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Sense of Community and Neighbourhood Form: An Assessment of the Social Doctrine of New Urbanism

Emily Talen

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Summary. New urbanism, an umbrella term which encompasses ‘neotraditional development’ as well as ‘traditional neighbourhood design’, lives by an unswerving belief in the ability of the built environment to create a ‘sense of community’. The purpose of this paper is to assess whether the social doctrine of new urbanism can be successfully supported or at least integrated with the social science literature which deals with the question of community formation. Towards this goal, the paper first delineates the social doctrine of new urbanism, and then discusses the conceptual frameworks and empirical findings that either support or contradict the idea that a sense of community will follow the physical form of cities and neighbourhoods generally and new urbanist principles specifically. After laying this groundwork, the remainder of the paper presents an assessment of whether a reconciliation between research and doctrine may be possible, in light of various apparent contradictions between the social claims of new urbanists and the results of research by social scientists. It is concluded that new urbanists need to clarify the meaning of sense of community as it pertains to physical design. Further, it is maintained that while some research supports the idea that resident interaction and sense of community are related to environmental factors, the effectuation of this goal is usually only achieved via some intermediate variable. This latter point leaves open the question of whether any number of other design creeds could produce the same result via a different design philosophy. The need for further research is stressed; this should be focused on investigating the issue more directly.

According to the social doctrine of new urbanism, a strong, close-knit community is a cherished American icon which can be regenerated by rebuilding cities according to new design principles (Katz 1994). New urbanism, an umbrella term encompassing ‘neotraditional development’ and ‘traditional neighbourhood design’ is a planning movement which is gaining increasing popularity.¹ Its promoters stress the conviction that the built environment can create a ‘sense of com-

munity’, grounded in the idea that private communication networks are simply no substitute for real neighbourhoods, and that a reformulated philosophy about how we build communities will overcome our current civic deficits, build social capital and revive a community spirit which is currently lost. Accordingly, new urbanists assert that the main defect of standard suburban development is not aesthetic or even environmental, but is its insidious social effect (Duany and

Plater-Zyberk, 1992). The reformist trend, they claim, has gone too far to eradicate the ills of urbanism (resulting in suburban sprawl), and the planning profession must work to extract the community-forming elements out of urbanism and reinstate them in new town development.

The purpose of this paper is to investigate the empirical and theoretical basis that is behind the attempt to promote social interaction and sense of community through the physical design of communities. The key research question addressed is: Can the social doctrine of new urbanism be successfully supported or at least integrated with the social science literature which deals with the question of community formation? To answer this question, we first delineate the social doctrine of new urbanism, and then discuss the conceptual frameworks and empirical findings that either support or contradict the idea that a sense of community will follow the physical form of cities and neighbourhoods generally and new urbanist principles specifically. After laying this groundwork, the remainder of the paper presents an assessment of whether a reconciliation between research and doctrine may be possible, in light of various apparent contradictions between the social claims of new urbanists and the results of research by social scientists.

At the outset of such an investigation, it must be acknowledged that new urbanists are plagued by a sheer lack of evidence. Our current understanding of the relationship between town design and sense of community is largely without empirical basis, and is therefore deficient. Further, what evidence is there that residents want, or are even willing to consider communitarian values at a time when many sociologists discard the notion of community as "idealistic, utopian and backward-looking" (Puddifoot, 1995, p. 358)? The lack of such a basis leaves open the possibility that new urbanism is nothing more than intellectual profit-making in top-down planning fashion, whereby human subjects are sacrificed on the altar of utopian plan-

ning. More insidiously, it could mean that the social cohesion goals of new urbanism are simply an excuse by developers to squeeze more development out of less land (see Bookout, 1992).

The need to confront the social doctrine of new urbanism is also critical because the social claims of its promoters are not modest. Leon Krier asserts that the small-town philosophy inherent in traditional neighbourhood design is not simply an architectural paradigm, but "a social synthesis" which will ultimately give way to a completely reconstituted civic realm (Krier, 1991, p. 119). As postulated, the effect of the local environment on human behaviour is presumed to be enormous. For many planners and community activists, these claims are axiomatic: improved design creates improved behaviour.

There are other pertinent reasons why urban scholars should question, and actively analyse, the social doctrine of new urbanism. First, whatever its intuitive appeal, the use of the American small town as a model for local community is not a universally held ideal. It is often criticised by academics as fostering sharp social fragmentation and élitism (Suttles, 1975), or satirised in American literature (for example, by Sinclair Lewis and John O'Hara). Secondly, past attempts physically to build a sense of community, such as the much-admired design of Pullman, Illinois, or James Rouse's new town of Columbia, Maryland, have failed in their social prescription, largely on the basis of having expected too much from the physical environment (Brooks, 1974; Tennenbaum, 1990). Finally, current trends toward extreme privatisation (i.e. gated communities) and the increasing social fragmentation of society are outgrowths of a long-standing trend in which non-territorial forms of association may in fact be preferred. Thus the new urbanist community vision may run counter to the 'natural' tendency of American social life (see Berry, 1976; Audirac *et al.*, 1992). These factors amount to substantial hurdles for the social agenda of new urbanism.

The Social Doctrine of New Urbanism

The essence of new urbanist design theory is the creation of a *sense of community*. Social goals have, in fact, been the keystone of community design theory in the works of such notables as Clarence Perry, with his highly regarded neighbourhood unit concept (Perry, 1929), as well as the development ideas of new town planners such as Clarence Stein (1957) and James Rouse (1978). Many of these ideals have been resurrected based on an acute appreciation of pre-modern urban forms and their (presumed) mastery at embodying an understanding of human nature (Krier, 1984; Hayden, 1984; Whyte, 1988; Calthorpe, 1989, 1993; Katz, 1994; Langdon, 1994).

