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An Overview of Research on Ecovillage at Ithaca

Ecovillage at Ithaca (EVI) is an intentional community on 175 acres (70.8 hectares) of land two miles (1.2 km) west of Ithaca, in the Finger Lakes region of Upstate New York, USA. Currently one hundred adults and 60 children live in 60 houses in two neighborhoods, each organized as a cohousing cooperative with its own by-laws, common house, and self-management procedures. Some parts of the land, such as the access road and the pond, are managed by a village cooperative made up of all 60 households. In 2012 construction began on a third neighborhood of 40 households with a third common house.



Figure 1:
Aerial view of Ecovillage at Ithaca showing the layout of the first two neighborhoods and the pond. The long structures are the carpools.

EVI began as an outcome of the 1990 cross-country “Walk for a Livable World.” The first neighborhood was constructed in 1996, the second in 2003. EVI is not a commune; there is no income sharing and only slight income redistribution (in the monthly operation charges). EVI could be thought of as an “alternative suburb,” or as a US middle class neighborhood with an ecological focus and a high awareness of community, wherein people interact and help each other more than in a typical US suburb.

Research and Documentation of Ecovillage at Ithaca

EVI is one of the best-studied ecovillages in the world, and we make a lot of information about the community publicly available. We currently have nineteen documents about the community in the publications section of our website.¹ Several additional studies are summarized in the document “EVI in Publications,” found in the same location. This document includes three books, seven academic journal articles, eleven dissertations, and a few miscellaneous publications. A webpage entitled “Short Articles” contains links to ten newspaper or magazine articles with significant content about EVI.² The website includes additional information on the various neighborhoods, educational activities, village-based businesses, links to other sites, and a virtual photo-tour of the community. Twelve newsletters covering parts of the period from 2000 to 2009 are posted on the site, as well.³ Printed copies of newsletters from 1995 to 1999 and some annual reports are available at the physical EVI location. Internally, EVI has a large electronic archive of the minutes from the all-village meetings, the various neighborhood meetings, the educational center board, and from several of the standing and ad hoc committees that make up the self-management activities of the community. The archive also contains all the emails ever sent out through the several LISTSERVs. Neither the minutes nor the emails have ever been analyzed.

What Have Researchers Studied and Not Studied at EVI?

Research has centered on two major aspects of EVI: the degree of environmental sustainability and the nature of community life. Research has been mostly qualitative, but a couple of quantitative studies have also been conducted.

The Degree of Sustainability

The World Commission on Environment and Development—also known as the “Brundtland Commission,” after its chairperson—defined sustainability as meeting “the needs of the present without compromising the ability of future generations to meet their own

1 See http://ecovillageithaca.org/evi/index.php?option=com_docman&Itemid=83.

2 See http://www.ecovillageithaca.org/evi/index.php?option=com_docman&task=cat_view&gid=47&Itemid=83.

3 See http://ecovillageithaca.org/evi/index.php?option=com_docman&task=cat_view&gid=39&Itemid=83.

needs.”⁴ In their report, entitled *Our Common Future*, they elaborated, “At a minimum, sustainable development must not endanger the natural systems that support life on Earth: the atmosphere, the waters, the soils, and the living beings.”⁵ Echoing this, the Ecovillage at Ithaca mission statement reads as such: “To promote experiential learning about ways of meeting human needs for shelter, food, energy, livelihood, and social connectedness that are aligned with the long-term health and viability of Earth and all its inhabitants.”

So, how much sustainability has the EVI experiment achieved? According to EVI Co-founder and Director Liz Walker, the community has made significant steps in the direction of sustainability. She outlines these steps in her book *Ecovillage at Ithaca: Pioneering a Sustainable Culture* (2005), especially in chapter seven, “The ‘Eco’ in Ecovillage.” Walker claims that EVI emphasizes a simple, affordable energy savings strategy over costly state-of-the-art technology and facilities. This makes the accomplishments more replicable in other communities.

In the book, she identifies the main sources of the reduction in EVI’s per capita Ecological Footprint, which is approximately 40 percent lower than the US average. (Ecological Footprint is defined as “the area of productive land and water ecosystems required to produce the resources that the population consumes and assimilate the wastes that the population produces, wherever on Earth the land and water is located.”⁶) The sources include the community’s location close to Ithaca City; on-site employment (i.e., within EVI); land use policies; water conservation practices; the local, organic vegetable and fruit farm, West Haven, and Kestrel’s Perch organic berry farm; green building strategies; car sharing and carpooling practices; and high levels of composting and recycling.

