courses: environmental education and the need for a conceptual framework'. Conference proceedings *First Annual International Interdisciplinary Conference on The Greening of Higher Education*, Froebel College, London 11-13 September.
- Lewis, Oscar (1969) 'The Culture of Poverty' pp 187-192 in Moynihan, Daniel P (Ed.) *On Understanding Poverty* (Basic Books, New York).
- Lewis, O (1966) 'The culture of poverty'. *Scientific American* 215(4) pp 19-25.
- Leyshon, A and Thrift, N (1995) 'Geographies of financial exclusion and abandonment in Britain and the United States'. *Transactions of the Institute of British Geographers* 22 pp 312-341.
- LGMB (1996) *Creating Community Visions* (Local Government Management Board, London).
- Lynch, Kevin (1981) *Good City Form* (MIT Press, Boston).
- Lynch, Kevin (undated) 'A process of community visual survey' pp 265-286 in Tridib, Banerjee and Southworth, Michael (Eds.) (1990) *City Sense and City Design: Writing and Projects of Kevin Lynch* (MIT Press, Cambridge MA).
- Madanipour, Ali and Bevan, Mark (1999) *Social Exclusion in European Urban Neighbourhoods* (CREUE, University of Newcastle upon Tyne).
- NACRO (1993) *Youth Choices – Improving the uptake of training by unemployed young people* (National Association of the Care and Resettlement of Offenders, London).
- Nevin, Brendan et al (1999) 'Pooling their resources' *Housing Today* 21/10.
- Matthies, Aila-Leena., Jarvela, Marja and Ward, Dave (Eds.) (2000) *From Social Exclusion to Participation: Expolration across Three European Cities* (Jyvaskyla University Printing House, Jyvaskyla).
- NEF (1998) *Participation Works! 21 techniques of community participation for the 21st Century* (New Economics Foundation, London).
- Netherlands Scientific Council for Government Policy (1990) *Institutions and Cities: The Dutch Experience* (WRR, The Hague).
- Newcastle City Council & Northumbria Police (2000) *City of Newcastle upon Tyne: Crime and Disorder Reduction Strategy 2000-2002* (Newcastle City Council, Newcastle upon Tyne).
- Newcastle City Council (June 1999) *Corporate strategic plan: The City Council's vision for Newcastle* (Newcastle City Council, Newcastle upon Tyne).
- Newcastle City Council (1997) *Social Regeneration Strategy* (Newcastle City Council, Newcastle upon Tyne).
- Newling, John (2000) 'Questions, Ices and Places', *City* 4(1) pp 81-91.
- Nijkamp, Peter and Rietveld, Piet (1984) 'Spatially orientated information systems' pp 35-54 in Nijkamp, Peter and Rietveld, Oude Engberink, G and Hekelaar, A (1995) *Onzeker Wonen* (CSPS, Gemeente Rotterdam).
- Oude Engberink, G and Post, B (1995) *Grenzen van de Armoede* (DIVOSA, Utrecht).
- Piet (Eds.) *Information Systems for Integrated Regional Planning* (North Holland, Amsterdam).

- Pearce, Nick and Hillman, Josh (1998) *Wasted Youth: Raising achievement and tackling social exclusion* (Institute for Public Policy Research, London).
- Philip, LJ (1998) 'Combining quantitative and qualitative approaches to social research in human geography – an impossible mixture?' *Environment and Planning A* 30 pp 261-276.
- Plummer, Ken (1983) *Documents of Life* (Allen & Unwin, London).
- Porterfield, Gerald A and Hall, Kenneth B Jr. (1995) *A Concise Guide to Community Planning* (McGraw-Hill, New York).
- Power, Ann and Munford, Katherine (1999) *The Slow Death of Great Cities? Urban Abandonment or urban renaissance* (Joseph Rowntree Foundation, York).
- Power, Ann (1999) 'Streets of Shame'. *The Guardian* May 5, pp 2-3.
- Prince's Foundation, English Partnerships, DETR and CPRE (2000) *Sustainable Urban Extensions: Planned through design* (The Prince's Foundation, London)
- Punter, John (1996) 'Urban design theory in planning practice: The British perspective'. *Built Environment* 22(4) pp 263-277.
- Puthod, Catherine., Grover, Paul., Hallgarten, Judy and Jupp, Eleanor (2000) *Creative Spaces: A toolkit for participatory urban design* (The Architecture Foundation, London).
- Reid, Heather (1997) *Schools and Social Work: Truancy, Exclusion, and Special Education* (Social Works Monographs, Norwich).
- Reid, K (1985) *Truancy and School Absenteeism* (Hodder and Stoughton, London)
- Reijndorp, A and van der Zwaard, J (1996) *Kijken naar sociale processen: nadenken over het perspectief* (Gemeente Rotterdam).
- Rigdon, Susan M (1988) *The Cultural Façade: Art, Science and Politics in the Work of Oscar Lewis* (University of Illinois Press, Champaign).
- Rutter, M and Smith, D (Eds.) (1995) *Psychosocial Disorders in Young People: Time Trends and Their Causes* (Wiley, New York).
- Sawhill, Isabel V (1989) 'The Underclass: An Overview'. *The Public Interest* 96 pp 3-15.
- Schuijt, C (1998) *Het sociaal tekort* (de Balie, Amsterdam).
- Selznick, Philip (1966) *TVA and the Grass Roots* (Harper and Row, New York).
- Smith, Joe., Blake, James., Grove-White, Robin., Kashafi, Elham., Madden, Sarah and Precy, Sue (1999) 'Social Learning and Sustainable Communities: an interim assessment of research into sustainable communities projects in the UK'. *Local Environment* 4(2) pp 195-207.
- Smith, Gilbert (1970) *Social Work and the Sociology of Organizations* (Routledge & Kegan Paul, London).
- Social Exclusion Unit (2000) *National Strategy for Neighbourhood Renewal: policy action team summaries: a compendium* (Cabinet Office, London).
- Social Exclusion Unit (2000) *National Strategy for Neighbourhood Renewal: a framework for consultation* (Cabinet Office, London).
- Social Exclusion Unit (1999) *Teenage Pregnancy Cm 4342* (Cabinet Office, London).
- Social Exclusion Unit (1998) *Bring Britain Together: A National Strategy for Neighbourhood Renewal Cm4045* (Cabinet Office, London).
- Social Exclusion Unit (1998b) *Truancy and School Exclusion Cm 3957* (Cabinet Office, London).
- Speak, Suzanne., Cameron, Stuart., Woods, Roberta and Gilroy, Rose (1995) *Young single mothers: barriers to independent living* (Family Policy Studies Centre, London).
- Spradley, James P (1980) *Participant Observation* (Holt Rinehart & Winston, New York).
- Stake, Robert E (1995) *The Art of Case Study Research* (Saga, Thousand Oaks California).
- Stone, Vanessa., Cotton, Daphne and Thomas, Andrew (2000) *Mapping Troubled Lives: Young people not in education, employment or training - DfEE Research Report No181* (Stationary Office, Norwich)
- Townsend, Tim (2000) 'But would you live here? Researching attitudes towards Newcastle upon Tyne's urban area' pp 221-228 in Benson, John F and Roe, Maggie H (Eds.) *Urban Lifestyles – Spaces, Places, People* (Brookfield, Rotterdam).
- Urban Task Force (1999) *Towards an Urban Renaissance* (E & FN Spon, London).
- Virtanen, P (1996) *The making of a new underclass among unemployed youth: emerging social exclusion, the mechanism for integration and the need for active and network-based employment strategies – Labour Market Studies No 150* (Ministry of Labour, Helsinki).
- Wates, Nick (1996a) *Action Planning: How to use planning weekends and urban design action teams to improve your environment* (Prince of Wales's Institute of Architecture, London).
- Wates, Nick (1996b) 'A community process' pp 15-17 in UDG (Ed.) *Urban Design and Community Issues* (Urban Design Group, London).
- Wellard, Sarah (1998) 'Out of Mind'. *Community Care* November pp 22-23.
- Williams, R and Richardson, G (Eds.) (1995) *Child and Adolescent Mental Health Services: Together We Stand* (HMSO, London).

Appendices

A Record of transnational project activities.

B Crilly, Michael and Wren, Trevor (2000) 'Dimensions of Social Exclusion and Urban Change'. Paper presented to '*How to integrate environmental aspects into spatial planning using indicators, environmental objectives, SEA and GIS*', international invitation conference, May 4-5, 2000 Stockholm, Sweden.

C Crilly, Michael., Johnston, Lorraine and Wren, Trevor (2000) 'Citizenship and Learning Networks'. Paper presented to '*Children, Social Exclusion and Citizenship. Learning to be citizens – educational approaches to social exclusion*'. University of Sunderland', international conference, November 10-11, 2000.

D Record of GIS mapping exercises undertaken by Spatial Modelling Centre (SMC) Kiruna, Sweden.

Sequence of trans-national activities and project tasks within each of the case study cities (Newcastle and Rotterdam); the supporting partner research group (Kiruna) and academic sub-consultants (Cranfield).

