

'Thick' Urban Space

Shape, scale and the articulation of 'the urban' in an inner-city neighborhood of Amsterdam

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Abstract

Socially and functionally mixed and vital urban centres are necessarily complex, but this complexity is far from being disordered. It is, it is proposed, structured and 'aligned' around an underlying spatial order in well functioning central urban environments. Central urban areas incorporate a non-coersive order in their space and activity patterns which balances on the one hand the accommodation of multiple overlapping patterns of everyday life (with all their serendipitous and unforeseen aspects), and on the other a strong, distinctive two-level hierarchical articulation, imparting identity, recognisability and intelligibility. This characteristic urban ordering works across and constructs an interface between the scales of the local and the wider city, and manifests itself in a functionally loose but distinct and legible organisation of the dynamic and the static elements which make up the total urban scene. These elements mutually index each other in relation to this simple bipartite spatiality within a total urban environment. It is proposed that it is this coincidence of freedom and structure, often grounded in very simple characteristic urban geometries, which underlies and provides the local conditions enabling characteristically vital, sometimes apparently chaotic, but in the end intelligible central urban environments.

Introduction

The nature of the city as an ordered and intelligible experience has always presented something of a puzzle. It is proposed here that a substantial part of this ordering and intelligibility factor is founded in a structure whose basis is spatial but whose effect can never be reduced to pure space or to simplistic notions of the 'reading' of spatial cues. Rather it has to do with the way the activity, economy and culture of the city find their place and become embedded within underlying spatial and movement structures, forming 'alignments' and 'encrustations' ordered around a distinct spatial/movement armature and adding up to a total environment within which people act, also to a very high degree as an integral part of that alignment and encrustation. Functionally and socially diverse and mixed urban environments are necessarily complex, but it is suggested that intelligible urban environments are composed of a complex but hierarchically and functionally ordered totality comprising both mobile and static elements, coordinated and structured around a relatively straightforward bipartite spatial/movement structure.

Space syntax works by revealing structures within the urban spatial network which relate to patterns of movement and use (Hillier & Hanson, 1984). It has been observed in previous studies that the street-level urban activity dynamic (related to the movement patterns of people and the street-level culture and economy that are a spin-off of this (Hillier, 1996) are

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structured by scale within well-functioning urban environments. This scale structure reveals itself, as has been demonstrated in London for example (Hillier et al, 1987; Hillier et al, 1995), as a characteristic pattern in the scattergrams of the space syntax measures of radius-n integration against radius-3 integration P where it is observed that areas with a known coherence and recognisability as distinctive neighbourhoods on the ground tend to display a tight regression pattern around a regression line which is steeper than that for the city as a whole (see figure 1). While this feature is not absent in Dutch cities, research has shown it to be less reliably characteristic of Dutch urban layouts, and of the relationship between the local and the whole-city spatial and activity scales in Dutch cities (Read, 1996). It is proposed here that the relative absence of this feature in Dutch cities does not imply an absence of a structured relationship between the scales of the local and the whole city P that in fact such a structured relationship clearly exists and that it is an essential part of a structuring of layered incident and detail, within a complex but coherent urban scene, around a clear spatial order.

Boden and Molotch (1994) in discussing the persistence of the importance of face to face communication, propose that the copresence of people is 'thick' with meaningful and orientating detail. They argue (p. 259) that the meanings of copresent interactions depend on the way particulars which may seem insignificant on their own, when arrayed together in context, inform or 'index' each other creating a rich communicative pattern. A sequential ordering of particulars establishes a referencing or structuring in time which gives our everyday communication richness and subtlety. It is argued here that an equivalent structuring in space renders the well-functioning urban context 'thick' with meaning and information. Multiple particulars relating to street-scene and the life-patterns of people, indexed in relation to a simple and characteristic urban spatial order generate a legible real-world structuring which renders locations meaningful and intelligible with respect to each other. Multiple and diverse overlaid particulars relating to street-level culture and economy become structured around characteristic spatial and movement patterns and their concentrations and centralities P rendering areas and places coherent with respect to the wider city, while they at the same time maintain their local particularity and distinctiveness.

Generalisations are dangerous because cities or groups of cities may not be consistent in their spatial logic over their entire surfaces, but as an approximation it can be said that the way this activity dynamic is structured in Dutch cities relates to a more conscious and planned definition of parts within the whole urban grid than is generally the case in London for example. Parts have perhaps to a lesser extent simply emerged though the articulation of the activity dynamic within a highly integrated whole city grid (as it could be argued is approximately the case in London) and have often been more consciously constructed as a patchwork of area layouts preconceived as neighbourhoods or 'communities' P and tacked together in a rather more ad hoc manner by a generally less integrated (than in London) network of city-scale and district-scale connectors (Read, forthcoming/a).

