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# Building the commons in eco-communities

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## Abstract

Eco-communities are founded on the principle of the commons. To be part of an eco-community is to be considered a communitarian – willing to share your life, belongings, time, knowledge and often money. This chapter uses an examination of how the commons is materially built into the structure of eco-communities to explore how the multiple spaces and practices of commoning are made and tested. It illustrates that what might at first appear as a simple spatial approach to the commons is actually a complex and incomplete attempt to radically redesign community per se.

## Short biographical note

Jenny Pickerill is a Professor of Environmental Geography at the University of Sheffield, England. Her research focuses on inspiring grassroots solutions to environmental problems and in hopeful and positive ways in which we can change social practices. She has published on autonomous, anarchist and indigenous activism, environmental protest camps and occupations, the emotional spaces of collective action, and online tactics.

## Introduction

Eco-communities are about building and living overlapping lives. At the centre of many eco-communities is the quest to share – resources, objects, spaces, skills, and care. In eco-communities like Findhorn, Scotland (Figure 1), eco-homes cluster together, front doors face each other, pathways are shared, and gardens overlap. The houses seem to spill out into each other with bikes, children's toys, and plant pots filling the spaces between them.

Figure 1: Eco-homes at Findhorn eco-village, Scotland



This sharing, interaction, and mutual support represent many eco-communities' attempts to materialise the commons – to create, build and make space to act together. The physical and social materialities of eco-communities are purposefully built to shape the commons. The physical structures of the homes, community halls, and gardening spaces are used to encourage openness, interaction and sharing, just as much as the social rules of a community. Yet too often attention is only paid to the social materialities of the commons, to the ways in which common places are governed, maintained as open spaces, or to how shared experience is celebrated. Yet these common places to do merely already exist, they are built, created and redesigned, often purposefully. Eco-communities and the ways in which they plan and build their physical structures and infrastructures offer an opportunity to explore how the commons is built, what the commons are considered to be, and how the commons are intended to be used. Although the eco-communities explored in this chapter are all spatially delimited the commons is always considered as more than just a shared place, rather the commons is about sharing resources, objects, spaces, skills, and care. The commons in this context are about mutual support, interaction and acting together. This interpretation of the commons emerges from a particular discourse in eco-communities around being a 'communitarian' – someone who is willing to share their life, belongings, time and knowledge. In some eco-communities this approach goes as far as all residents communally sharing all their money.

Eco-communities are examples of actually existing commons, but they remain incomplete, partial and sometimes problematic. Many attempt to open up their land to visitors, often creating public footpaths and welcoming signs. But while property and social relations are organised in many eco-communities to benefit all, they tend to benefit members far more than the wider communities they are embedded in. This incompleteness, however, is not necessarily a sign of failure, but rather an indicator of the complexity of what the commons constitute and how commoning can be practised.

### **Advocating community living**

The term community can have multiple meanings, but can be understood as “dense, multiplex, relatively autonomous networks of social relationships. Community, thus, is not a place or simply a small-scale population aggregate, but a mode of relating”<sup>1</sup>. Community shares some ambiguity with the concepts of place and home<sup>2</sup>. It can be understood as representing a sense of belonging (or exclusion), as a facet of identity, or a place of sharing. Indeed, Litfin suggests “community is about moving beyond individualism to connection”<sup>3</sup> while Gilman argues eco-communities value and practice “sustainable living in human-scale community”<sup>4</sup>. In this chapter, the term eco-communities refers to a concern for social, economic and environmental needs and to examples of places of collaborative, collective and communal housing and living<sup>5</sup>. Key aspirations of an eco-community include (but are not always present): a culture of self-reliance; minimal environmental impact and minimal resource use; low cost affordable approaches; extended relations of care for others (beyond the nuclear family); progressive values (for example, towards gender equality); and an emphasis on collectivist and communal sharing<sup>6</sup>. Therefore living in eco-communities is about acknowledging the interdependency of humans with each other and nature, and practising mutual care.

In this context eco-communities are understood to be part of the wider movement advocating commoning; to produce, live off and through the commons<sup>7</sup>. There are numerous historical examples of the commons being sustained and shared through local self-organised governance<sup>8</sup>. In these ways common resources (such as land, forests, water etc) are shared between nearby residents, from which all can benefit. As with earlier periods in history (such as the enclosures of the 15<sup>th</sup> and 16<sup>th</sup> centuries in England), there are continuing threats to the commons of all kinds, through for example, privatisation of water resources or patenting of indigenous knowledge. Community gardens, open

source programming, reclaiming public space and co-housing all remain on the edges of contemporary societal practices. The output from these activities has been termed peer production, which rather than being based on monetary exchange is valued by contributions, fulfilling needs and based on an ethic of sharing<sup>9</sup>.

