

Rachel Carson Center

Perspectives

How to cite:

Wagner, Felix. "Ecovillage Research Review." In: "Realizing Utopia: Ecovillage Endeavors and Academic Approaches," edited by Marcus Andreas and Felix Wagner, *RCC Perspectives* 2012, no. 8, 81–94.

All issues of *RCC Perspectives* are available online. To view past issues, and to learn more about the Rachel Carson Center for Environment and Society, please visit www.rachelcarsoncenter.de.

Rachel Carson Center for Environment and Society
Leopoldstrasse 11a, 80802 Munich, GERMANY

ISSN 2190-8087

© Copyright is held by the contributing authors.

SPONSORED BY THE



Federal Ministry
of Education
and Research

Deutsches Museum 



Felix Wagner

Ecovillage Research Review

Research on ecovillages is still a relatively young phenomenon. This is not particularly surprising, given the fact that the term “ecovillage” first came into use during the 1990s. Defining ecovillage research as a specific field that is distinct from research into other forms of intentional communities is also a delicate task. These two factors have probably contributed to the absence thus far of a comprehensive review of the state of research on the subject. Most relevant academic papers offer insights into prior studies, but I am aware of none that offer a complete overview. This review is meant to contribute to filling that gap.

For the review, extensive key word searches were carried out on the Internet, in library catalogs, and in academic databases, the most important words being “intentional communities” and “ecovillages.” Initially this search led to few results. Using bibliographies from standard works in the field of community research was more productive. Based on this information, copies of the referenced sources were acquired. In a few cases it was not possible to access a copy; thus, these works were not included in the review. This search process continued until no new works could be discovered. The list acquired from that process was sent to leading academics in the field with the request that they supplement it with any works that had been missed.

I can make no claim to the completeness of this review, as there are undoubtedly works that were not found, particularly if they were not written in English or German.

Sifting Through the Literature

For the analysis, I incorporated only academic studies (a substantial number of popular and journalistic publications, as well as gray literature produced by the ecovillages themselves, also exist). I only considered the content of works concerned specifically with ecovillages or ecovillage-related aspects of other intentional communities. This

This essay was originally written in German and has been translated for *RCC Perspectives* by Brenda Black.

means I did not include works concerned with communities in general (i.e., community research), mostly older studies, in the analysis.

The explicit focus on ecological and social sustainability, which is a defining characteristic of ecovillages, arose in the 1990s. In earlier communities, of course, there had been efforts to live in ways that were ecological and in close contact with nature, but the specific sustainability focus accompanied the emergence of ecovillages. Also, some previously existing intentional communities have altered their focus over time and, therefore, are now considered ecovillages (for example, Findhorn Foundation and Twin Oaks). As already mentioned, it is not always easy to determine whether a particular community is an ecovillage or “merely” an intentional community. Since “ecovillage” is usually a self-designation, there is an increased likelihood of both false positives and false negatives when categorizing such communities.

Therefore, for the review I established clear criteria for determining which studies were to be included: studies specifically dedicated to ecovillages, which appeared in academic papers starting in the year 2000. Because of this decision, sometimes papers that contain relevant information were not considered, because they were written before the emergence of ecovillages. Among works published after 2000, some texts were included that are more closely related to the traditional literature on community studies.

Research about intentional communities is usually concerned with the social aspects of communities, how groups arise and remain together, what roles social bonds and commitments play (Kanter 1972), and how identity is created (Abrams et al. 1976). Also included in this area of research is the work of Zablocki (1980), who has investigated how collective decisions are made and how individuals contribute to the group. Metcalf (1986) focuses on recruitment, socialization, and commitment in communities. Greenberg (1993) studied how children grow up and are educated in intentional communities. All of these contributions to community research look at social themes relevant to ecovillages, but they lack a clear connection to sustainability, which extends beyond the concern with social matters. For this reason they were not included in this review.

A total of 59 studies were used. They were sorted according to date of publication, type of study, academic discipline, content, research questions, results, the communities that were studied, and their methodological implications.