Preparatory activities	
Specific project task as outlined within proposal (procedural and analytical tasks)	Location(s) of activity / meeting
Selection of study areas based upon current organisational priorities and regeneration activities.	Newcastle, Rotterdam.
Scoping and collection of existing secondary data sources as they relate to each of the study areas. This comprised of a mix of empirical and descriptive accounts.	Newcastle, Rotterdam.
Tabulation and structuring of mixed secondary data.	Kiruna.
Establishment of 'community boundary' maps (a.k.a. cognitive maps appropriate to the proposed study areas).	Newcastle, Rotterdam.
Scoping of and initial contact with formal (both internal and external to the municipal organisation) and informal community networks.	Newcastle, Rotterdam.
Selection of target 'excluded' groups based on analysis of existing gaps in city-wide and area information.	Kiruna, Newcastle, Rotterdam.
Initial trans-national project partner meeting to confirm research activities, methods and strategy.	Cluny, Ouseburn, Newcastle upon Tyne (UK).

Neighbourhood Visioning		
Specific project task as outlined within proposal (procedural and analytical tasks).		Location(s) of activity / meeting
Pilot 'community visioning' event with community activists in Byker.		Newcastle.
Production of initial data collection 'toolkit' (including supporting information technology training support from Cranfield University based academic sub-consultants).		Cranfield, Kiruna, Newcastle, Rotterdam.
Undertaking 'community visioning' events (based upon open-discussion, repeat one-to-one interviews and small focus groups).		Newcastle, Rotterdam.
Community activists, politicians and internal organisational contacts (Byker focus followed by wider east end network). Unemployed youth (16-18 year olds within the east end of the city). Teenage mothers (city-wide based network). Permanently excluded youth from formal education (city-wide based network). Formal education links (work within east end schools and pupil placement within the project team).	Groupings with teenage mothers, young male unemployed and individuals within single parent households (all groups based within the target areas within Rotterdam – Schiemond; Bospolder / Tussendijken; and Crooswijk.	

Neighbourhood Mapping	
Specific project task as outlined within proposal (procedural and analytical tasks)	Location(s) of activity / meeting
Sharing (including limited translation of secondary and primary data sets) of mixed data sets and establishment of a common protocol for structuring and arranging 'messy' data.	Kiruna.
Review of data collection 'toolkit' based upon common trans-national experiences.	Kiruna, Newcastle, Rotterdam.
Configuration of common framework for indicators of social exclusion (based upon reflective analysis of open-ended youth experiences within each of the case study cities).	Kiruna, Newcastle, Rotterdam.
Digital 'mapping' of key indicators within each of the case study cities, using GIS (Archview and Mapinfo) and database packages. This was undertaken using comparable software packages, data protocols and standardised coding.	Kiruna.
Production of city reports from each of the 'community visioning' exercises.	Newcastle, Rotterdam (utilising material supplied by Kiruna).
Second trans-national partner meeting to coincide with first trans-national conference and dissemination of initial project findings (methods of collection / analysis - see appendix b).	Hogloftet, Skansen, Stockholm (Sweden).

Neighbourhood Analysis	
Specific project task as outlined within proposal (procedural and analytical tasks)	Location(s) of activity / meeting
Establishment of data archive for 'messy' data based upon established common data protocol.	Kiruna.
Comparative assessment of project and development of policy relevant findings.	Kiruna, Newcastle, Rotterdam.
Second trans-national conference and dissemination of project findings (methods of context /collection – see appendix c).	St Peters Campus, Sunderland University (UK).
Final trans-national partner meeting and conference.	Bureau for Small Enterprises, Rotterdam (Netherlands).

Dimensions of Social Exclusion and Urban Change

Paper presented to 'How to integrate environmental aspects into spatial planning using indicators, environmental objectives, SEA and GIS', international invitation conference, May 4-5, 2000
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Abstract / Introduction

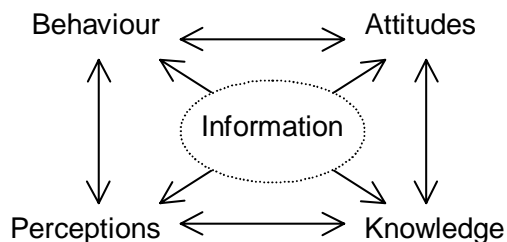
This paper is a personal and professional account of the use of spatial information in an urban context, drawing on experience of an on-going city-wide regeneration project in Newcastle-upon-Tyne in the North East of England. The paper outlines the work involved in strategic urban information management and the lessons learnt. It describes the progress at a community level in our follow-on project where we are assessing, developing and experimenting with community participation processes based upon information exchange and development. In particular we will trial and examine:

- The utility and value of mapped local government indicator information in educating and informing the community of itself relative to other communities on a range of population features and city attributes.
- The interest of the community in challenging, validating, revising and extending the indicator and information basis to improve our mutual understanding.
- Ways to capture local knowledge and generate qualitative information from the community itself and integrate this information with official and quantitative mapped information through participation activities.
- Integration and interaction of two-way information flows and complimentary processes to mutually improve community understanding
- The value of these processes in improving participation and developing mutual understanding of the city, its population, and communities.

However, it begins with a theoretical statement about the nature of cities and urban decision-making processes.

Theoretical context - Urban complexity and the role of information

Cities are complex systems. They are both 'hard' physical systems and 'soft' human systems where behaviour and decisions are based on interaction between knowledge, values, attitudes and perceptions. Thus, they are unpredictable in their responses to topic-based initiatives, localised interventions and imposed visions. The procedural issues surrounding municipal management and the analytical 'values' behind decisions will be as important as the substantive. This suggests a need to clarify and define the links between behaviour and environment in a new approach that is more than historical design or knowledge based determinism. It has to link hard and soft systems and it has to include a series of feedback loops (inspired by the descriptions and connections of Short 1984, Kirk 1951).



The diagram illustrates multi-dimensional feedback and the relationships between knowledge, perceptions, behaviour and attitudes operating at individual, household, community and city levels. It also "... usefully underlines the groundlessness of systems thinking: there are no absolutes in our epistemology; as systems thinkers we are virtually driven to a process view of the world" (Checkland 1992 p1026) where behaviour is only loosely grounded in our limited perceptions and knowledge of the real world. Theoretically, we have to be concerned with describing real-life process rather than an ideal normative and rational approach to decision-making (Castles et al 1971).

There are strong connections between any realistic urban theory adopted by a planner or an organisation and the perspective this provides on the role and balance of data and information in explaining this theoretical position and inter-relationships. For example, in looking for behavioural change there will be a bias towards observation and interview in data collection to explain any change. The theoretical position adopted will to some extent predispose the nature of the technical information collected and used to make 'informed' decisions.

Yet, there is little understanding of urban complexity and the links between the analytical, procedural and physical aspects of the urban system, leading inevitably to confusion and contradiction in practice or policy recommendations. A compartmentalisation of such issues is endemic within the prevailing municipal approach to urban regeneration and thus one of the

challenges of any new approach. The dominant paradigm of urbanism demonstrates two types of internal compartmentalisation: (i) based on a specific scale; and (ii) adopting a sectorial topic based approach to understanding linkages.

City-wide regeneration initiative – Action research

The starting point of the regeneration work was to develop a new approach to urban regeneration that recognised both earlier successes and failures. The desired radical and innovative process was to be long-term (20 years) city-wide, holistic, evidence-based, participative and focus upon communities, although there are questions over whether the requirement for evidence and information in the process is "... as much *psychological*, in view of the qualitative character of most administrative decisions, as it is technical in some quantitative sense" (Scott 1967 p225). Political decisions at all stakeholder levels (local municipality through to community / residents' groups) were made from the outset, and continue to be made, without reference to the evidence base.

The new approach required a new understanding that addressed this '*total urbanism*' complexity and the recognition of internal compartmentalisation and the ways in which they can be reconciled, including the pragmatism and abstraction required to respond to real-life political processes.

A team of 20 staff (over a 3 months dedicated working period) was set up to support the initial development of the regeneration initiative. This team was multi-disciplinary, inter-departmental and inter-organisation. One of five overlapping groups was charged in the overview of information collection, organisation and dissemination. The commitment to an evidence-based approach obliged the group to consider a mix of qualitative and quantitative information at all stages.

The group required a robust adaptive framework for regional / city-wide and neighbourhood information that aided the understanding of issues, interconnections and possible consequences of intervention in any distinct sphere. It had to operate and interrelate at different scales for a variety of decision-makers (organisations, communities). The intended aim of the information base in this context is not to predict or forecast, or to quantify links or show causality but rather provide an better intuitive understanding to inform decisions. This heuristic approach where people learn by doing and make informed connections is also didactic and interactive.

Integration using spatial indicators

The implications for the management of data and information within this approach is to adopt the use of a 'package' of spatial indicators. Indicators were chosen to simplify the themes and scope of intervention, to link to existing policies and/or anticipated action, and to provide an accessible and convenient overview to stakeholders and decision-makers.

Indicators are concerned with change and decision-making, implying a distinction between data and information, where the weakness of current practice is that it is data rich without making a connection with action and changing behaviour. Specific criticisms of the use of information has been the lack of integration with political issues and public participation (Riglar 1998, Pinfield 1996) which require creative and imaginative approaches to community involvement. To do this they need to be locally defined, both individual indicators and the process, (Pinfield 1997, Henderson 1990) to ensure they result in better decisions and actions. This is because they do represent a specific locality or cultures' value system and as such the selection and use of indicators can be highly political (Crilly *et al* 1999).

The policy relevance of any indicators set depends on a multi-layered understanding of the urban system (Pearce 1997, Brugmann 1997a and 1997b) gaining new layers and mapping these spatially and as flows or networks. "... a systems approach, in this context, has much to offer. It provides a multi-dimensional framework in which information from different disciplines and domains can be integrated without being forced into a one-dimensional mapping" (Clayton and Radcliffe 1996 p12). Key 'gaps' are the recognised "... dearth of relational data on all social phenomena" (Smith and Timberlake 1995 p91), a lack of spatial dimensions and an over reliance upon empirical information and models (Clark *et al* 1995). The proposed framework is dependent upon the possibilities of filling these qualitative gaps with a common unit of measurement for each indicator - a spatial unit.

