Participatory Design: History, Examples, and Promise

A thesis
submitted by
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Abstract

Through a review of the literature and the analysis of interviews that were conducted for six unique recreational and cohousing case studies, this thesis explores the participatory process that is often employed in planning and design. The thesis seeks to determine how worthwhile the participatory design process is and what influence the process may have on the perception and use of the built outcome. Common themes that emerge in both the literature and the interviews include the benefit of ownership and community building that a participatory design process lends to those that are involved as well as the challenges that consensus decision making presents. Also, the participatory process must be facilitated well in order to succeed; a failed process can have just as much negative impact as a good process can have positive impact. It is important for architects and designers to understand the community context of their projects, rather than relying on a traditional individual client-architect relationship. Participatory design is an avenue through which this can be accomplished. The findings suggest that, despite occasional frustrations, the participatory design process is worthwhile because it serves to create design that the surrounding community finds functional and will use and because of the many benefits that participants derive from the process.

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Introduction

"People who are affected by design decisions should be involved in the process of making those decisions" – Henry Sanoff (1990, p 1).

"Participation is inherently good; it brings people together, involves them in their world; it creates feeling between people and the world around them, because it is a world which they have helped to make" – Christopher Alexander (1975, p 40).

Through a review of the literature and the analysis of interviews that were conducted for six unique case studies, this thesis explores the participatory process that is often employed in planning and design. The thesis seeks to answer the following questions:

- What are the benefits and challenges of the participatory design process?
- What is the relationship between holding a participatory design process and the way in which the final built outcome is used and perceived?
- How worthwhile is this process?

Chapter 1 describes the methodology used to select the case studies, interview the participants and analyze the results. Chapter 2 summarizes the history of participation in design. Chapter 3 articulates the themes that emerge from a review of the literature on participation. Chapter 4 presents three case studies in recreational facilities. Chapter 5 presents three case studies in cohousing developments. Chapter 6 concludes with an analysis of the case studies' key themes and lessons learned.

Chapter 1 - Methodology

Focus Group with kids at Waltham Boys & Girls Club (Cleveland, A., 2011)

Focus Group with kids at Cambridge Community Center (Cleveland, A., 2011)

Focus Group with kids at Cambridge Community Center (Cleveland, A., 2011).

Focus Group with kids at Waltham BGC (Cleveland, A., 2011).

My primary research is based on a series of interviews and surveys that I conducted from January 2011-April 2011. I am using six participatory design cases, three of recreational facilities and three of cohousing developments. I interviewed people who participated in the design process and the project managers, architects, and developers who facilitated each of the respective processes. The objective of the interviews was to determine what the people involved in each case study thought were the benefits and challenges of the participatory design process and also to determine if there was a relationship between the participatory design process and the perception and use of the built outcome. Was the participatory design process a success and did it produce a well-used built outcome?

In total, I was able to collect 62 responses: 17 survey responses and 45 interviews, including two focus groups that I conducted with children who participated in a playground design. The first focus group took place at Waltham Boys and Girls Club with 8 children present and the second focus group took place at Cambridge Community Center with 6 children present. Some of the interviews were conducted in person, but the majority were by phone. The survey was only used for participants in design processes (rather than facilitators or architects/planners) and the survey questions were identical to the interview questions that I used when I spoke to participants who were available to be interviewed. Below is a chart outlining each case study with the number of surveys and interviews completed.

Project	Survey Responses	Interviews	Total
Waltham Boys and Girls Club	3	10	13
Cambridge Community Center	0	10	10
Putney School Field House	4	6	10
Cambridge Cohousing	4	3	7
Jamaica Plain	1	4	5
Mosaic Commons	5	2	7
Professionals	NA	10	7
	17	45	62

Interview Questions

I created four sets of questions for each of the groups below:

A) Facilitators of the participatory design process
B) Participants in the participatory design process
C) Children who participated in playground design
D) Professionals who have experience with researching and working in participatory design processes

I used the information gained from participants and facilitators to make comparisons, identify themes, and draw conclusions. I first reviewed each case study individually. Then by consolidating the responses, I identified common themes and conclusions. The questions for each group of interviewees are included in Appendix A. Below are the questions for participants.

B) Participants in the participatory design process

1) What project did you participate in?

2) Why did you decide to participate?

3) What did you hope would come out of the participatory design process? How did that compare with what actually happened?

4) How did the participatory design process work? What were the meetings like?

5) Did you enjoy the participatory design process? Why or why not?

6) Did the participatory design process contribute to a greater sense of community for those who were involved? If it did, how so?

7) What were the major planning and design decisions that came out of the user participation process?

8) How successful in your opinion is the actual project? How successful was the user participation process? Is there a relationship between the two?

9) What were lessons learned from this process? Would you change anything about how the process worked?

10) Do you have any additional comments on the participatory design process?

C) Children who participated in playground design

1) Can you tell me the story of this playground?

2) What was it like to be a part of that story?

3) Do you think that the playground is better now that everyone has worked on it?

4) What was the most fun part of the process? What is the most fun part now?

5) Were your friends involved in this project too? Did they like being part of it?

6) What is your favorite part of the playground?

7) What were some of the ideas that you came up with for the playground?

8) If you were going to build a playground for yourself, what would be in it?

9) Can you show me what on the playground you helped to imagine?

10) Do you remember what was here before the playground?

11) Who built the playground?

12) Do you remember the day when you drew pictures and talked to the adults about what you wanted to be in the playground? What was the day like? Did you have fun?

13) Do you think this playground is better because you and your friends got to help design it? Why?

14) Do you think you and your friends like this playground more and use it more because you helped to design it?

15) Do you remember the day that the adults built the playground? Did you go with them to see the playground being built? Was that a fun day? Did you like being there?

16) Did you learn anything from being involved in designing this playground?

17) (For older kids only) Do you think that other projects that kids will use, should include kids in the design process too?

18) (For older kids only) Were there any valuable lessons that you took away from being involved in the design process of this playground?

Chapter 2 - History of Participatory Design

In order to understand the context of the modern participatory design process, it is important to first go back and examine the history of participatory design. When did this idea to incorporate future users into the design of their spaces first evolve and why? A historical examination of the emergence of the participatory design process reveals insight into why the process is shaped the way that it is today.

In the 1960s, participatory design was closely tied to a struggle for power and a desire for everyone to have a voice and equal opportunities (Comerio, 1984, p 53). The movement for true citizen participation in planning and design grew out of the revolt against top-down decisions made by professional experts and the rise of advocacy for underrepresented populations that was part of the political turmoil of the 1960s in the United States (Comerio, 1984, p 23). This was a time when the decisions that political leaders and professional experts were making seemed to negatively impact many different classes of people. In the late 1960s, the anti-war, civil rights, and women's rights movements lead to the "development of public participation legislation and procedures and the rise in citizen organizations at the local level" (Sarkissian, Cook, Walsh, 2003). People saw that poverty was increasing and their cities were becoming distressed (Comerio, 1984, p 23). They felt let down and in need of coming together as a community to solve their own problems. Residents in thousands of neighborhoods began creating community based organizations in an attempt to address their own issues and solve problems (Sanoff, 1990, p 7).

In parallel with demand for political involvement, advocacy for the disadvantaged began to surface in the architectural profession, and the idea of user participation was increasingly being seen as a way to create a more defined democratic process. The movement to empower the individual citizen through participation in planning and design grew significantly in the 1960s (Comerio, 1984, p 22).

The concept of community design was one result of the democratic social reform of the era (Comerio, 1984, p 53) The first community design center opened in Harlem, NY in 1964 (Comerio, 1984, p 21). Community design was an empowering idea, maintaining that people had the right to be represented when decisions about their environment were being made. Community designers believed that planning would be most effective and most beneficial only when it incorporated maximum public input (Comerio, 1984, p 22).

Between 1968 and 1972, while criticism, resistance, and revolt against urban renewal and highway building projects were increasing, a number of community design centers continued to open (Comerio, 1984, p 26). Their main objective was to offer design and planning services to poor people, attempting to give this typically disenfranchised population the power to shape their own environments and to contribute to the places that they would frequent (Sanoff, 1990, p6).

This idea that design was not just for professionals to decide, but that it should instead involve discourse and public debate, became known as “Second Generation Design Methods.” This movement recognized that no one person had

all of the expertise needed to solve design problems and that the process needed to incorporate knowledge from those living in the neighborhoods affected, those with the most intimate knowledge of the space (Comerio, 1984, p 25). Planning and design were democratizing because people were realizing that this was the only effective way to create good planning and design (Comerio, 1984, p 25).

The 1970s alone saw a tremendous amount of grassroots organizing (Comerio, 1984, p 27) and the movement towards direct involvement of the public in shaping and creating the physical environment continued into the 1980s (Sanoff, 1990, p 6). An increased sense of social responsibility was developing and low-income urban communities in particular began to come together as communities to demand that they have a voice (Sanoff, 1990, p 6).

Much of the 1970s literature regarding participatory design and planning processes emphasizes the need to change the relationship between the architect/planner and the community. John F.C. Turner writes,

> New professional-community relationships need to be built on something other than paternalism and elitist professionalisms, which have nothing but negative meaning and effect on users. The architect or planner has to earn the trust of the people he works with, and he has to be trusted to work with them rather than for them (1972, p 192).

Christopher Alexander also talks about the importance of participation in planning and design processes. He writes that,

> No matter how well architects and planners plan, or how carefully they design, they cannot by themselves create environments that have the variety and order we are after. An organic mixture can only be made by the action of a community, in which everyone helps to shape the parts of the environment he knows best (1975, p 38).

The point was that people living in the neighborhoods that would be affected by planning and design decisions needed to be given more of an authoritative role in those planning and design processes.

As a result of this movement for community empowerment, the stakes were raised and the demand for public participation grew even stronger. In the 1980s, many governments began to respond to increased pressure. They began to include “compulsory provisions for public participation” in their legislation and public authorities began to look at the participatory practice as no longer something new and innovative, but something routine (Sanoff, 1990, p 17).

Through the development debate of the 1990s, people have begun to realize that it is not only beneficial but truly essential to have people participate in the design and planning of projects that will have a direct impact on them, especially when these are vulnerable populations. There has also been a new emphasis on ensuring that citizens who are affected by a planning or design project feel ownership in it because it maximizes the success of the project (Driskell, 2002, p 13). Driskell goes on to say that, “Today citizen participation in community development is widely accepted” (2002, p 32). Participatory processes are now popular practices and many international agencies, national governments and non-governmental organizations support participatory planning and design (Driskell, 2002, p 32).

Sarkissian, Cook, and Walsh point out that, “ Local elected representatives recognize the value of giving people a say with regard to planning schemes and proposals” (2003, p xi). The United Nations leads by example with a number of

popular participation programs that “require the creation of opportunities for all people to be politically involved and share in the development process” (Sanoff, 2000, p 1). Although many planners and architects remain intimidated by the process, much federal legislation has made citizen participation essential to urban projects (Sanoff, 2000, p 22).

Chapter 3 - Literature Review

In this literature review, I discuss the various aspects of participatory design and the specific benefits and challenges that professionals and academics in the field of participatory design and planning have encountered in their research.

The aspects, benefits and challenges include:

- Why participation in urban design
- Types of participation
- Strategies for meaningful participation
- Benefits
    - *Building Community and Relationships*
    - *Empowerment*
    - *Appropriate Design Responding to User Needs*
    - *Trust-Building Between Citizens and Organizations*
    - *Educational Experience*
    - *Ownership*
    - *Momentum for Other Community Initiatives*

- Challenges
    - *Consensus Decision Making*
    - *Managing Expectations*
    - *Costly and Time-Consuming*
    - *Lack of Knowledge About Design and Architecture*

Why participation in urban design

The field of urban design shapes the spaces in which people live, work, play, and interact with one another. Good design in the urban environment is crucial because it "is an important influence on human experience" (Sanoff, 1990, p1). Sanoff points out how the design of an urban space "can facilitate activities, create a mood or feeling, relieve or create human tension and stress" or even "support satisfaction, happiness, and effectiveness" (1990, p 1).

In order to create good design and spaces that people will like and use, designers need to have a good understanding of what people are going to do within and how they will utilize a space (Sanoff, 1990, p 2). This understanding can be accomplished in an effective way by moving beyond a traditional architect-client or designer-client relationship and understanding the community context through a participatory design process. Many planners, architects, and project sponsors have incorporated the participation of surrounding neighborhoods into their projects because they hope that this process will be beneficial to participants in addition to enhancing the appropriateness of the built outcome.

Participation is a democratic way to ensure that people who live near a new planning or design project are informed and have a say in helping to shape that project (Wates, 2000, p 4). Driskell points out that, "Participation shifts the focal point of planning and decision-making towards people at the local level who are most affected by the decisions being made" (2002, p 32). The planning and design process is taken out of the expert's hands and extended to the community.

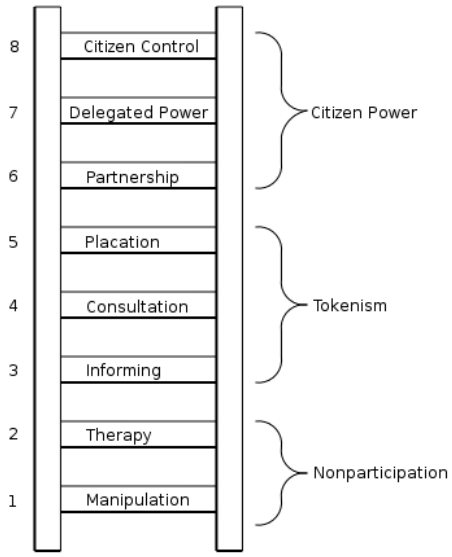
In addition, it is the people who will use or live near a space that are the real experts on how they will use that space and how it can fit in with and enhance their neighborhood. Hester writes that "Design and planning must be user oriented, and that the design of neighborhood space must be related to the behavior patterns and values of the people for whom that space is designed, not the values of the designer" (1984, p 27). An effective way to gather information about how the space will be used is to bring the future users into the design

process. Preiser points out that, “Gaining relevant information from users themselves about their particular needs and behaviors will help ensure satisfactory functioning of the new environment” (1991, p 340). The participatory design process aims to provide the best solution and space for everyone through compromise and consensus decision making.

Types of participation

For the participatory process to work the way that it is intended to, the process needs to be facilitated well and be meaningful to participants. Participants should not feel that they are being co-opted or coerced into making certain decisions that the planner/architect/designer would like to see.

One advantage of the participatory design process is its potential to engage people meaningfully and to promote civic responsibility. Wulz discusses the wide range of participation that occurs in planning and design, noting that, “There are many conceivable forms of participation ranging from well-meaning listening, to discussion, to the self build ‘do it yourself’ concept” (1986, p 39). Arnstein notes that meaningful “citizen participation…is the redistribution of power that enables the have-not citizens, presently excluded from the political and economic processes, to be deliberately included in the future” (Arnstein, 1969, p 216). She has created a ladder that represents the different forms of “participation” that are often employed in the real world of planning and design (below).



The Ladder of Citizen Participation
(Arnstein, 1969, p 217)

As one advances up the ladder, the degree to which citizens have power in the participatory process increases. Arnstein describes Manipulation and Therapy as forms of "non-participation" because they are not genuine. Informing, Consultation, and Placation are forms of tokenism and although citizens are heard, they do not have the real power to ensure that their viewpoints will be incorporated. At the top of the ladder, Partnership, Delegated Power, and Citizen Control allow citizens a much greater degree of control in the decision making that occurs as a part of the participatory process (Arnstein, 1969, p 219-224).

In addition to ensuring that all viewpoints and thoughts are carefully listened to, meaningful participation needs to have a process that is "clear, communicable, and open, and encourages dialogue, debate, and collaboration" (Sanoff, 1983, p 87). Driskell defines strong participation as transparent, inclusive, interactive, responsive, relevant, educational, reflective, transformative, sustainable, personal, and voluntary (2002, p 33-34).

The more diversity of thoughts and views, and the greater number of different people that are included, the more meaningful the participatory process will be. Driskell notes that meaningful participation "involves residents of all ages in evaluating the local area and identifying issues, reviewing and analyzing relevant data, considering alternative courses of action, developing consensus on the best plan of action to take, and putting the plan into practice" (2002, p 32).

Participants also need to be able to build trust with the facilitators of the process so that they feel that the process is legitimate. Driskell emphasizes this point, writing that "real participation requires the development of trust and respect between all participants" (2002, p 87). One way to build that trust is to be transparent about the process and the decision making and to work together with the participants as an ally.

Strategies for meaningful participation

There is a significant amount of literature regarding the different strategies that can be used to ensure a successful and meaningful participatory process. First, the timing of when a participatory process begins, and second, the preparation needed, are key. For a really effective process and "for the best creative ideas to develop, community involvement in urban design must start at the earliest stage- before any development plans have been drawn up" (Creative Spaces, 2000, p 10). It is also important for the facilitator to be genuine and to try to build relationships with the participants prior to the launching of a participatory design process (Driskell, 2002, p 87).

The designer or planner needs to be experienced in facilitation and should be clear about what his or her role and responsibilities will be throughout the participatory process. The facilitator should be there to guide the group when they are looking for the information needed to make a specific design decision. Sanoff describes the role of the designer as "to facilitate the user group's ability to reach decisions on the environment through a communicable procedure" (Sanoff, 1983, p 87).

The facilitator should also be skilled at consensus building for the process to be effective (Sarkissian, 1994, p 19).

> It is important to use a good meeting facilitator during design meetings. It can be someone from within your group, or you can choose to hire someone outside the group. A good facilitator is able to manage your meetings and see that everyone is heard…the facilitator should assist all members in being heard, ensuring that members are listening to one another and understanding the implications of what is being presented by the design team" (ScottHanson & ScottHanson, 2005, p 95).

During and after a design meeting, all decisions made by participants should be recorded and given to the design team, to help ensure that all opinions and voices are being incorporated into the design (ScottHanson & ScottHanson, 2005, p 95). Good facilitation at the following meeting includes a summary of the previous meeting along with how the architect's revisions have responded to what was brought up and decided by the group. Wates also discusses the importance of good facilitation, noting that, "Orchestrating group activities is a real skill. Without good facilitation the most articulate and powerful may dominate" (2000, p 20). Facilitating cooperation and consensus decision making is key (Hester, 1990, p 56).

To effectively engage people means committing to a lot of work. One can use questionnaires, workshops, role playing, or gaming to make the process more fun and interesting (Hester, 1990, p 56). Sarkissian, Cook, and Walsh note that, "Boring processes will generate little real participation" (2003, p 70). Most participatory design processes involve some kind of simulation of the space that the group is trying to create. It could be a verbal description, a visual, or a three-dimensional model (Lawrence, 1987, p 78). Often, design games are used to try to engage people and get them excited about the process. Games and modeling are good ways for "eliciting communication between diverse groups of people during the design" (Lawrence, 1987, p 78). Arts projects that temporarily transform spaces "are powerful tools to generate ideas for a design brief" and help participants to visualize change" (Creative Spaces, 2000, p 28). Another way to stimulate creative thinking and to encourage new ideas is to take people on a field trip to see what other people have done in similar situations (Sanoff, 1983, p 84).

Holding design workshops or charrettes is an effective way to allow for a lot of community interaction where "participants learn from each other as they explore issues" (Sanoff, 1983, p 83). Sanoff points out that, "A design workshop can be a catalyst whose objective is to increase participants' level of awareness to particular community problems" (1983, p 83). Workshops allow for new insight into the surrounding environment as well as about other community members (Sanoff, 1983, p 87).

Holding a charrette has many advantages as it provides a schedule, allows for creative brainstorming and decision making. Sanoff describes the charrette as

"a successful goal-setting technique, a collaborative exchange and an interdisciplinary problem-solving approach" (Sanoff, 2000, p 22). The charrette helps to make the design process more approachable for people who may not have a lot of experience (Sarkissian, Cook, Walsh, 2003, p 127). During the process, participants work together to produce concept plans and documents as well as a list of principles that they would like to see reflected in the final design (Sarkissian, Cook, Walsh, 2003, p 144).

Many creative strategies can be employed to ensure that participants feel that they are really engaging with and interested in the process. The most important factor, no matter what the strategies, is that participants value the process and trust the facilitator. Preparation and careful facilitation are key.