A document on the website entitled “FROG Energy Facts” summarizes (with complete references) a quantitative study by Moos et al. published in the *Journal of Urban Design* and a more-detailed Massachusetts Institute of Technology master’s thesis by Jason

4 The World Commission on Environment and Development, *Our Common Future* (New York: Oxford University Press, 1987), 43.

5 See note 4, pages 44–45.

6 See <http://www.sustainable-scale.org/conceptualframework/understandingscale/measuringscale/ecologicalfootprint.aspx>.

Figure 2:
Labor Day 2009
"Weed-n-Feed"
on the organic
farm. Residents
who volunteer to
weed for three
hours during the
day get a pasta
dinner from the
farmer, also
a community
resident.



Brown.⁷ FROG refers to the First Resident Group—that is, the first neighborhood of 30 houses. According to this research, in the year 2002 FROG used 37.5 percent fewer BTUs per person in heating and cooking, 71 percent less water, 41 percent less electricity, and had an Ecological Footprint of 56 percent below the US average.⁸ A separate study, conducted by Cornell University students, found the EVI Ecological Footprint to be 45 percent below the US average in 1998.⁹ Even so, the 2002 EVI (partial) Ecological Footprint of 4.25 ha is 2.4 times the 2007 biocapacity figure for earth, 1.8 global ha.¹⁰ A two-part slideshow entitled “EVI as a Laboratory for Sustainability,” which contains much of this information and related photos, can be found on the EVI website. Some energy research conducted on SONG, the second neighborhood, indicates similar heating and electrical usage patterns, but this has not been published or posted. More detailed and recent studies of our footprint would be useful in evaluating the accomplishments and limitations of the EVI experiment. It would also be of interest to see how much EVI residents talk about and/or act toward decreasing our footprint. The December 2011 installation of

7 See http://ecovillageithaca.org/evi/index.php?option=com_docman&task=doc_download&gid=34&Itemid=77; Moos et al., “Does Design Matter? The Ecological Footprint as a Planning Tool at the Local Level,” *Journal of Urban Design* 11, no. 2 (2006): 195–224; and Jason R. Brown, “Comparative Analysis of Energy Consumption Trends in Co-housing and Alternate Housing Arrangements,” (master’s thesis, MIT, 2004).

8 Moos et al., “Does Design Matter.”

9 Minott et al., “Preliminary Ecological Footprint Analysis of EcoVillage at Ithaca.” (unpublished manuscript, 1999).

10 Moos et al., “Does Design Matter,” 215.

a neighborhood photovoltaic array that will produce about 52 percent of FROG home electricity needs, along with an array placed last year on the FROG common house, could have a significant impact on the footprint. A doctoral dissertation currently in progress that is using the life cycle assessment technique to estimate ecological footprint tentatively indicates that the footprint with the new photovoltaic array has declined to 70 percent below the US average.¹¹ However, the loss of our Ithaca Carshare car, as a result of insufficient use, means that car ownership and usage per person may have increased since Walker's book, which could offset any gains from the solar array. As is evident, relevant time series studies are lacking at EVI.

The Nature of Community Life

As an intentional community, EVI attracted a number of political activists and idealists who saw closer community ties as an end in themselves. Community solidarity can also influence environmental variables in at least two ways. Firstly, closer community ties can function to partly replace the materialistic addiction to products as a means of life satisfaction. Secondly, solidarity can lead to community practices that directly lessen the footprint. For example, the two on-site organic farms and the winter root vegetable cooperative reduce total community travel to supermarkets. Community dinners involve one shopping trip instead of up to 60, along with more efficient use of stoves, water, and dish-washing supplies. Car sharing and the almost daily "ride-wanted" emails reduce pressure to purchase additional vehicles. To date, no researchers have looked systematically into these aspects of EVI.