A case could be made for saying that while a structured part-whole relationship is fundamental to well-functioning, coherent and legible urban environments (Hillier et al, 1987), that the relationship represented by the typical scale synergy scattergram in London is a product of particular processes of formation and use in that city (which it may nevertheless have in common with many other cities) but that this may not be the only possible way of representing a structuring of the local against the whole city scales. Further that the typical structured scale synergy scattergram (see figure 1) abstracts and conceals its concrete underpinning in the

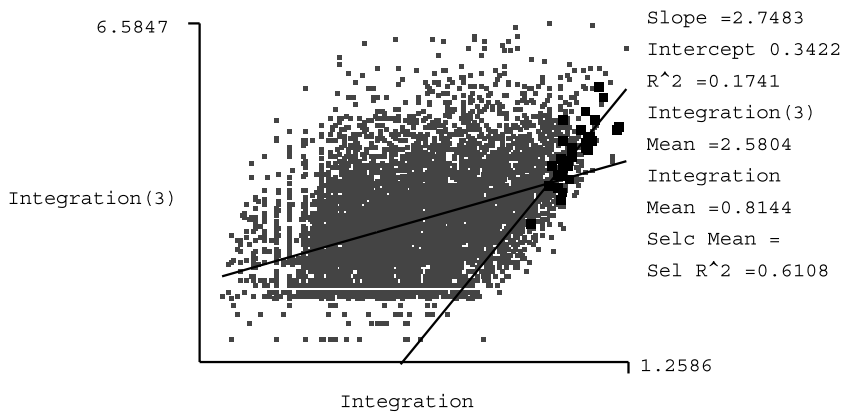


Figure 1. The spaces of the Pijp, a central neighbourhood of Amsterdam (discussed later), highlighted in red, in the scattergram of radius-3 integration against radius-n integration for Amsterdam as a whole. The regression lines for the Pijp (blue) and for Amsterdam as a whole (black) are shown. The correlation coefficient (R²) of scale synergy (radius-3 integration against radius-n integration) of 0.61, while not being poor, is not as high as that of many areas investigated in London P while the Pijp is manifestly an intelligible neighbourhood seen both locally and in relation to the rest of the city.

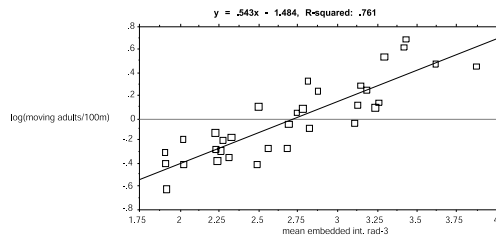
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geometries of spatial patterning, and their social/functional corollaries on the ground P that the critical understanding of the construction of scale structure in the spatial layout and use of the city needs also to be sketched out at the level of layout geometries. It is proposed further that the logic of the part/whole relation in the public space and street-level economy and culture of central areas of Amsterdam most clearly reveals itself at this geometric level.

Background; the bipartite spatial/movement structure of Dutch cities.

An extensive comparison of the relationship between street-level movement activity and the shape of public space in 5 cities in the Netherlands, (Read 1996, Read 1999 and Read forthcoming/a) has found significant regularities within this relationship at two levels. On the one hand it has been found that those spaces which show a very significantly greater volume of traffic relative to other spaces local to them P generally those spaces prioritised for longer distance movement within the whole spatial pattern of the city P are reflected by the pattern of high radius-n integration values, but considered locally, in relation to those spaces immediately adjacent to them, rather than through the whole spatial configuration (see Read forthcoming/a). This effect is reflected in the so-called 'integration gradient map' which as well as representing this effect reflects just the sort of continuities one would expect in any representation of a whole-city movement network, designed as it is to convey continuous streams of traffic over whole-city scale distances. On the other hand a strong regularity was found between the averaged level of activity within whole areas and the averaged space syntax measure of radius-3 integration for those whole areas. This regularity is represented in figure 2 which shows the relationship between mean radius-3 integration and mean occupation of public space in 36 neighbourhoods in 5 cities in the Netherlands. An attempt to represent this result spatially on an axial map is shown in the 'area integration map' of Amsterdam in figure 3.

