

Cultures of (Un)Sustainability: Ecovillages as Seedbeds for a Cultural Transition

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Abstract

This essay shows how sustainability can and should be understood in terms of a cultural perspective and why it is vital to do so. More than simply adding a cultural dimension to the three pillars of economy, society and the environment, this entails a deeper transition from a culture of unsustainability to a culture of sustainability. It is argued that such a cultural transformation requires in particular a transcendent shift from modern to holistic worldviews and ways of life. A distinction is made between culture as ways of life and worldviews in order to explicate how culture relates to sustainability. Particular focus lies on the holistic worldview, which is explained by means of contrasting it to the dominant worldview of modern culture. This perspective proposes a way for resolving the fundamental failures of modernity and for building the structures of a sustainable future. Finally, ecovillages are presented as models for a sustainable culture: for one, as demonstration sites for such ways of life that can offer a concrete alternative to the unsustainable culture of modernity, and secondly, as dissemination sites for a new culture that is based on a holistic worldview.

I. INTRODUCTION

“Be the change you want to see in the world”
Mahatma Gandhi

“We cannot solve our problems with the same thinking we used when we created them”
Albert Einstein

IN the face of unprecedented anthropogenic climate change, acidification of oceans, ‘peak oil’ and financial instability we are witnessing a deepening of crises on all fronts of the globalizing terrain: the crises of energy and climate, food and the financial system (Braun, 2008). Protests around the world are evidencing the intensifying social crisis of globalization: growing unemployment, the increasing gap between rich and poor, globally as well as within national contexts, as well as of the consequences of the socio-ecological crises. However, these multiple crises cannot be addressed in isolation because they are deeply interlinked in complex ways, as symptoms of

a global systemic crisis (Haas, 1983; Luhman, 1990). Therefore they cannot be solved within political frameworks that only focus on small parts of a systemic crisis, nor can they be solved within the “narrow market episteme” of continued economic growth, monetary valuation of ecosystems and market mechanisms as the ‘solutions’ proposed by geopolitics (McMichael, 2009). Equally, individual lifestyle changes of ethical consumerism are insufficient for breaking out of the ‘iron cage of consumerism’ (Jackson, 2009) and renovating our ‘mental infrastructures’ of consumer growth (Welzer, 2011). Indeed, such taken-for-granted assumptions of relentless growth and progress, of individualism and materialism are cultural myths that must be critically understood as outgrowths of the historical-cultural roots of the project of modernity, which is itself at the core of today’s culture of unsustainability (Kagan, 2012).

The following attempts to demystify some of those powerful myths by exposing the cultural and historical roots of modern assumptions about the relationship between humans

and nature. At this fundamental level, culture is a crucial dimension of sustainability, which has been largely marginalized or superficially understood in popular and political discussions about sustainability. More recently, the notion of culture is in fact gaining increasing recognition as a vital dimension of a more comprehensive approach, which includes culture as the fourth pillar of sustainable development (Hawkes, 2001; UCLG, 2004; UNESCO, 2003; UNESCO, 2012). This is commendable and highly important for more nuanced understanding of sustainability, which recognizes the importance of cultural diversity, inter-cultural dialogue and the connection between culture and human rights. However, a rather one-dimensional understanding of culture prevails, which remains uncritical of the fundamental cultural assumptions on which the project of globalizing modernity is based (Kagan, 2012). A more rigorous and refined rendering of culture is proposed here, which suggests the need to fundamentally re-examine the cultural roots of modernity and to investigate pathways beyond the limitations of the modern worldview and way of life. Specifically, ecovillages constitute some already existing, concrete examples or models that offer potential pathways towards more integrated, constructive and wholesome solutions to the global crisis of unsustainability.

The question that begs to be answered here is what precisely such a transition, from a culture of unsustainability to a culture of sustainability entails. The central claim of this essay is that a cultural transformation, based on the transition from modern to holistic worldviews and ways of life, is of fundamental importance for resolving the failures of modernity and building the structures of a sustainable future. In particular, ecovillages are presented, for one, as demonstration sites for such ways of life that can offer a concrete alternative to the unsustainable culture of modernity, and secondly, as dissemination sites for a new culture that is based on a holistic worldview.

The following begins with a clarification of how sustainability can be understood in terms

of culture and why it is vital to include this dimension to go beyond the dominant three-pillar model. This is followed by a clarification of what precisely is meant by culture for the purpose of this essay and a distinction is made between culture as ways of life and the more fundamental dimension of worldviews. To delve deeper, the subsequent analysis of the modern worldview reveals the cultural and historical roots of modernity that have brought about the current culture of unsustainability. Secondly, what is meant in particular by a holistic worldview is then explained by means of contrasting it to the former and by showing how holistic ways of understanding the human-nature relationship have significantly gained popularity within Western societies in recent decades. This sets the stage for understanding the role of ecovillages in context of these more general cultural dynamics. Subsequently, ecovillages are analyzed in more detail, with a focus on what exactly is novel about modern ecovillages and how they are situated in relation to the global situation of systemic crisis and how they function as models for a sustainable culture.