Tallying up the Results

The consulted works can be divided into various types of academic studies, as depicted in Figure 1. Taken together, in the majority of cases the texts are theses submitted for an academic degree, with the largest part represented by master's (or diploma) theses. The number of doctoral dissertations has increased substantially in the last several years. The category "other" includes academic studies not already represented, such as unpublished or non-degree works, conference papers, and documents whose category was unclear.

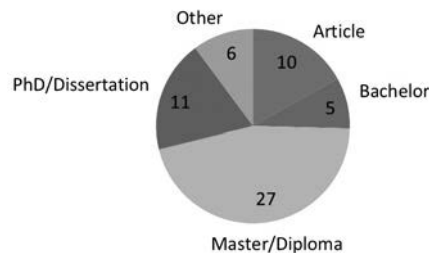


Figure 1: Overview of the types of consulted studies.

In Figure 2 the texts are sorted according to the year of publication. It shows clearly that the topic of ecovillages has been the subject of increasing interest to researchers in recent years. While there was a total of nine studies from the years 2000–2004, this number increased in the years 2005–2009 to 38, which is an increase of 322 percent.

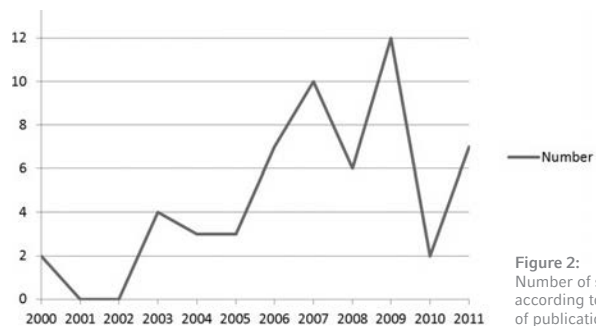


Figure 2: Number of studies according to year of publication.

Whether this trend will continue is difficult to predict at present. It remains to be seen whether the drop in 2010 to only two studies represents the decline of this surge of interest, or whether it is simply an outlier.¹ Furthermore, the count of seven studies from 2011 doesn't permit any definitive conclusions. It is possible that not all of the research from these years has appeared on the scene.

Number of Communities Studied and Methodological Orientation

Most of the works are case studies, which look at an average of 2.7 communities per study. More than half of these texts are case studies of one particular community. Of the studies that investigated a large number of examples, Meltzer (2000) is well at the

¹ I know of at least ten studies that are currently still in progress, which suggests that the trend has not taken an overall downward turn.

fore with 18, followed by Dümmler (2007) and Meijering (2006) with nine each. While the standard works of community research from before 2000 are generally quantitative studies with a large sample size, ecovillage research is generally qualitative. Exceptions are Meijering (2006), who analyzed a survey conducted among 496 communities, and Grundmann et al. (2003) who surveyed 113 communities. Additional quantitative studies have been concerned with energy consumption (Brown 2004) or other issues of consumption related to the “ecological footprint” (Simon 2004; Tinsley and George 2006), as well as evaluations of ecological sustainability (Bissolotti et al. 2006). There were also isolated quantitative studies of quality of life (Kiffmann 2009; Mulder et al. 2006). Among the comparative studies, those that compared individual communities were predominant. While direct comparisons with similar forms of habitation from other areas of society have so far been scarce, such comparisons can be found on the topics of energy use and consumption (Brown 2004; Simon 2004).