"within the context of designing and managing sustainable communities, planners require an understanding of the interactions between the macroscopic dynamics of the regional or urban system and its component sub systems... (such a) ... defined spatial zone can be seen as a complex system which evolves over time" (Jeffrey *et al* 1997 p58 and p61)

As the use of indicators is based primarily upon an intuitive and qualitative way of understanding urban systems they remain "... a sub-optimal tool for technical assessment and even public education" (Brugmann 1997a p59). There remain issues over control of the information, its source and dissemination and achieving the correct balance between simplicity and utility.

Conceptual model - The city of virtual layers

The selection and communication of indicators of urban vitality and viability have an important role in defining the scope of the issues to be addressed by any level of public sector intervention providing an evidence base for action. Thus in part they have a function in relating the conceptual model of the city and its communities. Spatial indicators, produced by a variety of simple analytical tools within a GIS framework, can help us conceptualise the city differently. It becomes a tool to decision-making and thus part of the process.

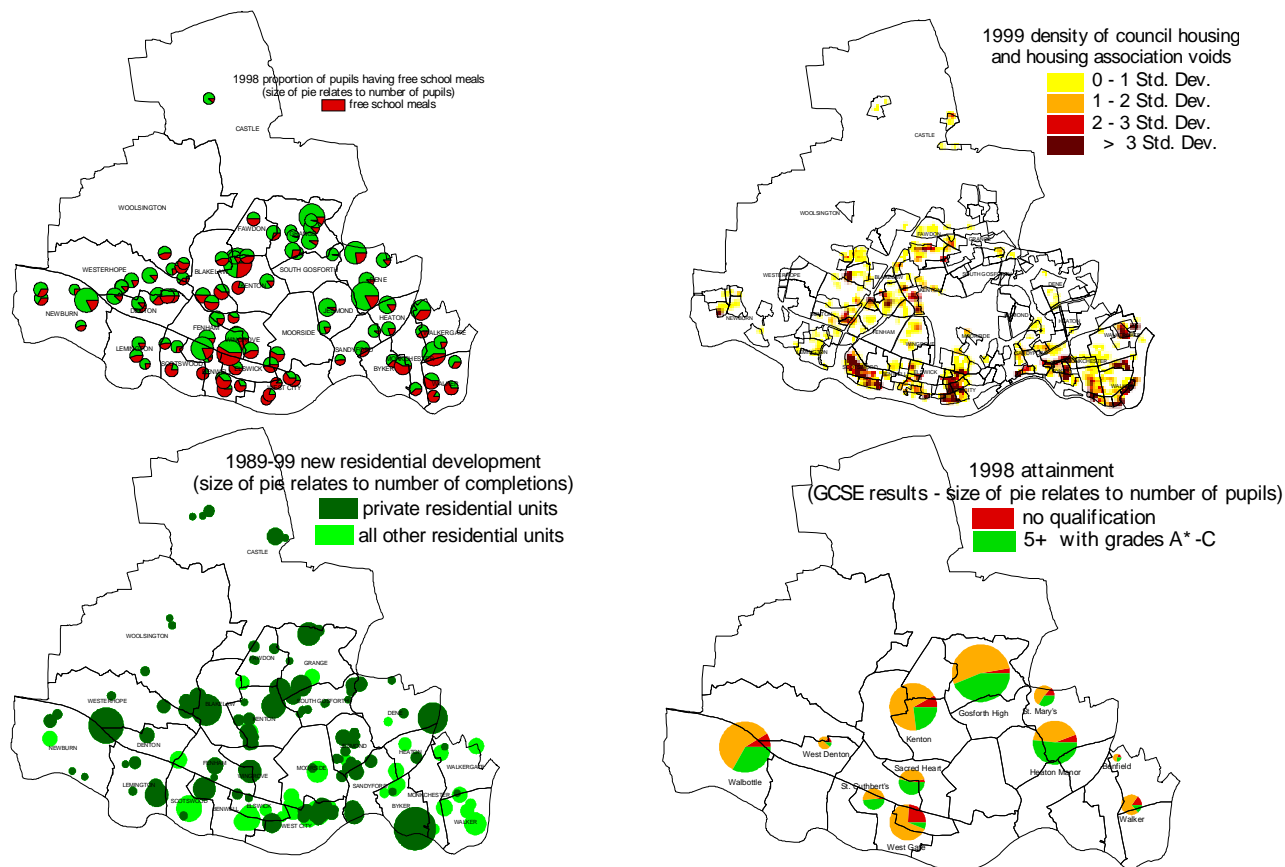
The urban indicators are being used to deconstruct, simplify, communicate and analyse the complexity of the urban systems under investigation. To reflect this complexity, the indicators must be multi-dimensional (dynamic/temporal, qualitative/attitudinal, physical/socio-economic), to allow for trend information, subjective 'quality of life' measures, intra and inter urban comparisons. The basic structure of the indicators is a multi layered data model – each layer being a representational indicator.

The initial choice of indicators was partly determined by the policy framework within which the municipality is operating and also by the easy availability of local information. The key factor was to provide an overview of all the issues addressed by the regeneration project making use of the best information available. There was an understanding that indicators would allow for continual change as the best available and their replacement or augmentation with others as appropriate.

The working structure for the data was initially hierarchical around five key themes, covering the scope of *housing, education, unemployment, health and crime*. This has since become a series of clustered indicators with more explicit links to the expressed policy aims. They are deliberately not traditional thematic groupings but 'data clusters' that ideally stress the integrated and holistic nature of decision-making. The initial measures were restructured and expanded to cover themes of *cosmopolitan capital, competitiveness, citizenship, quality of life and social inclusion*.

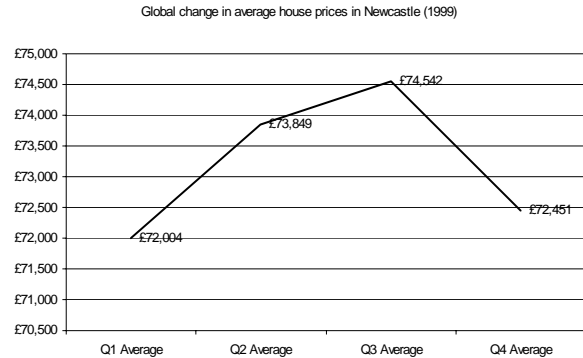
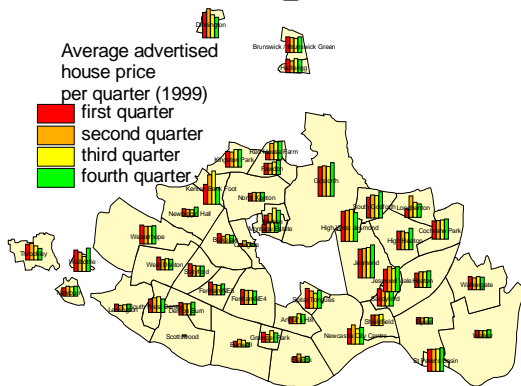
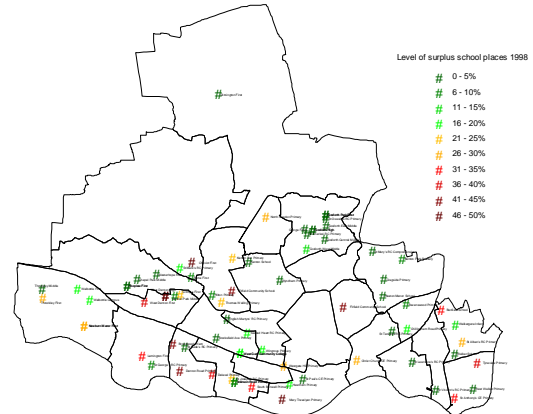
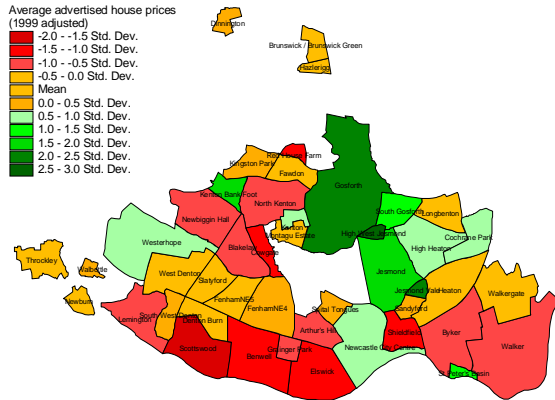
The indicators have been integrated on a consistent spatial basis (utilising customised *ArchView GIS, Spatial and Network Analyst* add-ons and database management software packages) and presented as a series of dis-aggregated measures. The set of indicators being linked intuitively rather than statistically (using pattern recognition based on consistently comparing individual indicator maps). This form of heuristic urban model and the developmental approach was aimed at transparency and utility in explaining urban complexity. As this conceptual framework remains dis-aggregated with individual indicators unweighted, it is open to non-expert interpretation and localised analysis. The dis-aggregated and accordingly simple basis for underlying data structures makes this an extremely flexible and adaptive framework. Additional 'spatial data layers' can easily be added at the appropriate level of decision-making and immediately linked to core

indicators. The underlying database can additionally provide in-depth area data presentation and analysis for understanding localised conditions and interactions – thus not only highlighting geophysical ‘hotspots’ but also indicating the linked factors causing any ‘hotspot’.