The results of these two findings were considered further (Read forthcoming/a), where it was proposed that they could be taken to represent a particular spatial logic of Dutch cities P where the space of the city is considered as consisting of two relatively autonomous layers; the top layer, comprising what we call the supergrid, a network of streets within the overall spatial pattern specialised for the conveyance of longer scale movement in the space of the city, and the lower layer consisting of all those non-supergrid spaces which comprise more or less what we think of as the interiors of areas. The results suggest that these layers can be considered as a first approximation as acting independently of each other.



Left
Figure 2; Correlation between integration radius-3 measures averaged for whole areas and the averaged occupation of that public space by people in 36 neighbourhoods in Dutch cities.



Right
Figure 3; TArea integration mapY of Amsterdam where red represents those areas higher up the graph in figure 2 (high occupation, high mean radius-3 integration) and blue represents those areas lower down the graph.

This paper intends to further explore and elaborate on the relation between these two overlaid spatial layers in the overall matrix of streets and to comment on the possible significance of this interaction for the character and functioning of cities. It appears that in Dutch cities at least, but possibly in all cities to some extent, a local/whole-city interface occurs across a quite clearly defined threshold between the supergrid and the area. The aim here is not to reconsider the whole range of Dutch urban space, but rather some of the implications of these thoughts and findings for urban centrality and intelligibility.

The local/whole-city scale overlap.

A more detailed look at figure 2 has revealed that the spread of points (each representing an area) around the regression line is not simply a product of the sort of 'normal' deviation that one would expect to get in any statistical analysis (involving just two parameters) of complex effects in the real world. It appears that those points below the regression line for the most part represent areas that have at least one factor in common; that is they all represent areas which are 'shallower' in relation to obvious strong supergrid spaces. This has been discussed in more depth in section 6.3 of Read, forthcoming/a. 'Depth' is the most significant concept within space syntax, taking the place of conventional metric distance in thinking about the 'friction' of space. The areas below the regression line therefore generally are those that are 'closer' in terms of their depth or distance (topological) from the supergrid P areas that are likely therefore to be more affected by the influence of the supergrid. So while there is a clear tendency, on the basis of these results, for more locally integrated areas (areas with high mean radius-3 integration values) to be better occupied by people, there appears on the face of it to be a countervailing tendency for areas that are shallower in relation to strong supergrid spaces to have a rather lower occupancy of their public space than would normally be predicted. The way Dutch urban space was characterised earlier therefore (as two independently acting layers of supergrid and area) needs to be modified to account for this interaction between area and supergrid.

In fact it is easy to imagine how the supergrid may affect rates of occupation in the public space of local areas. It has already been proposed, when thinking about the way the supergrid works, that people are going to tend to move from 'deeper' to 'shallower' spaces locally in the configuration (see Read, forthcoming/a). This is because shallower spaces locally (supergrid

spaces) are better connected to the larger scale of the city (also generally much better used) and 'locate' the user more clearly (allow him to know where he is) in relation to the city as a whole. It would not be surprising then if a proportion of the people in an area that was shallow with respect to the supergrid ended up moving to the supergrid itself P and leaving the interior of the area. In this way the supergrid may be seen to 'sweep' topologically shallow areas of many of the people in their public space. An important point is that the population and character of the supergrid space itself would be likely to be significantly affected by the presence of shallow areas local to it. In fact in an area that is shallow with respect to a supergrid space, the supergrid space would then seem likely to be used as a locally important space, functionally highly integrated with the local area itself; perhaps a shopping street therefore but, because of its position on the supergrid network, serving not just the population of the adjacent local area but also people from further away who access it via the supergrid. It is proposed that this overlap of local and wider-city scales in cases like this is typical of urban function and translates as a mix of local and wider city scale custom for the local shopping economy and a mix of local and wider city culture on the high-street.

The construction of the interface between different scales of movement P and the different social and cultural (and commercial) elements that these scales deliver to the street scene P would therefore have to do with the relationship between supergrid spaces and the more regular local area spaces attached to them. This relationship is not an abstract one, and the drift of movement that constitutes it, achieves two vital effects; on the one hand it serves to constantly feed supergrid spaces, keeping their levels of in-public-space activity high, and on the other it constructs on a very concrete level the interface of copresence of people between the scales of the neighbourhood, and its facilities, culture and activities and that of the wider city. It creates the conditions where, for example, such a typical urban phenomenon as the high-street can serve at the same time as a local shopping street (whose shops' turn-overs are supplemented by passing non-locals), as a specialist area in the city as a whole where clusters of bookshops or restaurants or ethnic grocers, or electronic goods stores or what-have-you help to identify the street and the area within the city as a whole, and as a vital cultural 'place' where local people, whether they identify with any local group or not, meet, contribute to, and learn (Sennett, 1970) the diverse community of the wider city.

