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ORGANIZING FOR SUSTAINABILITY AT A SMALL SCALE: A CASE STUDY OF AN ECOVILLAGE

by

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Abstract

When dealing with environmental issues, most reports highlight global-scale solutions. However, as the problem is embedded in all levels of our society, we must also implement solutions on smaller levels. Ecovillages, for example, are intentional communities engaging in initiatives to address sustainability in practical matters. The purpose of my research is to study how EcoVillage at Ithaca New York, USA as a small-scale experiment in sustainability, has organized itself. Data collection took place from August 21st to October 6th 2007 and involved multiple techniques: participant-observation, field notes, documents analysis, and in-depth interviews with 21 key informants. An analytical framework based on organization theory was developed in order to explore the case study. The results suggest that three major tensions are created within EcoVillage at Ithaca's organizational process. The strategies developed to adapt to these tensions are: shared leadership, enhanced communication among members and partnership with the surrounding social environment.

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Chapter 1: Introduction

Many reports have studied the causes that are threatening our planet. These reports include The Club of Rome's *The Limits to Growth* (1972), the *Declaration of the United Nations Conference on the Human Environment*, adopted in Stockholm on 16 June, 1972, followed in 1987 by *Our common Future* (World Commission on Environment and Development), as well as the *Living Planet Reports* (WWF, 2000, 2002, 2004, 2006 and 2008). Each report has argued that the increasing human enterprise for urban expansion, non-renewable harvesting practices, and waste production is fragmenting and degrading ecosystem functions and services beyond levels that can sustain the well-being of human society. In 2008, the Millennium Ecosystem Assessment—a UN based report involving 1300 experts from 95 countries—emphasized the relationship between ecological degradation and the corresponding loss of social, economic and ethical aspects of human well-being (Millennium Ecosystem Assessment, 2008). Collectively, these and other reports served to focus the world's attention on sustainability. Yet, this increased focus on sustainable development in the political language of many countries has lead to little change among the objectives and practices of their decision makers (Villeneuve, 1998).

Some of the above reports advocate 'stewardship of ecosystems' through changes in public policy and international treaties to cope with global environmental problems. Such global and national commitments toward sustainability are critical, but, as argued herein, these commitments are insufficient without radically changing people's attitudes at all levels, not just at the global level. As Wackernagel & Rees (1996) state, "sustainability requires that our emphasis shift from 'managing resources' to managing ourselves, that we learn to live as a

part of nature" (p. 4). In other words, people have to abandon the belief that nature is merely a machine that can be operated by governments or other high-level decision-making bodies and take responsibility for our impact on ecosystems. Wackernagel & Rees (1996), and programs like Agenda 21[1] (United Nations, 2005), call for a re-localization of activities at a smaller scale. Hence, it is important to find and implement solutions suitable for environmental awareness and concrete actions at smaller levels, because international and national initiatives are insufficient. These changes of attitude first occur at smaller levels, as we are all a part of the problem and a part of the solution.

While the international reports on sustainable development focus on a large-scale perspective and actions, this research focuses on small-scaled, collective responses to what have been viewed as unsustainable patterns of Western society lifestyles. I explore the organization of everyday actions in an ecovillage experimenting with sustainability in a practical manner.

1.1 Unit of analysis: ecovillages

What are ecovillages? Ecovillages are part of the intentional community movement. They are planned residential communities whose members are intentionally united by shared common values (Fellowship for Intentional Communities, 2007). Since the inception of the term in the early 1990s, the number of ecovillages has swelled to hundreds worldwide. There are nearly 500 ecovillages in the world and about 150 in North America according to the Global Ecovillage Network (GEN) listing (2009). Ecovillages try to meet communal needs

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[1] Agenda 21 is a framework of political recommendations developed by the United Nations that can be implemented by national and local governments to minimize the negative impacts that humans have on the environment. (UNCED, 2004)

while safeguarding natural resources for future generations and are often portrayed as prototypes for the sustainable community of the future. Recycling, gardening, composting, alternative power supply and non-toxic or natural building materials are part of ecovillage standards. For an example of what is possible to accomplish in an ecovillage, an ecological footprint[2] analysis of the Findhorn ecovillage, Scotland, measured a 60 percent per capita reduction compared to the average footprint in the United Kingdom (Dawson, 2006).

Ecovillages seek sustainability in human relationships as well. Frequently, members eat, socialize and celebrate together. Sharing work like cooking, cleaning and childcare as well as making decisions through a participatory democracy process are high priorities. Finally, most ecovillages encompass settings for demonstrating regenerative, human-scale systems through workshops, institutes, education centers located on site or through partnerships established with an educational institution (Bang, 2005; Dawson, 2006). Education programs consist of displaying and experimenting with alternative low-impact technologies like organic gardening, recycling, low consumption lifestyle and permaculture design, and other aspects related to the community life, such as conflict resolution and consensus decision-making (Dawson, 2006).

Why choose ecovillages for this research? Two reasons motivate this choice. First, most inhabitants are engaged toward the common goal of working toward sustainability. Any solution implemented must include the participation and willingness of citizens affected.

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[2] The Ecological Footprint measures how much land and water area a human population—an individual, city, business, nation, or all of humanity—requires to produce the resources it consumes and to absorb its wastes, using prevailing technology (Global Footprint Network 2009).

Leaders of ecovillages agree on the goal of sustainable living unlike, for instance, a Local Agenda 21 initiative in which an important part of the process is actually to get citizens and local leaders engaged (Thullier, 2005). Thus, the recourse to ecovillages as study cases renders the public participation variable redundant and allows the researcher to focus on their functioning and activities. Second, ecovillages are 'living laboratories' trying to implement and promote sustainability on a day-to-day basis. Not only do ecovillages talk about sustainability, but they are also working out and implementing small-scale strategic, technical and practical solutions for some of the problems raised by the Brundtland report (WCED, 1987). Ecovillages are positively and concretely addressing a situation that they see as problematic. Ecovillages represent a "necessary yes", a positive solution to mounting global problems. This stands in contrast to organizations that usually find themselves in confrontations, like Greenpeace, and that represent a "necessary no" (Village Design Institute, 2000).

1.2 Rationale and purpose statement

The purpose of my research is to explore how EcoVillage at Ithaca, as a small-scale experiment in sustainability, has organized itself. EcoVillage at Ithaca is committed to experiment with different types of actions, which I have categorized into four areas: location and land planning, cooperative life styles, sound use of natural resources and spreading the word through education. Using organization theory and a case study method, I describe EcoVillage at Ithaca as a model of a collective effort to live more sustainably. The term 'model' is employed here as "a schematic description of a system, theory, or phenomenon

that accounts for its known or inferred properties and may be used for further study of its characteristics" (The American Heritage Dictionary of the English Language, 2007).

Organization theory draws from a wide range of disciplines, including sociology, anthropology, linguistics, economics and psychology (Hatch, 1997). A basic definition of an organization is an assembly of people working together to achieve common objectives (Wright, 1977; Jones, 1996; Hall & Tolbert, 2005; Daft, 2007). An organization takes form through a vision statement outlining a shared mission, goals and objectives for change that amplifies individual strengths within the group to achieve more than can be accomplished by the aggregate efforts of group members working individually.

This understanding of an organization leads to a three-part analytical framework. The first part of the analytical framework, called 'planning', encompasses the process of creating a mission statement, breaking the mission down into goals, which are broken into objectives. This process is the act by which future actions are decided upon; it is the step in which the intention takes form. The second part, called 'systems of activities', consists of translating goals and objectives into functions that interact within an iterative process to fulfill specific functions of the organization. Systems of activities examined in this research include:

- o Authority and decision-making
- o Leadership
- o Division of labour
- o Communications
- o Incentives
- o Controls

The third part of the analytical framework is called 'organizational context', and pertains to the influences coming from the organization's social environment that impact positively or negatively its systems of activities. The organizational context is divided into two categories: the local context; i.e. the organizations surrounding and impacting the organization in question, and the cultural context. Successful organizations recognize and attend to such external influence. A literature review of elements of organization theory is provided in chapter 3.

This study focuses on the organization of a single case study site, EcoVillage at Ithaca (NY, USA). A case study approach was used to gather preliminary information, to define problems experienced by a community in action and to generate questions from which the research purpose is addressed. Data collection took place at EcoVillage at Ithaca from August 21st to October 6th 2007. Multiple techniques were employed. A participant-observant technique allowed me to collect primary insights during the first three weeks using field notes and to identify key informants before conducting interviews. During the three final weeks, I conducted interviews with 21 key participants. Finally, I analyzed internal and public documents including previous studies, websites, newspaper articles, mission statements, strategic plans, and emails. A more detailed description of the design research and methods is given in chapter 4.

Results of this study (chapter 5) are organized according to the elements of the analytical framework: planning, systems of activities, and the organizational context. Key insights are identified, summarized and addressed in the discussion (chapter 6), with a focus on the

revealed tensions inherent to EcoVillage at Ithaca. These tensions arise through a difficult reconciliation between the goals of EcoVillage at Ithaca, its systems of activities, and its external constraints. The capacity of EcoVillage at Ithaca to manage these tensions is essential to its success. In conclusion, I offer paths for improvement and future research.

Chapter 2: Background of the case study

EcoVillage at Ithaca is located in the city of Ithaca (N.Y., USA). This chapter provides a brief portrait of this ecovillage in context of its social and natural environment. In addition, I depict the profile of the inhabitants as well as the physical aspect and the legal structure of EcoVillage at Ithaca. Finally, I review actions taken to establish the framework and vision for living in EcoVillage at Ithaca. These actions, presented into four categories represent the ideological choices that stem from the many schools of thought and techniques promoted in the ecovillage movement. The aim is not to evaluate or present results of Ecovillage at Ithaca's attempts to live more sustainably, but to provide some background information about the case study.

2.1 The City of Ithaca

The City of Ithaca is located in Central New York State, USA and is the administrative center of Tompkins County. In 2000, the city's population was 29,287, and the metropolitan area had a population of 100 135. The census for 2004 estimates a population increase of 2.3% with 29,952 residents (US Census Bureau, 2008). Ithaca is well known for being home to Cornell University and Ithaca College located just south of the city. Every year, 24,000 students add to the population (Walker, 2005).

Ithaca is at the southern end of Cayuga Lake, which is north-south oriented. The Ithaca-Tompkins County Convention & Visitors Bureau (2008) describes the area as follows. The

valley flows to the southwest toward the base of the city, which is situated in a hilly and scenically rich landscape. The city spreads into adjacent hillsides that rise nearly one hundred meters above the central flats of East, South, and West Hill. The topography is steep, and a number of the streams that flow into the valley from east or west create a scenic view with over 150 waterfalls, all within a 15-kilometer radius of downtown. Ithaca experiences a moderate continental climate, with cold, snowy winters and sometimes hot and humid summers. The valley flatland has slightly milder weather in winter, and occasionally Ithacans experience simultaneous snow on the hills and rain in the valley. The month of July has an average temperature ranging between 14 °C and 27 °C and January an average temperature between - 1 °C and - 10 °C.

The economy of Ithaca is supported primarily by the influx of students in post-secondary education followed in sequence by manufacturing outlets, technology, and tourism. The city has a progressive culture of artists, musicians, organic farmers and conservationists (Walker, 2005). In 2007, Countryhome Magazine ranked Ithaca second best green city in America. This 'Best Places' study compiled 24 data metrics in six major categories — including air and watershed quality, mass transit usage, power usage, farmers markets, organic producers, and number of green-certified buildings — to determine which metro areas are the best places to live a green life. Ithaca was ranked highest on the list of greenest commuters with 16.88% of residents biking or walking to work (Mahoney and Edmondson, 2008). Another important feature that demonstrates the progressive culture of Ithaca is the local currency system called Ithaca Hours. Founded in 1991, Ithaca Hours serve as an alternative currency managed by the board of director of a non-profit organization and honoured locally by over 400 businesses (Ithaca Hours website, 2008).

2.2 EcoVillage at Ithaca: history and description

EcoVillage at Ithaca is a 175-acre land parcel situated two miles (3.2 km) west of downtown Ithaca (see map appendix A). The land was originally a dairy farm with "beautiful views, pocket of rich agricultural soil, and open rolling meadows" which provided an area already cleared of forested land to build houses (Walker, 2005: 15-16). The land comprised included one pond and an intermittent stream (Jocelyn[3], personal interview).

The EcoVillage at Ithaca project officially took off in 1991 after an envisioning retreat with 100 people in attendance (Walker, 2005). The mission of the project was to provide a socially sound community for approximately 500 residents who wish to live close to nature while providing an educational model of an alternative suburban development to the wider public (Walker, 2005; Chitewere, 2006). The land was bought in 1992. At present, EcoVillage at Ithaca is home to a little more than 160 inhabitants – 102 adults and 60 children (Fellowship for Intentional Community, 2008). The inhabitants live in two cohousing neighbourhoods: 'First Resident Group' (FRoG) and 'Second Resident Group' (SoNG). FRoG was completed in 1996 comprising thirty dwellings (fifteen duplexes) and a common house. SoNG, also comprising thirty homes (fifteen duplexes), was completed in two stages: 14 houses in 2002 and 16 in 2003 (Walker, 2005). The common house was completed in 2007. A third neighbourhood, 'TREE,' is currently in the forming stages. Most of the ecovillage's land remains as fields and meadows, with a ten-acre (4 hectares)

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[3] To maintain confidentiality of participants, all names used in this research are pseudonyms. See also chapter 3.

woodland to the north-east, which is used for recreation, teaching and learning. University and college students are developing a plan for sustainable harvesting. Courses on primitive skills for children are also held in the forest (Agnes, phone communication).

2.2.1 The inhabitants

Everyone is welcome to live at one of the cohousing communities of EcoVillage at Ithaca. There is no screening process, only a mandatory five-day immersion in the various involvements (e.g. attend to a decision-making meeting) and chores (e.g. dish crew) pertaining to the community life. Anybody who can afford to buy a house may move in after the immersion. After the immersion, people are required to meet with the membership coordinator who will discuss with them the particularities and non-written rules of the neighbourhoods. The turnover, according to the membership coordinator, is about one and a half houses per year for FRoG and slightly more for SoNG. Among the people interviewed during the data collection in summer 2007, most (13 out of 20 respondents) have been living in the ecovillage from either the beginning of FRoG (11 years) or the beginning of SoNG (five years). The average was of 6.6 years including two newcomers that had moved in 2 and 6 months prior the interview.

The overall population comprises a mix of ages, spiritual faiths, levels of education, incomes, sexual orientation, races and health conditions. Observations made in the field revealed that the inhabitants share various religious or spiritual paths. Jewish families had their rituals and celebrations, catholic had prayer evenings on Sundays and several meditation sessions were also available every week. Residents' ages range from infants to elders, but I noticed that the

age group of 20-30 was underrepresented. Most households were families and adults or retired couples or individuals. Several gays and lesbians lived on site, single or in couple with or without kids. According to Walker (2005), most inhabitants are "solidly middle class". I noticed that a strong proportion of the adult population has a high level of education (e.g. college or university degrees and several PhDs).

The ethnic diversity of the EcoVillage at Ithaca population was compiled in 2002 through a survey (Walker, 2005). Table 1 illustrates the percentages for EcoVillage at Ithaca compared with the town of Ithaca and for the United States.

Table 1. Ethnic diversity of EcoVillage at Ithaca, Ithaca, NY and the United States.

	EcoVillage at Ithaca	Ithaca, NY	United States
Caucasian	86%	84%	75%
Black	2%	3%	12%
Asian	5%	9%	4%
Mixed Race	5%	1%	2%
Native American	N/D	0%	1%
Others	N/D	2%	6%

Sources: Walker, 2005 and US Census Bureau, 2000

Some residents also have physical and mental disabilities, such as environmental illness, muscular dystrophy and Alzheimer's disease. Accessibility within the community for these people is an issue that members are actively working on. Their needs are taken into account during decision making meetings.

2.2.2 A multi-level organization

EcoVillage at Ithaca is not a single legal entity but rather many interconnected and interrelated legal contracts (Kirby, 2004; see also organizational structure in Appendix B). The use of similar terms, such as 'EcoVillage at Ithaca' and 'EcoVillage at Ithaca Inc' (EVI Inc.), as well as the numerous acronyms of the various instances that compose this organization, may be sources of confusion. Thus, I will describe each level of the organization, including the name, acronym, nature and function of each.

- **EcoVillage at Ithaca:** In this research, I use 'EcoVillage at Ithaca' as a general, overarching concept that encompasses everything. This concept represents both the physical elements of the setting and the ideal of an ecovillage containing residential entities, sharing and mutual aid among its inhabitants, cultural activities, businesses and the outreach structure directed toward the wider public.

- **Center for Transformative Action (CTA):** In the beginning in 1991, the ecovillage was a project of the Center for Religion and Ethics & Social Policy Education (CRESP). CRESP is now called the Center for Transformative Action (CTA). Founded in 1970, CTA is an affiliate organization of Cornell University. Its mission is to help promote organizations that want to combine activism, work and religion, ethics and social policy, or any type of activism. There are many different organizations among CTA's projects, and EcoVillage at Ithaca is one of them. CTA today still connects EcoVillage at Ithaca to the academic world through Cornell University (CTA, n.d.).

- **EcoVillage at Ithaca Inc. (EVI Inc.):** When the time came to buy land in 1992, CTA did not want to own land. Instead, it created EcoVillage at Ithaca Inc. to buy the land on which the ecovillage is now located. EVI Inc. owns and manages the land and provides educational services to the wider public. EVI Inc. shares the same board of directors with CTA. To distinguish between the concept represented by EcoVillage at Ithaca and its legal structure, I refer to the latter by the name 'EVI Inc.' or the term 'the non-profit'. Neighbourhood developments must buy land from EVI Inc. and private businesses must rent it from EVI Inc. EVI Inc. is also responsible for the 120 acres set aside for agriculture and the 20-30 acres set aside as a natural area (Don, personal interview).

- **The neighbourhoods:** EcoVillage at Ithaca has three neighbourhoods. The two existing neighbourhoods First Resident Group- FRoG (legally, EVCC Inc.) and Second Resident Group- SoNG (legally, EVSC Inc.) are both cohousing type of settlements created as Cooperative Corporations in which the user-members buy a share and receive a dividend: a house, access to the common house and other common facilities[4]. A third cohousing cooperative, Third Residential Entity (TREE), is currently in the forming stage. These neighbourhood communities are essential to the overall mission to promote an eco-friendly community lifestyle as an alternative to urban sprawl.

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[4] Slight differences distinguish SoNG Cooperative Corporation from FRoG Cooperative Corporation. The facilities in SoNG comprise also offices whereas the offices at FRoG are privately owned, and the house maintenance is the responsibility of the user-members while they are the coop-corporation's responsibility in FRoG.

- **The Village Association:** All residents of the village are members of the Village Association, which is legally named EVIVA Inc. but also referred to by its casual acronym 'VA'. VA is a non-profit organization created to regulate and look after village-wide matters and facilities used by both neighbourhoods, such as the roads, water and sewer systems, the pond, and the portion of land bridging the two neighbourhoods (Walker, 2005). The term 'Village' is sometimes used to designate the entire residential aspect of the project, i.e., that includes both neighbourhoods and the Village Association.

2.3 Small-scaled actions toward sustainability

Consistent with its mission to live a more sustainable way, EcoVillage at Ithaca members have acted with the intention to prevent pollution, reduce impacts on the surrounding ecosystem and improve people's quality of life. These choices are classified in four categories: location and land planning, the cooperative life style, education and demonstration and efficient use of natural resources. These categories are based on emerging themes in my research and literature review (Hollick & Connelly, 1998; McCosch, 2001; Jackson & Svensson, 2002; Brown, 2004; Bang, 2005; Meltzer, 2005; Walker, 2005; GEN, 2008). The choices described in this section were mainly observed on site or otherwise supported through analysis of EcoVillage at Ithaca documents.

2.3.1 Location and land planning

The location of EcoVillage at Ithaca and its land planning are presented in this section. As Meltzer (2005) argues, land use decisions relate to "conveniences that significantly affect pro-environmental practices" (p. 115).

Choice of location

The initial choice of site is very important. In permaculture[5], what are called 'type I errors' are crucial decisions that badly distort any other down stream decisions. A type I error may occur with the choice of the location of the land. Proximity to other cities, communities and public services, and the quality of the site are two criteria to have in mind in order to avoid such a mistake. Hollick and Connelly (1998) give a good example of the consequences of the choice of a site that does not take these criteria into account:

> Many communities were built on cheap land, which was all the founding members could afford. As a result, the communities are often far from centres of employment, shops and other essential services. Today, that translates into costly travel and environmentally unsound dependence on automobiles [...] Often communities opted for large areas of land rather than high quality. But cheap land also means poor land in most cases; land which is on the wrong side of the river when the rains come, land which is too steep for agriculture and whose slopes face the wrong way for solar energy; land with little fresh water and poor soils; land which is beautiful - a very important criterion - but unproductive and unsuitable for an independent community (p. 70).

Having proximity to downtown and farming in mind, the group who formed EcoVillage at Ithaca deliberately chose to buy a 400,000 US$ (1991's value) parcel of land located about 3.2 km (two miles) from downtown Ithaca. They chose this site instead of selecting alternate

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[5] "Permaculture, originally 'Permanent Agriculture', is often viewed as a set of gardening techniques, but it has in fact developed into a whole design philosophy and for some people a philosophy for life. Its central theme is the creation of human systems which provide for human needs, but using many natural elements and drawing inspiration from natural ecosystems. Its goals and priorities coincide with what many people see as the core requirements for sustainability." (Permaculture Magazine, 2007)

sites, including a free parcel of land that was approximately 15 kilometres (10 miles) away, and another smaller, less expensive site that was located in the downtown core (Walker, 2005). Their choice for the actual site allows the possibility for farming, which was not possible on the downtown site but, compared to the free land site, allowed for a reduction of oil consumption during everyday car commuting. Moreover, the proximity to downtown decreases dependence on cars thanks to the availability of alternative transportation such as the town public transportation system (TCAT), the Ithaca Car Share program and the possibility for some downtown workers to commute by bike in a reasonable amount of time. In addition, proximity to a wider market reduces transportation needs for goods coming in and out of the community. The proximity of the city of Ithaca also ensures a better quality of life for inhabitants who can access services not provided by the community (such as airport, hospital, theatre and post-secondary institutions). Finally, the proximity facilitates connections with the public and partnerships with nearby organizations for public education, which is an important part of ecovillages' missions (Dawson, 2006). EVI Inc. also embraces this aspect as part of its mission. An interviewee who was particularly interested in education and demonstration mentioned that the proximity to town played a crucial role in the choice of the land since the original mission was to be closely linked to the local scene (Agnes, personal interview).

Land planning

Once the site is chosen, good land planning practices can reduce impacts on the environment (Sustainable Communities Network, 2008). An important aspect of land preservation at EcoVillage at Ithaca relates to agricultural areas and forested lands. This preservation

concept, also called the greenbelt[6], is often seen in ecovillages (Whitfield, 2001). Several interviewees pointed out the preservation of the land for farming and/or nature as one of the specific decisions made at EcoVillage at Ithaca to reduce their impact on the natural environment. One interviewee enumerated specific decisions: "setting aside a minimum of 90% of our land as open space and having that land available for organic agriculture, wildlife and for recreation and for natural areas. I think that within that, having two organic farms on site is a really wonderful demonstration" (Jocelyn, personal interview). Furthermore, the EcoVillage at Ithaca project saved the original farm land from being converted into a suburban housing development.

EVI Inc. made many land use planning decisions to preserve a significant portion of the land. To secure the preservation of the land from sprawl, the EVI Inc.'s Special Land Use District (SLUD), which is a special zoning designation by the Town of Ithaca, sets aside 90% of the 175-acre land for agricultural land, woodlots, wetlands and leaves a maximum of 10% for development (Walker, 2005). Moreover, almost a third (55 acres) of the land was set aside for permanent protection in the form of a conservation easement managed by the Finger Lakes Land Trust (EcoVillage at Ithaca official website, 2008). The national average of terrestrial protected area in USA is 28% (UENP, 2008). In 1992, a Land Use Planning Forum (LUPF) was held with 60 participants, including several local experts. Divided into six groups, the participants studied various aspects of the land: agriculture, natural and recreational areas, neighbourhood sitting, village sitting, transportation, and water and waste management (Walker, 2005). The groups made several recommendations concerning the land planning. This forum and three subsequent ones lead to the 'Guidelines for Development'.

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[6] This author describes a greenbelt as an area of agricultural land, pasture and woodlots surrounding clustered housing.

This eight-page document covers the specific goals of the future development of EcoVillage at Ithaca and expresses the shared vision of the project among future members (Walker, 2005).

Interview results show support within the community for land conservation measures. Some interviewees advocate that a permanent conservation easement is a long term land use decision that benefits the current generation while also protects the rights of future generations to access open space near a metropolitan area. Some interviewees suggest that their land planning is a step further than the mainstream American development in terms of sustainability. A single road, Rachel Carson Way, connects the village with the main road and the two neighbourhoods occupy only seven acres of the land. "Having a very high density," argues one interviewee, "makes a very big difference, particularly compared to the typical suburban subdivision which would have taken place on this land of about one house per acre. Instead, we have about ten houses per acre so it's ten times as efficient [in term of space use]" (Jocelyn, personal interview).

Ecovillage at Ithaca's decision to use cohousing aligns well with their vision of clustering homes for land preservation. The two neighbourhoods, FRoG and SoNG, both chose a cohousing type of settlement. For Agnes, cohousing is a good model of dense clustered housings where vehicle traffic is set outside of the neighbourhood making a pedestrian and child friendly open space for the price of living in smaller homes. The community is also made dense by having a common building to share meals and to provide other amenities such as child care or guest rooms. For its members there is a balance between privacy and community, and between dense housing and open space. An ecovillage does not require

cohousing but it should have a very light footprint on the land, and not be spread out all over the place in order to help regenerate wildlife corridors for biodiversity (Agnes, personal interview). Interviewees mentioned that cohousing is more than a land management tool; it is also a way to promote sharing.

2.3.2 The cooperative life style

The choice for a cooperative life style, in contrast to a suburban lifestyle, impacts the ecological and social outcomes of EcoVillage at Ithaca in two distinctive ways. First, the inhabitants are more inclined to share, which reduces their consumption and therefore their impact on natural resources. Second, by being closer to each other, members support and influence each other, and exchange knowledge. Both aspects, respectively called 'sharing' and 'reciprocal learning and socialisation', are mutually supporting. The sharing through common infrastructure and services keeps members connected and the reciprocal learning and socialization enhances and sustains sharing.

Sharing in order to reduce

The residents of EcoVillage at Ithaca have achieved a considerably lower ecological footprint than a typical American household. The ecological footprint of EcoVillage at Ithaca equals 14 acres (5.7 hectares) per person, while an American household averages 24 acres (9.7 hectares) per person[7] (Walker, 2005: 174). The sharing of facilities at EcoVillage at Ithaca reduces considerably the impact on natural resources. One interviewed participant noted that

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[7] The 2004 Living Planet Project, using 2001 data, shows an ecological footprint of 9.5 global ha/person, the 2006 report, using 2003 data, is of 9.6 global ha/person and the most recent report of 2008 using 2005 data is of 9.4 global ha/person.

sharing makes life easier as single families invest less financial and time resources while trying to maintain luxury items, such as pools or home movie theatre (Arnold, personal interview). Several interviewees gave the example of the laundry facilities to support this point. The SoNG neighbourhood bought three water and energy efficient washing machines instead of a machine for each of the homes. "We don't have to build 30 of everything which saves a huge amount of resources" (Trevor, personal interview). EcoVillage at Ithaca's results are consistent with other intentional communities. Breton (2007) evaluated three intentional communities, two of which were ecovillages, using a sustainable development grid that was developed by Villeneuve (2006). Sharing infrastructure and pooling goods were the strongest aspects in measured sustainability performance.

In certain cases, doing things communally means that new options become available. Shared heating systems, common meals, carpooling, equipment and facilities like the common house, are made possible, or at least facilitated, by the interactions between inhabitants. Not only is sharing significant in terms of reducing natural resource consumption, but interviews also show that it enhances inhabitants' quality of life. Sharing brings people together which helps to address problems of loneliness experienced in individualistic societies that reduces the quality of life (Diener & Suh, 1997). At EcoVillage at Ithaca, community meals, parties, various events and meetings all bring people together in a way that contrasts with typical American neighbourhoods. Sustainability goes hand in hand with a communal way of life: "Without the community this wouldn't be a really great place to live. Let's face it; if we are going to live more sustainably, we have to live close together. If that's going to feel good then you have to have a community. It'll be great if all these people around you are glad, not annoyed!" (Roger, personal interview)

Reciprocal learning and socialization

When asked about the actions pertaining to their shared lifestyle many interviewees gave examples of how residents are encouraging, influencing and educating each other. This is consistent with the literature on ecovillages (Whitfield, 2001; Walker, 2005; Locker, 2007; GEN n.d.-b) but it appears to be a particular "focal point" at EcoVillage at Ithaca (Trevor, personal interview). The 'community' aspect fosters the sharing of knowledge and ideas that perpetuate and reinforce a common effort toward a more sustainable way of life. For many of the interviewed inhabitants, the social sustainability aspect is even more important than the ecological dimension of sustainability. It is not so much the activities that make the community more ecological but that people learn throughout the process of aiming for sustainable living. One interviewee argued that among the variety of initiatives implemented on site, some significantly reduce their impact on the environment while some others not much. Independent of the ecological savings through actions undertaken on site, such as the root cellar or the bus shelter, they keep the organizational members on the path of a more sustainable lifestyle. Through these actions, people become more conscientious which contributes to the mutual education that might lead to further actions in this direction (Ethel, personal interview).

An important part of living sustainably and cooperatively is found in activities and infrastructures that strongly support interaction, mutual influence and socialization. An interviewee identified a list of activities and infrastructures that encourage random interaction, including: the common meals to connect with people on a weekly ongoing basis, the children's spaces located close to the houses that ends up being a social center for both

kids and adults, the simple proximity of the houses without roads dividing us and the sense that the land that members are walking on is shared land (Sunny, personal interview).

2.3.3 Sound use of natural resources

Although on-site activities and practices may vary from one project to another, the literature (Hollick & Connelly, 1998; McCosh, 2001; Whitfield, 2001; Jackson and Svensson, 2002; Bang, 2005; Meltzer, 2005; Walker, 2005; GEN, 2008) identifies several areas of overlap. In this research, the structures, systems and technologies observed on site or mentioned in interviews corroborate mostly with the following categories: water conservation and sewage, renewable and alternative energy, organic agriculture, local food, permaculture, green building, recycling, transportation, composting, earth restoration and local economy. As summarized in Table 2 (p.26), the ways of using natural resources more efficiently and carefully are numerous at EcoVillage at Ithaca and range from small day-to-day practices to village-wide infrastructures.

Various sustainable initiatives at EcoVillage at Ithaca have been implemented to reduce the overall ecological footprint of the community. Whitfield (2001) compared the ecological footprint of EcoVillage at Ithaca to Rose Hill, which was the development project originally planned for the EcoVillage at Ithaca property. Whitfield found that "EVI residents had an ecological footprint about half that of what residents of Rose Hill would have had. Lot size, house size, energy consumption and food consumption were the main areas that EVI residents performed better than the average American would have living in Rose Hill"

(p.133). Similar examples of ways to reduce one's ecological footprint were observed on site or mentioned during interviews:

> ...using less energy, producing less pollution which might also mean greenhouse gas emissions or water pollution or waste product in general. Some of this you can do by being more self-sufficient by growing more food here or buying food locally, having more energy efficiency in your house; basically using natural resources more efficiently and producing less waste and pollution (Peter, personal interview).

During the interviews I asked, 'What are the actions, or activities that EcoVillage at Ithaca is doing to reach its mission?' In response, most interviewees did not consider recycling and composting to be of primary importance. When I asked them to explain their reason for not including composting and recycling, the interviewees explained:

> ...the recycling and reducing waste is the absolute minimum thing that we need to be doing: it's the kindergarten of sustainable living (Arnold, personal interview).