Benefits

There are many positive outcomes that can be attributed to the participatory design process. While most researchers acknowledge that the process can be time-consuming and sometimes frustrating, there are many who believe that this is truly the most effective way to create a great space that people will use and enjoy. The process can result in much stronger communities that feel ownership over a space that they have created. The benefits of the process, as recorded in the literature, are outlined below.

Building Community and Relationships

Design in general has the potential to create great spaces that bring people together and encourage them to interact. That interaction in turn fosters relationships that continue to create community. When design is combined with

public participation it “heightens a sense of community” (Hester, 1990, p 10). The process “nurtures the social sense of community” by bringing people together even before they are making use of a physical space (Hester, 1990, p 10). By working with neighbors or people that you may not have even met before, social bonds are formed. Those bonds typically continue after the design of a physical space is complete and they serve to enrich that place (Hester, 1990, p 10).

The community building that is a part of the participatory design process is often cited as a measure of success within the literature. As Sanoff points out, “By involving as many interests as possible, not only is the product strengthened by the wealth of input, but the user group is strengthened as well by learning more about itself” (1990, p 17). Forester adds to this argument, writing that in a participatory process ,“Learning occurs not just through arguments, not just through the reframing of ideas, not just through the critique of expert knowledge, but through transformations of relationships and responsibilities, of networks and competence, of collective memory and memberships” (1999, p 115). All of the new relationships and networks that are associated with a specific process and place can truly serve to enrich the community as acceptance and general neighborliness are often results (Wulz, 1986, p 48).

Empowerment

Participatory design began in the 1960s with the goal of empowering vulnerable populations and communities, and even today, “Empowerment remains a primary goal of participatory design” (Hester, 1990, p 7). Giving people the tools and the ability to shape their own environment is a powerful way to give

confidence to individuals and to also bring groups together around a meaningful experience (Hester, 1990, p 10). The skilled designer is able to teach techniques and skills to participants in the design process in a way that provides them with decision-making capabilities and that allows those user groups to make informed decisions (Sanoff, 1990, p 15).

Appropriate Design Responding to User Needs

The people who live in a neighborhood where a new project is being constructed, whether it be a park, playground, or housing development, have the best sense of what the neighborhood is like and what the neighborhoods assets and deficiencies are. This knowledge is essential to create a better fit between a designed space and the people who will be using it. Sanoff points out that, "Many case experiences suggest that resident-driven initiatives have a greater chance of success because residents are more aware of the realities of their own environments than outside professionals" (2000, p 7). Wates points out that the involvement of local residents and citizens results in design solutions that "are more likely to be in tune with what is needed and wanted" (2000, p 5). Alexander furthers this argument, writing that, "Daily users of buildings know more about their needs than anyone else, so the process of participation tends to create places which are better adapted to human functions than those created by a centrally administered planning process" (1975, p 40).

Participatory design processes allow professionals to have "more relevant and up-to-date information than was possible before" (Sanoff, 2000, p 10). Instead of having a developer come in and build something that people do not like

and will misuse, the participatory process allows poor solutions to be thrown out before they are built (Wates, 2000, p 5). In this sense, the participatory process results in a much better use of resources.

Many researchers and academics also cite a benefit of participatory design as the fact that multiple people working together to come up with a solution always results in a better design than any one individual could come up with on his/her own. Sarkissian writes that, "Participation can provide opportunities for the release of creative energy, resulting in more creative and useful collective ideas than the sum of the initial individual ideas" (1994, p 22). Sanoff writes about the benefit of the group design process, saying that "the product [is] strengthened by the wealth of input" (Sanoff, 1990, p ii). Hearing other people's ideas helps to broaden each individual's perspective and allows them to think through social and design issues that might not have occurred to them previously.

Trust-Building Between Citizens and Organizations

Involving people in design decisions builds their trust of and confidence in the organizations that are involved (Sanoff, 2000, p 9). This trust is important for community buy-in and for future projects. Sarkissian points out that, "In the final analysis, trust with communities can be built only when participants believe – at a deep level – that those who propose change have the community's best interests at heart" (1994, p 29). People will only believe that their voices are being heard and their opinions matter if a successful participatory process is involved.

Educational Experience

The participatory design process is valuable for many participants as a skill-building workshop in addition to a process by which they gain ownership over a project. Sanoff writes that, “An important point in the participatory process is individual learning through increased awareness of a problem” (2000, p 10). A participatory design process is an opportunity for planners to promote “effective processes of public learning, practical and innovative instances of public deliberation, even consensus building in many parts of the larger planning process” (Forester, 1999, p 61). Participants can gain skills that are transferable to other situations and projects.

Through being intimately involved in a design process, participants learn very specific design principles in addition to the complexities of developing a new space or project. Participants who do not have professional experience with architecture, design, development, or finance often develop a whole new set of skills after being involved in a participatory design process. As Hester points out, “The process educates not only the designer but also the community participant about environmental issues, government procedures, budgeting, and decision-making” (1990, p 10). Participants may even pick up a skill as specific as wood construction or creating a pro-forma (Hester, 1990, p 11).

In addition to imparting design skills, the process of working in a group and coming to agreement also serves an educational function. Sorrell writes that, “Creative process inherently contains opportunities for people to learn and develop the sort of highly transferable skills that can help them succeed not just in

design, but in life in general" (2005, p 161). These skills include personal awareness, organization, motivation, responsibility, communication, collaboration, teamwork, citizenship, negotiation, creativity, problem-solving, practicality, spatial awareness, financial awareness, aesthetic judgment, observation and evaluation (Sorrell, 2005, p 161). Participants may also pick up skills like political savvy or a better ability to work within a group setting (Hester, 1990, p 11). The participatory process helps to foster dialogue between people, promote good communication, and instill a sense of trust among group members (Sanoff, 1990, p 1).

Ownership

The participatory design process can be very effective at resulting in a well-used and maintained space because from the start future users are engaged in the process and with one another. The relationships that are built during the process are carried over into the finished product and often reflected in the use of and care taken in the physical space. Alexander writes that participation should be encouraged because "it allows people to become involved in their community, because it gives them some sense of ownership, and some degree of control" (1975, p 41). If people feel that they contributed to a space and can see their ideas reflected in the end result, they feel ownership and often will want to optimize the use of and maintenance of that space. Wulz writes about this sentiment, saying that residents have a "greater degree of identification with their area" because of active participation (1986, p 48). Places that have been created through participatory design have "a special meaning to the users…and exude a cared-for,

well-loved quality that gives them a special identity among insiders as well as a sense of place for outsiders" (Hester, 1990, p 10).

This sense of ownership closely relates to user buy-in and support for a project. Hall and Porterfield write that, "If people feel as though they have had a voice in the process and perceive that their concerns have been addressed, they will be more supportive and accepting of change and growth" (Hall, Porterfield, 2001, p 54). Even if participants do not get everything that they want, they appreciate the fact that their ideas were heard and that they were informed as to why certain aspects could not be included.

Alexander believes that people really desire an opportunity such as this to identify with the world around them. He writes that, "People need a chance to identify with the part of the environment in which they live and work; they want some sense of ownership, some sense of territory" (1975, p 41). Wates writes that, "People feel more attached to an environment they have helped create. They will therefore manage and maintain it better, reducing the likelihood of vandalism, neglect, and subsequent need for costly replacement" (2000, p 5). If people feel that they have helped to shape something in their environment, they will often be much more enthusiastic about that space.

Momentum for Other Community Initiatives

An effective participatory design process can serve as a momentum for other community projects. As Hester points out,

> Direct participation in the design of neighborhood space can promote a stronger sense of community through the mobilization of energies around a common problem. This mobilization in turn

> can promote a stronger community-organization structure to achieve other neighborhood goals (1984, p 95).

Wates writes that the skills developed by participants in the design process "enable them to tackle other challenges, both individually and collectively" (Wates, 2000, p 4). In addition to bringing together interested participants from the community, "skilled and sensitive participatory processes can help to rekindle skills of community-building" that can also be used in other situations and projects (Sarkissian, Cook, Walsh, 2003, p 25).

Challenges

Consensus Decision Making

Working with a large group of people to come to a single design can be an arduous process, requiring compromise and patience. Wulz acknowledges that, "Participation does involve certain complications in the decision making process" (1986, p 39). If a diverse group of people are all interested in a project for different reasons and each has distinct and competing priorities, the process can be very challenging. Sarkissian, Cook, and Walsh write that there are "practical difficulties in nurturing participatory processes for a wide range of people from different cultural groups" (2003, p 25). This is a real process and there can be emotions involved. Sarkissian points out that, "Frustrated residents 'may use the new forums provided to raise irrelevant issues, take hard-line positions, and generally cause disruption'" (1994, p 20).

In order to cope with these challenges, the facilitator should be experienced and apt at making sure that all voices are heard and that all feedback

is considered. The goals of the process need to be laid out early on to make sure that the process stays on track. Sanoff writes that, “Citizen participation is a complex concept requiring a great deal of thought to design an effective program. It requires an understanding of the difference between participation as an end in itself and participation as a means to an end” (1983, p 89). He goes on to emphasize how important it is to identify issues and goals early on in the process (Sanoff, 1983, p 89). Unfortunately in many cases, “Organizations, recognizing that they cannot avoid participation, often allocate what is seen as the unattractive job of ‘dealing with the public’ to people with little skill or interest in the work” (Sarkissian, Cook, Walsh, 2003, p 25). This does not bode well for having a skilled facilitator in charge of the process.

Participatory processes cannot be coercive or they can actually cause more harm than good. Driskell writes that, “The practice of participation is often misdirected, applied in inappropriate ways, or controlled and manipulated for purposes that are at odds with the interests of local communities” (2002, p 32). People need to feel that they are actually being listened to or the whole participatory process will seem illegitimate and trust will break down.

Managing Expectations

Although the participatory process is praised for allowing people to brainstorm and come up with creative solutions in a group setting, it is also important to clarify that because of budget constraints and complex factors involved in the planning and design processes, not every idea can be incorporated, even if the whole group agrees it is the best solution. Sarkissian writes that,

> Once the full participatory process is underway, there is always the danger that the expectations of the community will be raised and the proponent will be unable to deliver on their promises or to the standard or at the pace that the community has come to expect (1994, p 19).

This can be a real challenge because if the planner/architect/facilitator cannot deliver on his/her promise, the trust between professionals and participants is broken and this can serve to negatively influence future planning projects.

One interesting note however is that in many cases people are comfortable with the fact that they may not get everything that they wanted in a resulting project as long as they feel that they have been heard and listened to and that issues have been explained to them. Sanoff writes that, "The experience in user participation in design shows that the main source of user satisfaction is not so much the degree to which people's needs have been met but the feeling of having influenced the decisions" (1990, p i).

Costly and Time-Consuming

In many cases, the participation process extends the project's timeline, thereby increasing its cost. Opponents of the participatory process describe it as the "mobilization of antagonistic forces" and as "costly and time-consuming" (Sarkissian, Cook, Walsh, 2003, p 23). Often, professionals think that involving the public is "time-consuming, inefficient and unproductive. Because of tight time and financial constraints, attention to citizen participation occurs when people are forced to do so and the results are often frustrating for all those involved" (Sanoff, 1983, p 89).

Lack of Knowledge About Design and Architecture

The process can be overwhelming for some of the participants if they feel that they do not understand the design and planning process well enough to make informed decisions. Alexander points out that many people think that, "Participation will create chaos, because in design and planning, people don't know what they are doing" (1975, p 41). If people feel overwhelmed because of a lack of knowledge, they may feel stressed about having to participate in decisions they do not feel qualified to make.

Chapter 4 - Recreational Facilities

To answer the thesis's questions about participatory design, I looked at three case studies of recreational facilities: two playgrounds and a high school field house.

KABOOM!

Two of the case studies that I examined were KABOOM! playgrounds in Massachusetts, including a playground built at the Cambridge Community Center and a playground built at the Waltham Boys and Girls Club. KABOOM! is a national nonprofit organization that works to create children's play spaces throughout the country. The mission of the organization is to address the problem of declining play spaces in America because they believe that the decline in children's play is closely linked to other issues such as childhood obesity, violence, fragmented communities, and struggling schools (KABOOM!, 2011, "Our Mission and Vision," para. 1-4).

In order to identify potential sites for building playgrounds (the events being called 'playground builds') throughout the country, KABOOM! often works with corporate partners. They will sign a contract with a corporate partner who is interested in funding a playground build and then try to identify a number of sites that are in child-serving areas with a demonstrated need for a playground facility. They try to identify communities that have both a demonstrated financial need and a minimum of 2,500 square feet of available space on which to build (K. Lusk, personal comm., Feb. 28, 2011). KABOOM! has been very successful with this model so far, building over 1,900 play spaces for children and providing play

space for over 3.5 million children (KABOOM!, 2011, “Our Mission and Vision,” para. 6).

KABOOM! hosts many programs for promoting play, one of which is called the KABOOM! community build program. They emphasize how important these builds are because they not only provide a new fun and healthy play space for the children of the neighborhood, but also build strong communities. “In the same way that playgrounds promote exercise and social development among children, a community build promotes positive collaboration among private citizens and business leaders…and instills a lasting sense of empowerment” (KABOOM!, 2011, “Programs and Major Initiatives,” para. 3).

Their process for building play spaces is based on an asset-based community development model that includes both the participation of the community and, perhaps more importantly, the leadership of the community. The community participates in the design, planning, and building of each playground that KABOOM! helps to construct. One of the project managers that I spoke with reflected on their process and talked about how the nonprofit really tries to identify communities that are underserved and to help those communities realize their assets in order to make positive changes in their neighborhood. Instead of leaving the design and construction of the playground to a designer and contractor, or to a playground equipment supplier, they want to have the community map out what resources are available and what assets they have. The mapping out of community assets is an invaluable exercise for them as it will

continue to serve them in all of their future community projects (K. Lusk, personal comm., Feb. 28, 2011).

The typical community-build process begins with a Design Day where children who live in the area and will use the playground are asked to come together to help design their new play space (KABOOM!, 2011, "Community Builds," para. 3). The Design Day begins with an exercise where the children draw their dream playgrounds, and then explain and present their ideas to the group (KABOOM!, 2011, "Design Day," para. 11). KABOOM! emphasizes creating a comfortable environment for children to brainstorm and draw their ideas, and one in which they are allowed to work independently without their parents looking over their shoulder. This is important to allow the participating children to be as creative as possible (KABOOM!, 2011, "Design Day," para. 9). In addition to the drawings, the presentations are important for children to further communicate their real desires for the playground, feel that they are being listened to, and take pride in their work. KABOOM! believes that Design Day is critical because, "children who see their visions manifested in the playground design will feel a lasting sense of pride and ownership" (KABOOM!, 2011, "Design Day," para. 11). Incorporating the actual future users of the playground also ensures that the space is best suited to their needs (KABOOM!, 2011, "Design Day," para. 1).

After the Design Day is complete, the drawings and ideas are sent along with input from parents and community members to a group of playground designers who will draw three different designs. The designs are then brought back to the community group and one design is chosen. In some cases, the final

design will be chosen, from the three possible playground designs, by staff or board members who are involved in the design, while in other cases, it may be voted on by the children themselves, giving the children a second opportunity to provide input into the playground design process (M. Barnes, personal comm., March 15, 2011).

The next phase of the project is planning for the building event, in which each week a project manager from KABOOM! works with the planning committee from the community to help them take care of the necessary details for Build Day. This planning period normally lasts from 8-10 weeks and then it is time for Build Day. Anywhere from 150-500 community and corporate volunteers normally come out to the playground site on Build Day and the playground is completed in just one day (KABOOM!, 2011, "Community Builds," para. 3).

Build Days are tremendous examples of community building and the energy in the air is palpable. The community comes together with a common goal of building a healthy play space for their children. When the community is working together to build the playground on Build Day, it is clear how the participatory process has worked to bring everyone together and make them feel that this is their project. The KABOOM! model "can strengthen people's faith in themselves and in their communities. Not only is a space transformed, but the people who made it possible also change because of the experience and walk away knowing they can make a difference!" (KABOOM!, 2011, "Community Builds," para. 4). KABOOM! sees the process as a starting point for more relationships toward community development. When that works successfully the

community continues to do more projects to make their neighborhood an even better place to live in (M. Barnes, personal comm., March 15, 2011).

KABOOM! Playground 1: Waltham Boys and Girls Club

The playground at Waltham Boys and Girls Club (Cleveland, A., 2011)

Youth helping out at the Waltham Boys and Girls Club Build Day (KABOOM!, 2010, "Waltham Boys and Girls Club-Waltham, MA")

Focus Group with WBGC Youth (Cleveland, A., 2011)

Community Build at Waltham Boys and Girls Club (KABOOM!, 2010, "Waltham Boys and Girls Club -Waltham, MA")

Background

Building a playground at the Waltham Boys and Girls Club had been a goal for Executive Director Jenn Aldworth for several years. When she first started to work at the Boys and Girls Club in 2007, the outside space was unusable and she wanted to change this immediately. She spent three years partnering with local organizations and corporations to create a green space and a sand volleyball court, but the ultimate goal was to build a playground with formal playground equipment for the children to enjoy. When KABOOM! reached out to them to let them know that there were funders interested in building in the Boston area, Aldworth was eager to submit an application for the Boys and Girls Club and they were eventually selected as a build site (J. Aldworth, personal comm., Feb. 21, 2011). The project was funded by United Health Care who also brought the New England Patriots into the process (M. Barnes, personal comm., March 15, 2011).

On Design Day, approximately 40 children between the ages of 6 and12 years old participated and were asked to draw their dream playgrounds. They were asked to close their eyes and envision what they would like to see, what their favorite colors were, and what kind of equipment they would like to play on. They drew their ideas for the playground and then shared their drawings with the group, talking through their images (M. Barnes, personal comm., March 15, 2011). The project manager, Melanie Barnes, then collected the drawings and sent them off to the playground designers for inspiration. After three potential designs were produced and sent back to the Boys and Girls Club, the adult committee selected

one of the drawings as the final design. The decision was made not to bring the kids back into this process for the second time to choose between the final three designs because the adults had a hard enough time deciding amongst their group of 20 or so which design would be most appropriate and because of their timeline with KABOOM! they needed to make a decision within a short period of time. The short timeframe was dictated by a construction deadline, where different playground parts needed to be ordered depending on which design they chose (J. Aldworth, personal comm., Feb, 21, 2011).

The planning and design process included a variety of community members, staff, and children, many of whom I got the chance to talk to and gather feedback from. Build Day occurred on October 26, 2010 and a large number of people came to help out, including the New England Patriots, a partner of United Health Care (M. Barnes, personal comm., March 15, 2010).

Benefits

All of the adults that I spoke with agreed that this process did help to bring the community together and to foster a community around that playground. Staff, parents, donors, and community members were all involved (M. Barnes, personal comm., March 15, 2011) and Aldworth pointed out that for the adults, one advantage was that everyone really got to know each other and the community discovered common ground through the project. There was a lot of reminiscing back on their own childhoods and the shared experience brought out each individual's personality (J. Aldworth, personal comm., Feb. 21, 2011). Barnes, the project manager noted that, "Being a part of something and being able to say 'I

was there and I put this together' really helps people relate to one another" (Personal Comm., March 15, 2011).

The playground build brought the community together in a way that still benefits them, as they are able to take on new community projects with a greater confidence. Aldworth noted that the Community Build process brought the Boys and Girls Club positive attention and that she has received many more requests from people wanting to get involved with the Club and help to further their work (Personal Comm., Feb. 21, 2011). Survey participants agreed that this was a positive experience, bringing the community together, and resulting in a great playground and project that everyone enjoys. In a survey response, one of the participants noted that, "The community involvement was tremendous, it brought all different backgrounds together to achieve the common goal of building the playground, everyone I talked to during the day was amazed at the coordination and efforts all came together" (WBGC Participant 2, personal comm., Feb. 23, 2011).