It is proposed that the way this interface between scales is constructed, in terms of real spatial connections and configurations may become critical as far as the working of these typical social and commercial urban effects is concerned, and may fundamentally affect not only the character of the area and street, but also the viability of the shops on street edges and the general social and cultural character and viability of the area.

The orthogonal grid; a geometric corollary of spatial integration at the level of the local area.

If we take a closer look at the space syntax measure of mean radius-3 integration for whole areas, there is already in fact a geometric principle implicit in it. Radius-3 integration is an extended version of the graph theory measure of connectivity P simply the number of elements the element being considered intersects with P and a simple logical conclusion can be taken that a grid with a high general rate of connectivity between its streets P that is where sightlines tend to cross a relatively high number of other sightlines P will be an area with high mean connectivity value and will also tend to be one with a high mean radius-3 integration value, given also of course that the area is well connected with its surroundings

at a range a little wider than the purely local. It will also, according to the results of the previously mentioned studies, be one which tends to support a high rate of activity in its public space.

An ideal geometric figure made up of straight elements with a high rate of connection between its elements is of course the simple orthogonal grid. This proposal P while it must of course be qualified with the observation that what space syntax was measuring with radius-3 integration was not just the very local spatial integration of a simple geometric form but also the way this local form is contextualised at a wider scale through a more or less seamless connection with its surroundings P means that it looks as if people are going to tend to use a layout grid more concentratedly when it is more transparent at ground level. An orthogonal grid presents more intersections and longer vistas to the view of a person at ground level than any other typical urban layout form and it is clear that a mobile person will quickly receive a lot of information visually about an orthogonally gridded neighbourhood as he or she moves alongside or through it. In terms of commonplace spatial ideas like distance or proximity, it needs to be noted that what is being considered here is not a matter of an 'objective' metric distance, but seems to have much more to do with the point of view of the mobile subject in urban space. From this perspective, transparency at ground level is going to affect the predictability, 'knowability' and therefore the experience and usability of areas. The idea that the subjective and mobile experience of urban space may be important for urban function, stands in contrast to attempts to reduce city function and functional relationships to considerations of distance, and may allow the geometry and texture of the grid (and aspects of the way the city is experienced as a whole P visually, in motion and in the round) to be drawn into the urban space/function equation. Of course metric distance and its 'friction' is never going to be totally irrelevant, and block size and orientation will be mentioned later as a factor as far as this effect of 'spatial integration' or 'concentration of proximity' is concerned.

The Pijp neighbourhood in Amsterdam

The Pijp neighbourhood, just to the south of the historic centre in Amsterdam (figure 4), has just such a grid with a high rate of connectivity between its elements and a simple highly connected (and highly locally integrated) orthogonal grid layout. The Pijp is one of the busiest and, at the level of the street-edge, most commercially active parts of the city and has a high level of general occupation of its public space by people. The spatial grid is geometrically straightforward and fairly even, but this doesn't mean that the character and use of the public space of the Pijp is unstructured P in fact it is very clearly structured, with clear hierarchies of intensities and types of use in its different spaces. The shape of public space here however is characterised not by any spatially forced separated-out rationality P rather by the lack of any obvious geometric devices for spatial specialisation. Everything seems highly connected to everything else and yet specialisation and hierarchisation in terms of scales of movement, and the functions supported in specific spaces, clearly does exist. I suggest that this specialisation and hierarchisation and the spatial strategies that support it differ from the spatial strategies used to support the articulation of 'neighbourhood units', 'urban villages' and the like in that they are strategies of connection rather than of separation and have to do with the way the grid is contextualised in the spatial pattern of its surroundings.

This structure is established firstly by connection with the major supergrid streets (the Stadhouderskade, Ceintuurbaan, Ferdinand Bolstraat and van Woustraat) which cross it like the lines of a game of noughts and crosses, and connect it with the scale of the city as a whole, and secondly by lesser connections with neighbouring areas.