> Yeah but almost anybody can do that as an individual, you don't need a community to recycle or compost (Sunny, personal interview).

Ecovillages try to adhere to high standards. Hence, at Ecovillage at Ithaca, some actions like recycling and composting are considered 'a regular thing that you just do' and that everybody in the ecovillage does. Even though composting and recycling may also be done in the mainstream society, these two actions appear to be optimized at Ecovillage at Ithaca. For instance, almost 100% of food waste is composted at Ecovillage at Ithaca, which contrasts sharply against the mainstream American life style which recovery rate for composting was 8.5% in 2007[8] (United States Environmental Protection Agency, 2008). The recycling program is mainly provided by the county. Ecovillagers only need to place their recyclables at the curb for pick up. However, as mentioned by an interviewee, "the recycling at ecovillage is a lot more thorough than I probably would do in my own house" (Sunny,

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[8] Include food waste and yard trimmings. Does not include backyard composting.

personal interview). In the community recycling shed, inhabitants can also recycle items not normally recycled through the county service, including sneakers, techno trash like computer disks and VHS, bubble wrap, empty detergent jugs, bottle caps (used at the Science Center), batteries (mailed at their own expense to a dedicated recycling place) and scrap metal.

Table 2: Actions undertaken at EcoVillage at Ithaca to reduce impact on natural environment

Areas of actions	Goals	Actions or equipments
Energy	Green building	□ Passive solar, super insulated and duplex constructions saving 35% energy per resident when compared to the North-east region (Brown, 2004) □ Shared heating systems □ Low cost energy efficient lighting
	Renewable energy system	□ Hot water system (on some houses) □ Solar panels (on some houses) □ Wind energy bought through the grid
Water	Reduce water consumption	□ Rain barrels to water garden around houses □ Composting toilets (in some houses) □ The rain water is drained in the pond at FRoG and goes to 3 interconnected 1000-gallon tanks in SoNG to water the community garden. It is recharged by rainwater from nearby roofs.
	Increase water surface on site	□ Pond
	Increase aquatic biodiversity	□ Pond
Food	Organic agriculture	□ Bulk purchases through North-East Organics. □ West Haven Farm: an 11 acre organic Community Supported Agriculture (CSA) farm. Infrastructure belongs to EVI Inc. □ Berry Farm: five 5 organic u-pick CSA farm
	Organic gardening	□ Edible landscaping □ Community garden with allocated plots
	Local food system	□ Root cellar □ Partnership with local farmers to stock the common house with local organic free range eggs and meat.
Transportation	Transportation alternatives	□ Mailing list facilitate carpooling and borrowing cars □ City bus - bus shelter located at EVI's road entrance □ Ithaca Car Share – one car on EVI's site □ Unofficial car share program – subscribe through EcoVillage Wiki (Intranet)
	Work on site	□ Office spaces on site
Waste management	Composting, reusing and extensive recycling	□ Recycling center □ Compost bins on site □ Reuse room to find or give away shoes/clothes/books/toys □ Mailing list: ask for object, and offer an object to give away

2.4 Spreading the word through education

An important part of what the ecovillages movement aims to achieve is to spread the idea of sustainable living beyond the immediate residents to other neighbourhood projects. Bang (2005) emphasizes the importance for ecovillages to be outward-looking by sharing their experiments through education:

> If we only build ecovillages that are an escape from the problems of the larger society we will have achieved very little. Only by engaging the society around us, inviting people in to us, can we hope to achieve change in the larger society (p.36).

The residential aspect of EcoVillage at Ithaca is aligned with this vision as it serves as a demonstration project that aims to be an example from which visitors can learn about, be inspired by or learn from their mistakes. One interviewee noted that there is something very powerful about putting into place a lot of the things related to sustainable living that people are talking about. "Creating that demonstration project has been really a key to our success in reaching many people around the country, but also around the world" (Jocelyn, personal interview). The education and demonstration aspects are seen as a way to perpetuate sustainability locally and globally.

Several of my observations on site highlight the importance and the effort devoted to public demonstration and education. During my six-week stay, I took note of numerous visitors aiming to learn about EcoVillage at Ithaca such as three individual university students (including myself), a group of students from Ithaca College and one scholar aiming to write a book on the ecovillage movement. At least three articles were published during my research stay, such as "Green Acres" (Walsh, 2007). Group tours happened weekly. One of

the visiting groups included several families that were in the early stages of forming a cohousing group and looking for a model of inspiration. The ecovillage adult educational programs comprise day long, week-end and week-long workshops; they are held year round to encompass the entire aspects of ecovillage living. During the data collection period, I took part in a workshop called 'Ecovillage Experience Weekend' during the second week-end of September. Nineteen participants from various states and countries (Michigan and Virginia and internationally from Canada and the Philippines) came to find out more about community life in EcoVillage at Ithaca. Participants of the workshop enjoyed "personal renewal and hands-on learning, while being immersed in an environment with green building and renewable energy systems, consensus decision-making and deep ecology[9]" (Ecovillage at Ithaca, Educational Program, n.d., para. 4). This is a way for EVI Inc. to fulfill its goal of education to the broader population.

Other events also take place on site. For example, during the 15th annual meeting of the non-profit corporation EVI Inc., it was mentioned that three national conferences had taken place on site in the past year. During such events, connections with local organizations are sometimes created. For example, one inhabitant of the village is part of Sustainable Tompkins,[10] an organization that has held retreats on the site of Ecovillage at Ithaca. "Sustainable Tompkins has created a situation where people [members of Sustainable

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[9] The phrase "deep ecology" was coined by the Norwegian philosopher Arne Næss in 1973. Næss criticized environmentalism for its utilitarian and anthropocentric attitude to nature. Deep ecology offers a philosophical basis for environmental advocacy which finds scientific underpinnings in the fields of ecology and system dynamics (source: Foundation for Deep Ecology). Deep ecology has a general influence on EcoVillage at Ithaca but does not accurately describe their daily practices.

[10] Sustainable Tompkins is a coalition of grass root organizations, businesses, government and academic organizations that focuses on top-down and bottom-up approaches in building regional sustainability through partnerships, projects, and education in Tompkins County. (Agnes, personal interview)

Tompkins] learn about the resources of EcoVillage at Ithaca and people here connect with leaders and influential people. People from different sectors learn about EcoVillage [at Ithaca] and became connected with the people here and so on and so forth..." (Agnes, personal interview).

The education focus at EcoVillage at Ithaca is scheduled to expand through the Center for Sustainability Education that will be built on site. The center is to be used to host a sustainability high school, a center for sustainable agriculture as well as to develop and enhance existing programs for adults. The center is one of the steps that will bring the EcoVillage at Ithaca project closer to completion. The Center for Sustainability Education is a project of the non-profit EVI Inc. "They are sister projects and the relationship between the two is that the Center for Sustainability Education will draw on the experience of the residential project as a living laboratory of experience where people who come to the Center for Sustainability Education and the people who live in the residential project will find meaningful employment opportunities in the Center for Sustainability Education" (Janet, personal interview).

Education and demonstration initiatives are common themes in the ecovillage movement (Kirby, 2003; Bang, 2005; Dawson, 2005; Walker, 2005; GEN, n.d.-b). This aspect was strongly reflected in the EcoVillage at Ithaca interviews, which suggests that education is of prime importance beyond the outcomes of the project itself and other "green" technologies. An interviewee explains that a big part of EcoVillage at Ithaca's contribution to the sustainability movement is creating an alternative to the hyper-individualism prevailing in the

American society that looks attractive to mainstream culture "...and then there is just nuts and bolts of being more efficient in using natural resources..." (Arnold, personal interview).

Another interviewee argues that an ecovillage is insufficient as a solution by itself because many people are not ready for the required level of commitment and intentionality. Even if this small community of 162 inhabitants would successfully live sustainably, it would not measure up to the global environment challenge. Thus, it becomes important to aim for this kind of solution to be retrofitted in existing buildings, neighbourhoods and cities. Nevertheless, EcoVillage at Ithaca plays a role: "it's extremely important for people to have a comprehensive intentional lived-environment where all these systems are being modeled all together in a way that is just very compelling" (Agnes, personal interview). Through openness to visitors, the educational programs provide a pivotal place for experiencing, modeling and immersing participants in all the possibilities.

2.5 Summary

The actions undertaken at EcoVillage at Ithaca are classified in this research into four categories: location and land planning, the cooperative life style, efficient use of natural resources and education and demonstration. These categories are mutually dependent as every aspect influences or facilitates another one. For instance, the choice of the location is most important since it will eventually impact actions further down the road. Thus, the education and outreach currently underway at EcoVillage at Ithaca is facilitated by its proximity to Ithaca's public transportations and educational institutions. In order to achieve

this outreach, EcoVillage at Ithaca models an alternative to urban sprawl by densely clustering homes to preserve the natural environment and farmland. However, a cooperative way of life and social interaction is necessary. Finally, the various behaviour and technologies, such as carpooling and using solar panels, helps the inhabitants reduce their ecological footprint, but this reduction would be ineffective without inspiring a greater number of people.

Chapter 3: Literature review

This literature review is divided into four main parts. The first part focuses on the concept of sustainable development, its origin, context, definition and some of its criticisms. The second part examines the scale of implementing sustainable development. The third part explores sustainability related to the ecovillage movement and positions this in relation to the intentional community movement and cohousing models. The fourth part describes organizational theories, its evolution and different schools of thought. Concepts in organizational theories constitute the analytical framework of this research.

3.1 Sustainable development

Global resource depletion and pollution have forced society to recognize that existing models of resource use, management and development cannot be employed indefinitely (Roseland, 1998: 5). Sustainable development has become an important and politicized issue around the world. Authors of influential reports (Carson, 1962: Club of Rome, 1972; United Nations Conference on the Human Environment, 1972; WCED, 1987) come from a wide range of backgrounds and interests and their level of concern varies from one report to the other. However, the consensus is that human activities impact ecosystems and that change is needed (Likens, 1991). This shared call for change falls within the context of the discourse on sustainability.

Sustainability appears in the English language *circa* 1290. The word is a chimera of the Latin terms *sus* or *sub* meaning below, and *tenere* or _tenire_ meaning to hold, support, or endure (Marcuse, 1998; Redclift, 1993). As early as 1972, Blueprint for Survival used the term 'sustainable' almost interchangeably with the term 'stable' (Meltzer, 2005). The concept of sustainability was also embedded in Stockholm's conference proceedings in 1972 and used as one of the three principles of the World Conservation Strategy in 1980 by the World Nature Conservation Union (also called the International Union for the Conservation of Nature).

The term 'sustainable development' began to circulate through the Brundtland report, published in 1987. Through this report, combined with local and national environmental groups' activities, the term "gained both global momentum and international recognition" (Moffatt, 1996, p.25). The Brundtland report defines 'sustainable development' as development that "meets the needs of the present generation without compromising the ability of future generations to meet their own needs" (p.43). Later, the United Nations Conference on Environment and Development modified the operational aspect to accommodate development: "In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it" (Principle 4 of the Rio Declaration, 1992).

The concept of sustainable development stems from concerns about development where the quality of the environment is depleting, social inequity is egregious and local populations are neglected (Gendron, 2005; Di Castri *in* Villeneuve, 2005). Since the Brundtland report (1987), sustainable development has become an incontrovertible idea, largely used and

redefined for a noticeable range of definitions and models (Villeneuve, 2004). This concept is most often illustrated as a combination of three overlapping spheres: economic, social and ecological development. Some authors add further aspects, including equity, governance, and cultural. For Villeneuve (1998), the concept of equity is central to sustainability. Equity means that the needs of individuals and the population must be met with the respect of ecological, economical and social constraints and while offering equal potential to today's people and to future generations.

Wahab (1997) argues that sustainable development "offers a wide range of opportunities at all levels and new institutions, policies and programmes" (p.43). Attempts have been made to concretize sustainability, such as the Localised Agenda 21 adopted in 2002 during the World Summit on Sustainable Development in Johannesburg. This program acknowledges the necessity of practical implementation of development actions in new settlements and existing towns and cities. Moreover, the increased interests in sustainability spurred the recent emergence of assessment tools (e.g. Wackernagel & Rees, 1996; Sustainable Seattle, 1998; Swiss Federal Statistical Office, 2003; Vision, 2020 Hamilton, 2004; South Australian Government Inter-Agency Group, 2005; Villeneuve, 2005; Global Ecovillage Network, n.d.-b). The tools focus on the assessment of sustainable development through its various dimensions and the achievement of predetermined plans. For Villeneuve (1998), sustainability is a hypothesis serving as a tool of analysis that expresses the capacity of society to adapt to change that is otherwise tempered by cultural and environmental limitations.

3.1.1 Critiques of Sustainable Development

Many authors (Jacob, 1994; Bartlett, 1998; Haque, 2000; Boadi, 2002; Robinson, 2003; Di Castri, 2005; Hargroves & Smith, 2005; Rift, 2006) are critical of the term sustainable development. The first concern regards the wording itself. All of these authors are unanimous in critiquing the ambiguity of the term 'sustainable development'. Some authors argue that sustainable development is an oxymoron; i.e., a combination of contradictory concepts (Bartlett, 1997-98; Robinson, 2004; Rift, 2006). 'Sustainable development' is used just like if the adjective would make the substantive acceptable (Rift, 2006). This author proposes the term sustainable un-growth (in French: *décroissance durable*). DiCastri (2005) describes this contradiction best when affirming that 'development' refers to the creation of room for more freedom, the taste for change and risk, whereas the term 'sustainable' denotes an aspiration for security and identity, foresight and protection of the natural and cultural heritage. Haque (2000) and Boadi (2002) point out that the use of the term 'development' itself is a problem. For Haque (2000), it sends the message of "the possibility for a new era of economic growth" (p.1).

The second critique affirms that sustainable development is sometimes associated with continued material development. For Hargroves and Smith (2005), the wide use of the concept can also be a symptom of misuse. The World Bank sees sustainable development as an indefinite development; or as reworded by Rift (2006): *polluting less to pollute over a longer period of time*. For Haques (2000), sustainable development supplies a western view of the belief in an infinite ongoing progress as stated in the following quotation:

Despite its environmental concern, the sustainable development model is constrained by its continuity with the agenda for economic growth (as found in the conservative tradition of development thinking) that often causes harm to the environment itself (Haque, 2000, p.11).

Jacob (1994) uses examples from the Brundtland Report to demonstrate that sustainable development, as described in the report, implies the idea that growth is needed to achieve sustainability.

The third critique addresses the lack of a practical sense of sustainable development. "The definition of sustainable development gives no hints regarding the courses of action that could be followed to meet the needs of the present, but which would not limit the ability of generations, throughout the distant future, to meet their own needs [...]" (Bartlett 1997-98, p.9). For Rift (2006), there is a lack of conceptual rigor in the Brundtland's definition. Defining our needs is impossible; it is thus presumptuous and vain to try defining the ones of future generations. Brown *et al.* (1987) uphold that sustainability is an ambiguous concept with no time, space, ecological, technological, or managerial dimension. Moreover, Di Castri (2005) mentions that the ideology of sustainable development tends to be conclusive, over-simplified, a dichotomy between what is good and what is bad.

Despite these concerns, the concept of sustainability grew out of a need for real change in the current situation of rapid resource depletion and environmental degradation. Using the term 'sustainability' broadly, Kermath (2007) argues that the misinterpretations of what sustainability is should not imply maintaining the *status quo* or, as expressed by Huybens (2005), to inertia. Di Castri (2005) clarifies his critique by differentiating sustainable

development as an ideology and sustainable development as an operational process. Unlike the ideology, the operational process is "a concrete process, responsible and aiming to fulfill the needs and aspirations of populations and communities right now rather than for an uncertain future[11]" (p. 19). The ideology of sustainability is vague and complex but takes form when put into actions.

Robinson (2004) notes that the term 'sustainability' is used more often than 'sustainable development' by Non-Governmental Organizations and academic environmentalists as it "focuses attention where it should be placed: on the ability of humans to continue to live within environmental constraints" (p.370). For the same reason, the term 'sustainability' will be used in this research rather than the term 'sustainable development'. The term 'sustainable living' will be occasionally used since it is employed in some literature (Svensson, 2002; Chitewere, 2006; Wackernagel & Rees, 1996; Locker, 2007; Van Schyndel Kasper, 2008; GEN, n.d.-b).

3.2 Small scale experiments in sustainability

Although support at international and national levels plays a key role in putting sustainability into action, implementing sustainability at smaller scales is required (Schumacher, 1973; Estera and Prakash, 1994; Wackernagel & Rees, 1996; Irvine & Kaplan, 2001; Robinson, 2004; Chopra, 2005). Schumacher (1973) states that 'when it comes to action, we obviously need small units, because action is a highly personal affair, and one cannot be in touch with more than a very limited number of persons at any one time" (p.69). Wackernagel & Rees

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[11] Translation mine; from original version in French

(1996), who originally developed the ecological footprint, a measurement tool aimed at increasing our awareness of humanity's impact on the Earth in a global perspective, also advocate for local action as "no power on earth can manage globally" (p.143). For Robinson (2004), to achieve sustainability, "the combination of government and business is insufficient. Without at least the tacit support of civil society, even government, industry and the NGO sector acting together cannot get us there" (p.378).

Solutions to the global environmental crises must change our lifestyles (Metcalf cited in Bates, 2003). Such shifts in lifestyle involve actions and change in transport, housing, energy, and diet (Brown, 2006). In the context of industrial countries, we need to emphasize reducing our impact on the environment (WCED, 1987). Actions toward sustainability should be supportive of otherwise benign human activities, build a closer connection to the natural environment and aim for less consumption of land and resources (Merkel, 2003). As "a strategy for meeting the challenge of change," Irvine and Kaplan (2001) propose using small scale experiments. The authors refer to the necessary change of our unsustainable "pattern of living, planning, and resource utilization as practiced in Western countries" (p. 713). Overall, the process of change within small experiments becomes less confusing and less overwhelming so that resistance to adopting environmentally appropriate patterns of living is minimized (Irvine & Kaplan, 2001). Once specific actions are integrated in people's daily routine, they become durable.

Robinson (2004) describes public participation as "methods of deliberation and decision-making that actively engage the relevant interests and communities in thinking through and deciding upon the kind of future they want to try and create" (p. 380). When decisions made

are dictated and managed by the people who are living participants in the experiment, they become responsible for their decisions (Schumacher, 1973; Estera and Prakash, 1994; Villeneuve, 2004; Huybens, 2005; Gendron, 2005). Building consensus influences the willingness of citizens to participate in local affairs. If community members are interested in local issues, or express their concerns, then consensus is more likely to be established to implement sustainability initiatives.

These principles can apply to ecovillages. Their small scale, their recourse to participatory-democracy and their intention toward sustainability allow inhabitants to experiment with a more sustainable lifestyle through various actions and strategies. This study, therefore, examines sustainability issues through an analysis of small experimental ecovillage communities.

3.3 Ecovillages as sustainability experiments

In the following section, I present a brief summary of the history of the ecovillage movement. The last section of this literature review will position the ecovillage relative to intentional communities and cohousing developments, by identifying how they relate and where they differ. These terms are used throughout the literature that is relevant to this study and although related and similar in various aspects, they are not synonyms and their meaning needs to be clarified.

3.3.1 The ecovillage movement

A Danish-based charitable association named 'Gaia Trust' was founded in 1987 by Ross and Hildur Jackson. This charitable organization played a catalytic role in the emergence of the ecovillage movement (Dawson, 2006). Ross Jackson had been a consultant in international investment and founded Gaiacorp, an organization managing a line of mutual funds based on the concept of currencies as an investment category. Gaiacorp had contributed over $20 million to Gaia Trust up until 2000 (Gaia, n.d.). Ross' intention was to financially support the transition to a sustainable and more spiritual future society through grants and proactive initiatives. He concluded: "... *more than anything else, the world needed good examples of what it means to live in harmony with nature in a sustainable and spiritually-satisfying way in a technologically-advanced society*" (GEN, 2008-b). Gaia Trust commissioned Diane and Robert Gilman, the sustainability experts at Context Institute, to survey the field and produce a report identifying the world's best examples of ecovillage models. Ecovillages and sustainable communities appeared in May of 1991 in *In Context* magazine, which gave a voice to the growing sustainability movement and its multitudinous dimensions.

Gaia Trust of Denmark organized a meeting in 1991 to discuss and formulate a strategy to develop and spread the ecovillage concept. Many participant communities did not begin to call themselves 'ecovillages' until after the conference called 'Ecovillages and Sustainable Communities', which was hosted in 1995 in Findhorn, Scotland (Bang 2005). During this conference, the Global Ecovillage Network (GEN) was created as an international confederation of people and communities that advocate for a worldwide transformation toward sustainability (GEN, 2008). The ecovillage definition was left vague during the

conference rather than impose uniformity on diverse representatives (Bang, 2007). Instead, ecovillages were identified through participants' visions of sustainability. According to Jackson (1998), sustainability was viewed in the ecovillage movement as a combination of three interrelated dimensions: ecology, social community, and spirituality forming the 'sustainability circle'. GEN promotes ecovillages as teaching centers, and as experimental examples of sustainable development coming out of the Agenda 21 (Bang, 2005, p.22): Ecovillages are living models of sustainability, and examples of how action can be taken immediately in our lifestyle (GEN, 2009). Hildur Jackson (1998) explains how the definition of ecovillage came to be:

> In 1991, Gaia Trust commissioned Diane and Robert Gilman to make a global survey of the best examples of ecovillages they and we could think of as a basis for our future strategy. In their report, 'Ecovillages and Sustainable Communities', they came up with a definition of an ecovillage as, '*a human scale, full-featured settlement, in which human activities are harmlessly integrated into the natural world, in a way that is supportive of healthy human development and can be successfully continued into the indefinite future.*' This definition has being [*sic*] much quoted and is still being used. (p.2)

While this definition is commonly used (e.g. Whitfield, 2001; Christian, 2003; Kirby, 2004; Bang, 2005; Locker, 2007; GEN, 2008), McCosh (2001) revised the definition after studying three ecovillages. He concludes that there is consistency between the literature on ecovillages and the ecovillages surveyed, except for the full-featured aspect. The Gilman report defined 'full-featuring' as "a human scale integration of functions, so that the ecovillage becomes a comprehensive microcosm of the society" (quoted in Dawson, 2006). For McCosh, the 'full-featured' aspect is subjective and is a complex goal to implement. What functions are necessary? How could a small intentional community afford a university, a hospital, or an airport on site? Several authors conclude that the 'Gilman ecovillage' is an ideal that can never be reached and that fully realized examples do not yet exist (Kozeny,

1996; Sirna, 2000; Jackson, 2004; Bang, 2005). Moreover, ecovillages vary a lot from one case to another. Ecovillages vary in age as some are just forming and some are 100 years old, and are calling themselves 'ecovillages' today. Ecovillages also vary in the number of inhabitants (up to 2000 people) and in emphasis, with some concentrating on local organic food production while others concentrate on energy self-sufficiency (FIC, n.d.). Given this diversity, the Gilman ecovillage is more of an ideal or vision of what is hoped to be achieved.

An updated version of the sustainability circle that was recently developed by Gaia Education (2006), a project of GEN, includes four overarching themes of sustainability: economic, social, ecological and worldview (Appendix C). The worldview theme is a precept that captures aspects of spirit and culture, such as creativity, leisure, inner self-development (GEN, n.d.) and global interconnectedness and solidarity (Jackson, n.d.). The worldview key does not prescribe a spiritual path for people or groups but rather fosters "ideals of mutual-respect, trust, cooperation, harmony, beauty, inter-connectedness and wholeness [that] are foundational and intrinsic to ecovillage living" (Gaia Education, 2006). Spirituality is controversial in the ecovillage movement (Dawson, 2006) but the worldview theme emphasizes that it is not necessary for an ecovillage to claim being spiritual per se as the concept can be manifested in diverse ways.

Using five international case studies of varied ecovillage models in the US, Europe and Africa, Dawson (2006) identifies five common characteristics. He concludes that ecovillages:

- demonstrate the primacy of community, i.e, the reconnection with others in meaningful human-scale societies;
- are citizens' initiatives generated and self-directed by members;

- are a practical opposition to economic globalisation, to win back some control on their own resources by growing their own food, build their house, produce their energy, etc.;

- are expressing a core of shared values, that some ecovillages refer to as 'spirituality'; and

- act as centers for research, demonstration and training.

The two first characteristics identify the intentional and conscious goal of cooperative living that can only be possible through social interaction. "Without this component [social interaction], you do not have the necessary 'glue' to create a common vision. [...] Without the 'glue', you get a bunch of buildings with no soul" (Jackson, n.d.). Ecovillages operate at a scale at which people are able to know each other and where each member of the community feels he or she is able to influence the community's direction. According to Jackson (2004), an ecovillage is, ideally speaking, "a microcosm of the macrocosm" (p.2) that represents a very small community — typically with 50-400 people. Unlike a developer-led eco-settlement, an ecovillage includes members who affirm belonging to the community. Members make their own decisions regarding their future development and shared life.

The third point emphasizes the alternative lifestyle and empowerment that ecovillagers put forward through practical and local solutions applied toward global problems. Most of the resistance toward the state of the political arena and environment depletion is driven by counter-movements that are more about ideology than grounded experience (Di Castri, 2005). For ecovillages, however, "their resistance is not overtly political; rather they seek changes in everyday life in ways that do not conform to dominant cultural, political and economic narratives or theories of resistance" (Locker, 2007, p.76). Through grounded

experiments, "ecovillages are providing both an individual vessel and a cultural vehicle for rapid evolutionary transformation" (Bates, 2003, p.25). For Chitewere (2006), as the ecovillage movement expands, it increases the potential to address social and environmental degradation by focusing on the consumption of green technology and alternative life style rather than only on restoration and conservation.

The fourth characteristic, the spirituality or 'worldview' of ecovillages, highlights the shared values of ecovillage members. A spirit of wholeness is not only seen within the community itself but also in the relation of the community with the rest of the world and universe (Gaia Education, 2006). Although many ecovillages make no reference to spirituality, Dawson argues that the movement's shared commitment for global justice, ecological restoration, rebuilding community, and service to others are all manifestations of spirituality, but using different words. The notion of connection with self, others and the rest of the world seems necessary to the process of diminishing natural resources consumption. Spirituality may be expressed as a spirit of wholeness, a common vision, shared cultural beliefs, a sense of joy and belonging fostered through rituals and celebrations, or through arts and leisure opportunities (GEN n.d.-b).

The last characteristic is what distinguishes ecovillages from other types of intentional communities. Ecovillages are united through this characteristic in their effort of sharing experimentation with the wider world through education and demonstration. Dawson (2006) concludes that ecovillages act as centres of research, training and demonstration in their specific fields of exploration and expertise, be it in permaculture, appropriate technologies, sustainability education, low impact living, etc. Bang (2005) underlines that the purpose of

an ecovillage is not to escape from the problems of the larger society but rather to be an experiment for innovation and problem solving. Ecovillages act as open systems rather than isolated entities. While certain intentional communities aim for or tend toward sustainability within their community's boundaries, ecovillages express a desire to demonstrate to others the genuine possibility of an alternative lifestyle beyond their immediate environment to the world (Van Schyndel Kasper, 2008).

Ecovillages are diverse but they nonetheless share common elements under the vision of sustainability: working from the local scale to achieve environment protection, social interaction, shared responsibility, openness, and ecological literacy education. Furthermore, ecovillages represent a form of intentional community. The next section reviews intentional communities. The cohousing intentional community has a particularly strong relation to ecovillages as it is what inspired the movement.

3.3.2 Intentional communities and cohousing

Far from being a new trend, intentional communities have for many centuries been opportunities for idealists to come together on a piece of land to create a better world (FIC, 2008). Although intentional communities in North America are often associated with the communal movement of the sixties and seventies, they have a long tradition that goes back to the period of colonization (Love Brown, 2002). Intentional communities have been a vehicle for certain people to experiment and settle in an alternative lifestyle. When society fails in connecting people or meeting certain of their needs, some people turn away from society and turn toward intentional community hoping to create an alternative system in a more intimate

setting (Love Brown, 2002). Given today's increasing concern for environment in the Western society, it is not surprising to encounter in the intentional community movement a strong emergence of ecovillages. As observed by Locker (2007), "we are witnessing a new wave of sustainability-oriented intentional community building, one that is of increasing relevance to a world facing dire social and ecological challenges"(p.78).

The Fellowship for Intentional Communities (FIC) is a non-profit organization aiming to increase public awareness of existing and newly forming intentional communities. Through publications, referrals, support services, and sharing opportunities, FIC fosters connections and cooperation among communitarians and people seeking a home in a community (FIC, 2008). FIC publishes a directory grouping a wide diversity of intentional communities located all around the world, such as cohousing developments and ecovillages, but also includes residential land trusts, communes, student co-ops, urban housing cooperatives, and other projects where people strive together with a common vision (FIC, 2008). Intentional communities are defined as "a group of people who have deliberately and voluntarily chosen to live together in adjoining geographic proximity in order to achieve some common purpose or goal that arises in response to critical assessments of the dominant culture" (Locker, 2007, p.26). Not all ecovillages or cohousing communities are members of the FIC, which works on a voluntary basis; however, the term 'intentional community' encompasses both ecovillages and cohousing communities.

The ecovillage and cohousing concepts found their roots in Denmark (McCamant & Durrett, 1994; Ecovillage Network of Canada, 2005). Cohousing was born in the 1970s and spread to United States, Canada and Australia in the 1990s (Meltzer, 2005). Today, there are hundreds

of cohousing communities in various western countries. Part of what makes cohousing attractive is that it specifically attempts to create an alternative model of living, while retaining much of the mainstream culture (Cohousing Association 2008). Cohousing is most often defined in terms of six aspects (McCamant & Durrett, 1994):

- Participatory process: residents design and develop the project.

- Neighbourhood design: houses disposed on the land to facilitate interactions and vehicles are confined on the edge of the site.

- Common facilities: such as laundry facility, children's playroom, kitchen usually concentrated in the common house.

- Self-management: the residents are involved in the decision-making, activities and duties required for the community functioning.

- Absence of hierarchy: democratic decision-making processes

- Separated incomes: households do not pool their capital and financial resources.

Ecovillages are similar to cohousing communities with regard to the means they choose to achieve certain goals. For example, while looking for a reduced ecological footprint, an ecovillage may cluster houses on the land, emphasize social interactions, and sharing of common facilities (e.g. Earthaven and Ecovillage at Ithaca, USA and Munksøgård, Danemark). As well, cohousing communities might choose to integrate renewable energy systems and food production into their structure (e.g. Earthsong, NZ), a characteristic normally observed in ecovillages. In 1993, the ecovillage concept officially emerged from the model of cohousing with the first ecovillage network, also born in Denmark: The Danish Network of Ecovillages (LOS) (Ecovillage Network of Canada, 2005).

The distinction between ecovillages and cohousing communities is a matter of emphasis on the ecological context. Ecovillages are distinguished from cohousing communities in their primary focus toward reducing ecological degradation through their activities while simultaneously sharing a vision to form a network of a global sustainability. In contrast, the primary focus of cohousing is to address the problem of social alienation.

3.4 Organization theory

Organization theory is used for this research as a framework to look specifically at the internal organization of an ecovillage. An analytical framework describes the concepts, definitions and classifications used to collect and analyze data. Prior to presenting the analytical framework used herein, this section will start with a definition of organization, the differences between for-profit and non-profit organizations, and how ecovillages relate to these concepts.