Aldworth talked about how excited the children were to participate in the design of their own playground. She said that they were imaginative and creative (Personal Comm., Feb. 21, 2011). One child that I spoke with reinforced this comment, saying how "cool" it was that the whole neighborhood was interested in the process. The child remarked, "I like the playground even if it doesn't have all the things that I wanted and everyone wanted out there. Some of the things that kids drew are out there and it's a fun place to be" (WGBC Youth Personal Comm., March 3, 2011). This same little girl commented that, "I think it was cool

that they asked us and gave us paper to draw our ideas on" (WGBC Youth Personal Comm., March 3, 2011). She acknowledged that even though she did not see everything that she talked about on Design Day in the physical playground, she was really satisfied that the adults asked for her opinion. The project manager talked about how children can gain a sense of pride from being involved in this process and asked what they think should be part of the playground. "It also sets an example early on for the children that giving back to their community is a great thing" (M. Barnes, personal comm., March 15, 2011).

Participants were excited and happy to be part of the process and felt that their community could accomplish many more beneficial projects after they were able to successfully accomplish the playground build. The project manager noted that, "The skills that they [the adult participants] learn through this process can be taken elsewhere after the project, to other community-based projects or groups that they might be involved with and hopefully help even more to create a strong great community" (M. Barnes, personal comm., March 15, 2011).

The project manager also noted that, "To really build a playground right you need the community involvement and the buy-in of the users, the parents, and the kids" (M. Barnes, personal comm., March 15, 2011). The community ownership over the process is key and this seems to have worked well for the adults who worked on the Waltham project. Because the playground design and build is so hands-on and because adult participants can see the project through from the beginning to the end, the KABOOM! project is often very successful at generating user buy-in and ownership over the process (M. Barnes, personal

comm., March 15, 2011). There is also a huge sense of accomplishment at the end to know that children are going to be able to see this playground that they helped to design (M. Barnes, personal comm., March 15, 2011).

Aldworth pointed out that adult participants really approach the project with a sense of pride and to this day she hears people talking to one another about their roles in the playground design and build. A woman who works at a local bank commented to Aldworth that it was really exciting that she could see the children enjoying a playground that she had helped to build and Aldworth hears stories like this all the time. She says that the "community as a whole really feels ownership over the playground and there is definitely a link to how well used it is" (J. Aldworth, personal comm., Feb. 21, 2011).

Adults also agreed that if users felt invested in and ownership over their space, they were more likely to use and maintain it. Project manager Melanie Barnes commented on how she goes back to see children playing after projects have been completed and always hears them say things like "this is my slide and I drew that" (Personal Comm., March 15, 2011). She says that the children "are going to take care of the playground and protect it because they feel this real sense of ownership. They will not let their friends graffiti it or deface it because it is theirs" (M. Barnes, personal comm., March 15, 2011). Children can feel ownership through many different activities, like helping to paint mural tiles or stepping stones or helping to mulch, and "something that you took part in, you're going to protect and take care of" (M. Barnes, personal comm., March 15, 2011).

This is an important lesson for children to learn early on: that they should take good care of what is theirs (M. Barnes, personal comm., March 15, 2011).

Most adults felt that KABOOM! facilitated the process well, provided a good amount of resources and were helpful. They were grateful to KABOOM! for providing the direction that they needed. One unique facet of this particular project was that the New England Patriots actually came to Build Day and helped to build the playground, as they have a partnership with United HealthCare. Aldworth mentioned this as a highlight, both in terms of getting the children even more excited, and in terms of bringing attention to the work that they are trying to accomplish at the Boys and Girls Club (Personal Comm., Feb. 21, 2011). Barnes agreed that it was a great way to bring more media and community attention to the work of the Boys and Girls Club and to get the children even more excited about the process (Personal Comm., March 15, 2011).

Challenges

This playground participatory design process fell short of expectations in two key respects: it did not incorporate enough of the children participants' ideas into the final built space, and did not communicate or explain to the children the reasons for this omission.

The children who were involved in Design Day and Build Day all were happy to have been asked to give their ideas and were excited to be part of the process but, with the exception of a few little girls, they were actually mostly disappointed in the resulting playground since they expected that they would see their ideas incorporated. While acknowledging that I only spoke with 8 of the 40

children involved in the process, the children's disappointment is testimony to the fact that at least a quarter of the participating children were not clear on how their drawings and ideas were going to become part of the playground.

Some of the adults, including Aldworth, also pointed out that managing the children's expectations was a difficult process, especially since KABOOM! encourages them to be creative and to draw their dream playgrounds. Aldworth pointed out that even playground equipment that was technically realistic could not work in the small space that they had. For example, a lot of the children wanted swings, but if they were to incorporate swings, they would not be able to have any other playground equipment. Because an average of about 140 children come through the place every day, the adult committee felt that they really needed to get as much equipment as they could in that space (J. Aldworth, personal comm., Feb. 21, 2011). This rationale for eliminating swings does not seem to have been properly communicated to the children before they drew and presented their ideas.

One of the staff members at the Boys and Girls Club talked about the fact that, although she is proud of the playground and mostly enjoyed the process, at some points the process was very time-consuming. It often proved to be exhausting to work with and coordinate so many different volunteers. However, the staff member did think that in the end it was worth it and very rewarding for the children. This same staff member talked about how the involvement of the Patriots, which was unique to this project, may have distracted somewhat from some of the community building that typically occurs on Build Day. While she

did think that involving them was mostly positive, she admitted that some people seemed to be much more focused on the presence of celebrities than on community building. This point was emphasized when I spoke to the children who participated in the Design Day and planning process. When I asked them what their favorite part of Build Day was, the most frequent response was "getting an autograph from the Patriots and their cheerleaders" (WBGC Youth Personal Comm., March 3, 2011).

Lessons Learned

Project timeline management and upfront explanation of project parameters to the child participants appear to have been weak in this participatory design process. This project could have been more successful in creating child ownership over the playground if project managers had not told children to draw up their dream playground irrespective of site constraints. Because so many of the children seemed disappointed by the outcome and felt that they were not listened to, KABOOM! and WBGC staff may have needed to focus more attention on what they communicated to the children (i.e. we can't have swings, they would take up all the space) and on scheduling a second meeting with the participants to vote on the three options. This way the kids would have better understood the purpose of their drawings and how they would feed into the playground design.

As mentioned previously, the project manager and head of Waltham Boys and Girls Club did recognize this as a real challenge. Melanie Barnes, the project manager, comments that, "You have to really make sure that it is communicated clearly to the children that Design Day is about gathering ideas and that they

realistically will not be able to incorporate everyone's ideas" (Personal Comm., March 15, 2011). The process is further complicated by playground regulations, fire and life safety codes, accessibility requirements, existing site conditions including easements and underground utilities, all of which need to be taken into account along with what the parents and staff would like to see. She suggested that one way to keep the children involved after the initial Design Day at Waltham would have been to reconvene the children to vote on the three playground designs that were put together. This extra step could have gone a long way to make them feel that even if they did not see all of their ideas reflected in the playground, they still understood that they contributed to the final design. Having the children vote on the three designs was not something that the Boys and Girls Club had the time to do because it proved difficult to even get the design approved by the adult committee in time to meet the construction schedule (J. Aldworth, personal comm., Feb. 21, 2011). Judging from the children's reactions however, the process may have really benefitted from this extra step.

Because the children had a hard time recognizing their ideas in the playground, they also felt like they had not really been listened to or heard. One child even commented that he did not understand why the adults asked them for ideas for a playground if they already had a design in mind. This suggests that there was a real misinterpretation on the children's part, based on lack of communication on the project managers' part, of how this process should work. For them, the participatory process became less meaningful and actually left them a little disillusioned.

Although it is great for children to be creative and to draw their dream playgrounds, this process can easily be misleading as children get really excited about the possibility of having an actual beach on their playground or a carnival or pirate ship. One way to improve this process would be to have children instead select from playground equipment that KABOOM! has available. Putting a project parameters framework in place might limit their creativity but would be more honest and achievable. The purpose of the participatory design would have been better met by letting children see how they helped to pick the equipment that actually ended up on the playground.

KABOOM! currently works with an incorporation chart which the playground architects will use to relate children's ideas and drawings from Design Day to the actual playground equipment (KABOOM!, 2011, "Design Day," para. 11). For example, if a child draws trampolines, the KABOOM! playground designers will try to incorporate play equipment that encourages bouncing or jumping (KABOOM!, 2011, "Incorporation Chart," para. 1). If this is not adequately explained to the children ahead of time, they will be confused by the process. If the process of allowing children to draw their dream playgrounds remains a crucial step according to the KABOOM! model, they should carefully explain the incorporation chart from the beginning by giving children some examples of other KABOOM! playgrounds where children's drawings inspired final designs. Providing some kind of framework in this case is a good idea so that children are not left feeling confused or duped when they do not see the ocean scene they drew on Design Day reflected in the actual physical structure of the

playground. After the structure is built it might also be a good refresher for the project managers to show the children how their drawings inspired certain pieces of equipment, choices of color, the location of equipment on site, and spatial relationships among features of the site. They could show them how to hold a carnival with the equipment that was chosen. The more hands-on the process, the more the children will feel connected to it and be proud of the playground that they helped to design.

Measures of Success

Despite some of the challenges, all of the adult volunteers, staff at Waltham Boys and Girls Club, and project managers that I spoke with considered this to be a successful project, both because it brought the community together and because they were able to provide a playground for the children that the children themselves were able to help design. The director of the Boys and Girls Club really measures the success in several ways: more and more people want to be involved in the Boys and Girls Club, they have a wonderful new playground for children to play on, and the community was strengthened through the process. She noted that the playground space is a new place for staff to program different activities and that the relationship that they built with United Healthcare through the process continues to benefit the Boys and Girls Club. This summer, United Healthcare will install a new gate, build some benches and some end-tables and extend the new fence to cover more of the property (J. Aldworth, personal comm., Feb. 21, 2011).

The project manager from KABOOM! commented that they may never know the true extent of the success of a project because their goal is to have people who participated in the project use the skills that they acquire to advance other important community projects. This is something that can be difficult to measure. KABOOM! combines revisits, post-build calls, and Impact Studies in order to try to measure their effect (Puntenney, 2008, p 2). Their success is about looking at the relationships that were built on Design Day and Build Day and throughout the process and trying to see how the Boys and Girls Club and other community organizations and groups can further those relationships for the good of their neighborhood.

KABOOM! Playground 2: Cambridge Community Center

Community Build at Cambridge Community Center (KABOOM!, 2010, "Cambridge Community Center-Cambridge, MA")

Build Day at Cambridge Community Center (KABOOM!, 2010, "Cambridge Community Center-Cambridge, MA")

The Slide at Cambridge Community Center (Cleveland, A., 2011)

The Community Board at Cambridge Community Center (Cleveland, A., 2011)

Background

The Cambridge Community Center, in Cambridge, MA, participated with KABOOM! to build a playground on June 19, 2010. The center is housed in an 1882 school building that had been under-maintained for years. David Gibbs, the program director at Cambridge Community Center had a long list of items that needed to be redone and one of these was to create a new playground. He initially received an email from KABOOM! saying that they were looking to build a playground for organizations in need in that area and he decided to submit an application (D. Gibbs, personal comm., Feb. 16, 2011). The project was selected and funded by the Amgen Foundation. KABOOM! project manager, Kathryn Lusk, says that Amgen and KABOOM! both recognized Cambridge Community Center as a place that is deeply rooted in community and this was something on which they wanted to build (Personal Comm., Feb. 28, 2011).

The Design Day involved about 40 children from ages 5 to13. They were all asked to gather in the gym and were given crayons and paper on which to draw their ideal playgrounds and then share their ideas with the group. After the feedback from the participating children was gathered, the faculty, some of the parents, and KABOOM! staff took all of the ideas and examined them to see what the children really wanted. They went through the drawings and notes to see what would be appropriate based on safety recommendations and guidelines, as well as the size limitations, as the space was especially small (D. Gibbs, personal comm., Feb. 16, 2011).

When Gibbs received the three potential playground designs from the playground designers, staff hung them up inside the Center and asked the children to vote on which one was their favorite. In addition to voting, children were also allowed to submit comments about what they liked and did not like. One of the designs proved to be an overwhelming favorite while one of the others received no votes at all. After the children picked their favorite design, the process to plan Build Day was underway. Staff, community members, and children were involved and on Build Day over 300 people came out to help (D. Gibbs, personal comm., Feb. 16, 2011).

Benefits

As with the Waltham playground, everyone that I spoke with agreed that this project helped to bring the community together and create a greater sense of community for those who were involved. The children were eager and excited to be involved in the process. Gibbs noted that many neighbors were involved in this project who had not previously done anything with the Community Center. One of the adult participants who was involved throughout the process remarked that, "It was great to work on the project and to be able to celebrate the success together when it was completed. It really brought the Center and the community together" (CCC Participant 1, personal comm., March 7, 2011). This same participant observed that people of different backgrounds, races, income levels, and ages were all out there together and that Build Day was a joyous occasion where everyone worked together and learned from each other. One of the children interviewed reflected this same sentiment about the ability of the playground to

bring people together, noting that, “The best part of the playground is when everyone plays on it” (CCC Youth, personal comm., April 14, 2011).

Participants also agreed that both adult users who gather at the playground and child users who play felt ownership over the space and that translated into a greater likelihood that the space would be well-used and maintained. One participant remarked that, “There is nothing like having ownership over a project and really buying into it. There is a sense of responsibility that comes along with that ownership and really leads to community accountability” (CCC Participant 2, personal comm., March 7, 2011). Another participant pointed out that there is no vandalism or graffiti at the playground and he felt that this was a “subtle but very powerful sign that the community, in particular the youth, see it as theirs and they are not going to deface something that they feel ownership over” (CCC Participant 1, personal comm., March 7, 2011).

KABOOM! project manager Kathryn Lusk commented on how maintenance is always a concern when you are building a long-lasting physical structure. She noted that, “The community build model is an amazing way to have good strong maintenance because people who built this and live in the neighborhood are going to prevent graffiti and they are going to fix it up and take care of it” (K. Lusk, personal comm., Feb. 28, 2011). Many of the adult participants commented on the experience of walking by the completed playground and how they themselves and friends who had worked on the playground with them feel really proud of their accomplishment and cannot help but reminisce about the experience. Everyone feels collaboratively like it is really

their playground. The playground is a physical reminder and generator of a sense of pride for the community.

Adult participants also agreed that much of the success of the project was due to the user participation in the design. One participant reflected on another park near his house that was built without user participation and noted that it just does not get the kind of use, nor does it function as a meeting place, the way the Cambridge Community Center playground does. The playground at the Center really reflects the needs of the children in the community because they are the ones that helped to design the space.

The children that I spoke with also felt strongly that the reason they liked the playground so much was because they were asked for ideas on how to design it. One child told me that he thought playground projects that did not ask for the neighborhood kids' input were a waste of time. He said that, "Kids will not want to use a playground that they do not like and they probably will not like it if they do not get to help design it" (CCC Youth, personal comm., April 14, 2011). The children all seemed to enjoy the design process as well and remarked on how happy they were to see the different pieces of play equipment, like the monkey bars and the spiral slide that they had drawn in their pictures, on the actual playground. Some of them even expressed disappointment that they were not able to be further involved and help to build on Build Day because of safety concerns. Those kids who were present on Build Day remarked on how cool it was to see so many people coming out to help build their playground and overall, they seemed to really enjoy the playground design and build process.

Aside from providing an enjoyable process, another of KABOOM!'s main goals is to build skills that participants will take with them to other projects (K. Lusk, personal comm., Feb. 28, 2011). Many of the adult participants remarked that they would love to volunteer again and one noted that it even encouraged him to do other volunteer projects at the Cambridge Community Center. The project manager remarked on how she was actually surprised when people told her how they had met so many new people in their neighborhood through this process because her impression of the neighborhood was that it was already a strong community and very well-connected. She says, "It was really refreshing to see how if you present a unique ask to the community, there are a lot of new people that will come out of the woodwork and even in a community like this, they were able to build on their assets and strengthen the community" (K. Lusk, personal comm., Feb. 28, 2011).

Challenges

Aside from being a time intensive and sometimes more costly project than expected, the people that I spoke with did not bring up a lot of challenges that were a part of the participatory design process. Unlike Waltham, they did not have the same problem where the children felt like their participation was not meaningful and this may be due to the fact that they were brought into the design process a second time after Design Day, when they were allowed to vote on the final three designs that the playground designers created. It could also be that they were less imaginative with their dream playground drawings and they happened to draw playground equipment that KABOOM! could actually provide.

Lessons Learned

The participants that I spoke with felt generally that this was a great process. They felt that the experience and direction that KABOOM! brought to the project really kept them on track and that in general this was just a tremendous piece of community building. From the very beginning of the project, they were able to see the playground as more than just a place for kids to play, but as a meeting space and place for neighbors to come together and socialize.

KABOOM! may have gotten lucky with this project because the kids were more realistic with their drawings. Many of the kids told me that the playground outside was very reflective of the drawings that they put together even though they were still encouraged to draw their dream playgrounds on Design Day. If more of the kids had been imaginative and creative with their drawings, there may have been a similar issue as there was with Waltham Boys and Girls Club where the kids did not understand why they did not see their ideas reflected in the playground. The aforementioned changes to the Design Day process would help to ensure that all projects are successful in their communication with the children involved and in creating child ownership over the playground.

Measures of Success

The project manager commented on how the process of participation in the design, planning and building of the playground is just as important as the playground. She talked about how important it is to have the community map out their assets and resources so that they can use this for further projects. She noted that, “Identifying the stakeholders, galvanizing resources on this project can lead

to bigger and better things in the future" (K. Lusk, personal comm., Feb. 28, 2011). When communities are able to recognize their own assets and abilities as they did in the Cambridge Community Center build, this can be considered a real success (K. Lusk, personal comm., Feb. 28, 2011).

Director Gibbs also agreed that both the process of designing and building the playground and the end product are equally important in terms of measuring success. The process was a "tremendous piece of community building" and the playground in the end is really reflective of what the children here wanted which Gibbs considers as a major success. An enormous amount of people hang out around the playground today and it really does function as an informal meeting place for the community (D. Gibbs, personal comm., Feb. 16, 2011). The Center's community board with postings of what is happening throughout the neighborhood and the city is located outside right next to the playground, serving to further enforce this notion that the playground is a place for the whole community.

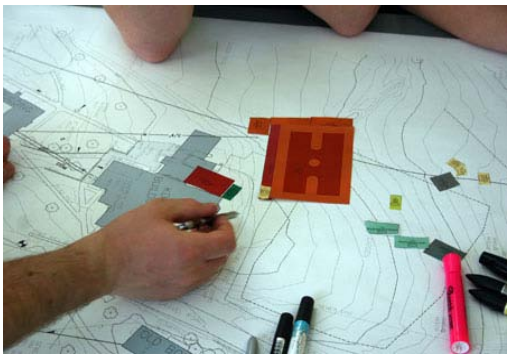
Gibbs related a story about how a group of young parents started hanging out there with their children, making use of the playground as a meeting place. After a while they began to ask questions about the Community Center and in the end they put together a co-op daycare that is parent-staffed and now runs out of the Community Center (D. Gibbs, personal comm., Feb. 16, 2011). One of the participants, who lives in Cambridge, but not in this particular neighborhood, noted that, "Prior to the Playground Build, I walked through that community as I would through a random city. Now, I walk through that community and I

recognize people and they recognize me. I get a wave and a nod of the head and stop to talk" (CCC Participant 1, personal comm., March 7, 2011). These stories are examples of how the physical playground, along with the community build, continues to create more and more community. Gibbs comments that, "The playground is a place to get interested, a place to connect, and really more than just a playground" (Personal Comm., Feb. 16, 2011). The participatory process succeeded at getting initial people on board to use the playground and their use of the space in turn imparted a sense of place to outsiders who wanted to come to the playground as well.