Living in eco-communities can require quite radical changes to lifestyles and economies. Many of the most established eco-communities are located in rural areas because of the space and privacy afforded them (for example, Findhorn Eco-village, Scotland), however there are also long running urban examples (Christiania, Denmark<sup>10</sup>) and an increasing focus on new urban experiments (LILAC, England, and Kailash eco-village, Los Angeles Eco-village, and Peninsular Park Commons, USA) (Table 1).

Table 1: Examples of eco-communities worldwide<sup>11</sup>

Name	Country	Type	
Melliodora	Australia	Rural	
Crystal Waters		Rural	
Moora Moora Co-operative		Rural	
Wolery		Rural	
Yarrow Ecovillage	Canada	Rural	
Whole Village		Rural	
Atlantida Eco-village	Colombia	Rural	
Christiania	Denmark	Urban	
Svanholm		Rural	
Dysseklide/ Torup		Rural	
Tinkers Bubble	England	Rural	
Landmatters		Rural	
BedZED		Urban	
Hockerton Housing Project		Rural	
ZEGG	Germany	Rural	
Sieben Linden		Rural	
UfaFabrik		Urban	
Lebensgarten		Rural	
Auroville	India	Rural	
Kibbutz Lotan Community	Israel	Rural	
Federation of Damanhur	Italy	Rural	
Konohana Family	Japan	Rural	
Earthsong Eco-Neighbourhood	New Zealand	Rural	
Tamera	Portugal	Rural	
Findhorn Eco-village	Scotland	Rural	
Colufifa	Senegal	Rural	
Pun Pun	Thailand	Rural	
Panya Project		Rural	
Earthhaven		USA	Rural
Dancing Rabbit	USA	Rural	
Kailash Eco-village		Urban	
Eco-village at Ithica		Rural	
The Farm		Rural	
Los Angeles Eco-village		Urban	
Sirius		Rural	
Twin Oaks		Rural	
Lama Foundation		Rural	
Brithdir Mawr		Wales	Rural
Tir y Gafel			Rural
Centre for Alternative Technology			Rural

The term includes quite broad and diffuse examples, from intentional communities and eco-villages to co-housing. There are relatively few large (over 500 people) eco-villages; notable examples include Findhorn (Scotland), Damanhur (Italy) and Auroville (India), but most are relatively small<sup>12</sup>. Importantly not all intentional communities or co-housing projects are eco-communities, many have no ecological imperative, and as Sargisson<sup>13</sup> suggests, in the USA co-housing may have no relation to commoning or intentional community.

In this chapter empirical material is drawn from multiple eco-communities across six countries visited in 2010: England, Scotland, Thailand, Spain, USA, and Argentina. These case studies were chosen to reflect a diversity of eco-communities in tenure, underlying vision, build processes, and societal context. All the fieldwork was conducted by the author using a participatory action research methodological approach. The extent of participation varied between case studies. When possible the I joined in activities on site such as building, gardening, scything, cooking and eating communally, engaging in group meetings, socialising and staying on site for several days or more. Thirty-five face-to-face in-depth interviews were conducted in total. Interviews were conducted in English and Spanish. All interviewees gave written consent and were able to withdraw at any time. At each case study photographs, field diary observations, and sketches of the site were recorded. At several sites it was also possible to access archival material.

For many proponents, such as Martin Bang<sup>14</sup>, Christian<sup>15</sup>, Jackson<sup>16</sup>, Litfin<sup>17</sup>, the Schwarz's<sup>18</sup>, and Wimbush<sup>19</sup>, to name just a few, eco-communities are the ideal living arrangement. The organisational structure of tightly interwoven social networks and shared spaces and resources creates, in their view, the best possibilities for personal happiness, minimal environmental impact, and sustainable livelihoods. Academics such as Sargisson<sup>20</sup>, Chatterton<sup>21</sup>, Jarvis<sup>22</sup>, Metcalf<sup>23</sup>, and Williams<sup>24</sup>, have also sought to critically evaluate whether the alternatives advocated in eco-communities enable more sustainable forms of living, with generally positive findings. The positive attributes of eco-community living can be broadly summarised as five overlapping conditions:

- a. **Reduced environmental impact:** Sharing common infrastructures (such as energy generation, sewage systems, and water collection), sharing resources, and minimising land use through dense housing arrangements, all helps communities to reduce their environmental impact. As many residents' needs are met on site (food, work, childcare, social events) the environmental impact of travel is limited. The collective mutual support for sustainable everyday practices also aids individuals' attempts to minimise their impact<sup>25</sup>.
- b. **Increased efficiency:** Living in a community is more efficient. Resources, tasks, skills, and knowledge can all be shared<sup>26</sup>. For example, common tasks such as child care, food production, cooking, or cleaning can benefit from economies of scale by being divided between people, rather than each person doing a little of everything<sup>27</sup>.
- c. **Socially rewarding:** There is often a strong sociality to community and for many this is more rewarding than living individually<sup>28</sup>. Living close to others and engaging in regular social interaction can help people meet their personal and mental needs. It facilitates mutual support and care for each other, and for families children can grow up with others their own age.
- d. **Self-governing:** Eco-communities are self-organised with often highly democratic or consensus based systems for decision making. They seek to operate autonomously from the state, often for example providing their own education systems, and being self-reliant in provision of housing, food, energy, and waste disposal.

- e. Living beyond capitalism: Finally, eco-communities operate beyond capitalist relations. Rather than generating an income by working for someone else (in order to afford a high consumption lifestyle), eco-communities support simple often land-based livelihoods and minimise economic needs (through self-provision). This enables a focus on environmental and social care and creates time for more creative, innovative and rewarding endeavours. Some eco-communities go as far as sharing all income<sup>29</sup>.

### **Making the commons**

We are what we live in. When we plan our buildings, we are also planning what kind of society we want to create ... we make the buildings and the buildings make us.<sup>30</sup>

The buildings of eco-communities shape and structure many of their forms and functions. The buildings are some of the most symbolic attributes of eco-communities, and the processes and practices of their construction and occupation signify many of their ecological and ethical principles. In other words, the buildings could be read as representations of the intentions of eco-communities<sup>31</sup>. Litfin<sup>32</sup> argues that the physical structures of eco-villages intentionally shape forms of social interaction; they are what she calls ‘architectures of intimacy’. These “ecovillage landscapes have a sense of fluidity”<sup>33</sup> illustrated by a lack of fences and the open communal space between houses, but Litfin also asserts that a particular shape – the circle – is most conducive to sharing, equality and communication. This is because it avoids hierarchy, everybody can see each other and it encourages interaction. Thus building using circles, as a house shape, as houses around a communal circular garden, or designing seating in circles, encourages social interaction, and may be identifiable as a particular approach to building commons into eco-communities.

At the same time, some house building techniques are used explicitly to encourage community building. Seyfang<sup>34</sup> argues that approaches like straw bale house construction can help build community because they are inclusive, using low cost affordable materials and enabling a broad variety of people to get involved; “the hand-building technique using natural materials and little specialised labour lends itself to wider participation in building than is the norm when specialist skills and industrial tools and materials are used”<sup>35</sup>. As a result this method enables relationships to be built with other people, as well as with nature through the materials used. Building collectively not only ensures multiple viewpoints are considered and increases a sense of community responsibility but also “while working together, residents from varying social and ethnic backgrounds often find new understandings of each other and create new common ground for moving forward as supportive neighbors”<sup>36</sup>. The process of building with others helps generate commonality and community.

We can use an examination of building practices, and the final buildings, of eco-communities to explore how the commons is (physically and socially) made. Such an examination brings into focus the spatialities of the commons alongside problems encountered, in other words, why these attempts at commoning place will always remain in progress, partial and incomplete. Through this analysis it is possible to identify four key ways in which the commons are built into eco-communities: (1) the benefits of sharing; (2) houses are smaller, but there is more space; (3) home extends beyond the house; and (4) space for risk taking.

### **Benefits of sharing**

The concept of economies of scale, that a certain amount of costs are fixed and if production is increased in scale then costs reduce per unit, applies to the construction of houses and their

infrastructure<sup>37</sup>. Buying construction materials in bulk often reduces the cost per house (for example, the panel construction at LILAC), and likewise a wind turbine can power several houses simultaneously (for example, at Hockerton Housing Project). To construct just one house would have cost proportionately more at LILAC and one wind turbine would have produced more energy than was needed at Hockerton. In this way eco-communities benefit from economies of scale in construction.

Eco-communities are able to benefit from their size to reduce the costs of building by sharing infrastructure and devising new cost sharing schemes. All house building requires infrastructure such as sewerage, water supply, and energy provision. The cost of this provision is obviously reduced if shared.