Definitions of organization emphasize the need for groups to accomplish tasks that require more than one person to manage the size or complexity of the problem (Wright, 1977; Jelinet, Litterer & Miles, 1986; Hall & Tolbert, 2005; Daft 2007). Daft (2007) adds that an organization is a social system that is based on the interaction of people working in coordinated activity systems. According to Henry Mintzberg, the amalgamation of the means used by an organization to break down the labour into tasks and to ensure the coordination of these tasks is called the structure (Plane, 2008). The structure of an organization is influenced by its general social context which is expressed in terms "of outcomes for organizational members, for the organization itself, and for the society" (Hall & Tolbert, 2005, p.5). An organization is distinct from other types of groups because there is a

purpose or intent to provide a service or to achieve a mutual set of goals (Jones, 1996). On this basis, ecovillages can be classified as organizations because they are intentional communities with missions and goals that they attempt to achieve. Ecovillages are organizations that often defined as a group of people sharing common values, interests, a sense of identity and a sense of local governance which take place in a given geographical location.

Organizations can be subdivided as for-profit or non-profit (Wright, 1977; McLaughlin, 1986; Daft, 2007). The primary difference is that for-profit organizations seek economic reward whereas non-profits endeavour to generate a social impact (Wright, 1977; Daft, 2007). McLaughlin (1986) specifies that non-profits may sometimes make profit for themselves or their employees' salaries but profitability is not the primary goal. For Wright (1977), the basic purpose of all organizations is to fulfill a social need even if it is a social institution (non-profit) or a business (for-profit). Social organizations, e.g. religious, charitable, amateur athletics and cultural organizations, arise to fulfill societal wants. For-profit organizations fulfill societal wants by creating goods and services.

Non-profit organizations may qualify under different kinds of legal status, including a cooperative, a condominium association, a non-profit corporation, a charitable organization, a society, or a non-government organization (Jones, 1996; Christian, 2003). Ecovillages generally qualify as non-profit organizations since a non-profit is more likely to receive material donations and support from volunteers (Christian, 2003). There is no legal status that is created specifically for communities, leading the founders to choose the closest form possible to suit their mission and the inhabitants' needs.

Although several distinctions exist between profit and non-profit organizations, organizational theory applies to non-profit organizations such as foundations, charitable, governmental institutions and other voluntary-based organizations the same way it applies to for-profit businesses (Daft, 2007).

3.4.1 Evolution of organization theory

The emergence of organization theory coincided with the industrial revolution at the turn of the nineteenth century (Daft, 2007), and has evolved from a mechanical study of bureaucratic relations into an interdisciplinary body of knowledge with a broad focus on social relations and cultural context. The classical school was developed by many of the great social and economic theorists of the time, including Henry Fayol, Frederick Taylor, Max Weber and Chester Barnard (Hatch, 1997). For classical thinkers such as Ford and Taylor, organizations were seen as systematic, bureaucratic means to improve efficiency and production – much as one might think of a machine (Wright, 1977; Jones, 1996). H. Fayol and C. Barnard both brought principles of direction and decision-making processes to this mode of organization (Plane, 2008a). Classical templates, or patterns, for how organizations should be designed are still used in contemporary organization analysis to understand how organizations develop in response to functional needs (Jones, 1996). For classical thinkers, the work to be achieved is rationalized, specialized and standardized, and the conflict resolution must move along the authority line (Plane, 2008). Communication of goals and attention to worker motivations allowed organizations to develop into cooperative systems and thus increase organizational efficiency (Hatch, 1997). During its classical stage of development,

organization theory was focused on the formal authority of an organization. Authors described a successful enterprise through the capacity of the authority to divide the work to be done and its power on employees or members to obtain the desire results. However, this classical theory of organizations failed to properly consider the influence of the external environment and did not have the contemporary grasp of human behaviour or culture (Daft, 2007). In reaction to the classic mechanical model, contemporary researchers developed and refined the human relation and social perspectives of organizations (Hatch, 1997).

The human relation perspective grew in popularity during the twentieth century (Plane, 2008a) and looked at the affective, emotional and relational aspects of the work situations in organizations. The authors K. Lewin, D. McGregor, Maslow and R. Likert, for example, looked at the behaviours and motivations of workers as a dimension of the organization (Plane, 2008b). It is also through analysis of organizational work groups that attention is put on leadership. Unlike the classical theorists, the human relation perspective sees leaders as more than people who are in charge of the organization. From a human relation perspective, top managers of an organization might be distinguished by hard work, ambition, luck, political skills but not necessarily by their leadership skills. The leaders are rather distinguished by their ability to persuade people to work in support of a common goal (Hogan and Kaiser, 2004).

The social perspective of the organizational system added to the rational explanations of organizations during the 1950s. Analyses became oriented toward organizations' environmental context and its influence on their structure (Plane, 2008b). Within this perspective, organizations are not viewed as entities isolated from each other but rather as parts of a socio-economic environment. In the 1960s the open systems view widened the

context to include resources from the natural environment that are converted, transformed, and re-cycled into the system (Jones & Georges, 2003). This theory acknowledges that systems have interdependent and interrelated parts that influence the contextual development of the whole (Jones, 1996; Hatch, 1997). The boundary, integrity, and persistence of an organization depend on the capacity of members to manage the extent and relations of environmental resources (Jones, 1996). The social systems perspective builds on cultural themes that closely parallel developments in anthropological literature (Hatch, 1997). Organizational culture refers to the way of life in an organization that is shaped by norms, values and artifacts that are building a common sense of purpose and vision (Schein, 2004).

The concern of contemporary authors pertains to the classification of the organization according to their goals, structure and functioning. For example, J. Woodward developed the theory of the impact of technologies, C.B. Perrow, the model on the degree of formalization and H. Mintzberg, the concept of organizational structure classification (Plane, 2008b). The idea carried through these various analyses is that every organization is unique and characterized by its goals, people, leaders and socio-economical context. The structure is no longer a pyramid or an inverted pyramid based on the power of one person or a group of people (board of directors). Now the power of action is also seen in the technostructure, the degree of professionalism of workers, the division of tasks, the decision-making mode, the division of work and the coordination of work (Daft, 2007).

3.5 Analytical framework

The analytical framework used in this study draws from various perspectives and concepts of contemporary organization theory. With a focus on the structure of the entity in question, I

will analyze various aspects of the structure, function, processes, and activities of ecovillages. Table 3 summarizes three broad components of the framework: planning, systems of activities and organizational context. Each component is described in terms of its primary concepts and function. Planning comprises the mission, which is broken down into goals and objectives; together, they form the strategy or plan of actions. The systems of activities serve as the means to operationalize the plan. These systems have the function of structuring, guiding and maintaining members' behaviours toward the organizational mission. Finally, the organizational context of an organization is the external influence exerted on its internal functioning. The influences can either support the organization's goals or activities, or be an obstacle to them.

Table 3: Analytical framework: components, concepts, and functions.

Components	Concepts	Functions
Planning	Mission, goals, objectives	Translate the intention of the group into an organized plan, which gives direction to the actions.
Systems of activities	Authority	Direct members toward meeting organization goals efficiently. Design remaining systems of activities.
	Decision-making method	Indicate how the decisions to meet goals set by the organization will be made by the authority centers.
	Leadership	Proactive people whose self-initiative within various key activities influence group decisions and the course of action.
	Division of labour	Authority passes responsibilities, and power, to sub-groups or members for the sake of reaching the goals of the organization. The division of labour allows members to join one of the major areas of activities so that each one can make a specific contribution to the overall effort.
	Communications	Means or tools put into place so as information exchange is facilitated. The purpose of communication ranges from completing tasks to creating and maintaining satisfying human relationships.
	Incentives	Provide participants a symbol of personal achievement in exchange for their contribution and commitment to organizational goals.
	Controls	Behaviour standards or means of coercion that keep members oriented towards reaching the goals more efficiently and accurately.
Organizational context	Cultural context	Various forces, such as economic, sociocultural, demographic, political, legal, global and technological, that the organization cannot impact or control.
	Local context	Other organizations close to the boundaries of the organization that have the most direct impact on it.

3.5.1 Planning: Mission, goals and objectives

The mission, goals and objectives reveal an organization's intent, activities and processes (Wright, 1977). The mission represents the reason for being and common purpose so people can identify with the organization and choose to commit and contribute to the organization or not (Daft, 2007). Goals are the broken down mission or purpose of the organization. Goals are needed to further delineate what lesser objectives must be achieved to reach the overriding mission (Wright, 1977). The goals are systematic and represent "the shorter-term milestones we commit to" (Christian, 2003). They give precision to what needs to be done to achieve the purpose of the organization and as such represent the various pillars of the organization.

Daft (2007) talks about operative goals and official goals. The official goals are described by this author as the value system that legitimizes the organization. Operative goals represent specific tasks that describe allocation of resources and activities for dealing with the external context. In this sense, what Daft (2007) identifies as 'operative goals' correspond to the 'objectives' of the analytical framework of this research (Table 3). Once integrated in a strategic plan, the objectives define how the organization will attain its mission.

A strategy is the plan of actions (Daft, 2007). According to Connell (2009), the specific function of planning is "to make the future a visible part of decision-making processes" (p.5). Walker (2005) illustrates how well strategic planning may help define the work to be done: "The EcoVillage 'Envisioning Plan' crystallized the intent of our vision and showed us what we were working toward" (p.29). Planning is the act by which we decide upon future

actions; it is the step in which the intention takes form. In other words, planning is the process to frame the intention. It is often completed prior to undertaking action (Kaufman, 1992).

Daft (2007) maintains that an organization's mission, goals and strategies are often written down and found in written documentation like the procedures, job descriptions, regulations and policy manuals of an organization or, according to Christian (2003), the vision documents. This documenting of action is called formalization (Daft, 2007). Formalization refers to the stable, rational and relatively permanent structural aspects of organizations. From this point of view, the day-to-day operational mode of the organization is similar to a machine obeying practical rules and processes to ensure the organization achieves its mission. The mission, goals and objectives give guidance and direction to the overall effort but are empty shells if not transformed into organizational functions.

3.5.2 The systems of activities

The different systems of activities act together in order to coordinate people, material and constraints while currently attempting to reach predetermined goals. The focus is on deciding who carries out what actions when and the application of knowledge, skills, tools and techniques in order to meet the requirements of the particular project. The systems of activities used for the current research are authority centers and decision-making, leadership, division of labour, communications, controls and incentives.

The design and management of systems of activities must be supportive of each other to serve as the means to goal attainment. The alignment of systems of activities with organizational goals is what Wright (1977) calls 'internal consistency', which is a theoretical ideal that long lasting organizations never really reach. Inconsistencies are often the results or symptoms of a conflict. Organizational conflict is defined by Hatch (1997) "as an overt struggle between two or more groups in an organization..." (p.301). Conflict is generally seen as unpleasant, counter-productive and time-consuming. While conflict is an inevitable element of any organization, it is not always destructive. As Wright (1977) points out, "the establishment of constructive points of confrontation may be entirely consistent in reaching certain goals" (p. 29). The functional view of conflict suggests that it provides people with feedback about how things are going. Thus, internal consistency must be seen as a dynamic equilibrium, or a moving balance (Wright, 1977) happening within the organization in general rather than an absence of conflicts and contradictions. In the remaining sections, I explore the relevant literature in order to support the choice of the systems of activities, i.e., authority centers and decision-making, leadership, division of labour, communications, controls and incentives. I will define them and demonstrate their respective roles in relation to an organization internal functioning.

Authority Centers

An organization needs a central authority for its overall guidance. The central authority allocates resources and keeps members headed toward the same goals (Wright, 1977). Authority refers to a claim of legitimacy, justification and right to exercise power; i.e., the

socially conferred ability to achieve certain ends. Authority is legitimized by the logical relationships between decisions and organizational objectives and has the force of law (Jones, 1996). "Authority grants the position holder certain rights including the right to give direction to others and the right to punish and reward" (Hatch, 1997, p.164).

Power must be legitimized (or at least rationalized) to be perceived as 'accepted authority' by organization members. Members of the organization must willingly agree to give up certain aspects of freedom to the leader (or the authority figure) in a defined manner (Wright, 1977; Hall & Tolbert, 2005). Moreover, "each member also expects to reap the reward of the affiliation: physical well-being, security, order, social and psychological gratification" (Wright, 1977, p.40).

A hierarchy of authority closely parallels the classical theory on organizational structure and is represented by the vertical lines on an organizational chart and outlines who reports to whom (Daft, 2007). This hierarchical model has had a strong influence on the study of organizations. Yet, organizational authority structures vary a great deal, from very hierarchical to highly participatory (Jones, 1996). McLaughlin (1986) argues that non-profit organizations also need an authority figure that will initiate the pace and keep the group focused: "it is critical that the chief executive officer or designated staff member keep things on track" (p.171). However, authority centers cannot exert random force on the organization or the individual members. A system of decision-making process is required to guide and delineate the decisions to be made.

Decision-making method

A decision is a commitment to action (Drucker, 1990) and the way decisions are made impacts how the goals set by the organization will be met. "The origins of organizational decision-making theory appeared with March and Simon's book called 'Organizations', which was published in 1958" (Hatch, 1997, p. 271). Various styles of decision-making are commonly used within groups, and may include autocratic, consultative decisions, majority, unanimous vote, participative, or consensus (Resource International, 2008). According to Susskind and Cruikshank (2006), the majority rule prevailed in the nineteenth century, but they believe that the minority is also powerful because dissatisfaction in this marginalized group may result in instability.

Consensus, on the other hand, is a creative practice seeking agreement in unity out of all the different concerns and understandings that are present in a meeting. In consensus, there is no voting but rather a group process which results in an agreement that everyone can support and live with (Didcoct & Delapa, 2000). Dressler (2006) advocates consensus as it favours participation: "when people are invited to come together to share their ideas, concerns, and needs, they become engaged. They move from being passive recipients of instructions to committed champions of decisions" (Chap. 1, para 3). Christian (2003) sees decision making as the main power point in an intentional community. For this author, a participatory decision-making method, like consensus, is fair; it spreads the power equally which prevents abuse of power.

However, consensus does not guarantee participation of members. "The responsibility to participate might be onerous, taking time away from activities that may be more rewarding"

(Jones, 1996, p.128). A large amount of time is often due to long discussions for one dissident member only. "In the consensus process theoretically one person can stop a group from moving forward on a proposal" (Christian, 2003, p. 56), which is also called blocking the decisions (Bressen, 2004). Dressler (2006) defines blocking as a way for any member to stop a proposal from moving forward if he or she believes it does not serve the best interests of the group. Christian (2003) advocates for flexibility in the choice for a decision-making process and that more than one form of decision-making might be adopted. "It's important [to] know when it's appropriate to be inclusive and when to be more directive in decision-making" (p.64). Briggs (2001) argues that five elements are essential for consensus to be successful:

- Willingness to share power. Participant must be willing to give up hierarchy and share equal power and privilege.

- Informed commitment to the consensus process. Consensus is a radically different approach that needs to be carefully explained and understood by members.

- Common purpose. The group must have an overarching purpose to unify people and focus its efforts.

- Strong agendas. To favour effectiveness and members' trust, the author recommends delegating a group or few people to prepare an agenda prior to meeting.

- Effective facilitation. A facilitator is a neutral person that will help the group to make decisions. The facilitator asks questions in order to equalize members' participation.

An organization that chooses a consensus process to make decisions has to delegate to individuals and some groups to avoid wasting energy on meetings rather than on implementation (Didcoct & Delapa, 2000).

Leadership

Authority and leadership both have a certain amount of power that they use to attain organizational goals. However, authority and leadership are not synonyms: a leader can influence a decision but may not have the authority to make the decision. While authority is clearly defined and embedded in the formal structure of decision-making, leadership is a more implicit type of power. Unlike authority, which is formally legitimized, leadership grows out of the structure and might not be evenly accepted among members. For Bang (2005), leaders support authority, which consists of coordinating and caring; "the leader's task is to create participants, not necessarily to create agreement" (p.75).

An organization develops a distinct, unique character through the influence of its leaders. Though two organizations may be designed to pursue the same goal and have like functions, over time each will acquire distinctive traits peculiar to itself which stems from hopes, aspirations, anxieties and attitude of people in sensitive positions, i.e., leaders (Wright, 1977). In addition, the professional backgrounds of people in positions of leadership have an impact on the behavioural atmosphere of an enterprise (Wright, 1977). Likewise, for sustainably oriented intentional communities, Locker (2007) argues that "each community is the outcome of the decisions, values and intentions of dozens of individual community members, both current and former, with varying backgrounds, motivations, aspirations and perspectives on their community building endeavour" (p.61).

Leadership is recognized in proactive people whose self-initiative within various key activities influences the decisions. For Christian (2003) and Jones and Georges (2007),

leaders are people who exert influence over others by inspiring, motivating and directing their activities to achieve organizational goals or vision. The leader identifies the major goal of the group to further delineate what lesser objectives must be achieved to reach the overriding mission. Then the leader is able to cultivate the individual talents of the members for their further development (Wright, 1977). Leadership can be exercised by nearly anyone who sees the need for change (Heifetz, 1994).

Division of labour

Division of labour represents the organization's objectives translated into responsibilities. It arises when authority centers allow some of their power to be passed on to various other sub-grouping for the sake of reaching the goals of the organization, For Wright (1977), "organizing people deal with assigning members to one of the [...] major areas of activities so that each one can make the greatest contribution to the overall effort" (p.41). For Hatch (1997), division of labour has to do with the differentiation of work tasks and the resulting specialization of labour. According to Christian (2003) and Bressen (2003), for an intentional community using consensus decision making, committees support the authority center as it "save[s] the meeting time for real dialogue and exploration" (Bressen, 2003, p. 22).

The division of labour is also a formalized way to delegate the required work into specialized activities. Typically in businesses, "the divisions can be organized according to products, services, product groups, major projects or programs, geographic division, businesses or profit centers" (Daft, 2007, p.104). The responsibilities are therefore translated into departments (e.g. marketing) and a group of responsibilities into divisions (e.g. Western

region) (Hatch, 1997). The resulting division of labour is called 'span of management' (Wright, 1977) or 'span of control' (Jones & Georges, 2003). The structure can be tall (vertical), in that there are many levels of authority and narrow spans of management, or the structure can be flat (horizontal), in that there are fewer levels and wide spans of management.

Literature on intentional communities and ecovillages shows that the division of labour in a community is based on the functions, i.e., service to members and major projects (Bressen, 2003; Christian, 2003; Bang, 2005; Walker, 2005). Bressen (2003) describes the division of labour in an intentional community as the delegation of specific tasks or mandate to individuals or to committees, also called 'teams', 'crews', or 'working groups'. The committees, according to this author, are of two basic types:

- standing committees, dealing with ongoing community needs and;

- *ad hoc* committees, formed for a short-term particular item.

Communications

The purpose of communication may range from completing a simple task to creating and maintaining satisfying human relationships. Overall, communications in organizations are of central importance because they influence its structure, extensiveness and scope (Hall & Tolbert, 2005). As such, communication is seen everywhere in the organization; "power is exercised, leadership is attempted and decisions are made on the basis of communication" (Hall & Tolbert, 2005, p. 137).

Communication also relates to the effectiveness of an organization. Successful organizations facilitate information exchange using appropriate media. However, there is no one 'best' medium; for each message, an appropriate medium must be selected from the following: face-to-face, spoken communication (electronically transmitted), written personally addressed and written impersonal communication (Jones and George, 2003). According to GEN (n.d.-b), an ecovillage's system must provide members with opportunities to regularly share information. Some examples given are "announcing social events, announcing group work activities, encouraging discussion of important community decisions, making information about past community decisions and policies available, [etc.] " (p.23). Email lists are used in intentional communities for "posting and requesting information, disseminating drafts of proposals, making arrangements, etc." (Schaub, 2004, p.6). However, according to Schaub, once tension and conflict come into play, the communication should be given in person to avoid incorrect interpretations on email.

When an organization is efficient, communication flows quickly and accurately. The authority structure is used to communicate who makes the final decisions and the direction in which communication should take place. Communication also plays a crucial role in support of the division of labour. The sub-groupings (e.g. committees and sub-committees, work teams or crews) created through the division of labour needs open and frequent communication to remain connected with the rest of the community (Bressen, 2003).

Horizontal and vertical communications are two forms used by various authors to describe organizational communication (Hall & Tolbert, 2005; Hatch, 1997). Vertical communications flow up and down the hierarchy line. Horizontal communications flow

between employees or members of the same level. It takes form in committees, task forces and projects, and management teams (Hatch, 1997). According to Kirby (2004), an ecovillage needs considerable exchange between its residents in order to develop "a set of normative values and behaviors" (p.99)

Communication in an organization also flows through formal and informal pathways (Wright, 1977). Formal communication consists of messages that move along prescribed and regulated pathways. The content of these messages concerns the work and other related activities of the organization. In general, all formal communications are recorded and filed and become a part of the organization's record. Informal communication consists of a large number of messages, bits of information, opinions, and expressions of feeling among people and groups over paths. The means are chosen for convenience and necessity rather than for conformity with formal communication patterns.

Controls

The classical theorists first drew attention to the importance of a control system for an organization to efficiently meet its goals (Jones, 1996). Given the assumption that different participants have different motivations for participating in a given organization, the control system provides the means for integration and continuity, giving rise to the standards for individual conduct and performance. The control system "...becomes the basis of the continuing use of authority for the self-maintenance and productivity of an organization" (Wright, 1977, p. 47).

Two types of control may be used: output and behavioural control. "Output control focuses on task activity and depends upon the measurement of these results" (Hatch, 1997, p. 331). Good examples of output control include financial measures, organizational goals measure, and operating budgets (Jones and George, 2003). In his research on ecovillages, Whitfield (2001) concludes that they offer an opportunity to test creative ways around the limitations of the current systems (political, economic, regulatory and social) but that they insufficiently examine the results of their experiment and would benefit from a "continuous monitoring, evaluation and adjustments [that] are required to progress and ensure success" (p.134).

Behavioural control is rather concerned with defining acceptable behaviour and reducing inappropriate behaviour (Wright, 1977). This type of control is used when results are harder to measure and tends to focus on the process rather than the results. Examples of behavioural control are formally prescribed policies, guidelines, rules, evaluation, etc. They are put in place by the authority with the intention to reach a desired level of organizational performance (Hatch, 1997). Intentional communities use agreements often called 'policies' or 'guidelines' (Christian, 2003). Christian recommends that intentional communities create as many and detailed agreements and policies as possible for membership, food, decision-making, visitors, finance, etc., because "good documents make good friends" (p.71). Christian also advocates a screening process for prospective members, which usually consists of a period of time visiting the community as an observer, answering questions, being interviewed by the group and being accepted through the consensus process. According to Christian, a community accepting members who do not adhere to its vision and values will potentially lead to undesirable time and energy spent on conflict resolution or worst, law-suits and community scission.

The organizational culture, also called 'clan control', is a third type of control in the social system perspective that comes into play (Jones & George, 2006). Whereas output and behavioural control mechanisms are both formal, the organizational culture mechanism is subtle and based on values and norms (Hatch, 2007; Jones & George, 2003). Values are beliefs and ideas about the kinds of goals members of an organization should pursue and about the kinds and modes of behaviours people should use to achieve these goals. Norms are unwritten, informal rules or guidelines that prescribe appropriate behaviour in particular situations (Jones and George, 2003). People accept norms and values as their own and then work within them. Norms and values help workers to focus on and enhance performance rather than on specific objectives (Jones and George, 2003). This type of control is often encountered in intentional communities. According to Locker (2007), intentional communities "are based on shared values and goals that arise from critical perspectives of predominant cultural values and institutions" (p. 41).

In uncertain and ambiguous situations, organizational culture is more appropriate than the output control that lacks flexibility, or than behavioural control that needs constant surveillance (Hatch, 1997). "Over time, organizational members learn from each other which values are important in an organization and the norms that specify appropriate and inappropriate behaviours. Eventually, organizational members behave in accordance with the organization's values and norms – often without realizing they are doing so" (Jones & George, 2006, p. 99). However, to be efficient, it requires a high level of commitment on the part of members who sometimes have to sacrifice some or all of their self-interests to become socialized members of the organization (Jones & George, 2006).

Incentives

Like organizational controls, incentives correspond to a combination of means used to achieve compliance. Participants need to believe that their contribution and commitment to organizational goals will bring them a symbol of personal achievement (Wright, 1977; Jones, 1996). Understanding the 'why' of their activities enables workers to see their role and their contribution in the context of the broader organization. This understanding is illustrated in figure 1, which shows the motivation equation of Jones and George (2003). These authors affirm that if one of the values is low, motivation will be low, and thus:

- Workers do not believe they can perform well.

- Workers do not believe that performance and rewards are closely linked.

- Workers do not value the rewards offered for performance.

Figure 1: The motivation equation

INPUTS FROM ORGANIZATIONAL MEMBERS	PERFORMANCE	OUTCOMES RECEIVED BY ORGANIZATIONAL MEMBERS
Time Effort Education Experience Skills Knowledge Work behaviors	Contributes to organizational efficiency, organizational effectiveness, and the attainment of organizational goals	Pay Job security Benefits Vacation time Job satisfaction Autonomy Responsibility A feeling of accomplishment The pleasure of doing interesting work

Source: Jones and George (2003)

Unlike private enterprises, non-profit organizations deal with volunteers and professionals with whom the implementation of the organization's strategy depends (McLaughlin, 1986). Although some positions might receive pay as staff, accountants or managers of non-profit affairs, most participants do not derive their livelihoods from the organizations' activities

(Hall & Tolbert, 2005). For the most part, incentives for participants of non-profit organizations, like ecovillages, are non-monetary.

3.5.3 Organizational context

The various systems seen above such as authority, division of labour, etc. are aspects common to all organizations and set up in order to serve the organization's goals and represent 'the machine's mechanisms'. Yet, whenever a change is introduced in response to external pressures, a new internal balance is needed, which adds perturbations to the organizational systems. Various authors in organizational theory (Silverman, 1974; Wright, 1977; Czarniawska-Jeorges, 1991) stress the influence that external factors have on a group or an organization. Silverman states: "Any attempt to explain why organizations are as they are must [...] take into account the environment in which they are located" (p.32). The organizational context is a set of forces and conditions outside the organization's boundaries that have the potential to affect the way the organization operates (Hatch, 1997; Jones & George, 2006). Although the physical environment (e.g. climate or geography) can be important, the primary focus according to organization theory is on the social environment (Hall & Tollbert, 2005) and will be called 'organizational context' in this research in order to avoid confusion with the natural environment.

The organizational context is divided into two levels by Jones and George (2003). Level one is called 'the general environment' and level two, 'the task environment'. The general environment, or "the culture conditions" (Hall & Tolbert, 2005), consists of various forces, such as economic, sociocultural, demographic, political, legal, global and technological, that

the organization can hardly impact or control (Jones & George, 2003). These forces interrelate in a very complex interaction pattern (Hall & Tolbert, 2005) constituting broad trends. According to Hatch (1997), "Every organization expresses aspects of the national, regional, industrial, occupational and professional cultures through which it operates" (p. 200). Ecovillages are also inevitably influenced and constrained by the broader culture. Kirby (2003) points out that the American culture affects the internal functioning of his ecovillage study case, i.e., the decisions that are made, and the norms that develop. For present purposes, the general environment and the task environment are referred to as 'the cultural context' and 'local context', respectively.

The local context of a business includes competitors, distributors, suppliers and costumers. It represents other organizations close to the boundaries of the organization which combine to form an 'interorganizational network' (Hatch, 1997). At this level, the organization may attempt to influence other organizations through "interorganizational relationships"; for example, through membership on boards of directors, strategic alliances or partnerships (Hall & Tolbert, 2005). For non-profits, financial resources are generated through grants, subsidies and donations coming from organizations found in the local context (Hall & Tolbert, 2005; Daft, 2007). In the case of ecovillages, Whitfield (2001) highlights the impacts of the town regulations on ecovillages' innovative projects: "regulations and laws created to protect the [natural] environment from the unscrupulous developer fail to accommodate innovation" (p.131).

In summary, we have discovered through the literature that the practice of sustainability takes form through human enterprises of many kinds. This research specifically looks at small-scaled experiments, and uses the case of ecovillages. Being intentionally oriented

communities, ecovillages may be considered and studied as organizations. The organization theory, through its evolution and various schools of thought, provides concepts for an analytical framework capable of exploring the organizational processes and structures of ecovillages as they strive toward a more sustainable lifestyle.

Chapter 4: Research design and methods

4.1 Type of approach and reasoning

This study explores the internal organization of a case study site, Ecovillage at Ithaca, which aims to put sustainability into action on a day-to-day basis at a small-scale. The organization of ecovillages has rarely been addressed in academia generally. Thus, this topic addresses a knowledge gap and aligns well with exploratory research. An exploratory approach is useful when a concept is new and the researcher wishes to become more familiar with their topic (Babbie 2004). "The objective of exploratory research is to gather preliminary information that will help define problems and suggest hypotheses" (Kotler *et al.* 2006, p. 122). Being exploratory, the research is based on inductive reasoning (Schutt, 2006). The inductive method of constructing theory is carried out "...by observing aspects of social life, and then seeking to discover patterns that may point to more-or-less universal principles" (Babbie, 2004, p. 55). The research aim to describe, develop concepts and generate hypotheses.

4.2 Case study method

4.2.1 Single case study

A single case study method of EcoVillage at Ithaca was used. Creswell (1994) describes case studies as a single entity bounded by time and activity or process in which the researcher collects detailed information by using a variety of data collection procedures in a given period of time. "These entities are known as particular cases unique in their content and character. [Case studies] seek to answer focused questions by producing in-depth

descriptions and interpretations over a relatively short period of time, perhaps a few weeks to a year" (DeMarrais & Lapan 2004, p.218). The case study method encompasses both single case study as well as multiple case studies. Yin (2003) argues that the size of the sample (whether two, ten, or 100 cases) does not always lead to a richer and stronger meaning. Rather, the number of cases selected should be guided by the goal of the study. The goal of the current research is to improve our understanding of how an ecovillage is organized internally. EcoVillage at Ithaca was selected as a leading example worthy of study. The nature of the research is primarily exploratory and descriptive. In this way, it was appropriate to opt for a single study, provided it would lead to sufficient insights and meet the established objectives of the research.

4.3 Selection of the study site

The ecovillage study site, Ecovillage at Ithaca, was selected from existing databases. Two sources of information were consulted: the Global Ecovillage Network website (GEN, 2007) and the Fellowship for Intentional Community website (FIC, 2007). Both databases contain information regarding thousands of intentional communities such as ecovillages located around the world. Given the heterogeneous nature of the ecovillage movement (as discussed in chapter 3) and in the absence of official ecovillage appellation, ecovillages had to be in at least one of these three databases and either possess a website or be described in a book in order to be selected. Some of these books were Christian (2003), Bang (2005), and Dawson (2006). These books illustrate what ecovillages pertain to (Bang, 2005; Dawson, 2006) or describe how to establish one (Christian, 2003). Current case studies of ecovillages are provided in these books for the purpose of illustrating the above topics. This screening

process helped me to identify ecovillages offering enough information to evaluate if they correspond to the characteristics of an ecovillage as defined in the literature (see chapter 3).

In order to select a study site, I transposed characteristics of ecovillages into various criteria. I also included certain factors external to my control but that needed to be taken into account (e.g. language spoken in the ecovillage). The criteria to select the study site took place in two steps. First, three essential conditions had to be fulfilled:

- **Located in industrialized countries of Western society.** The proposed research concerns contemporary environmental problems related to non-sustainable patterns of consumption and production in industrialized countries of Western society. Western Society encompasses Western Europe, North and South America, Australia and New Zealand (Thompson & Hickey, 2005). The industrialized countries were the ones included in the Organisation for Economic Co-operation and Development (OECD, 2007). Ecovillages located elsewhere are more likely to encounter different issues and find different solutions. For this reason, ecovillages that are not located in industrialized countries of Western society were not investigated. As a result, only the ecovillages located in the Western Europe countries, North America, Australia and New Zealand were considered.

- **English or French language spoken on site.** The researcher speaks English and French. The study sites using other languages were rejected as they could not allow the researcher to collect data.