Putney School Field House

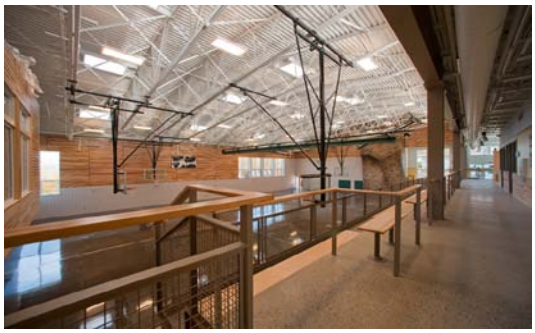
Putney School Field House, Putney, VT
(MacLay Architects, 2010, “The Putney School Field House”)

Charrette Process
(The Putney School, 2008, “Field House Blog”)



Charrette Process with Students
(The Putney School, 2008, “Field House Blog”)

Students work along with Plant Manager to Sheath the North Wall (The Putney School, 2008, “Field House Blog”)



Inside the Putney School Field House
(MacLay Architects, 2011, “Putney Field House”)

Background

"The building is not only a shining example of sustainable architecture, and not only a beautiful space, but it is a wonderful testament to the power of collaboration" - Emily Jones (Maclay Architects, 2011, "Nation's First Net-Zero Secondary School Building," para. 5).

The Putney School Field House, located in Putney, Vermont, is the nation's first net-zero energy secondary school building. The 16,800 square foot field house derives energy from an on-site solar photovoltaic system and will produce as much energy as it uses over the course of a year (Maclay Architects, 2011, "Nation's First Net-Zero Secondary School Building," para. 2). This project began in 2007 and involved a participatory design process with students, board members, and faculty (The Putney School, 2011, "The story of the Putney School's innovative Field House," para. 4).

The Putney School is an independent boarding and day high school that provides progressive education to students. The central idea at the heart of progressive education is to produce engaged citizens for a democratic society (The Putney School, 2011, "Progressive Education," para. 1). The Putney School values transparency to students and engages them in managing the school (The Putney School, 2011, "Progressive Education," para. 2). The school "allow[s] and often require[s] students to struggle with the real dilemmas of crafting a community in which rights and responsibilities balance" (The Putney School, 2011, "Progressive Education," para. 1). Participation in community is such an integral part of the progressive education school of thought that when it was time for the school to build a new field house, it only made sense that this would be a participatory process with input from students, faculty, and members of the

community (E. Jones, personal comm., Feb. 2, 2011). Students have been involved in design and construction since 1935 when the school was founded. Students at the school are also very involved in all facets of decision making at the school, with two students on the board of trustees, and students sitting on all major committees (E. Jones, personal comm., Feb. 2, 2011).

The Putney School Field House was actually part of a three-building Campaign that began almost a decade ago including a performing arts center, a dormitory, and a field house (R. Smith, personal comm., Feb. 4, 2011). The dorm and performing arts center had been built and the field house was the last piece of this campaign that needed to be completed (R. Smith, personal comm., Feb. 4, 2011).

The school felt that it was necessary to provide an indoor field house because as part of their education, students are encouraged to be physically active and to take advantage of the outdoors to engage in activities such as hiking, biking, and cross-country skiing. As winters have become increasingly warmer, cold-weather sports have been threatened at Putney and the lack of an indoor gym space was becoming a real problem. In order to respond to this problem, it was decided that a new field house would be built with the following goals:

1) A place for movement, play and, activity accessible to all and usable 365 days a year.
2) A place where students can meet to play sports, wax their skis, repair bikes, or simply sit and talk.
3) A building that incorporates Putney values of openness, participation, and environmental responsibility.
(The Putney School, 2011, "The story of The Putney School's innovative Field House," para. 1-3)

After many years of consulting with alumni, students, faculty, architects and engineers, the process began in October 2008 (The Putney School, 2011, "The story of The Putney School's innovative Field House," para. 4). The building committee for the Field House consisted of about 15 people, including faculty, students, staff, trustees and board members (P. Stickney, personal comm., March 1, 2011). The architect who worked on the project had 40 hours of direct teaching time with the students written into his contract so that he would work along with the students and teach them how to think about design. Every single student at the school was exposed to the process through educational assemblies where the architect would present different facets of the design process (E. Jones, personal comm., Feb. 2, 2011). Examples of topics included the siting of the building or a discussion of energy efficient technologies such as solar panels. Each afternoon after an assembly was held, there would be a charrette with site plans and tables, and those students who wanted to could come and discuss the design in groups and present their ideas to one another. During this process, the architect was both gathering information from them and teaching them. Jones noted that a significant number of students were interested and participated in the design charrettes (E. Jones, personal comm., Feb. 2, 2011).

The Field House was completed in October 2009 and is a LEED Platinum certified building. It actually produces more energy than it consumes and generates revenue for the school as it feeds energy back into the grid (The Putney School, 2011, "The story of The Putney School's Innovative Field House," para. 4-5). The building includes a number of environmentally sustainable features that

have contributed to its LEED Platinum status. These include a state-of-the-art heat pump that is powered by sun-tracking solar cells, a solar water heater, super insulation, and automatic light controls. It also includes composting toilets and rainwater management (Cameron, 2010, p 1).

The Field House has many athletic facilities, including basketball courts, a climbing wall, a weight-training room and yoga/fitness room. There is also office space and a community space that provides an informal meeting place for students (The Putney School, 2011, "The story of The Putney School's innovative Field House," para. 5).

Benefits

Although the Putney School's progressive education ideals have created a school that continuously fosters a tightly knit community, most respondents noted that this project and the participatory design process helped to bring people together as a community even more. One student said that, "I think that the best way to educate and unite a community is to get them involved. I know I learned a lot, and I feel that the community grew because of the project" (B. Maloney, personal comm., March 7, 2011). Another student talked about how everyone was abuzz talking about the project throughout the planning, design, and construction process and it forced them to reflect on their community as a whole. The project really spurred them to think about their values as a school and what they might like to see changed or improved to continue to strengthen their community.

Both students and staff at the Putney School agreed that involving the students in the design of the building really helped to garner student support for

the project. Because a lot of students were excited to get involved, it was a great way to create a positive atmosphere for the project and build support. For the architect, Bill MacLay, it was also an effective process for getting in touch with the community and finding out what their values were and how they envisioned their field house (Personal Comm., March 3, 2011). One of the students who served as a student representative to the board of trustees commented that,

> I hoped that through direct involvement with the design, there would be more student support for the project. I definitely saw a huge shift in attitude towards the project over the course of the year. At Putney, the campus is very important to the community, and the idea of a new building didn't sit well with many students. But, because it was designed with the students' consideration and not imposed on them, it became a welcome addition (B. Maloney, personal comm., March 7, 2011).

The school's project manager Randy Smith also commented on the level of support saying that involving future users in the process is a method for getting people excited about the project. In the end, "People may not get everything that they want, but they will have an understanding of how we got there" and, in many cases, that is enough for them to appreciate the project (R. Smith, personal comm., Feb. 4, 2011). The Farm Manager and co-chair of the building committee shared this point of view, remarking on how the collaborative process is a way to address issues and problems early on and to work through solutions, furthering participant support for the project (P. Stickney, personal comm., March 1, 2011).

The majority of the participants that I spoke with felt that there is a relationship between the success of the building and the fact that a participatory process was involved. The architect commented that the process was so positive that it made a huge difference in how the project was perceived because people

realized that their opinions were going to be heard. He said that, "When people feel that they will not be heard, that is when they feel like they are disenfranchised and that can create negativity around a project" (B. Maclay, March 3, 2011). Many of the faculty and students felt that the high level of pride in the Putney School Field House comes from both the fact that it is environmentally sustainable and the fact that students themselves helped to shape, in particular, this aspect of the building. The idea to make the field house net-zero was the most costly of several alternatives and the one that students unanimously voted for during the design charrettes. Although the director had been hoping all along that this would be the outcome, it was really the Board's decision to make. The strong message from the students convinced the Board that this was the right direction to take and Board members voted for the net-zero alternative. The students succeeded in getting their voice heard and continued to move the project forward.

Many participants also commented on how the students' enthusiasm for sustainability carried into the adult world and had a huge influence on the kind of building that they wanted to construct. Other ideas that came directly from the students were the composting toilets and the social space that is in the gym. One student noted that,

> I really think that involving the students in the design process – at least enough to get them informed, and thinking about the project in a practical way – was the reason the building is such a success. When construction began, there was a lot more genuine interest and pride in the project than there had been at the start, and I think the community was proud of that accomplishment (B. Maloney, personal comm., March 7, 2011).

The fact that the students felt like they were the ones who were able to push the envelope in creating an environmentally sustainable building was very empowering for them. One student noted that, “The meetings were exciting- the students were constantly challenging the architect and the board, who seemed always excited for our input” (B. Maloney, personal comm., March 7, 2011). The school’s project manager also commented on how he felt that the large amount of people involved had a direct impact on how great the design came out. He said “The more eyes you put on it, the more likely that you are to have a superior design” (R. Smith, Feb. 4, 2011).

Many of the faculty and students that I spoke with also commented on how well the architect was able to facilitate the project. The school’s project manager Randy Smith talked about how they were careful to select someone as an architect who not only had a strong background in sustainability but who could also be a good listener and who did not have a strong vision for what he personally wanted the field house to be. They thought this was important to make sure that the participatory design process was authentic and that students were listened to and could feel that they were listened to. The architects conducted many hands-on workshops where the students ranked how important different elements were to them. They cut out pieces of paper to represent different rooms (i.e. large gym, workout room, social space, and bathrooms) and then came up with a few different ideal designs for the building. One of the co-chairs of the building committee remarked on this particular workshop saying that, “Designing

the space with the colored cutouts was empowering and everyone learned something" (P. Stickney, personal comm., March 1, 2011).

Facilitation was very important because, at first, the field house was controversial, particularly among Putney School alumni. They were wary of introducing a building with athletic facilities that would perhaps promote competition, which was something that seemed to go against the Putney School culture. Also, the Putney School has historically been a school with a significant art focus and they were afraid that the field house might distract from this. The process and the facilitation seemed to have worked so well however that by the end, many people commented on just how proud they felt of the building and on how many people who were initially weary of a field house had come to embrace the idea.

Director Emily Jones also commented on how students are very invested in the building and care for and look after it well. They feel that the building is their own, and their own to take care of. She said that, "Kids are proud of the fact that the building gets a lot of attention and that architects come to visit. Kids here feel a lot of ownership of the place. They do a lot of work here and feel part of it" (E. Jones, Feb. 2, 2011). Architect Bill MacLay agreed with this sentiment (Personal Comm., March 3, 2011).

A lot of the faculty also remarked on how wonderful it was that they could send students into the world that were involved in this process and can now contribute to sustainable environmental building throughout their lives, wherever they may be. The students gained a lot of knowledge through this experience and

are able to take those skills with them as they continue on with their lives. The students and faculty agreed that the learning experience that the participatory process provided, especially in terms of green building and group decision making and process, was invaluable. The Director of the Putney School emphasized this point, talking about how much the students learned through the collaborative design process, about how to get everyone the most of what they want and being able to compromise and reach consensus. She thinks it is very important, especially in schools, for decisions to be transparent. Students should know what is going on at their school and they should be involved and educated (E. Jones, personal comm., Feb. 2, 2011).

Challenges

One challenge that was brought up by several of the participants was the fact that it proved difficult to keep students involved throughout the whole process. While they were initially excited and eager to participate, the process lasted a long time and participation started to taper off as students got busier with other projects. The co-chair of the building committee felt that some of the meetings were disappointing in terms of student turnout and that although the process was great, it could have been even better with more students showing up. One student commented that the social space, which was entirely student driven, ended up with really just one student doing the bulk of the work because "once the main decisions for the building were made, the student participation declined significantly" (C. King, personal comm., Feb. 7, 2011). In this student's opinion, the room did not seem to be getting a whole lot of use right away.

It can be challenging to create a lasting sense of ownership in a school when the students are only going to be part of that school community for four years or less before they move on. What happens to the next generation of students? Do they feel ownership over the building as well? The architect made a related comment, noting that the ownership concept does not always work because sometimes these projects take so long to actually get built that those people who were involved in the design are no longer around when the project is built (B. Maclay, personal comm., March 3, 2011).

As expected, there were some specific design conflicts that arose when participants did not agree on certain aspects of the building. One example related to the actual siting of the building. Because the Putney School is known for its great views and landscapes, people were very concerned about how the placement of the building might affect these views. Not everyone is going to be 100% satisfied with every decision but that is part of the process and everyone learned from that (B. Raynolds, personal comm., Feb. 18, 2011). Luckily, the architects were able to respond to the siting issue in particular by generating computer models of the different placements and how those placements would affect views from different angles. This was a real testament to the ability of the architect to respond appropriately and manage design conflicts in an efficient and equitable way that would continue to move the process forward.

The Director remarked on how the participatory design process can be a slow process and how people have to really decide what their priorities are and what it is that they care most about. It might seem easier sometimes to just have

one person decide, but in the end, by involving everyone, they ended up with a place that they really love (E. Jones, personal comm., Feb. 2, 2011). One of the co-chairs of the building committee echoed this thought, saying that, “This process can take a longer time and require a lot of thought but it is worth it because you get a lot of people to buy into the process as they are the ones with their hands on the throttle” (B. Raynolds, personal comm., Feb. 18, 2011). Because a lot of people have access to the decision making process, the process itself can sometimes be sidetracked by personal opinions or agendas. The slowness of the process can be a challenge if you are not meeting deadlines or able to maintain excitement; however, one of the building committee members commented that the slow pace of the process can also be an advantage as it gives everyone time for adequate reflection, time to change your mind, or have great new ideas (B. Freeman, personal comm., Feb. 7, 2011).

Lessons Learned

Overall this project was very successful: people greatly appreciated the participatory design process and do enjoy the field house now. If there are areas that could be improved, it might have to do with the social space that was part of the field house. Most of the students were happy to have the social space given to them as completely their own project, but they may have needed a little more direction and structure when thinking about some of the design elements such as furniture, decisions about walls, archways vs. doors etc. The room turned out slightly less appreciated by all of the students because it ended up in the hands of only one student.

When conflicts were encountered during the participatory design process, it was important for the group to be able to determine which aspects of the building were worth fighting for and which were not. The project manager reflected on how important it is to be able to listen to one another and have patience and respect for others' viewpoints in order to keep the process positive and moving forward (R. Smith, personal comm., Feb. 4, 2011). When conflicts came up, it was very important to have a good facilitator and project manager to move the process along. If there is not a good manager or facilitator present, the participatory process can create unresolved friction, escalating tensions, and have a negative impact on the community. Meetings can become long and tiresome, especially if there is some disagreement, but with a good facilitator things move forward and it is worth it in the end (B. Raynolds, personal comm., Feb. 18, 2011). The project manager cautioned that while the participatory design process can be a great experience that brings people together and results in a great place that is well-used, it needs to be managed correctly (R. Smith, personal comm., Feb. 4, 2011).

One way to think about the challenge of ownership for the newer generation of students that did not participate in the design process is to recognize the ability of older students to set examples for younger ones, especially in a contained environment like a small school. If the initial participants in the design process feel ownership over the space and are excited to use it because of this ownership, they can transfer their excitement to newer generations of students who did not participate in the design process. The newer generation of students

will recognize the older students' enthusiasm and see what a great sense of place the field house provides, propelling them to also want to participate in the use and maintenance of the space. User participation in design sets a process in motion that can ensure the building of a great place that future generations of students will want to use for years to come.

Measures of Success

Most people felt that both the participatory process and the field house itself were important indicators of success. The people who were involved in the process and are now using the building need to feel good about both how the process was managed and what it produced. They need to feel that they were listened to and also need to see a nicely designed building. A poorly designed building will not make them proud of what they have accomplished. Since the process feeds into the place, both are important indicators of the project's success. With the field house, the majority of people seem to be happy with both the process and the place and feel that the project was a great success.

Chapter 5 - Cohousing

To explore participatory design with a different space and building type than recreational design, I looked at three case studies of cohousing in Massachusetts: Cambridge Cohousing in Cambridge, JP Cohousing in Jamaica Plain, Boston, and Mosaic Commons in Berlin. Below are general themes from the literature on cohousing.

Background and Benefits

The concept of cohousing, first developed in Denmark in the 1970s, grew in the US partially as a response to the fact that mass-produced housing here is not necessarily suited to the increasing variety of household types. In cohousing, residents take charge of the design and development of their own housing and often bring on a consultant architect and project manager to help guide the process (McCamant & Durrett, 1994, p 6).

The idea in cohousing is that each household that is a part of the community has a private residence and also shares common facilities. Common facilities include a kitchen, dining hall, children's play areas, workshops, guest rooms, and laundry facilities. Each of the individual dwellings is designed to be independent, but the common facilities are emphasized as a very important part of the community that people should take advantage of (McCamant & Durrett, 1994, p 12). Cohousing communities are organized, planned, and managed by the residents who live there (McCamant & Durrett, 1994, p 17). Although each cohousing community is unique, its ultimate goal is to give individuals a sense of belonging and to foster community (McCamant & Durrett, 1994, p 15).

Cohousing started as a grass-roots movement of people dissatisfied with their options for housing (McCamant & Durrett, 1994, p 17). The single family detached home accounts for around 67% of American housing stock but society has moved away from the nuclear family for which this type of housing was originally designed (McCamant & Durrett, 1994, p 12). Now, the family with two working parents is the dominant family type and single family households are also on the rise. The increase in housing costs and the mobility of the population has put a lot of pressure on each individual household. By living in cohousing, families may be able to dramatically reduce their cost of living. Sharing common laundry facilities, dinners, and child care are a few examples of how the cost of living can be reduced (McCamant & Durrett, 1994, p 200).

Danes sought to capture these benefits by creating a new form of housing that would feature all of the advantages of living close to neighbors in a community-oriented setting while still retaining privacy for individual households (McCamant & Durrett, 1994, p 12). “Cohousing is a means for people to make a major step toward community without giving up privacy or control over their personal lives” (ScottHanson & ScottHanson, 2005, p 5). The goal is to create a lively and positive social environment where there are people of all ages, children have other children nearby to play with, and community members can help one another out (McCamant & Durrett, 1994, p. 15).

Many cohousing groups have specific goals when they come together as a community. They may want to focus on having income and racial diversity in their community or to incorporate energy efficiency as a priority throughout the

design process (McCamant & Durrett, 1994, p 45). Often in cohousing, sustainable design is incorporated into the development in one form or another. Sanoff points out that, “Sustainable living has been a goal of American cohousing groups because it provides an organizational framework for buying and maintaining alternative technologies and systems” (2000, p 196). Many cohousing developments also have a more diverse resident population than is found in conventional housing. Sanoff points out that, “Several studies conducted on North American cohousing communities revealed that these developments have a diverse mix of ages, incomes, religions, family makeup and sexual orientations (2000, p 197).

Cohousing developments vary in the number of units, location, tenure, and design. Most cohousing developments, however, share common characteristics. The first is that all cohousing involves a participatory process where the future residents come together to organize and design their future development. They are responsible for all of the final decisions and arrive at these decisions through consensus (McCamant & Durrett, 1994, p 38).

Most cohousing communities also feature an intentional neighborhood design. The physical space should be designed in a way that provides for chance meetings with one another and that works to foster a sense of community (McCamant & Durrett, 1994, p 38). Each cohousing development has extensive common facilities and many communities orient the individual units towards the common house. If residents see the common house when they are walking home, they are more likely to come through and visit with other members of the

community. Other communities will make sure that each individual unit's kitchen is oriented towards the front or public space so that people will see others walking by and invite them in (McCamant & Durrett, 1994, p 40). Often the car is also intentionally separated from the residences to create more interaction between people (ScottHanson & ScottHanson, 2005, p 5). The design is intended to foster informal casual meetings between neighbors (McCamant & Durrett, 1994, p 40). McCamant and Durrett point out that, "While the participatory development process established the initial sense of community, it is the physical design that sustains it over time" (1994, p 40).

Residents not only manage the planning, design and construction of the cohousing development, but continue to make decisions by consensus after the development is completed, typically through community meetings (McCamant & Durrett, 1994, p 38). Though it can seem like a daunting process, McCamant and Durrett point out that, "The desire to live in cohousing communities provides the driving force to get it built and in most cases, residents themselves initiate the projects" (1994, p 38).

There are many different ways in which cohousing groups come together, but typically they begin with a core group of around six to twelve families that will work to establish a development plan, find a building site to build, hire an architect, and look for other people that would be interested in living in the development (McCamant & Durrett, 1994, p 39). The average size of a cohousing community is 40 to 100 individuals. The ownership structure ranges from

privately-owned condominiums, to limited-equity cooperatives, rentals owned by nonprofits, and a combination of ownership (McCamant & Durrett, 1994, p 45).