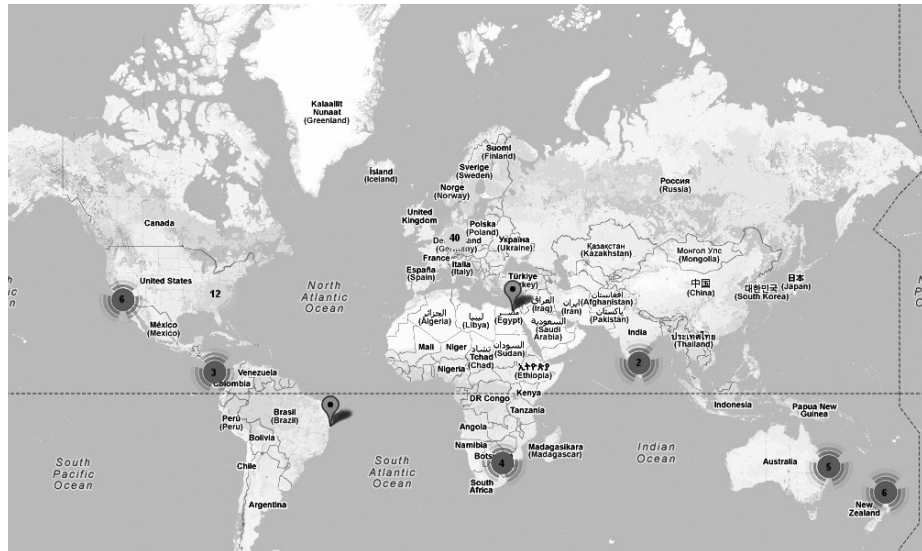


Figure 3:
Geographic
distribution of
the communities
examined in the
case studies.

Geographic Distribution of the Ecovillages

Figures 3 and 4 show the geographic distribution of the ecovillages examined by the reviewed works. The comparative studies with a large number of study objects are not included on the maps. The maps demonstrate that ecovillages exist around the globe, but appear mostly in industrialized nations strongly influenced by Western culture—

namely, in Europe (34) and in North America (19). Significant numbers are also situated in Australia, New Zealand, and South Africa. The large number found in Europe is not necessarily evidence of a particularly large amount of ecovillages worthy of study or of a particularly lively research community, but may be the result of selection bias, because the European research was more accessible to me.



Figure 4: Geographic distribution of the case studies in Europe.

Academic Discipline and Primary Thematic Concerns

The attempt to categorize the studies based on academic disciplines is made more difficult by the increasing diversity of bachelor's and master's degrees. Therefore, they were divided into broader thematic categories. The balance between the natural sciences, the humanities, and the social sciences is, to date, heavily in favor of the social sciences. Of the 59 studies, 49 took a social science or humanities approach. Only ten studies were categorized in the natural sciences (Bissolotti et al. 2006; Brown 2004; Dowling 2007; DePasqualin et al. 2008; Irrgang 2005; Mader 2009; Mayerhofer 2009; Tinsley and George 2006; Raberg 2007; Simon 2004).

1. Social Sciences and Humanities

The studies from the social sciences and the humanities realms can be divided into three categories: a) examinations of the perspectives of individuals, b) sociological investigations, and c) ethnological and cultural investigations. Most of the studies consider a number of common themes. First and foremost is the construction of the vision and mission—that is, the goals, intentions, and ideals being pursued—of each community (Bengis 2008; DePasqualin et al. 2008; Ergas 2010; Holmes 2006; Jones 2011; Mulder et al. 2006; Tolle 2011; van Schyndel Kaspar 2008; Wagner 2007; Wight 2008). Other recurring themes included the evaluation of how well these communities have accomplished their goals and the potential for transferability to other social contexts (i.e., model projects).

a) Perspectives of Individuals

Here, mostly psychological aspects came into play. Of primary interest were the motivations to become part of a community (Hübner 2009; Tolle 2011; Wagner 2007). Many studies were devoted to the effects of living in an ecovillage on the individual, including general considerations, such as their well-being or quality of life (Hübner 2009; Kiffmann 2005; Mulder et al. 2006; Simon 2004), and more specific aspects, such as sense of belonging (Kiffmann 2005; Sluiter 2007) and the relationship between humans and nature (Kirby 2003; 2009; Moore and Wight 2007; Wight 2008). Related to this, the construction of identity (Bohill 2010; Fischetti 2008; Kirby 2009; Sluiter 2007) and personality development (Wagner 2008) were also considered. In part, these studies also looked at difficulties individuals in ecovillages face, a topic that is considered explicitly in Dümmler (2007). The Internet survey conducted by Matthias Grundmann et al. (2011) provided demographic information and individual views of the community, as well as the experience of life in communal contexts.

b) Sociological Investigations

These texts included, first of all, research concerned with the sociological phenomenon of “the community” (Grundmann et al. 2006). Among these are efforts to create a typology and categorization of communities (Meijering 2006), as well as to generate systematic descriptions (Dierschke 2003). Much attention was dedicated to the emergence of communities, their transformation over time, and their dissolution (Dierschke 2003; Forster and Wilhelmus 2005; Moore and Jones 2011; Jones 2011; Kirby 2003; Meijering 2006; Meijering et al. 2007).