It must be recognised that the new urbanists' notion of 'sense of community' concatenates a number of different meanings of the term which have been separated out in the urban sociology, environment-behaviour and community psychology literatures. For the purpose of delineating the social goals of new urbanism, the umbrella term 'sense of community' is used in this section (the multidimensionality of the concept is discussed in a subsequent section).

While many of the components of sense of community do not necessarily pertain to territorial communities, new urbanists have translated the building of sense of community into a specific design manifesto (Audirac and Shermyen, 1994). A much-cited article (although not by urban designers) entitled "Social support and the physical environment" (Fleming *et al.*, 1985) purports a model which provides the theoretical basis necessary for new urbanists to make this translation. It asserts that environmental variables affect the frequency and quality of social contacts, and that this in turn creates group formation and social support. Group formation is enhanced by: passive social contact (creating settings which support such contact); proximity (facilitating closeness by arranging space appropriately); and appropriate space (properly designing and placing shared spaces).

New urbanists attempt to build a sense of community, broadly defined, via two avenues: integrating private residential space with surrounding public space; and careful design and placement of public space. The specific design elements which work to build sense of community are in one form or another delineated in works by Duany and Plater-Zyberk (*Towns and Town-Making Principles*, 1991); Calthorpe (*The Next American Metropolis*, 1993) and Langdon (*A Better Place to Live*, 1994), among others. While these designers are not always in agreement about the philosophical basis of their proposals (for example, Calthorpe's disdain for the "fiction of small-town America", 1991, p. 57), most of the design elements used to promote sense of community are remarkably similar. The elements are discussed in turn below.

Architecture and site design. Social interaction is promoted by designing residences in such a way that residents are encouraged to get out of their houses and out into the public sphere. This requires a shrinkage of private space: houses are typically positioned close to the street, lots and setbacks are small, and houses have porches facing the street. Porches generate pedestrian traffic by projecting the human presence within the house to those passing by on the street (Duany and Plater-Zyberk, 1992). Individuality in housing design, within certain parameters, is encouraged in order to avoid the proliferation of 'cookie cutter' neighbourhoods.

Density and scale. Urban development is structured according to the 'natural logic' of neighbourhood scale, with a clearly defined centre and edge (Duany and Plater-Zyberk, 1994). Sense of community and neighbourliness are engendered by having small-scale, well-defined neighbourhoods with clear boundaries and a clear centre. When smaller scales are juxtaposed with increased residential density, face-to-face interaction is further promoted. Personal space is, in a sense, sacrificed in order to increase the density of acquaintanceship, and this concentration

nurtures a “vigorous community spirit” (Langdon, 1994, p. xiii). At the community level, town centres have a relatively high density in order to promote commercial viability and therefore a revived public realm. This new ‘realm’ translates into an increased sense of community.

Streets. Streets have an overt social purpose. They are to be thought of as public space—much more than voids between buildings—and therefore must be made to accommodate the pedestrian (Calthorpe, 1993). Streets are designed to encourage street life, since any increase in pedestrian activity is thought to strengthen community bonds and promote sense of place. Streets are to be a place where pedestrians feel safe, so that residents are encouraged to use streets (sidewalks), thereby strengthening the chance for social encounter.

Public space. Public space provides a venue for chance encounters, which serves to strengthen community bonds. Neighbourhood gathering places give ‘heart’ to the community (Langdon, 1994), and serve as a counter-pressure to community fragmentation which results when communication is privatised. Public spaces in the form of parks and civic centres also serve as symbols of civic pride and sense of place which promote the notion of community. If public spaces are a pleasure to inhabit, they will be used, and their usefulness as promoters of sense of community will flourish. Sense of place is created simply by paying attention to sense of space through proper design and placement of public space (Duany and Plater-Zyberk, 1992).

Mixed land uses. The relationship between mixed land uses, social interaction and sense of community was first articulated by Jane Jacobs (1961). When place of residence is juxtaposed with places to work, shop or recreate, social integration of different incomes, races or ages is encouraged since people will tend to walk more and drive less. With this kind of social integration, “the

bonds of authentic community are formed” (Audirac and Shermeyen, 1994, p. 163). The mixture of residential and commercial land uses creates a multipurpose space in which lingering is encouraged, creating a setting for “repetitive chance encounters” which, in turn, builds and strengthens community bonds (Achimore, 1993, p. 34). A mixture of housing types, too, encourages random personal contact between people of different social classes. Communities become more nearly complete and integrated and, as a result, sense of community is established.

Implicit Assumptions

To new urbanists, the ability of the physical design characteristics specified above to improve social interaction and therefore sense of community is indisputable. Putting people closer together, getting them out on the streets and mingling in shopping areas close to their place of residence seem intuitively obvious methods for gaining resident cohesion. These ideas, furthermore, are not “clouded in theory and rhetoric” (Bressi, 1994, p. xxv). The social doctrine of new urbanism seems to have been derived through an artful, anecdotal process of documenting the perceived correlation between design elements and social engagement (see, for example, the approach of Davis cited in Langdon, 1988). However, all design prescription is based on a theoretical framework which is based on a set of assumptions, whether or not this is explicitly acknowledged.

First and foremost, the social prescription of new urbanism is based on spatial determinism—that resident interaction and sense of community are cultivated via the organising power of space. It must be presumed therefore that residents put a high spatial cost on relationships which are not proximal—i.e. that time and energy costs incurred by crossing space have a high degree of distance decay (see Lee, 1970).