II. COMING TO TERMS WITH SUSTAINABILITY AND CULTURE

Despite disagreements on the nature and scope of actions required, a general “consensus” prevails regarding the desirability of sustainable development. Yet this consensus can be rather counterproductive insofar as it is based on status-quo preserving assumptions. A more rigorous, critical and self-reflexive understanding of sustainability highlights the conditions that render modern society unsustainable. Hence the need for some clarity on what sustainability can and should mean, in order to ‘come to terms’ with what truly is required to ensure not only the continued well-being, but perhaps as much as the survival of human life on this planet as a whole.

The most commonly employed terminology of sustainable development is associated with the Brundtland definition and the three-

pillar model of sustainability. The Brundtland Commission defined 'sustainable development' as: "development that meets the needs of the present generations without compromising the ability of future generations to meet their needs" (UNGA, 1987). This definition can be quite problematic, firstly, if understood as referring only to human needs. Such an anthropocentric perspective denies any inherent value to healthy ecosystems and biodiversity. More fundamentally, the focus on sustainable development generally assumes continued economic growth, while indicators on all fronts show that a critical re-evaluation and more fundamental changes to growth-oriented globalization are vital (Redclift, 2005). An alternative to this contradictory form of 'weak sustainable development' is the notion of 'strong sustainability', which takes a more biocentric approach (Robinson, 2004) and sees the belief in growth and progress as some of the cultural myths at the core of the culture of unsustainability (further elaborated in following chapters).

Most useful for the purpose of this essay is Paul Hawken's definition that "sustainability is about stabilizing the currently disruptive relationship between earth's two most complex systems - human culture and the living world" (Hawken, 2007, p. 172). However, the notion of culture is missing from the dominant three-pillar approach to sustainability, which only includes economic, environmental and social considerations (Figure 1).

This three-pillar model can be misleading in terms of obfuscating the interrelationships, potential conflicts and unequal weightage given to the domains of economy, society and environment (Adams, 2006). Yet, more fundamentally, it is flawed insofar as it misses the important dimension of culture as a significantly independent dimension of sustainability (Hawkes, 2001).



Figure 1: Sustainable development (Image retrieved from: <http://www.eoearth.org/view/article/51cbf3307896bb431f6ac12b/>)

While dominant in popular discussions of sustainability, alternative conceptualizations to the three-pillar model that are recently gaining more attention highlight the need to include culture as the fourth pillar (Figure 2). Yet, simply including culture as an independent dimension of sustainability by no means offers a straightforward understanding of the complex relationship between culture and sustainability. Culture is a rather elusive concept and can be understood in a variety of ways. A document by the 'Executive Committee of Cities and Local Governments' (UCLG, 2004), The Agenda 21 for Culture, advocates explicit consideration of culture as a vital component of sustainability and highlights the role of local municipalities as important actors for ensuring cultural vitality and diversity. A recent resolution by the United Nations General Assembly (UNGA, 2012) also recognizes the importance of culture for human development and sustainability. Culture can be seen as a repository of knowledge, as values and webs of meaning, identities and as a source for economic activity, which are all important for sustainability in different ways (UNESCO, 2012). Culture is further understood in terms of dialogue (or clashes) between cultures, as cultural goods and services, or with regards to cultural diversity (ibid.). In particular, with regards to indige-

nous populations, the latter suggests the imperative to preserve cultural diversity as equally important as the preservation of bio-diversity.



Figure 2: Sustainable development with culture as a third 'pillar' (Image retrieved from: <http://www.37ds.com/commercial-validation.asp>)

While these conceptual developments are important and progressive steps towards a more inclusive understanding of sustainability, the above understandings also miss a more critical appraisal of the implications of the cultural concept. For instance, the understanding of culture as a way of life (to be elaborated below) is a rather limited conceptualization of culture (Hall, 1980) because it only renders the culture of certain 'others' significant, which shall be preserved and nurtured or capitalized as an economic resource. Yet, in most cases western modern culture is implicitly taken for granted. Not only can this have a certain colonialist undercurrent but it also limits the scope and importance of a cultural perspective for sustainability. Most often, the prevalence of the neo-liberal framework as the dominant and unquestionable worldview results in a systemic marginalization of alternative worldviews and practices that do not fit under the Northern neo-liberal market-centered development agenda

(McMichael, 2009).