Most of the literature on cohousing is extremely positive regarding the participatory process. Though recognizing that the process can be arduous, time-consuming, and frustrating in some cases, most sources reinforce McCamant and Durrett's notion that the process is essential because, "The intensity of the planning period forms bonds between the residents that greatly contribute to the community after they move in" (1994, p 40). In many cases, the future residents will not know each other before they begin working together to build their cohousing community, but the participatory planning and design process serves to bring them together as they make decisions that reveal their values and personal priorities (McCamant & Durrett, 1994, p 40). McCamant and Durrett note that, "Having fought and sacrificed together for the place where they live builds a sense of pride no outside developer can 'build into a project'" (1994, p 40).

McCamant and Durrett do recognize that along with being the greatest asset, the participatory process can also be a very limiting factor. They note that it is a huge task for a group of people who do not have a lot of experience in either making decisions with others or the building industry, to take on a cohousing project. Many groups have trouble keeping to a timeline, making sure that all voices are heard and integrating new members without having to go back over decisions that have already been made (McCamant & Durrett, 1994, p 155). In order for the process to be as efficient and effective as possible, the meetings that are part of the participatory process need to be facilitated effectively so that

everyone has an opportunity to be heard and to contribute their thoughts and ideas. It is also necessary to have defining goals and priorities, financing capability, and a design program, in order to keep the project on track (McCamant & Durrett, 1994, p 161). The typical process begins with finding others who are interested in the project, establishing general goals, identifying a location, and setting financial expectations (McCamant & Durrett, 1994, p 156). In a cohousing design program, the following issues are addressed.

1) the social characteristics of the cohousing development, including diversity of income, diversity of age and household type, and expected level of participation in the community;
2) design criteria, including site location, site plan, degree of clustering, public and private areas, building materials, energy use, green building features and sustainable practices;
3) common facilities, their extent and uses, functions to prioritize in the common space, issues of adjacency, such as quiet dining versus closeness of child care space to the dining room;
4) number and type of individual residences, basic unit design by type, architectural guidelines, degree of freedom in individual layouts, amenities, and additions;
5) site design, circulation and parking, common and private outdoor areas, landscaping;
6) construction phasing.
(McCamant & Durrett, 1994, p 161).

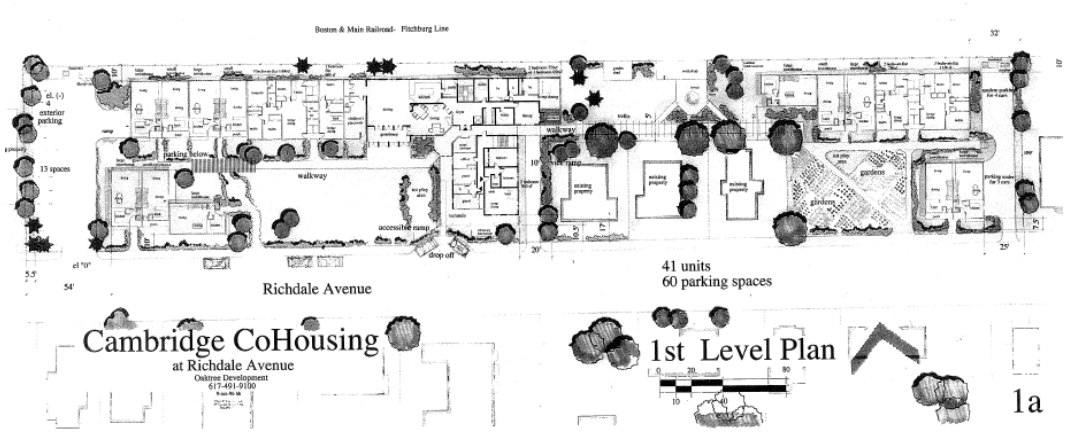
McCamant and Durrett believe that, “The most effective participatory design processes recognize both the value of resident input, and the professional experience of designers who understand the needs of co-housing groups” (1994, p 167). Having a good architect who understands the cohousing concept is extremely valuable for a cohousing group (McCamant & Durrett, 1994, p 167). The cohousing group will also put together a vision statement, sometimes working with an architect on this as well, in order to promote the group to new members and to guide the design and development process and keep it on track

(ScottHanson & ScottHanson, 2005, p 117). After the vision statement, phases typically included in the cohousing design and development process are programming, schematic design, design development, construction documents (working drawings), construction supervision, and ideally a post-occupancy evaluation, although this does not always occur (ScottHanson & ScottHanson, 2005, p 93).

I looked at three cohousing communities in Massachusetts and spoke with residents who participated in the process as well as architects and project managers who helped facilitate these processes. I gathered their opinions on how successful they thought their participatory process had been and what were the benefits and challenges. The main objective of my line of questioning was to find out if the frustrations of the process were worthwhile in light of the benefits derived for the community and the resulting physical development.

Cambridge Cohousing

Different Views of Cambridge Cohousing
(Oaktree Development, 2011, "Cambridge Cohousing")



1st Level Site Plan
(Oaktree Development, 2011)

Community Cooking
(Cambridge Cohousing, 2008, "Kitchen Fun")

Cambridge Cohousing Common House
(Cleveland, A., 2011)

Background

Cambridge Cohousing is a 41-unit community on a 1.5-acre site near Porter Square in Cambridge, MA. The group formed in 1995 and the development was completed in 1998 (Cohousing, 2011, "Community View-Cambridge Cohousing," para. 2). They prioritize low energy use and use about 25-35% less energy per household than the average population. All of the buildings were designed with green technology and they are a community that actively recycles and reuses materials (Cambridge Cohousing, 2008, "Welcome," para. 3).

The 41 units include 29 flats that range from studio apartments to four bedroom units, nine 4-bedroom townhouses and three 3-bedroom townhouses (Cambridge Cohousing, 2008, "Promoting Cohousing through Architecture," para. 2). "As CCH began, an effort was made to include as much diversity as possible along with a balance of single people, families with young children and groups of two or more individuals with various types of living arrangements" (Cambridge Cohousing, 2008, "Promoting Cohousing through Architecture," para. 2). There are two affordable housing units and one supported independent living unit (Cambridge Cohousing, 2008, "Promoting Cohousing through Architecture," para. 2). The community also grows a limited amount of their own food, at about 1-5%, and participates in two to five common meals a week. The architect was Bruce Hampton with developer Oaktree Development (Cohousing, 2011, "Community View: Cambridge Cohousing," para. 1-6). Gwen Noyes, the Oaktree developer, was also an architect who ended up guiding many of the

architectural decisions. Hampton's primary responsibility was to put together the construction documents (CC Resident 1, personal comm., Feb. 11, 2011).

The purpose of the development was to create an urban community where both the physical structure and the social community would serve to enhance the lives of each of the residents. The members wanted to create a mixed-income community with a diversity of age, ethnicity, religion, sexual orientation, and ability. They wanted their site to include outdoor areas for recreation as well as space for children to play and outdoor gardens. During design and construction and development, there was a strong commitment to environmentally sustainable practices such as conservation, recycling, and efficient energy sources (Cambridge Cohousing, 2008, "Our vision for Cambridge Cohousing," para. 1-2). At this point in time not all of the original members still live in the community, with about 30 units out of the 41 still occupied by original members (CC Resident 1, personal comm., Feb. 11, 2011).

Benefits

Most participants agreed that the process of working together did serve to bring the community together. One resident notes that "people learned how to make decisions when not everyone agrees; processing these issues built up relationships and a level of trust" (CC Resident 5, personal comm., Feb 20, 2011). The process allowed people to get to know one another and to form some social bonds that continue to this day.

There were some design decisions that resulted from the participatory process that people were very proud of, including their choice for environmentally

friendly technology and their choice to make an atypical living room in the Common House. They ignored the advice of cohousing experts who said it should be a small, intimate space and made it a larger more open space. People really enjoy the larger space and use it often.

One resident also commented that in the cases where there was meaningful design participation, the collective perspectives together resulted in a much better design that he could have come up with himself. This confirms the idea that the wealth of input from different people and perspectives can form the best design solution and be the most appropriate space for the people who will live in the place they designed.

Challenges

This cohousing community is distinct from the other two cases that I looked at in that they seemed to have struggled the most throughout the participatory process. There may be many people who felt very good about the process that did not respond, but the participants that I heard from brought up many different challenges that they were faced with throughout the participatory design process. The architect and the developer both agreed that they found the process to be very challenging. One of the participants pointed out that he did not think the consensus process was done correctly and because of this a lot of people were left feeling that their ideas had been completely ignored. He notes that although he is a big believer in consensus and feels that, “It is a really powerful form of collective decision making and can be quite efficient if it’s done right” (CC Resident 1, personal comm., Feb 11, 2011). He also thinks that it is a mistake

to attempt this process unless you have really taken the time to understand all of the different mechanisms involved in consensus and what it really means.

In direct contrast to many of the other projects that I examined, participants did not seem to really enjoy the participatory process. As I mentioned above, the architects and developers thought it was very challenging and residents who were involved in the design process described it as "stressful, phony, fruitless, misguided, and overwhelming." Some indicated that the process had potential to be great, but that it just was not managed correctly. One resident notes that, "If you manage the process well and as a group you are skillful in pursuing these processes, it can be a very positive experience. If collectively you are not so skillful and you start to get sloppy, then people start being rude and tensions arise" (CC Resident 1, personal comm., Feb 11, 2011).

A few people also told me that they were not happy with the built outcome either. They felt that a lot of the construction was shoddy and that many design opportunities were missed. The developers had chosen to build modular with a building company called Epoch Homes in New Hampshire. The sections were then delivered to the Cambridge Cohousing site and set on the foundation. There were some durability issues related to this, such as minor cracks and one resident had loud pops in her walls for two months. Their water source heat pumps also all failed within 2 years (Cameron, DiCarlo, 2007, p 55). These are just a few of the details that contributed to the residents' perception of shoddy construction. One of the residents noted that the construction went ahead quite differently from what

they were led to expect, which was disappointing and a lot of the quality of the project was sacrificed.

Lessons Learned

The other cohousing developments that will be discussed later may have had more success with the participatory design process simply due to the experience of developing other cohousing developments that the architects and project managers brought to the process. This was the first cohousing project that Oaktree Development had done and they may not have understood the consensus process well enough to make sure that it was executed properly. Another issue may have been that the developer, who served as project manager and had a lot of architectural and design input, was also a resident. One resident notes that,

> As our developers were members of our community, sometimes the lines were blurred. Some problems resulting from this could have potentially been avoided if we had hired outside professionals. We saved a lot of money this way, but the process had its drawbacks" (CC Resident 5, personal comm., Feb. 20, 2011).

Many people voiced that the project manager's and developer's lack of experience in cohousing was a real problem.

Some people seemed so hurt by what they felt was non-authentic participation, that they still feel anxious discussing the process. One respondent even noted that, "The user participation was only partially successful because most of the people with no design or building experience put our trust in the experts and that trust was too often broken" (CC Resident 4, personal comm., Feb. 17, 2011)

Many people noted that there were very few design decisions that were put before the design committee so participants did not feel as involved as they would have liked to have been. Only some smaller tasks like interior design and some aspects of the Common House were given to the design committee. One resident commented that if they had actually gone through a truly meaningful participatory design process, it would have definitely yielded a much better outcome.

The developer noted that she felt like having committees and participation in the process was extremely useful and helpful. She feels that as they proceeded through more of the consensus decision making that is part of cohousing, the committees needed to be given the authority to move forward. “One problem that we run into is that committees will spend hours and hours on something and then someone new will show up and say that they need to go back to the drawing board and it can just get very frustrating” (G. Noyes, personal comm., March 11, 2011). She also found it challenging to work with so many people with different perspectives and still keep in mind the most cost-effective solutions that would fit within participants’ budgets. When you add in even more complexities like environmentally sustainable development features, the participatory process becomes even harder. She notes, “You want to get a wide variety of people involved but it’s hard to coordinate all of these different types of people who may have very different ideas on what they want” (G. Noyes, personal comm., March 11, 2011).

The architect, Bruce Hampton, echoed these sentiments saying, “Consensual decision making is arduous but tends to come up with an acceptable

solution that no one really can argue with" (Personal Comm., March 16, 2011). He felt that while there are advantages to group decision making sometimes the best architectural decisions did not result (B. Hampton, personal comm., March 16, 2011). One of the residents who is also an architect pointed out an example. There is a pillar in the living room in the Common House that people insisted on having in place because there were other pillars in the room serving structural purposes and they thought they needed one more to make the room symmetrical. This pillar does not serve a structural function and serves to restrain one corner of the room. The group was given a grand piano to put in their living room and this was the only corner where it would fit, but because of that pillar, the piano is too close to the window and is being damaged by the sunlight coming in. This pillar was not architecturally necessary and is now serving to indirectly damage their grand piano. Though a seemingly small point, it is something that causes a great deal of frustration for many of the residents who did not want it there in the first place.

Hampton suggested that the number of tasks that require participatory decision making should be limited, that there should be firm deadlines, and that the majority of decisions be completely made before the start of construction. Looking back at the process, he commented that, "A participatory process should never be fast-tracked as there are too many 'on the go' decisions to be made. This either results in decisions people are not happy with, or costly changes" (B. Hampton, personal comm., March 16, 2011).

Measures of Success

Most people that I asked about success commented that it can only be measured by how happy people are to be living in the development. Their happiness may relate directly to how they perceived the process to be run and how much they like the physical structure in which they live.

This case study seems to be a real testament to the power that a participatory design process can have. In most other cases, people felt that the participatory process was very positive and that it led to better design and to a stronger community. They also felt that it led to a sense of ownership that made people take greater advantage of the physical spaces they created and, by so doing, encouraged even more use of that space by others. In the Cambridge Cohousing case, the participatory process was perceived to be poorly managed and residents do not seem to feel the ownership that normally results. They did not feel truly included in the major decision making. Some feel that they were hoodwinked and ended up living in a space that is not really their own and that does not have the same connection and meaning for them that cohousing should.

Certainly there are some features of the development that were successful, such as the Common House that people feel they made great contributions to, both in the living room and the interior design, but there is also much dissatisfaction with certain elements of construction. This dissatisfaction seems to be compounded by the fact that the developers are still living within the community and the tensions are still present.

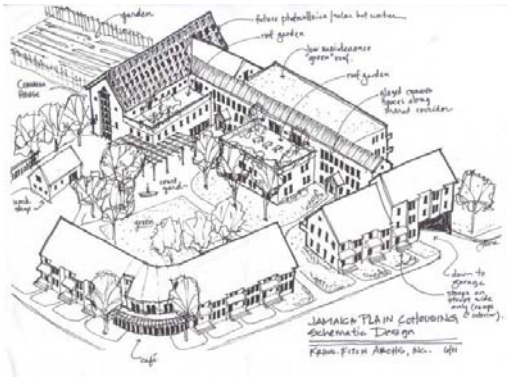
Cohousing is unique among other space and building types because the participatory design process is just the beginning of a life based on consensus and group decision making. In this case, instead of setting an example for how well this can work, the participatory design process seemed to overwhelm and intimidate people to the point that there are still many tensions around committee decision making in the development 10 years later. In fact, when I went to visit, the group was having a meeting on whether or not they should remain cohousing or convert to typical condominiums because tensions have run so high (CC Resident 1, personal comm., Feb. 11, 2011).

One resident made a good point when conveying the true effect of a participatory design process on a space. He mentioned that if you are living in the development and you walk by something that you really love and that you helped to create, that does fill you with an enormous sense of pride. However, on the other hand, if you walk by something that you do not like and that you did not want to happen, it serves to reawaken some tension that you experienced and it makes it hard to forget when you are constantly confronted with this physical reminder.

Jamaica Plain (JP) Cohousing

Jamaica Plain Cohousing
(Kraus Fitch Architects, 2011, "Jamaica Plain Cohousing")

JP Cohousing Common House
(Cleveland, A., 2011)



JP Schematic Design
(Kraus Fitch Architects, 2011, "Jamaica Plain Cohousing")

Outdoor Space at JP Cohousing
(Kraus Fitch Architects, 2011, "Jamaica Plain Cohousing")

Background

Jamaica Plain Cohousing is a 30-unit community located on a 1-acre site in an urban setting in Boston. The group formed in 1999 and the development was completed in 2005 (Cohousing, 2011, "Community View-Jamaica Plain Cohousing," para. 4). The 30 units include apartment flats and townhouses (Kraus Fitch Architects, 2011, "Jamaica Plain Cohousing," para. 1). Six of the units are located in the Common House. The remaining units surround the Common House and are positioned so that everyone can see the Common House from their homes. There are sixteen different unit styles including three studios (JP Resident 2, personal comm., Feb. 12, 2011). The community grows about 1-5% of their food and they have one common meal a week on average. The architects were Kraus-Fitch supplemented by Domenech Hicks & Krockmalnic Inc. (Cohousing, 2011, "Community View-Jamaica Plain," para. 1-9).

The three founding families that I spoke with all expressed a similar interest to live in a community and in a place where people knew one another and were friendly and open to meeting new people. They did not like the isolation of the typical detached single family home and decided to work together to form a cohousing group in Jamaica Plain (JP Resident 3, personal comm., Feb. 21, 2011). The first step was to write a business plan to attract potential developers. Chris ScottHanson, a project manager with cohousing experience, was brought on to help them with the project. They were able to attract many investors because of a favorable building climate and actually sold out the units before they even got their permits (JP Resident 2, personal comm., Feb. 12, 2011).

The larger group that formed Jamaica Plain Cohousing developed principles that would be prioritized in their development, including a mixed-income multigenerational neighborhood. They wanted:

- a location that would be within walking distance of public transportation and close to other mixed uses such as schools, shops, and restaurants.
- a commitment to conservation of resources including energy savings, recycling and reducing consumption.
- green spaces and gardens where people could gather.
- play and learning spaces for children
- affordability of the housing units
- common areas and as many individual units as possible accessible to people with disabilities

(Jamaica Plain, 2010, "Our Vision Statement," para. 1-12).

Features that reflect these principles are listed below.

- Residents share one electronic/water/gas bill which is paid out of the condominium fees so they get to use utilities at commercial rates which are cheaper than residential (JP Resident 2, personal comm., Feb. 12, 2011).
- The development instituted a ride sharing system, provides MBTA fare passes at a subsidized rate, and features community bicycles on site. (Cohousing, 2011, "Community View-Jamaica Plain Cohousing," para.1).
- Five raised-bed gardens are located on the property, with on-site composting (Cohousing, 2011, "Community View-Jamaica Plain Cohousing," para.3).
- Units are built around a large courtyard and each unit kitchen is oriented to the courtyard to foster community interaction when residents dine in their kitchen. (JP Resident 2, personal comm., Feb. 12, 2011).

Benefits

Project Manager Chris ScottHanson has been doing cohousing for quite some time and has found that the "participatory design process builds ownership. By participating in design you own the approach, literally and figuratively" (Personal Comm., Feb. 25, 2011). He also identifies a social momentum that is set in motion first with the participatory design process which provides ownership and then by residents propelled to care more about their spaces, maintain them,

and continue to participate in the management of the development. When changeover occurs and a new household moves in, they can see how the original group treats a space and they then "carry on the tradition of how the society and social structure are going to work" (C. ScottHanson, personal comm., Feb. 25, 2011).

ScottHanson also comments that the consensus building that is part of the participatory design process is a powerful tool that supports the idea that those who participate in the creation of something will feel that they own it. He points out that consensus is distinct from standard democracy in that you cannot win until everyone can accept a final outcome. Not everyone will get their favorite outcome, but everyone has to at least be willing to accept that outcome. He notes that, "When people work together to agree on something, that is going to mean something for them" (C. ScottHanson, personal comm., Feb. 25, 2011). Many of the participants expressed similar thoughts about ownership and felt that symbolic ownership over the space. They felt that this ownership and pride have helped to further foster community.

The facilitation seemed to have worked well for the most part and most people commented on the fact that they thought having architects who had experience with cohousing was key to making sure that the facilitation and consensus process ran smoothly. One resident noted that, "It is all about how you facilitate consensus that determines how well it works" (JP Resident 2, personal comm., Feb. 12, 2011).