The reliance on environmental factors in generating social contact and sense of community suggests that new urbanist doctrine

has much in common with the 'Chicago school' of sociology. In this tradition, social contact is maintained by environmental characteristics and ecological explanations, including housing type, density and land-use mix (Park *et al.*, 1925). In extreme form, the ecological tradition involves

Skinnerian-like assumptions holding that the physical and demographic features of the neighborhood operate as environmental contingencies which may constrain, foster, cause, or eliminate certain types of social behavior (Haggerty, 1982, p. 359).

New urbanism may be connected more specifically with a sub-category of human ecology known as 'environmental sociology', which has its roots in the theoretical model of Talcott Parsons (Krasner, 1980), and which concerns the impact of spatial organisation on social interaction (see Gutman, 1972).

New urbanists can also be seen as aligning themselves with the sociological tradition that asserts that sense of community is vital to human functioning (Sarason, 1974). Studies by Glynn (1981) and Goudy (1990), for example, have found that the concept has a universal definition and appeal, and that community attachment is associated with mental health (O'Brien *et al.*, 1994), conclusions which provide a theoretical basis for the social doctrine of new urbanism.

Urban Form and the Social Life of Neighbourhoods

On the face of it, a large number of studies which have sought to determine specific factors associated with sense of community (defined in terms of social interaction as well as its various affective dimensions) appear to have a connection with new urbanism. This section discusses these findings. There are two interrelated aspects of this supportive relationship. First, there are studies which substantiate the idea that physical factors can act as a *mechanism* to promote resident interaction. These studies constitute a verification of the process by which design criteria work

to influence social behaviour. Secondly, there are studies which have identified specific *environmental* factors which are positively correlated with some aspects of sense of community.

The underlying mechanism involved in the translation between form and behaviour has been investigated predominantly within the context of micro-environmental factors or site layout (as opposed to overall neighbourhood form). It has been shown in numerous studies that architectural design plays a role in fostering or inhibiting resident interaction. While this work focuses on the micro-environment of houses and even interior spaces, the notion that, for example, housing type affects social interaction generally supports new urbanist doctrine. Gans' (1962) study of Boston's West End found that the structural features of buildings—window and door placement—are a factor in resident interaction. A well-known study by Festinger *et al.* (1950) of friendship patterns in married student housing found that friendships were determined by the physical arrangement of houses and the access paths between them. Extensive research by Michelson (1970, 1977) has demonstrated the salience of architectural design in promoting or inhibiting social interaction. He found that the spatial proximity of residents, based on the positioning of doors, determined interaction patterns. Fleming *et al.* (1985) found that common areas and other shared features had a strong impact on social contact, and Yancey (1971) documented the effect of the design of public housing (i.e. Pruitt-Igoe) on the formation of social relationships. A study by Amick and Kviz (1975) found that social interaction was greatly improved in public housing consisting of low-rise buildings with high site coverage (as opposed to high-rise buildings with low site coverage).

Some factors which have been found to increase resident interaction may be indirectly linked to the design ideology of new urbanism. This linkage is based on the view that the factors involved have, to some extent, an environmental basis. For example, increased neighbouring has been found to

result from feelings of safety (Newman, 1972), from greater utilisation of public space (Levine, 1986) and from greater use of local facilities for shopping (Riger *et al.*, 1981). Each of these factors may be promoted via the form of urban areas, and thus new urbanists may make some claim to promoting resident interaction by emphasising these factors via the elements of their design. In particular, the scale of neo-traditional development, the prominence of public space and the emphasis on mixed land uses may be seen as contributing to increased neighbouring.

Other factors are not as directly tied to form or environment, although some linkage may be asserted. For example, sense of community has been linked to social control of the neighbourhood (Chavis and Wandersman, 1990) and to public ownership of neighbourhood facilities (Atlas and Dreier, 1993). It could be argued that the strong emphasis on design quality, the high importance attached to building codes and the emphasis on providing local neighbourhood facilities produce a sense of control over the environment. It has also been found that residents who are more politically active are also more likely to have a strong sense of community (Davidson and Cotter, 1986). The case could be made that new urbanist development attracts politically active residents, lured to such development out of concern for the environment, for example.

In terms of linking environmental variables such as town design or architecture to sense of community more directly, existing research has been scant. A study of Seaside, Florida, by Plas and Lewis (1996) is a rare attempt to assess the ability of neo-traditional design to induce sense of community. The authors conclude from their resident interviews that sense of community variables—membership, need fulfilment, shared emotional connections and loyalty—appear to be related to town design, architecture and urban planning, although not in a causal way. More than 70 per cent of the respondents cited sense of community as an important reason why they chose to reside in Seaside.

A related study of levels of satisfaction with the built environment found that, in the US, distance from the central city (i.e. increasingly suburban) was negatively associated with satisfaction variables concerned with community services, social patterns and psychological well-being (Rothblatt and Garr, 1986). Age of neighbourhood was positively associated with these variables. The authors conclude (p. 98) that

the older residential areas with their tree-lined streets, traditional housing appearance, and varied age population structure create the image and feeling of continuity in an era of rapid change and great household mobility in the United States.