A more coherent and forceful conceptualization of culture additionally highlights the cultural narratives that form the substructures of modern society itself. Coming to terms with culture and sustainability means explicitly highlighting the need to go beyond dogmatic agendas and the "growth-oriented mythic construct [that] has shaped the lives of more people than any other cultural narrative in all of history" (Rees, 2010, p. 3). Rather than only thinking of what including culture as a fourth pillar can do for sustainable development, it is vital to recognize a more encompassing understanding of culture as the totality of the meanings, narratives and practices at the interface of all dimensions of life in society. What makes a culture as a whole unsustainable or sustainable requires a deeper understanding of worldviews that form the base of powerful, yet implicit and therefore often unquestioned assumptions and behaviors.

Acknowledging various conceptualizations of culture, for the purposes of this essay, culture is understood with regards to two layers: ways of life and worldviews (Hawkes, 2001; LeBaron, 2003) (see Figure 3). This highlights the different layers of culture, ranging from the more external and visible layer of overt behaviors and physical structures to the more internal and invisible layer of basic assumptions and beliefs about human nature and the relationship to the environment (Hall, 1980; Schein, 1992). Certainly these two dimensions are closely related and somewhat overlapping, yet the distinction is significant for deepening the understanding of culture. A way of life is embedded in, and is the lived embodiment of, the underlying worldview: lived traditions and practices are deeply shaped by underlying meanings and values (Hall, 1980). This can also be understood as a distinction between the "lifeworlds" of social and physical infrastructures and the deeper level of "mentalities" that constitute our mental infrastructures (Welzer, 2000). Essentially, worldviews are the "seedbeds" of culture, from which shared meanings, values and identities emerge (LeBaron,

2003). A worldview therefore “is the bedrock of society” (Hawkes, 2001), meaning that cultural assumptions implicit in different worldviews fundamentally shape the kind of structures or systems we create (social, ecological, political, economic and technological) and provide the framework of the relationships of meaning between them (Hall, 1980).

The above analysis of culture indicates how understanding culture merely as the fourth pillar, focusing mainly on the more tangible dimension of ways of life, is insufficient insofar as it misses this deeper dimension of underlying worldviews. Both of these understandings are needed for a more comprehensive conceptualization of the relationship between culture and sustainability. ‘Coming to terms’ with culture and sustainability therefore requires that:

“sustainability can be understood as the search for alternative sets of values and knowledge of the world, reforming the ways we know reality, thereby founding an understanding of ‘patterns that connect’ the economic, social, political, cultural and ecological dimensions of reality. The cultural dimension has thus a foundational value for the whole search process of sustainability” (Kagan, 2012, p. 15).

This means we are facing not just a complex of economic, ecological and social crises, which could be solved by applying the typical sort of ‘socio-technical fix’, i.e. solving social problems through a combination of technological innovation and changing behaviors and attitudes (Layne, 2000, p. 496). The search for sustainability has focused too much on developing “hardware updates, such as new technologies, economic incentives, policies and regulations” (Kagan, 2012, p. 1). That is, on a deeper level, we are also facing “a crisis of the software of minds” that requires “cultural transformations affecting our ways of knowing, learning, valuing and acting together” (ibid.). We need to find a ‘cultural fix’ by creating new narratives, identities, rituals and structures of meaning (Layne, 2000). Creating new seedbeds of culture by fostering new worldviews may be one of the most significant steps for addressing the crisis of modernity and creating a sustainable

culture.

III. CULTURAL ROOTS OF DOMINATION AND SEPARATION

Before investigating potential pathways beyond modernity, a deeper understanding of what precisely renders modern culture unsustainable is required. Understanding modernity as an unsustainable culture means “the continuation of modernity threatens the very survival of life on our planet” (Griffin, 1988, p. ix). The following suggests that modern assumptions of a division between humans and nature and of rational scientific progress are at the root of this threat. To critically ‘uproot’ these modern assumptions requires a “historical investigation into the events that have led us to constitute ourselves and to recognize ourselves as subjects of what we are doing, thinking, saying” (Foucault, 1984, p. 46). The following therefore illustrates some of the historical developments that were significant for the constitution of the modern worldview. The focus here lies on the rise of monotheistic religion in the Western world, the more recent emergence of the Enlightenment rationality and the resulting mechanistic and materialistic worldview of modernity.