Most people also agreed that the process of designing the building helped to contribute to a greater sense of community. One participant commented that, "By listening to each other, people got a sense of where other people were coming from and learned more about their background" (JP Resident 3, personal comm., Feb. 21, 2011). Many people also thought that the collaboration of ideas led to better ideas than any one person could think of on their own and there are many design decisions that the group as a whole are very proud of. These include the walking paths that run through the central courtyard and the Great Room in the Common House.

Challenges

Although most people felt that the design process helped to foster community, one resident did comment that she felt like the cohousing community could have been just as strong without having the design process in place. She sometimes felt overwhelmed by the design process because she was not a professional and did not understand everything about architecture and design. She pointed out that there were some design challenges that were particular to their site that made the process even more complicated.

First of all, there is a large easement that runs through the middle of the property. She noted that they were originally planning on having double-loaded corridor apartments with open space on one side and underground parking. They quickly realized that this was not going to work with the easement and that they were not going to be able to afford underground parking anyway. The architect was able to suggest opening up the buildings and having the courtyard in the

middle, and while this ended up being something that the community really loved, it still felt like an extremely complicated process (JP Resident 2, personal comm., Feb. 12, 2011).

This same resident also related the difficulties that they had with the permitting process. They initially wanted a variance for fewer parking spaces than the zoning required. At the time, the zoning required 1 and a half parking spaces per apartment and they knew that they would not need that many. The neighbors would not allow this variance to pass though because, while they understood that most of the cohousers did not have enough cars to fill up the spots, they were afraid that the development might fail and that it would become a typical condominium building. People with more cars would move in. There would not be enough spaces on site and their cars would end up parked all over surrounding streets, contributing to traffic and parking problems. The neighbors also had some issues with the setbacks and there were many delays that resulted from their opposition. If they set the building too far back, they would end up violating the easement. Despite all of these complications it was interesting to note that, according to this same resident, there were many other people in the community who felt strongly that the participatory design and development process were essential to the community feeling that is now present at JP Cohousing (JP Resident 2, personal comm., Feb. 12, 2011).

Many people commented on how the consensus process could sometimes be difficult. One person pointed out that there were so many different kinds of people involved with many different needs that it was difficult to come up with a

design that suited everyone. Many of the residents commented on the challenges that were specifically a part of their last workshop, the value engineering workshop, where they had to work together to figure out what they would cut out of their plan to stay within budget. There was a long discussion about the buttresses that adorn the ceiling of the Great Room, as many residents felt that they were absolutely essential to creating a truly majestic space, while others felt that they were too expensive to prioritize and thought that functional features such as a commercial dishwasher and handicapped ramp to the Common House were much more important. There were a lot of strong opinions about certain design challenges and it took a while to really come to consensus about what to keep and what could be eliminated. As a note, the buttresses were kept and the commercial dishwasher and handicapped ramp were put on the backburner for later.

One participant expressed the opinion that people at JP do not take great care of the common house and that the theory of ownership that is supposed to result from the participatory design process did not work out for some people with respect to the maintenance of the common spaces. She said, “Just because you have invested a lot of time and energy designing a space does not mean you will necessarily invest a lot of time and energy protecting it” (JP Resident 3, personal comm., Feb. 21, 2011). She also points out that sometimes in mixed-income communities such as theirs people simply do not have the money to be able to invest in repairs and maintenance.

Lessons Learned

Many of the people that I spoke with commented on how important it is that everyone understand the consensus process in order to feel satisfied with participatory design. Consensus does not mean that everyone gets their number one choice. It means that sometimes people get their number one choice, sometimes they get something that they still like but that was not their favorite, and sometimes they will get something that they did not want, but that they agree they can live with. The idea behind consensus is that everyone's ideas are heard and the resulting design is something everyone has agreed to. One resident who does a lot of work on consensus issues noted that she finds people get into trouble with consensus if they A) do not understand it and think that they have to agree with decisions to move forward when really they just have to give their permission or B) if there is poor facilitation where the facilitator does not really understand the process (JP Resident 4, personal comm., Feb. 18, 2011). One resident pointed out that when this process is done right, it is very valuable because it creates buy-in and gets people on board.

ScottHanson, as the group facilitator in many consensus processes, described how important it is to make sure that people are actively listening to one another throughout the design process and also to make sure that you hear from everyone. It is especially important to create a comfortable space for introverted people to be able to speak up and there are strategies for doing this, including asking everyone to just be quiet for a few moments and then asking if anyone who has not yet spoken would like to make a comment. He believes that silence is

really important to introverts and allows them the comfort that they need to speak. One resident also points out that you should never overlook a protesting household or push a decision because of time urgencies. They note that you really have to hear people out and make sure that everyone is comfortable in order for the participatory process to really be effective.

One participant commented that sometimes the participatory design process involved long series of discussions and debates over many meetings. Another resident noted that, “Often the participatory process can feel awkward and hard” (JP Resident 2, personal comm., Feb, 12, 2011). However, both participants also felt that the long, hard discussions were often the ones that resulted in the best decisions and that, all in all, the process led to a stronger community. Some of the residents echoed the sentiments of other people from different cohousing developments that I have spoken with and said that the participatory process can be made less painstaking if you make a clear distinction between which decisions should be made by the community and which ones should not.

Some residents commented in particular on the hiring decisions of the group. One noted that they had originally decided to bring in an additional architect because Kraus-Fitch, although experienced with cohousing, had never built in the city of Boston. The architect that they hired for this purpose had no experience with cohousing which translated into some problems that were the result of a lack of understanding. The resident noted that she would not use a traditional architect who did not have experience with cohousing again. Another

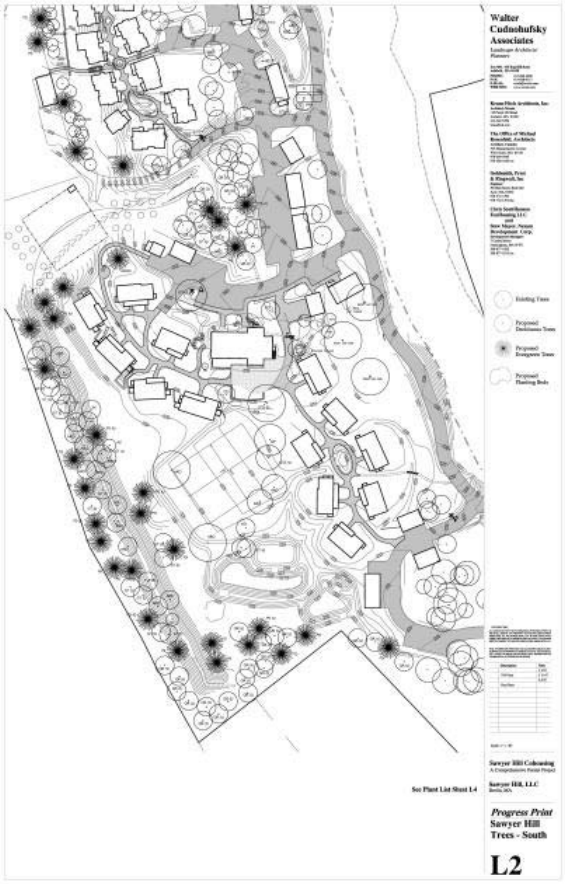
resident who helped out with project management believes that you should never hire from within, even if you have an architect or designer who can help. It only serves to make the participatory process even more complicated.

Project manager Chris ScottHanson also shared a general lesson learned about cohousing, citing other examples of cohousing processes where they had almost completed their design and then realized that they were not going to get the land that they originally wanted. He argues that this can actually be very beneficial because it forces the group to do the participatory design process in more than one iteration, which he believes improves the quality of the outcome (C. ScottHanson, personal comm., Feb. 25, 2011). Of course this would take much more time and would incur many additional costs so this is not always a realistic endeavor.

Measures of Success

ScottHanson thinks that the real measure of success at JP and in other cohousing developments is when everyone signs the final iteration of the design and by so doing agrees that they all support the design. This is a real and symbolic achievement that represents that fact that they have all been able to come to an agreement (C. ScottHanson, personal comm., Feb. 25, 2011). Many others measured their success in terms of how people are feeling living in the cohousing community. They pointed specifically at how well the community was doing to measure the success of the participatory design process. People in general seem happy to be living in the JP cohousing development with only some very specific comments on how things could be improved.

Mosaic Commons



Site Plan (Kraus Fitch Architects, 2011,
"Mosaic Commons/Sawyer Hill Development")

Mosaic Commons (Kraus Fitch Architects, 2011,
"Mosaic Commons/Sawyer Hill Development")

Mosaic Commons Common House
(Cleveland, A., 2011)

Mosaic Commons Memorial Day (Flickr, 2010,
"Memorial Day Barbeque

Background

Mosaic Commons is a 34-unit cohousing development on a 65-acre site in Berlin, MA with a focus on green development. The group that formed this development has been meeting since January 2000 and was originally members of the Sudbury Valley School community, a school where students are independent and treated as responsible individuals. Since 2000, the group has grown to include many other families, each with their own unique beliefs and philosophies (Mosaic Commons, 2011, "How did this group start," para. 1). The development was completed in 2009 (Cohousing, 2011, "Community View-Mosaic Commons," para. 1-8). There are four types of buildings, containing a total of five types of units. The 34 units include 1-bedroom flats, 2-bedroom townhouses, small 3 bedroom townhouses, large 3-bedroom townhouses, and 4-bedroom townhouses. The buildings are mostly triplexes with one duplex type (Mosaic Commons, 2011, "Individual Homes," para. 1). Ten of the units are affordable. The project was built under Massachusetts' affordable housing 40B program (Cohousing, 2011, "Community View-Mosaic Commons," para. 2).

The houses at Mosaic Commons are clustered together along a pedestrian path with the Common House in the center of the development (Mosaic Commons, 2011, "Our Homes and Land," para. 1). The architect for the project was Kraus-Fitch Inc. A large organic garden produces some food on site and residents average around two to five common meals a week (Cohousing, 2011, "Community View-Mosaic Commons," para. 8-13). There is also a hot tub on site

where residents contribute money to take a dip (MC Resident 6, personal comm., Feb. 19, 2011).

This is a community where every background is respected and celebrated (Mosaic Commons, 2011, "How did this group start," para. 1). The green features of the development include open space, with 28.5 acres of the land preserved as conservation land. Clustered parking and buildings ensure that much of the property remains open. Many resources are shared at the cohousing development including lawnmowers, snow blowers, and other tools. Many of the residents share rides to work, reducing fuel use and emissions. Shared walls in the community lead to higher efficiency and fewer building materials used. The community also meets many of the LEED requirements for green building although it is not technically LEED certified (Mosaic Commons, 2011, "How is Mosaic Commons Green," para. 1-5)

Mosaic Commons has a tight envelope, which reduces the amount of heat needed for their houses compared to an average house. They have triple glazed windows and super insulated walls and roofing. In the future they will be able to add solar collectors to the roofs of their houses, which are all oriented south, and there are plumbing taps in place to add active solar pre-heaters on the roofs and heat exchangers in the attic spaces (Mosaic Commons, 2011, "How is Mosaic Commons Green," para. 6-8).

Benefits

Many of the residents agreed that some of the success and the community of the cohousing development could be attributed to the fact that it was designed

by the people who live there. I got the chance to speak with someone who was not able to participate in the process and he remarked that he really wishes that he could have. He felt almost as though he was left out or missing out on something when he walks around and wonders how certain design features were decided upon.

Most people who participated enjoyed the participatory process, while also acknowledging that this can be a very challenging process to have to design with such a big group. Many of them commented on how helpful the architects were and a few mentioned that they did a great job of facilitating the process. One resident said that, “The experience of the architects really helped out in the facilitation and participatory design process. They were able to use examples and suggest ideas that had worked out really well for other cohousing developments” (MC Resident 6, personal comm., Feb. 19, 2011).

I also spoke to Mary Kraus, the architect, who pointed out what she sees as the benefits of the participatory design process. She commented that it “helps the clients fulfill their social community needs in the process of designing the community” (Personal Comm., March 25, 2011). As facilitators, she and Laura Fitch try to foster a supportive environment where people are listening to each other and communicating well. It has to be an environment where everyone feels that he or she is being heard. If you can create good communication in the initial processes, this will serve the cohousing group in the end. Another asset she acknowledges is that people are able to shape what they want and need and this will serve to make the person happier in the place where they live. She also thinks

that the sense of ownership that people gain through the process will motivate them to better use and maintain their spaces (M. Kraus, personal comm., March 25, 2011).

Challenges

The majority of participants brought up the fact that some of the design decisions were made around the needs of people who did not end up staying in the group, which was frustrating. One of the women who was involved earlier in the process pushed hard for washer/dryer units to be located on the second floor where the bedrooms are and while people conceded that this would be ok, it was not the most popular decision because of having to bring the washer and dryer up the stairs. Today, this woman is no longer with the cohousing group and a lot of people voice frustration over having their washer/dryer located on the second floor.

A lot of the participants felt that these issues were due to the fact that the process took such a long time to finally get off the ground, but they were not really sure how to avoid this challenge. It can often be a challenge with cohousing to get the project started and this project took over nine years to complete, with 5 years required just to be able to secure the land (Mosaic Commons, 2011, blog). In that respect, the project drained a lot of money and resources before it was able to proceed.

Many people, including the architect, brought up the fact that some of the meetings could be long and frustrating and that the consensus process for making decisions could get tiresome for participants. One resident thought that if they

were to go back and do the process over again, they would probably try to make it more efficient, and also noted that because the whole process took so long, they thought that decisions at the end were probably made too quickly in an effort to try to get things moving.

Lessons Learned

The majority of the people that I spoke with brought up the fact that there should be a clear delineation between the decisions to be made by the architect and those to be made by the participants. Participants noted that they just did not feel qualified to be making certain decisions and that they really needed to rely on the advice of the architects for some decisions. Many of them felt like the architects did a good job of helping them through the process, although some felt that there were some silly design decisions that were made and that the architects should have prevented them from making those decisions. One resident commented on the process saying, “Often I felt like I was over my head. I was making really important decisions with only the wildest sort of guess as to what my real needs would be” (MC Resident 5, personal comm., Feb. 11, 2011).

One of the residents talked about a few specific areas where they made design mistakes. She pointed out that one of their priorities in development was accessibility and, in that vein, they wanted every unit to have a ramp up to the front door. When they decided that they wanted to put basements into the units though, this made it difficult to install ramps and many of the units ended up with stairs instead. They made another mistake with the placement of the hot water heater in relation to the guest rooms in the Common House. When guests come to

visit, there is a long wait before the water warms up. She did note that there are still a lot of design decisions that come out of the design process and when one person does something new inside their house that often inspires other residents to do the same. For example, there are a number of animals in the community and when this resident installed a small opening at the bottom of her basement door for her cats to go through, she noticed that many other residents did the same (MC Resident 6, personal comm., Feb. 19, 2011).

As a facilitator, Kraus commented that you need to make sure there is a good balance between the group and the architect. You want to make sure that the group is running the process and they are the ones determining their priorities and their design needs, but at the same time it can be very difficult for the group to move forward without enough guidance. She feels that her job is to articulate the different design solutions, materials, and details and how those different solutions can affect the group's goals (M. Kraus, personal comm., March 25, 2011).

She described to me how their process works and how it has been shaped by lessons learned through their experiences with different cohousing developments. Typically with the site design process, they will send out an online survey to the group ahead of time and then they will write up a design program based on what they know about the group already and based on their knowledge of cohousing. They will then get feedback on this program and try to determine where there is consensus and where there is not in order to pull out important discussion topics. In the initial meeting they also make sure to incorporate education on site design, showing information on cohousing and what other

developments have done in order to make sure that the group has some ideas. They hold different workshops on separate activities like green design, sustainable design, unit design, and common house design and throughout the process they try to do a lot of hands-on activities to get people excited about and involved in the process (M. Kraus, personal comm., March 25, 2011).

Measures of Success

As a facilitator and architect who has a lot of experience with participatory design, Mary Kraus measures the success of the cohousing community in both social and physical ways. She notes that it is important that people use and enjoy the space. They should be in the common house often and getting along well. She looks to see if people are having "random connections by design" through the community. Are they running into each other spontaneously as they walk along the pedestrian way? If so that is a sign of a real successful cohousing design because it is fostering community connections and interaction (M. Kraus, personal comm., March 25, 2011). Most people felt that this was a successful project because people were happy to be living here and enjoying the space and a lot of people commented on just how much they love the common house and their individual units.

Chapter 6 - Analysis and Conclusions

Common Themes

Overall the people who participated in interviews or responded to the survey felt that the participatory design process does have an effect on how a built outcome is used and perceived. One important theme that came up in many of the interviews, across the case studies, is that a poor participatory design process can have just as much of a negative effect on the community and the built outcomes as a good participatory process can have a positive effect on the community and the built outcomes. If the participatory process is effective, it brings the community together and builds ownership and buy-in for the people who are participating. This can often translate into a well-used and well-maintained space. The literature reinforces this idea that it is important for architects and designers to understand the community context of their projects, rather than rely on a traditional individual client-architect relationship. Though there are challenges that many people brought up, in particular coming to consensus when there are so many different people with different perspectives, most people also thought that good facilitation was the key to making a participatory design process successful, thereby ensuring the advantages for the built outcome and community involved.

As mentioned previously, many people commented that the only way to ensure a successful participatory design process is to make sure that a skilled facilitator is involved. If the architect is also the facilitator, he or she needs to be experienced in building consensus, managing conflicts, and moving the process along in a timely fashion that also respects all people's viewpoints and ideas. The

project manager also should have strong facilitation skills. In cohousing, in particular, it is important that the architect has experience with cohousing and that neither the architect, developer, nor project manager is also a resident of the cohousing he/she is helping to build.

Many people brought up the fact that there needs to be a clear vision laid out at the start that can help to guide the rest of the process. One common suggestion to ensure a successful participatory process is to decide from the beginning what the role of the architect will be and what the role of the participants will be.

Cambridge Cohousing is an example of how the process was not managed well. The interviews revealed that the community is still riddled with conflicts and tensions that originated in the participatory design process. The community as a whole still struggles with the consensus process and this could be a result of their lasting impressions of their first experience with consensus, in the participatory design process. When the process lacks an experienced facilitator, people can end feeling that they were not listened to and that the process was phony. If the participatory process does not feel authentic, it can have long lasting negative effects, especially in a setting like cohousing where consensus plays such an important role in the everyday lives and decisions of the residents.

Another example of where the facilitation process seemed to have worked fairly well, but could have been improved is at the Waltham Boys and Girls Club where the children felt that their ideas were not incorporated into the final design. While there is no denying that KABOOM! and the Waltham Boys and Girls Club

did a great thing for the kids by building them the playground, they may have needed to devote more effort to clearly communicating the goals of the process and managing the children's expectations. This may be especially difficult in a process where younger kids are asked to draw their dream playgrounds. That process can be very exciting and it would be easy to get carried away with a number of creative ideas. KABOOM! should explain to the children, before they start drawing, how the process will work and what the architect will do with their drawings. They could show them examples of what other kids have drawn on other playground Design Days and of the results: pieces of equipment that were inspired by the drawings. This way the children may better understand that their drawings are not going to be taken literally and that they are instead used to inspire the architect. KABOOM! should also ensure that the children are reconvened to vote on the playground design options that come back from the architects, as they did at Cambridge Community Center. It is important for the children to feel that their ideas were taken into account and to understand how they were considered if they are going to feel that ownership over the space that many of the participants in each of the case studies suggested was a real positive for built outcomes.

Most people agreed that when you help to design and build something you feel real pride and ownership over it if it was something that turned out really well. At Jamaica Plain Cohousing the walking paths and the Great Room are places that people are very proud of. One resident at Cambridge Cohousing remarked that when a participatory design process has taken place, the physical

design is a constant reminder whether for good or for bad. People feel associations with a place that they have helped to design. When those associations are good it can propel them to make greater use of the space and better maintain it. When those associations are negative it can serve as a disincentive to use or maintain the space and an irritating reminder of an experience that they might like to forget.