While community may be perceived as 'liberated' and thus placeless, the role of neighbourhood or place of residence continues to hold weight as a factor in building social relationships (Glynn, 1986), and this supports the theory behind new urbanism. In his study of social cohesion in a Chicago neighbourhood, Suttles (1968) maintained that it is the sense of 'turf'—the bounded neighbourhood itself which residents identify with—that creates social cohesion. An extensive study of neighbourhoods in Pittsburgh (Ahlbrandt, 1984) showed that the use of neighbourhood facilities (for shopping, worship or recreation) was linked to higher levels of resident interaction. Empirical research has shown that neighbourhood is an important factor in determining with whom residents interact (Greenbaum, 1982, 1985), and this may be based on the spatial boundaries of neighbourhoods (McMillan and Chavis, 1986; Ahlbrandt and Cunningham, 1979). Since new urbanism relies on well-bounded communities composed of compact, physically delineated neighbourhoods, the research in this area generally supports the social doctrine of new urbanism. Further, although the enclosed space within which residents are 'forced' to interact may create relatively 'weak' social ties, high levels of these ties have been found to increase the occurrence of strong social affiliation (Granovetter, 1973; Greenbaum, 1982). The

view that sense of community is a function of the quantity of social contact (the 'contact hypothesis'; see Doolittle and MacDonald, 1978) is consistent with an approach to building community via promotion of neighbourhood-level interaction.

The Role of Non-environmental Factors

A major emphasis among urban scholars has been on the notion of the community 'lost'. This debate focuses on: the loss of sense of community through the loss of local neighbourhood social interaction; and the loss of a territorially based notion of community and its replacement with placeless communities of interest. While new urbanists may promote sense of community by increasing resident interaction, it is this second aspect of the social dimension of urban neighbourhood life which, to some degree, undermines the social doctrine of new urbanism.

While most researchers would agree that physical space plays some role in the formation (or dissolution) of sense of community generally, many have argued that the role of physical space in the creation of community is largely overplayed. Following Webber's essay on "community without propinquity" (1963), as well as the writings of Fischer (1972) and Wellman (see, for example, Wellman and Leighton, 1979), many sociologists reject the Wirthian (1938) view that the size, density and heterogeneity of urban areas have a deterministic effect on social organisation. Instead, they support a paradigm which accepts a 'community liberated' model of social relationships (Wellman and Leighton, 1979). In this view, community is 'liberated' from the confinements of local space, and relationships are formed from the entire metropolitan region via complex social networks. Social lives, therefore, are spatially diffuse (Flanagan, 1993).

The importance of non-spatial factors in building social relationships appears to be widely accepted (Glynn, 1986). Burkhart's (1981) study of Columbia, MD, gave strong support to the importance of the 'community of interest', in which residents actively seek

affiliation with a homogeneous, like-minded social group and avoid heterogeneous social interaction. This essentially constitutes a rejection of the importance of neighbourhood in satisfying affiliation needs. Lang (1994) traced the evolution of the demise of the neighbourhood through British new town development and found that although early new towns were designed around the neighbourhood unit concept (for example, Harlow, England), later new towns such as Milton Keynes, England, abandoned the idea "because neither people's lifestyles nor their sense of affiliation coincided with neighbourhood boundaries" (Lang, 1994, p. 268).

Much of community research ties in with the non-place sense of community paradigm. In the non-place argument, resident interaction and sense of community are more a factor of homogeneity than locale. Campbell and Lee (1992) found a complex picture of social interaction, maintaining that socioeconomic status, age and gender were the most important factors in determining resident interaction. Some researchers have documented the importance of stage in the life-cycle and labour force participation as determinants of social interaction (Haggerty, 1982). Gans (1962) suggested early on that community is formed on the basis of social class and commonality of values, not propinquity. More recently, (1972) he maintained that environmental features of the neighbourhood have no direct or invariant consequences for ways of life. A study by Verbrugge and Taylor (1980) concluded that the accessibility of residents to each other had little impact on social ties, as compared to their social and demographic characteristics, the number of residents in the area (size), or their subjective feelings about their environment. In a study of Rochester, NY, Hunter (1975) found that residents maintained a strong sense of community on the basis of shared values, despite the loss of neighbourhood functionality (i.e. decline in the use of facilities).

Based on the homogeneity of suburban populations, some researchers have claimed that suburban life fosters a strong sense of

community, a finding which runs counter to the claim that suburban patterns are decidedly anti-community (Mumford, 1961; Schaeffer and Sclar, 1975; Schneider, 1979). Gans' classic study of Levittown (1967) found a large number of localised, cohesive social networks. Many subsequent studies have found high levels of neighbouring in suburban areas (Fischer, 1976), which appears to have a great deal to do with the class and life-cycle similarities among their residents (Kasarda and Janowitz, 1974). Further, surveys indicate that dissatisfaction with suburban regions is related to rapid growth and high density (Baldassare and Wilson, 1995), not a lost sense of community. Whether or not suburban residents have a sense of community *in spite of* what is perceived to be an anti-social design, or *based on* suburban design, or as a result of self selection (i.e. individuals with greater affiliation needs move to the suburbs), is a matter of dispute (see Baldassare and Fischer, 1975).

In addition to social networking and homogeneity, other non-territorial factors have been linked to sense of community. One potent variable which surfaces repeatedly in the quest to determine why and where sense of community is found is length of residence (Kasarda and Janowitz, 1974; Glynn, 1981; Buckner, 1988; Chavis *et al.*, 1986). Conversely, residential transience has been linked to areas with low social integration (Rossi, 1980). Presence or absence of children, in turn associated with residents' degree of autonomy (Keller, 1968) and couples' joint work status (Kingston and Nock, 1992), have also been implicated. Homeownership has been found to be an important part of fostering sense of community, since, the argument goes, residents who have more financial commitment to their neighbourhoods will have a stronger sense of community (Davidson and Cotter, 1986; McMillan and Chavis, 1986). The effect of perceived threat to property values, evident in 'NIMBYism', or other 'crises commonality' have been shown to be strong factors in generating a locality-based sense of com-

munity (Panzetta, 1971). These findings are consistent with the findings of Plas and Lewis (1996), as well as Haggerty (1982), who found that place attachment was related to the prestige of the area, and not necessarily to social contact which may have been enhanced through environmental factors.