Human dominion over nature can be traced back thousands of years to the influence of the classical period of ancient Greece and Christian thought. These shared the assumption that humans are in a superior position over the rest of nature, based on the belief in a separation between the empirical world of nature and the metaphysical or transcendental realms of God (Ponting, 2007). This ontological separation between the sacred and profane can be regarded as a consequence of Jewish monotheistic belief, which was later taken up by Christianity. This created a cosmology that placed the sacred domain of God external to, ‘outside’ of, and therefore beyond the empirical domain of nature (Ponting, 2007; Partridge, 2005). This constituted the “disenchantment” of the world, where nature becomes a mere object, stripped bare of any spiritual value (Partridge, 2005;

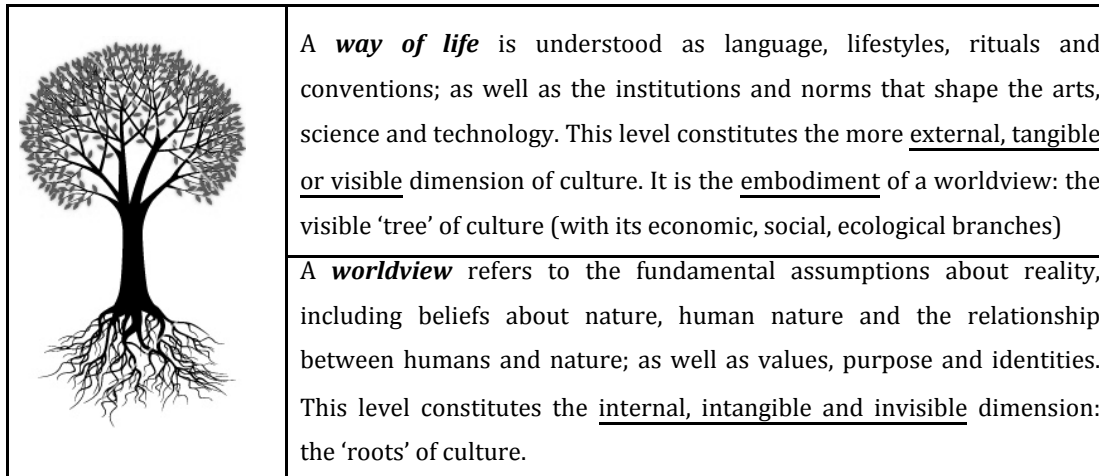


Figure 3: Culture is the tree as a whole. Focusing on the external layer of ways of life is like seeing the fruits of the tree: here culture is often seen as a resource for economic development, based on local traditions and identities. The different branches could be seen as the economic, social and environmental dimensions of social life. Focusing on substructure layer of worldviews is like seeing the roots that provide a solid base of core assumptions and values. The image also suggests that culture is dynamic, as it is growing according to historical conditions, can change or even 'die' if not nurtured enough, if 'soil' conditions deteriorate, or if other cultures mix with it.)

White, 1974). Pagan beliefs prior to this influence of Christianity had considered nature vulnerable and sacred, which created a much more intimate and respectful relation to nature; however, the de-sacralization constituted by a purely materialistic relationship to nature as an object and resource allowed the relentless exploitation and manipulation of nature (Keller, 2009).

This continued belief in the divine placement of humans as the dominators of nature provided the basis for a deepening of this trajectory, yet on a more secular level, during the times of the scientific revolution. The scientific manipulation, in close relation to economic exploitation, of nature in the modern era brought about a modern industrial conceptualization of nature "whose being is mastered by science, whose value is measured by economics, and whose potentiality is determined by technology" (in Partridge, 2005, p. 47). Particularly the success and efficiency of technological manipulation and transformation of nature into

a mere resource for human gains seemingly validated the disenchanting assumptions this undertaking itself was based on (ibid.). The resulting anthropocentric interaction with nature amounted to a 'rape of the world' of a considerably more drastic scale than had ever been possible before the modern era (Ponting, 2007). This is the long haul of the unsustainability of modern culture.

The scientific revolution during the Enlightenment period constituted more recent developments that generated the modern separation between humanity and nature. Firstly, while the invention of the scientific method constituted a rebellion against religious dogma, it nevertheless reinforced the legacy of Christianity's emphasis on man's dominion over nature in more secular manner. Rene Descartes' reductionist philosophy, perhaps the originator of such a method, paved the way for seeing nature purely as an object, radically separate from subjective consciousness, that could be quantified and measured to be known and

used (Keller, 2009). This increasing tendency to employ mathematical, analytical scientific approaches to know the world constituted perhaps “the most fundamental cultural change of the period” of the rise of modernity (Christian, 2005, p.438), as it became the “dominant attitude of modern Western culture” (Bortoft, 1996, p. 113).

Additionally vindicated by Newton’s ‘discovery’ of mechanical laws of the universe, this mechanistic and reductionist worldview made nature into a machine that was created by God and was to be understood and controlled by men (Ponting, 2007). The evermore-successful quest for increasing the optimization and productivity of this machine began to set firm rails to drive this rational train of thought in the direction of ‘inevitable’ techno-scientific progress (Ponting, 2007). The Enlightenment was hence marked by the identification of progress as the development of productive forces needed to move that train forwards as fast as possible (Fotopoulos, 2000).