- **Self-defined as ecovillage.** Many intentional communities show similarities with ecovillages as they are planned residential communities whose members are intentionally united by shared common values (FIC, 2007). However, the values

shared by ecovillages' members differ from other intentional communities. While some intentional communities' members share a common religious path or an interest in affordable housing for instance, ecovillages' members share a concern about experimentation and promotion of a supportive social environment and a low-impact way of life. An overview of the mission statement found in each community's website and/or in literature was used to validate if these values were there.

Following this first step, 14 possible study sites were identified (see study site selection table, Appendix D). In a second step, the following criteria were investigated and weighted in order to select among the 14 possible ecovillage study sites:

- **Number of years of existence.** Sustainability is characterized by a strong notion of temporality and it is only possible to judge sustainability over a period of time (Villeneuve 2003). As such, the ecovillages were selected according to their duration; older ecovillages took precedent over newer ones.

- **Number of adult members living on site.** The research examines ecovillages as public/private systems; thus, the group must comprise a minimum number of participants and must not be associated with a single family. Ecovillages count generally a maximum of 500 inhabitants aside of some exceptions (Jackson 2004 and Christian 2008). The minimum threshold of 15 members living on site was used while looking for study sites but ecovillages which comprise a greater number of members had precedence.

- **Development and demonstration of a range of intermediate technologies or forms of renewable energy.** The environmental concerns of ecovillages can be ensured by

actual outcomes of previous or ongoing activities specifically trying to reduce their impact on the ecosystems. The Global Ecovillage Network stipulates that to achieve a low-impact way of life, ecovillages should integrate various aspects of ecological design, permaculture, ecological building, green production, alternative energy, community building practices, and much more (GEN, 2007). The wider the range of intermediate technologies and the more innovative, the higher the ecovillage study site scored.

- **Educational mission.** A core function of ecovillages is to act as models of sustainable living (Bang, 2005; Dawson, 2006 and GEN, 2007). Ecovillages were assessed based on the quality and quantity of their education means, such as workshops, institutes, education centers located on site or partnerships established with an educational institution. For instance, an ecovillage that possesses its own educational center scored higher than an ecovillage which holds several workshops per year.

These criteria were qualified and ranked as per their descriptive nature. Each criterion received an ordinal or ratio scale. See appendix D for the legend, and for the final evaluation and score of the eligible study sites. The six ecovillages with the highest scores were contacted by email in order to ensure their interest in being a study site for the current research. All study sites responded favourably. I then phoned the three ecovillages with the perfect score of 13 to further explore with at least one of their members the possibilities of my data collection visit.

The phones calls allowed me to point out new elements contributing to the selection. For instance, the cost of the travel and accommodation were too pricey in the case of Findhorn

(Scotland). The lack of communality among inhabitants and the difficult accessibility to the site were issues for selecting Crystal Waters. On the other hand, EcoVillage at Ithaca had a rich communal life that would facilitate my data collection. Also, a significant amount of articles, books and various public documents were available for me to consult which provided material for cross referencing during the data analysis. Hence, albeit Findhorn and Crystal Waters scored as high as Ecovillage at Ithaca, phone contacts revealed the latter as being the most appropriate option. Overall, EcoVillage at Ithaca was affordable, well-known and the highly participative atmosphere of this community suited the research goal and the data collection methods.

4.4 Data collection

The actions and related internal organizational structure of the ecovillage study site, Ecovillage at Ithaca, were investigated over a six week period from August 22nd, 2007 to October 4th, 2007 using multiple methods of data collection. Babbie (2004) suggests that using more than one research method strengthens the study because the researcher is able to utilize the strengths of each method. The use of multiple methods is suitable as it tends to secure an in-depth understanding (Denzin & Lincoln, 2005). Jacobs (2005) adds: Collecting more data through multiple methods is preferable since "the social world as a multi-faceted and multi-layered reality that reveals itself only in part with any single method" (para. 11). For this research, four different methods were used for collecting data: participatory observation, field notes, semi-structured interviews and document analysis. Those methods were used at various periods of time during the six-week data collection journey (see Table

4). First, participatory observation along with field notes were collected in order to familiarize the researcher with the site and to identify key informants. A second round of data collection consisted of interviewing 21 key informants. Finally, document analysis was undertaken prior to, during, and after the data collection on site.

4.4.1 Research Methods

Participatory observation and field notes

During the three first weeks on site, the researcher took part in the daily activity of the ecovillage visited. Participant observation allowed the researcher to experience some aspects of the subcultures being studied (Prus, 1997; Babbie, 2004). As an 'observer-as-participant' (Babbie, 2004), I attended activities of different kinds, e.g., the business and planning meetings, the community chores, the punctual events (happening only once or several times a year and aiming to accomplish a definite task) and the social events (happening on a daily basis and aiming gathering or entertainment). In terms of the business and planning meetings, I went to neighbourhood decision-making meetings of FRoG and SoNG including one Village-Association (VA) meeting. I also attended two planning meetings of the third neighbourhood group and one meeting of the Built Environment Committee. I also took part in various chores such as preparing common meals, washing dishes after a common meal, laundry of the SoNG common house, gardening, help with sound panel installation in the SoNG common house and worked at both farms (weeding and cropping). The formal events I attended included EVI Inc.'s 15th annual meeting, a workshop called 'Teaching Sustainability Facilitating Education', the Ecovillage Experience Weekend, a meeting with journalists from *Time* magazine, a guided tour, a special presentation on Alzheimer and dementia and a part of the Earth Mentoring day-workshop. The social events I attended were

numerous: common meals, movie nights, hiking and birthday celebrations, and music night, just to name a few. I attended all of those activities in order to establish a two-way rapport; that is, for me to get familiarized with the residents and the site, and for the residents to get to know me and feel comfortable. I also identified key informants and follow-up questions to be asked during interviews. I used the community chores as a way to experience an important piece of ecovillage life and as a way to meet people that I might not have met under other circumstances; such as in a community meeting, for instance. All in all, I went to a wide range of different common activities in order to get to know as many residents as possible as not everyone is taking part in every type of activities.

As a part of the participatory observation, I organized two activities: a movie night and a presentation of my preliminary insights. Half-way into my data collection, I set up a movie night and presented the episode *30 days off-the-grid* (Spurlock, 2005). The show is about two 30-year-old typical Americans—i.e., greedy consumers of fossil fuels— moving to an ecovillage (Dancing Rabbit, Missouri) to live according to this ecovillage's lifestyle for 30 days. The discussion following the show helped me to learn more about people's perception of sustainability and how they perceive EcoVillage at Ithaca compared to Dancing Rabbit Ecovillage. At last, before leaving the site, I presented my observations and preliminary insights to EcoVillage at Ithaca residents. I used the opportunity to thank them for their hospitality and also to obtain their general feedback and some answers to specific questions that arose during the data collection process.

Along with participatory-observation, I used field notes taken daily and gathered insights from more people than from the key informant interviews. Thus, the field notes provided me

with data I can compare to the views and opinions of those interviewed. My notes encompassed predetermined themes, including: decision-making method, ecological equipment (e.g. car-share program), inhabitants' values and perspectives, environmentally-friendly actions (e.g.: composting) and others (Appendix E).

Semi-structured interviews

According to their potential to yield more in-depth information, interviews took place during the third week with the key informants identified during the participatory observation. Interviews were conducted with 21 key informants, i.e., "a member of the group who can talk for the group per se" (Babbie, 2004, p.185). These interviewees were chosen based on their role as a founder, a member for a relatively long period of time and/or someone fulfilling a specific function in the community (e.g., co-developer of a neighbourhood, visitor-coordinator, members of a specific committee, etc.). Some key informants were also identified through snowball sampling during interviews. Interview questions were prepared, grouped according to themes and were asked in different ways for different participants. Interview guides help researchers to tailor their questions to the interviewee's role or situation without constraining them to a particular format (Lindlof & Taylor, 2002). The interview questions aimed to cross reference elements to be found in the document analysis and explore some elements based on the participant-observation. The questions regarding specific activities were mainly rooted in the field notes. For example, a system of car-sharing was noted, I then asked how this is linked with their vision, how the decision to choose this option has been taken in the community, how it works, if it is successful and why, who is in

charge, etc. The questions were open-ended; that is, the respondents were asked to provide their own answer to the question (Babbie, 2004).

Document analysis

The information gathered through document analysis facilitated the data collection while interacting with people in the field and during the interviews. With background information in mind, the researcher is aware of factors which could either irritate the interlocutors or facilitate their collaboration (Lamoureux *et al.*, 2002). The documents were used to verify or compare themes and/or meanings that emerged from participatory observation and interviews. They provided data concerning internal structure and process, such as their vision, mission, values, goals, past events, timeline, allocation of resources, assignment of tasks, *level of supervision, coordination, evaluation, etc*. Moreover, background information was mainly collected via document analysis. The history, vision, the territory, the socio-political context and the natural environment of EcoVillage at Ithaca were found through various documents. The documents studied consist of the community's website, the book 'Ecovillage at Ithaca' (Walker, 2005), PhD dissertations (Kirby, 2004; Chitewere, 2006) and master theses (Whitfield 2001; Brown 2004) on EcoVillage at Ithaca, the township website, press review, community documents such as project reports, committees' reports, meeting minutes, bylaws and other miscellaneous internal documents (emails, organizational structure chart, consensus agreement form, etc.).

Table 4: Timeline of data collection

	Before	First week	Second week	Third week	Fourth week	Fifth week	Sixth week	Thereafter (Oct. 4th)
Participant-observer								
Interviews semi-structured								Participants reviews and comments
Document analysis								
Details		Arrival August 21st		Movie night September 17th	First interview		Presentation October 4th	

4.5 Data analysis

The data from 21 interviews, participatory-observation, field notes and internal document analysis provide a descriptive understanding of the day-to-day organizational processes and activities of Ecovillage at Ithaca. All data recorded during interviews were transcribed and returned to participants for review and comment. These data were then analyzed using NVivo™ software, a data management system for qualitative data.

The data were first broken down and classified as they belong to one of the concepts of the analytical framework (e.g., authority, communications) (see Chapter 3). According to Babbie (2004) this type of coding is called 'content analysis'. The codes were entered into the transcripts using NVivo™ qualitative data analysis software in order to assist the investigator in managing and retrieving data. Subsequently, open coding was used to obtain a comprehensive view of the information and point out patterns or themes for each concept of the analytical framework. In open coding, data are broken down into discrete parts, closely examined and compared (Strauss & Corbin, cited in Babbie, 2004, p.377). Patterns emerge following the step of gathering themes and sub-themes. The resulting themes were also

systematically compared for both similarities and differences against the other data sources (Neuman, 1994).

4.6 Ethical consideration

Data transcribed from the tape-recorded interviews were securely stored on the computer server in UNBC; only the researcher had access to the data files, which are protected by password. The tape-recorded interviews were burnt on a DVD and will be stored for five years after the thesis publication in a locked filing cabinet. After five years, all data will be destroyed. No names or identifying information appear on survey instruments. A coding system was used to track data. Each interviewee was assigned a pseudonym. No original names or identifying information has and will appear in reports or other public documents. A consent letter (see Appendix G) was read and signed by the 21 interviewees in two copies (one for the interviewee and one for the researcher). This letter provided the interviewee with contact details of my research supervisor and the Office of Research in case they had some concerns.

4.6.1 Risks

Given that this research is based on key informant interviews, it is important to maintain confidentiality of participants. It was not be possible to guarantee anonymity as other members of the study site may recognize them through my thesis and this despite the pseudonym. Similarly, a person from the outside of the community but knowing the community and the people who live there might be able to identify an interviewee by their unique role regarding the community (e.g. the founders). One interviewee specifically asked

not to be recognized. I used only statements from the interview that did not reveal any reference to personal or circumstantial information about this interviewee.

There are also risks for the study site. The findings and results of the study site as published in the thesis may be perceived negatively. For instance, the research may reveal that the community does not possess a plan of their activities. Some people might see such element as a weakness.

4.6.2 Benefits

The ecovillage studied and their participant inhabitants have benefited from the research. During the six weeks on site, I took part in various activities providing help for chores but also help to make up a guide for interns. With the help of the visitor-coordinator, I co-wrote a 10-page document to be given to future interns visiting Ecovillage at Ithaca. The document displays information such as directions to the site, a description of the community's activities and facilities and some services and goods offered on site by some inhabitants. If kept up to date, the guide for interns is a tool that will still contribute to the community after my visit. The investigation of their activities and organization processes will provide the study site with a new perspective since these organizational processes are not always clearly articulated. Moreover, one of the missions of ecovillages is to promote and diffuse their way of life and experimentations. The electronic summary of my research that I will send to the community can also be used for their own purpose such as their website or newsletter. Finally, through the thesis publication, the proposed research will allow diffusion among scholars.

Chapter 5: Results

Data from the in-depth interviews, field notes and document analysis are presented in this chapter. Using the analytical framework presented above (chapter 3), first, the overall planning of EcoVillage at Ithaca is presented through its mission, goals and objectives. Second, various systems of activities pertaining to the internal functioning of EcoVillage at Ithaca are identified and described. The systems of activities are: authority centers and decision-making processes, leadership, division of labour, communications, controls and incentives. Finally, the analytical framework includes the organizational context that encompasses the local context and the cultural context.

5.1 The planning: mission, goals and objectives

An organization is, in its most basic definition, a group of people united around a mutual intention (Wright 1979; Jelinet, Litterer and Miles 1986; Hall and Tolbert 2005; and Daft 2007). In order to better understand one organization's intention, it is important to look at its planning, which includes its mission, goals and objectives. The mission serves as a representation of the intention that encourages people to join the organizational effort. The mission is then broken down into goals, which delineate what must be accomplished to achieve the mission. The goals are finally broken down into objectives, which delineate specific tasks that describe allocation of resources and activities. According to Daft (2007), the mission, goals and objectives are generally formalized in written documents like the procedures, job descriptions, regulations and policy manuals of an organization.

The mission of EcoVillage at Ithaca is described by Walker (2005) as an attempt at "redesigning human habitat [to demonstrate] that human needs can be meet while preserving natural ecosystem" (p.7). The original mission statement was:

> The ultimate goal of EcoVillage at Ithaca is nothing less than to redesign the human habitat. We are creating a model community of some five hundred residents that will exemplify sustainable systems of living - systems that are not only practical in themselves, but replicable by others. The completed project will demonstrate the feasibility of a design that meets basic human needs such as shelter, food production, energy, social interaction work and recreation while preserving natural ecosystems (Hollick and Connelly, 1998: 39).

In 2008, a new mission statement was adopted:

> EcoVillage/CTA is an educational organization that provides innovative and empowering educational programs to a local, national and global audience about sustainable community and sustainable living. It is closely affiliated with EcoVillage at Ithaca, a densely clustered village-scale community that demonstrates sustainable living systems and a high quality of life; with its regional partners in building a local sustainability movement; and with a network of ecovillages and cohousing communities who provide hopeful models all around the world (EVI, 2008).

As presented in chapter 2, EcoVillage at Ithaca is comprised of different legal entities that form two levels of the organization. The original mission did not emphasize this distinction between the non-profit educational organization and the village-scale community, but the more recent definition of EcoVillage at Ithaca distinguishes two levels of organization, with each fulfilling a different aspect of the overall mission. At one level, there is EVI Inc. (affiliated with Center for Transformative Action (CTA)), with a mission to be open to the outside, to search for connection with people and other organizations to create outputs (education to and demonstration of sustainable living) and to help collect inputs (support, grant, donations, etc.). At the second level are found the missions of the neighbourhoods forming the village, which are aiming to create a more sustainable lifestyle and life quality milieu for their members. For instance, SoNG is described as:

...a cohousing neighbourhood dedicated to cooperative, healthful, and ecologically sound living. Along with the other EcoVillage at Ithaca neighbourhoods, it is part of a village-scale experiment in sustainable living that works to enhance the lives of its members and the health of its surrounding ecosystems (Ecovillage at Ithaca, n.d.).

The mission statement of TREE is divided in four goals that also emphasize a socially-responsible, healthful, and ecological way of life:

- "Create policies and procedures that foster group-centered, consensus decision-making;

- Create a neighbourhood of inexpensive, efficient, small foot-print homes at EVI;

- Provide an experimental example of socially-responsible, healthful, and ecologically sustainable living; and

- Work with EVI [Inc.], VA, and neighbourhood committees to integrate our cluster into the larger community, vision and goals" (TREE, 2008, para. 3).

On the whole, aspects such as education, reduced human impact on the natural environment, and quality of life, are reiterated in the various missions described above. Though already found in the original mission, the concepts of demonstration and education have become stronger and more precisely defined in the recent version of the mission. Moreover, the newest version of the mission bridges EcoVillage at Ithaca's attempt toward sustainability with the world wide movement.

The 'Guidelines for Development' document is the overall plan for EcoVillage at Ithaca; it represents the directions in which the members of the organization will put their common efforts. Created in the late 1990s, the guidelines for development were reviewed and

improved in 2004. In the revised document, the guidelines are broken down into goals and objectives. The goals represent the anticipated outcomes whereas the objectives describe more concretely how to achieve the goals. The objectives describe the course of action. For example, under the goal "Demonstrate a continuing trend of reduction in generation of solid waste over time", one of the objectives is "Encourage the use of salvaged materials and Village-wide bulk-buying programs" (EVI, 2004, p.6). For each guideline, a list of proposed action steps is also presented. The guidelines are:

- Health, Personal Growth and Spirituality (added in 2004);

- Water, Wastewater, Materials and Energy;

- Land Stewardship;

- Built Environment;

- Transportation/Circulation;

- Relationship, Culture and Community Character (added in 2004) and;

- Sustainable Economics (added in 2004).

The Guidelines for Development document mentioned that more guidelines are needed such as Education, Community Process and Community Outreach/Public Relations.

A Process Steering committee (PSC) is found in each neighbourhood and acts as coordinator between the mission, the member-residents and the decision-making process. One resident of SoNG explained how the Process Steering Committee helps to break down the neighbourhood mission into objectives and prioritize which actions should be undertaken:

> ... it was mostly in January, February that year, they [PSC members] put quite a lot of work into prioritizing for the neighbourhood... and priorities were related to the mission in many cases... PSC didn't dictate the priorities; they just had the community list of what kind of things we'd like to accomplish and we narrowed it

down to the ones people are more excited about. Some of the priorities that came out of that process were to become more food self-sufficient, to increase our reliance on renewable energy resources so those were long term propositions. There were also things that were very focused and narrow like completing the common house. The priorities ran full gamut and some of them were directly tied to the broader mission (Peter, personal interview).

The mission, goals and objectives are multidimensional and some interviewees emphasized that the spectrum of them is perhaps not accepted in its entirety by some members. Some people focus on only certain aspects, as the following quote illustrates:

Well, it's [the mission statement] the stated bottom line but it's not truly the bottom line. I think people here agree on cooperative living and on a somewhat greener, somewhat lighter living and they accept the idea of being an educational demonstration model, but there's a lot of people who don't really want to be bothered with it and who don't have the time, energy or interest to invest into it. The majority agrees with the basic bottom line of being a demonstration model, reducing our ecological footprint and creating a rich social cooperative life here (Agnes, personal interview).

Many activities are supportive of each other and contribute all together to attain various objectives. For example, the tours and workshops serve two purposes. First, they serve as a means to fulfill the objectives of demonstration and education. Second, they serve to recruit new members when a new neighbourhood is forming; TREE in this present case (Ann-Marie, personal interview). Another example is the Center for Sustainability Education that will provide education on what is experimented within the village and at the same time will provide onsite work for inhabitant members. The following interviewee explains:

The Center for Sustainability Education is a project of the non-profit. EcoVillage at Ithaca [the village] is also a project of the non-profit so they are sister projects and the relationship between the two is that the Center for Sustainability Education will draw on the experience of the residential project as a living laboratory of experience where people who come to the Center for Sustainability Education and the people who live in the residential project will find meaningful employment opportunities in the Center

for Sustainability Education. Although they're separate, they're also connected in that perspective (Janet, personal interview).

Exploring the mission and the goals and objectives of EcoVillage at Ithaca provides an outline to understand the organization. On the whole, the mission of EcoVillage at Ithaca and the neighbourhoods as well as the 'Guidelines for Development' and related goals and objectives tend to reflect a multidimensional view of sustainability as applied to the organizational actions and systems of activities.

5.2 The systems of activities

The various systems of activities are working all together to accomplish the purpose set for the organization, namely: authority centers, decision-making method, leadership, division of labour, communications, controls and incentives. These systems are interrelated and mutually support each other to move toward organizational goals. Inconsistencies, or conflicts, may however occur between the systems of activities and the means chosen to reach organizational goals and objectives. The following section will describe the systems of activities of EcoVillage at Ithaca that help achieve the goals and objectives and will highlight inconsistencies when appropriate.

5.2.1 Authority centers and decision-making method

For the ease of reporting results, the data collected about authority and decision making are organized in two ways. First, I will present authority and decision making together. Although identified as separate systems of activity in the analytical framework, authority and decision making are related. Authority centers are legitimized organizational entities. Members rationalized and recognized the authority and as such empowered it to make final

decisions. The decision-making method is the established process by which the authority may apply its power. Thus, the formal natures of authority and decision-making make it more suitable to present these systems of activities in tandem. Second, I will examine authority centers and decision-making with respect to each level of EcoVillage at Ithaca: the non-profit level (EcoVillage/CTA and EVI Inc.) and the village level (FRoG, SoNG and the Village Association).

The non-profit level

The authority center for the two non-profit organizations (CTA and EVI Inc.) is a shared board of directors. Most of the board members are non-residents. Residents must hold one-third to two-thirds of the board positions. Since EVI Inc. will eventually become independent from CTA and the project and money normally transit through EVI Inc. (Don, Personal interview), the results presented here will only consider EVI Inc.

EVI Inc. board meetings occur every month to conduct the organization's business and once a year an EVI Annual General Meeting is held. During the data collection, the Annual General Meeting occurred on August 15th 2007. An interviewee describes the EVI Inc. board of directors' composition:

> It's a small group now; it's been fairly small since I have been here. It's about five people from Ithaca. There are two residents, one SoNG resident and one FRoG resident. Most people are not residents here, they live in Ithaca (Don, personal interview)

EVI Inc. board of directors has authority on the land, though not the parcels of land sold to VA or the neighbourhoods. EVI Inc. is responsible for the development of the remainder of the land and, thus, has authority over the future of the project as a whole. "The EVI [Inc.]'s

board makes the final decisions on development of new housing, other [new] buildings, agricultural and conservation projects. They consider the overall "sense of the village" - feedback from village residents - when making those decisions, but they are not bound by individual opinions" (Big Picture Committee, 2007). An interviewee contrasts decision-making in the non-profit and in the neighbourhood:

> Well, there's the neighbourhood level, which is highly participatory, and then there's the non-profit level, which is less so. There's sort of a lip service to get input from residents but it's less... there's a message that goes out that ultimately the decisions are made by the board... (Agnes, personal interview)

An interviewee illustrates how TREE, the forming neighbourhood group, finally decided to build in the North field. Members had originally included the option to build on a South-East piece of land that partially belongs to FRoG, but the resistance of FRoG members showed that the consensus could be difficult to reach. The EVI Inc. board of directors conversely, gave them the permission to build on its land, and more precisely in the North field.

The authority that the EVI Inc.'s board of directors exerts on the land may clash with the consensus-decision making culture of the village. An interviewee explains the dynamics of the situation:

> Technically, the EVI [Inc.] board has the authority over the development because EVI [Inc.] owns the land. It's obviously an exception if you want to use a piece of land that is owned by the village or by the neighbourhood. The village [VA] on the other hand owns the infrastructure and there is an agreement which basically says 'the infrastructure will be made available to our development' but it's a difficult problem. [It would not be suitable for] future developments to go through a village consensus process because a couple people could hold the process up for a long time. On the other hand, if people in the village are feeling completely short circuited, this could lead to trouble and in fact, they talked about building in the South-East and they abandoned that because there was too much opposition from the residents. In that case, FRoG owns some of that land so we would have to have gone through a consensus process. I'm ok with that because I don't think it was the greatest of sites anyway but I hate to see something bad under the site design done to make something politically easier. That's something I really want us to avoid. (Roger, personal interview)

EVI Inc. is responsible for new housing, building, agricultural and conservation projects. In addition, both the organizational flow chart (EVI Inc., 2006) and the proposed agenda of the EVI Inc. September 26th 2007 meeting, suggest that EVI Inc. is also responsible for fundraising, strategic planning and everything that concerns the public education and outreach such as the tours and the newsletter.

The village level

The village comprised two neighbourhoods, FRoG and SoNG, and at the time of the data collection, there was one forming neighbourhood, TREE. The members of these neighbourhoods are also members of the Village-Association (VA). Recall that the VA looks after the common space and infrastructure shared by the neighbourhoods such as the road and the pond, to name just a few. VA has authority on shared infrastructure and on issues affecting both neighbourhoods. Some examples of issues on which VA decisions are made include: a pet policy that will regulate the number of outdoor cats allowed on the land, disturbance and noise (Rogers, personal interview); and managing the shared work participation (Ingrid, personal interview).

Legally, the VA board of directors has full authority, but in practice, the authority is spread to the members through a monthly meeting that uses consensus decision-making. Once a month, a village-wide meeting is held that follows the second half of either a SoNg meeting or a FRoG meeting; every member of EcoVillage at Ithaca is invited (Roger, personal interview). During these meetings, all residents of the neighbourhoods, plus all prospective residents who have invested time and money into the construction of future neighbourhoods, gather for discussion and decisions (EcoVillage at Ithaca Village Meeting Process, 2001).

In sum, VA power is distributed among its members, i.e. the users of the facilities and the shared land. The members make most decisions by consensus but the board can make minor decisions following a careful and participative process. These minor decisions must be non-controversial and the board must give notice to the VA members that a decision will be made. Thus, members concerns about a decision to be made can come to the board meeting and, if they deem it necessary, ask for the whole village to make the final decision (Don, personal interview). One interviewee, who was the executive chair of the VA, qualifies the power of the VA and the neighbourhood boards of director and how their power is used:

> [There is] not a lot of power for the board of directors of the neighbourhoods and the Village-Association, because we make decisions by consensus of the whole membership, [i.e.] everybody who's a member. The board of directors itself doesn't do a lot on its own ...In a typical corporation, the board of directors is responsible for everything [regarding] making decisions but in our type of organization the power is not concentrated in the board of directors (Don, personal interview).

The neighbourhoods, FroG and SoNG, are legally bound through their bylaws. The bylaws stipulate, among other things, the purpose of the business, condition for subletting or renting, maintenance fees, house rules and the procedures of decision-making (annual meetings and election of the board of director). However, the legal procedures on decision-making are not followed; instead, decisions are made by consensus in a monthly (for FRoG) or bimonthly (for SoNG) community meeting. Unlike EVI Inc. and the VA, the neighbourhoods' boards of directors do not make any decisions. In the event that members are not able to reach a decision by consensus in the time available, a "fallback" process may be employed in which the decision can be made by a vote of 70 percent of the households (EVI Inc., 2001-b).

Consensus is seen as a way to make decisions "that benefits ALL of its members, if enough trust, accurate information, and careful listening occurs" (EcoVillage at Ithaca Village Meeting Process 2001: para.11). According to Hollick and Connelly (1998), decision by consensus means different things to different groups. Definitions ranges from perfect unanimity to a certain percentage considered as a strong majority. At EVI, the consensus process does not require unanimity but group members should at least feel that their concerns were heard, that the decision made aims for the "highest good" of the community, and that it involved both a search for deeper understanding and respect toward an inclusive solution (EcoVillage at Ithaca Inc., 2001-a). The process to reach consensus is slightly different between the two neighbourhoods, FRoG and SoNG. In FRoG, individual members bring up community issues directly to the FRoG process steering committee. SoNG has developed a very structured process of four steps to reach consensus (see appendix H).

Interviewees from both neighbourhoods agree that there is dissension among members on the choice for consensus as the decision-making method. On the one hand, consensus is a way to offer everyone listening and support. For example, the following interviewee talks about her confidence in consensus despite the complications that her neighbourhood is going through:

> I'm still very in favour of the consensus process... For me, the importance of consensus is... to have at least universal support if there is not a total agreement (Ingrid, personal interview).

For the following interviewee, the communal decision-making allows a broader perspective, which consequently leads the community to make more ecological decisions:

> [Decision by consensus] is interesting because you make all your decisions in the community for the community; you have to think about all the aspects, a little bit of

everything making it by the way more environmentally sound because you realize how everything is interconnected. So [for] example, because you're planning the land, you realize that cars are bad for the environment, but also for the community (Roger, personal interview).

Consensus also allows members to realize their fair share of power and, consequently, to be responsible for their decisions.

> ...you can have a voting system and people can just make their little marks and they don't have to be knowledgeable about the system and they only have the responsibility to understand the issue; and so they vote... they don't have the responsibility that each individual has in consensus process (Peter, personal interview).

However, consensus decision-making is limited by people resistance and its requirement for training to participants. Although considering consensus as essential, the following interviewee also admits the limitations of this decision-making method:

> I think it is absolutely fundamental to sustainability because it enhances participation. I think people in our culture don't understand the culture of participation and cooperation. They don't have enough training in participatory-democracy and consensus decision-making and they don't come here with dedications to those skills so it's a self-reinforcement for those people ... it reinforces their idea that it is an obstacle... (Agnes, personal interview).

The following interviewee speaks about the prime importance of education and common goals for using consensus appropriately:

> I think it's a challenge to deal with [consensus decision-making] in a neighbourhood like this and we do periodically have workshops on the consensus process, but it's one of those things that just takes time and experience. It's not something you can just read a book about and learn. ...there's a difference in working in an activist or social change organization where you're using the consensus process because there's a strong idea of creating social change through in actually acting out the change and a neighbourhood like this where there's all different... there are some common values [among members] but there are also a lot of different perspectives... (Peter, personal interview)

The equity and participation coming out of consensus decision-making may work well from a theoretical point of view but, according to some interviewees, seems to lead to inaction in certain cases:

> ...we were so entrepreneurial and sitting in a meeting discussing what to do with the farm was driving us insane. It just felt more efficient to just do it [start the farm project]. If we hadn't done it, I don't think there would be a farm because there would have been so much talking 'is it this way or this way'? (Ashley, personal interview).

> ...there are certain factors that make [the decision making-process] difficult here. For example, people see that certain initiatives keep getting stopped and held up and taking a long time to implement because of certain factors and issues, especially in this neighbourhood... You know, it is obvious... There are certain factors that no matter what you do, there are certain people who say 'no, no, no, I don't want you to do this because this affects my health'. It's seen to be difficult (Agnes, personal interview).

The chicken club is an example of a decision causing some turmoil within the SoNG neighbourhood. This club wants to put in a chicken coop that club members would manage and that would provide a local and organic source of eggs for the interested village members. When the proposal was brought to the decision-making meeting, some residents did not agree with the project for personal health concerns that proximity of chickens could potentially aggravate. A very polarized debate followed and took over a lot of the SoNG meeting time.

An authority structure that emphasizes a means of participation, like consensus, aims to include the greatest number of participants in the decision-making process. However, consensus does not necessarily guarantee participation of members who may consider the time investment too much. An interviewee explains how time consuming the consensus decision-making might be:

> All of that time spent on one issue... is making living here unsustainable because it [takes up] time that I don't have to devote to myself, my family or my work. Whereas

if could just make that decision by voting then we would take a vote and be done (Don, personal interview).

Despite the fact that consensus may be qualified as an obstacle, there are more efficient ways of using a consensual decision-making process. For example, a resident of SoNG describes the sauna success-story to illustrate how the consensus decision-making process may be used effectively in the neighbourhoods and the Village-Association:

> The person who wanted to build a sauna listened to many neighbours' thoughts informally first. As a result, he heard many concerns such as: the safety of wood-fired saunas, public nudity, using village money for something that only a small percentage of residents will use, the visual impact of the building on people's views, the environmental impact of having yet another building...
>
> Therefore, by the time the proposal had reached a neighbourhood-wide business meeting, the proposal included features that mitigated these concerns: the sauna would be self-financed by the users; it would be heated with a propane furnace (safer than wood); it would be constructed just below the pond levy which helps to hide the sauna from the village (and also hide the nude people); the entrance faces away from the village (again the 'nudity' issue); the roof is a 'green' roof, thus decreasing the building's impact on the environment.
>
> As such, the discussions about the sauna at the meetings took less time, and were less constrained by conflicting concerns, because the proposal-writing process already incorporated a process of listening to individual neighbours informally and thinking of ways to resolve peoples' concerns (Sunny, personal email communication).