Within the proposed data structure each layer is artificial while being potentially interactive and affected by the users. It is principally designed to simplify a plethora of complex interrelated data sets, it also provides a starting point for those interested in asking more questions and exploring the underlying data in more depth.

This is similar in concept to that of ‘augmented reality’ (Mitchell 1999 p40-41) where different agents have the ability to view the urban system, and the spatial indicator data held to explain this system, in a way that matches their own requirements for information. The act of doing so has an impact on the user.



Issues and problems in past and recent regeneration initiatives and their information base

Despite the initial inclusiveness of the information team and its members enthusiasm together with the successful team building and bonding exercises which all helped to overcome difficulties, problems did emerge early in the process. A management perspective of information can be limited, as reflected in the resources (time and technical support) and the level of forward planning allocated to the task. The immediacy of day-to-day pressures can replace the desired holistic overview with urgency. Pressure can also create a low level of morale within information professionals as political expediency forces compromise.

In addition, the lack of any definable *information product*, caused a separation from the on-going procedural aspects, such as communication and participation, from the information team.

The regeneration experience provides a number of lessons for the role of information management:

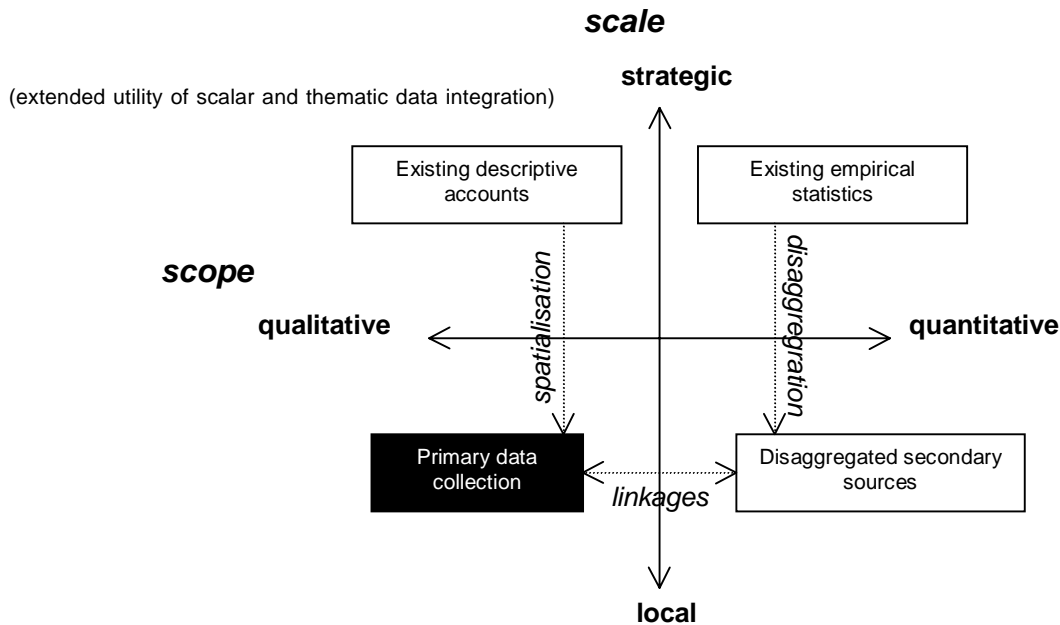
- Data was regarded and planned as a short-term static task, whereas it is ongoing longer-term and dynamic.
- The time and effort required to generally agree, access and assemble key information and indicators from across the organisation was underestimated by the information team.
- Maintenance and quality assurance procedures were not established and the organisations were often more protective of information rather than the giving of it. This was true even when information was in the public realm.
- *Learned mistrust* became an important underlying issue which worsened as early high expectations were not met; information activities tended to reinforce this view rather than mitigate it and this compromised relations with potential data providers and consumers.
- The Information Group and Participation Groups were not integrated and this separated the information collected from the information disseminated. Thus, whenever information was presented it was in an overly simplified (aggregated) but glossy 'powerpoint' format.
- Data was not quality checked adequately and metadata was omitted before use and communication. The doers and the sceptics within the information group were polarised and alienated further.

Changes to the process – The missing layers

The initiative showed some success in achieving a broad scope of thematic indicators mapped and linked to a decision support framework. However, it also highlighted different and opposing meanings of holism and integration held by different participants.

Both scalar and thematic data is required for the conceptual framework. A number of thematic and qualitative 'gaps' were highlighted and required further data. The identification of data 'gaps' can be thematic, scale-dependent or due to problems of data reliability (collection methods, scale / abstraction / aggregation, frequency and updating issues). The initial regeneration initiative suggests that the key areas of omission of data *qualitative* and *spatial*. Public data collection is dominated by the needs of empirical monitoring and fails to address key areas of qualitative research, such as perceptions, attitudes and their links with individual household behaviour. In addition, spatial referencing is based on institutional boundaries, creating problems in disaggregating data at a scale appropriate to a community organisation.

This could be addressed by additional primary data collection or via the manipulation (spatialisation or aggregation/diaggregation) of existing sources.



The focus of the Social Exclusion Project

“If the community is seen as a series of layers, beginning with the house, the block, the neighbourhood, and the politically defined community, it is clear that most people come in contact mainly with the first two.” (Gans 1972 p21)

The current stage of the project is an investigation into the collection, integration on a spatial basis and presentation of ‘soft’ indicators at a more localised community level. The thematic ‘gap’ in decision-making, if not also in knowledge of urban systems, is the qualitative attributes of place and community. These ‘soft’ attributes are assigned to possible indicators, each with its own means of collection on a spatial format. While many of these approaches superficially appear to be unscientific in their collective / individual representation of values, or the transference of mental constructs to a geophysical Cartesian base, it is argued that they are as objective as quantifiable indicators. If they are presented as complementary to ‘hard’ indicators, they can significantly improve the understanding of patterns and interconnections within a spatial urban system.

Madanipour (1996) provides a useful and thorough review of ‘soft system’ issues relating to the urban environment; factors which link perceptions and behaviour and the physical and mental constructs of our environment. One of the key factors of such qualitative and subjective aspects of urbanism is the need for a bottom-up or “micro-perspective” (p74) analysis, based on locality or individual specific studies.

Power of information, principles of operation and data protocol

It is recognised that even the act of defining the different scales in a layered data model is to some extent a technocratic process of defining community. Each of the layers is an abstraction and has to be described and communicated in this context.

Primary data collection is never an end in itself and the use of the material will be value-laden and political. Providers of data (municipal sources through to individuals participating in a household survey) can be cautious of the intended use of their resource and the extent of potential users. They may even adapt their data contribution in response to their perceived fears or wishes over the eventual use of the data. In response and in order to make them practical, there has to be additional procedural requirements in the collection and use of material.

Apathy and 'research fatigue' can be a limiting factor in the involvement of community and residents' groups. 'Research fatigue' is a way of describing a one-way process of data collection, namely from community to researcher, that lacks any feedback on the use of, or findings from the information collected. Communities and individuals who have a history of involvement in survey work, of whatever form, expect to be informed of the outcome of this collection work and maintain a desire for evidence to show how it has been used. Thus, work in similar areas with this apathy may already be well-resourced in local data, but lack of honesty and feedback on data utility and functionality may have created mistrust in any survey or analysis process. In this principle of operation, there is an implication to make the best use of secondary sources and improving analysis beyond the intended use of these sources, combined with a commitment to feedback to data providers.

The non-expert base for the use of information combined with the above factors has resulted in a need for validation and feedback on the relevance, accuracy and presentational appropriateness of the spatial indicators. This validation is partly to assist in raising the relative weight of the soft qualitative evidence next to empirical evidence and partly to help build community based networks and trust between the consumer, provider and curator of indicator information. Validation is possible by 'triangulation' where data from a mixed and multi-method approach is self-reinforcing. However, I believe the process of two-way information exchange warrants validation by feedback and checking with the data providers and those subject to primary survey work.

Principles of use of information
Honesty and objectivity in collection and communication, Validation through feedback, Make best use of existing primary data sources, Adapt secondary data sources from a mixed and multi-method approach.

The social exclusion project is extending the principles of operation to incorporate metadata and become the basis for an *information protocol*. A means by which both the consumer and provider of information makes moral and professional commitments to ensure correct use of data and avoid and abuse of trust. Potentially it would provide a quasi-legal basis for integrating values (analytical considerations) into the urban management process, and be a tool for aiding participation in this process.

There is assumed power in the control (editorial and collection) of information sources. Mistrust and suspicion over those who collect, control and maintain any spatial database is real. Community sectors are very aware of the potential abuse of data for political ends, this sort of abuse being more likely if the data is built into a technical model which cannot be challenged by non-experts. Any protocol would need to address such issues and it would be advantageous to customise the protocol to specific consumer / provider relationships. The suggested protocol would need to adapt to the dynamic nature of urban data sources and the changing consumer / provider relationship over time.

The initial focus of the project has been the use of a range of low cost, non-expert and 'passive', approaches for primary data collection on a spatial basis to fill identified 'data gaps'.