New Urbanism and Social Science: Can They Be Reconciled?

From the literature summarised above, the following observations can be made regarding the relationship between new urbanist form and the building of sense of community:

- (1) There is no existing empirical evidence of a direct link between neighbourhood form and sense of community, *per se*. However, increased neighbouring has been associated with certain environmental characteristics which are also associated with new urbanism (for example, the utilisation of public space). The question of whether or not the prescriptive form of new urbanism is exclusively relevant, or whether or not any number of alternative neighbourhood forms could have the same effect, is still open to debate.
- (2) While it has been demonstrated that architectural form and site layout can increase the frequency of resident interaction, resident interaction is only one factor in the building of a sense of community. Many other factors either inhibit this interaction (for example, resident heterogeneity), or act as a necessary prerequisite for interaction to occur (for example, resident homogeneity).
- (3) Although a relationship between form and interaction exists, its importance as a variable is seriously undermined by two issues which speak to both the need for and the effect of neighbourhood form built according to new urbanist design criteria. First, the trend towards 'community liberated', in which an individual's sense of community is an

extra-spatial phenomenon, appears to be at odds with the quest for a territorially bound pattern of neighbourhood interaction advocated in new urbanist design theory. In essence, network-based social attachment involves a different pattern of localism from that which is sought in a new urbanist community. If neighbourhood social life is based on social networking rather than on place factors, the ability of environmental design to promote sense of community is put into question. Secondly, a sense of community has been shown to exist in seemingly anti-communitarian neighbourhoods—i.e. low-density suburban areas characterised by an emphasis on private space and the minimisation of public space. This puts into question the need for neighbourhood form which is explicitly designed to promote neighbouring and a sense of community.

Based on these major findings, it would be difficult to conclude that new urbanists' claims to foster a sense of community via neighbourhood form are substantiated by social science research. However, in the remainder of this paper it is argued that new urbanism can make steps toward reconciling itself with existing research by positioning its claims in one of two ways. First, new urbanism stands a better chance of legitimacy if it avoids language like 'sense of community' without fully understanding its varied meanings. Thus the various definitions involved in sense of community must be dissected to reveal that new urbanism serves to strengthen *one* aspect of the social life of neighbourhoods—namely, resident interaction. This also serves to ground theoretically the importance of certain environmentally based variables, such as the importance of public facilities, while at the same time leaving room for non-environmental factors which, perhaps, strengthen other (although related) components of sense of community.

Secondly, it is argued that new urbanism must come to terms with its role as an intermediate variable, whereby the link between

sense of community (or some aspects of its definition) and neighbourhood form only occurs if certain threshold effects are in evidence. This may not sit well with new urbanists, particularly the real possibility that resident homogeneity, not the more socially desirable goal of heterogeneity, is a prerequisite for form to have an effect on social life.

The Varied Meanings of 'Sense of Community'

The determination of whether or not new urbanism can succeed in reaching its social goals may be dependent upon how 'sense of community' is specifically defined. One potential liability of new urbanism, in fact, may be that its social objectives appear to embrace the notions of resident interaction and the various components of sense of community (including sense of place) simultaneously. These are distinct concepts with distinct meanings, each with its own method of effectuation. Some aspect of sense of community may be promoted via resident interaction, such as through the creation of a venue for chance encounter, but this approach does not necessarily promote other concepts such as place attachment or sense of place. What must be recognised is that the interrelationships between residents and the effect of their environments involve different meanings: for example, bonding, attachment, sentiment (Fried, 1986). Different meanings may require, or may be contingent upon, different environmental contexts.

To illuminate this issue, it is possible to evaluate new urbanist doctrine with respect to these varied meanings. The social aspects of urban areas (usually within the context of neighbourhoods) may be divided into two categories: level of neighbouring, and the psychological sense of community. Research on neighbouring often consists of quantitative measures of local social interaction. Such activity is overt, and ranges from strong social relationships (for example, exchange of help and goods) to weak social ties (for example, casual greetings). Research on the psychological sense of community is con-

cerned with measuring the affective components of neighbourhood social life. Typologies used to measure sense of community (see, for example, Skjaeveland *et al.*, 1996; Riger and Lavrakas, 1981), as well as those concerned with defining sense of community (for example, McMillan and Chavis, 1986), offer the following distinctions:

- shared emotional connection* (based on interaction as well as shared events, and tied into the psychological aspects of sense of community as opposed to other affective notions);
- neighbourhood or place attachment*, predicated on social bonding, physical rootedness, the use of physical facilities and attraction to neighbourhood;
- membership*, involving boundaries, emotional safety, a 'right' to belong, personal investment and a common symbol system;
- influence*, which has to do with group conformity;
- reinforcement*, whereby mutual needs are met, but also involving the degree to which residents regard each other in a positive way (without, necessarily, social interaction); and
- sense of place*, which has more to do with the environmental cognition of residents than with neighbourhood social life, *per se*.

