How to plan and design for a sense of community is an increasingly important challenge for our profession. In her master’s thesis, Esther Valle investigated how two contemporary design approaches—New Urbanism and Participatory Design—face this challenge and their claims through a comparative study of four residential projects in California.

Creating a sense of community for residents is becoming more important each day. One prominent school of thought is New Urbanism which claims it can generate a sense of community through specific design principles. Another approach is Participatory Design which claims that residents are more likely to have a sense of community if they are able to participate throughout the development process.

This article is an account of my study of the actual relationship between New Urbanism principles and Participatory Design methods and sense of community (Valle, 2007). The study was based on a comparative research between four multi-family developments in California. Carlton Court in Hollywood and Manzanita Walk in Anaheim were selected as the two projects designed according to New Urbanist principles. Bernal Gateway in San Francisco and Oak Court in Palo Alto were selected as communities developed by Participatory Design. There was an average of a 28% response rate among all of the case studies (Table 1). Distinct from existing research, which mainly focused on single-family suburban homes, all communities in my study are a mix of urban middle-, low-, and very low-income households with diverse ethnic backgrounds.

Based on the methods and earlier findings of Talen (1999), Lund (2002), McMillan and Chavis (1986), and Unger and Wandersman (1985), my research goal was to determine the contributing attributes that heightened resident sense of community. Although social in nature, my study was a qualified approach to answering a question posed by various authors: How do these two approaches contribute to the residents’ sense of community?

New Urbanism claims that specific design concepts and elements increase the frequency of social interaction, thus increasing sense of community (Skjaeveland et al., 1996). However, Talen (1999) argues that the relationship between physical design and the psyche of sense of community is not a direct correlation: it depends on how the relationship is conceptualized.

Distinctly, Participatory Design methods claim that community participation in the design process eliminates environmental alienation and fosters a sense of community through collaboration, as well as providing people with a voice (Hester, 1990). For example, Beierle and Cayford (2002) conducted an analysis of 239 public participation cases over the past thirty years and demonstrated that participant motivation and agency responsiveness are key factors in community development.

### Table 1
**Response Rate and Demographics of Participants**

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Units</th>
<th>Response rate</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>NU 1: Carlton Court</td>
<td>60</td>
<td>25%</td>
<td>53%</td>
<td>47%</td>
</tr>
<tr>
<td>NU 2: Manzanita Walk</td>
<td>48</td>
<td>29%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>PD 1: Bernal Gateway</td>
<td>55</td>
<td>27%</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>PD 2: Oak Court</td>
<td>53</td>
<td>30%</td>
<td>19%</td>
<td>81%</td>
</tr>
</tbody>
</table>

Demographics of respondents

Esther Valle was in the MCRP class of 2007. She received a Public Policy Graduate Fellowship from the Congressional Hispanic Caucus Institute and moved to Washington, DC after graduation. She will begin her second placement in January 2008 with NeighborWorks America, a national nonprofit organization created by Congress to provide financial support and training for community-based revitalization efforts.
Four specific objectives served as a framework to my study: 1) to compare the end-products of New Urbanism design and Participatory design, 2) to investigate the contributions of the social environment to residents' sense of community, 3) to investigate the contribution of the physical environment to residents' sense of community, and 4) to investigate the role of face-to-face interaction in sense of community.

In my study “sense of community” was defined as a reflection of a community’s social environment, integrating factors such as sense of mutual aid, neighborhood security, sense of belonging and membership, shared values, and attachment to place (McMillan & Chavis, 1986; Nassar & Julian, 1995; Brower, 1996). Factors reflecting the resident’s environment were also considered, such as emotional safety (Unger & Wandersman, 1982; Skjaeveland, et al., 1996), social networking (Wellman, 1981), social cohesion (Jacobs, 1961), resident satisfaction and tenure (Glynn, 1981), and neighboring (social interaction) (Weiss, 1982).

The analytical method and evaluation criteria used to analyze the information obtained and to measure sense of community was based on McMillan and Chavis (1986) measurement criteria, on the descriptions of the two concepts at hand, and on the various factors considered for the analysis of a resident’s sense of community (Table 2). Three methods were used to gather data. A door-to-door survey included yes-and-no and open-ended answers. A cognitive mapping exercise allowed residents to identify their immediate and larger physical surroundings. Interviews with developers allowed the gathering of data on the development process.