In addition to investigations of the communities as a sociological category, there are also theoretical approaches concerned with their organization. These studies looked at the structure and functionality of their organization as a whole (Brenton 2009; Dierschke 2003; Holmes 2008; Kunze 2003, 2009) and in relation to specific aspects such as decision-making (Jonna et al. n.d.; Kiffmann 2009; Kunze 2003, 2009; Yilmaz et al. 2011) or the admittance and integration of new members (Bengis 2008; Dierschke 2003; Kunze 2003).

The use of technology was also investigated—the state of technology in general (Moore and Wight 2007), as well as specific forms, such as communications technology (Nathan 2009). Communication systems based on interpersonal contact were studied at the community of Auroville (Schwarzin 2010).

Many studies were concerned with the “classic” sociological theme of the balance between the individual and the collective (Forster and Wilhelmus 2005; Holleman 2011; Jones 2011; Kunze 2009; Meltzer 2000). Other recurrent topics were the reconstruction of values and group norms (Nathan 2009; Wagner 2007; Wight 2008), as well as attempts to explain underlying worldviews (van Schyndel Kaspar 2008; Wagner 2008).

In addition to descriptive treatments, there were also various attempts to evaluate how well the ecovillages have accomplished their goals from a sociological perspective (DePasqualin et al. 2008; Ergas 2010; Irrgang 2005; Kunze 2003; Kirby 2003; Mulder et al. 2006). So far these have been largely interpretive; a structured and validated form of evaluating ecovillages is yet to be developed.

Particularly relevant are questions about ecovillages as models or examples, and whether their characteristics can be transferred to other social contexts. Kunze (2009) attempted to determine principles for social sustainability and came up with the following: implementation of sustainability goals, balance between the individual and collective, flexible and responsive organizational principles, the ability to develop, and social and ecological town planning.

Blouin (2007) investigated the question of whether the concept of the ecovillage can be transferred to urban spaces, and if so, how. He concludes that ecovillages cannot serve as models for transforming the entire paradigm of industrialized society, but rather for sustainable solutions at a local level. Other studies concerned with this topic include Centgraf 2009; Dierschke 2003; Fischetti 2008; Grizzuti 2009; Irrgang 2005; Kunze 2003, 2009; Rummer 2005; Sizemore 2004; Simon 2004; and Stüwe 2009.

In order to function as a model, a community must continue proven cultural traditions,² while also exploring and testing new ways of living. In transferring knowledge to a broader social context, academic research could help greatly by collecting applicable knowledge from such “experimental places” (Kunze 2003, 2009; Wagner 2008) and guaranteeing greater internal and external validity. So far, little research of this kind has happened, but the amplifying calls for “trans-disciplinary approaches” and “transformation research,”³

2 Cultural traditions in a wider sense, including also technological and organizational aspects.

3 At least in Germany.

as well as citizen-driven projects that aim to collaborate with academia (e.g., Projekt Lebensdorf⁴), offer hope.

The impact of ecovillages and their interactions with the surrounding region was another frequent topic of study (Centgraf 2009; Joukhi 2006; Meijering et al. 2007; Rummer 2005; Sluiter 2007; Tolle 2011). Shaw (2009) examined a very specific aspect of this: the emotions and conflicts behind the local opposition to the establishment of an ecovillage project in southwest Wales.