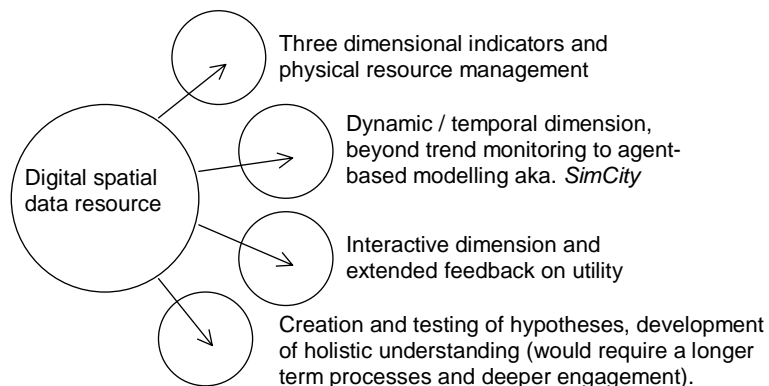
The ultimate aim of the project is to facilitate *information exchange* and *integration*. To achieve this, there are significant requirements to spatialise qualitative / descriptive accounts from source documents, primary or secondary sources and to aggregate or disaggregate centrally produced empirical statistics as appropriate to the level of data required by decision-makers. This is beyond mere data collection. The evidence-base requires a methodology that, due to the bias towards low-cost non-expert techniques, makes the best use of existing data sources prior to developing new primary data collection methods. It also implies any primary collection techniques that maximise the potential utility of the information.

Integration with action - Defining the relationship between data consumers and providers

The social exclusion project is also looking at the 'packaging' of information, to demonstrate the potential improvements to utility and functionality, of Information Technology and the behavioural and attitudinal links suggested above. The only way to investigate the multiple feedback between improving knowledge (although still only partial) and action (changing behaviour, attitudes or perceptions) is by direct interaction between providers and consumers of information, however artificial this distinction may be. Working through this process is a means of redefining the interactions and roles in such relationships.

This project will look at baseline snapshot information exchange, geographical groups, basic and short-term participation processes (based upon a small number of meetings). It will provide a digital database suitable for spatial representation and comparison (based upon consistency in visual representation, notation and icons), integration and interaction of different communities viewpoints.

The work will be both: (i) the communication of simple and intermediate analysis (and techniques); and (ii) 'raw' data suitable for communities to undertake their own analysis (including the raising of capacity of communities to do this and develop their own understanding). It should be remembered that this analysis does not have to be on a spatial basis. Alternative categorisation of communities besides geographical (For example; ages and lifestyles, attitudinal groupings) will be identifiable from the database.



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References

- Castles, FG., Murray, DJ and Potter, DC (Eds.) (1971) *Decisions, organisations and society* (Penguin, Middlesex).
- Checkland, Peter (1992) 'Systems and scholarship: the need to do better' *Journal of the Operational Research Society* 43(11) pp 1023-1030.
- Clark, Norman., Perezfrejo, Francisco and Allen, Peter (1995) *Evolutionary Dynamics and Sustainable Development – A systems approach* (Aldershot, Edward Elgar).
- Clayton, Anthony M H. and Radcliffe, Nicholas, J (1996) *Sustainability – a systems approach* (London, Earthscan).
- Crilly, Michael and Mannis, Adam (2000) 'Sustainable Urban Management Systems' in Williams, Katie., Burton, Elizabeth and Jenks, Mike (Eds.) *Achieving Sustainable Urban Form* (E & FN Spon, London).
- Crilly, Michael., Mannis, Adam and Morrow, Karen (1999) 'Indicators for Change – Taking a Lead' *Local Environment* June pp 151-168.
- Henderson, Hazel (1994) 'Paths to Sustainable Development: The role of social indicators' *Futures* March 26(2) pp 125-137.
- Jeffrey, Paul., Seaton, Roger and Lemon, Mark (1997) 'Sustainability and systems thinking – The coevolution of communities and technological infrastructures' pp 57-62 in Frank A Stowell (Ed.) *Systems for Sustainability – People, Organisations and Environments* (Plenum Press, London).
- Kirk, W (1951) 'Historical geography and the concept of the behavioural environment' *Indian Geographical Journal* pp152-160.
- Michell, William J (1999) *e-topia* (MIT Press, Cambridge MA).
- Pearce, Bill (1997) 'Using indicators to guide policy and measure progress towards a sustainable region' Conference Papers *Signs of the Times: Indicators for Sustainable Communities* 17/18 September @ Lancaster University.
- Pinfield, Graham (1997) 'The Use of Indicators in Local Sustainable Development Planning: a response to Jeb Brugmann' *Local Environment* 2(2) pp 185-187.
- Pinfield, Graham (1996) 'Beyond Sustainability Indicators' *Local Environment* 1(3) pp 151-163.
- Scott, WG (1967) *Organisation Theory* (Irwin, London).
- Short, John R (1984) *An Introduction to Urban Geography* (Routledge & Kegan Paul, London).
- Smith, David A and Timberlake, Michael (1995) 'Cities in global matrices: toward mapping the world-system's city system' pp 79-97 in Knox, Paul L and Taylor, Peter J (Eds.) *World Cities in a World System* (Cambridge, Cambridge University Press).

Citizenship and Learning Networks

'Children, Social Exclusion and Citizenship. Learning to be citizens – educational approaches to social exclusion'. University of Sunderland, international conference, November 10-11, 2000.

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Abstract

The presentation introduces a practical model for action-research in contacting and collecting the views of excluded youth within the context of a city-wide urban regeneration initiative – part of a European funded project (*'Dimensions of Social Exclusion and Urban Change'*) based in Newcastle (UK), Rotterdam (Netherlands) and Kiruna (Sweden).

The project is adapting qualitative inquiry into social situations of excluded youth, to add colour and meaning to empirical data. The aim is an improved understanding of 'soft' systems and the process of social exclusion within the city – the views, perceptions, attitudes and values of excluded groups.

The project has adopted an open-ended approach to methods for contacting groups / individuals and gathering this missing 'soft' information. Retrospectively, this is presented as a network model to build research-subject contacts within (i) area based networks; (ii) 'excluded youth' networks, and (iii) formal education networks.

Mixed and multi-methods have been developed, tested and adapted in practice using these networks. This popularising of qualitative survey and action research techniques; not only helps the municipality in understanding the social situation (sub-culture) of socially excluded groups; but becomes part of a mutual learning process between citizens and the municipality.

These methods are presented as a flexible *toolkit* of resources with shared qualitative characteristics. They are all immediately accessible, open-ended, visual, spatial, interactive and designed as a way of prompting individuals and groups to think about their place within the urban

system, spatially (geophysical neighbourhoods), temporally (their personal chronology of key events) and systemically (including cause and effect).

Introduction - Background to the methodology

The 'Dimensions of Social Exclusion and Urban Change' project is using *action-research* to understand the processes of social exclusion within a context of a major urban regeneration strategy. In so doing, the research itself has become important as a learning process in testing and adapting methodologies suitable for (i) *contacting*, (ii) *engaging* with and (iii) *structuring* the views of those groups ordinarily excluded from decision-making processes.

In this work, there is a distinction to be made between *knowledge*; based upon collection of information and data; and *understanding*. If knowledge is the possession of 'objective' facts about *what* is happening within the social or cultural situation, *understanding* relates to the operating of this culture and *why* things happen. It is, in part, the qualitative understanding of exclusion rather than the empirical knowledge that was identified as the 'gap' in the evidence base for the regeneration activities within the city (Crilly and Wren 2000). This project is designed to fill some of these gaps in the institutional understanding of the experiences of excluded groups within the city.

This 'learnt' understanding is gained through action-research. It is a heuristic approach - learning by doing. Thus the improved understanding of social situations and the addition to knowledge, is dynamic and in part retrospective – 'learnt by having done'.

Madanipour (1996, and with Bevan 1999) provides a useful review of qualitative factors that link perceptions and behaviour within urban systems. One of the key factors of qualitative and subjective factors is the need for a bottom-up or "micro-perspective" (1996 p74) analysis. This demands a diversity of techniques to collect, analyse and provide structure to material derived directly from the individual or community within the social situation. Most applied research shares this pragmatic position that is not confined by epistemology and which is at essence a revision of Etzioni's (1967) *mixed scanning* approach to methodology, its central concerns being: (i) a contextualisation of the community; (ii) generating an understanding of diversity within the community; and (iii) issues of decision-making and urban change within the social situation (Kaufman and Jacobs 1987).

This paper is concerned with the innovative role of information and 'mapping' methodologies (after Carley 1995, and with Kirk 1998) adopted within the action-research to gain an improved understanding of the processes of exclusion rather than the substantive findings of

the research. However, practical examples are used to illustrate a range of techniques that broadly fall under the three headings of *contact*, *engagement* and *structure*.

It is important to note that the research methodology is descriptive rather than theoretical. It is more concerned with techniques that assist in describing, and then understanding, what is actually occurring within a complex social situation. Thus, the methodological structure is not imposed but has largely emerged retrospectively in response to the characteristics of the social situation. In this, it has become characterised by qualitative and open-ended approaches that begin to record attitudes and perceptions.

Contact Networks

A key research question addressed in the project was, 'How can we engage and involve normally inaccessible groups in the identification, definition and development of understandings of local issues of importance to them and to the city as a whole?'. In this context of 'hard-to-reach groups', the primary exclusion examined and addressed as a priority was participative exclusion amongst younger age groups (DETR 1998).