Consensus, Committees, and Community Self-Management

Several chapters in Walker's book deal with the processes and events in building community life. She covers both the rewards and disappointments. Former New York University psychology graduate student Andy Kirby's 2004 dissertation analyzes the overall psychological responses to trying to build community, including attitudes towards consensus decision-making. Consensus is the focus of Buckwalter's dissertation and appears as a major component in the dissertations by Fischetti and Breton. Breton also takes up the larger structural consequences of the problems inherent in consensus, as well as the contradiction between EVI's stated goal of being an educational site and its lack of regular,

¹¹ Walker has some details of this study in her essay "Coming of Age: 21 Years of Ecovillage Planning and Living," *Communities Magazine* 156 (2012).

comparable data production over time. She also questions whether the easy admissions process for those who buy houses at EVI might make it harder to carry forward the reduction of the Ecological Footprint. Whitfield elaborates on the data problems and identifies a number of limitations on EVI's ability to reduce its Ecological Footprint in the future. Fischetti and, especially, Chitewere examine attitudes and practices towards consumerism and the challenges EVI faces in reducing the extravagances of US middle class life. This is important because Moos et al. note that consumption (as opposed to neighborhood design and building construction practices) is a major component of the American footprint.¹² The failure in 2009 to maintain the onsite car-share is evidence of the difficulty the community faces in pushing down its footprint and suggests some validity to the observations of these authors. Chitewere and Taylor push this point further, arguing that EVI residents tend to see their sustainability mostly in terms of middle class consumption practices internal to the village, thereby limiting their awareness of and actions in support of the social justice and environmental justice movements that take place outside.¹³ They support their argument with an analysis of the content of EVI newsletters, showing an alleged paucity of social justice articles.

A different aspect of community life is the potential tension between individual space and personal growth versus the demands for participation and at least a certain amount of conformity. This is studied by Kirby and is the focus of Holleman's dissertation. Some material on this appears in Walker's book, as well.

Walker emphasizes the role of community-created traditions in building community solidarity. These include "guys baking pies," "women goin' swimmen," a maypole winding dance, and other rituals that bring community members together to reaffirm their solidarity. Some informal observations suggest a weakening of these traditions—e.g., "guys baking pies" did not take place for two years, and participation in some other traditions may be declining.

A decline in participation rates and enthusiasm for the community aspect of life at EVI would be consistent with the analysis of sociologists Mayer Zald and Roberta Ash. In

12 Moos et al., "Does Design Matter," 205–06.

13 Tendai Chitewere and Dorceta E. Taylor, "Sustainable Living and Community Building in Ecovillage at Ithaca: The Challenges of Incorporating Social Justice Concerns into the Practices of an Ecological Cohousing Community," in "Environment and Social Justice: An International Perspective," ed. Dorceta E. Taylor, special issue, *Research in Social Problems and Public Policy* 18 (2010): 141–76.

their classic 1966 paper “Social Movement Organizations: Growth, Decay and Change,” Zald and Ash use the concept of “routinization of charisma,” developed by the famous German sociologist Max Weber.¹⁴ That is, social movements begin with excitement, enthusiasm, and energy, but have an inherent tendency—over time and as they interact with the other forces in society—to become more routine. They shift from goal orientation to organizational maintenance.



Figure 3:
Community
maypole ceremony,
May Day, 2010.

Thus, has the initial energy for community-reinforcing activities at EVI—such as endless meetings and participatory decision-making, deepening groups where residents explore their feelings towards each other in great detail, and group music-listening evenings—begun to give way to more preoccupation with the concerns of individual households? Do fewer residents eat at community dinners and volunteer to cook? Are community events less well-attended and, instead, is more of community life experienced as a set of emails or an occasional shared ride to town? Some residents perceive greater and greater difficulty getting quorums for decisions at neighborhood and village meetings. It is harder to recruit officers and board members. As Walker put it in an article for *Communities Magazine*,

Another challenge we are facing is how to keep the energy going for the long term. After 15 years of living in community, we are currently facing a problem of burnout. It is often hard to make the quorum for our monthly village meetings, our work teams sometimes don't have enough participation, and many community meals (there are four dinners a week) have low attendance. What is wrong? We've been trying to figure it out.¹⁵

14 Mayer Zald and Roberta Ash, “Social Movement Organizations: Growth, Decay and Change,” *Social Forces* 44 no. 3 (1966): 327–41.

15 Walker, “Coming of Age,” 39, http://communities.ic.org/articles/1588/Coming_of_Age.

The gradual departure or death of founding members leads to replacement by new residents who did not experience the initial idealistic surge that brought the community into being. On the other hand, Walker speculates that the infusion of new members could help overcome the burnout she feels long term residents are experiencing. These varying perceptions could provide an interesting research topic, one that has relevance for the general understanding of intentional communities.