With the cohousing case studies examined, it is interesting to note the trend that the more recent the development the more positive the feedback the participatory design process received. These communities seem to be learning from one another's best practices and taking those lessons seriously as they embark on their own cohousing groups. Mosaic Commons (2000-2009) was overwhelmingly positive; JP Cohousing (1999-2005) expressed more moderate feedback; and Cambridge Cohousing (1995-1998) had a participatory design process that seemed to be divisive. There are of course many different reasons why Mosaic Commons might be the most satisfied group, but it is worthwhile to note that there were several other cohousing communities and experiences for them to learn from. They had the advantage of seeing what worked for other people and what did not seem to work so well and they were able to incorporate these lessons into their own process. Cohousing projects in general seemed to be more difficult than playground projects and this could be related to the fact that there are more decisions involved and people are more emotional and selective when it comes to finding a place to live than a place to play.

Some of the literature indicates that the process can be more important than the product in some places (Sarkissian, Cook, Walsh, 2003, p 21). Yet most participants and facilitators had a hard time pinpointing a measure of success and the most common answer that I got was that it was the happiness of the people living in or using the space or that it was both the process and the place. The process and the resulting place are so intimately related that one could not be a success while the other one was not. In most cases, if the process was good, the product is good. If the product is bad, people will look back on the process and say that it also was bad. If the product is architecturally good, but people felt that the process was bad and that the product did not reflect their ideas, they are not going to feel like the product is good either.

Participatory design does however have a different meaning and importance in different space/building projects and for different populations. For children's playgrounds, it can be a rewarding experience, a lasting community building project and result in a better used space, but it can also be a means to an end, where the playground is the ultimate goal. The children at the WBGC ended up happy despite a failed (from their perspective) participatory design process because they got a new playground (and mingled with the Patriots). Design Day was an event; the playground is the enduring space.

High school students can be more interested in the process because it educates and empowers them and less in the outcome which they will use for a limited time. Putney students who participated in the planning, design and net zero energy decision of the field house have left Putney and are in college.

Because of the construction period, most of them got to use the building only in their last semester. The field house as a building was a proud temporary moment but the experience of participatory design and making their voice heard by the school board is their permanent take-away.

In cohousing the participatory design process is an integral part of the cohousing experience. Cambridge Cohousing residents are currently discussing the possibility of abandoning the cohousing structure and converting the project to a condominium development. The participatory design process was the first step in the cohousing experiment, and when it failed, the cohousing failed also. JP Cohousing and Mosaic Commons residents fully participated in the design of their housing and community and now reap the fruits of their labor. In fact, the JP Cohousing community was so carefully built by residents through consensus decisions – vision, business plan, goals, outreach, design principles –*before* the start of design, that at least one resident commented that "the cohousing community could have been just as strong without having the design process in place." She did acknowledge, however, that there were many other people in the community who felt just as strongly that the participatory design and development process was essential to the community feeling that now pervades JP Cohousing.

The cases also revealed that the same participatory design process can be perceived differently by different groups of participants. At the Waltham Boys and Girls Club, the adults deemed the process to be a success while the children did not. The project manager and developer of Cambridge Cohousing admitted

that the process was difficult but that the outcome justified it. Most other participants were dissatisfied with both the process and the outcome.

When a participatory process is successful, participants agree on what made it a success. When the process is perceived to have been unsuccessful, participants disagree on why that was so and how it could have been improved. Residents of Cambridge Cohousing thought they were given too few design issues to discuss and decide on – interior design and some aspects of the common room. According to this view, "If we had gone through a truly meaningful participatory design process, on a wider range of design issues, it would have definitely yielded a much better outcome." The architect on the same project, by contrast, thought that "while there are advantages to group decision making sometimes the best architectural decisions did not result." His recommendation to improve the process was that "the number of tasks that require participatory decision making should be limited."

The participatory design process yielded many similar benefits throughout the case studies. In cohousing the participatory design process brings people together initially so that they can learn to listen to each other and be respectful of one another's opinions. They learn how to build consensus early on and as Mary Kraus, one of the architects for both Mosaic Commons and Jamaica Plain Cohousing, points out they are building the social skills that they will need to live in cohousing while also designing their own physical space. In playground builds, the participatory design process also goes a long way to teach the community how they can work together and accomplish something great. KABOOM! wants the

participants in their playground builds to take the community building skills with them to other community projects and, using interview and survey information as a basis, they seem to have been successful at empowering participants in their projects to do just that. In the Putney School Field House, students not only learned about compromise and other group skills that they will definitely need later in life, but they also learned about green buildings and this is important knowledge that they can take with them and hopefully teach to others. Across all of the projects, participants emphasized that the process was a real educational experience for them, both in gaining design skills and learning consensus and compromise skills.

There were some cases, such as with the Putney School Field House and the Cambridge Community Center playground where people were reluctant to make a connection with how well-used a space was and the fact that a participatory design process occurred. This reluctance seemed to be based on the fact that students move through schools and kids grow up so the children that were originally part of the design process are quickly outgrowing or moving on from the facility. What is interesting though is that the initial group of kids does tend to react very favorably to a place that they helped to design and as soon as it is built they feel an immense pride and they make use of the space. Katherine Lusk, the project manager, commented on how the community design and build model is just a great way to provide ownership for people and how this ownership often translates into good maintenance and care for the playgrounds that they build. It could be argued that the participatory design process sets the stage for a

great place to endure. It plants the seed for the first generation to make good use of the space and then as the second and third generations see the generation before them consistently using that space, they too want to take advantage of the place and use it. Places that have been created through participatory design have "a special meaning to the users…and exude a cared-for, well-loved quality that gives them a special identity among insiders as well as a sense of place for outsiders" (Hester, 1990, p 10). The participatory design process sets a process in motion that allows a space to acquire a great sense of place and be well taken care of.

Based on the information gathered through interviews and surveys, the participatory design process, if facilitated correctly, is a process with enormous potential to both build community and to build ownership of place for participants involved. There is a relationship to how well used and maintained the space is because the people who were involved in designing it feel like the space is their own and because the stronger the community is the more likely those people are apt to come out and use public spaces and socialize with one another. This holds true for both recreational facilities and cohousing developments. While there are certainly challenges that go along with participatory design processes, these challenges can be overcome with good facilitation. Good facilitation seems to be the result of experience and the best facilitators who earned the most praise were ones who were careful to showcase how they were taking into account the participants' feedback and who were also careful teachers and listeners. The benefits of the process in terms of sense of place and ownership seem to outweigh the challenges and this is a process that should be recommended not only because

it is right to include people who are affected by design and planning decisions in the decisions themselves, but also because it can be a determining factor in the success, the maintenance, and the sense of place that a space achieves.

Limitations of the Research

All of the common themes identified above were based on a series of surveys and interviews. Because the information gathered from these interviews only reflect the views and thoughts of a small sample of any given participatory design group, this is a limited analysis and there may be many other viewpoints that were not captured within this thesis. Although the survey and interview questions were offered to a large group of people who participated in each of the participatory processes, only a limited number replied and this thesis is based solely on those responses.

Project	**Survey Responses**	**Interviews**	**Total**
Waltham Boys and Girls Club	3	10	13
Cambridge Community Center	0	10	10
Putney School Field House	4	6	10
Cambridge Cohousing	4	3	7
Jamaica Plain	1	4	5
Mosaic Commons	5	2	7
Professionals	NA	10	7
	17	45	62

Suggestions for Further Research

Throughout the research process, the participatory design process was often cited as an essential element of the movement towards environmental sustainability. As O'Riordan (1998) points out, "Only cared for people will care for the planet" (107), suggesting that people really need to care about one another before they are able to implement the necessary environmental measures needed

to improve the health of the planet. Chris ScottHanson, the project manager for Jamaica Plain Cohousing, also brought up this point, noting that cohousing is related to ecological sustainability and that many cohousing developments incorporate environmentally sustainable features into their developments. Bill MacLay, the architect for the Putney School Field House, also said that, "Often we find that where people are looking for environmental design they are also looking for the involvement of the users." Further research could be conducted to explore the relationship between participatory design processes and green development. How might a participatory design process play a productive role in the new wave of mixed-income green developments? Why is it that cohousing, a space where community is emphasized and consensus is valued, so often incorporates "green" features into their development?

As noted above, there is an interesting trend in the cohousing case studies that seems to indicate that the cohousing development that was most recently completed is also the one that is most satisfied with the participatory design process and the built outcome. Further research could be done on a number of cohousing developments throughout the country to see if this is a statistically significant trend. Have newer cohousing developments been able to learn from the mistakes of their predecessors and run more successful participatory design processes that have also led to better built outcomes?

Another issue encountered in the research that would be an interesting comparison to look into is how cohousing compares to "cohousing-lite." Oaktree Development, the developers for the Cambridge Cohousing Community, actually

did another development after Cambridge Cohousing (Richdale Place), where they designed and built the development themselves, without any semblance of participatory design, and then advertised the space as a cohousing-like spot where there would be a strong focus on community. A comparison between the two types of developments might yield even more insight into the purpose, use and results of the participatory design process.

Appendix

Appendix A
Interview Questions and Interview Chart

I created four sets of questions for each of the groups below:

A) Facilitators of the Participatory Design Process
B) Participants in the Participatory Design Process
C) Children who participated in playground design
D) Professionals who have Experience with Researching and Working in Participatory Design Processes

A) Facilitators of the Participatory Design Process

1) What project did you participate in?

2) Why did you decide to take a participatory design approach?

3) What were the benefits and the challenges that you expected would be part of the participatory design process?

4) How did the participatory design process work? Were a lot of people interested in participating or was a lot of outreach required to get people involved?

5) Did the participatory design process contribute to a greater sense of community for those who were involved? If it did, how so?

6) What were lessons learned from this process? Would you do anything differently if you were going to do it again?

7) What is your measure of success? The process? The place? Something else?

8) Can you describe how the space feels and what it is about it that makes it so great? Do you think that part of the success of the project is due to the user participation in the design?

9) Do you think that if users feel invested in their space, they are more likely to use that space and turn it into a great enjoyable place?

10) Do you have any additional comments on the participatory design process?

B) Participants in the Participatory Design Process

1) What project did you participate in?

2) Why did you decide to participate?

3) What did you hope would come out of the participatory design process? How did that compare with what actually happened?

4) How did the participatory design process work? What were the meetings like?

5) Did you enjoy the participatory design process? Why or why not?

6) Did the participatory design process contribute to a greater sense of community for those who were involved? If it did, how so?

7) What were the major planning and design decisions that came out of the user participation process?

8) How successful in your opinion is the actual project? How successful was the user participation process? Is there a relationship between the two?

9) What were lessons learned from this process? Would you change anything about how the process worked?

10) Do you have any additional comments on the participatory design process?

C) Children who participated in playground design

1) Can you tell me the story of this playground?

2) What was it like to be a part of that story?

3) Do you think that the playground is better now that everyone has worked on it?

4) What was the most fun part of the process? What is the most fun part now?

5) Were your friends involved in this project too? Did they like being part of it?

6) What is your favorite part of the playground?

7) What were some of the ideas that you came up with for the playground?

8) If you were going to build a playground for yourself, what would be in it?

9) Can you show me what on the playground you helped to imagine?

10) Do you remember what was here before the playground?

11) Who built the playground?

12) Do you remember the day when you drew pictures and talked to the adults about what you wanted to be in the playground? What was the day like? Did you have fun?

13) Do you think this playground is better because you and your friends got to help design it? Why?

14) Do you think you and your friends like this playground more and use it more because you helped to design it?

15) Do you remember the day that the adults built the playground? Did you go with them to see the playground being built? Was that a fun day? Did you like being there?

16) Did you learn anything from being involved in designing this playground?

17) (For older kids only) Do you think that other projects that kids will use, should include kids in the design process too?

18) (For older kids only) Were there any valuable lessons that you took away from being involved in the design process of this playground?

D) <u>Professionals who have Experience with Researching and Working in Participatory Design Processes</u>

1) Why do you think the participatory design process works? What are the benefits in involving future users in the design of spaces? Why is participatory design important?

2) Why do you think that project managers/developers/nonprofits etc choose to engage in a participatory design process? How can you motivate people to use a participatory design process in new developments and projects?

3) Do you think that spaces are more productive when they involve participatory design? Do you think that the process of bringing the community together that is inherently involved in a participatory design approach translate into an end result or space that can also bring the community together? What are some strategies that can be incorporated into a participatory design process that will ensure that this sort of phenomenon can occur?

4) Do you think that if users feel invested in their space they are more likely to protect it and to ensure its survival? Do you that if users participate in the design of a space that they are most likely to use that space?

5) What are some examples of projects in the United States that have successfully involved participatory design? Any projects in Massachusetts? Have you found from your research that people are excited to be involved in the design of spaces that they will eventually use or does it take a lot of effort to get people involved?

6) Are there any key lessons that you have learned from your research of participatory design? What have you found to be the advantages/disadvantages of using participatory design?

7) Have you found a common measure of success in your research of participatory design? Is it the process of involving the community or the actual design outcomes incorporating those ideas that is considered to be the measure of success?

8) Do you have any other comments on the participatory design process? Anything particular of note that you have found in your research? Do you know anyone who was involved in a project that successfully incorporated participatory design in the development process and is now a great place that people like and often use?

Cases	Contacts	Organization	Roles
Recreational Facilities			
KABOOM! Waltham Boys and Girls Club	Jenn Aldworth	Waltham Boys and Girls Club	Executive Director
	Melanie Barnes	KABOOM!	Project Manager
	8 Children involved in the participatory design process		
	3 Adult Participant Survey Responses		
KABOOM! Cambridge Community Center	David Gibbs	Cambridge Community Center	Co-chair of project/ Executive Director of Cambridge Community Center
	Kathryn Lusk	KABOOM!	Project Manager
	Children involved in the participatory design process		
	2 Adult Participants		
Putney School Field House	Ben Freeman	Putney School	Dean of Students and member of the building committee
	Emily Jones	Putney School	Principal
	William MacLay	Maclay Architects	Architect
	Bob Raynolds	Putney School	Trustee who was co-chair of building committee
	Randy Smith	Putney School	School's business manager and project manager for the field house
	Pete Stickney	Putney School	Farm manager and co-head of the building committee
	4 Student Participants		
CoHousing			
Cambridge Cohousing (175 Richdale Ave Cambridge, MA) Completed 1998	Bruce Hampton	Elton & Hampton Architects	Architect
	Gwen Noyes	Cambridge Cohousing and Oaktree Development in Cambridge	Developer
	4 Adult Participant Survey Responses		
	1 Adult Participant Interview		
Jamaica Plain Cohousing (65 Cornwall St Boston, MA) Completed 2005	Mary Kraus	Kraus Fitch Architects Inc.	Architect
	Chris Scott-Hanson	JP Cohousing	Project Manager

	2 Adult Participant Interviews		
	1 Adult Participant Email Exchange		
	1 Adult Participant Survey Response		
Mosaic Commons (22 Village Lane Berlin, MA) Completed 2009	Mary Kraus	Kraus Fitch Architects	Architect
	1 Adult Participant Interview		
	5 Adult Participant Survey Responses		
Professionals/ Planners Who Have Experience with Participatory Design	Manuel Delgado	WIT	Professor
	Chris Donohue	Michael Van Valkenburgh Associates	Landscape Architect
	Eric Gordon	Emerson	Faculty member who designed the user participation process, Hub2, for Library Park in Allston
	Michael Hooper	Harvard	Professor of "Participation in Planning and Development: Theory and Design"
	Roy Kozlovsky	Northeastern	Northeastern Professor
	Mike McBride	Harvard	Manager of Allston's Infrastructure Program and Implementation of Library Park
	Dennis Swinford	UMass	Project manager for Library Park at Harvard.
	Belinda Tato	Harvard University	Professor
	Jose Luis Vallejo	Harvard University	Professor
	Jill Zick	Boston Redevelopment Authority	Landscape Architect

Appendix B
KABOOM! Incorporation Chart

If Kids Draw:	You Might Incorporate:
Trampolines	Play components that encourage bouncing or jumping.
80-foot Towers	Play components for climbing; high lookout towers.
Fantasy Themes: Castles, Pirate Ships, Cars, etc.	Components with turrets, cone-shaped roofs, steering wheels, or the prow of a ship; an enclosed playhouse for dramatic play.
Swimming Pools	Water tables, a water-mister, shade structures (to create cooler temperatures).
Groups of Friends	Cooperative play components: see-saws, swings, double slides, talk tubes, sports equipment.
Trees, Birds	Gardens, birdbaths/feeders.
Ocean Themes	Sandboxes, water tables, ocean-theme murals, ocean colors.
Candy Stores	Play storefronts.
Airplanes	Swings, spinners, gliding components.

(http://kaboom.org/docs/documents/pdf/child_dd_chart.pdf)

Appendix C
Complete List of Cohousing Developments in Massachusetts

Community	City	Units	Acres	Status
Alchemy Farm	East Falmouth	13	16	Completed
Cambridge Cohousing	Cambridge	41	2	Completed 1998
Camelot Cohousing	Berlin	34	68	Completed 2008
Cornerstone Village Cohousing	Cambridge	32	1	Completed 2001
Island Cohousing	West Tisbury	16	30	Completed 2000
Jamaica Plain Cohousing	Boston	30	1	Completed 2005
Katywil	Colrain	17	112	Building
Merrimac Valley Cohousing	Amesbury			Forming
Mosaic Commons	Berlin	34	65	Completed 2009
New View Cohousing	Acton	24	20	Completed 1995
North Shore Sustainable Cohousing	Beverly			Forming
Pathways Cohousing	Florence	24	39	Completed 2000
Pine Street	Amherst	10	7	Completed 1994
Pioneer Valley	North Amherst	32	22	Completed 1994
Rocky Hill Cohousing	Northampton	28	28	Completed
Stony Brook Cohousing	Jamaica Plain			Site Optioned
Westport Cohousing	Westport			Forming

(http://www.cohousing.org/directory)

Appendix D
Mosaic Commons Final Site Design Program

FINAL SITE DESIGN PROGRAM – Revision 1

Prepared for Mosaic Commons by Kraus-Fitch Architects, Inc., September 2002, revised 15 April 2003

Redistributed May 2005 for preparation for Eco-Programming Workshop

OVERARCHING DESIGN GOALS

Essential (1 = this goal is of utmost importance to our community)

- ♦ Foster interaction between neighbors – design units, porches, etc. to encourage neighbors to cross paths, interact, etc.
- ♦ Privacy within home
- ♦ Sharing resources – community facilities
- ♦ Safe & nurturing environment for children and adults

Very Important (1-2)

- ♦ Regular and frequent community meals
- ♦ Healthfulness – use of materials and systems which do not contribute to bad indoor air quality
- ♦ Attractive – architecture and landscape
- ♦ Accessibility above and beyond code requirements: Most units "visitable" by someone in a wheel chair and a few units "livable" by someone in a wheel chair.
- ♦ Ecological sustainability – design to minimize ecological impact (materials, energy, etc.)
- ♦ Affordability – units affordable to all people interested in living in the community

Important (2 = this goal is important for our community)

- ♦ Beautiful – architecture and landscape
- ♦ Diversity – design that is friendly to people of diverse backgrounds (economic, social, etc.)
- ♦ Adaptability of community and structures – for future changing needs (aging in place for instance)
- ♦ Durability of community and structures – long term maintenance, etc.
- ♦ Minimize impact of cars

Nice if Possible (3 = this is a goal that would be nice to accommodate, but it's not necessary)

- ♦ Support & create on-site work options – office building, etc.
- ♦ Service & connection to larger community
- ♦ Accessibility above and beyond code requirements: All units "visitable" by someone in a wheel chair and two unit types "livable" by someone in a wheel chair.

RELEVANT CODES

The following items require further research and review by Project Architect. They are codes / regulations that must be considered in concert with your group's program. You may or may not have any influence over aspects of these codes.