Finally, economic studies are almost nonexistent, with Kunze (2003), who at least considered the economic perspective, as an exception.

c) Ethnological and Cultural Investigations

Strictly speaking, all of the case studies took, at least methodologically, an ethnological approach in the form of “participant observation,” in which the culture (in the sense of the life world) and the everyday lives of the people in the groups examined are described. Among these studies are attempts to describe these cultures and their context in a structured manner, and to determine what form the interaction between the individual and the group takes (Chitewere 2006; Dierschke 2003; Kiffmann 2009; Kirby 2009; Meltzer 2000; Moore and Wight 2007; Sanguinetti 2012). Strünke (2000) examined the supposed connection between autonomy and ecological behavior and concluded that this correlation can be observed in communities.

Cultural studies approaches included examinations of the societal position of ecovillages, similar to the sociological discussions, which considered whether they can be regarded as models and experimental spaces. Concepts used here included ecovillages as utopian places (Bohill 2010; Lockyar 2007) and as manifestations of “counterculture.” The latter has turned into the concept of “space of resistance” in the most recent research (Fischetti 2008; Lockar 2007; Meijering et al. 2007).

d) Architectural and City Planning

At the junction of the social and natural sciences are investigations of city planning and architecture, as treated in the studies of Loezer (2011) and Tolle (2011), who were interested in sustainable city planning processes.

4 See <http://lebensdorf.net>.

2) Natural Sciences

Studies coming from the natural science perspective were concerned with areas of ecological sustainability, such as energy consumption (Brown 2004), energy supply (Mayrhofer 2009), additional aspects of production (e.g., DePasqualin et al. 2008 on the degree of self-sufficiency), and ecological footprints (Bissolotti et al. 2006; Tinsley and George 2006; Simon 2004). Dowling (2007) looked at sustainable methods of water management in a South African ecovillage. Raberg (2007) examined biodiversity in an ecovillage whose structure and practices are based on permaculture principles. As a general rule, the evaluative studies credit ecovillages with good ecological performance, but also point out areas where there is room for improvement.

For example, the study by Simon et al. (2004) showed that residents of the three examined communities (Ecovillage Sieben Linden, Commune Niederkaufungen, and LebensGut Pommritz) had significantly lower greenhouse gas emissions than the average German citizen. The levels of emissions of the residents of Ecovillage Sieben Linden and Commune Niederkaufungen were also significantly less than those of members of the average ecologically conscious family outside an ecovillage. The study also pointed out that, despite the good performance of the investigated ecovillages, there is still more to be done to make them really ecologically sustainable.

As already mentioned, there have so far been few studies conducted from the perspective of the natural sciences. This is probably due mostly to the fact that ecovillages are viewed primarily as social communities (and this is also their main source of attraction).

Looking Ahead

Research about ecovillages is a growing field of interest. Various topics have already been raised and relevant findings documented, but there is still a need to connect these results and design further steps for structuring the research field. To address this need, Research in Community (see the following essay) created a database, which is now running in a beta version and welcomes new contributions and corrections (visit www.researchincommunity.net). This is seen as a step to overcome the clear deficit in the evaluation of ecovillages' performance and their relevance to other social contexts.