The overall decision-making process is made of distinctive levels: EVI Inc., Village-Association, FRoG, SoNG and TREE. EVI Inc. and Village-Association encounter the problem of members' participation, who are only committing a limited amount of time to take part in decision-making meetings. This situation does not impact the non-profit level because the board of directors makes the decisions within the context of conditional consent from those concerned. At the Village-Association level, the following quotation explains an attempt to reduce the load associated with the decision-making process:

Because the Village-Association is a bigger group made of everybody, it is harder to get everyone together to make decisions. We did decide that the board of directors of the Village-Association could make decisions in certain circumstances. Basically, it is when the issue is not controversial and that we give notice to everybody that we're going to make a decision about it so anybody who's interested in it can come to the meeting and then, if they want, say that they want the whole village to make the decision... at the village board it's been very hard to get people involved; so right now... not many people want to be involved (Don, personal interview).

5.2.2 Leadership

The following results focus on the leadership dynamic of Ecovillage at Ithaca. Like the authority centers, the leaders represent a type of power through their sensitive, influential and powerful positions (Wright, 1977; Hall & Tolbert, 2005). It is important to emphasize that a person can be a leader without being in a position of formal authority. Leaders are concerned with relationship-building and they use their professional or personal influence to move forward the goals of the organization. They promote the people who work with them, help them develop and ensure the ideas are transmitted into actions. Leaders are recognized as proactive people who inspire, motivate and direct their activities to achieve group or organizational goals. The leader delineates the objectives to be achieved in order to move toward the overriding mission.

At EcoVillage at Ithaca, the leadership roots in the personal involvements of members. I asked the 21 interviewees –mostly leaders – to enumerate their involvements at EcoVillage at Ithaca and overall they are very engaged. For example, the following interviewee describes her current and past involvements:

> Currently, I am the co-coordinator of the partnership between Ithaca College and Ecovillage at Ithaca... From the beginning, soon after I came here, I've been [...] reporting the partnership work by working with groups of Ithaca College students as a

project guide and as a consultant for the development of [teacher's] courses... I'm also a consultant and will be paid a small amount to contribute toward the writing of a feasibility study for the Center of Sustainability Education. And my specific project within that is the sustainability high school... I'm currently an administrative intern... I'm learning to be a principal... and will have completed course work by the end of next summer to be certified as a school building leader or a principal in New York State so I'm currently doing an internship at the alternative community school that will allow me to do that... I'm also currently one of the co-chairs of the farm future committee [that is discussing] how we could create a sustainable model of agriculture and agriculture education at ecovillage... I've been on the support team for the Berry Farm as well so I try to be a community support person for agriculture. A big project that I did, a piece of that in addition of supporting the farm, is also supporting the shift in culture here towards a greater awareness of the importance of a local food diet and a greater access to local food and greater exposure to what the possibilities are of a year round diet in our climate. So, I've organized the root cellar project, which was also a collaboration with Ithaca College students, over a course of three semesters. They were also involved in that so I did community education and awareness rising and moving the community towards adapting the idea of the root cellar and then, my husband and I organized work parties to have the root cellar built... I did a few things like [organize] eggs that you can buy up there from the [FRoG common house's] cooler, that's something that I arranged and the same person will deliver local meat to people that call ahead and order. You can get local meat delivered (Janet, personal interview).

The above quotation shows that throughout her involvements, this community leader engages in many actions that she considers necessary in order to reach certain objectives of the organization: education, organic agriculture on site and local food systems. The following quotations illustrate that passionate members take part in projects and make them happen:

We probably have a stronger environmental intention than most co-housing, but that relies on specific individuals being passionate about things like gardening or permaculture and planting or ecologically-sound planting practices... I mean, I think that the organizations are set up with documents and layout, master plan and like developing guidelines and so on, but ultimately, it depends on specific individuals who push those [documents and layout, master plan and like developing guidelines] on the agendas (Arnold, personal interview).

I think individuals have some influence on the community. There are definitely things that have been done that would have never been accomplished if one burning soul hadn't taken it on (Peter, personal interview).

The edible landscaping which is part of the organization original planning is a good example of leaders moving goals and objectives forward into actions. One of the leaders in charge of the project tells the story of the edible landscaping:

> ...when we first proposed putting up edible landscaping on the East end here, there was a lot of neighbourhood resistance to that, a lot of questions... [These are the] reasons why we didn't feel we could move forward with it... But this last year, Kyla worked with the Ithaca College Students and came up with a proposal and, based on our conversations and the concerns of the prior year, we developed a system for making sure the plan that was intended, was carried. And so they passed and now we have edible landscaping (Janet, personal interview).

Individual leaders use their knowledge and experience which give a particular colour to their involvements:

> I took the permaculture design course a couple years ago and now I know enough about site design to be dangerous (Roger, personal interview).

> I'm an educator so I'm always creating educational programs, whether it's walks, retreats or facilitation at meetings that open up possibilities for changing mindsets and changing culture (Agnes, personal interview).

The following interviewee affirms that leaders contribute to the organization, shape the vision of the organization, and impact decisions:

> ...there are some individuals who are further ahead, so those individuals are bringing their concerns to the whole organization and it affects the rest of us when making decisions (Don, personal interview).

Visionary leaders identify critical sustainability-related issues that will be pertinent in the future:

> For example, as soon as you start talking about energy scarcity, peak oil and food scarcity... right now it's how we make our food; we convert cheap fossil fuel into food and that's going to start declining. There's a handful of 4 or 5 people living here who are seriously concerned about peak oil... (Nicole, personal interview).

For the leaders, the actions they undertake at EcoVillage at Ithaca are justified by the issues encountered in our society at large:

> Right now, part of our passion and desire to move forward [our local food system related projects] is that some of us are very interested and see very clearly the issues down the road in terms of peak oil and shift in energy supply. It's not just an abstract idea: 'wouldn't it be nice to have more local food'. It's that we are going to need to have more local food and food is going to be more expensive and a good investment would be to start investing now in our food infrastructure (Janet, personal interview).

5.2.3 Division of labour

As seen in previous sections, the authority centers and leaders both make decisions along the lines of the organizational values and mission. Responsibilities and some of their power are delegated to members or sub-groupings of members in order to put decisions into action (Wright, 1977; Hatch, 1997). This process is called in the literature 'division of labour' or 'specialization of labour'. The literature on intentional communities and ecovillages (Bressen, 2003; Christian, 2003; Bang, 2005; Walker, 2005) shows that the division of labour in a community comprises committees, crews, teams, or working groups that provide basic services to members or focus on major community projects. This section aims to identify how responsibilities are divided, the nature of the division and how it contributes to Ecovillage at Ithaca's organizational functioning. I will describe the results pertaining to the division of labour for each level of EcoVillage at Ithaca; i.e., the EVI Inc. level and the village level.

The non-profit level

Ecovillage at Ithaca's adventure started with planning committees. After the envisioning retreat in June 1991, "eight committees met weekly or biweekly, harnessing the energy and

good ideas of many people" (Walker, 2005). One of the members talks about his

involvement in some of the committees that were working on starting up the project of

Ecovillage at Ithaca:

> I was on the first board; I was on the board that bought the land; I was on the board
> that created the by-laws, the board that started the meetings and the structure of the
> community (Eugene, personal interview).

Some paid staff also took part in starting EcoVillage at Ithaca. Walker (2005), co-founder of

EcoVillage at Ithaca, states: "Joan Bokaer and I would serve as co-directors of the

EcoVillage at Ithaca organization, along with Tim Allen as staff associate." Nowadays, EVI

Inc. is still paying an executive director who has a central role in the EVI Inc.'s mandate. For

instance, the executive director supervises the visitor coordinator:

> I work for... the director of the Ecovillage... most decisions made were through [the
> executive-director of EVI Inc.] and they weren't community decisions (Ann Marie,
> personal interview).

A staff person is also hired to assist the executive director and work on another EVI Inc.'s

project. This staff person explains her role in the following quotation:

> It's a half-time job and half of the time of this half-time consists of working as an
> assistant for the director [the executive-director of EVI Inc.]; trying to help her with
> her overwhelming workload, doing a lot of the [administration] stuff. And the other
> half of [my time] is coordinating the feasibility study of the Center for Sustainability
> Education (CSE) that we're hoping to create; I am working with the team on that
> project (Ingrid, personal interview).

Overall, few members are involved in projects at the EVI Inc. level. An interviewee

explains:

> There are a few committees of some really hard working people who are working at
> the village level and at the non-profit level, and those people are working with the
> director [the executive-director of the non-profit EcoVillage at Ithaca Inc.] and with
> the board... it's like one step removed from most people's reality because of how
> busy their lives are (Agnes, personal interview).

Outreach and education is within EVI Inc.'s domain of activities, and the Center for Sustainability Education (CSE), mentioned above, is the next project to be developed under this banner. The CSE will substantially enhance the outreach of EcoVillage at Ithaca. It will host the already existing workshops for adults, a center for sustainable agriculture, and a sustainable high school. A committee of ecovillagers was working on moving the school project forward during the data collection. The projects stemming from the educational goal of EVI Inc. are also taken care of by staff as this respondent highlights:

> There is the publicity to the larger world which [the executive-director] is mostly doing. Agnes is very deeply involved in the collaboration with Ithaca College which is also an educational piece. And Janet has the high school thing that she's now very into (Duncan, personal interview).

Land management is another one of EVI Inc. responsibilities. EVI Inc. delegates a portion of its tasks to advisory committees, such as the land partnership committee, the built environment committee, and the big picture committee. Despite their advisory role, they have a strong influence on the course of action, as illustrated in this resident's response:

> Technically, the built environment committee advises the EVI board along with the Land Partnership Committee, which are both part of what we call the Big Picture Committee... The fact is that, the board will probably accept what the committees come up with but with a few changes. The board is really looking to the committees for a lot of the leg work (Roger, personal interview).

Another way for EVI Inc. to delegate part of its responsibilities, in terms of land management, is to allocate parcels of the land to groups of people or other organizations. EVI Inc. sold some of its land to the neighbourhoods and the VA and rented some acres to private businesses: two organic farms. The neighbourhoods and the private businesses manage their land in a way that is in line with EVI Inc.'s values and mission.

The village level

In the neighbourhoods, work teams, clubs and various types of committees and, in some cases individuals, are all responsible for moving community decisions forward and as such, ensuring a smooth functioning of their daily life. Members' involvements in these teams, clubs, committees or special roles ensure the attainment of organizational goals. The quote below shows that the infrastructure put up by involved members is a way for other members to live more ecologically:

> ...I don't need a community to recycle or compost. But again, the recycling at Ecovillage is a lot more thorough than I probably would do in my own house because I probably wouldn't take the time to figure out where old sneakers would go or take the time to figure out where all that bubble wrap would go.... Where I [lived before] I was recycling things that would get picked up on the curb, and here, because there have been individuals who have focused on providing that resource, they have helped set up a system for me to be able to recycle more than the things that they just put down on the curb for probable pick up. There's also the scrap metal, the tossed batteries... So that's good I think (Sunny, personal interview).

A member of the forming third neighbourhood group, TREE, explains how committees are structuring the community organization in a way that members can learn and contribute according to their own abilities and interests:

> ...there's so much that's involved in a project like this, there's so much footwork that ... it can't be done by one or two people. So the load is spread out over a bunch of people and everyone's natural abilities. Where their strengths are is where I think they [the members] tend to gravitate because it's where they can be of the most help. We are all sort of learning bits and pieces of other things, but we have all certain kinds of focuses and we're all trying to get everything done (Jessica, personal interview).

One way for members to take power of their life is through working in committees and on specific projects. However, it is arduous for most members to be involved at the EVI Inc. or at the village level because of their involvement at the neighbourhood level.

...I'd say people feel somewhat more empowered to shape their neighbourhood life. [...] They feel less empowered to shape the overall future development of EcoVillage [EVI Inc.] because their lives are so busy in their neighbourhood... they have so much to keep up with (Agnes, personal interview).

The Village-Association and the neighbourhoods all have a process steering committee (PSC) that comes in to support decision-making meetings. A PSC member for the VA explains the role of the committee:

> The [VA] process steering committee is [comprised of] people who plan the meetings and try to think ahead and figure out what we are going to need to deal with. It's a planning function for the village as a whole (Roger, personal interview).

The PSC therefore has some influence on what is going to be discussed during decision-making meetings. A member of the SoNG PSC, however, emphasizes that the role of this committee is more one of support that must be in line with the community members' priorities:

> We really operate with the approval of the community meetings. If you think in terms of a hierarchy, they [the members] are at the top and PSC is more like a traffic director or coordinator that is there [below the members]. Then, all the committees, in terms of request for time or proposals, are sort of found through PSC. It's our job [at PSC] to bring it [the proposals] to the community in a way that many people [members attending the meeting] can deal with. We don't make decisions about 'no we're not talking about this now' or 'yes, this is a priority' without checking in. (Peter, personal interview)

Many *ad hoc* committees found in the village are trying to resolve some of the issues based on the community needs. These committees are created and disband as needed. The following quotations are good examples of committees that were created to resolve a conflict or study a specific question. The first quotation talks about a committee that formed to resolve part of a conflict involving disabled members in SoNG:

> The reason the committee started is because we're having so much conflict but we don't have a policy. We are also not well educated on legal requirements under the

law, so it seemed like a good idea to form a group to get educated on what we are required to do under the housing act: how we can implement that in this community and how can we set up an infrastructure to deal with accommodation requests. The idea is to probably have a committee... of people who are knowledgeable about the law and also accessibility... it's very difficult right now. We don't have a committee to deal with the accommodations... (Peter, personal interview)

The second example of an ad hoc committee is about a pet policy. The pet policy was needed to clarify the polarized situation in which some members advocate to let dogs and cats outside while others advocate for keeping them inside in order to prevent their possible impact on the wildlife.

...this [The pet policy committee] came about because of us looking at the process that [a member] set up. It was a way of looking at future development and prioritizing what people wanted to do for the coming year. There was a number of meetings about it and a really good process used and people rating [proposed priorities] like one, two, three on what they thought were important things. The pet policy was one thing that was right up there, that people wanted to see happen. (Ingrid, personal interview)

Among committees found under the village, most have an advisory role. The advisory committees study a specific question and then bring its recommendations to the decision-making meeting for feedback, discussions and decision-making. After a committee has studied a topic and given advice on how to resolve a problem or how to move a project forward, this committee might receive the mandate of implementation. For instance, the 'energy task force', which studied the energy consumption across the village, was disbanded and the 'consolidated renewable-energy committee' took over in order to get solar panels installed on the FRoG houses and the village pump house. The following interviewee explains:

They [VA members] said: 'bring us back specific proposals on how to do this'. Generally, people thought it was a great idea to put solar panels near the common house and the pump house... Well, they [the energy task force committee] gave a

recommendation to the whole community and then the consolidated renewable energy committee is taking those recommendations and trying to implement them by bringing proposals back to the group. (Kacey, personal interview)

While committees are created to study a specific question and may disband as issues are resolved, work teams tend to be more permanent and have specific and recurrent tasks. Members are volunteering on one or more work teams in order to fulfill their required community work share of two or three hours a week. In the cook teams for example, the head cooks follow a rotation schedule and rely on assistants who sign up every week. The task is straightforward: make neighbourhood or village-wide meals.

As seen above, a wide range of committees and work teams are gravitating around each of the authority centers of EcoVillage at Ithaca. When a need is not fulfilled by a committee, it is sometimes looked after by individuals. For example, two residents volunteered to be in charge of the recycling shed. A mandate can also be given to a member who is paid and acts as an expert. For example, SoNG hired two members as development managers to oversee the construction of their neighbourhood:

> I was the co-development manager for SoNG and I did all of the presentations for the site plan, I worked with the engineer... I did a lot of the physical plan stuff and I was then design coordinator for the neighbourhood and did most of the schematic design and a lot of the structure design for this neighbourhood. (Trevor, personal interview)

In both cases, for the non-profit EVI Inc. and for the village, responsibilities are mostly taken care of by residents of the village through committees, work teams and, to a lesser extent, special roles. The division of labour is used to distribute the power and responsibilities among members:

> I think the work teams are really critical in terms of having tasks to do which keep people meeting together and thinking together. So, it really depends on what you

want to get done who has the power. If you really want to, for instance, make sure that there will be photovoltaic panels on the common house, that's really through the energy task force and also the maintenance team. They have the power to move it forward. (Jocelyn, personal interview)

Certain committees are also materializing the concern for environment protection as illustrated in the following quote:

Usually projects that are sustainability related will have a particular individual or a small group of people that are interested in them and they will go through the organizational process of sort of shepherding it through the community meetings and figuring out where the money is going to come from and funding request, things like that... A lot of what's done is just built into the lifestyle and there are teams to manage the infrastructure and the background. (Duncan, personal interview)

The members of committees educate themselves to become experts; examples lie in the self-building processes of SoNG and TREE. The members' experience and abilities to self-education are favoured:

...the thought is to do as much of our own self-educating as possible in terms of what materials we want. We have some basic design and then bring in someone to help us evaluate how to proceed rather than hiring out when there is indeed a lot of personal experience here [and we are] making use of that as much as we can. (Trevor, personal interview)

The people making decisions and the ones executing them are often the same people. The implementation of actions to meet organizational objectives expressly relies on members' participation. Throughout the process, members are becoming experts on various aspects related to the ongoing project of EcoVillage at Ithaca. Members are an important source of creativity and valuable information that benefits the whole organization.

5.2.4 Communication systems

Communication is the transfer of meanings between persons and groups and it is found everywhere in the organization under different forms. Communication can travel vertically or horizontally, be informal or formal, transmitted verbally or by writing, and in person or electronically. Vertical communications flow up and down the hierarchy and horizontal communications move along the same line level of the hierarchy. The nature of communication may be formal or informal. Formal communications move along prescribed and regulated pathways and the messages are generally recorded and filed. Informal communication consists of a large number of messages, bits of information, opinions, and expressions of feeling among people and groups that are not transmitted in conformity with formal communication patterns. Finally, means or tools are put into place in order to facilitate communication. In this section, the exploration of the communication channels, nature of communication, tools and means used at EcoVillage at Ithaca gives additional insight into the community's organization.

Communication channels

The vertical communication is moving along a flat structure made of the decision making-meeting at the top and the committees (or responsible persons) and the members at the bottom. Decision-making meetings are used for vertical communication both within the village and within the neighbourhoods. An extract of the SoNG meeting agenda of September 4th 2007, demonstrates how two committees, PCS and the chicken club, seek to communicate information and get feedback from the community:

> 10:15 -- Priorities Check-in: How are we doing so far? Appreciating successes,
> action steps to keep momentum going (PSC, 25 min)

9:15 -- Chicken Proposal: further input and discussion. (Chicken club, 60 min) (SoNG, email group communication)

The following quotation illustrates that the vertical communication travels both ways, i.e. from the committee to the members and from the members to the committee. The committees, for example the SoNG landscape committee, use the decision-making meetings to share their ideas, submit proposals and gather feedbacks:

> Whenever we come up with something big, like something to do with the eye [the portion of land located in the center of the SoNG neighbourhood], then those proposals go to a neighbourhood business meeting [the neighbourhood meeting occurring twice a month] and then if there is any contention or issue around this; like say, the chickens, we set up like a salon where people can discuss about it in a more relax setting. It happened for the SoNG landscaping as well. So it is always brought to the community meeting for consensus if it's something big or we just give them an update of what we're doing and sometimes people have good ideas to add to it. (Ingrid, personal interview)

Inhabitants have many opportunities to share their ideas and concerns: through a casual talk with neighbours, through members involved in the committee in charge, or through the neighbourhood meeting. For instance, the following interviewee describes how she can communicate her concerns about the shared work in the village:

> The way I would do that is getting in touch with the conveyors and just say: 'these are my feelings'. Also the shared work committee will probably bring stuff to the neighbourhood meeting and that would be a chance for me to discuss it. So, there would be time, either in one to one with people directly and I can also bring it up at a neighbourhood meeting. (Ingrid, personal interview)

The non-profit uses the committees as a way to bridge its mission and goals with the village. In the following quotation, the interviewee explains the role played by the big picture committee regarding the choice of a site for the third neighbourhood project:

For the North field land that is EVI Inc. land and so the final decision is made by the EVI Inc. board. The big picture committee makes recommendations to the board. When people who live here want to do projects that are on the village land or on neighbourhood land, we [the big picture committee] would work with them to help them do it in a way that is going to complement our larger picture plans and a lot of our decision before they go to the board... (Duncan, personal interview)

There is not a significant amount of formal communication between neighbourhoods. Rather, the communication is primarily casual. For instance, the forming third neighbourhood receives information from the existing neighbourhoods through members involved in the new neighbourhood project.

Interviewer: Would you say that you are working with the experience of the two other neighbourhoods?

Interviewee: Yes, definitely. There are several members in our group that have been around for the building of one or the two other neighbourhoods and so have all that cumulated experience of what worked and what did not work. (Jessica, personal interview)

An interviewee shares his concern about communication between neighbourhoods:

I must say that we're doing a tiny fraction of what is possible. The obvious answer is that people from the first neighbourhood moved to the second neighbourhood and we were involved in the envisioning process of the second neighbourhood and [members of FRoG] were development manager so we all infused the process with our learning of the first neighbourhood. That's one level. Another level would be to occasionally have forums and we would join the neighbourhoods together and we would ask: what did you learn about food storage? What did you learn about transportation? Etc.' I think we did way too little mutual education between the neighbourhoods. (Agnes, personal interview)

Within each neighbourhood, informal communication plays a very important role regarding the decision-making process. An interviewee illustrates this phenomenon:

The person who wanted to build a sauna listened to many neighbour's thoughts informally first. As a result, he heard many concerns... Therefore, by the time the proposal had reached a neighbourhood-wide business meeting, the proposal included

features that mitigated these concerns... As such, the discussions about the sauna at the meetings took less time, and were less strained by conflicting concerns, because the proposal-writing process already incorporated a process of listening to individual neighbours informally and thinking of ways to resolve people's concerns. (Sunny, personal email communication)

Means and tools of communication

Email is a privileged means of communication at EcoVillage at Ithaca. A system of listings allows different uses and targets different users. Lists are set up for the various entities of EcoVillage at Ithaca. Some are exclusive to the neighbourhoods FRoG, SoNG and TREE; some are for the whole village only; and one is for the village and outside supporters of EcoVillage at Ithaca. These various lists are divided up according to their use, e.g., announcement or discussion. FRoG, SoNG, TREE and Village Association all have their own respective announcement list for their members. Formal communications such as meeting agendas and minutes from various meetings are sent out to members on these lists. Informal and general information may also be transmitted such as announcements about events, work parties, visits by a journalist or simply inquiring about carpooling or giving away some undesired piece of furniture. Discussion lists are also attributed to each neighbourhood as well as to the VA members, for discussions, debates or political information. According to their interests, members can subscribe or unsubscribe to whatever list they want.

Some communication occurs through an intranet called EcoVillage Wiki. "A wiki is a page or collection of Web pages designed to enable anyone who accesses it to contribute or modify content, using a simplified mark up language. Wikis are often used to create collaborative websites and to power community websites..." (Wikipedia, 2009). SoNG

members can sign up on EcoVillage Wiki for various tasks: cook team, dish crew, outdoor team, etc. Various internal documents such as plans, guidelines, archives and contact info are made available to members through EcoVillage Wiki. Other internal documents like flow charts, minutes, bylaw guidelines, various procedures or legal documents are filed and kept by individual members or members of the committee in charge of each document. For example, an outline of the decision-making process in SoNG may be obtained through one of the members of the process steering committee.

At EcoVillage at Ithaca, the verbal communication is primarily face-to-face. The cohousing design of the neighbourhoods naturally leads members to interact. An interviewee explains:

> It is just proximity. You know when you put your arms around houses and you squeeze them! When people are living that close together, they have to interact and that's part of the beauty of the cohousing model and that's one of the reasons why I think it works well for an ecovillage. (Jocelyn, personal interview)

Social events such as the common meals allow informal interactions. There are four common meals per week: two of them are village wide, one is for SoNG only and one is for FRoG only. Additional social events are opportunities for information to circulate within the organization as illustrated in this interviewee's response:

> I think the Common meals are a huge part of being connected. Common meals are definitely a big thing and all the activities are good, definitely [like] baking pies, going fishing... what else... berry picking, movie night, potluck dinners in different houses, what else... and also social events in the community that are talked about like last night [memorial for an ex-inhabitant of the village] that support people who live here and have lived here, supporting those people in the community. (Amelie, personal interview)

5.2.5 Controls

The literature review reveals three types of control used in organizations: the output control, the behavioural control and the organizational culture. Output control depends upon the measurement of the results; i.e. the achievement of organizational objectives. Participants have different perceptions of what should be their participation in a given organization; thus, the behavioural control system helps in defining acceptable behaviours and reducing inappropriate behaviours; i.e. through prescribed policies, guidelines and rules. While output and behavioural control mechanisms are both formal, the organizational culture is a subtle mechanism based on values and norms. In organizational culture, people accept norms and values as their own and then work within them. Over time, members learn through socialization which values and norms of their organization are important. Members integrate these values and norms and eventually behave accordingly without consciously realizing so.

The shared vision and purpose of the community is reviewed and renewed as the organization evolves. The official mission and goals are periodically renewed. For example, the guidelines for development adopted in 1993 and the envisioning plan were both used to launch the EcoVillage at Ithaca project (Walker, 2005). Ten years later, a multi-faceted five-month long process was undertaken to revisit the vision. This review was undertaken in part to update the guidelines for the community's development (Norman, personal interview; EVI Inc., 2004).

At EcoVillage at Ithaca, overall output control is done on an irregular basis. Through the years, ecological footprint assessments were done by students or groups of students:

> There was a master student from MIT [Massachusetts Institute of Technology] who did an ecological footprint study comparing EcoVillage at Ithaca to a Cambridge cohousing neighbourhood and I think he used a third typical American neighbourhood... From Cornell, there were engineering students spending a semester studying our ecological footprint and then the Ithaca College students did a comparison of the SoNG neighbourhood and a down town North side neighbourhood in Ithaca[12] and the same thing showed up, 40% less resources used... (Jocelyn, personal interview)

EcoVillage at Ithaca bases much of its functioning on its members. When new inhabitants want to join an existing neighbourhood, they have to go through a new membership process. There is however no screening process ensuring that the new members will share the values and the views of the organization.

> Now, there is no screening process, in other words, anyone can buy a house here, literally. It's not like we're going through a check list... So what I'm contributing by doing this process is making sure that people who want to live here have as much information about here as they possibly can and so can make a very informed decision. People have to come here for a week and do all of these activities. (Nicole, personal interview)

The same interviewee explains later in the interview that members who do not join the community with a focus on sustainability may harm or slow down some sustainability related projects:

> The problem is that there is a significant number of people who are living here primarily because they like to live in a community, they like the intimacy, and there's another set of people who *also* have a strong concern about the environment and so... I'll give you a trivial example; one time we were doing some permaculture and they had put some gardening thing out here, where the tree is over there, it was a patch of grass, [interviewee describing an area in the middle of FRoG neighbourhood] someone got really upset about that, and my feeling was 'this is great, they are doing permaculture, this is what we need to do, edible landscaping' someone else saw it as being an eye sore. And sometimes it's frustrating because sometimes we make decisions about things and some people want to move forward more aggressively with things like putting solar panels on the house whereas some of us want to move forward more quickly with the alternative energy such as solar electricity and biomass heating, others don't see the urgency in these projects, [which is] making decisions in these areas difficult... (Nicole, personal interview).

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[12] The first study is from Brown (2004) and the second study was unpublished and could not be located.

The absence of a screening process increases disparities of visions as illustrated in the quotation above. Consequently, the lack of a common vision among inhabitants impedes the decision-making process and therefore may hamper or slow down the implementation of some sustainability related projects. The following interviewee explains:

> As far as I've thought about it and read about consensus, I think consensus works better when you have a group of people that really know each other well and are clear about how they want to work together. In a place like this, where you have people moving from all around the country who've never known each other before, they are coming with very different pasts and values, it's very difficult to get them to a place where they can use consensus well... To me, in many ways, it is unsustainable because it requires so much time... (Don, personal interview).

In October of 2005, the energy task force committee was created with approximately 20 members of FRoG and SoNG to discuss long term energy prospects for Ecovillage. During 18 months, the committee looked at the energy consumption for many aspects of the village's lifestyle (EVI Inc., 2007-b). A member of the committee explains:

> ...what we did is use kind of a common average to estimate our total electricity use in a year for all the houses, and the common houses and the pump house. We used an average of about 350 KWh a month, which is probably about a third as much as a standard American house would use... and we had a rough estimate of how many miles people drive every year, based on estimates again. So we got a pretty good idea of how much we use. (Kacey, personal interview)

The energy task force also looked at energy options that would control their long term costs, cut down on their pollution, achieve greater energy independence and reduce their dependence on fossil fuels (EVI Inc., 2007-b). Measuring energy consumption allowed the village to make decisions in order to better meet organizational objectives within the limits of the organization itself or opportunities coming from external organizations.

Guidelines are found at EcoVillage at Ithaca to guide members' behaviours. The term 'guidelines' is used over the term 'rules' as the guidelines are seen as prescriptive rather than coercive. Guidelines suggest how to use shared services or equipment like the laundry room, the playroom, the teen room, the common kitchen, etc. The following interviewee explains how guidelines usually take form:

> We operate with lots of things without any sort of policy or guideline and that just worked fine because we are all on the same page, we're operating on the same assumptions and we're happy the way everything is working; when things start causing conflict or we can't decide or make decisions about how to move forward then it's where we realize we need some kind of guidelines so we have general agreements so we know where we all stand on these general points and that'll help to direct the specific decisions (Peter, personal interview).

Some procedures or guidelines are under the responsibility of a committee. For example, when SoNG was being built, the Architecture Review Committee (ARC) was in charge of making sure that SoNG houses would be built as ecologically friendly as possible by choosing appropriate building material:

> In ARC, Architecture Review Committee, their [the members'] job was to present a list of materials and technologies which they had vetted to say 'these are pretty green' and 'these are pretty affordable' and 'here is your baseline, if you buy your house with these kinds of materials, you are going to have a pretty good green and affordable house'. That was including looking at the material right from the manufacture to what happens for recycling, and try to look at that whole spectrum. (Julius, personal interview)

One interviewee explains that the formal behavioural control is purposively kept to a minimum and that the control is restrained to the essential, i.e.: general agreements for people to get along.