In the course of the project there were a number of obstacles to overcome:

- **Accessibility.** Hard to reach, inaccessible, little systematic infrastructure and process to deliver systematic contact and engage groups.
- **Methodologies.** No widely acceptable methods to elicit and capture holistic open-ended views of relevance to strategy formulation across groups and communities.
- **Interest.** Fundamental lack of interest of the groups in such initiatives; intrinsic barriers to involvement.
- **Relevance.** Irrelevance of views in a strategic context; qualitative and subjective.
- **Banality and Contention.** Work is likely to tell us what we know already or lead to counter-views to those of organisations and mainstream culture.
- **Process.** No infrastructure, process, methods to deliver, record and develop such understandings in systematic effective and sustained ways.
- **Scale.** Too many groups and people to involve.
- **Resources.** Resources and staff can be excessive given pay-back.
- **Utility.** Mainly self-centred perspectives will result; integration and balance of views from different groups.
- **Ineffectiveness.** Absence of means to act or do anything about what is found out; ineffectual projects; difficulties beyond our capability; extreme cases beyond hope.

One of the early findings of the project was that there was no set and maintained infrastructure to overcome these challenges and reach certain excluded groups in a systematic and direct manner. The structured networks did not exist to reach these groups and these were developed in the course of the project. This 'action-research network' developed through the course of the project and was not defined beforehand. The direction of the network was defined, influenced and changed by the issues that citizens raised in the course of the investigation; as new groups and people were contacted the direction of network development was opportunistically modified.

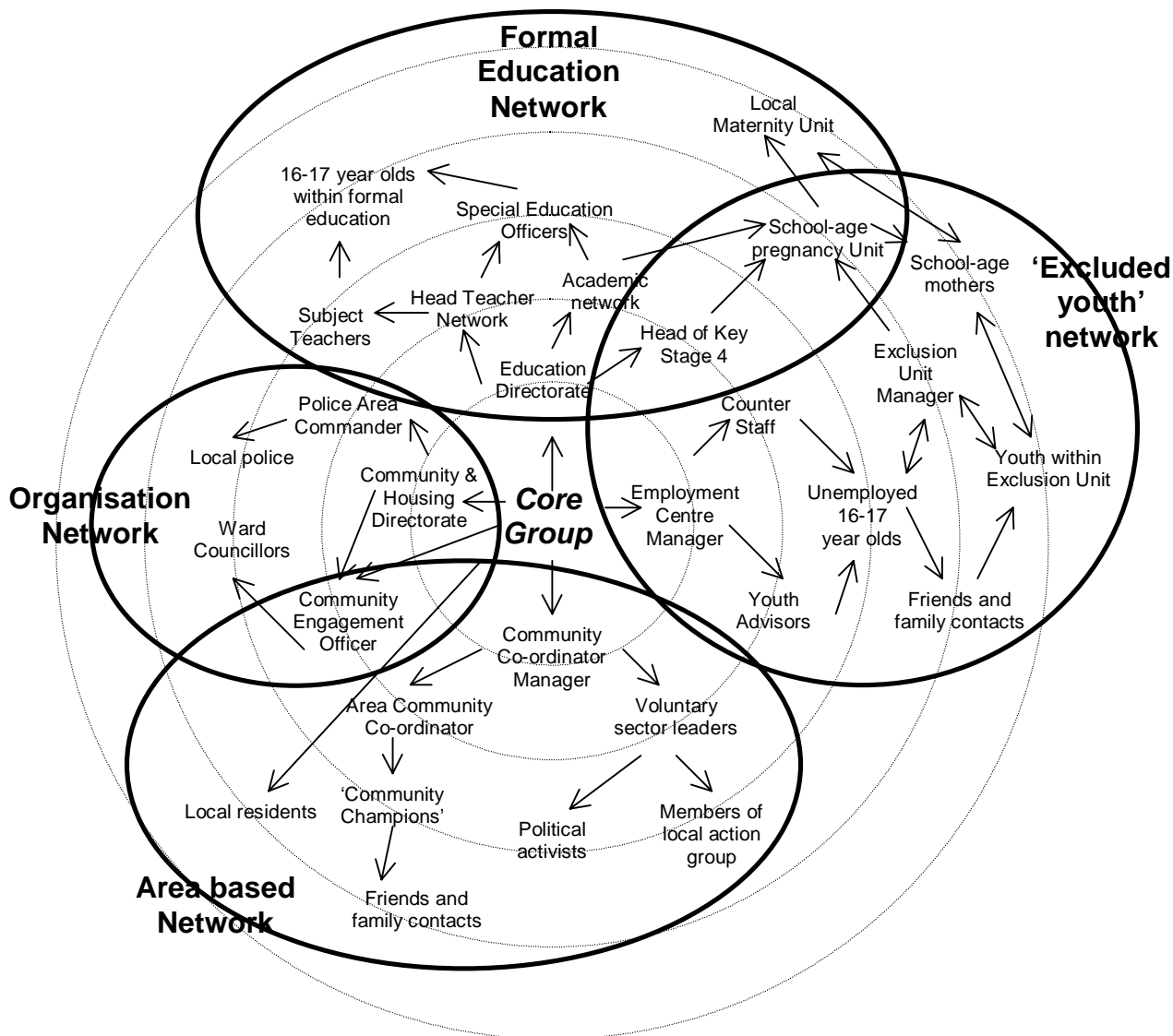
In developing the methodologies we tried to be pro-active in ensuring that we did not exclude hard-to-reach groups. We did this by first creating networks to these groups rather than general networks and processes which it was known would not include them. We found that this included a mix of youth which was positively biased towards the views of excluded groups but which equally did not exclude more mainstream views.

For example, the Employment Centre Interview Sample. Although the interviewee sample was taken from the employment service, targeting those 16/17 year olds living on hardship benefits, it included people in school, temporary work, and college who had visited the service for part-time work opportunities. Some could be described as law-abiding, others were clearly acting in 'grey' areas, some were in further education, others were either in and out of casual work or effectively unemployed. Some had had rewarding school experiences others had been excluded, some were in trouble for offences ranging from drugs to GBH. It was therefore a local cross-section which included excluded youth.

The networks developed included the professional networks in the city (community coordinators, employment service managers, education and special school professionals, senior police officers, etc) to help access a community network (including residents, 16/17s, 14 year olds excluded from school, 13-16 year old mothers).

The two major communities accessed are (i) community of excluded and mainstream youth, and (ii) associated professional community.

Although the groups involved in the project evolved throughout the project they were selected as having some significant relation with the local and national social exclusion agenda. Areas covered included: those in undesirable areas of higher than average deprivation; youth (13-18); those without employment; those out of mainstream school through exclusion; those out of mainstream schools due to pregnancy; those involved with (and affected by) youth crime and disorder; those in mainstream (ongoing).



(‘Action Research’ Networks illustrated as 1st – 5th level contacts from Core Group)

These groups contacted within the 'action-research network' (above) are of course not comprehensive but (we found) that these are indicative of youth concerns of the national government agenda. Many of the indicators of exclusion relate to these groups.

The development of group involvement moved through stages. It began with professionals in local government, which lead to adult residents and semi-professionals in an area regarded as relatively excluded, then to 16/17s in the same area (many of whom were additionally unemployed), then to groups of excluded young males around 14 years, and also school age mothers between 13 and 16. Also there were trials with those in schools in Key stage 4 (between 14-16). In addition to these youth groups there was contact and additional participation of professionals responsible for or in contact with these groups. In all around 70 people were involved and around 50 could be described as members of hard to reach groups (or having characteristics of them) – our 'data subjects'. Others were professionals, semi-professionals community representatives and activists.

The professional network included: local government staff (e.g. community co-ordinators and community professionals); mainstream schools contacts (heads and citizenship co-ordinators); managers and staff in employment centres; heads and professionals of special schools; senior police officers.

In summary the networks developed represent two levels; (i) various members of youth groups including a positive bias towards excluded youth, and (ii) the associated professional networks linking to these groups.

Mixed & Multiple Collection Methods

A range of methods were designed to form the basis of inquiry into three broad areas of concern. These concerns were often the basis for second or third level questioning, particularly if the interviewee required prompting in order to provide some detail of attitudes and values that underpin their actions and experiences. The concerns were addressed in common follow-up questions about neighbourhood (geophysical or spatial networks), social networks (friends and family) and organisations. While it is acknowledged that these are not discrete areas, they did provide some level of consistency in the methods of questioning between different data-subjects albeit the actual form of the question varied between different interviewers.

Accordingly, many of the methods used were required to perform a number of introductory functions. They were ice-breakers, visual prompts / aid-memoirs and a way of opening the discussion with the data-subjects into the three broad concerns of neighbourhoods, social networks and organisations.

These methods included;

- responding to mapped data.
- responding to photographic ‘landmarks’.
- photographic recording.
- drawing own ‘cognitive’ community maps.
- community perceptions - colouring positive and negative aspects of community and photographing positive and negative aspects of community.
- phenomenological questioning - personal interviews and focus groups.
- chronological ‘lifeline’ mapping.
- network ‘organisational’ mapping.
- systemic ‘linkages’ mapping.

There are many lessons gained by the use of the multiple methods. These included the development, application, and testing of several techniques to give a combined approach to investigate produce a snapshot of the total environment of an individual. This also helped train the team in interview techniques the real practice without formal training. The process taught us how to do the process better – it was practice-development (this approach is recommended). The table (below) summarises the advantages and disadvantages of a variety of approaches.