Rather than locating a particular ideology like capitalism or communism as the root cause of unsustainability, a firmer and deeper rooting can hence be found in the materialistic worldview of modernity. Despite their critique of classical and liberal economics even Marx and Engels for instance believed in the inevitability of progress. They shared the materialist utilitarian attitudes towards the environment where “nature only had meaning in terms of human requirements” (Ponting, 2007, p. 131), regardless of environmental consequences. This widely adopted belief that nature had no inherent value is a core element of the failure to include the ‘external costs’ of production (like adverse environmental and social impacts) in the price of commodities: a main cause for the massive pollution of the world. It resulted from the naive economic assumption that nature has no inherent value and that natural resources were infinite and therefore free of charge (Ponting, 2007). The idea of perpetual progress is “rooted in, and is indefensible apart from, Judeo-Christian theology” (White, 1967, p. 1205). Ironically, the notion of progress

and materialistic economic growth also became such “integral parts of our mental and emotional lives” (Welzer, 2011, p. 34) that not only nature became the exploited object of domination but, in turn, also ‘man himself’ (Marcuse, 1972). This produced the dual subordination of nature and human nature to the development of progress.

The materialistic and mechanistic worldview of modernity reduced the wholeness of nature to its individual parts and thereby created a fragmentation of mind, which reproduced itself throughout modern culture. The enlightenment worldview of rational thinking is the root of the objectification and concomitant domination of nature and humans. Because this worldview has become the dominant organizing paradigm today (Ponting, 2007) it is only through a shift to a ‘post-enlightenment’ worldview that we reconcile dichotomies of nature and humanity that separate our body and mind, as well as the sacred and the profane (Bain-Selbo, 2011). Only following a “conscious, reflexive, re-examining of these cultural roots” (Doubleday, et al. 2004, p. 392) can we recognize the need for new imaginations and ways of seeing the world: a shift in cognition that involves not only changing what we think about but how we think as such (Bain-Selbo, 2011).

IV. THE POST-MODERN CULTURAL ENVIRONMENT

Considering the profound impact the Newtonian/Cartesian worldview of modern science has had on modern culture at large (Bortoft, 1996), one may begin the search for solutions in the developments of a new scientific worldview. Indeed a considerable trend is taking place recently towards sciences for integration of knowledge: looking for unifying theories of everything to understand reality not only in its innumerable parts but also as a whole is gaining considerable legitimacy (Christian, 2005). Whereas, during the scientific revolution (Capra, 1997) “the purpose of science shifted from wisdom to power” [and created a] science

for manipulation”, today it is increasingly possible to find strands of a postmodern “science for understanding”, which sees the relationships between phenomena. Pioneers of such an approach have existed for a long time. Goethe for instance advocated a holistic science for a participatory understanding of the wholeness of nature during the same period as Newton. Yet the cultural conditions at the time rendered Goethe’s approach illegitimate, given the context of a dominant disenchanting materialist worldview (Bortoft, 1996).

Alternative perspectives in science are increasingly seeing the need to transcend the disenchantment of modern science and move beyond its all too narrow empiricism and rationalism. Fritjof Capra suggests that a more holistic and ecological worldview is emerging, where holistic environmentalist attitudes propose a mixture of traditional mysticism with “new physics” (Partridge, 2005, p. 55). This seems to offer one source of a maturing ecological consciousness. Particularly quantum theory is commonly understood as scientific support for the Eastern beliefs of interdependence and non-dualism between spirit and matter. Such “a post-modern environmental ontology reaffirms our intimate organic relationship with the webwork we call nature” (Keller, 2009, p. 15). The interdependence of observer and observed, the ‘One’ inherent in the many, the sacred wholeness underlying all manifestation, is then seen as the ground of ecological holistic thinking (Partridge, 2005).

Yet, whether a mere ontology of such a postmodern science will suffice for a cultural shift towards a holistic culture (worldview and way of life) seems questionable. At least from the point of view of E. F. Schumacher, the urgently needed cultural shift towards a holistic worldview cannot happen by means of merely a new physics that is itself still stuck in the analytical quantifying mode of consciousness and therefore simply cannot deal with the qualitative experience of wholeness (Capra, 1997; Bortoft, 1996). It requires a more participatory, experiential and embodied approach.

A trend towards more holistic viewpoints

has not only taken place in science but more generally across modern society, as a growing number of people are disillusioned with the alienating culture of modernity. Especially since the 60s a cultural shift is taking place particularly in Western European and North American countries where people start to think more holistically about their relationship to nature, as well as the cultural interrelations between the economy, society and the environment. Understanding that these problems are systematically related, many have rather utopian views about the society that would need to come after modernity and therefore quite radical in the kind of changes that would be required (Partridge, 2005).