> ...you can't control other people. You can sometimes but here, you can't. We succeeded in establishing a culture that says basically, 'if it's not essential, let it go'. If an issue is not essential, don't sweat it. 'Essential' means we have to decide on it together because it's the only way we can do it; or we benefit a lot from having an agreed way to do this; or it can be really a problem for some people so we'd better

have some agreements on what we do and what we don't do so people get along with each other better. (Roger, personal interview)

The organizational culture is based on general agreements which correspond to values and norms. The mission itself becomes a norm embedded in everyday actions, in decisions to be made and in general direction to be taken. An interviewee explains the impact of the mission on community decisions:

> The whole EVI mission is around a more sustainable way of living so you have an important tenet of your whole process you have to be always thinking how this decision impacts the sustainable project. You know, the animals here, the people here, the trees... in addition to our own very immediate environment, the carbon dioxide emission from our cars and our heating system and... It's an important consideration for us in every decision pretty much. (Kacey, personal interview)

An interviewee explains why choosing an ecovillage is a good way to work towards ecological problems. Through his explanation, the interviewee illustrates how socialization allows norms and values to be assimilated by members:

> Because we can help each other, we can encourage each other, we can motivate each other and learn from each other and then because this is the norm, then this is the norm we have to follow. (Eugene, personal interview)

There are no policies, rules or guidelines for community cooks to know how to proceed and what to buy. However, the common sense shared by members of EcoVillage is telling, as revealed in the following quotation:

> *Interviewee:* You can't buy meat that is not organic, you must buy organic. With vegetables that's loose but everybody knows that organic is preferred. And with the farm here... the farmers market, it's where we're trying to get our vegetables from.
>
> *Interviewer:* So this is actually some sort of rule; is it written somewhere?
>
> *Interviewee:* I'm not sure, I don't think so but we all know this... if you cook non-organic chicken, some people will ask if it's organic and if you say 'no', they won't touch it. (Eugene, personal interview)

5.2.6 Incentives

The incentive system aims to increase participants' motivation to contribute to the organization's mission and objectives. According to Jones and George (2003), three factors come into play to form an incentive system. First, members offer various input such as time, effort, experience, skill, knowledge, etc. The second factor is the performance of the organization, i.e. the actual attainment of organization goals. And the third factor is the outcomes received by the members. These outcomes are expressed as benefits and take various forms such as a salary, feeling of accomplishment, pleasure of doing interesting things, etc.

Members have interests, skills and experiences that contribute to EcoVillage at Ithaca, whether it is for their neighbourhood, the village or the non-profit. The executants are also resource users, which is an important source of motivation. For instance, the quotations below show that members are dedicating time and energy according to their own interests:

> We have a very solid group of people... we're organizing ourselves for the first time now; we are meeting every week since the end of August. People have been taking a variety of roles... First of all, people that have been putting a lot of time and energy in that project are all parents that have kids approaching high school age or people interested in teaching. We are all people who have some interests in the idea of this project. It's not an abstraction; it's something that is important to us in terms of our lives and our children's lives (Janet, personal interview).

> I've been living here for two years without having a car for the first time in my life so I'm very pro car share. I was active in the unofficial car share and I started to help [a] student from Ithaca College involved in it and both him and [the executive director of EVI inc.] said, 'it'd be great if you could represent Ecovillage on the official board [of Ithaca Car Share program]'. It was a combination of an interest of mine, for selfish reasons, and also being approached by people asking me to represent Ecovillage (Ingrid, personal interview).

The projects that members join or put forward are in line with their personal values and EcoVillage at Ithaca provide the ground on which these projects might take form. An interviewee mentioned for example that he joined the project because the project was in line with the long-term perspective:

> "I felt that all the projects that I could envision for the rest of my life could actually happen on this piece of land" (Kacey, personal interview).

The following quotation highlights that members of the village value the importance of the EcoVillage at Ithaca's vision as they freely participated in workshops set up in 2004 for revisiting the mission:

> Interviewer: So, the workshops to revisit EcoVillage at Ithaca's vision were proposed to them [members of EcoVillage at Ithaca], they didn't ask for that and they didn't agree to that?
>
> Interviewee: No, it was just put up there and everybody was invited, nobody was required to come and people really just wanted to do that though because it seems like it was an important thing. (Norman, personal interview)

Considering all levels together, the majority of members of EcoVillage at Ithaca are volunteering to fulfill the organization's goals. The executive director and some project leaders are paid but only small amounts and often on an irregular basis. Thus, incentives for the members are generally not monetary. Incentives for members are from other sources listed below and illustrated by quotations:

Being empowered over their lives:

> I think for both neighbourhoods, even though the construction process was different for each one, both of them involved the individual home owners coming into the process, and self-educating about sustainable or low-energy consumption homes and I think that in SoNG, because each home owner had the opportunity to choose sort of what they did with their house, that kind of put it in a homeowner's lap to think about 'well then I need to educate myself on that', on how that's done but then also on a village or on the neighbourhood level ... (Sunny, personal interview)

Feeling surrounded by people like self:

> ...where I was living before I was way out on the fringe compared to most of the people that I knew and that limited what I was able to do because I felt enough as a weirdo already whereas here it's much easier to really push my own limits because I don't stand out so much. (Duncan, personal interview)

Fulfilling the needs of support and encouragement:

> I got a lot of support and encouragement and the planting year, which was two years ago, it was really incredible. I was driving the tractor and people took turns sitting on the back of the water-wheel transplanter sticking plants on the ground. A big number of people turned out in this really nasty heat and helped. And we've had tremendous rock picking parties over the years, picking up tons and tons of rocks. (Ethel, personal interview)

> I like the idea of the tremendous consideration where we don't just say, 'look, you voted for it, tough luck,' but we're trying to be compassionate and considerate. (Eugene, personal interview)

5.3 Organizational context

Although two organizations may be designed to pursue the same goal and have like functions, over time each will acquire a distinct, unique character. This character comes from the organization's adaptation to internal or external pressures. Both the internal and external contexts influence the organizational systems of activities. To ensure its long-term effectiveness, an organization must be adaptable and maintain a consonance between its operation, its purposes, and its external environment (Wright, 1977). The organizational context comprises other organizations, communities, customers, governments, etc. external to the organization and imposing restrictions on or bringing opportunities to the organization. The literature review has shown two separate types of context that are impacting the organization differently:

- the cultural context: forces such as economic, sociocultural, political that the organization cannot or hardly impact or control); and,

- the local context: elements and other organizations close to the boundary of the organization and that have a most direct impact on it.

In this section, I will describe EcoVillage at Ithaca through its cultural context, followed by its local context.

5.3.1 The cultural context

Ecovillages are part of a wider movement inspiring citizens wanting to hear that another world is possible. EcoVillage at Ithaca is a member of FIC (Fellowship for Intentional Communities), ENA (EcoVillage Network of the Americas) and GEN (the Global EcoVillage Network), which is affiliated with the United Nations. An interviewee explains how they looked at the sustainability movement during a multi-month program to revisit EcoVillage at Ithaca's mission:

> ...we explored other communities, other ecovillages around the world to see what they were doing and other people who are doing sustainability things. Just to try to get this patchwork of a network of other people. So we can see we're part of something big, that's not just us. How do we fit in this whole system of people who are trying to change the world. (Norman, personal interview)

Conversely, the American culture and its wide availability of goods seem to be an obstacle to EcoVillage at Ithaca's mission. Several interviewees gave examples based on the American consumption patterns:

> The challenge even here in an ecovillage is that people who live here come from all kinds of background; from American families for the most part so people are very accustomed to having their lettuce salad in the winter time and some people maybe eat rice with a lot of meals or, they are accustomed to buying fruits they are seeing in the grocery stores and not having to think about in the winter that your choices

become more limited or, you have more frozen fruits or you have things that are canned or dried or... You may be accustomed to eat fresh things throughout the winter so it's a big shift. (Janet, personal interview)

...It's hard. Somebody's microwave breaks. Nobody wants to fix it. Shops in town will tell you to buy a new one, so you get a new one and you get all this packaging and most of it is not recyclable and there it goes to dumpster filling in. (Arnold, personal interview)

In the same vein, an interviewee explains that it is difficult to incorporate more farming at

EcoVillage at Ithaca because of the members' ideas coming from the suburbia-based

American culture:

> ...because of residents' objections, it's very difficult to plan any large scale farming here. I'm afraid it's the usual suburban complaints about 'I don't want to listen to a tractor, I don't want to listen to a rooster, I don't want to see agriculture, I just want to have it over there somewhere'. So, it's been difficult for people to think about starting agriculture enterprises of our own (Ethel, personal interview).

5.3.2 The local context

By nature, EcoVillage at Ithaca's functioning relies on the involvement of its members.

Other involvements or social activities members have outside of the community might

conflict with their involvement in the community. An interviewee explains:

> I have a very full life. I already have a really strong community and circle of friends in Ithaca and from that comes also commitments to spend time with people, to help people out when they ask for help and also my fulltime job and I have found that there are times I need to kind of... just so that I can sleep at night... trim my activities down to the things that if I don't do it, it won't get done and I will not feel good about it and a lot of the village stuff if I personally don't do it, it will still get done or it won't get done and it doesn't really matter to me if it doesn't get done. Whereas, a lot of stuff in my life, if I don't do it, it won't get done and sometimes it will matter to me more. And that is a problem... essentially the ecovillage as it is set up is an additional social construct that's being added on to all of my pre-existing kind of community, from work and from Ithaca at large. Ecovillage is being added onto that and that to me is not very sustainable because I'm finding there's just too many commitments (Sunny, personal interview).

On the national level, EcoVillage at Ithaca benefits from subsidies coming from various programs. For example, subsidies from the federal government and New York State have an influence on the choice of the technology intended to improve the renewable energy generated at EcoVillage at Ithaca. The Energy Task Force chose the solar panels over the wind power or the geothermal, for example, principally because of the 60% subsidies offered through national programs. An interviewee explains:

> The way we divided the Energy Task Force report is that there were three categories. One was we clearly know what we want to do and there's a clear path to do it. For example, solar electricity panels there're a clear need and a clear path: all kinds of rebates from the States and the Federal. Another one was the middle option, we know we want to do it but we don't really know how to do it exactly; that's basically wind power. There's not a good situation in this state right now for a wind tower appropriate for this size for the costs and benefits to be divided up into thirty or sixty households. (Kacey, personal interview)

A resident mentioned that government subsidies gave him $20,000 to help cover his house down payment. In total, one fourth of the SoNG houses benefited from this low-income buyers program. The prices of the houses at EcoVillage at Ithaca, although generally slightly cheaper, are very close to market prices in the town of Ithaca and the county (Group email communication, 11-09-2007). Owners, like other Ithaca citizens, have to pay property taxes:

> Our monthly fees are dominated by property taxes, not EcoVillage amenities and upkeep. Our "fee" is a little more than $100 per month. It also includes utilities that all homeowners pay (water and sewer). On top of that, our property taxes are lower than typical homeownership because of our coop structure. This saves us close to $40/month/house on average. (Group email communication, 11-09-2007)

EcoVillage at Ithaca's members are constrained by various laws, policies and regulations. The majority of the constraints denoted by interviewees were those concerning the county and town's regulations. At the beginning of the project, a great deal of energy and financial

resources went into work and negotiations around various town regulations such as zoning

and safety related issues:

> The zoning had to be changed in order to build here. Previously, it was actually zoned 'low density residential'. So, in order to have a lot of houses close together we had to change the zoning so here, in New York State and in the town of Ithaca, you can create your own special zoning for your own area so it's what we did... Many of the things that we had to negotiate were related to safety issues. For instance, the fire hydrant system, the town contracts with the city fire department to provide fire fighting up here so we had to deal with the city's fire department to put in the system that they wanted in terms of the fire hydrant they needed. Then, we had to work with the engineers for designing it and we worked with a contractor to build it. And other things we needed to deal with in terms of the town and the outside authorities... were making sure that there were enough parking spaces... they required a certain number of parking spaces. We got them to agree to let us putting fewer parking spaces than normally they would have. We were able to convince them that we didn't need so many in a place like this. (Don, personal interview)

A form of culture shock occurs between the conservative view of the town building codes

and the innovative culture of EcoVillage at Ithaca. An interviewee gives an example of the

composting toilets to illustrate the cultural difference and how this can disturb some of their

initiatives:

> For example, I think the biggest obstacle that we had with the town is that we had a composting toilet in our house, the town has no problem with the composting toilet but they said you have to have one working toilet that you have to connect to the sewer. The sewer connection is quite a lot, it's 5000$ per household so we pay for that and then we pay the same amount again for the whole composting toilet system. The trouble is, when you're in a community like this you have to work at a reasonable speed so everybody gets the community done together, it would be no good to have somebody still out there now with a house half built... it's part of the community spirit everybody gets done so we can start the living in the community and create the community life so we can't wait... so we can't fight with the town: 'we want our composting toilets - no you have to hook up to the sewer'. If you're living on your own somewhere you might be able to do that but not here. (Julius, personal interview)

Some of the actions of EcoVillage at Ithaca depend on public infrastructure. For example,

the common transit system service is offered through the Tompkins Consolidated Area

Transit (TCAT) and the recycling is collected by Tompkins County. Consequently, the

material recycled at EcoVillage at Ithaca mostly depends on what is accepted for recycling by the county's facilities. An interviewee explains the constraints of the county service:

> Tompkins County really does the recycling and decides what you can recycle for the most part so mostly we just do what typical households do which is separating containers and paper products and county takes it away. [...] I called them a number of times to ask questions and especially to try to find out how to recycle things that they don't take, ask why they don't do it, so forth and so on but I haven't done a lot of political activism around it. They're very cost constrained, they have a certain budget; if taking yogurt containers would go past their budget they just don't do it. (Arnold, personal interview)

Many foundations, organizations and institutions come in to provide support to various EcoVillage at Ithaca projects through technical and financial contributions. The 'Center for Transformative Action' (CTA) is one of the organizations contributing to EcoVillage at Ithaca. CTA helps to start activist projects by providing advice through their board of directors and by offering some administrative services such as accounting (Don, personal interview). The 'Fingerlakes and West Hill Area Land Trusts' also provides support by managing a 55 acre easement on EcoVillage at Ithaca's land. Among other foundations' support, the Park Foundation in 2006 allowed a $25,000 grant to be put forward to complete a feasibility study for the Center for Sustainability Education (EVI Inc. board meeting proposed agenda, email group communication 09-26-2007). The following quotation emphasizes the importance of local support for the Center for Sustainability Education project:

> There's some foundations that are local that we can draw on like there's one that gave us the ability to make the feasibility study. That's a good indication that there might be some interests locally supporting us. (Janet, personal interview)

A number of projects that are developed at EcoVillage at Ithaca require external sources of

knowledge or information for their development. The following quotations describe these

sources:

> Interviewer: Where were you finding your information?

> Interviewee: Mostly from the Internet and occasionally from other written sources
> some that I already had and sometimes from some handbooks I had or, we were
> having material sent but, mainly the Internet... sometimes we called people up. Like
> for the composting toilets, what I did is that I called up different vendors and press
> them on exactly where have you had this installed, how many, does it really work,
> what is your experience? (Julius, personal interview)

> There're been a lot of studies made in the past up here so we look at what other
> people have done in the past and studying the land, and thinking about the buildings.
> Some were residents from town... they have had various gatherings of people here
> over the years, especially when I got involved 15 years ago, they had a couple large
> meetings and they had people from town; people from universities come. There're a
> couple of different sources for that information... we have a lot of maps that people
> drew 10 years ago about where things should be so we consult those... We sometimes
> go to experts like an engineering company to figure out what we can do with the
> sewer line, because we have to provide a sewer connection to all the houses. We ask
> experts to get an idea of the costs of different things (Don, personal interview).

For outreach and to attract visitors for tours or workshops, EcoVillage at Ithaca uses many

external sources.

> Most of them [visitors] found out about us through our website or word of mouth or
> Communities Magazine or the Intentional Communities website which lists all the
> cohousing communities in the world so people found us through that as well but,
> mostly through our website (Ann Marie, personal interview).

An important resource used to develop specific sustainability related projects comes from a

partnership with Ithaca College and some collaboration with Cornell University courses. The

following interviewee describes the benefits of such collaboration:

> One of the things that makes that place so wonderful, it's that we are so involved with
> local Colleges. We would like to be more involved with local high schools and
> elementary schools as well. It completely enriches the community. People here are
> busy so that root cellar and that bus shelter might not have happened for 5 or 10 years

if there wasn't a built-in educational process to have project-based learning. By engaging students we're bringing new energy. We got students doing volunteer days so volunteering student energy is integrally related to the development of the Ecovillage (Agnes, personal interview).

Inhabitants of the village who are also teaching at Cornell University or Ithaca College engage their students in EcoVillage at Ithaca projects. The 'Partnership for sustainability' between EcoVillage at Ithaca and Ithaca College is a source of money and external volunteer work. The following interviewee explains:

The partnership with Ithaca College, called 'Partnership for Sustainability' was created through a National Science Foundation (NSF) grant. The three year grant aims to do sustainability education. The mini-grant program was created through this partnership. EcoVillage at Ithaca members and Ithaca College faculties may obtain 1000$ grants to create educational materials in a particular class or to do a project with the students that incorporates sustainability (Agnes, personal interview).

An inhabitant who is also a lecturer for an engineering course at Cornell University shares his personal experience with the NSF grant and students involvement:

I had the students do their mechanical engineering project on a feasibility study; they did the study for the Ecovillage. Then, we used that as a basis to get another NSF grant to make another study on what else needs to be done, what's the next step and they ended up with a report about that... One of them [projects] was to pay a Professor to supervise students designing a green bus shelter at the entrance of the community site (Julius, personal interview).

Chapter 6: Discussion and Conclusion

The following discussion revisits each concept of the analytical framework (see Table 3, chapter 3) in relation to the purpose of this research, which is to explore the internal organization of Ecovillage at Ithaca. The discussion reveals particular tensions created among systems of activities, goals and organizational context and then explores how Ecovillage at Ithaca's organizational processes have been adapted to deal with these tensions. Finally, I present recommendations to enhance the organizational efficiency of EcoVillage at Ithaca in dealing with its tensions and paths for further research.

6.1 Planning: mission, goals and objectives

An examination of EcoVillage at Ithaca's mission reveals a changing organization. The mission of the whole project has been refined through the years. While the original mission presented EcoVillage at Ithaca as one single organization, the mission statement updated in 2008 now reflects the two-level reality of the organization – the non-profit level (EVI Inc., EcoVillage/CTA) and the village level (the Village Association (VA) and the neighbourhoods). The updated mission specifies the role of each level within the mission. The non-profit EVI Inc. educates the wider public on what is experimented by the village, and the village's mission is about creating an alternative living for its members. What was simply 'demonstration' in the original mission has changed to 'educational programs targeting a large audience', and 'quality of life' was added to aspects of ecological systems and demonstration in the updated mission statement. Correspondingly, objectives

surrounding personal growth and spirituality were added to the latest version of the guidelines for development (EVI Inc., 2004). These changes show that the organization has moved the primary focus away from demonstrations about the land, the built environment and sound use of natural resources toward a more holistic view in which the inhabitants' well-being and public education at large are also taken into account. These additions to the mission, goals and objectives are an acknowledgement by the organization's members that sustainability requires fundamental change beyond reducing impact on the environment. While seeking to be more ecological, two essential components of the organization's long-run efficiency need to be taken into account. First, members need to fulfill their needs on a personal level, and second, mutual exchanges between the environment and the organization must be acknowledged and favoured.

6.2 Systems of activities

6.2.1 Authority centers and decision-making

According to the hierarchical chart of the organization (Appendix B), the authority centers are found in each of the different entities of the organization: EVI Inc., EcoVillage/CTA, VA, FRoG, SoNG and TREE. The central authority of the non-profit EVI Inc. resides in a board of directors shared with EcoVillage/CTA. The VA's authority centers rely on monthly community decision-making meetings and, to a lesser extent, through resolutions passed by the board of directors. Finally, central authorities of the FRoG neighbourhood, the SoNG neighbourhood and the forming neighbourhood TREE, are found in their respective monthly or bi-monthly community decision-making meetings.

The decision-making process at EcoVillage at Ithaca is not exclusively consensus based. EVI Inc., the owner of the land, makes final decisions for any land-based projects, such as farms, new neighbourhoods or any kinds of projects involving the use of the land. EVI Inc. makes decisions like a typical membership organization; that is, it convenes one annual general assembly and elects a board of directors that will make decisions for the remainder of the year (2 years in the case of EVI Inc.). The board's decisions are however often contingent upon the neighbourhood members' consensual agreement. Moreover, the village residents are invited to take part in the board meetings and two of the residents, one per existing neighbourhood, are currently on the board.

Members of the VA make decisions by consensus through a monthly decision-making meeting. Minor non-controversial and transparent decisions are sometimes made by the board of directors. VA members hold power over the VA land (a portion of land between the neighbourhoods) and the infrastructure used by both neighbourhoods, such as the pond, the road and the pump house. Members also make decisions regarding village-wide issues like setting a pet policy or dealing with geese in the pond.

The neighbourhoods also use consensus to make decisions in monthly (FRoG) or bimonthly (SoNG) decision-making meetings. The member-residents of each neighbourhood have the responsibility to make decisions by consensus concerning their land, common house, common infrastructure such as the laundry room, and activities such as the landscaping. SoNG has developed a very structured process to reach consensus including four main steps: 1) a committee is first formed and raises the issue, 2) discussions during the community

meeting follow, 3) a proposal is developed and 4) the proposal is brought forward for adoption (Appendix G).

Decision-making of EcoVillage at Ithaca as a whole, i.e. including all entities, may be qualified as highly participative. The focus is more about 'how' decisions are made than about 'who' has the power to make the decisions. The various organizational authority centers and the overall hybrid decision-making process (i.e. decisions by the board of directors and decisions made by consensus) create a hierarchy of decision-making adapted to each entity. Members' participation in decision-making varies from one entity to another. As the issues become closer to the day-to-day life of the residents, the decision-making tends to rely more on consensus. EVI Inc. makes final decisions through a board of directors with the indirect consensus approval of the VA or the neighbourhood in cause. The VA makes most decisions by consensus but allows the board of directors to make decisions regarding non-controversial items. The neighbourhood makes all decisions by consensus to encourage full participation and to nurture a sense of responsibility to the group.

While interviewees remain optimistic and hold a positive outlook on the decision making process, they emphasize limitations of the consensus decision-method. They cite a lack of education or interests in consensus, the absence of a true common vision among members and the possibility for one or few members to delay a decision for a long time. Meetings can be time consuming and the delay may prevent sustainability-oriented actions to move forward.

6.2.2 Leadership

The analysis of the leadership at EcoVillage at Ithaca shows a shared leadership context. According to interviewee responses and observations on site, a large number of inhabitants are actively involved in neighbourhood and village-wide projects. The organization depends on its leaders to bring forward actions and projects that will fulfill organizational goals in specific directions. The shared leadership also produces a diversity of decisions and directions; some leaders are more inclined to work toward transportation-related projects, others on local food systems or on land use, etc. By contributing to the organization with their personal skills and knowledge, the leaders are oftentimes successful individuals that coordinate many projects punctually that are giving EcoVillage at Ithaca its character. Some examples of these projects were highlighted in the results chapter: the sustainable high-school, the energy task force committee, the root cellar and the edible landscaping. Leaders have a clear sense of the societal issues (e.g., peak oil) on which the mission of the organization is rooted and they act accordingly. The leaders seem to find, in the experiment of the ecovillage, opportunities to implement specific projects that align with the mission and address the issues. Leaders are even ahead of the mission and help the organization to react to changes and to further the mission.

6.2.3 Division of labour

The way that the responsibilities and tasks are divided varies slightly between the non-profit and the village level. EVI Inc. delegates and releases some of its responsibility toward the land to other land-based organizations such as the two organic farms and the neighbourhoods. EVI Inc. also hires local people such as an executive director, an assistant

and a visitor coordinator to look after the administration of surrounding partnerships, fundraising, outreach and other EVI Inc. related projects. The capacity to delegate to members is limited at the non-profit level; the center for sustainability education, the high-school project and some land-based advisory committees are exceptions. Members are so highly involved in their neighbourhood that they are not available for more involvement at the non-profit level.

The members that present their motions to the VA or in their neighbourhood's decision-making meetings take on the responsibility of the motion if it is passed. Decisions made during the community decision-making meetings will often translate into *ad hoc* committees as soon as a problem is identified. This process serves to enhance responsibility and self-education. Some decisions are also taken care of by work teams that ensure the smooth functioning of the community members shared life (e.g., cook team). Finally, the process steering committees (PSC) act as a traffic director supporting the decision-making process.

Sustainability experiments at EcoVillage at Ithaca are grounded through division of labour including many teams, committees or individual-members with special roles. Examples of environmental initiatives managed as such include composting handled by two individual members, the renewable energy committee, the big picture committee, the built environment committee and the Architecture Review Committee (ARC). Division of labour into work teams and committees gives members many opportunities to join where they feel they can contribute the most. Participative-observation and interviews with research participants show, however, that lack of formalization of the work sharing creates an imbalance among members' perceptions of work equality.

6.2.4 Communication

Organization theory distinguishes horizontal and vertical organizational communication and formal and informal communication (Hatch, 1997; Hall & Tolbert, 2005). Horizontal or vertical lines of communication do not properly describe the modes of information exchange at EcoVillage at Ithaca. Communication follows multiple directions involving formal as well as informal types of information exchange among the entities at EcoVillage at Ithaca (EVI Inc., VA and neighbourhoods) and among committees.

The main channels of formal communication within the VA and each neighbourhood are their respective community decision-making meetings. The work of committees and teams is supported by and flow through electronic media, including email lists and EcoVillage Wiki, an intranet. The flat decision-making structure of the neighbourhoods and the VA as well as the choice for consensus decision-making both lead to direct communication. Community decision-making meetings are the primary channel for committees and leaders to report on their work, for obtaining approval and for feedback. The decision-making meetings are also a way for members to rise and have their concerns addressed. Formal communication from decision-making meetings runs through email lists where agendas and minutes are distributed.

Communication at EcoVillage at Ithaca, whether being between members, committees and neighbourhoods, operates primarily through proximity and interaction among members. Communication opportunities are created during village wide or neighbourhood events,

team-work, and casual neighbour conversations. The informal communication is important because it supports the formal decision-making process to a large extent. Casual consultations among neighbours generate feedback that might not occur in more formal settings and this helps to minimize opposition and reduces discussion time during decision-making meetings.

6.2.5 Controls

EcoVillage at Ithaca members are regulated or influenced by the organizational culture. Rules, guidelines and policies are kept to a minimum and substituted by general agreements among members that are translated into values and norms. The integration of the values and norms occurs over time through socialization. Members involved in community projects and taking part in discussions during informal gatherings or community events integrate values and norms and eventually behave accordingly. The functioning of the organization depends on member involvement and their level of dedication to the organizational mission and goals rather than on prescribed rules, regulations and sanctions.

Some interviewees expressed that the vision and behaviour of certain members were not sufficiently aligned with the mission. This is a problem common to intentional communities and ecovillages that may be resolved by implementing a screening process for new members (Christian, 2003). The solution taken by EcoVillage at Ithaca was to establish a membership education program that integrates new buyers of a house into the community. This approach does not guarantee, however, that members' personal philosophy is in line with the organizational mission.

At EcoVillage at Ithaca, rather than controlling members' choices, some committees play a persuasion role. The Architecture Review Committee is in charge of building materials in SoNG houses and established recommendations to ensure that house owners would respect minimum low-impact building criteria that are consistent with the sustainable mission of the organization. One more example of 'soft control' is the use of guidelines. Guidelines are put in place in order to formalize use of the shared infrastructure such as the playroom guidelines.

The measurement of EcoVillage at Ithaca's results in terms of reaching its goals toward sustainability (output control) is limited and done on an irregular basis. Some statistics come from more or less outdated research made by college or university students. The energy task force committee evaluated the household energy consumption and transportation for 2006. Their results helped the neighbourhoods to make decisions regarding their next action steps in terms of energy consumption. No evaluation, however, was done for the compost, garbage, recycling, or the consumption of local food. Furthermore, EcoVillage at Ithaca had only a loose idea of the species of various plants growing on the land. No specific monitoring process was in place to ensure year after year that the community was progressing in reducing its ecological footprint or in improving the land ecosystems. Thus, despite the perception that sustainability is strongly influenced by the ecological footprint principle, few mechanisms are in place to keep track of their own impact.

6.2.6 Incentives

EcoVillage at Ithaca fulfills most of its organization's goals through community volunteers. Reward and incentive for members are generally not monetary exchange. Initiatives are driven by interactions that empower members in daily and meaningful aspects of their life as they share the feeling of being surrounded by people like themselves who are contributing to the mutual cause. For example, parents are uniting their efforts to move the sustainable high-school project forward. The concrete realization of their dream-projects with the help and support of their peers is a strong incentive. The social context found at EcoVillage at Ithaca constitutes both a reward for members individually and a way to contribute to the organization's performance. This seems to be governed by a strong sense of morals. Interviews show that motivation is rooted in the opportunity for members to use their personal skills and knowledge, as well as those of their neighbours, to contribute to their collective cause of building a more sustainable world.

6.3 Organizational context

EcoVillage at Ithaca is an open system that exchanges information, people and goods with its surrounding environment. EcoVillage at Ithaca's mission, goals, and objectives are all impacted by its cultural context, which is a highly industrialized nation state. Interviewees expressed that members' behaviours are pressured by various trends coming from the dominant culture which often contradict EcoVillage at Ithaca's mission toward sustainability. In contrast, other sustainability-related movements are sources of inspiration and information for new initiatives, innovations, technologies, and low-impact sustainable projects at EcoVillage at Ithaca.

The local context of EcoVillage at Ithaca poses obstacles and opportunities on its daily operations. Some of the actions that the organization would have favoured with the intention of meeting its goals are constrained by the laws and regulations of the town, the county, the banking system, or other ordinances of jurisdictional influence. Many organizations surrounding EcoVillage at Ithaca, however, support their projects and facilitate the fulfillment of their objectives. For example, the partnership with Ithaca College provides money to realize projects as well as volunteer work from the students, which in return helps the organization meet its goal of offering education through hands-on demonstration. Some information, energy, goods, technologies, etc. coming from other organizations that are presumably not sustainable are necessary for the ecovillage in trying to meet its goal toward sustainability. For example, EcoVillage at Ithaca benefits from subsidies coming from the federal government in order to purchase solar panels as well as to decrease the price of several houses by $20 000.

6.4 Tensions

The process of examining each of the analytical framework's concepts reveals tensions within the organization (Table 5). These tensions arise through a difficult reconciliation of some of the goals of EcoVillage at Ithaca with its systems of activities, and with the constraints coming from its environment. Recall that the systems of activities include authority centers and the decision-making process, leadership, the division of labour, communications, controls and incentives. The capacity of EcoVillage at Ithaca to adapt to these tensions is necessary for organizational goals to be attained in an efficient manner. The

following section systematically explores tensions introduced in chapter 5 and identifies how the organization adapts. I suggest some actions that could assist EcoVillage at Ithaca's responses, and raise questions that could guide future research.

Table 5: Tensions and adaptation modes

Tensions	Goals	Source of tension	Adaptation modes
I. *"What we are aiming for is not what we are conditioned to do"*.	Creating healthier lifestyles through sustainable infrastructure and living practices	Cultural context: Influence of the American way of life	Education of members through various projects related to sustainability and partnership with external organizations.
II. *"Everybody is free but everybody has to contribute"*.	Living laboratory – putting up sustainable infrastructure and living practices in the areas of: housing, food, energy, transport, etc	Control: Few behavioural controls	Participation of members through diversified division of labour
III. *"When inclusion undermines participation"*	Creating an empowering, inclusive, intergenerational community using consensus decision-making	Incentive to keep community leaders motivated	Communication through enhanced social interactions.

Tension I. *"What we are aiming for is not what we are conditioned to do".*

EcoVillage at Ithaca is a small-scale social and cultural experiment attempting a more sustainable lifestyle. The intent is to move away from a societal model that does not otherwise include an explicit vision for sustainability, which requires consensus decision-making, communal chores, close relationship with neighbours and various alternative lifestyle choices. These lifestyle choices aim to reduce the consumption of natural resources by making use of local foods, using alternative transportation, sharing goods and infrastructure, using renewable energy, and implementing any other actions that are

consistent with the mission. EcoVillage at Ithaca is constantly interacting with its environment and finds tensions between the 'American way of life' based on the global economy, mass consumption and individualism and a more sustainable cooperative way of life.