Bibliography

- Abrams, P., A. McCulloch, S. Abrams, and P. Gore. 1976. *Communes, Sociology and Society*. Cambridge: Cambridge University Press.
- Bengis, L. 2008. "Preliminary Community Formation and the Setting of Boundary Markers in Khula Dhamma Eco-Community, Eastern Cape." Bachelor's thesis, Rhodes University.
- Bissolotti, P. M. A., A. G. Santiago, and R. de Oliveira. September 2006. "Sustainability Evaluation in Ecovillages." Presented at PLEA2006: the 23rd Conference on Passive and Low Energy Architecture, Geneva, Switzerland.
- Blouin, M. 2007. "The Urban Ecovillage Experiment: The Stories of Six Communities that Hoped to Change the World." Bachelor's thesis, Pomona College.
- Bohill, R. R. 2010. "Intentional Communities: Ethics as Praxis." PhD diss., Southern Cross University.
- Brenton, P.-E. 2009. "Organizing for Sustainability at a Small Scale: A Case Study of an Ecovillage." Master's thesis, University of Northern British Columbia.
- Brown, J. R. 2004. "Comparative Analysis of Consumption Trends in Cohousing and Alternate Housing Arrangements." Master's thesis, Massachusetts Institute of Technology.
- Castrejon Cardenas, C. 2007. "A Simple Life? The Symbolic Significance of Environmentalism in the Construction of a Community Case Study in the Ecovillage of Las Nubes in Veracruz, Mexico." Master's thesis, University of Tromsø.
- Centgraf, S. 2009. "Ökodörfer bauen!': Regionale Effekte nachhaltiger Modellsiedlungen—Eine Fallstudie im 'Ökodorf Sieben Linden' als Beitrag zur Projektstudie des Vereins Keimblatt Ökodorf." Diplomarbeit, Leibzig.
- Chitewere, T. 2006. "Constructing a Green Lifestyle: Consumption and Environmentalism in an Ecovillage." PhD diss., State University of New York at Binghamton.
- DePasqualin, L., M. Haid, L. Krainz, and B. Mandl. 2008. "Systemmodell 'Ökodorf,' Arbeitsgruppe 2." In *Nachhaltigkeit Veränderungsprozesse in Regionen: Berichte aus den Umweltsystemwissenschaften*, edited by Koordinationsbüro für Umweltsystemwissenschaften. Graz: Karl-Franzens-Universität.
- Dierschke, T. 2003. "Intentionale Gemeinschaften: Ziele, Kultur und Entwicklung am Beispiel zweier Gemeinschaften." Magisterarbeit, Münster.

- Dowling, T. J. 2007. "Sustainable Development in Water and Sanitation: A Case Study of the Water and Sanitation System at the Lynedoch EcoVillage." Master's thesis, University of Stellenbosch.
- Dümmler, A. 2007. "Einfach anders leben!? Schwierigkeiten in liberalen Intentionalen Gemeinschaften aus persönlicher Sicht." Magisterarbeit, Freiburg im Breisgau.
- Ergas, C. 2010. "A Model of Sustainable Living: Collective Identity in an Urban Ecovillage." *Organization & Environment* 23 (1): 32–54.
- Fischetti, D. M. 2008. "Building Resistance from Home: Ecovillage at Ithaca as a Model of Sustainable Living." Master's thesis, University of Oregon.
- Forster, P. M., and M. Wilhelmus. 2005. "The Role of Individuals in Community: Change Within the Findhorn Intentional Community." *Contemporary Justice Review* 8, 367–79.
- Fotopoulos, T. 2000. "The Limitations of Life-Style Strategies: The Ecovillage 'Movement' is NOT the Way towards a New Democratic Society." *Democracy & Nature* 6 (2): 287–308.
- Greenberg, D. B. 1993. "Growing Up in Community: Children and Education Within Contemporary U.S. Intentional Communities." PhD diss., University of Minnesota.
- Grizzuti, M. P. 2009. "Ecovillage Torri Superiore: Promoting a Sustainable Model for an Alternative Society through Tourism." Master's thesis, King's College London.
- Grundmann, M. 2006. *Soziale Gemeinschaften: Experimentierfelder für kollektive Lebensformen*. Berlin: LIT.
- Grundmann, M., and I. Kunze. 2011. *Eine Internetbefragung zum Thema Gemeinschaft*. Universität Münster. http://www.unimuenster.de/Soziologie/forschung/gemeinschaftsforschung/docs/internetbefragung_2011.pdf.
- Holleman, M. 2011. "Individuality in Community: At the Ecovillage of Ithaca." Master's thesis, Vrije Universiteit Amsterdam.
- Holmes, V. 2006. "A Critical Analysis of the Gqunube Green Ecovillage Project." Master's thesis, University of Stellenbosch.
- Hübner, S. 2009. "Wohlbefindensverständnis und Motivation von Personen in ökologisch orientierten Gemeinschaftsprojekten: Eine Interviewstudie." Diplomarbeit, Technische Universität Berlin.
- Irrgang, B. 2005. "A Study of the Efficiency and Potential of the Ecovillage as an Alternative Urban Model." Master's thesis, University of Stellenbosch.