The key differentiating element to be used in understanding the potential (i.e. hypothesised) relationship between new urbanism and the various dimensions of neighbourhood social life is the emphasis in new urbanism on public space: what aspects of a sense of community are promoted by emphasising the role of public space and, by extension, public life? From the research results surveyed, the only aspect of the social life of neighbourhoods which is supported with some degree of confidence is resident interaction or neighbouring. Interaction is promoted by providing more venues for social contact. The quality of this interaction may be limited to brief encounters which lead only to weak social ties, but nonetheless it

would be difficult to refute that at least the concept of increased neighbouring, in a quantitative sense, is promoted.

To move beyond the level of neighbouring towards an affective notion of community is more difficult, unless sense of community can be directly tied to variation in quantity of social interaction (see Weenig *et al.*, 1990; Riger and Lavrakas, 1981). In fact, the exact nature of the connection between public space, resident interaction and sense of community is theoretically deficient. It is difficult to say where, specifically, resident interaction leads—i.e. to what degree the specific *affective* aspects of sense of community are promoted.

The connection between new urbanist form and the affective dimensions of sense of community becomes more and more untenable as the complexity of meaning involved is evaluated. At face value, for example, a shared emotional connection would appear to be a likely target of neighbourhood form since it relies on resident interaction. The problem, of course, is that such connections rely on a certain quality of interaction, not necessarily on quantity. An emotional connection requires the sharing of events, and the fulfilling of a 'spiritual bond'. While the mixing of land uses and the provision of public spaces are believed to foster such a connection by providing an interaction venue, the translation is not straightforward, and it becomes difficult to argue for anything more than a weak level of effect. Thus social interaction and sense of community are linked in some way, but it may not be at the level intended by new urbanists. A study by Haggerty (1982) revealed that, when sociodemographic characteristics are controlled for, environmental factors are relevant in determining social interaction, but only at the level of superficial, impersonal interaction. It is unclear whether or not superficial contact is the kind of interaction which would be likely to foster sense of community (such as a shared emotional connection) as defined by new urbanists.

Each of the affective dimensions of sense of community can be evaluated similarly.

Membership, for example, requires certain-roles which cannot be garnered on the basis of neighbourhood form and an increase in social interaction (based on our current level of understanding). It may appear that the concept of membership plays a role in connecting public space to sense of community since public spaces, it has been argued, provide a setting for social interaction, social interaction stimulates a feeling of membership, and membership is the basis of an engendered sense of community (Jacobs, 1961; Glynn, 1981; Riger *et al.*, 1981; Cochrun, 1994). This equation is not difficult to accept. However, if the full range of the meaning of membership and its role in building sense of community are addressed, the hypothesised relationship becomes clouded. Specifically, membership, as one definition of sense of community, involves a feeling that one has invested part of oneself to become a member and therefore has a right to belong (McMillan and Chavis, 1986). It is not immediately apparent how the kind of interaction taking place in public spaces leads to this feeling. Similarly, defining sense of community in terms of membership involves notions such as boundaries and a common symbol system (architectural, for example), which could be tied to new urbanism's emphasis on neighbourhood environment and form. Yet other aspects of membership—a sense of belonging and emotional safety—are not specifically tied to local resident interaction, nor are they tangibly tied to a specific kind of form (i.e. the form prescribed by new urbanists). In the end, it could be argued that these aspects have more to do with resident homogeneity or length of residence, than with either resident interaction or neighbourhood form.

It would seem that new urbanism would fair better if aligned with the affective components having to do specifically with the notion of place attachment. Yet, again, the multi-dimensionality of the concept of place attachment leaves open the question of whether or not form or resident interaction can be successfully tied to a resident's attachment to place. Place attachment con-

sists of various affective dimensions—for example, degree of rootedness, satisfaction, control, symbolism, social contentment or beauty. It has been tied to such diverse qualities as socialisation of the self (Proshansky *et al.*, 1983), or involvement in local social organisations, depending on which particular type of attachment is involved (Fischer, 1977). It is also related to the notion of 'we-ness' (Nisbet, 1969; Sarason, 1974) in which social support networks within communities are tied to a sense of belonging, which in turn is linked to mental well-being. Clearly, it could be debated that place entails a much broader meaning than that envisioned by new urbanists, and that the affective dimensions involved are based on personal outlook as opposed to environmental effect. Again, as complexity of meaning increases, the link between neighbourhood form and social objective becomes more obscure.

Sense of place would also seem a likely component of new urbanist social doctrine, but, as in place attachment, the term has more to do with individualised meaning than with specific environmental characteristics. Thus the creation of sense of place may not be related to areas and their activities or to types of behaviours engendered by different types of neighbourhood (Davies and Herbert, 1993). Instead, sense of place is related to the concept of image congruity, or the fit between meanings attached to a physical place and a person's self-image (Hull, 1992). In this regard, sense of place would seem to have very little to do with resident interaction. Meanings may be attributed to places in different ways by different people, and thus they are individually, as opposed to environmentally, constructed. If sense of place is entirely a product of individualised meaning, this leaves little room for a more physically determined sense of place. It may be that environmental cognition (for example, mental mapping or environmental awareness), a related notion, rather than a sense of place is promoted by new urbanist form, but the issue has not been explored.

Finally, there is also the predicament that the social goals of new urbanism run counter

to some meanings of sense of community. Specifically, the notion of boundaries, which are an integral part of membership, could be problematic on new urbanists' terms since they can be interpreted as yielding to an exclusionary mindset. Similarly, the notions of membership and influence involve a certain kind of conformity which may not, at least philosophically, be embraced by new urbanists' attempts to promote individuality and heterogeneity.