According to Hatch (1997), organizations are not isolated from their environment and therefore reflect culture aspects of the national, regional, industrial, occupational and professional cultures. Members of EcoVillage at Ithaca join the project with habits and consumption patterns rooted in the American way of life. As such, their behaviours do not always reflect the organization's mission that requires alternative living practice. Two interviewees cite farming and consuming local food as examples of the influence of the American culture on the Ecovillage's alternative living practices. The first interviewee argues that in the typical mainstream American culture, farming is normally out of sight and that people are not used to agriculture, thus they tend to be reluctant to coexist with it. This interviewee mentions the "usual suburban complaints" of not wanting to see a tractor and hear a rooster as one reason that makes it difficult to start a farm on the EcoVillage at Ithaca land. The second interviewee emphasizes that promoting local food is not always easy because members can go to the grocery store and buy fresh fruits and vegetables they want all year round for cheap. There are costs to producing ones food. It requires additional efforts from members to grow and maintain the gardens, to store crops for the cold season and to force themselves to limit their choice of food according to the season and its origin.

This tension between the dominant culture and the nature of the experimentation process for a sustainable lifestyle is inevitable. The adaptation mode would therefore be a dynamic

equilibrium exercise rather than a problem that can eventually be solved. EcoVillage at Ithaca is adapting thanks to leaders' dedication as well as partnerships and affiliations with other organizations provide invaluable support in this respect. Leaders contribute to organizational efficiency by promoting the alternative culture and bringing forward organizational goals. Edible landscaping, for example, was part of the original planning of EcoVillage at Ithaca. Three community leaders shepherded the project and went through the different steps of its realization. With the help of students from Ithaca College, they developed a proposal and got the project accepted by the community despite initial resistance of some community members.

Another way to adapt to this tension is to engage external partners in community projects. Many of the projects developed on site that contributed to meeting organizational goals were made possible through the involvement and volunteering of students. For example, the root cellar was made possible through a partnership with Ithaca College. According to an interviewee, the root cellar might not have happened for five or ten years without the built-in educational process of having project-based learning. Through partnerships, the process of working together on a land-based project educates both the students and the inhabitants on an alternative way of life (e.g., depending on local food). The collaboration with other institutions also helps to reduce the workload of community members. This way, the project-experiment develops, but without putting the entire burden on members.

EcoVillage at Ithaca makes good use of its local leaders and its partnerships with other organizations in order to fulfill its goals toward education, experimentation of sustainable

living projects and high quality of life for its inhabitants. This strategy creates a culture of resistance to the pressures of the dominant American culture.

Tension II. *"Everybody is free but everybody has to contribute"*

According to organization theory, control systems are essential in defining acceptable behaviours and reducing inappropriate behaviours of the organization's participants. In the expression 'living laboratory' used in EcoVillage at Ithaca's documents, the word 'living' seems to be closer to their reality than the word 'laboratory'. Unlike a laboratory, control systems such as rules, regulations and systematic evaluation are kept to a minimum. In order to preserve a liveable environment for members, values and norms shared and spread through socialization substitute more formal control systems. However, not all members share the same values equally or understand norms in the same way. EcoVillage at Ithaca's goals of putting up sustainable infrastructure and living practices require members' work and efforts in the areas of: housing, food, energy, transport, etc. A tension is thus created between little controls exert over members' behaviours and the need for the organization to undertake actions in many different areas.

Although there are no concrete rules, some guidelines are put up regarding shared infrastructure such as the playroom, the laundry room, and other shared communal areas. Policies are usually created in response to emerging conflicts. For example, a disabled policy committee was set up after a conflict involving disabled members in SoNG. Due to this conflict, community members ascertained that they needed to develop a policy that would indicate the appropriate actions to undertake in similar circumstances. Despite these policies

and guidelines, the organizational culture is the most principal way that influences members' behaviour. With time and involvement in community projects, gatherings and events, members learn from each other and integrate organizational values and norms and behave accordingly. This method of averting control creates an alternative culture in which organizational participants interact with others and think about their actions rather than sightlessly follow rules.

Though it would be expected that people moving into EcoVillage at Ithaca would do so because they had an interest in sustainability, some interviewees mentioned that new members bring different values and visions, and exhibit behaviours that are not always aligned with the mission or culture. There is no screening process to ensure consistency between newcomers and the ecovillage's organizational mission. Since the functioning of the organization is based on a common understanding of the mission, goals and objectives, the absence of a selection process for new members may impede organizational efficiency. The lack of a shared vision of sustainability of members blurs and slows down the consensus decision-making process, which in turn delays the attainment of organizational goals and objectives. How, then, do members act to meet organizational goals and objectives without being constrained by prescribed behaviours? EcoVillage at Ithaca adapts to the tension through a diversified division of labour within the organization's structure.

The division of labour is organized through multiple sub-groupings of people such as business committees, work teams, crews and clubs, which correspond to the tasks necessary to achieve organizational goals and objectives. The division of labour allows members of the organization to contribute where they feel they are the most capable, useful and motivated.

Even members who do not fully embrace the sustainability-oriented goals of the EcoVillage may also contribute to the overall functioning of the organization:

> Yeah, like I said, there is no screening process and it's not my job to make sure that people have that focus. There are certainly a couple of people who moved here in the last few years who are very lovely and they participate in the community, in the dish crew and stuff like that and they have no interests in environment... (Nicole, personal interview)

The very flexible creation of *ad hoc* committees contributes to organizational efficiency. Solutions are sought as issues arise in context of the needs of the community and with what members are willing to do. Members joining *ad hoc* committee, like the example of ARC given above, did so because they believed that it was a way to enact one of the community objectives. Every member of the committee had, therefore, a part of the responsibility for contributing to the goal of "minimiz[ing] the ecological footprint of the residential community by using green building techniques and materials, and minimizing energy use" (EVI, 2004, Guidelines for Development).

The majority of members fundamentally want to fix the situation and are doing a different piece of the larger mission. EcoVillage at Ithaca's committees and work teams have separate mandates, and are thus empowered by responsibility and self-worth. Division of labour and the flexible creation of committees allow members to get involved in the organization where it really counts the most for them, which counterbalances the minimal usage of coercive rules and regulations.

Tension III: *"When inclusion undermines participation"*

Consensus is chosen as the decision-making method so as to empower and include the views of all community members. Concerns were raised in interviews about the difficult coexistence of consensus and maintaining motivated members in order to put ideas into action, because they can be stopped by a minority. The incentives that motivate members are 'having power over their life', 'feeling surrounded by people like themselves' and 'contributing to their cause'. Members are motivated when they believe they are doing what they think is best, both for themselves at a personal level and for the organization, and thus, upon the approval and support of their peers. The third tension is created between the goal to create an empowering, inclusive organization by using consensus decision-making and the necessity to keep members motivated when rampant conflict and divergence occur during the decision-making process.

In consensus decision-making, one person or a minority can stall a decision for a long time which may lead to very polarized debates (Christian, 2003). This type of confrontational situation contradicts the feeling of being surrounded and supported by people like oneself. The entrepreneurial, action-oriented members see their impulse being considerably slowed down within the decision-making process and might decide not to take part in it. A tension is therefore created between the goal of including the greater number to the decision-making process and the necessity to keep people motivated and involved in reaching the mission of EcoVillage at Ithaca. While consensus decision-making serves the purpose of inclusiveness, it sometimes fails to get all members involved in moving projects forward.

The organization adapts to the tension created between consensus decision-making and the motivation of its members/participants through the informal communication that exists in the community lifestyle. When a contentious decision generates conflict, the information sharing and discussions continue outside of the decision-making meetings. Residents collect information on the issue and share it through emails, casual conversation or more structured forums of discussion. For instance, the committee or club related to the controversial decision to be made may organize a thematic salon to give everyone the possibility to discuss and share information within a more relaxed setting. Acceptability is more easily gained this way, as community neighbours obtain feedback, engage detractors in the project ideas, and honour their opinions. Neighbours' concerns can therefore be addressed in the proposal prior to bringing it to the decision-making meeting. The consensus process goes beyond the decision-making meeting through informal communication with neighbours.

6.5 Further discussions and future research

This review and exploration of analytical concepts (Table 3, chapter 3) related to the organization of EcoVillage at Ithaca has highlighted several tensions. There may be considerable tensions created between the sustainability-oriented goals of the organization and its environment, as well as between the organization's sustainability goals and its systems of activities. This research identified contradictions and described how EcoVillage at Ithaca adapts to them through a community organizational setting. Inevitably, tension is part of the process; it is a dynamic and a natural outcome of trying to live more sustainably. This dynamic tension lends insight for understanding the popular use of consensus as a decision-making method, the debated use of screening for new members, and the less

common use of evaluation methods to assess results. Upon reflection of this study, I offer suggestions that may be a source of inspiration for EcoVillage at Ithaca to improve its efficiency toward goal attainment.

6.5.1 Consensus decision-making method

The first point of discussion concerns the recourse to consensus as a decision-making method. The participation of the greater number of people in the decision-making process is a prerequisite for sustainability (Robinson, 2004; Gendron, 2005) and a fundamental characteristic for ecovillages (Christian, 2003; Dawson, 2006). According to Locker (2007), "Intentional communities, both individually and as a social movement, recognize that coincidence of values and norms and adherence to a collectively held vision are more likely to be achieved through participatory processes and other democratic institutional structures" (p.48). A certain form of participatory democracy must therefore be applied for the organization to be consistent with its mission and goals toward sustainability. Participatory decision-making methods, like consensus, are therefore favoured for spreading the power equally and preventing power abuse.

In order to lead to the desired participation of all toward the best agreement for all, consensus calls for a common level of knowledge among participants. As suggested by Christian (2003), the education of members on making decision by consensus is essential for intentional communities. Unless everybody knows enough about decision-making by consensus, the system becomes time consuming, which consequently discourages participation and defeats the purpose of consensus decision-making. EcoVillage at Ithaca

already has periodic workshops on consensus and a process map is in place in SoNG. High levels of dissatisfaction expressed broadly throughout the interviews and observed on site suggest that more formalized and systematic education on consensus for all members would improve the consensus decision-making process. If consensus does allow sharing power equally among members, likewise, the capacity to properly use consensus should be spread equally among members.

The participation of the greater number of people in the decision-making process necessarily contrasts with the Western culture's way of making decisions. As such, the tension in consensus decision-making stems from the external social influences that do not align with the organization's goal of experimenting a more sustainable way of life. This tension cannot be resolved in the short term. However, more education opportunities for members would increase efficiency during community decision-making meetings and reinforce the central importance of participatory democracy in EcoVillage at Ithaca's vision of sustainability.

In addition, consensus may not be applicable or necessary for all decisions (Christian, 2003). Research could be done on the feasibility of hybrid models of consensus as already implemented at EcoVillage at Ithaca; i.e. using consensus for VA and the neighbourhoods but using a board of director at the non-profit level. The final decisions concerning the land and future development are made by the board of directors of the non-profit EVI Inc. but are contingent upon neighbourhood agreements. For the VA, controversial decisions are made by consensus through a monthly meeting, but emergency and non-controversial decisions are left to the board of directors. How could hybrid of consensus be applied while preserving the participation of all in the decision-making process?

6.5.2 Screening process

The EcoVillage at Ithaca project started with the intention to create an alternative to human habitat and "is committed to reaching mainstream, middle-class Americans and others who are open to positive change" (Walker, 2005, p.3). Numerous meetings, consensus decision-making, limits on personal space and privacy, common property, regular community meals, volunteer requirements, and shifts in consumption patterns are part of the communal lifestyle that is appealing only to a certain segment of society. However, the vision of being the pioneer of a sustainable culture while working with mainstream society is an ambitious venture that necessarily creates a source of tensions. In order for EcoVillage at Ithaca to put forward its goal toward cultural change, the members, being also decision-makers, must align with the organizational mission and the related issues toward sustainability.

Adopting a stricter process to accept new members is an avenue to explore that could avoid some fundamental conflicts and would facilitate the decision-making process. Christian (2003) suggests that intentional communities and ecovillages may benefit from a screening process for new members. EcoVillage at Ithaca is an experiment and relies on the willingness of inhabitants to attempt it. How can the organization experiment with sustainability if its 'workers' do not carry the mission through? A screening process would help determine the candidates suitability for the community and vice versa. Controlling at the forefront who may join EcoVillage at Ithaca would improve organizational efficiency by reducing conflicting values and consequently, facilitating the decision-making process.

6.5.3 Evaluation and monitoring

The results reveal some difficulties for EcoVillage at Ithaca to coordinate its goals and objectives with measurable results. Although some data was collected on their energy consumption through the energy task force committee, their overall evaluation and monitoring system for ecological impacts was mostly qualitative, irregular and came mainly from research by college or university students. If they are experimenting toward sustainability, the dimensions ecology, social and economy should be examined.

Some data are available to assess their performance in terms of sustainability. The energy task force committee came up with a report on household energy consumption and transportation. The Energy Task Force used a rough estimate based on a sample of households to assess electricity usage. They estimated fuel usage by sampling vehicle class (sedan, van, truck, etc) and estimating the miles driven per class, then measured carbon dioxide emissions by adding up results from electricity usage, natural gas burned, and vehicle usage over the next 10 years. They concluded that, on average, each household would spend $30 000 for gas, oil, and electricity bills over the next 10 years if nothing were to change. The results helped in pointing out areas of improvement and in setting priorities for the community.

Outside studies have contributed to EcoVillage at Ithaca in evaluating its performance in terms of reducing its impact on the environment. Meltzer's (2005) study of cohousing projects helped EcoVillage at Ithaca to choose cohousing as their community planning model for achieving dense clustering. In his study of 12 cohousing communities in Australia, New

Zeeland, Japan and USA, Meltzer compared the Net Person Density (NPD), i.e., the number of people per hectare of developed land, of suburban cohousing communities with the conventional suburban developments. While the NPD of conventional suburban developments in Australia and US is about 30, Meltzer's sample shows a mean of NPD of 64 "or more than twice that of conventional developments" (p.119). The same study also shows that the average dwelling size (100 m^2) of the cohousing studied is half of the average American dwelling (202 m^2).

In an Ecological Footprint (EF) analysis comparing EVI Inc. to a more traditional suburban development, Rose Hill, Whitfield (2001) shows "that considerable gains can be made in reducing one's EF by reducing lot sizes and building smaller homes" (p. 128). Although smaller than conventional housing, the ecological footprint of EcoVillage at Ithaca shows that it is not yet globally sustainable. The ecological footprint of 5.7 hectares per person is still far from the 2.1 global hectares per person necessary to make a country's resource demands globally replicable (Global Footprint Network, 2009).

In the absence of data, it is difficult to draw a conclusion from an experiment or even to assess if the means employed really have the impact expected. For example, in 1992, during the Land Use Planning Forum (LUPF), the committee in charge of the water on the land suggested to add ponds and marshes. This would serve to increase biodiversity and "slow down the water movement over the land thus helping to recharge the aquifer below" (Walker, 2005: 26-27). A one acre (0.5 hectare), one meter vertical drop pond was dug next to the neighbourhood area sites (Walker, 2005). However, two problems arise. First, increasing the surface water on the land does not necessarily increase the level of water in the aquifer. A

pond would retain water on the surface and increase its exposure to evaporation. Second, increase biodiversity may be perceived as undesirable. For instance, a couple years ago a family of geese lived at the pond. The amount of geese and excrements became problematic as the water became contaminated and inhabitants could not use the pond to recreate. They made the decision to chase the geese away by oiling the eggs.

For many of the interviewed inhabitants, the social sustainability aspect is even more important than the ecological dimension of sustainability. More attention should therefore be devoted to evaluation of the social impacts and inputs. The social dimension infers that each member has a healthy life and conditions that will allow them to attain a feeling of personal accomplishment with the capacity to take control of their future (Villeneuve, 2005a). In this light, many aspects could be assessed and monitored at EcoVillage at Ithaca. I offer some examples that were evident in the data collected through interview and internal document analysis:

- Education: At EcoVillage at Ithaca it is possible to experience a "personal renewal and hands-on learning, while being immersed in an environment with green building and renewable energy systems, consensus decision-making and deep ecology[13]" (Ecovillage at Ithaca, Educational Program, n.d., para. 4). On site workshops, partnerships with Ithaca College and collaboration with Cornell University's teachers are all ways for EVI Inc. to fulfill its goal of education to the broader population. However, questions remains: How many people are reached every year? What is the degree of satisfaction of participants? How does it impact the participants' behaviours?

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- Quality of life: some interviewees mention that the ecovillage lifestyle brings the community aspect back to the lives of its inhabitants that enhance the quality of life through a supportive social environment and sharing. Where is the simple life that the community is supposed to create? Inhabitants share infrastructures, the land but still need to work full time to pay off high mortgages. Therefore, a very demanding community lifestyle may add a stress to the inhabitants' lives rather than a relief. A set of criteria could be developed to assess the level of quality of life of inhabitants and compare it with the regional and national situation.

- Sense of belonging and integration: during interviews many aspects of the sense of community and integration of members were underlined but no data seems to support these objectives. Is the profile of the population representative of the surrounding or national population? How are inhabitants involved in the community? Is it always the same people or is it an actual fair shared work? No mechanism is in place to ensure that everyone is contributing.

The evaluation of the economy dimension is clearly missing. To what extent does the project rely on subsidies and external input to ensure its viability? For example, partnerships mean that EcoVillage at Ithaca relies on external help, volunteering time to increase ecological infrastructure. Is it sustainable or is there simply a transfer of unsustainable patterns? Does EcoVillage at Ithaca use inputs from an unsustainable external world to increase its internal sustainability? It is believed that the American way of life is too individualistic and hectic which leads to an unsustainable way of life. According to this model, people work hard so

they buy fast food and drive everywhere: no time for cooking, even less to grow food they need to drive; waiting for the bus, riding a bike or walking would take too much time and would not allow bringing all the stuff bought at home! Are ecovillagers driving home from their full time work downtown while volunteers are building a root cellar? Another aspect to be evaluated is the proportion of subsidies necessary for the community to develop and maintain its activities. Does the community need these subsidies for its long-term run?

To evaluate its effectiveness in meeting its ecological goals, EcoVillage at Ithaca needs to gather data on each of its objectives and, depending on the results of the analysis, readjust for improvement. A process similar to the energy task force committee could be applied to various ecological aspects of EcoVillage at Ithaca. They could use a range of indicators such as the amount of compost, the amount of garbage and recycling, their consumption of local food, water reuse and consumption, invasive plants management, the inventory of flora and fauna present on the land, and other initiatives that would serve to measure their ecological footprint. Another way is to look at how each participant ranked the organization in each category of activities and to do it consistently every year, as well as updating a socio-economical profile of the community members. A comparison could also be done with the city, region and country in which the community is found to detect any change that could show a trend and other external factors. Moreover, the outreach of the demonstration project can be reinforced if they could estimate the extent of success of the theories, techniques and concepts with which they are experimenting. Concrete results would help to educate, influence and convince a wider public that sustainable living is worth the effort.

6.6 Conclusion

The sustainability concept requires the simultaneous reconciliation of various spheres related to human activities: ecological, economy and social, and this in respect of equity for both today's people and future generations (WECD, 1987). The concept has gained both global momentum and international recognition that has led to a wide range of opportunities at all levels such as policies, programs and evaluation tools. An equally important dimension of sustainability is the procedural one, which EcoVillage at Ithaca is experimenting with at a small scale.

EcoVillage at Ithaca models a transition from a presumably unsustainable resource rich 'oil-based' economy to a more sustainable communal way of life without giving up the comfort. As such, it focuses on palatable, alternative activities and behaviours that people can adopt to try to reduce their ecological footprint. While aiming to rethink human habitats, EcoVillage at Ithaca started by choosing a land located close to downtown that would curb unnecessary transportation. Their homes are clustered to reduce their footprint, so that 90% of their 175 acre site can be left as open space and agriculture, including more than 55 acres of permanent conservation land easement. Common facilities and social interactions favoured by the community lifestyle both encourage sharing of resources and lower vehicle use. Green construction techniques ensure that their buildings are more energy efficient and the recourse of various technologies (e.g. solar panels, root cellar, etc) and practices (e.g. composting, edible landscaping, etc.) reduce their consumption of energy and goods. Finally, experimentation and education play an important role in adopting sustainable practices into

the inhabitants' everyday lives, but also to visitors and partners from their local, regional and national environment.

EcoVillage at Ithaca experiment demonstrates that sustainability is not just an environmental issue but also one that promotes a dignified standard of living for everyone. Adopting a mission toward sustainability does not only mean a gathering of means and technologies applied to the organization's area of activities, it also means a profound change in the social system. From this research, it was learned that the organization of EcoVillage at Ithaca, i.e., its planning, systems of activities and its relationship with its environment, all tend to create a culture of sustainable living rather than a prescribed system of sustainability.

Sustainability is complex. If in theory sustainability is represented as the harmonious combination of various elements, its experimentation at EcoVillage at Ithaca teaches us that its actual implementation is not always harmonious and generates tensions. Some of the organization's goals are difficult to reconcile such as the influence of the American way of life versus the goal to experiment a sustainable lifestyle, the control system based on organizational culture versus the involvement of members toward the mission, and the consensus decision-making method versus encouraging the participation of members. However, EcoVillage at Ithaca succeeds in substantively coping with these tensions and tries to achieve its goals by establishing a culture based on collaboration with other organizations, a flexible and thorough division of labour and enhanced communication among organizational members.

The approach to sustainability experimented at EcoVillage at Ithaca is only one of many possible ways to respond to the issues our society is facing. In other words, no single approach will, or indeed should, be seen as the correct one. "The growing edge of sustainability may not be the task of the ecovillage movement alone, but a task increasingly shared by the Transition Towns, Bioregional, and Localization movements, and experts in Climate Change, Peak Oil, Permaculture design and food production" (Christian, 2008: para. 15). The strength of ecovillages is that they can use their own experiences in order to inspire more people to engage a way of life that preserves our natural resources and ecosystems for future generations while fostering more intimate relations among neighbours.

Bibliography

American Heritage. *Dictionary of the English Language (The)* (4th Ed.) Retrieved December 2006 from http://dictionary.reference.com/browse/model

Babbie, E. (2004). *The Practice of Social Research* (10th Ed.). Belmont, CA: Wadsworth Publishing Company.

Bang, J.M. (2005). *Ecovillages: A Practical Guide to Sustainable Communities.* Gabriola Island, British Columbia: New Society Publishers.

Bartlett, A.A. (1997-98). *Reflections on sustainability, population growth, and the environment* -- revisited. Renewable Resources Journal 15 (4): 6-23.

Breton, P.-E. (summer and fall 2007). *L'application concrète du développement durable: les écovillages peuvent-ils relever le défi?* Organisations et territoires, 16 (2 & 3).

Bressen, T. (2003). *Send it to committee.* Communities. (121) 22-25

Bressen, T. (2004). *When and Why to Block Consensus.* Communities (122) 14-16

Briggs (Winter 2001). *True consensus, false consensus.* Communities. (113) 43-47

Brown, B. J., M. E. Hanson, D. M. Liverman and R. W. Merideth, Jr. (1987). *Global Sustainability: Toward Definition.* Environmental Management,11(6) 713-719

Brown, J.R. (2004). *Comparative Analysis of Energy Consumption Trends in Cohousing and Alternate Housing Arrangements.* (Master thesis, Department of Civil and Environmental Engineering, Massachusetts Institute of Technology).

Brown, L. R. (2006). *Plan B 2.0: Rescuing a Planet Under Stress and a Civilization in Trouble.* [Earth Policy Institute] Retrieved may 2009 from: www.earth-policy.org

Chitewere, T, (2006), *Constructing a green lifestyle consumption and environmentalism in an ecovillage.* (PhD Dissertation, Binghamton University).

Christian, D. L. (2008), *The Ecovillage Movement Today.* [Ecovillages Newsletter] retrieved November 2008 from:
http://www.ecovillagenews.org/wiki/index.php/The_Ecovillage_Movement_Today

Co housing Association, (2008) retrieved November 2008 from www.cohousing.org

Connell, D. J. (2009). *Planning and its Orientation to the Future.* International Planning Studies, 14 (1), 85.

Cornell University, (2007). *Students Cornell Factbook.* Retrieved August 2008 from http://dpb.cornell.edu/F_Graduate_Enrollment.htm.

Countryhome magazine, (2007). *Best green cities.* Retrieved August 2008 from http://www.countryhome.com/greencities/top25_2007.html,

CTA, (n.d.), *EcoVillage.* Retrieved October 2008 from http://cresp.cornell.edu/projects/ecovillage.php.

Daft, R. L. (2007). *Organization theory and design,* 9th edition. Thompson. Mason, OH.

Dawson, J. (2006). *Ecovillages New Frontiers for Sustainability,* Green book ltd.

DeMarrais, K. B.; Lapan, S. D. (2004) *Foundations for Research: Methods of Inquiry in Education and the Social Sciences,* N.J. Lawrence Erlbaum Associates, Inc.

Denzin, N.K. and Lincoln Y.S. (2005) *The discipline and practice of qualitative research. in* Denzin, N.K. and Lincoln Y.S. (eds.) *in The sage handbook of qualitative research.* pp. 1-32, Thousand Oak, CA: Sage.

Diamond, Jared (2005). *Collapse: How Societies Choose to Fail or Succeed.* New York, NY: Penguin Books.

DiCastri, F. (2005), *Les conditions gagnantes du développement durable. Le développement durable : quels progrès, quels outils, quelle formation?* Sous la direction de Claude Villeneuve, Chicoutimi.

Didcoct, B. and P. Delapa (Winter 2000) *12 Myths of Consensus.* Communities 109, 50-52

Diener, E. and Suh, E., (1997). Measuring quality of life: Economic, social, and subjective indicators. Social Interactors Research, 40, 189-216.

Dressler, L. (2006), *How to Achieve High-Commitment Decisions.* Chapter 1: What is consensus? Berrett-Koehler Publishers. Retrieved April 2009 from http://library.unbc.ca:3424/book/id_14064/book.asp

Ecovillage at Ithaca official website, (n.d.). Retrieved August 2008 from http://www.ecovillage.ithaca.ny.us/

Ecovillage at Ithaca official website, (n.d.) *Educational Program.* Retrieved September 2008 from http://www.ecovillage.ithaca.ny.us/evi_programs.html

Ecovillage at Ithaca Inc., (2001-a) revised in 2003 and 2004, Ecovillage at Ithaca Village Meeting Process, internal unpublished document.

Ecovillage at Ithaca Inc, (2001-b) *Fallback Procedures*, internal unpublished document.

Ecovillage at Ithaca Inc, (2006) *Organizational structure flow chart*, internal unpublished document.

Ecovillage at Ithaca Inc. (2004) *Guidelines for development*, internal unpublished document.

Ecovillage at Ithaca Inc, (2007-a) Big Picture Committee Summary of Recommended Development Goals for EcoVillage at Ithaca, internal unpublished document.

Ecovillage at Ithaca Inc, (2007-b) Energy Task Force Presentation to the FROG, internal unpublished document.

EcoVillage at Ithaca (2007- c) Board Meeting, Proposed Agenda, September 26, internal unpublished document.

EcoVillage at Ithaca (2008) *EcoVillage at Ithaca Mission Statement*, internal unpublished document.

Ecovillage Network of Canada (2005) *The stage in Ecovillage in the Province of Québec Fellowship for Intentional Community (FIC)*. (2007 and 2008). Community directory. Retrieved April 2007 and August 2008 from http://directory.ic.org/1722/EcoVillage_at_Ithaca,.

Flyvbjerg, B. (2006). *Five Misunderstandings About Case-Study*. Research Qualitative Inquiry, 12 (2), 219-245.

Gaia Education (2006) *Ecovillage Design Education*. Retrieved November 2008 from http://www.gaiaeducation.org/docs/EV%20Design%20Curriculum.pdf

Gendron, C. (2005) *Le développement durable entre durabilité et développement in Organisation Internationale de la Francophonie, Le Développement durable: quels progrès, quels outils, quelle formation?* Sous la direction de Claude Villeneuve

Gaia Trust (n.d.) Gaia Trust official website. Retrieved November 2008 from http://www.gaia.org

Global Ecovillage Network (GEN) (n.d.-a). Official website. Retrieved April 2007, August 2008 and March 2009 from http://gen.ecovillage.org

Global Ecovillage Network (GEN) (n.d.-b), *Community Sustainability Assessment (CSA)*. Retrieved August 2008 from http://gen.ecovillage.org

Global Ecovillage Network (GEN), (2008-b). *The History of GEN, 1990-1995*. Retrieved September 2008 from http://gen.ecovillage.org/about/history/1995/history01.php

Global Footprint Network (2009). Retrieved March 2009 from http://www.footprintnetwork.org/

Haque, M.S. (2000). *Environmental discourse and sustainable development: linkages and limitations.* Ethics & the Environment. 5 (1), 1-19

Hatch, M.J. (1997). *Organization Theory Modern, Symbolic, and Postmodern Perspectives.* 2nd ed. Oxford: Oxford University Press.

Heifetz, R. A. (1994). *Leadership without easy answers.* Belknap Press, Cambridge, Massachusetts.

Hogan, R. and R.B. Kaiser (2004) *What we know about leadership.* Review of General Psychology. Retrieved August 2009 from: http://www.apa.org/journals/gpr

Hollick, M & C. Connelly (1998) *Sustainable Communities Lessons from Aspiring Eco-villages,* Australia: Praxis Education.

Irvine K. N. and S. Kaplan, (2001). *Coping with Change: The Small Experiment as a Strategic Approach to Environmental Sustainability.* Environmental Management. 28 (6), 713-725

Ithaca Hours website, (2008). Retrieved August 2008 from http://www.lightlink.com/hours/ithacahours/

Ithaca-Tompkins County Convention & Visitors Bureau, (2008) *Visit Ithaca,* Retrieved August 2008 from www.visitithaca.com

Jackson, R., (2004). *The ecovillage movement, Permaculture Magazine.* 40, 25-30 Retrieved September 2009 from http://www.gaia.org/mediafiles/gaia/resources/JTRJ_EV-Movement2004.pdf

Jacobs, J. A. (2005). *Multiple Methods in ASR* [American Sociological Review]. Footnotes. Retrieved April 2007 from http://www2.asanet.org/footnotes/dec05/indextwo.html

Jones, G.R. and J.M. George (2003). *Contemporary Management,* 3rd ed. Mc Graw-Hill Companies Inc.

Kaufman, R. A. (1992) *Strategic planning plus: an organizational guide*. Newbury Park, Calif. : Sage Publications.

Kirby, A (2004) *Self in practice in an ecological community: Connecting personal, social, and the ecological worlds at the EcoVillage at Ithaca*. (PhD Dissertation, University of New York).

Kotler, P., Adam, S., Brown, L. & Armstrong, G. (2006). *Principles of Marketing*. 3rd ed, Prentice Hall, Frenchs Forest, NSW Russell K. Schutt, Investigating the Social World, 5th ed, Pine Forge Press

Lamoureux, H., Lavoie, J., Voyer R. & Panet-Raymond, J. (2002). *Pratique de l'action communautaire*. 2nd Ed. Boisbriand, Québec : Presse Université du Québec

Likens, G. E. (1991) *Human-accelerated environmental change*. BioScience 41(3):130.

Lindlof, T.R. & Taylor, B. C. (2002). *Qualitative Communication Research Methods*. 2nd Ed. Thousand Oaks, California: Sage.

Locker, J. (2007). *Sustainability and utopianism an ethnography of cultural critique in contemporary intentional communities*. (PhD Dissertation, Graduate Faculty of philosophy, University of Georgia)

Love Brown, S. (2002). *Intentional Communities: An Anthropological Perspective*. Albany, NY: State University of New York Press.

Mahoney, S. and Edmondson, B. (2008, September & October). *Healthiest Hometowns*. AARP The Magazine's., Retrieved August 2008 from http://www.aarpmagazine.org/lifestyle/healthiest_hometowns.html.

Marcuse, P. (1998). *Sustainability is not enough*. Environment and Urbanization, 10(2), 103-111

McCamant, K. and C. Durrett (1994). *CoHousing: A Contemporary Approach to Housing Ourselves*. 2nd Edition. California: Ten Speed Press.

Meadows D. H. et al. (1972) *The Limits to growth: a report for the Club of Rome's project on the predicament of mankind.* New York: Universe Books.

Meadows D. H. et al. (2004) *The limits to growth: the 30-year update.* White River Junction, Chelsea Green Pub.

