Placemaking as a sustainable planning strategy:
Serenbe Community

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ABSTRACT: Placemaking offers a wholistic approach to the application of sustainable planning and design measures that cross the varying scales of residential development. A place can be described in terms of certain archetypal planning principles and specific sets of ectypal patterns that when taken together form the basis for this sustainable planning strategy. Using this set of place-making patterns, sustainability is explored in terms of the inherent geometry of a place, the spatial structure and characteristics for form, the opportunities affording the creation and support of community, the positive health affects of active living and social activities, and the grounding nature of a site contributing to the quality and spirit of place. The results are a coherent settlement form, diversity through densification and transect design, integration of necessary functions and essential mixes of use, generous preservation of land, and provision for organic agriculture. The ectypal patterns and their archetypal effects are analyzed for a small experimental community located southwest of Atlanta, Georgia. This paper addresses both an explanation of the evolving community and presentation of the in-progress research. Serenbe Community is a model residential development, which is a 900-acre constellation of interconnected hamlets designed around traditional values and environmental sustainability. This paper describes twenty place-making patterns and the ways in which they have informed the design, the realization, and the sustainability of this unique community.

Conference Theme: Urban design studies
Keywords: placemaking, sustainability, community, planning, patterns

INTRODUCTION

Sustainability, as related to the built environment, has typically focused on the relationship between transportation and building energy utilization and resource conservation relative to design and use. At the single building scale the focus has emphasized climate-responsive form, use of on-site resources, energy efficient building materials, equipment and construction practices. At the planning scale the focus has been on density, diversity of landuse mixes, transportation modes and configurations, and the support of pedestrian environments. According to geographer Dr. Susan Owens (1985), substantial savings can be achieved through these spatial strategies reducing both building and transport energy needs. The implementation of the design and planning strategies required to achieve these savings has recently been achieved through aggregate planning guides or through green building rating systems such as LEED certification (Farr 2008). It is the assertion of this paper that placemaking can contribute to sustainability in significant ways and that certain ectypal patterns contribute to the placemaking process. Serenbe Community is an experimental community that can be used as a model for sustainable planning and urban design as observed through the incorporation of the proposed placemaking patterns.

1. PLACEMAKING PATTERNS

There can be a powerful and inextricable relationship between a settlement’s form and its ability to create place; which correspondingly affects its function, use, dwelling and patterns of behavior. Unfortunately, many residential development projects have not used sound planning principles and placemaking patterns, thereby rendering them vapid, placeless, and over-consuming environments. This paper posits, that as a settlement becomes more place-oriented, its potential for livability, health, community and sustainability increases.

1.1. Pattern origins

In a series of works by the architect and architectural educator Michael Brill (1985) and his architectural students at State University of New York at Buffalo, a set of patterns were identified as being present with sacred sites. They believed that a “charged” site might contain a common set of fundamental characteristics by which placemaking can be supported and its special nature may be revealed. These patterns followed a sequence creating a center, to it’s containment, and finally to its consecration and use. It is important to realize the presence, the quality of expression and the impact of each of the patterns, as they constitute the properties and attributes of a charged place. In subsequent research by Tabb (1990), these patterns were expanded and applied to small settlements.
1.2. Archetypal placemaking principles
Archetypes describe the energetic qualities of a principle. Through the action of the First Principles, certain ectypal patterns emerge and support sustainability. The Unity Principle describes two actions – the emergence of harmonic parts and the dissolving of parts into a comprehensible whole. The Generative Principle describes growth within a place and proliferation. The Formative Principle describes varying ordering systems of a form. The Corporeal Principle is a grounding into the pragmatic realms. And the Re-generative Principle describes the transformative qualities of a place (Lawlor 1982).