The findings indicated that the residents of the communities developed with significant public participation (Participatory Design), Oak Court and Bernal Gateway, have the strongest sense of community. Oak Court in Palo Alto ranked as the area with the strongest sense of community overall; 81% of residents were satisfied. This strong sense of community is attributed to the design process and also to the amenities and formal settings available. For example, a community room was located on-site and it encouraged quality interaction among residents. 81% of residents used the facilities, which coincides with a residents’ strong sense of community. Additionally, 93% of Bernal Gateway residents used the facilities available within their development. Most respondents residing within Oak Court, 88%, felt comfortable to ask their neighbor for a favor, such as a cup of sugar or to borrow tools. This is complimentary to Glynn’s (1981) findings with the linkage between a heightened sense of community and the number of residents known by each person.

One of the New Urbanist communities, Manzanita Walk, had the least amount of resident sense of community, which can be attributed to the lack of a formal setting for residents to interact: only 57% of the respondents felt a sense of community. Additionally, through the cognitive mapping completed by all respondents, it was apparent that residents living in multi-family homes register places they visit as part of their daily routine, such as a grocery store and school, more than the actual design of their

<table>
<thead>
<tr>
<th>Variable</th>
<th>Constructs</th>
</tr>
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<tbody>
<tr>
<td>Membership</td>
<td>Tenure / Feel part of community/ Attachment to community</td>
</tr>
<tr>
<td>Face-to-face Interaction</td>
<td>1st Name Basis</td>
</tr>
<tr>
<td>Influence</td>
<td>Importance of opinion/ Influence over others decisions / Making a difference/ Trusting others opinions</td>
</tr>
<tr>
<td>Integration/Fulfillment of Needs</td>
<td>Satisfaction / Privacy respected/ Shared values with neighbors/ Comfort level / Physical Aesthetics</td>
</tr>
<tr>
<td>Emotional Connection</td>
<td>Neighborhood investment / Being Involved / Use of community features</td>
</tr>
<tr>
<td>Physical Environment</td>
<td>Cognitive</td>
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</table>
community. This suggests that New Urbanist design principles may not be of significant importance to sense of community among diverse multi-family homes, and that they may be more appropriate to more homogeneous neighborhoods such as single-family suburban homes. Diverse and multi-family communities establish a distinct challenge that designers are often unaware of.

Although the sample size of my research was relatively small and only four case studies were analyzed, the diversity of household incomes and ethnicity in all of the case studies make it relevant and unique. Results ultimately suggest that sense of community cannot be entirely related to either specific design guidelines or to having public participation in the design process alone. Although it is evident that residents value sense of community, they interpret it differently.

There are three significant findings from this study. First, a sense of community is attributed to the type of interaction that residents have. These interactions are mostly caused by the use of community facilities, such as a community room and resident programs. Resident programs are prominent in both of the Participatory Design case studies. New Urbanism claims that their design principles are shaped to encourage resident interaction and increase the chances of fostering sense of community. However, informal interaction between residents is not enough to significantly affect an individual's sense of community. Second, according to McMillan and Chavis (1986), membership and influence measurement indicators are vital tools in analyzing residents' sense of community. Accordingly, in this study, resident tenure is not a significant factor in a resident's sense of community. Third, through cognitive map analysis, it is obvious that individuals living in dense urban areas identify major neighboring structures rather than their immediate physical surroundings, suggesting that design is not as important as providing access to everyday needs, such as a grocery store and school.
It is difficult to say whether New Urbanist design principles alone or Participatory Design are primary contributors to a sense of community when the quality of interaction appears to contribute significantly more. Nevertheless, public participation throughout the development process does increase sense of community, since people are encouraged to work together, creating the potential for a continuous quality interaction thereafter. The research results indicate an association between public involvement in developing their community and a stronger sense of attachment, hence a stronger sense of community. Public participation also helps the designers become conscious of the desires of potential users, allowing them to create a satisfying environment designed to accommodate resident needs. Developers should consider involving the public more throughout a community development process in all types of neighborhoods.

Both New Urbanism and Participatory Design can contribute with factors that foster sense of community. This research study has revealed that, in the context of the four case studies, there is a difference between the sense of community that residents feel in both types of developments. Further research could explore different variables, such as how having a community room with organized events contributes to sense of community, what kind of role diversity plays in sharing personal values and thus heightening sense of community, and how significant design is to low and very low-income households.

References