The Importance of Intermediate Variables

It may be the case that a link between resident interaction, sense of community (its affective components) and the neighbourhood environment is formed via a number of intervening variables. In other words, the translation between environment and behaviour may not be direct, but town design may nevertheless have a catalytic effect. Town design may not build sense of community by deterministically bringing people together on the basis of street layout and the provision of public spaces, but it may stimulate other factors which work to build sense of community. The danger in this to new urbanism is that if its design philosophy creates other conditions which in turn create sense of community, it may be that the same results could be achieved from any number of other town design principles.

For example, neighbourhood research has illuminated two interrelated factors which appear to effect social bonding (tied to neighbourhood attachment, one dimension of sense of community): threat of endangerment and organisational dependence. Crenshaw and St John (1989) coined the phrase 'organisationally dependent community' to characterise neighbourhoods with high social cohesion resulting from the collective interests of their residents. In new urbanist development, the basis of communality may be a strong sense of town identity brought on by the conspicuousness of neotraditional town design. In effect, residents may have 'bought in' to the design ideology of new urbanism, and seek to protect it and promote it. In terms

of threat of endangerment, researchers have uncovered a correlation between neighbourhood safety and preference for neighbouring (Doolittle and MacDonald, 1978). By promoting strongly controlled neighbourhoods with high levels of resident participation, safety is increased and, via these factors, the level of neighbouring. This is a significantly different approach from effectuating the goal of building sense of community via public/private space integration.

One of the most important variables in the promotion of sense of community is resident homogeneity, and new urbanism may simply be attracting residents with certain similar characteristics. Researchers have concluded that sense of community depends on social support (Weenig *et al.*, 1990) that this support is engendered through social interaction and that social interaction is in turn increased by homogeneity (Keane, 1991). This could lend support to new urbanism's effectuation of social goals, were it not for the fact that new urbanism is based on the idea that town design can create sense of community via increasing affiliative behaviour for a heterogeneous as opposed to a homogeneous population. This is a morally commendable goal, but it must be recognised that there is little to support its premise. And in fact, social and economic homogeneity are prevalent characteristics of actual (as opposed to theoretical) new urbanist development (Plas and Lewis, 1996). Based on new urbanist rhetoric, the homogeneity associated with new urbanism (at least in new developments such as Seaside, Florida) could put the building of sense of community (as defined by new urbanists) at risk. The irony, however, is that increasing homogeneity may provide a social arena which is more conducive to physical determinism. The following conclusions, presented by John Dyckman over 35 years ago, may still hold true:

Where a population is socially, culturally, and economically very homogeneous, and of uniform family condition, physical proximity and physical arrangements may strongly influence interpersonal patterns of

affiliative behavior. But where social, cultural, economic, and familial differences are great, these will outweigh physical-spatial factors in affiliative behavior (Dyckman, 1961, p. 103).

Affluence may be an intermediate factor as well. Since new urbanist development is, to date, dominated by affluence, it is possible that this status rather than town design creates an economically based sense of community. Residents of new urban developments may view their communities as commodities, and thus the commitment to them may be based on economic rationality as opposed to a socially based sense of community. In this way, sense of community, specifically the notion of membership, becomes a function of the particular qualities of the residents who are attracted by the assets of the community, rather than the design attributes of the community itself.

Certain factors may be said to have a threshold effect in the creation of one or more aspects of sense of community. In a statistical analysis, for example, selected variables may have to achieve a certain level before correlation between variables is discerned. By this approach, it could be hypothesized that certain resident characteristics must be in evidence (i.e. reach a specific level or threshold) before the tenets of new urbanism (high public/private space integration) could be shown to be positively correlated with sense of community. In view of the social science research on community formation, resident characteristics such as gender (women) and presence of young children may have such an effect. This hypothesis does not necessarily undermine the social agenda of new urbanism; however, it does have some bearing on the particular circumstances (i.e. other than neighbourhood form) under which social life can be effected.

The Need for Community

There is a possibility that new urbanists have miscalculated the strength of need for gaining sense of community, a need which must

be strong enough to leverage a massive rethinking of American lifestyle. Some have claimed that it is a myth that neighbourhoods provide a sense of stability and orientation, and that few neighbourhoods are anything more than “temporary staging grounds for the upward and outward mobility of their residents” (Goering and Rogowsky, 1978, p. 83). If this is the case, it is not surprising that Audirac and Smith (1992) found that only a minority of residents in Florida were willing to trade private outdoor space for communal space. New urbanist ideology challenges longstanding suburban ideals, two centuries in the making, which are still widespread. Sharpe and Wallock (1994, p. 17) contend that fundamental attitudes underlying the suburban way of life are still dominant: “female subordination, class stratification and racial segregation, all wrapped up in a pastoral mythology” define the suburban way of life.

This ties into what Langdon (1994) identified as a potential threat to the strength of need for community: the existence of surplus wealth which *enables* the building of sprawling, land-consumptive development. The robust community life presumed to be engendered by traditional pre-modern forms was to some extent dictated by scarcity. Lack of money and cars meant a reliance on neighbourhood-level consumption and recreation. If the economy does not require an efficient, compact, more thrifty form of living—which may have the advantage of promoting some aspects of sense of community—will generations of suburbanites find other uses for surplus wealth which do not require large houses on large lots?