But is EVI being routinized? Are meetings actually less well-attended, or is that just a perception of a few overly-critical observers? The data have yet to be analyzed. The nature of the changes taking place in the community would provide useful information for others setting up intentional ecological communities. Hard data are probably available in the archive of meeting minutes, and a fair assessment would require discussions with a representative sample, not just a few vocal interviewees.

On the positive side, for example, FROG neighborhood's new PV solar array is reducing our carbon footprint and will greatly reduce electricity costs. Residents have recently set up a new cooperative community garden along with the winter root cooperative mentioned above.¹⁶ Construction for the third neighborhood, which has been actively forming over the past three years, has begun. EVI has created an organic farming educational program called Groundswell that makes use of ten acres of our land for young farmer training, one of the common houses, and much of the community's time and energy.¹⁷ And several EVI residents played a role in the founding of the New Roots Charter School in Ithaca, where the curriculum emphasizes sustainability and social justice. We have an "Occupy" discussion group, and there are events at least once a month that involve residents in some kind of progressive political action or conversation. Recently a group sprang up to discuss alternative ways to manage ageing. In 2011, in collaboration with Tompkins County, EVI won a major grant from the US Environmental Protection Agency, in part to monitor the development of sustainable design and lifestyle in the new third neighborhood.¹⁸

16 Richard W. Franke, "Everyday and Spontaneous Cooperatives in an Ecovillage," *Grassroots Economic Organizing* 2, no. 7 (2011).

17 See <http://www.groundswellcenter.org/>.

18 Bill Chaisson, "Tompkins County, EcoVillage Win EPA Grant to Study Sustainable Housing Options," *Ithaca.com*, April 13, 2011.

Research and the Community: Collaboration, Indifference, Resentment

Perhaps a significant current weakness of research and the EVI community is the lack of any ongoing community discussions or actions in response to outside research. While residents mostly welcome researchers, as well as the approximately 400 tour participants each year, the research findings are not reported within the community in any regular way. The annual report and the annual meeting are possible venues

for such interaction, but nothing along these lines seems to be happening. The community newsletter is rarely published. A 2005 local community task force on energy withered away with little obvious impact; some activities were undertaken, but no evaluation was made and few records were kept. An all-day workshop on consensus decision-making in March 2010 appears headed for the same fate. Some residents say on occasion that they are tired of answering the same questions from outside researchers. Others have shifted the focus of their activities to downtown or county-wide social justice and sustainable community development. At the same time, most residents remain welcoming to researchers and enthusiastic about having our little ecovillage experiment made better known to the outside.



Figure 4:
The entrance to Rachel Carson Way, the main street at EVI, the bus stop at which has a living roof.

Possibilities for Future Research at EVI

Despite the large amount of data and analysis already gathered, EVI continues to offer researchers a wealth of opportunities to contribute to our understanding of environmental sustainability, the role of community in overcoming isolation and super individualism, and the potential for intentional community organizing to make life better in our age of ecological and economic crises. EVI is easy to access, onsite and fairly affordable accommodations are usually available, and participant observation is always welcomed. As with most communities, a researcher who stays more than a few days

eventually gains trust and familiarity, making the long questionnaire or in-depth interview easier to carry out. In addition to updates or follow-ups to existing studies that are more than a couple of years old, there is a plethora of possible topics that could benefit both EVI and the broader sustainability movement, including the following:

- What have been the main decisions and changes at EVI over any particular time period?
- What are the main mechanisms of self-management at EVI, and how might they be applied to other communities?
- What are the major sources of conflict at EVI, and how effectively are they dealt with?
- How effective has the Land Partnership Committee been in developing sustainable land-use practices?
- How does the EVI committee structure function? How effective is it?
- What have been the barriers to affordability and diversity at EVI, and how has the community attempted to overcome these barriers?
- How is the third neighborhood impacting community life and sustainability at EVI?
- How do residents of the surrounding area—including the minority and low-income populations—perceive the EVI experiment?
- How much income inequality exists at EVI, and what policies are in place or could be envisioned to reduce it?
- What are the consequences, if any, of the material inequalities that exist?
- Has EVI become less energetic than in its early days in promoting sustainable lifestyles among its residents?
- What is EVI's Ecological Footprint today, and what changes have occurred since previous estimates?
- How much mobility in residence has occurred at EVI over the years, and how are new residents different, if at all, from the founders?
- What options remain for EVI to reduce its Ecological Footprint?
- How much impact do the community dinners and the onsite farms have on EVI's Ecological Footprint?
- Which of EVI's designs and/or practices have the greatest potential for replication in other neighborhoods or communities, and why?
- Is community life at EVI having any measurable impact on consumption patterns that would distinguish it from regular suburban life in the United States?
- How are EVI residents approaching the problem of ageing? What programs have they developed, and how effective are they?