The area integration map presented earlier (figure 3) as representing the local integration factor in the shape of area grids (and consequently the intensity at which they are likely to be used), suggests that the Pijp has a high mean radius-3 integration factor and would therefore be expected to have a high intensity of activity within its public space. Figures 5 and 6 are details of this map with the major radial and circumferential supergrid spaces superimposed over them.

The band defined by the old 17th century city edge and the early 20th century belt is important in the area for movement at a larger city scale. This curved axis is dominated by the Stadhouderskade-Nassaukade route on the old 17th century city wall and the Ceintuurbaan-van Baerlestraat-Bilderdijkstraat trajectory a few hundred meters further out, passing through the Pijp, the Museum Quarter and Old West P all of which are areas displaying functional diversity and a colourful vitality. These two routes and the accessibility axis they establish are not the only major means through which these areas are accessible from the rest of the city. There are a number of radial spatial axes of longer range accessibility which also 'drive' access and activity in these areas.

The Ferdinand Bolstraat and the van Woustraat establish a strong radial axis which crosses the circumferential axis at the Pijp and a closer look at how the interface between the scales of the area and the supergrid are spatially constructed on these two crossing supergrid axes is interesting. There is nothing forced or complicated about this; minor streets simply meet supergrid streets at right angles, often crossing them so that a four-way crossing is established. The evidence on the ground is clear; the characters on the street and the types of function supported on the circumferential Ceintuurbaan and Stadhouderskade are different to those supported on the radial Ferdinand Bolstraat and van Woustraat. The Stadhouderskade has become specialised as a major inner city motor traffic connector in the east-west direction, carrying a lot of through traffic, most of which bypasses the Pijp altogether. Its extremely good accessibility from the rest of the city is reflected functionally in the concentration of carpet, curtain and furniture and household goods stores which clearly serve a much wider area than just the local neighbourhood. The Ceintuurbaan is also an important east-west connector and the types of shops it supports also reflects its good accessibility from the rest of the city. The largest concentration of computer shops in Amsterdam are clustered here as well as a number of carpet and household appliance stores, travel and employment agents and restaurants. The characters of the radial Ferdinand Bolstraat and van Woustraat are palpably different. Although they both also carry high volumes of motor and public transport traffic (the Ferdinand Bolstraat a little less so because of traffic restrictions), the volume of pedestrian movement on these two routes is very noticeably higher and the types of shops supported here reflect a much closer link with the immediate neighbourhood. The smaller grocers, butch-



Figure 4; The Pijp neighbourhood in Old South, Amsterdam.

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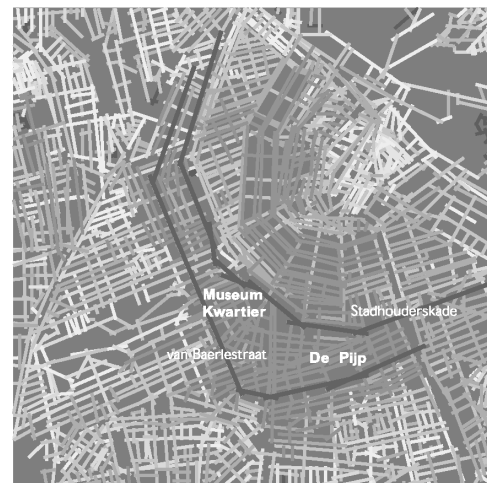


Figure 5; Area integration map of the Pijp and surroundings. Major circumferential accessibility axis.

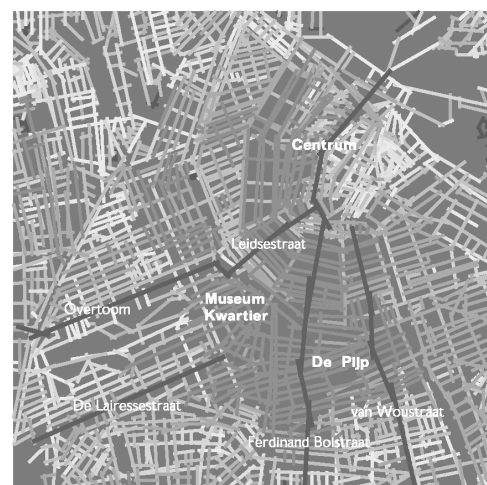


Figure 6; Area integration map of the Pijp and surroundings. Major radial accessibility axes.

ers, bakers, newsagents and clothing, watch and jewellery stores are supplemented by the high-street clothing, electrical goods and general household goods chains.