1. Unity Principle
2. Generative Principle
3. Formative Principle
4. Corporeal Principle
5. Re-generative Principle

1.3. Ectypal placemaking patterns
An ectypal placemaking pattern is a model and a guide that embodies both an idea and a physical means by which to express that idea (Alexander 1977). A design pattern is an element of a larger collection of patterns, which constitute a whole place (Joseph 2006). The patterns follow a certain sequence through the First Principles. Ectypal patterns that were synthesized and used to evaluate Serenbe Community are the following (Alexander 1977, Brill 1985, Tabb 1990):

1. Making location, centering
2. Connections and transects
3. Bounding with Differentiation
4. Whole place
5. Orientation and direction
6. Descent, grounding
7. Reaching upward, levity
8. Multiplication, proliferation
9. Scaler order, anthropomorphism
10. Geometric order
11. Natural order
12. Celestial order
13. Economical order
14. Functional order
15. Spatial structure
16. Physical materiality
17. Elemental materiality
18. Passage and thresholds
19. Light
20. Consecration and ceremonial order

1.4. Pattern sets
It is through the lens of these ectypal patterns that both the quantitative and qualitative nature attributed to placemaking, sustainability, and community may be understood. Of course, they do not function in isolation, but combine into a single phenomenon. The first eight patterns are part of the volumetric creation of a place, the second eight patterns contribute to differing mechanisms of order, while the last set of five patterns give a particular quality to that creation. The twenty patterns are also organized into the five sets of four patterns corresponding to the unity, generative, formative, corporeal and re-generative principles.

2. COMMUNITY-SCALE SUSTAINABILITY

2.1. Community-scale measures
Sustainability at the community scale spans from measures that create a more energy efficient individual building to the spatial patterns of the whole community to the landuse for an entire site. Architect and Urban Designer Douglas Farr (2008) states that the LEED for Neighborhood Development emphasizes three divisions; which constitute a comprehensive approach to community sustainability. These include the larger context and location of the place, the nature of the internal design of the place, and the construction and operation of the place. From an energy point of view, transportation modes and configurations, building density, typologies and corresponding loads, on-site energy and resources, and water and waste management are all affected by the designs of a community plan. According to Dr. Susan Owens (1985), these factors can vary by as much as 200% as a function of the settlement design.

1. Size, configuration and infrastructure
2. Density and building typologies
3. Interspersion of non-residential uses
4. Integrated organic agriculture
5. Climate-oriented form, site design
6. Energy efficient construction

2.2. Environmental and social issues
Community-scale sustainability goes beyond measures that affect form and technology, and address broader environmental and social issues that address land preservation, diversity of use, affordable housing, creation of community, stewardship of local resources, and the spirit of place (Norberg-Schultz 1984). Therefore, place sustainability encompasses a broad range of concerns that address quantitatively as well as qualitatively measures, including the following:

1. Spirit of place
2. Creation of community
3. Diversity
4. Health through active living
5. Interaction with nature
6. Land stewardship

3. SERENBE COMMUNITY

3.1. Background of Serenbe Community
An analysis of the sustainability and placemaking can be clearly seen in Serenbe Community, which is a new residential development located southwest of Atlanta, Georgia. Most of the surrounding land encircling Atlanta has now been developed, except for a southwestern strip, which includes most of South Fulton County. This area of land covers approximately 125,000 acres (50,000 hectares) and is about the size of the Napa Valley, and is bounded by Interstate Highway 85 and the Chattahoochee River. Competitive land costs, the completion of the South
Fulton Parkway, and its proximity to the Hartsfield-Jackson Atlanta International Airport have now rendered this location prime for development. The fate of this remaining area of land rests in the nature and quality of future development and the planning principles that possibly will guide it, particularly for the relatively undeveloped Chattahoochee Hill Country.

3.2. Serenbe community plan
The Serenbe Community plan is composed of a network of omega and crossroad hamlets derived from curvilinear and T-junction spatial organizations. The four omega hamlets (Arts Hamlet, Farm Hamlet, Health and Wellness Hamlet, and Hill Village) are located around intimate forested valleys. The road circulation typically occurred on a common contour partially encircling the small valley. Each of these omega hamlets accommodates differing housing typologies and non-residential activities, public space for light recreation, community gardens, vegetated wetlands and re-circulating sand filters. Settlements incorporate density gradients, which provide a climax at the center of the serpentine road where there is a concentration of higher density housing, commercial, and other non-residential mixes of activities.