Other researchers will undoubtedly come up with additional ideas for research at EVI, which our community will certainly welcome. We look forward to their questions and their findings.

Bibliography of Major Publications about Ecovillage at Ithaca

Books or Chapters in Books

Dawson, Jonathan. "Ecovillages and the Transformation of Values." *2010 State of the World—Transforming Cultures: From Consumerism to Sustainability*, edited by Worldwatch Institute, 185–90. New York: W. W. Norton and Company, 2010. Specific mention of EVI's 40% reduction in energy consumption and the educational programs in concert with Cornell and with Ithaca College.

McKibben, Bill. *Deep Economy: The Wealth of Communities and the Durable Future*. New York: Times Books, 2007. On pages 155–58, he discusses EVI and Yoff, an EVI Sister Village in Senegal; based on a visit in 1996 and on Liz Walker's book.

Walker, Liz. *Ecovillage at Ithaca: Pioneering a Sustainable Culture*. Gabriola Island, British Columbia: New Society Publishers, 2005.

———. "Weaving the Community Fabric" and "The Cycle of Life: Birth and Death in Community." In *Beyond You and Me: Inspiration for Developing Community*, edited by Kosha Anja Joubert and Robin Alfred, 58–64 and 205–09. Hampshire: Permanent Publications / Gaia Education, 2007. <http://www.gaiaeducation.net/docs/Beyond%20You%20&%20Me%20Ebook.pdf>.

———. "Bringing the Harvest Home: CSA Farming and Farmer Education at Ecovillage at Ithaca." In *Designing Ecological Habitats: Creating a Sense of Place*, edited by E. Christopher Mare and Max Lindegger, 118–23. East Meon, UK: Permanent Publications, 2011. For Gaia Education: <http://www.gaiaeducation.net/docs/4Keys%20-%20Designing%20Ecological%20Habitats.pdf>.

Journal and Magazine Articles

Allen-Gil, Susan, Liz Walker, Garry Thomas, Tom Shevory, and Elan Shapiro. "Forming a Community Partnership to Enhance Education in Sustainability." *International Journal of Sustainability in Higher Education* 6, no. 4 (2005): 392–402.

Breton, Prudence-Elise. "Ecovillages: How Ecological Are You?" *Communities* 143 (2009): 22–24.

Chitewere, Tendai. "Green Technology and the Design of a Green Lifestyle." *Humanities and Technology Review* 27 (2008): 87–105. http://htronline.weebly.com/uploads/5/1/4/3/5143156/2008_volume_27.pdf.

———. "Equity in Sustainable Communities: Exploring Tools from Environmental Justice and Political Ecology." *Natural Resources Journal* 50, no. 2 (2010a): 315–39. Pages 334 to 337 are specifically about EVI; many other references throughout the article.

Chitewere, Tendai, and Dorceta E. Taylor. "Sustainable Living and Community Building in Ecovillage at Ithaca: The Challenges of Incorporating Social Justice Concerns into the Practices of an Ecological Cohousing Community." In "Environment and Social Justice: An International Perspective," edited by Dorceta E. Taylor. Special Issue. *Research in Social Problems and Public Policy* 18 (2010b): 141–76. <http://www.emeraldinsight.com/books.htm?chapterid=1881443&show=abstract>.

Kasper, Debbie Van Schyndel. "Redefining Community in the Ecovillage." *Human Ecology Review* 15, no. 1 (2008): 12–24.

Kirby, Andy. "Redefining Social and Environmental Relations at the Ecovillage at Ithaca: A Case Study." *Journal of Environmental Psychology* 23 (2003): 323–32.