- Town Zoning Bylaws
- Wetlands Protection Act
- State building codes
- State accessibility codes
- Mass. River Ways
- Title V
- 21E – Hazardous Materials

CONNECTION / RELATIONSHIP TO LARGER COMMUNITY:

Design for a view from roads that neighbors will accept.
Welcoming
- car arrival
- pedestrian arrival

Design addresses other issues that may be of importance to neighbors and town, such as:
- Preserving open space
- Impact on traffic
- Welcome traversal and use of public lands beyond without disrupting cohousing community

Design to promote interaction with larger community
Consider providing public amenities to the larger community, such as:
- Conservation easement
- Hiking paths

ARCHITECTURAL DIRECTIONS:

Roofs: steep gables, simple forms, broken up as affordable (not necessarily exclusive of intersecting gables)
Building Massing: simple, broken up some.
Height: Mix of heights (some 1.5 and some 2 story units)
Siding: Fiber cement clapboards (as described in homework), painted in natural colors
Windows: symmetrical windows in gable ends (mirrored across vertical axis) if possible, but not letting design of rooms to be constrained by this. KFA will show double hung windows for now, and confirm this choice during unit programming.
Units: all of similar style
Common House: stylistically similar to units, but of different scale, "grander" in feel and detail.
Common House Porch – include a porch, consider wrap around (size to be determined during common house programming)
Overhangs – no decision made, although many interested in overhangs for solar control.
Shared Porches – no one present was opposed to sharing porches between units (may keep costs down and provide easier adaptability for ramping). Most present wanted to share a porch.

SITE PATTERNS:

Design for 20-35 units and a common house. Ideally the number of units will be 28.
Limit the building footprint to approximately 3 acres for units, common house, and parking regardless of the site acreage.
Note: The following are typical patterns of development found in cohousing communities. Sometimes a mixture of several patterns can be found in a single community. We will be investigating different patterns in site design development, including the following:
- Linear Pattern: linear pedestrian way (houses facing each other along relatively long, narrow path)
- Courtyard Pattern: houses clustered in node(s**),** roughly 70' maximum in width.
- Cloverleaf Pattern: Houses clustered in 3-4 fairly small nodes, equidistant from Common House. There was a general agreement not to let this pattern expand to the size of Pathways Cohousing, Northampton.

CRITERIA FOR LOCATING THE DEVELOPMENT ON THE SITE:

Most important:
- Cost of access roads and infrastructure plus consideration of pedestrian/bike path to main artery
- Maintaining existing assets / qualities of site including wooded areas
- Taking advantage of views
- Maximizing solar gain & minimizing wind
- Not building on a hill / keeping grade low as possible on built acreage

Somewhat important:
- Visual impact on larger community

- View from common house
- Some units in trees
- Some units with maximum solar
- Keep building area off good agricultural land if applicable

Other criteria:
- View from some units

MAIN BUILDING ELEMENTS:
COMMON HOUSE:
Common House to be centrally located in the cohousing development
Footprint of 3,500 – 5,000 overall square feet. (pending final Common House programming)
May have more than one level.
Include covered porches or other transition elements, including a screened porch if possible
Orient to take advantage of solar gain as much as possible.
Entry is easy to find when approaching community
Common House should be a "magnet", architecturally and in location
Common house is a centerpiece, not just "another space"
Relatively easy access to common house kitchen from garden area, if readily achievable
If possible, common house should be passed by members on the way to home from parking.
Easy access from common house to outside play areas for kids (view from porch)

INDIVIDUAL HOUSING:
Quantity: Design for 20-35 units. Ideal number is 28 units. See notes under "Site Pattern", above.
Design for a mix of unit types
Include duplex and multiplex buildings.
Multiplexes will be attached as townhouses.
There may be flats as well, but only if dictated by cost and/or accessibility goals.
Site plan will not include single-family units
Note: 4-plexes are an acceptable size as long as some of the units are jogged to get light into 3 sides of the middle units. Triplexes would also be okay although jogging would not be necessary as approximately 1/3 of the current residents said they would be willing to live in a center unit with just two window exposures. More research is required regarding fire suppression (sprinkler) requirements and corresponding costs.
Standardization:
Maximum of 5 standard unit types, configured in a maximum of four standard building types
Misc. Housing / Site Program items:
Side-to-side distance(s) between separate units/buildings to range from 10 – 20' (also dependent on zoning and site constraints)
Orient to take advantage of solar gain as much as possible.
Maximize winter wind shelter.
Private or semi-private back yards wherever possible.
Include porches or other transition elements at pedestrian side of units
Provision for some units to be expanded later
Relationship of housing to parking:
Provide a range of distance from units to parking
Keep parking at the perimeter
Some units to have relatively close access to parking (for accessibility reasons)
Ideally, maximum distance to be 250' (on flat grade) or 150 - 200' (on sloped grade) between farthest unit and parking

Relationship of housing to Common House:
Provide a range of distance from units to Common House
Some units to have relatively close access to Common House (for accessibility and social/community-building reasons)
There may be some units attached to common house – this will be investigated further during Common House Programming Workshop
Ideally, maximum distance to be 200' - (on flat grade) or 150 - 200' (on sloped grade) between farthest unit and Common House

PEDESTRIAN WAY:

Path should be fairly organic, winding, not direct but not indirect.
Width between buildings approximately 30' – 50';
Include nodes, eg., sandbox, picnic table, sitting spot along path
Paths from main pedestrian way to each unit should be included in design and budget. Such paths may be shared between clusters of units
Consider trees and other plantings; consider edible landscaping along path as budget allows
Provide sufficient solar access and drainage to prevent ice build-up.
Provide for convenient snow removal.
Surface to accommodate accessibility concerns.
Consider edge lighting
Consider porous pavement
Will probably double as emergency access, but make as aesthetically pleasing as possible; separate emergency access only if economically feasible. There is a preference for narrow paths IF possible. Consider alternative load bearing surfaces for emergency access if economical and plowable.
Some wider "courtyard/green" areas are a desirable possibility
Lighting of paths / parking areas
Lighting in parking lots to be triggered by motion detectors
Lighting on pedestrian way to be controlled by combination of daylight sensors and timers
Lighting from pedestrian way to individual units to be determined based on distances
Priorities for lighting, in order of importance:

- Safety from ice and tripping hazards
- Night time view of stars (minimize light pollution)
- Energy Efficiency
- Personal security (need to see and recognize people at some distance)
- Community security (thefts, vandalism, etc.)

MAIN GATHERING AREA:

In front of common house.
Visual connection to common house dining room if at all possible
Include a hardscape area, approximately 40x70. (see information under "Additional Hard Surface Play Area", below)
Comfortable microclimate – solar access, wind protection.
Provide some shade.
Sitting at perimeter, e.g., sitting wall.

GREEN:

An informal play area, gathering area.
In front of common house if possible; may be part of gathering area above or playing fields.
Size depending on location. If it's between buildings, keep buildings 90' from each other or closer.
Comfortable microclimate – solar access, wind protection. Provide some shade.

If possible, big enough for recreation (but not necessarily full field, see below).
Provide some seating; could be moveable, e.g., picnic tables.

MAIN PLAYGROUND:

Adjacent to common house kids' room; preferably adjacent to main gathering area.
Visual connection to common house dining room for after-dinner supervision.
Sandbox – with cover (for cats)
Play structure.
Sitting area for adults at edges.
Comfortable microclimate – solar access, wind protection, shade.
Delineated boundary.
Storage for outdoor toys and bikes (could be part of common house).
There may be other smaller play areas scattered throughout the community (not necessarily designed at this time, organically developed later)

OUTDOOR DINING:

Sitting area for outdoor dining.
Adjacent to common house dining.
Include a spot for barbecue grills, preferably down wind of eating, gathering, and play areas
Easy access to common house kitchen if possible.
Comfortable microclimate – solar access, wind protection, shade.
Preferably partially covered; could be accommodated by common house porch.
A screened dining area would be nice, but not at the exclusion of outdoor dining.

ADDITIONAL HARD SURFACE PLAY AREA (Separate from item under "Main Gathering Area", above)

Plan for a hard surface play area which may or may not be built right away
Activities to be accommodated should include: basketball, rollerskating, skateboarding, scooters, biking
Adjacent wall for handball if possible
Should not be immediately adjacent to Common House
Could double as overflow parking.
Size to be determined at a later date.

PLAYING FIELDS

Design for a playing field (if it can be readily engineered), whether built right away or not

WORKSHOP: (400 SF or more)

Plan for a workshop, separate from the common house. If at all possible, community to provide foundation and/or shell. Interior space to be built-out by users.
Workshop to accommodate such activities as:

- woodworking
- bike fixing
- finishing
- pottery and/or painting space if possible
- clean crafts, unless accommodated in Common House

HOME OFFICES (100 – 150 SF per office)

Plan for home offices in separate building from common house
Financed by people who want them

BIKE STORAGE (400 SF or more)

Include bike storage
May be in common house or within another building, rather than a structure to itself

QUIET SPOTS:

Away from the building cluster.
Can either design them, identify potential spots, or let them evolve over time.
Identify or design some spots ahead of time if possible – at least one
Possibly include quiet garden/meditation space with seating
If heavily wooded site, possibly include hiking paths in woods
Possible presence of some focusing object, such as a fountain or a small rock pool or similar.

PARKING & ACCESS:

Access:

Driveway per zoning requirements, accommodating cars, delivery trucks, emergency vehicles.
Emergency access may require use of pedestrian way (see question above at Pedestrian Way)
Delivery and drop-off access to common house
Access for occasional deliveries (furniture, etc.) close to units
Access to garden and any out-buildings
Access to workshop, if included.
Access to home offices, if included
Minimize disruption to backyard privacy.
Tractor-trailer access to common house to be designed. It will not necessarily be built depending on aesthetic and cost concerns.

Parking:

Provide 2 spaces per unit
Provide 2-4 visitor spaces
Provide area for overflow parking (such as grass area – something unobtrusive, might double as ball field or hardsurface play area)
Provide handicapped accessible parking convenient to common house and to accessible units.
Provide parking for delivery & mail vehicles at common house.
Consider where overflow parking might go (for parties or special events).
Accommodate snow plowing and locations for snow piles.
Provide some visitor parking fairly close to common house
Consider using porous pavement
There shall be no garages or carports directly attached to units.
There shall be no closed garages.
Design should include carports:

- Design for 50% of the cars to eventually be in carports.
- Design for 25% to be in carports from the on-set.
- Financing of carports to be determined

SUPPORT FUNCTIONS:

Dumpster – truck access, on most people's paths out of community but in a place where it can be avoided by chemically sensitive members
Accommodation for recycling containers (may share with common house, may be specific to specific town provisions)

Storage:

Community and Individual Storage: It is nice to have a place near units or within community to store things like canoes, kayaks, carts, etc.
Individual storage outside of individual units, in one or more of the following places:

- Common House Basement
- Sheds in relative proximity to units – only if not obtrusive or messy
- In rafter or loft space over covered parking structures if there are parking structures – but also include more accessible options
- Within workshop, if included

Include some personal storage in relative proximity to parking or accessible by vehicle.
Management and financial arrangements for storage to be determined

GARDEN / AGRICULTURE:

Main vegetable garden within easy access of common house and main building cluster. (1/8 – 1 acre.)
Small ornamental gardens throughout site (along paths, etc.)
Herb garden near common house, small.
Composting area near main vegetable garden
Allow for the possibility of some privately maintained garden areas
Possibly a pond/ waterfall/ meditation garden somewhere on site.
Caution shall be taken to avoid invasive plant species, now and in future.
Probably include the following agricultural elements:

- Bush crops – berries (may be dispersed)
- Greenhouse (plan for it, not necessarily build right away)
- Orchards (may be dispersed)

Possibly include the following agricultural elements:
- Barn
- Pasture - an area for large animals / livestock: e.g., horses, llamas, sheep.
- CSA Farm – Community Supported Agriculture, approximate required acreage: 10 – 20.
- Irrigation pond / could double as hockey in winter
- Chickens

OTHER POSSIBLE ACTIVITY AREAS TO CONSIDER:

Plan for an outdoor spa (hot tub, sauna) (timing and financial arrangements to be determined)
Site design may also include:
- Cob oven with benches & shelter or outdoor grill / kitchen space
- Swimming pond
- Art/pottery studio (might be separate from workshop)
- Labyrinth (paving-stone variety, not 3-d, walked for meditation)
- Tree house
- Place for campfires
- Dog run
- Sand volleyball court

OTHER:

Network wiring included in site utilities
Allow for some privately maintained outdoor space, eg around a patio area, for personalised landscaping
Wild areas if possible on site

(http://www.mosaic-commons.org/docs/design/site_design_program.pdf)

Appendix E
The Participatory Design Process for Cohousing Communities (Kraus Fitch)

Consulting, Programming and Design Workshops

Kraus-Fitch Architects provides workshops for each of four critical aspects of cohousing community design: Vision and Eco Programming, Site, Common House and Unit Design. Using workshops can be an effective way to streamline the design process, by bringing everyone together at critical phases. Workshops serve to educate groups about cohousing design features, focus creative energy, and facilitate efficient decision making.

Each of our workshops is designed to mesh with and inform the overall design process whether Kraus-Fitch Architects are serving as the full service architects or as cohousing consultants. These workshops are advocated by Cohousing Resources (a cohousing development consulting firm) as an integral element in the "streamlined development method".

By incorporating workshops in the design process, groups can take advantage of the cohousing expertise that we offer in a cost effective and efficient manner.

Through guided visualization and participatory process, we create an environment in which people can discover and develop their own ideas and aspirations. We help groups to find common ground while celebrating their diverse design preferences. Our approach involves active listening and a deep respect for our client's needs and character. Our goal is to reach a design that is a direct reflection and integration of the group's ideas.
After each workshop, we produce a written summary of the weekend's work, draft a design program, and develop schematic design drawings.

More detailed information about the workshops is listed below, but please keep in mind that each workshop is tailored as requested to each group's specific needs and preferences.

Typical Vision and Eco-Programming Workshop

In a visioning and / or eco-programming workshop the typical role of Kraus-Fitch architects is to help your group write a vision statement that will not only help the marketing effort by attracting new members, but will inform the overall design effort that will be following in the months ahead. Getting clear on priorities up front can help groups stay on track later on.

Through various small and large group exercises, we help you list goals for the project, define and prioritize them.

Eco-programming workshops are designed to help make early decisions about the sustainable design strategies. It is hard to go back and correct plans that do not take green design into account from the beginning. We help groups define and priority strategies, and determine which methods will give them the biggest sustainable advantage for their money.

A visioning or eco-programming workshop can typically be run in a single day. It may present an opportunity to include an educational slide show as described in the longer weekend design workshops.

Typical Site Programming Workshop and Schematic Design

A weekend site programming workshop is usually run by both Mary Kraus and Laura Fitch. We begin with a Friday evening slide show, followed by two full days of participatory work with the membership on Saturday and Sunday. During the weekend, we facilitate various group exercises and discussions aimed at determining the group's preferred site layout patterns and imagery.

Typical Common House Programming Workshop and Schematic Design

Our services typically include a weekend common house programming workshop run by Mary Kraus and Laura Fitch. We begin with a Friday evening slide show, followed by two full days of participatory work with the membership on Saturday and Sunday. During the weekend, we facilitate various group exercises and discussions aimed at determining the group's preferred common house functions, relationships, and imagery.

Typical Unit Programming Workshop and Schematic Design

Unit programming workshops are designed to help groups decide on 3-5 standard housing units that work for their needs, the site, and the local market. These workshops are typically run by Mary Kraus and Laura Fitch, beginning Friday evening with a slide show, and followed by two full days of participatory work with the membership on Saturday and Sunday. During the weekend, we facilitate various group exercises and discussions aimed at determining the group's preferred unit layouts, relationships of interior spaces, and imagery for exterior and interior design.

What is specifically included in a weekend workshop?

Each of the Programming and Design Workshops listed above typically includes most of the following items:

Homework:

Having run numerous weekend participatory design workshops for cohousers, we have been struck by the intensity of having to accomplish so much work in so little time. We feel that we can alleviate some of this pressure, and create a more rewarding process, by having members do some preparatory work. To this end, we send out "homework", outlining key questions about your site, common house or unit design requirements. This gives each member a chance to examine important design issues, so that they can approach the group exercises with a greater clarity.

We have had a lot of positive feedback about our latest approach to this preparatory work, which utilizes an on-line survey application that is easy to use, collate, and filter.

Homework may also include the gathering of images for use in assembling image boards during a group exercise.

Slide Presentation:

Workshops typically begin with a Friday night slide presentation, giving a tour of cohousing communities throughout the country. We then discuss, and illustrate through slides, issues that are key to the particular workshop (see below), and follow with a question and answer session. These slide presentations can be great marketing opportunities. This is always a nice way for the group to connect, for us to get to know members, and an inspiring way to start the weekend.

Site Workshop:

We will look at issues of proximity of units to each other and the common house, location of common house, orientation of pedestrian way, parking, solar access, and typical cohousing site amenities. We will show examples relevant to your own context: urban, suburban, or rural.

Common House Workshop:

We will focus our slide show on typical amenities and qualities of successful common houses, looking in substantial detail at dining room design and acoustics, kitchen layout, laundry and kids' rooms.

Unit Workshop:

We will focus on typical amenities and qualities of successful units within cohousing. We also spend some time reviewing typical amenities within the common house that supplement private homes in cohousing.

Workshop Exercises:

On Saturday and Sunday, we run the programming workshop proper. The agenda is refined based on each group's particular needs and site, but it typically includes the following exercises:

Site Analysis (site workshop): If possible, we begin Saturday with an observation and analysis of the site. Workshop participants walk the site with us, noting observations about different characteristics of the site: sound, light, access, etc.

Imaging Exercise: We run a guided visualization, having you imagine doing different activities in different areas of your community, common house, or units. This is followed by a whole group go-round, in which you can hear each other's ideas. We then note and record common themes. This exercise helps each individual to focus on their own visions and dreams, hear others' visions, and gives everyone a chance to notice commonalities.

Small-Group Discussion Exercises: We like to provide a balance of whole-group time with time spent in smaller sub-groups. The smaller groups give each person a chance to speak more, give you an opportunity to connect and get to know each other better, and permit you to sort out more ideas and come to some conclusions. Using these exercises as a precursor to whole group discussion, it is generally easier to arrive at consensus within the larger group.

Whole-Group Discussion: It is important for the whole group to come together and participate in the design decisions. We facilitate your process of coming to consensus on your design priorities, helping you to listen actively to each other. This process helps to build the social community, while designing the built community.

Image Boards: We usually have groups assemble boards of images they have brought in. These illustrate what you want your community, common house, or units to look and feel like, and serve as a basis for the aesthetic of your overall design.

Site Plan Block Exercise: One of the most engaging parts of the Site Workshop is working with your neighbors on a hands-on model of your site plan. Using to-scale blocks, you explore different ways to arrange the individual units and common house within your site. The whole group provides feedback on the different patterns that emerge, and this information guides the schematic design process.

Common House Block Exercise: This exercise involves working with your future neighbors on a hands-on model of your common house floor plan. Using to-scale paper "blocks" representing rooms and areas, you explore different ways to arrange the space within your common house. The whole group provides feedback on the different patterns that emerge, and this information guides the schematic design process.

Unit Typology Exercise: We present typical cohousing unit layouts and review aspects such as openness, entry, kitchen relationship, etc. The goal is not necessarily to approve or revise a plan, but to look for the aspects which the members hold in common. While block exercises are routinely used in site and common house workshops, they would not be used in a unit design workshop unless specifically requested.

Schematic Design:

Following the workshop, schematic design is explored in one of two ways:

1. **In-office design:** When working as schematic design architects, we return to our office after the workshop to develop one to three schematic site plans (common house layouts / units floor plans) based on the information gathered during the workshop. This is usually done over the course of 1-3 weeks with reproducible schematic drawings as a final product. During this process, we will solicit information as necessary from the other professionals working on your project.

2. **Design Charrette with local professionals:** When working at a distance, our role is often that of cohousing consultant, with a local design firm covering other responsibilities. In this case, we spend the Monday following the workshop working with the local professionals to develop 1-3 schematic designs based on the information gathered from the workshop. It is then the responsibility of the local design professional to develop reproducible schematic drawings for your final review and use. We usually carry some time for consulting with this professional as they develop their designs further.

Typical Documentation:

We provide the following documentation:

- Summary of the weekend process: a written record of the agenda, and status of decisions – including decisions made and points for future consensus.
- Written design program: list of site, common house and unit design elements & spaces along with their qualities and relationships.

(http://www.krausfitch.com/portfolio/cohousing/consulting-and-workshops/)

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