3.3. Settlement patterns
Serenbe is made of hamlets that combine two of the village spatial characteristics common to most of the English villages. That of the linear spatial form and the nucleated form is common according to Thomas Sharp (1946). In addition Serenbe has crossroads clusters of twenty-five dwellings each that are placed at the intersection of internal roads (T-junctions) and they have a central green around which are placed townhouses and a multi-use community building. The Serenbe Community plan accommodates several estate farms or farmsteads that include between five and ten acres of land and a small housing cluster with house, barn and storage sheds. The natural landscape is coupled to the developed land in several ways creating a complementary and beneficial interaction serving both functional and aesthetic objectives. Over 80% of Serenbe is preserved land with 20% urbanized by the hamlets. When viewing the masterplan, the shapes and geometry suggest an arrangement of small settlements that are connected into an angelic constellation. Refer to Figure 1.

3.4. The hamlet functions
The hamlet sizes vary from 120 to around 240 dwelling units. When complete, Serenbe Community will comprise approximately 850 homes and a population of several thousand residents. These diverse land uses will contribute to generating an individual settlement function and an evolving unique character. The first hamlet has a focus on residential living and the arts, particularly the culinary arts. In the second hamlet, the focus is on residential living associated with the equestrian center and Serenbe Farms. The third phase is planned for health and wellness and the fourth phase, which is larger than the other hamlets, is planned for education, commerce and mixed of use appropriate to the scale of this entire development.

3.5. Omega form
The omega form derives from a double-loaded linear spatial organization, utilizing serpentine characteristics that provide inherent qualities that contribute to both a sense of community and support certain sustainable functions. The omega-cluster form allows for a natural interface to occur between the urbanized zones of the village and the natural occurring landscape. This has two positive effects. First is in creating greater adjacencies to useful open spaces for recreation, organic farming and scenic beauty. Second is in providing a functional context for the implementing of the natural water-waste systems including water retention, and storm water management. The curvilinear form creates and protects a central portion of a natural landscape, usually fed by a stream, pond or wetlands. At the ends of the omega form lots are larger and density is lower. At the zenith of the shape, there is a more urban intensity and higher density of built form and where there is a focus for pubic activities. This space is designed to provide for recreation as well as being planned to incorporate a “living machine” water-waste and purification systems developed by Dr. John Todd and implemented at Serenbe by engineer Michael Ogdon (Todd 1994). The system utilizes treated effluent water that is reused for irrigation and future water supply for toilets. Serenbe storm water runoff is directed into vegetated filter strips of land and shallow channels.
3.6. Settlement transect
Densities in the hamlets vary from one half unit per acre to twenty units per acre. The circulation systems through the hamlet are open ended. In an attempt to preserve the rural character of the site and at the same time create a critical mass of activity, the scheme accommodates an increasing density gradient from the hamlet perimeter to the center. At the outer edge of each hamlet, dwellings are set back from the road with ample landscaping providing a buffer, sun shading and stand-alone energy systems. This transitional effect, first observed by Thorburn (1971), transects density of built form, placement of landscape elements and the location of certain building materials. Buildings of a more rustic aesthetic are located at the ends of the transect while buildings near the center are typically attached and using masonry construction. Buildings closer to the hamlet center are more densely placed and are closer to the road thereby creating a pedestrian public space, and landscaping occurs in the rear yard with walled-in-gardens or natural openspace. The aerial photograph shows the omega form embedded into the forested landscape (Figure 2).