That these seemingly utopian values are not just ungrounded ideals is demonstrated by the increasing number of people who are also actively and practically engaging in the task of creating alternatives: “the spread of the commons, transition towns, permaculture and right to the city movements bear some promises for a cultural transition” (Kagan, 2012). Paul Ray (2010) calls such people “cultural creatives” who creatively engage in creating a new culture, based on holistic worldview that goes beyond modernity: a trans-national culture that goes beyond national boundaries. These are people involved for instance in the Transition town movement, the Growing Empathic generation (Arnett, 2010) and the downshifting movement (Alexander, 2010), creating sustainable businesses, universities, urban communities and ecovillages. Especially the ecovillage movement offers a promising example of cultural transformation, which is perhaps exceptional in the way ecovillages function as lived examples and demonstration sites of a holistic culture, while also spreading their knowledge and beliefs into wider society.

V. ECOVILLAGES: SUSTAINABLE CULTURES

Ecovillages are small-scale communities spread around the globe, which have a particular significance for the prospect of cultural transfor-

mation on a larger scale. As a part of a larger trend of cultural change, “a key contribution of the ecovillage movement is its power of example” (Litfin, 2009, p. 141). That is, ecovillages are offering concrete demonstrations of both a different way of life (external layer of culture) and the lived embodiment of a holistic worldview (the internal layer of culture). Moreover, rather than just demonstrating fragments of different ways of life or worldview, they offer integrated examples of a holistic worldview and way of life (Jackson, 2000).

It is useful to begin with an overview of general characteristics of ecovillages around the world, before going more in-depth into some of the particularly revealing aspects. Ecovillages are defined by one of the founders of the movement, Diana Gilman, 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” (Dawson, 2006, p.13). In response to the alienating condition of modernity, the first and foremost focus is on establishing a tight-knit sense of community, based on trust, transparency and cooperation. A strong sense of shared values generally underpins a common vision for ecological restoration, global justice, spiritual development, self-empowerment, service and healing (Dawson, 2006).

It is significant to stress that modern ecovillages are quite novel in various ways and therefore significantly different from 60s ‘hippie communities’. Firstly, though they may be seen as an outgrowth of the 60s legacy, ecovillages are not isolated escapist enclaves but are actively engaged on national and global levels (Dawson, 2006; Litfin, 2009). Many ecovillages are creatively connecting to other groups and organizations around the world, networking with peace and human rights activists for conflict resolution in the global South, with social and ecological entrepreneurs, permaculture activists, government officials, indigenous groups, healers and spiritual leaders, and more. Instead of being isolated in their small-scale

settlements (as most communes of the 60s), they are globally connected through the Global Ecovillage Network (GEN) since 1995 (Dawson, 2006).

More generally, rather than focusing on one particular problem, the ecovillage movement adheres to a holistic systems perspective that points out the complex interrelatedness of social, cultural and ecological crises, which cannot be addressed in isolation (Luhmann 1990). The “global problematique” (Haas, 1983) is a systemically linked nexus that includes environmental degradation, hunger, war, social alienation and North-South inequity (Litfin, 2009). Fundamental to ecovillages is their pragmatic response to this complex of global systemic crisis, which goes ‘beyond the politics of protest’ (Dawson, 2006) that is characteristic of much reactionary environmentalism. Ecovillages experiment with concrete solutions in all domains of life, seeking ecological, economic, technological, social, spiritual, sexual, etc solutions for building a new societal system from below, with often profound impacts on the surrounding society (ibid.). The underlying shared aim of ecovillages is thus to have a global effect of culture change.

Despite the high diversity of their particular manifestations, regarding their forms of organizing and living and the priorities they give to different aspects of sustainable living, on a deeper level they are significantly unified, in particular by the holistic worldview (Litfin, 2009). This holistic worldview also means that they step beyond, or transcend, the modern worldview, while also including the benefits of modern science and technology. Simultaneously, without regressing to pre-modern stages, they also reconnect with and integrate the wisdom of pre-modern traditional stages or indigenous peoples (Walker, 1998). Traditional wisdom and values are included as guidelines for a sustainable culture, for they have survived for thousands of years, based on symbiotic relationships to their environment. For instance, values like healthy interconnection of mind, body and spirit, self-reliance and an awareness of the interconnection of human and other life

are vital to many indigenous cultures (Double-day et al. 2004).