Face to face interviews	
Advantages	Disadvantages
Reduces respondents’ anxiety. Builds rapport and trust. Increased response rate. Decreases the potential for error. Experience makes the routing of questions easier. Can ask within limits for clarification. Answers can be recorded. Reduces variation, can probe further. Appropriate for visual methods to be used. Standardised questions – less skilled interviewers. Misunderstanding is less likely. No editing or summarising. Good for getting personal information.	Time consuming and thus potentially costly. Repetitive boredom. Time lines - jog respondents memories. Apathy. Sincerity.
Cognitive and Community Mapping	
Advantages	Disadvantages
Easy to use. Generates ideas to improve areas. Visual and colourful. Easy for participant to engage. Tests knowledge of local area. Encourages lateral and comparative thinking.	Repetitive boredom for facilitator. One instruction at a time.
Chronological and Casual Diagrams	
Advantages	Disadvantages
Flexible approach. Jog respondents memories. Encourages interactive approach and thus can trace history. Visual and immediate (see at a glance). Easy to use in a one-to-one context. Identifies problems. Could use variations of this method for any audience. Learning process – People can find out things they forgot!	May pass judgement on drawing. Needs to be kept neat for others to read. Repetitive.

Errors in survey methods of collecting data	Reducing errors
Sampling errors – sample of population surveyed if the entire population is not being investigated is not representative of the population from which it is drawn. Response error – through ignorance, inarticulateness or unwilling to engage in the process. Distorted answers.	Target audience who have a particular interest in the topic. Building trust and prestige. Reassurance of the importance of questions and the value of their responses. Avoid biased words and ambiguous words. Use appropriate language. Avoid negative questions.

The detailed methodologies which were found to work best were one-to-one recorded interviews including; (i) the production of maps, lifelines and organisational views, and social network diagrams, and (ii) information exchange and provision (in professional or work experience settings).

The *Individual interviews*. These demonstrated that a lot of information and insight can be gained in a short time using the above methodology. Participants were generally very open and honest - sometimes covering personal, illegalities and prejudice freely. A good method to get an overview of context and views.

Aspects which did not work so well for excluded groups included;

- group elicitation and interviews (for professional and semi-professional groups this worked better).
- cause and consequence models (worked in some cases but not in others).
- landmark identification.

The *Group Interviews*. We trialed groups of two, three, five and six. Of these the smaller groups seemed to work best – particularly on refining issues. The largest group output were not particularly informative. In male groups it was either difficult to control (and much time was lost in steering and regaining order in the group), views given did not seem to be considered views, methods are needed to accommodate disagreements while preventing these from dominating interactions. In female groups the difficulty was in getting members of the group to speak freely about the issues that had been identified in individual interviews. This suggests smaller groups only and separation of friends and family.

Characteristics of methodology ‘toolkit’

In looking for what works there are a number of shared qualitative characteristics of the methods. There are differences between theoretical approaches and what happens in practice in the use of the ‘toolkit’. In practice there are limitations. ‘Mapping’ methods of all types can be a very powerful tool that can be applied to statistical and decision-making but realising their potential depends on many factors;

- Applying information to decision making processes.
- Appreciation of the value of information.
- Enthusiasm and commitment at all levels.
- Co-operation and co-ordination in the form of partnerships.
- Intuitive / visual to ensure ease to use.
- Transferability depends on low-cost and simplicity.

However, this toolkit is not just methodological. It has to be concerned with a broader process (or protocol) (Crilly and Wren 2000) of sharing information and understandings from multiple perspectives and thus building trusted networks between organisations and individuals with these perspectives. This is an argument for a 'toolkit' of mechanisms and processes for neighbourhood management (Social Exclusion Unit 2000a) where positive attributes of 'self-confidence, community pride and the acquisition of new skills' (Church *et al* 2000) are achieved by meaningful and valuable participatory methods.

The output from this necessarily unstructured and open-ended approach is 'messy' data. The social researcher has a range of diagrams (network and suggested causal), coloured maps, life histories, photographs, interview transcripts (of variable quality and consistency), focus group notes, and published secondary sources.

Presentation and structuring – making sense of the 'messy' data

The methodology 'toolkit' can be considered a strategy of 'triangulation' (Silverman 1993) of mixed and multi-methods that link different types of qualitative elicitation and empirical data. This approach is to inform decision-makers' intuitive understanding of the processes of social exclusion and as such, it is beneficial for structuring to maintain intuitive (visual or hierarchical) structures to the mixed source material.

Similarly in the iterative approach to collecting data, the structuring of the source material (a range of primary and secondary sources of mixed qualitative and quantitative) itself becomes the starting point for analysis, questioning and exploration of linkages. Essentially, the material is structured for 'learning'.

The structure of the material aimed to communicate the characteristics of the social situation. The issues that emerged from the open-ended approaches are complex and inter-linked around broad 'configurations of indicators';

- Education (exclusion from mainstream, attainment levels - qualitative and quantitative, participation - length and attendance, truancy).
- Employment and unemployment.
- Participation / demography / organisational (level of involvement, potential for involvement -skill / accessibility, voting levels, perception of authority - trust, dependency, paternalism).
- Crime (youth as offenders, youth as victims, drugs, type of crime - recorded police based records - actual and perception).
- Social trends (school-age pregnancy).

The challenge is to maintain the multiplicity of perspectives and life histories within the data while also providing generic stories that illustrate the systemic nature of the social situation. This is being done by a variety of means including;

- Spatialisation.
- Layering 'linking' data.
- Maintaining the original format at the lower levels.
- Making it interactive.
- Test the use of IT.
- Formalise the material, using the same contact networks, for use in educational settings.

Reflections on action-research methodologies

Emerging from this study are clear locality specific benefits and dis-benefits. This is partly due to the necessary 'bending' of methodologies within a real-life *action-research* application. Throughout the work, pragmatism was considered a professional strength and a means for making the methodologies work in response to the variety of contact situations with data-subjects.

This pragmatism transferred to the generalities of other applied research activities, will likely involve the development of a more focused understanding of the social situation under investigation within the contextual constraints of the lead (or sponsoring) organisation. As such, the methodology has its' own context (including a significant commercial and/or political element) that means it cannot be value neutral.

This real world 'bias' towards specific scales, thematic areas or actions is an inevitable starting point for the use and application of a 'toolkit' of techniques. However, the 'learnt' links between attributes are also an aspect of building a systemic understanding and should suggest additional work, arising from new questioning of apparent links (causal or otherwise) within the social situation. This second stage investigation is to develop and deepen any initial understanding.

Hence, the importance of on-going questioning, investigation and feedback on the use and development of the methodology.

Some of the key lessons of this approach to mixed and multiple methods, emerging intuitively from reflection of this action-research are:

- It has demonstrated the practical (and pragmatic) flexibility to allow for time, cost and experience limited approaches to building a mixed quantitative and qualitative understanding that is the basis for analysis at a variety of distinct spatial scales. This flexibility is demonstrable over time as new material is gathered, structured and linked.
- The requirement for feedback (ongoing adaptation) on the use of the methodology can be established as a stage of participation and discussion that also allows for a broadening and a deepening (including non-spatial) understanding.
- The methodology is initially, best internalised within the sponsoring organisation and used by those individuals' who are closest to the work in progress and thus best placed to benefit from the spatial and systemic 'learning' when it has a specific role in regeneration activities.
- The methodologies have significant parallels with a physical mapping process. The approach is ultimately open-ended. It requires informed decisions and the inclusion of value judgements on the part of those making the maps. These are decisions about which aspects to focus upon, which to include and which to exclude.
- The limitations of spatial mapping are dangerously hidden within this process. There are many non-spatial components to any urban system that can remain unexplored unless those applying the framework of indicators are alert to their presence. There are also dangers in the persuasive nature of any digital (Geographic Information System) output that is given considerable weight within decision support systems as a result of the high level graphic output and the 'blinding' nature of the technology. Thus, care is required in communicating the metadata with any spatial output.

Most significantly, the mixed methodologies have underlined the truism that action-research and intuitive learning are interactive processes. What was initially a framework for a multi-dimensional data model has tended towards a multi-dimensional *process*. A process where the actual aims of the research can and do change through the course of the work and the methodology must maintain the inherent flexibility to provide utility throughout the process.

Issues of systemic and institutionalised exclusion

In the course of this paper, we have reported methodologies networks and processes to reach hard-to-reach groups. It is instructive to step back from the detail and ask ourselves some simple questions: Why do we need such projects? Why are such processes not systematic aspects of our organisational cultures? The very fact that we need such projects are *not* systematic illustrates something of the wider perspective on participative exclusions, and raises consideration of more systemic factors. To help illustrate this perspective it will be useful to consider some of the perceived obstacles to participative involvement of excluded groups and compare these perceptions against the findings of this project.

We have seen how some of these perceived obstacles can in fact be removed, or they do not exist in the same degree as perceived, and how some groups can be better engaged in participative processes. Many of these perceived obstacles therefore can be primarily attributed to cultural and institutional views and responsibilities rather than being features of reality or of all 'excluded groups'. Systemically hard to reach groups are more accurately described as 'hard to reach *by our current methods processes and networks*'. Taken collectively these perceived obstacles within our cultures *contribute* to participative exclusions. Reflections on the project lead the idea that systemic features can contribute to participative exclusions. These suggest that our perceptions, methods and processes may be partially responsible for some aspects of participative exclusion, and given that these are aspects are most directly under our control these may offer additional points of systemic leverage in dealing with some forms of exclusion. Extending this argument to a wider perspective raises the issue of systemic exclusions as a potential area of further study that addresses institutional concerns identified as;

- Exclusion by methods or by removing the ambiguities in the complex life histories that combine to create the local culture of exclusion.
- Negative bias and distortions; treatment of banal and contentious.
- Identified issues surrounding 'institutionalised exclusion'.
- Governmental definitions of exclusion and editorial control over the definition of 'problems', generally informed by generic empirical indicators.