3.7. Hamlet non-residential uses
Unlike the form of a “gated community,” where it is totally enclosed with strict control at the gate, the omega has three formal geometric properties. First is the basic shape, which is like a container. Second is the apex of the curvature or the bottom of the container. And third is the outward curving lips of the form, which create an openness and full connection to nature, which fills this container. Each hamlet of the four hamlets is planned with a particular specialty, which is reinforced through its non-residential facilities and land uses. For example, the first hamlet constructed was, Selborne Hamlet, which focuses on the arts, particularly the culinary arts. At present there are two fine restaurants, a bakery with cafe, a small specialty grocery store, an art gallery, and other retail shops. Grange, the second hamlet, which is now under construction, is related to the adjacent horse stables, equestrian arena and farms that supply vegetables to the local restaurants and residents.

There will be a tack shop, small hardware store, vegetable market, and barbeque restaurant. The third Hamlet is Mado and is oriented toward health and wellness. The fourth hamlet is the Hill Hamlet and is intended to be a little larger and to house a greater variety of non-residential uses.

3.8. Health and wellness hamlet
In Phase III of the Serenbe development a third hamlet is planned. It is designed to accommodate a variety of small-scaled facilities woven into the residential fabric of the community. This hamlet is named Mado and is within easy walking to the other hamlets. “Mado,” according to the Creek Native Americans, means “things in balance,” and this is both the name and intention for this latest hamlet. In a charrette conducted in July of 2006 and later is a series of consultant meetings, the mission statement generated for this hamlet stated that it’s purpose was “to create a residential community that is in harmony with nature, that has an inherent design that encourages healthy living, that supports the commercial development of health and wellness services which are fully integrated into the very fabric of the hamlet, and that combine the best of east and west healing practices.” (Figure 3).
3.9. Architecturalizing Serenbe
The architecture at Serenbe derives from two general development methods: first is through speculative builders who develop several adjacent building sites with an in-house architect, and second is through individual plot owners who work with their own architect and contractor. All buildings are constructed to EarthCraft standards for energy efficiency, air quality, water conservation, and resource efficient building materials. Some of the sustainable planning measures can be seen in Figure 4, which is a live/work cluster constructed near the center of Selborne Hamlet. The first floor is dedicated to small businesses while the upper floors are for residential use. In addition the live/work units are attached, thereby reducing individual heating and cooling loads.

3.10. Serenbe placemaking
Functionally zoned suburban subdivisions have rarely displayed any redeeming planning principles. Gated communities are closed common interest developments offering little in the way of community. As observed by Blakely and Snyder (1998), these communities simply promote “privacy within privacy.” Models such as the New Urbanism, according to Ruth Durack (2001), are by necessity fully planned and regulated environments, fiercely resistant to change and any deviation from the rigid rules that govern their form and function. The New Ruralism is an exurban strategy for creating new communities in the country solely built on traditions of the agrarian past. Serenbe is not suburban, gated, New Urbanism nor is it New Ruralism, rather it is a self-initiated sustainable community that cannot really be named or classified. Serenbe is an amenity-driven community seeking authenticity, flexibility, individuality, and a respect for modernity. Figure 5 is an image of Serenbe Farms with the chef Nick Melvin of the Inn at Serenbe and Paige Witherington, farm manager.

4. SERENBE PATTERN ANALYSIS

4.1. Serenbe pattern analysis
The twenty-placemaking patterns are organized according to the five categories or principle sets and were applied to the plan and realization at Serenbe Community. Using an inferential analysis, certain preliminary conclusions are presented. This is part of on-going research.

4.2. Research methodology
These placemaking patterns were initially developed in 1990 and applied to the masterplan design by the author in 2002. A literature search and analysis of published place patterns was conducted by MS and PhD in Architecture students at Texas A&M University and a comprehensive sets of placemaking patterns were re-generated forming the a basis for current twenty patterns (Joseph 2006 & Rodrigues 2008). In subsequent visits to the project site, a photographic record, field notes and behavioral maps were created forming the basis of this initial matrix, which indicates the listing of the patterns, the principle under which the patterns function, a numerical rating for both the presence and quality of expression of the pattern, and finally a brief description of the physical examples of each pattern as related to Serenbe Community.