It is also clear that the contact of the area grid with P and the transparency of the area from P the Ferdinand Bolstraat and the van Woustraat is very significantly higher than it is from the Ceintuurbaan and the Stadhouderskade. The block geometries are such that there are more

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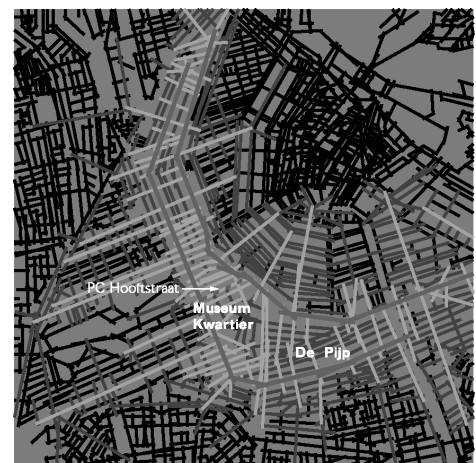
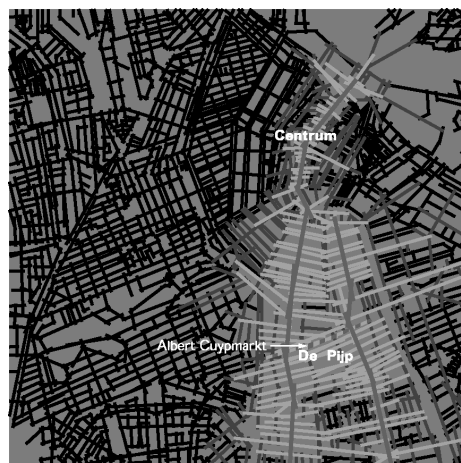
Upper-left
Figure 7; Activity on
the Ferdinand
Bolstraat, the Pijp.

Upper-right
Figure 8; Activity on
the Stadhouderskade,
the Pijp.

Lower-left
Figure 9; Point-depth
map of the Pijp from
radial supergrid
accessibility axes.

Lower-right
Figure 10; Point-
depth map of the Pijp
from circumferential
supergrid
accessibility axes.

than twice the density of inner-area streets that connect with the Ferdinand Bolstraat and the van Woustraat as connect with the Ceintuurbaan and the Stadhouderskade. The higher level of direct contact of the interior of the area with the Ferdinand Bolstraat and the van Woustraat is reflected in the point-depth map (figure 9) when compared to that of the Ceintuurbaan and the Stadhouderskade (figure 10). The green 'spikes' represent direct sightlines of course and establish a strong east-west bias as far as permeabilities for vision and movement within the area are concerned. It is suggested that it is this spatial factor which orientates the activity of the area so strongly to the Ferdinand Bolstraat and the van Woustraat, making them the dominant local-area shopping streets. This highlights the potential importance of the density P even redundancy P of connection for the relation between the inner-area and the supergrid. It points also to the role that block-size and orientation may play in the spatial/functional structuring of an area.



While it is clear that the Ferdinand Bolstraat and the van Woustraat relate strongly to the local area, the link with the wider city is also strong, and the people on the street and the clientele in the shops are by no means restricted to people from the local neighbourhood. Rather this is also a popular medium-priced shopping area (although the whole area is showing signs of upward mobility) for people from other parts of Amsterdam and even for visitors from out of town.



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As far as the area taken as a whole is concerned, the major spatial hierarchies are reflected back in a concentration of shopping in the Ceintuurbaan, van Woustraat, Stadhouderskade, Ferdinand Bolstraat circuit P but this is by no means the end of the story. The openness of the area engendered by the simple open grid ensures that though the functional hierarchies are clear they are by no means rigid. Shopping penetrates the interior of the area, where rentals are cheaper and where non-prime positions are taken by second-hand shops, bicycle and other repair shops, specialist food shops, restaurants, cafes etc. The most remarkable example of this 'slippage' of commercial functions into the interior of the area is the Albert Cuyp market, the largest daily street market in Amsterdam, which occupies a whole inner-area street strung between the Ferdinand Bolstraat and the van Woustraat. The whole street has been turned as far as non-locals are concerned into an extension of the shopping frontage of these two streets. For locals it is a convenient local inner-area shopping facility.

Left
Figure 11; Activity in the interior of the Pijp.

Right
Figure 12; The Albert Cuyp market.