Moos, Markus, Jason Whitfield, Laura C. Johnson, and Jean Andrey. "Does Design Matter? The Ecological Footprint as a Planning Tool at the Local Level." *Journal of Urban Design* 11, no. 2 (2006): 195–224.

Walker, Liz. "Coming of Age: 21 Years of EcoVillage Planning and Living." *Communities Magazine* 156 (2012): 36–40. http://communities.ic.org/articles/1588/Coming_of_Age.

Willett, Allegra. "Growing Up in Ecovillage at Ithaca." *Communities Magazine* 156 (2012): 41. An article about childhood memories.

Dissertations

Blouin, Michael. "The Urban Ecovillage Experiment: The Stories of Six Communities that Hoped to Change the World." BA diss., Pomona College, 2007.

Breton, Prudence-Elise. "Organizing for Sustainability at a Small Scale: A Case Study of an Ecovillage." Master's thesis, The University of Northern British Columbia, 2009.

- Brown, Jason R. "Comparative Analysis of Energy Consumption Trends in Co-housing and Alternate Housing Arrangements." Master's thesis, MIT, 2004.
- Buckwalter, Corry C. "The Contribution of Consensus-Building to Participatory Design: A Case Study of Ecovillage at Ithaca." Master's thesis, Cornell University, 1994.
- Chitewere, Tendai. "Constructing a Green Lifestyle: Consumption and Environmentalism in an Ecovillage." PhD diss., State University of New York in Binghamton, 2006.
- Fischetti, Diana Michelle. "Building Resistance from Home: Ecovillage at Ithaca as a Model of Sustainable Living." Master's thesis, University of Oregon, 2008.
- Guinther, Lindsey Lawry. "Cohousing: Its Characteristics, Evolution, and Emerging Typologies." Master's thesis, University of Cincinnati School of Architecture and Interior Design, 2008.
- Holleman, Mirjam. "Individuality in Community at the EcoVillage at Ithaca." Master's thesis, VU (Free University), Amsterdam, 2011. http://ecovillageithaca.org/evi/index.php?option=com_docman&task=doc_download&gid=36&Itemid=83.
- Jovic, Emily V. "Lighter Footprints: Quality of Life Correlates, Mindfulness, and the Sustainability Movement." Master's thesis, University of Calgary, 2004.
- Kirby, Andy. "Self in Practice in an Ecological Community: Connecting Personal, Social and Ecological Worlds in the Ecovillage at Ithaca." PhD diss., City University of New York, 2004.
- Whitfield, Jason. "Understanding the Barriers Encountered by Residents of Ecovillages." Master's thesis, University of Waterloo, 2001.

Miscellaneous Reports and Documents

- Franke, Richard W. "Everyday and Spontaneous Cooperatives in an Ecovillage." *Grassroots Economic Organizing* 2, no. 7 (2011). <http://geo.coop/node/617>.
- Hollick, Malcolm, and Christine Connelly. *Sustainable Communities: Lessons from Aspiring Ecovillages*. Australia: Praxis Education, 1998. Pages 39–42 are specifically about EVI.
- Kirby, Andy. "Domestic Protest: The Ecovillage Movement as a Space of Resistance." *Bad Subjects* (2004): 65. <http://bad.eserver.org/issues/2004/65/kirby.html>.

Minott, Stefan, Natalia Peranginangin, and Sun Shao. "Preliminary Ecological Footprint Analysis of EcoVillage at Ithaca." Unpublished manuscript, 1999.

Walker, Elizabeth. "Ecovillage at Ithaca: Principles, Best Practices and Lessons Learned," 2012. http://ecovillageithaca.org/evi/index.php?option=com_docman&task=doc_download&gid=49&Itemid=77. Prepared for the US Environmental Protection Agency's Climate Showcase Communities Grant.

Websites with Further Information about EVI

Chaisson, Bill. "Tompkins County, EcoVillage Win EPA Grant to Study Sustainable Housing Options." *Ithaca.com*, April 13, 2011. http://www.ithaca.com/news/article_71585b2a-65dc-11e0-b2f5-001cc4c002e0.html. Article in local press about the EPA grant.

NAHB Research Center. "TechPractices: EcoVillage at Ithaca, Ithaca, NY." <http://www.toolbase.org/Home-Building-Topics/Indoor-Air-Quality/EcoVillage-at-Ithaca>. Architect and builder description of the technical aspects of the FROG heating system.