It must be noted here that occupation of the first hamlet occurred in 2005 and the development has been slowly increasing over the past four years. Presently there is an approximate population of 150 residents. This summer (2009), the research will be furthered using more mapping and questionnaires. Caution is needed because there is not a large resident sample to provide conclusive results. Refer to Table 1 on the following page, which is a preliminary listing of the twenty-ectypal patterns according to the five-archetypal principle sets. Each pattern is assigned a numerical value on the Likert Scale of 1 (lowest) to 5 (highest) assessing both the presence (quantitative) and the quality of expression (qualitative). At the typal level each pattern is described in specific ways.
### Table 1: Serenbe Place Pattern Matrix (Tabb 2008)

<table>
<thead>
<tr>
<th>#</th>
<th>PATTERN (as ectype)</th>
<th>PRINCIPLE (as archetype)</th>
<th>PRESENCE (quantitative)</th>
<th>EXPRESSION (qualitative)</th>
<th>IMPACT (as type)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Centering</td>
<td>Unity Principle</td>
<td>4.5</td>
<td>4.0</td>
<td>Omega centers, special natural areas and concentration of commercial</td>
</tr>
<tr>
<td>2</td>
<td>Connecting</td>
<td>Principle</td>
<td>5.0</td>
<td>4.25</td>
<td>Roads, trails, bridle paths and greenways</td>
</tr>
<tr>
<td>3</td>
<td>Bounding</td>
<td></td>
<td>4.75</td>
<td>4.0</td>
<td>Hills, natural contours, the open omega road and built form</td>
</tr>
<tr>
<td>4</td>
<td>Wholeness</td>
<td></td>
<td>4.75</td>
<td>5.0</td>
<td>Omega organization and masterplan constellation</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td><strong>4.75</strong></td>
<td><strong>4.1875</strong></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Direction</td>
<td>Generative Principle</td>
<td>4.5</td>
<td>4.0</td>
<td>Omegas oriented to south and to natural centers</td>
</tr>
<tr>
<td>6</td>
<td>Grounding</td>
<td>Formative Principle</td>
<td>4.5</td>
<td>4.25</td>
<td>Terraced sites, agriculture, unique natural features of the land</td>
</tr>
<tr>
<td>7</td>
<td>Reaching Up</td>
<td></td>
<td>3.0</td>
<td>3.0</td>
<td>Hamlet centers, hills surrounding hamlets, trees</td>
</tr>
<tr>
<td>8</td>
<td>Multiplying</td>
<td></td>
<td>5.0</td>
<td>5.0</td>
<td>Hamlet replication in naturally formed valleys, housing duplication</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td><strong>4.25</strong></td>
<td><strong>4.0625</strong></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Scale</td>
<td>Formative Principle</td>
<td>4.5</td>
<td>4.0</td>
<td>Pedestrian scale, narrow country roads, walkable community</td>
</tr>
<tr>
<td>10</td>
<td>Geometric Order</td>
<td>Corporeal Principle</td>
<td>5.0</td>
<td>3.5</td>
<td>Strong serpentine geometry (omega), aligned along parallel contours</td>
</tr>
<tr>
<td>11</td>
<td>Natural Within</td>
<td></td>
<td>5.0</td>
<td>5.0</td>
<td>Nature within and surrounding, 100 farm animals, Serenbe Farms</td>
</tr>
<tr>
<td>12</td>
<td>Celestial Order</td>
<td></td>
<td>2.5</td>
<td>2.0</td>
<td>Solar orientation, celestial site</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td><strong>4.25</strong></td>
<td><strong>3.625</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Functional Order</td>
<td>Corporeal Principle</td>
<td>4.5</td>
<td>4.5</td>
<td>Residential with diverse mixes of use and building type</td>
</tr>
<tr>
<td>14</td>
<td>Economic Order</td>
<td></td>
<td>3.0</td>
<td>3.0</td>
<td>Smaller variable plot sizes, higher densities</td>
</tr>
<tr>
<td>15</td>
<td>Spatial Structure</td>
<td></td>
<td>4.5</td>
<td>4.25</td>
<td>Double-loaded serpentine structure, open ended</td>
</tr>
<tr>
<td>16</td>
<td>Materiality</td>
<td></td>
<td>4.0</td>
<td>3.0</td>
<td>Sustainable residential construction</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td><strong>4</strong></td>
<td><strong>3.6875</strong></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Elemental</td>
<td></td>
<td>4.0</td>
<td>4.0</td>
<td>Hills, valleys, water features, bonfire</td>
</tr>
<tr>
<td>18</td>
<td>Passage</td>
<td>Re-generative Principle</td>
<td>5.0</td>
<td>4.25</td>
<td>Intentional transect rural-to-urban, many paths leading into the hamlet</td>
</tr>
<tr>
<td>19</td>
<td>Light</td>
<td>Principle</td>
<td>3.0</td>
<td>3.0</td>
<td>Filtered, natural</td>
</tr>
<tr>
<td>20</td>
<td>Ceremonial Order</td>
<td></td>
<td>5.0</td>
<td>5.0</td>
<td>Sense of community, labyrinth, market</td>
</tr>
<tr>
<td></td>
<td><strong>Average</strong></td>
<td></td>
<td><strong>4.25</strong></td>
<td><strong>3.8125</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Average</strong></td>
<td></td>
<td><strong>4.3</strong></td>
<td><strong>3.9</strong></td>
<td></td>
</tr>
</tbody>
</table>