The interior of the area seems to serve to some extent as overflow space in a clearly structured movement economy P as overflow then to the major supergrid spaces. It is apparent that the openness of the grid serves to soften and blur the structure, and that the blurring that this openness engenders allows a freer use of space both for movement P where more people will use the interior to take short-cuts, especially since the area between the major supergrid routes is quite large (while at the same time being transparent), and commercially P where shops which serve the local area and which cannot afford the high-street rentals find places which are still exposed, though at a lower intensity, within these blurred movement patterns. The whole 'interior' of the Pijp between these four major supergrid streets therefore has its activity levels raised. Ringed as it is by concentrated activity, activity spills into the interior responding to the attraction of the other edges and responding also to the dominant permeabilities within the area.

A contrary effect to this infusion of movement and activity into the interior of the 'block' between the major supergrid spaces, can be observed on the other sides of the Ferdinand Bolstraat and the van Woustraat. Here the grids are also extremely open but the effects of the pull of strong supergrid spaces does not work across the area itself, given that the spaces on

the other sides of these areas exert a much weaker attraction than do the four major spaces already mentioned. These areas then, while being highly open and transparent P and highly intelligible and strongly located because well-known dominant supergrid spaces are within sight from almost all parts of the areas P are by-passed by the major movement patterns. The interiors of these areas are also relatively small, which means that movement within the area itself, at any but the most local scale, quickly attains the supergrid and the scale of the wider city, while there is little in the way of cross-area attraction to encourage the taking of cross-area short-cuts. Here the 'sweeping' effect of the supergrid becomes obvious; the high clarity and intelligibility of these areas combines with an ambience of leafy tranquillity P the whole adding up to a quality in the total environment whose parameters are rather difficult at first sight to pin down. These areas, and especially that around the Frans Halsstraat to the west of the Ferdinand Bolstraat (which it must be noted has the smallest blocks in the whole of the area being considered) are very desirable residential areas, popular with young professionals and other urbanites in spite of their high densities and very small houses. There are a sprinkling of popular and slightly higher priced restaurants and cafes which serve the local population as well as people who come here from the rest of the city to sit at the windows and pavement edges to enjoy the quiet urban ambience.

Several other areas in Amsterdam were looked at in order to support and expand on these observations. More detailed results are reported elsewhere (Read, forthcoming/c).

Scale, movement, and urban adaptability and change.

Multiple overlapping processes and their respective scales are organised, aligned and coordinated within public space by the fact that they are grounded in material flows within a real urban spatial connective context. The grounding of these processes draws the contextual P the spatial, shape and geometric P factor into the equation with their specific configurations of connections, permeabilities and resistances. Thus capturing the way these processes are organised and manifested in the real urban spatial

situation and the patterns and orders through which they are experienced in everyday life and through which the rich coding of the urban scene is elaborated. The Pijp has been used as an example to show how the structure produced within this specific spatial context may order the details of urban circumstance as well as patterns of social interface in the surface of the city, differentiating volumes and scales of movement and activity, and formally articulating P imparting recognisability and intelligibility P the city as a field for everyday use.

What is proposed is that certain spatial layouts, characterised by an openness and transparency at the local scale, combined with strong connection to their surroundings at a slightly wider scale, offer the necessary spatial-structural qualities to engender the sort of structured diversity, overlap and busy-ness characteristic of well-functioning central urban locations. They become the spatial-geometric underpinning for the urban environment as a non-determining field, enabling a multiplicity of patternings of use, which at the same time is spatially and functionally articulated and intelligible. These environments absorb and sustain a life of the city, structured around but not determined by the scales of the local and the wider city. They also underpin a potential for change and development. It is the strength of places like the Pijp that they are capable of changing in tune with changing times; in fact it is often on the streets of places like this that we first notice that social or cultural change is taking place. Here periodic decline has always been followed by new awakenings P with new street cultures and economies growing up to replace older ones as wider social and economic orders are trans-



Figure 13; The Frans Halsstraat area in the Pijp.

formed. The 'permanences', comprising particular material encrustations of function and culture, break down as social and economic conditions change P but the underlying structure, founded in space and movement, remains, around which new encrustations, in tune with new social and economic conditions, may form (see Read, forthcoming/b). It is on these socially produced coordinating structures and scale overlaps therefore that the possibility of an authentic urban mutability and adaptability is supported.

Urban centrality is constructed on movement flows and activity patterns within the urban spatial matrix. It is constructed on a dynamic and is therefore itself dynamic. A conception of centrality and urban place founded in these ideas may, it is proposed also offer a framework for investigating the shifting fortunes of urban centres and locations P as they respond to shifts in the the scales and circuits of these flows in the city and the region P as they respond as well as to the circuits and flows of other social and economic processes as they affect the scales, speeds and ranges of everyday patterns of movement.