Millennium Ecosystem Assessment. (2005). *Ecosystems and Human Well-being: Biodiversity Synthesis.* Washington, DC: World Resources Institute.

Merkel, J. 2003, *Radical Simplicity : Small Footprints on a Finite Earth.* Gabriola Island, BC: New Society Publishers,

Neuman WL. 1994. *Social Research Methods*, 2nd ed. London: Allyn and Bacon.

OECD, (2007). *Ratification of the Convention on the OECD.* Retrieved April 2008 from http://www.oecd.org/document/58/0,3343,en_2649_34483_1889402_1_1_1_1,00.html

Permaculture Magazine (2007). *Permaculture Information.* Retrieved April 2009 from http://www.permaculture-info.co.uk/permaculture.htm

Plane, J.-M. (2008) *Théorie des organisations.* 3rd ed. Paris : Dunod

Redclift, M. (1993). *Sustainable development: Needs, values, rights.* Environmental Values, 2, 3-20.

Resource International (2008). Resolving conflict in teams. Retrieved February 2009 from http://www.resource-i.com/PDFs/ConsensusDecisons.pdf

Roseland, M. (1998). *Toward Sustainable Communities – Resources for Citizens and their Government.* Gabriola Island. BC: New Society Publishers.

Second World Water Forum (The) (2000). Retrieved March 2009 from http://www.worldwatercouncil.org

Schein E. H. (2004). *Organizational Culture and Leadership*. 3rd ed., San Francisco: Jossey-Bass

Schaub, L. (2004) *Using Email for Community-Wide Conversations?* A Few Words of Caution. Communities. 121: 6-7.

Schumacher, E. F. (1973). *Small Is Beautiful: Economics As If People Mattered*. Hartley & Marks Publishers.

Schutt, R. K. (2006) *Investigating the social world: the process and practice of research*. Thousand Oaks : SAGE Publications.

SoNG (2007). SoNG Process Map: Steps to consensus. Internal unpublished document.

Stake, R. (1995). *The art of case research*. Thousand Oaks, CA: Sage Publications.

Spurlock, M. (2005). *30 days off-the-grid*. Documentary, USA. 45 mins.

Susskind and Cruikhank (2006). *Breaking Robert's rules*. New York: Oxford University Press,

Sustainable Communities Network (SCN), (2008), *Smart Growth Network*. Retrieved September 2008 from http://www.smartgrowth.org

Svensson K. (2002) *What is an ecovillage?* in Ecovillage Living Restoring the Earth and Her People. Edited by Jackson, H and K. Svensson, Gaia Trust, U.K.: Green book ltd.

Thompson, W. and J. Hickey (2005). *Society in Focus*. Boston, MA: Pearson.

Thompson, A. A. Jr. and A.J. Strickland, (1995) *Strategic management: concepts and cases*. Chicago : Strickland, III.

Thuillier, E. (2005). *L'évaluation dans les agendas 21 locaux de la région Nordpas-De-Calais (France) : Quels enseignements pour l'évaluation du dévelopement durable au niveau local?* (Master thesis, Science de l'environment, Université de Montréal).

TREE, EcoVillage at Ithaca (2008) *Building a neighbourhood.* [TREE official website], Retrieved October 2008 from http://www.tree.ecovillageithaca.org.

UNEP. World Database on Protected Areas. (2008). *Summary of protection by Country and Territory on the 31st January 2008* Retrieved August 3rd 2009. http://www.unep-wcmc.org/wdpa/mdgs/WDPAPAstats_Jan08_download.xls.

United Nations (UN) (2004), *Earth Summit Agenda 21.* Retrieved October 2007 from: http://www.un.org/esa/sustdev/documents/agenda21/index.htm

US Census Bureau, (2000). *Fact sheet of Ithaca town.* [Tompkins County, New York] Retrieved August 2008 and October 2009 from http://factfinder.census.gov/home/saff/main.html?_lang=en

United States Environmental Protection Agency - EPA, (2008). *Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and Figures for 2007.* Retrieved October 2009 from: http://www.epa.gov/waste/nonhaz/municipal/pubs/msw07-rpt.pdf

Van Schyndel Kasper, D. (2008*). Redefining Community in the Ecovillage in* Human Ecology Review (15) 1.

Village Design Institute (2000) A Concise History of the Global Ecovillage Movement. Retrieved November 2008 from http://www.villagedesign.org/vdi_writings/Concise%20History%20Ecovillage.doc

Villeneuve, C. (2005-b) *C'est le pas qui trace le chemin Histoire du développement durable et conceptions actuelles.* in Organisation Internationale de la Francophonie, Le Développement durable: quels progrès, quels outils, quelle formation? Sous la direction de Claude Villeneuve, Chicoutimi, P. 49-56

Villeneuve, C. (2004). *Comment réaliser une analyse de développement durable?* Département des sciences fondamentales, Chicoutimi, QC. Université du Québec à Chicoutimi.

Villeneuve, C. (2005a). *Comment réaliser une analyse de développement durable?* Département des sciences fondamentales, Chicoutimi, QC. Université du Québec à Chicoutimi. Retrieved September 2008 from http://dsf.uqac.ca/eco-conseil/chaire/documents/guide_analyse_dd_2005.pdf .

Villeneuve C. (dir.) (2004) *Fonctionnement du groupe interministériel fédéral régional en développement durable du Québec et mise en place d'indicateurs de performance.* Rapport de recherche de la Chaire en Éco-Conseil pour Environnement Canada.

Villeneuve, C. (1998) *Qui a peur de l'an 2000? Guide d'éducation relative à l'environnement pour le développement durable.* Sainte-Foy: Éditions Multimondes et UNESCO.

Wackernagel M. and W. E. Rees, (1996), *Our ecological footprint: reducing human impact on the earth.* Gabriola Island, B.C.: New Society Publishers,

Wahab, S. and J. J. J. Pigram (1997) *Tourism, Development and Growth: The Challenge of Sustainability.* Retrieved November 2007 from http://books.google.ca/books?hl=en&lr=&id=kl3K087cHJ4C&oi=fnd&pg=PA33&dq=sustai nable+development+is+an+oxymoron&ots=Yl7_VUgl26&sig=bfBdU87mx6Mh5lkUWDuB KU8pl3I#PPA46,M1

Walker, L. (2005) *EcoVillage at Ithaca Pioneering a Sustainable Culture.* Gabriola Island: New Society Publisher.

Walsh, B. (2007) Green Acres. Time magazine. Retrived November 2007 from http://www.time.com/time/magazine/article/0,9171,1659708,00.html retrieved March 2009.

Weather Channel (The) (2009). *Monthly averages for Ithaca, NY.* Retrieved on August 3rd from: http://www.weather.com/weather/wxclimatology/monthly/graph/USNY0717?from=text_bott omnav_undeclared

Wikipedia (2009). *Wiki.* Retrieved on April 25 from: http://en.wikipedia.org/wiki/Wiki

World Commission on Environment and Development (The). (1987) *Our common future*. Brundtland, G.H. (ed.), Oxford University Press, Oxford Retrieved December 2006 from http://www.are.admin.ch/imperia/md/content/are/nachhaltigeentwicklung/brundtland_bericht .pdf.

Whitfield, J. (2001) *Understanding the Barriers Encountered by Residents of Ecovillages*. (Master's thesis, School of planning, University of Waterloo)

World Wildlife Fund International, (WWF), (2002, 2004, 2004, 2008), *Living Planet Report*. Retrieved January 2009 from http://assets.panda.org/downloads/living_planet_report_2008.pdf

Wright, R. G. (1977), *The nature of organizations*. Encino, California: Dickenson. Publishing Company Inc.

Yin, R. (2003). *Case study research: Design and methods*. 3rd ed. Beverly Hills, CA: Sage Publishing.

Appendix A: Map of EcoVillage at Ithaca's land

Appendix B: Organizational structure

Ecovillage at Ithaca - Organizational Structure

Appendix C: Sustainability circle
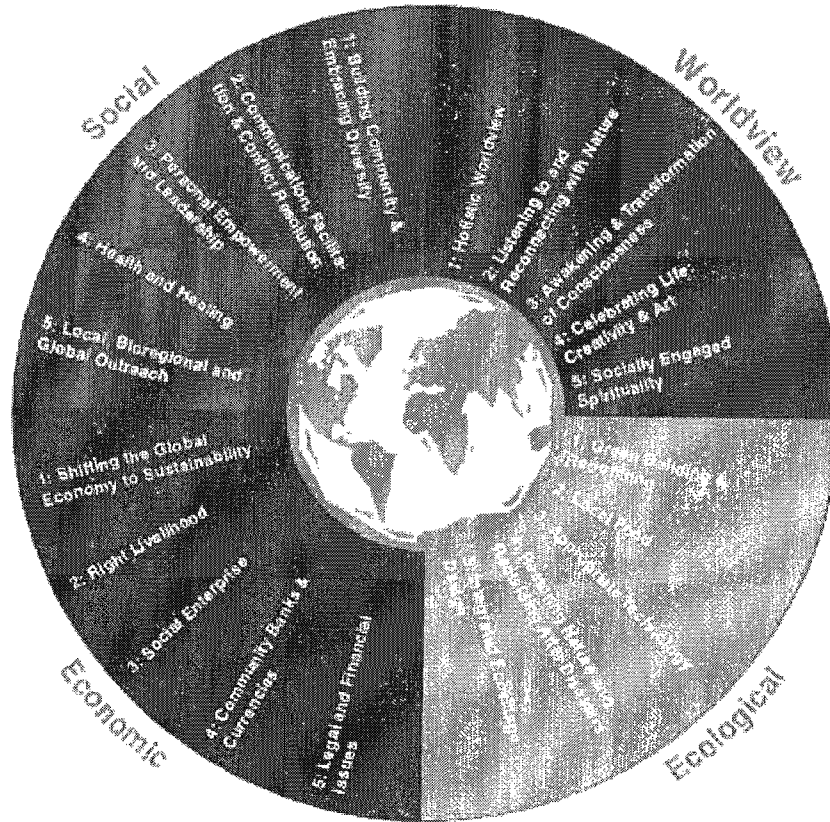
Source : Gaia Education (2006)

Appendix D: Study sites evaluation and selection

Possible study site	Location and language	Intention	Founded in	Evaluation	Total inhabitants	Evaluation	Ecological equipment	Evaluation	Education, demonstration, outside openness	Evaluation	Total evaluation	Other details	Selection and rationale
Crystal Water	Conondale, Queensland, Australia(near Maleny, approx 11/2 hrs from Brisbane, Queensland) English	Meetings with stakeholders led to the development of 6 basic objectives for the village design: - Clean air, water and soil (thus food) - Freedom of spiritual belief - To work towards a guarantee of meaningful activity for all - To create a place for healthy play and safe recreation - Active social interaction - Healthy shelter	1989	3	230	3	Water harvesting, waste water use, rainwater collection, swales, dams, artificial wetlands, biolytic treatment, compost toilets, stand-alone and grid-connected solar power systems, heat pumps, cell grazing, land restoration, reforestation, orchard culture, wildlife corridor and rainforest applications It received the 1996 World Habitat Award for its "pioneering work in demonstrating new ways of low impact, sustainable living" and was a finalist in the 1998 Best Practices Awards	4	Tours Educational Courses/Training Crystal Waters EcoCentre CRYSTAL WATERS COLLEGE is a small independent holistic design college that held nationally accredited Permaculture programs CW owns and manages a range of facilities for course providers, school and TAFE groups and other special interest groups. Permaculture course providers and consultants.	3	13	Cost of transportation = 2000$ round trip	Crystal Water defines itself as a permaculture village where the sense of community is not strong enough to support my participant observer research method. Moreover, the site is hard to access
Ecovillage at Ithaca	318 Anabel Taylor Hall, Ithaca, NY, USA English	Comprising an intentional community and a non-profit educational organization, the project aims to develop an alternative model for suburban living which provides a satisfying, healthy, socially rich lifestyle, while minimizing ecological impacts.	1992	3	162	3	organic CSA vegetable farm, Over 80% of the 175 acre site is green space village-scale wind power biomass energy crops UN-HABITAT award 2005 members	3	Affiliated with Cornell University and Wells College.; co-organized the Third International EcoCity and EcoVillage Conference in 1996, artnered with Ithaca College Environmental Studies Program, brought in nationally known speakers in the fields of architecture, cohousing, community design, and environmental education; six Master's theses and 2 PhD have been written about EVI; offered tours, worked closely with professors from various Cornell departments, and Roger Williams University (RI); worked closely with media to "get the message out" about EVI, classes in several kinds of yoga, swing dance, etc., workshops in consensus and	4	13	Ecovillage Experience: Sept. 7-9, 2007 Sustainable Communities; Book EcoVillage at Ithaca Six Master's theses and two PhDs have been written about various aspects of this ecovillage; they are used to deal with students and researchers 300$ per month for room and board Cost of transportation < 500$	Ecovillage chosen for the data collection. The overall cost is affordable and the site is easily accessible Discussions with Elan Shapiro went well and he has a good sense of what my research consist of

Name	Location / Language	Mission	Year		Technologies / Features		Education / Programs		Additional Information	Score		Notes
Findhorn	Forres, Scotland, United Kingdom		1952	3	55 ecologically-benign buildings • 4 wind turbines • a biological Living Machine sewage treatment system • UK's oldest and largest Community-Supported Agriculture (CSA) system • numerous solar water-heating systems • comprehensive recycling scheme • publisher of UK's first technical guide to ecological housing • UN Habitat Best Practice Designation	3	meeting facilitation, ecovillage Experience Weekends. We are a centre of spiritual education, offering people many ways to visit, live and work in a transformative community environment. Over 400 people live withnn or are locally connected to our community a major centre of adult education serving 14,000 visitors a year	4	a founding member of Global Ecovillage Network. Associated with the Department of Public Information of the United Nations as a NGO. $4967 for the stay $2400 transportation.	13	3	I have to be enrolled in a program offered by Findhorn in order to live on site which makes the stay quite expensive. I have to leave outside the community to conduct the interviews
Andelssamfun det i Hjortshøj	DK-8530 Hjortshoj, Denmark. Danish and English	AiH aims to be an example of a holistic way of living with sustainability as a keyword in respect to ecological, economical and social aspects of life.	1995	2	Houses are built with rammed clay, earth blocks, wood, paper insulation, solar collectors, etc, compost or separation toilet, rainwater is used for washing machines, grey water is evaporated in a energy willow plantation, organic farming, car-sharing Association, use bicycles and bicycle trailers, hot water from a wood-pillet burning boiler, Biodiversity care: Re-establishment of a lake.	2	Exhibition & Office Building including: - OVE-Europe (Organization for Renewable Energy) - INFORSE-Europe (Internatioaanl Network for Sustainable Energy) Guiding tours each month	4	Inhabitants are living in 5 Co-House Groups. Each co-housing group is structured as a seperate unit with their own association, activities etc.	10	2	
Farm (The)	34 The Farm Summertown, Tennessee. English	to provide a secure, ecologically healthy, commonly held land base for its members and succeeding generations. It is a place where we can relate to each other and the natural environment in a sustainable way, draw upon the collective strength of the community, and contribute to the positive transformation of the world.	1971	3	Natural and non-toxic buildings Organic gardening and composting Preservation of wilderness Biological waste management Reuse, recycle, rebuild Renewable power systems Conservation land planning	3	The Ecovillage Training Center Two experience week end in April and September The Farm School established in 1971 as a one-room school	2	There's not a lot of communal space at The Farm, and there's no longer any farming. 10 nonprofit companies and 20 private businesses.	10	2	
Lost Valley Educational Center	18 miles southeast of Eugene Oregon, 20 minutes off of I-5 via Route 58. English	three goals guide us in all activities. To educate broadly in areas such as ecology, sustainable agriculture, human-made environments, personal and spiritual growth, and community development [...]	1990	3	Compact fluorescent light bulb (CFL) Haybox Photovoltaic system Solar-assisted shower and clothes washer Solar cooker Wastewater leach field Evaluation made	1	Tours Newsletter nonprofit retreat and conference facility with 150 beds plus camping, workshops in areas such as Ecovillage and Permaculture Design Long-term learning experiences through an intern program.	3	Community Experience Week Sunday, 6/24, - Friday, 6/29 Fee to stay 250$/week	10	3	
Earthaven	North Carolina, USA	We hope to become empowered, responsible, ecologically literate citizens who model bioregionally appropriate	1994	2	Solar panels on each house Microhydro central common buildings Composting toilets	2	Saturday morning tour, newsletter, Workshops and Events during summer,	3	Already visited by the researcher in 2005	9	2	Discarded #low score and already visited by the researcher making

Name	Location	Language	culture for our time and place.	Year				Rainwater catchment / Natural building		conference, work exchange and apprenticeship opportunities.				it hard to have an exploratory perspective
Sirius	Shutesbury, Massachusetts	English	Living lives with spiritual integrity, recognizing that we are all in a process of growth with every experience in our life offering valuable lessons. We honor the highest truths common to all religions, and our unity in diversity is a source of inspiration for visitors and members.	1978	3	38	1	Biodiesel / Organic gardening / Composting toilet / Green buildings / Some solar panels	3	Educational center and internships. Partnership with living routes and U Mass / Newsletter (publish couple times a year)	2	Already visited making it hard to come with an exploratory perspective.	9	Discarded =low score and already visited by the researcher making it hard to have an exploratory perspective
Solheimar	Selfoss, Iceland 80 km from the country's capital, Reykjavik.	English	The aim of Sólheimar is to create a self-sustainable community, or eco-village, created by people whose focus is on cultivating the individual and the environment at the same time.	1930	3	100	2	For 15 years various environmentally friendly buildings have been constructed wet composting toilet, energy-efficient lighting, solar photovoltaic and geothermal electricity / Trees are planted under Iceland's South-West Forestry reforestation programme.	3	Workshops and exhibition on art / The social program is organised so that there is something happening every month. In 2002 there were over 50 cultural and social events. / Brekkukot green tourism business / Nothing related to sustainability	1	100 inhabitants, 40 of whom are disabled the first place in Iceland to be internationally recognised as a self-sustainable village. / Many businesses	9	Discarded =low score
Twin Oaks Community	138 Twin Oaks Road # W Louisa. VA USA	English	We strive to fulfill the purpose of Twin Oaks as stated in our bylaws: / - to serve as one example of a cooperative social organization... / - to maintain natural resources through ecologically sound production and consumption... / - to be self-reliant by producing goods and services necessary for the community...	1967	3	100	2	Food production / New buildings environmentally sound / low-flow shower heads, compact fluorescent bulbs, passive solar heating / Solar heated hot water	2	Tours almost every Saturday from March through October / Three Week Visitor Program / Internship program / Community conference Friday August 17— Sunday August 19, 2007	1	Many businesses / Not all the community's members follow SL principle / aim to be as egalitarian as possible / The fee for the three-week visit is on a sliding scale of $50-$250.	8	Discarded =low score and hard to study a community which members share heterogeneous interests
Cobb Hill	Hartland, Vermont	English	Cobb Hill is an intentional community of people who want to explore the challenge of living in ways that are materially sufficient, socially and ecologically responsible, and satisfying to the soul.	2002	0	43	2	Organic farming, ecological forestry, minimization of waste / Not so much yet	0	Sustainability Institute: research, workshops and consulting / Offers short (half-day to three-day) engagements for groups working on issues of sustainability, as well as a set of workshops specifically useful to philanthropic organizations and foundations.	2	See themselves as a cohousing	6	Discarded =low score
Dancing Rabbit	Rutledge, Missouri	English	To create a society, the size of a small town or village, made up of individuals and communities of various sizes and social structures, which allows and encourages its members to live sustainably.	1997	1	23	0	Straw bale and cob homes power with sun and wind. Vehicles are owned by a cooperative and are powered by biodiesel. Eat local, organic, and in-season foods.	3	Tours. 2-6 months work exchange opportunities to live at DR and learn about sustainability and also periodically hold workshops (not underway yet), have gotten some	1		5	Discarded =low score

	Location	Language	Vision / Purpose	Year				Production		Progress		Outreach / education	Visitors / community		Additional information	
Los Angeles Eco-Village	West coast USA L.A. Wilshire Center/Korea town area	English	The whole-systems approach to community development tries to integrate the social, economic and physical aspects of neighbourhood life to be sustainable over the long term. Intend to achieve and demonstrate high-fulfillment, low-impact living patterns [...] and to increase neighbourhood self-reliance in a variety of areas such as livelihood, food production, energy and water use.	1993	2	35	1	Two apartment buildings (48 units of housing are slowly eco-retrofitting. Compost and organic gardening	0	They seem on their way but there is not so much done for now	1	We provide regular tours, urban-sustainable-community workshops, public talks on a variety of related topics	12 within the current ecovillage 35 person intentional community. There are approximately 500 residents in the two-block neighbourhood	4	press coverage and quarterly newsletter the *March Hare* which is sent out to hundreds of subscribers. Intent to but do not have a full Internship program for 2007.	**Discarded = low score** Urban
Keuruu Ecovillage	Finland, 300 km from Helsinki, 150 km from Tampere and 65 km from Jyväskylä Finnish and English		The purpose of Keuruu Ecovillage is to pursue a sustainable lifestyle. We cherish the diversity of nature and wish to preserve original plant and animal species.	1997	1	30	1	Ecological agriculture and forestry	0		0	We organize courses, work camps and recreation occasions	Non-Working Guests, Volunteers and Work Exchange	2	Language might be a problem. English Website is poor... One can easily travel to Keuruu by train or by bus.	**Discarded = low score**
Average	---	---		1982	2,3	91,6	1,9		2,5		1,9			8,6		
Median	---	---		1991	2,5	85	2		3		2			9		

Appendix E: Field note grid

Study Site:

Themes	Date of observation	Location of observation	Description of observation
Decision-making method			
Inhabitants' values and perspectives of sustainable living (In term of energy, capital, material, consumption goods, cultural goods, information and people.)			
Ecological equipment			
Environmentally-friendly behaviours			
Other Observations			

Appendix F: Interview questions

Questions regarding background information (Varied slightly during interviews according to data collected in the field notes or found through the document analysis)

1. What was the triggering factor or the inspiration for starting an ecovillage?
2. What are the problems you are working toward and at what scale?
3. Why did you think an ecovillage would be a good solution?
4. What do you think you are the limit of EVI's mandate?
5. Have you been inspired by another ecovillage?
6. What did you think would be the territory of influence of your ecovillage toward the problem identified?
7. Who were the stakeholders (from outside of the community) involved at the beginning of the process?
8. Who were the members (core group of the community) involved at the beginning of the process?
9. What are the support and threat factors from outside the community (government, township, organisations, etc.)?
10. What is your territory of influence from an educational and social perspective?
11. What is your territory of influence from an ecological perspective?

Questions regarding planning

12. How would you describe Ecovillage at Ithaca's mission?
13. What kinds of problems that are specific to Ecovillage at Ithaca's environment are you working toward?
14. Overall, how would you qualify your strategy (consensual, confrontational or collaborative)
15. Do you or have you ever had a plan?
16. If so, what are your priorities?
17. What are the activities which emerged from those priorities?
18. What are the expected outcomes of your activities?
19. Are goals and objectives achievement evaluated?
20. If so, how?
21. What are your anticipated activities?
22. What is Ecovillage at Ithaca projected timeline?

Questions regarding systems of activities (based on and pertaining to the elements collected in the field notes. Some questions may come back according to the number of different observations made under each theme).

General questions

1. What do you do each day to reach your goal? What are the concrete activities?
2. How is communication ensured among the inhabitants of Ecovillage at Ithaca?
3. How is communication ensured with the outside of Ecovillage at Ithaca?
4. Do you have a conflict-resolution process?
5. How are options to solve the problems identified?
6. What are the criteria used to debate the options?

7. How are decisions made (e.g., voting, consensus)?
8. In terms of ecological equipment, behavior or activity, what are Ecovillage at Ithaca's strengths?
9. In terms of ecological equipment, behavior or activity, what are Ecovillage at Ithaca's weaknesses?
10. Is there any tension between some of your social goals and ecological goals?
11. If so what are they and how are you dealing with them?

Questions related to a specific ecological equipment, behavior or activity

12. I would like to talk more specifically about [name of the ecological equipment, behavior or activity]. What was the problem identified that led you to undertake [name of the ecological equipment, behavior or activity]?
13. Where was the relevant information about [name of the ecological equipment, behavior or activity] found?
14. What steps are taken to implement [name of the ecological equipment, behavior or activity]?
15. Is there a person or a sub-committee in charge of it?
16. What was the membership selection process?
17. How many people are involved or have been involved in the implementation?
18. Do these people have some sort of qualification or experience related to [name of the ecological equipment, behavior or activity]?
19. Are these people remunerated?
20. If not, what commits them to involvement?
21. Are they evaluated for their work?
22. If so, how?
23. Where was the material from?
24. What was the project timeline? When did it start and what were the deadlines for each step?
25. Do you keep track of the actual outcomes or results of [name of the ecological equipment, behavior or activity] in resolving the problem?
26. How do you make sure that the [name of the ecological equipment, behavior or activity] lasts?
27. Do you have to adjust after an action has been implemented?
28. If so, how?

Appendix G : Consent Form

Dear Participant,

I am conducting a study as a part of my Masters thesis in the Natural Resource and Environmental Studies program at the University of Northern British Columbia. The purpose of my research is to understand how human-scaled, i.e., a scale at which people are able to know each other at a personal level, examples of sustainable living organize and attempt to implement sustainability on a day-to-day basis. More specifically I am interested in how ecovillages organize, experiment and promote practical solutions to the social and environmental problems Western society faces.

Your participation is requested because your name has surfaced during my observation of and participation in the activities of Ecovillage at Ithaca or during a previous interview. Your participation would involve one recorded interview of approximately one hour, with the possibility of a follow-up email exchange or phone call to review and verify my interpretation of the data if necessary. Your participation in this study will help me to examine actions undertaken by members of Ecovillage at Ithaca to minimize the negative effects of human activities on the natural environment and the planning and management processes related to these actions.

Your participation in this interview is **completely voluntary** and **you may withdraw your participation at any time** during the project without penalty or risk of any kind. You may choose to answer only the questions you are comfortable with. Should you choose to withdraw your information will also be withdrawn.

Your interview responses will be kept confidential and will be accessible only to the researcher. In all drafts of the thesis, no name will be used and in the instance that I would like to use one of your responses as a direct quote, I will use a number allocated to the interview. Details or circumstances that would easily lead to identifying the interviewee will not be quoted in the thesis. Despite the precautions taken, due to the small number of inhabitants of the community, it will not be possible for the researcher to guarantee anonymity. As other members of the study sites will see with whom I am speaking they may find out who I interviewed. Similarly, it might be possible to identify an interviewee through the thesis by their unique role regarding the community (e.g., the founders). The

records and the transcripts will be kept in a locked cabinet to which only the researcher has access and will be destroyed in five years following the thesis publication.

For a copy of the final report, please fill out the form provided. If you have any questions or concerns, you can reach me by email at breton@unbc.ca or by telephone at 418-598-6667 from September to December.

This research is under the supervision of David J. Connell, Ph.D., who can be contacted regarding any aspect of this study at (250) 960-5835 or connell@unbc.ca. In addition, the University of Northern British Columbia's Office of Research has granted ethics clearance to this study and can be contacted if you have any questions at (250) 960-5820 or by email at reb@unbc.ca.

Do you understand that you have been asked to be in a research study?	□ Yes	□ No
Do you understand that the research interviews will be recorded?	□ Yes	□ No
Do you understand that even if many precautions are taken to ensure confidentiality, there is a risk that your anonymity may not be preserved?	□ Yes	□ No
Have you had an opportunity to ask questions and discuss this study?	□ Yes	□ No
Do you understand that you are free to refuse to participate or to withdraw from the study at any time? *You do not have to give a reason.*	□ Yes	□ No
Has the issue of confidentiality been explained to you?	□ Yes	□ No
Do you understand who will have access to the information you provide?	□ Yes	□ No

_____   _____
       Investigator   Date

I have read and understood the above, and I voluntarily agree to participate in this study. I understand that I can ask questions and withdraw my participation at any time.

_____   _____
       Participant

Appendix H: SoNG Process Map: Steps to consensus

1. Identify agenda topics and determine the extent of community involvement.

Objectives:
$ Ensure that the SoNG meetings are devoted to the issues of most importance to the community.
$ Avoid community overload by taking on too many issues at once.
$ Maintain flexibility so that the balance between community involvement and committee empowerment can reflect the will of the group for each particular issue.

The SoNG meeting is the ultimate decision-making body. It prioritizes how the meeting time will be used and determines the expected level of community involvement. Issues are brought to the SoNG meeting through a variety of pathways, usually mediated by a committee that has already been established to deal with the subject area or by PSC if there is no committee. New topics or issues can be identified by individuals and brought to PSC for consideration by the SoNG meeting. If it is a large or complex topic, PSC checks in with the SoNG meeting to determine whether the group is ready to tackle the issue. Small, limited issues are given time based on the committee's assessment of need and priority or through informal polling of stakeholders.

2. Information gathering/exchange of ideas.

Objectives:
$ To expand thinking and foster creativity in the early stages of decision-making.
$ To give individuals an opportunity to develop ideas and opinions and to seek their own truth while also learning what is important to their neighbors.
$ To provide an opportunity for the committee to gain insight on the needs of the community.

The open discussion of the topic at this stage gives the committee the raw information it will need to develop proposals and move forward. This step is crucial for fundamental issues where values and ethics come into play (such as community policies) or where there are diverse, strongly-held opinions. Allowing for information exchange without the pressure of a proposal can foster a deeper level of sharing and understanding viewpoints of others. This is often the time when there is the greatest possibility for individuals to modify their ideas. For topics where there is less attachment or where the issue is simple this step may only require one 30-45 minute discussion.

3. Dialog/prioritize/seek common ground

Objectives:
$ To identify areas of commonality as well as areas with divergent viewpoints and reflect this information back to the SoNG community.
$ To provide opportunities for meaningful dialog and consensus-building in order to

develop and refine the "sense of the group" as a precursor to proposal development.

$ To evaluate options that have been suggested in earlier discussions.

During this stage, discussions in the SoNG meeting become more focused on the decision at hand as it directly pertains to the community. The pathway from divergence to common ground and proposal development varies tremendously. It is very important to identify all areas where there are differences of opinion and find out why people have these feelings and the level of intensity. It is not uncommon to find out that many differences of opinion are due to differences in underlying assumptions that have not been shared in the meetings. The committee's role at this stage is to collect, analyze and reflect back the development of ideas as concerns are addressed and alternative solutions are considered. The committee must be able to identify what it knows and what it still needs to find out from the community and from other sources (i.e. insurance regulations, county and city codes, tax laws, environmental regulations, costs etc.). It may also be possible to arrive at consensus on guiding principles that everyone agrees on that will shape the rest of the proposal.

4.   SoNG meeting empowers committee to develop proposals

Objectives:

$ To move to the final stage of decision-making!

The SoNG meeting may ask the committee to develop a proposal and may give guidance on the specific content or desired outcomes of the proposal. Or many SoNGs may start waving their thumbs around. This is the best possible sign that the group is ready to MAKE A DECISION!! Alternatively, the committee may conclude that it has all the information necessary to shape a proposal or discussions may fail to raise any further concerns. If the process has been particularly arduous, the committee may check in with the SoNG meeting to confirm that they are on the right track: "We are preparing a proposal that will include A, B and C elements in order to XYZ."

5.   Adoption of proposals/consensus

Objectives:

$ To reach formal consensus.

$ Move forward to implementation.

If the earlier steps have been conducted so that all concerns were aired and addressed AND if individuals have participated and given their honest feedback then, this final stage often goes very quickly and can feel like a formality. Some proposals are developed with fairly minimal community-wide discussion and are brought to the proposal stage with very little SoNG meeting time (such as the rental agreement). Others, such as shared cost allocation policies and the design of the common house involve quite a bit of work in SoNG meetings. Proposals are brought to the SoNG meeting at least twice to allow for feedback on final wording and ensure that true consensus has been reached.