A holistic worldview in practice also means that socially constructed dichotomies such as self and other, mind and body, culture and nature, etc. are regarded as being indivisible parts of a larger whole. Therefore, cultivating the inner life, focusing on personal wellbeing and spiritual development is deeply connected to the work on the 'outside', with sustainability and peace activism on a global level (Dawson, 2006). Inner work and global peace work, or healing the internal and external conditions of life are profoundly inter-related (Partridge, 2005). Regenerating and revitalizing inner and outer landscapes, which have been equally eroded by modern materialism and individualism, is deep transformational healing work (Litfin, 2009). Essentially, this is a spiritual undertaking, which is an important aspect of holistic culture in most ecovillages (ibid.). Therefore the meaning of wholeness (transcending dichotomies and understanding relationships), health (overcoming internal and external erosions, due to the separation of modernity) and holiness (the sacred dimension of nature that is also part of oneself) are intimately intertwined (Kagan, 2012). Because the integrated project of healing oneself and healing the earth means transcending the separation of inside and outside, of humanity and nature, in effect the emancipation of nature becomes part of our self-emancipation (Marcuse, 1972).

This holistic worldview gives rise to a profoundly different way of conceptualizing sustainability than the 'culture as the fourth pillar' model (discussed in Chapter 2). The significance of the cultural worldview as a developmental stage in the evolution of human culture and consciousness is explicitly recognized as a fundamental dimension of sustainability, as conceptualized by ecovillages (see Figure 4). While this model gives equal weight to worldview, social, economic and ecological considerations, an appraisal of the content of each dimension indicates that what is considered pertinent to each aspect is already culturally

mediated by the holistic worldview. Economic, social and ecological dimension of sustainability are deeply cultural.

VI. SEEDS FOR CULTURAL TRANSFORMATION

Two characteristics of ecovillages are highlighted here, so as to better understand how they are contributing to a cultural transformation. Firstly, ecovillages constitute influential *demonstration* sites that embody diverse sustainable ways of life. Secondly, they function as *dissemination* sites for the spread of a holistic worldview underlying these ways of life.

As demonstration sites, ecovillages are embodying and promoting solutions for a variety of profound problems. Economically, many ecovillages are pioneering new kinds of socio-economic systems, based on local currencies, community banks, cooperatives and shared ownership (Litfin, 2009, p. 132; Dawson, 2006). These are some vital examples for more resilient and empowering approaches to economic life that support the development of human wellbeing without harming the planet. Ecologically, ecovillages practice and experiment with organic or biodynamic farming, water recycling and sanitation systems and permaculture landscapes. These ensure more localized and resilient food production, healthy nourishment and autonomy in a way that is integrated with ecological cycles (Dawson, 2006). In terms of energy, ecovillages mostly rely on a significant supply of renewable energy technologies, often generated on-site, including biogas, local wood, wind and solar (ibid.). This ensures an ecologically sensitive footprint but also reduces dependency on centralized energy supply, which itself can have democratizing consequences, since power is both physical and social (Rifkin, 2009). Socially, ecovillages provide examples of decentralized decision making which is more directly democratic than representational democracy, which perhaps takes more time and effort but generally results in stronger and more long-term solutions.

Ecovillages also show how a strong sense

of community and trust can improve social cohesion and personal wellbeing (Dawson, 2006; Jackson, 2009). Given the prevailing (yet misconceived) assumption that wellbeing correlates with higher levels of material consumption, the demonstration that subjective wellbeing in fact flourishes in a less materialistic and lower consumption lifestyle is instructive. More time can be invested in non-material goods and interpersonal relationships (Jackson, 2009). Considering that, “with consumerism on its deathbed, it is time to dream a new dream – a post-consumerist, post-petroleum dream” (Alexander, 2010), ecovillages demonstrate that such a new dream need not be a nightmare. Indeed similar to the voluntary simplicity movement they demonstrate that, quite to the contrary, a much more wholesome and fulfilling life is possible by living well with less rather than living better with more (ibid.).

In the face of imminent crises and potential “The idea is then to sow seeds for culture change through offering tools and showing pathways rather than selling ready-made models” collapse of the oil-based economy, “viable alternatives already established on the ground will become enormously salient” (Litfin, 2009, p. 140). This demonstration of alternatives to the established system can be regarded as similar to the anarchist strategy of “prefiguring” that entails “seeding a new society within the husk of the old” (Litfin, 2009, p. 141) as an approach towards social change that involves the creation of real alternatives to the system that is to be changed, or rather subverted. Perhaps, a motivating goal for this approach is “to devise exit strategies from growth, not to preserve a cultural practice that undermines our own survival conditions” (Welzer, 2011, p. 38). This entails growing a new culture of sustainability instead of sustaining a pathological growth culture by “demonstrating the practical viability of a holistic worldview” (Litfin, 2009, 140). A strategy of cultural change commonly referred to in ecovillages contexts is what Ross Jackson describes as following:

“If the examples are good enough, they will be replicated. From then on, it is only a question of

time until the strategy succeeds and ecovillages become the basis for a new culture based on a holistic paradigm. [...] Ecovillages are ideal vehicles for this task because they are by definition holistic, representing all the different aspects of sustainability in one place where it can be seen in an integrated solution” (Ross Jackson, 2000, p. 64).