### 5. RESULTS OF THE ANALYSIS

#### 5.1. Pattern summary

The matrix in Table 1. Indicates an analysis of the twenty-placemaking patterns organized according for five principle categories. By obtaining data from Table 1, the pattern rating system was placed within a spider diagram articulating twenty points around the perimeter of the circles. Starting at the top of the diagram is pattern number one - Centering and the rest of the patterns follow in a clockwise direction until pattern 20 again near the top. As the inner area of the diagram fills and approaches the perimeter of the circle, there occurs a greater impact of the various patterns (Rodregues 2008). The star-like shapes indicate the variable values assigned to the various patterns. There is a summarizing value for each of the Principle sets. In the case of Serenbe, the Principle with the highest value is the Unity Principle with 4.75. The Principle with the lowest value is the Corporeal Principle with 4.0. And the Generative, Formative and Regenerative Principles all receive the same rating of 4.25. Serenbe tended to be higher for the pattern presence with 4.3 over the pattern quality of expression with 3.9. Refer to Figures 5 and 6 on the following page.

#### 5.2. Pattern presence

While the overall rating of 4.3 for the presence is quite high, it can clearly be seen that many of the patterns...
score high. These include: Connections (2), Bounding (3), Whole Form (4), Direction (5), Scale (9), Geometric Order (10), Nature Within (11), Function Order (13), Spatial Structure (15), Passage (18), and Ceremonial Order (20). Those patterns that seemed to score low include: Reaching Upward (7), Celestial Order (12), Economic Order (14), and Light (19).

5.3. Pattern quality of expression
The analysis of the quality of expression of the patterns is similar, but combines to a slightly lower total – 3.9. Many of the higher scoring patterns are the same as the presence patterns with the exceptions of the pattern for Multiplication (8) with a score of 5.0. The patterns that scored high include: Whole Form (4), Grounding (6), Multiplication (8), Nature Within (11), Functional Order (13), Spatial Structure (15), Passage (18), and Ceremonial Order (20).

6. CONCLUSIONS
6.1. Observations of the principles
To summarize the influence of the principles on the Serenbe design, the range of averages is between 4.75 and 4.0 for pattern present and between 4.2 and 3.6 for pattern quality. The Unity Principle is the strongest while the Corporeal Principle is the weakest. This most likely is contributing to a strong sense of community and is supporting common activities. This contributes to a “place-boundedness” that can contribute to greater presence, commerce and pedestrian activity. Since Whole Form (4) scored high, there is coherence to the place and potentially greater identity. The patterns that most contribute through the Presence and Unity Principle are: Connecting (2), Bounding (3), Whole Form (4); and through Quality is: Whole Form (4).