What is particularly provocative about the social prescription of new urbanism is that it appears to be at odds with what affluent individuals deem important in their local communities. That is, the goal of a geographically constrained range of interaction runs counter to what is currently enjoyed by more affluent members of society. Ahlbrandt (1984) found that residents with the highest range of economic choice were less attached to their neighbourhoods, in part because of

the wider geographical range of contact available to them. Fried (1986, p. 350) also found that neighbourhood “diminishes in importance with increasing social position”. More specifically, high-income groups deem the proximity of goods and services and interaction with neighbours as essential to a much lower degree than low- and moderate-income groups. New urbanism may thus constitute a social experiment in which the affluence of the community liberated is cut off by an enforced residential propinquity, under the bold assumption that the spatial liberation of community is not necessarily what affluent residents require. The complexity of this issue is reinforced by the fact that the market for new urbanist development is, to date, predominantly affluent.

Conclusion

The theoretical and empirical support for the notion that sense of community (particularly its affective dimensions) can be created via physical design factors is ambiguous at best. New urbanism is supported by the fact that research demonstrates a link between resident interaction and environment, and therefore the correlation between public/private space integration and resident interaction is sustained. But to move beyond interaction towards the affective dimensions of sense of community is problematic since the effectuation of a sense of community in these terms is usually only achieved via some intermediate variable (for example, resident homogeneity, affluence). This leaves open the question of whether or not any number of other design creeds could produce the same result via a different design philosophy. There is a need, then, for further research. Specifically, much more research should be focused on investigating the issue more directly: where, when and under what conditions can sense of community be linked to the physical design of communities? Controlling for intermediate variables and dealing with the existence of endogeneity would be critically important methodological concerns in such an investigation.

As long as new urbanists stress the importance of the interrelationship between neighbourhood form, resident interaction and sense of community—that neighbouring activity (social interaction) engendered by public/private space integration has an effect on a broadly defined psychological sense of community—the social claims of new urbanists will be untenable. More defensible is the presumption that new urbanism increases social interaction and that this interaction in turn creates at least weak social ties. Moving beyond this implies assumptions about the quality of interaction involved, requiring that public/private space integration take on a deeper level of effect which is, at least currently, without basis.

The social claims of new urbanists are weakened by the fact that sense of community, specifically a shared emotional connection, have been found to exist and even thrive under a variety of conditions, some of which appear to be adverse to new urbanist design ideology (for example, within dispersed, auto-oriented suburban environments). Based on existing research, it is not implausible that sense of community is indifferent to physical surroundings, or that non-territorial and non-architectural solutions offer better hope for building a sense of community. If, for example, length of residence is a key variable in the formation of sense of community, how can new urbanist development hope to create a sense of community under these terms?

One way out of this dilemma would be for new urbanists to tone down their social aspirations and declare that they are simply meeting the human requirements of physical design, rather than actively creating certain behaviours. Physical design need not *create* sense of community, but rather, it can increase its probability (i.e. ‘environmental probabilism’; see Bell *et al.*, 1990). Spatial arrangement is therefore a medium rather than a variable with its own effect. Creating an environment where desired forms of behaviour (i.e. social interaction and sense of community) are *possible* may be a laudable enough reason to build towns according to

new urbanist principles. New urbanists must acknowledge that environmental effects depend on particular social situations, that the relationship between environment and behaviour is complex, and that the city of *gemeinschaft* and the city of *gesellschaft* can exist side by side. They must also concede the possibility that new urbanism does not create sense of community, but rather attracts individuals with a certain predisposition for social interaction and the need for local community attachment (i.e. the issue of endogeneity).

Further research directed at clarifying the relationship between town design and sense of community could be facilitated by a better definition of what new urbanism needs to succeed as a community. Specifically, there must be a better understanding of what it takes for the new urbanist vision of 'sense of community' to be fulfilled, whether casual neighbouring is sufficient or whether deep social bonding, membership, influence, integration and attachment to place are required. This boils down to the degree of sentiment involved, *vis-a-vis* the provision of secondary associations with instrumental goals. In the latter case, the new urbanist neighbourhood could build community on the basis of its capacity as a service centre. Perhaps, as some have stated, there has been an overemphasis on the neighbourhood as locale for social interaction, and not on neighbourhood as locale for the delivery of urban services (Wekerle, 1985). New urbanism's focus on a shared ecology (mixed land uses) and subsequent rejection of functional separation (see Jencks, 1992) may in fact promote organic solidarity (as Durkheim promoted), and a strong sense of community. The danger, however, is that the philosophy of new urbanism could be reduced to little more than a marketing strategy. Designing for sense of community could become a hollow promise under the promulgation that "community sells" (Duany and Plater-Zyberk, 1992, p. 47). The resulting 'community' could fall far short of a socially bonded, socially integrated environment.

In the end, the success of new urbanism

could rest quite simply on the basis of the quality of its design and not on its social goals. And while design guidelines could be based on a more exact understanding of what the basis of sense of community is, few would advocate that design guidelines be empirically generated (this, as Hubbard, 1992, points out, was the downfall of the Modern movement). Further, even if the social doctrine of new urbanism is untenable, the strength of its intuitive appeal cannot go unnoticed. Anecdotal accounts attest to this, such as Pindell's fascinating documentation (1995) of what people look for in a community, or Kunstler's (1993) rendition of the appeal of past urban forms. New urbanism may well succeed on the basis of gut-level inclination, or by some larger appeal which has not been tapped by academicians. It is hoped, however, that further empirical investigation will bring the relationship between town design and sense of community into a clearer light.

Note

1. New urbanism and its social ideals have been widely embraced: HUD recently instituted a multibillion-dollar housing programme which funds public housing projects strongly influenced by new urbanist principles. New urbanism has been featured on the covers of *Time*, *Newsweek*, *The New York Times* and the *Atlantic Monthly*, capturing the imagination of the American public "like no urban planning movement in decades" (Fulton, 1996, p. 1).

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