Yet, the notion of replication perhaps should not be understood in literal terms of being directly copied in a precise manner. When considering ecovillages as ‘models’ we should rather think of a model like a seed that can grow elsewhere according to local (ecological/cultural) conditions. The idea is then to sow seeds for culture change through offering tools and showing pathways rather than selling ready-made models. No ecovillage can be replicated elsewhere, due to the diversity and uniqueness of local conditions (ibid.).

The second role of ecovillages can be understood as dissemination sites for a holistic worldview to infiltrate into the cultural soil of their social environments. Rather than just showing tools and practices, this involves a more subtle process of a transformation in consciousness. A cultural transformation on a larger scale than just within ecovillages requires not just the demonstration of sustainable ways of life but also the transmission of the corresponding holistic worldview. Rather than just seeding cultural practices, also spreading the beliefs they are based on can lead to new practices elsewhere. Changes in worldview and values are a prerequisite for a change towards sustainable ways of life (Gesota, 2008). Jonathan Dawson (2006, p. 66) describes the dissemination of holistic worldview using the analogy of “yogurt culture: small, dense and rich concentrations of activity whose aim is to transform the nature of that which is around them”.

A comparable analogy for culture change can be made using the notion of ‘water retention landscapes’ that can be found in the ecovillage Tamera in Portugal. This permaculture practice involves the construction of an artificial lake by building a dam in a valley to let it fill naturally with rainwater. The

water retained in the lake can then slowly permeate deep into the soil and ground water to replenish the surrounding landscape, which is especially important where excessive water run-off, due to soil erosion, causes desertification and degradation of the soil. By analogy, ecovillages can be seen as 'knowledge retention landscapes' that allow ideas and cultural values of a holistic worldview to collect and slowly penetrate deep into the consciousness of the surrounding 'cultural soil' of society. This is particularly pertinent when considering the significant loss or 'erosion' of knowledge about self-sufficiency and of shared values and community structures in recent years (Dawson, 2006). While the process of desertification undermines the physical base of our survival, the process of such 'social desertification' has been eroding "the very structure and knowledge base that people will need to survive and thrive through the transition" (Dawson, 2006, p. 77). Ecovillages are vital in this regard as repositories of knowledge and values for the rest of society.

VII. CONCLUSION

A necessarily more nuanced and critical understanding of sustainability demands explicit consideration of the fundamental cultural assumptions that constitute the basis of how we understand the relationship between humans and nature. While introducing a cultural perspective into the discussion of sustainability as a fourth pillar, in addition to economic, social and environmental considerations, is an important expansion of the concept of sustainability, it is insufficient nonetheless. If we are to achieve an effective and genuine sustainability, we first need to truly grasp the nature

of unsustainability. This entails explicit recognition of the roots of modern culture, which render it unsustainable. Modern culture is unsustainable, firstly insofar as its social, economic, political manifestations are the result of a cultural-historical legacy of the mechanistic and materialistic worldview, originating from Judeo-Christian monotheistic beliefs about the relationship between humans and nature. Secondly, the modern scientific rational worldview is unsustainable to the extent that it unquestionably assumes material progress, regardless of detrimental consequences to humans and the environment. A holistic worldview proposes an alternative way towards understanding nature and the place of humans in it in a way that renders the relationship between them intimately intertwined.

Ecovillages are compelling examples of a cultural trend towards more holistic assumptions that may provide the groundwork for a cultural transition towards a sustainable culture. As demonstration sites of a culture of sustainability, ecovillages provide progressive and constructive examples of ways of life that can allow human life to continue more sustainably. Ecovillages also function as dissemination sites of a holistic worldview, by fostering the infiltration of holistic beliefs and assumptions into the cultural surroundings of mainstream society. As such, they may represent transformational actors that integrate sustainable worldviews and ways of life and make them knowable and livable for society at large.

A pertinent question that needs to be addressed is how such ecovillage principles can and do take root in urban environments and how a holistic culture can become more widely adopted as a common ground for diverse ways of living not only in ecovillage environments.

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Figure 4: In addition to including worldview as an independent pillar, the content of the 'sustainability mandala' also indicates that what is part of the economic, social and ecological dimensions is already a culturally mediated choice, based on assumptions of what sustainability means.