- Jones, O. 2011. "Keeping It Together: A Comparative Analysis of Four Long-Established Intentional Communities in New Zealand." PhD diss., University of Waikato.
- Jonna, R., J. Neff, G. Livingston, E. Giles, and D. Stutzman. n.d. "Ecovillage and Urban Change in the US: A Comparison of Urban and Suburban Ecovillages." Master's thesis, University of Oregon.
- Jouhki, J. 2006. "Imaging the Other: Orientalism and Occidentalism in Tamil-European Relations in South India." PhD diss., University of Jyväskylä.
- Kanter, R. M. 1972. *Commitment and Community: Communes and Utopias in Sociological Perspective*. Cambridge: Harvard University Press.
- Kiffmann, V. 2009. "Social Sustainability in Neighborhoods: The Effects of a Social Design and Participatory Decision Making on Residential Quality of Life." Master's thesis, Rijksuniversiteit Groningen.
- Kirby, A. 2003. "Redefining Social and Environmental Relations at the Ecovillage at Ithaca: A Case Study." *Journal of Environmental Psychology* 23: 323–32.
- . 2009. *Self in Practice in an Ecological Community: Connecting Personal, Social, and Ecological Worlds at the Ecovillage at Ithaca*. Saarbrücken: VDM Verlag.
- Kunze, I. 2003. "Bildet Gemeinschaften—oder geht unter: Eine Untersuchung selbstverwalteter, subsistenter Gemeinschaftsprojekte und Ökodörfer in Deutschland—Modelle für eine zukunftsfähige Lebensweise?" Diplomarbeit, Münster.
- . 2009. *Soziale Innovationen für eine zukunftsfähige Lebensweise: Gemeinschaften und Ökodörfer als experimentierende Lernfelder für sozial-ökologische Nachhaltigkeit*. Münster: ecotransfer.
- Kunze, I., M. Grundmann, and S. Drucks. 2003. *Fragebogenstudie 2003: Ergebnisse des Fragebogens an Soziale Ergebnisse des Fragebogens an Soziale Gemeinschaften und Klöster in der BRD*. Universität Münster. http://www.unimuenster.de/Soziologie/forschung/gemeinschaftsforschung/docs/gemforsch_Fragebogen2003Web.pdf.
- Lindsey, L. G. 2008. "Cohousing: Its Characteristics, Evolution, and Emerging Typologies." Master's thesis, University of Cincinnati.
- Lockyer, J. P. 2007. "Sustainability and Utopianism: An Ethnography of Cultural Critique in Contemporary Intentional Communities." PhD diss., University of Arizona.
- Loezer, L. 2011. "Enhancing Sustainability at the Community Level: Lessons from American EcoVillages." Master's thesis, University of Cincinnati.

- Mader, C. 2009. "Principles for Integrative Development Processes Towards Sustainability in Regions: Cases Assessed from Egypt, Sweden and the USA." PhD diss., University of Graz.
- Mayerhofer, F. 2009. "Potentiale der nachhaltigen umweltverträglichen Energieversorgung in der Oststeiermark und im Südburgenland unter besonderer Berücksichtigung des Projektes 'Keimblatt Ökodorf.'" Bachelor's thesis, FH Oberösterreich.
- Meijering, L. 2006. "Making a Place of Their Own: Rural Intentional Communities in Northwest Europe." PhD diss., Groningen.
- Meijering, L., B. van Hoven, and P. Huigen. 2007. "Constructing Ruralities: The Case of the Hobbitstee, Netherlands." *Journal of Rural Studies* 23: 357–66.
- Meltzer, G. 2000. "Cohousing: Toward Social and Environmental Sustainability." PhD diss., University of Queensland.
- Metcalf, W. J. 1986. "Dropping Out and Staying In: Recruitment, Socialisation and Commitment: Engenderment within Contemporary Alternative Lifestyles." PhD diss., Griffith University.
- Moore, K., and A. Wight. 2007. "Nature, Culture and Machines in the Ecovillage Movement." University of Cincinnati.
- Mulder, K., R. Costanza, and J. Erickson. 2006. "The Contribution of Built, Human, Social and Natural Capital to Quality of Life in Intentional and Unintentional Communities." *Ecological Economics* 59: 13–23.
- Nathan, L. P. 2009. "Ecovillages, Sustainability, and Information Tools: An Ethnography of Values, Adaptation, and Tension." PhD diss., University of Washington.
- Raberg, T. 2007. "Permaculture Design in an Ecovillage: In Theory and Practise." Bachelor's thesis, Swedish University of Agricultural Sciences.
- Rietzler, K. 2012. "The Role of Scientific Knowledge and Other Knowledge Types in Grassroots Sustainability Initiatives: An Exploratory Case Study of a Low Impact Development Eco-village in Wales." Master's thesis, Universität Freiburg.
- Rummer, J. 2005. "Gemeinschaftsorientierte Wohnprojekte und ihre Innovationspotenziale in strukturschwachen ländlichen Räumen Ostdeutschlands." Diplomarbeit, Humboldt-Universität, Berlin.
- Sanguinetti, A. 2012. "The Design of Intentional Communities: A Recycled Perspective on Sustainable Neighborhoods." *Behavior and Social Issues* 21: 5–25.