There is a challenge to organisational culture, where local municipalities are learning from local experts in the social situation and the processes of exclusion – about appropriateness and sensitivity of proposals. Mutual learning can help to overcome the lack of trust that exists between central and local levels of government (DETR 2000 p23) and between the local municipality and those excluded from the local decision-making processes.

PERCEIVED OBSTACLES	FINDINGS
Accessibility. Hard to reach, inaccessible, little systematic infrastructure and process to deliver systematic contact and engage groups.	Not as difficult as it might seem; groups can be accessed and networks created. Exclusions come in degrees. These simple methods and incentives can reach those 'moderately' excluded.
Methodologies. No widely used methods to elicit and capture holistic open-ended views of relevance to strategy formulation across groups and communities.	They can be developed and applied. They have been tested on range of groups from excluded to professionals.
Community Interest. Belief in fundamental lack of interest of the groups in such initiatives as intrinsic barriers to involvement.	In practice mixed responses (some found it very interesting, others thought it was neither interesting nor boring). Overall sufficient interest can be sustained for between 30 mins and 1.5 hours given small financial incentive.
Irrelevance. Irrelevance of views in a strategic context; qualitative and subjective.	<i>The issues were in fact relevant to strategic levels as well as operational. They sometimes confirmed issues in general however they neither confirmed nor contradicted strategies - they refine and complicate them.</i>
View of Banality and Contention. Work is likely to tell us what we know already or lead to counter-views to those of organisations and mainstream culture.	<i>Correct. Participative inclusion brings up both. Such studies lead to inclusion of balance and diversity.</i>
Scale. Too many groups and people to involve in practice. Too few people; unrepresentative techniques and results.	<i>Convergence and stability of range of views of areas and issues with relatively small numbers of people. Furthermore 20 16/17s may seem unrepresentative (and it is). However this was a sample from the East of the city – there are around 70,000 people there, of which 2000 might be 16/17. So we are dealing with 1% of people in the target group. A ward has 10,000 people – maybe 200 16/17s then 20 people would be nearer 10% of the target population. Small numbers are improvements on none at all.</i>
Resources. Resources and staff to do this work are excessive.	<i>When compared with alternatives costs and value of those, these methods are not more expensive. Understanding/£ may be more favourable.</i>
No priorities or strategic utility results. Problem of self-centred perspectives will result; integration and balance of views from different groups a problem.	<i>The method fundamentally incorporates consideration of others through relative comparisons. The priority groups and issues emerge as viewed by the rest of the city communities.</i>
Ineffectiveness. Absence of means to act or do anything about what is found out; ineffectual projects; difficulties beyond our capability; extreme cases beyond hope.	<i>For moderate participative exclusions this is wrong – their views can be included. For extreme exclusions we can use approach to support professional networks and learn from their expertise.</i>

Citizenship and learning networks

Mutual learning to improve understanding of the social situation - implying the open-ended approach. Organisations should be thinking about the power of *learning* as both a research methodology and as intervention, but intervention into *networks* not simply area based initiatives.

The idea of 'learning networks', reflects the growing understanding of social exclusion as a dynamic process where many of the factors associated with exclusion are not primarily physical or economic issues. Rather, they reflect inherited (or 'learnt') attitudes from within the social situation. This social situation can be described as a multiplicity of networks of family / friends, peer groups, organisations and neighbourhood – each with a unique perspective on the process of social exclusion.

Learnt attitudes can be in the form of (i) negative attitudes to authority and organisations; (ii) poor self-esteem and accordingly low expectations for education, employment and living standards; and (iii) negative area image and identity, often in a manner that is disparaging both internally and externally to the community.

One effect of this attitudinal culture of exclusion (or culture of poverty) is that it can repeat itself between different generations and networks in an example of 'self-learning'. This self-learning can be positive and negative. If social exclusion is accepted as a process then it has to be addressed by a procedural response. The potential is for developing a policy framework to exclusion that uses self-research and mutual learning processes to create positive self-learning.

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References

- Carley, Michael and Kirk, Karen (1998) *Sustainable by 2020? A strategic approach to urban regeneration for British cities* (The Policy Press, Bristol).
- Carley, Michael (1995) *Using information for sustainable urban regeneration: Innovation report 4* (Scottish Homes, Edinburgh).
- Church, Chris., Cade, Adam and Grant, Adrienne (2000) *An environment for everyone – Social exclusion, poverty and environmental action* (Community Development Foundation, London).
- Commission of the European Communities (2000) *Communication from the Commission: Building an Inclusive Europe* (Brussels COM(2000) 79 final).
- Crilly, Michael and Mannis, Adam (2000) 'Sustainable Urban Management Systems' pp 202-214 in Williams, Katie., Burton, Elizabeth and Jenks, Mike (Eds.) *Achieving Sustainable Urban Form* (E & FN Spon, London).
- Crilly, Michael and Wren, Trevor (2000) 'Dimensions of Social Exclusion and Urban Change' in 'How to integrate environmental aspects into spatial planning using indicators, environmental objectives, SEA and GIS: Conference proceedings' May 4-5, Stockholm, Sweden.
- Etzioni, Amitai (1967) 'Mixed Scanning: 'A third' approach to decision-making'. *Public Administration Review* 27(5) pp 385-392.
- DETR (2000) *Co-ordination of Area-based Initiatives: Research working paper* (Department of Environment, Transport and the Regions, London).
- DETR (1998) *Enhancing Public Participation in Local Government* (Department of the Environment, Transport and the Regions, London).
- Kaufman, Jerome L and Jacobs, Harvey M (1987) 'A public planning perspective on strategic planning'. *Journal of the American Planning Association* 53(1) pp 323-343.
- Madanipour, Ali and Bevan, Mark (1999) *Social exclusion in European Urban neighbourhoods* (CREUE, University of Newcastle upon Tyne).
- Madanipour, Ali (1996) *Design of Urban Space: An inquiry into a socio-spatial process* (John Wiley & Sons, Chichester).
- Newcastle City Council (June 1999) *Corporate strategic plan: The City Council's vision for Newcastle* (Newcastle City Council, Newcastle upon Tyne).
- Newcastle City Council (1997) *Social Regeneration Strategy* (Newcastle City Council, Newcastle upon Tyne).
- Silverman, D (1993) *Interpreting Qualitative Data* (Sage, London).
- Social Exclusion Unit (2000a) *National Strategy for Neighbourhood Renewal: a framework for consultation* (Cabinet Office, London).
- Social Exclusion Unit (2000b) *National Strategy for Neighbourhood Renewal: Policy Action Team report summaries: a compendium* (Cabinet Office, London).
- Social Exclusion Unit (1998) *Bringing Britain together: a national strategy for neighbourhood renewal Cm4045* (Cabinet Office, London).

Record of comparative GIS mapping exercises

Spatial data sets were provided together with a negotiated approach for an open analysis that was statistically valid and based upon a combination of municipal boundaries and locality specific and community defined boundaries.

The challenge for the support team at SMC was to use the 'messy' quantitative material and present in a manner that dealt with the variations in boundaries, the differences between point data and polygon data sets, and the errors/inconsistencies within the data tables. The ultimate aim was to provide the data in a spatial and intuitive framework that allowed for visual comparisons between the two case study cities and ease of understanding by decision-makers and community groups (particularly excluded youth) within each of the cities.

The origin data sets were provided in the form of spreadsheets, databases, GIS shape files with attached metadata notes.

The 'mapping' provided by SMC in their analysis of these data sources were in a picture format (jpeg format for use on the project web site) with a minimal amount of text and associated attributes.

The material produced by SMC was utilised by the case study cities and contained within the configuration of indicators under the generic heading/cluster of social trends. In each situation, the material provided to SMC for analysis and mapping was secondary empirical data sources of specific interest to the case study city. As a result, there was evident bias in the quantity of data supplied to SMC between each of the case study cities and the process of transferring and sharing digital information highlighted a number of technical limitations within the study areas.

The range of material produced for the project included;

Dynamics of population change based upon municipal boundaries (the incremental changes between the years 1971-1981; 1981-1991; 1991-1996 and the total change 1971-1996).

The analysis of the rates of change were annotated (red – amber – green) based on the percentage of change (red-decreasing population; amber-marginal population change between +5% and –5%; green-increasing population)

Residential makeup of community areas based upon a balance between number of residential residences and the number of residential voids (municipal and RSL – registered social landlord / housing association).

All of the analysis based on residential voids were illustrated in graded red series as they all related to an negative occurrence in the city. The weighting of the relative rates of housing voids meant they were grouped in categories <1%, 1%-64% and >64% for housing association voids; <1%, 1%-15% and >15% for commercial (private rented) voids, and <1%, 1%-10% and >10% for municipal housing voids.

Essential community facilities were mapped (from a point data source) for each of the community areas. This produced a range of maps for the relative level of retail provision broken down for comparison goods, services, convenience and food retailing.

These were mapped using natural breaks, a classification method that identifies breakpoints between classes using a statistical formula (Jenks optimisation that minimizes the sum of the variance between each of the classes). The coding varied from dark (high voids) to light (low voids).

Internal migration within the urban area between municipally defined area. This was undertaken for each survey year and as a comparison between these survey dates. Percentage changes were also mapped over the same time period. Again, there was a simple colour notation used for simplicity of understanding. Red for decreasing population; green for increasing population and amber, where the population change has been between -5% and +5%.

The project team in SMC, Kiruna was Cecilia Simma (GIS-specialist), Mona Mattsson Kauppi, Gunnel Mortvik (GIS-technicians), Anders Lundgren (GIS-advisor) and Li Wenjuan (Statistics-advisor).

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