Central urban space and the construction of an urban culture.

In thinking about how central urban space P and particularly the more traditional sort of central urban space P 'does' all this, and the implications for urban spatial layout and design, we need to acknowledge the distinction between the urban spatial layout and the use to which these patterns are put by people going about their everyday lives. Between therefore the spatial 'strategies' imposed on the city by those who nominally order its shape and function, and the spatial 'tactics' of the users; those 'poets of their own acts, silent discoverers of their own paths in the jungle of functionalist rationality' (de Certeau, 1984; p xviii). The tactics of the users, according to de Certeau, allow them to profit opportunistically from serendipitous conjunctions and intersections in space and time as their trajectories 'trace out the ruses of other interests and desires that are neither determined nor captured by the systems in which they develop.' (de Certeau, 1984; p xviii).

These urban conditions, and opportunities for the tactical use of space, are related to spatial design strategies which at the same time maximise and articulate by scale, the opportunity for contact and exchange within a given area. Sennett variously talks about 'narrative space' (Sennett 1990) and 'economic space' (Sennett 1994) and about the emergence of economic space in mediaeval Paris in combination with a social order emphasising the opportunistic use of space within an open and accessible place-bound 'market'. The market town (in a sanitised, idealised form of course) has become and remains the model for thinking about what is convenient, enabling, and culturally and economically vital and stimulating in well-functioning central urban contexts P with its public space full of the bustle of people moving, buying and selling goods and services and interacting with others; 'constructing' on the 'micro-level',¹ in Zukin's terms, an urban culture within urban space. The vitality of these environments has been an obvious asset at the level of the street-level economy P but has been a problem for the planners (who may once have associated the 'chaos' with disease and insurrection) who have tried to rationalise the space of the city by separating and bounding

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(1) The role of public space in a creative, enabling and non-determining urban social dynamic is obvious, in that a surface, a 'place', or a spatial 'field' is necessary where the serendipitous and the contingent can occur, where that fleeting moment and the non-preordained encounter can take place. Sharon Zukin sees public culture as being 'socially constructed on the micro-level ... produced by the many social encounters that make up daily life in the streets, shops and parks P the spaces in which we experience public life in cities.' According to her 'public space is inherently democratic. The question of who can occupy public space, and so define an image of the city, is open-ended.' (Zukin, 1995; p. 11). It is also obvious however that this social construction on the micro-level is not an affair separate from the particular potentials and possibilities of the space in which it occurs P and that some arrangements of public space may be more 'democratic' and enabling than others.

functions and movements (Sennett, 1990 p. 201). The problem with these modernist strategies has been the way they circumscribe both everyday actions as well as urban futures. As Sennett points out, the city doesn't work by analogy with the machine (Sennett, 1970) P it is an instrument of history, and an instrument of change. The machine analogy fixes futures, and the planning which has operated on the basis of this analogy has been unable to deal with the unknown and the unforeseen. There is a point to the 'certain level of confusion' and disorder P a point that has to do with maximising potentials for initiative and action and with the potential of the city to adapt to P indeed to propagate and nurture P unknown and unforeseen futures from the ground up (Sennett, 1970). Secondly, and contrary to the fears of the modernists, there is an order in the apparent chaos on the street P albeit an order which is easier to detect through experience in place than by analysis in plan. Urban activity which has this quality of being free of compulsion, which occurs within 'fields of unpredictable interaction' (Sennett, 1970 p. 98), which acknowledges the diverse impulse and motivation of people but which exists nevertheless within a formed and located dynamic which structures the interface between neighbours and strangers, between functions locally specific and those specialised and directed at the city as a whole P is an activity which may be open to 'the fact of history, for the unintended, for the contradictory, for the unknown' (Sennett, 1970 p. 99).

The basis of this order is contextual P it is an order of located activity, of a dynamic bound into the material base of the patterning of streets, squares (eventually motorways, rail and airways) P an ordering of connections, permeabilities and scales within an extended spatial field supporting an integrated movement flow. It is an ordering which articulates the life of the city, and it is an ordering whose social component exists in the form, in that the shape of the dynamic defines a social structuring and interface P open but differentiated, articulated and intelligible P which, in complex urban centres, still supports rich, enabling and sustainable patterns of everyday life.

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