- Schwarzin, L. 2011. "Dialogic Interaction for Sustainability: Exploring Complexities and Factors that Shape Interactive Processes." Master's thesis, Wageningen University.
- Shaw, K. 2009. "Lammas—A Pioneering Low Impact Development: Conflict and Emotion: Exploring the Feelings and Needs Behind Local Opposition to Lammas, A Proposed Ecovillage to be Developed Near the Southwest Wales Village of Glandwr." Bachelor's thesis, University of Wales.
- Simon, K.-H., A. Matovelle, D. Fuhr, K.-P. Kilmer-Kirsch, and P. Dangelmeyer. 2004. *Zusammenfassender Endbericht zum Vorhaben "Gemeinschaftliche Lebens- und Wirtschaftsweisen und ihre Umweltrelevanz."* Kassel: Universität Kassel.
- Sizemore, S. 2004. "Urban Eco-villages as an Alternative Model to Revitalizing Urban Neighborhoods: The Eco-village Approach of the Seminary Square/Price Hill Eco-village of Cincinnati, Ohio." Master's thesis, University of Cincinnati.
- Sluiter, T. 2007. "Intentional Communities: Creating Alternative Lifestyles in Search of a Better World." Master's thesis, Vrije Universiteit Amsterdam.
- Strünke, C. 2000. "Selbstbestimmung und Umwelterhaltung: Eine empirische Untersuchung zum Zusammenhang von Autonomie und Nachhaltigkeit am Beispiel alternativer Lebensgemeinschaften." Magisterarbeit, Lüneburg.
- Tinsley, S., and H. Gorge. 2006. *Ecological Footprint of the Findhorn Foundation and Community*. Forres: Sustainable Development Research Centre.
- Tolle, J. 2011. "Towards Sustainable Development in the Countryside? A Case Study of the First Eco-Hamlet Under Pembrokeshire Planning Policy 52." Master's thesis, Swansea University.
- van Schyndel Kasper, D. 2008. "Redefining Community in the Ecovillage." *Human Ecology Review* 15 (1): 12–24.
- Wagner, F. 2008. *Wege in eine lebenswerte Zukunft: Möglichkeiten der sozialen Evolution in einer Intentionalen Gemeinschaft am Beispiel des "Heilungsbiotopes Tamera."* Norderstedt: VDM.
- Wight, A. R. 2008. "'We are Nature': Exploring Ecovillagers' Perceptions of Nature and Uses of Technology." Master's thesis, University of Cincinnati.
- Yilmaz, D., K. Kazbekov, and M. Titiz. 2011. "Decision Making for Strategic Sustainable Development in Selected Swedish Ecovillages." Master's thesis, Blekinge Institute of Technology.
- Zablocki, B. D. 1980. *Alienation and Charisma: A Study of Contemporary American Communes*. New York: Free Press.