The strongest pattern in Presence and Quality with the Generative Principle is: Multiplication (8). The weakest pattern is under this principle is Reaching Upward (7). The Formative Principle has Scale (9) Geometry (10) and Nature Within (11) as the strongest Presence and Quality. Under the Corporeal Principle only Functional Order (13) scores high for both Presence and Quality. Passage (18) and Ceremonial Order (20) score high under the Re-generative Principle. This suggests that the scale, replication of hamlets, geometry of the omega, functional diversity and pervasive connections to nature are all contributing to the sense of place.

6.2. Observations of the patterns
As can be observed from both the spider diagrams, all but a few of the place patterns are present at Serenbe and the quality of the expression of these patterns is nearly as high. Only Celestial (12) and Light (19) patterns scored low. Residents not only share the central natural space in the center of the omega, but also form a place in defining the geometry. While in a material sense, community can be expressed as large gathering, such as the Saturday Farmer’s Market at Serenbe, but it can also be experienced in an immaterial way as a felt sense of belonging or in the dissolving solitude found in nature. In these regards community members see themselves as sharing a similar style of living and as part of the larger group of residents. The patterns that contribute the most to community and placemaking in this regard include: Centering (1), Bounding (3), Whole Form (4), Geometry (10), Nature Within (11), Functional Order (13), and Ceremonial Order (20). Only Whole Form (4) scores
higher in quality than presence.

6.3. Placemaking and sustainability
Place sustainability involves measures that are supported by a placebound environment – one in which the residents are present, involved and engaged. Sustainability at this level has a correspondence between the physical characteristics of the place and the resulting behaviors and lifestyles. This means more time, creativity and resources are infused into the everyday experience of a place. Residents rely on more in-place mixes of use and pedestrian movement rather than between-place reliance on the automobile. Critical to this measure is the inclusion of facilities, such as grocery stores, medical facilities and schools. With increase densities and improved building materials energy efficiency is increased. Serenbe recently received the Urban Land Institute Inaugural Sustainability Award for its demonstration of land preservation, interface with nature, pedestrian orientation, diversity and mixes of use, innovative wastewater treatment system, integrated agriculture and energy conserving construction.

6.4. Conclusions
The work reported in this paper represents the ongoing development of an experimental model community. The small hamlet-focused masterplan affords an incremental approach to deepening into greater levels of sustainability over time. The research in placemaking is shadowing this process of physical construction along with increased occupation by its growing residents. Further analysis will be focused on user preferences, patterns of use, and the relationship between settlement spatial structure and form with sustainability. It is anticipated that the placemaking patterns will provide planning guides not only for greater levels of sustainability, but also for healthier and more livable places in which to live. Serenbe Community offers a wonderful laboratory in which to test these assumptions and designs. It is hoped that there is a transfer of knowledge that might inform future development, particularly at the urban edge of metropolitan areas of the United State.

Serenbe Community is truly a place that has physical presence and encourages a certain quality of life supported by a strong sense of community and sustainable lifestyle. Figure 7 illustrates the Farmers Market held on Saturday mornings where residents mingle and shop for local produce and goods. Woven together are the placemaking patterns, the participating community residents and the wonderful spirit of Serenbe. According to Serenbe resident John Graham (2008):

Serenbe is marked by an extraordinary sense of community. What has contributed to this remains something of a mystery: The founder’s vision, the inculcation to the sacred, and the commitment to the principles of sacred geometry in physical design, have resulted in a strong sense of place that attracts residents sharing a commitment to the land, the environment, and to each other. The formula may not be simple, but the results are obvious to all.

REFERENCES
New York Times, February 28, 2009
Serenbe Website: www.serenbecommunity.com.