Co-housing is not necessarily affordable housing. But if you look at the on-going costs of living in co-housing, peoples' living costs are often lower because they are sharing and using fewer resources. But even if the individual homes are smaller than average, this is often balanced out by the shared costs of common interior space.<sup>38</sup>

The Low Impact Living Affordable Community (LILAC) in Leeds, England, developed a new home ownership model to ensure the houses remained affordable in perpetuity, costs are linked to ability to pay (income) and people will not necessarily lose their homes if their circumstances changed. In practice residents only pay a housing charge (equivalent to rent, but actually purchasing equity shares) of 35% of their net income. In order to make this cover the cost of the housing (acquired via a community mortgage), minimum net income levels were set for different size houses. This approach is only possible because it is a community project. In effect the higher earners subsidise those on lower incomes and yet at the same time they do not forfeit their investment and the approach is fair because all inhabitants pay the same percentage of their income.

Eco-communities can provide a ready pool of labour that significantly reduces costs and increases the pace of building. Labour tends to be shared in return for help in other projects, or for residents to build each house in turn, lending labour to others in return for help on one's own house.

Clutching to the steep hillside of the Sangre de Cristo Mountains north of Taos, the Lama Foundation has been building since 1968. Principally a spiritual centre – following the teachings of Ram Dass and his infamous *Be Here Now* book - it has an eclectic mixture of eco-houses. There is a large central community dome (Figure 2), a log cabin, a straw-bale house, some yurts for visitors, small vault homes, a hybrid house and many more.

Figure 2: Dancing in the community dome, Lama Foundation, New Mexico, USA



The community setting encourages the building of small individual houses and the collective use of the large communal space. There are communal bathrooms, kitchen, library, music room, winter meeting room, and outdoor sheltered eating area. The whole community is off-grid; generating electricity through photovoltaic cells, using compost toilets, wood for heat, and water from an on-site spring (and some rainwater is collected). Water is heated in the main through a propane heater because solar capacity is limited. The way in which the Foundation has been set up limits residents to a maximum stay of seven years.

Building here is a collective process and part of a spiritual practice for many; one resident said they “build with clay, mud and love”. Another noted “building a house is so human and it has been taken away from us ... it is so satisfying being able to build a house”. Some of the ‘special places’ like the stone hermitage have been built in silence and just women built others, such as the two vaults. Building at Lama is a process of sharing, sharing tools, skills and roles (so if some people spend the day building, others will cook and provide the food), and at crucial parts of the build many people will pitch in and help:

Building a building has to be a collective thing ... In regular construction it’s all portioned out, you have the person who designs the building, ... the bulldozer people who come in and level the area ... then you have the framers, then you have the insulators, then you have the dry wallers, then you have the painters ...

everybody is separate. ... It's just so un-cohesive and it ends up costing the homeowner so much for all these specialised people to come in with all these really expensive specialised tools. Whereas in natural building the same crew of people all build together start to finish, and you don't have to have a bunch of specialised tools and you don't have to have a bunch of specialised knowledge. If there is someone directing you don't have to know how to use a nail gun or a skill saw. So it's just much more human, and then they're so beautiful when they're done, they just feel good.<sup>39</sup>

However, Lama have had at times to make compromises. These compromises have been less about saving money and more about reducing labour requirements. As one resident noted "you should start small and then work your way out, and so we should make sure we can cope with maintaining the buildings we currently have before we build more"<sup>40</sup>. Thus the place is in a constant flow of moving forward and correcting earlier mistakes.

Eco-communities also benefit from scale during occupation by sharing common technologies, such as washing machines, and in the density of housing. At Findhorn eco-village, Kailash eco-village and LILAC, individual houses do not have washing machines. Instead there is a communal laundry that saves most residents the financial and environmental costs of initial purchase and maintenance. In addition, having only a communal laundry, and the slight inconvenience that introduces, can reduce how often people do their laundry. At Currumbin eco-village in Queensland, Australia, the scale of the development enabled the construction of an autonomous water management system that was not connected to mains water supplies<sup>41</sup>.

The scale and layout of the housing will influence what other benefits can be harnessed from living in a community. Not all eco-communities have high-density housing. Often the more rural communities such as Tir y Gafel, Findhorn, and Tinkers Bubble have dispersed individual dwellings. However, those which build homes close together, especially with common walls (such as the blocks of flats at LILAC) will have a low area to volume ratio and low energy index. In simple terms, the fewer the external walls around the bigger the internal space the lower the energy required to heat the space. Thus living closely to others reduces environmental impact in temperate regions.

### **Houses are smaller, but there is more space**

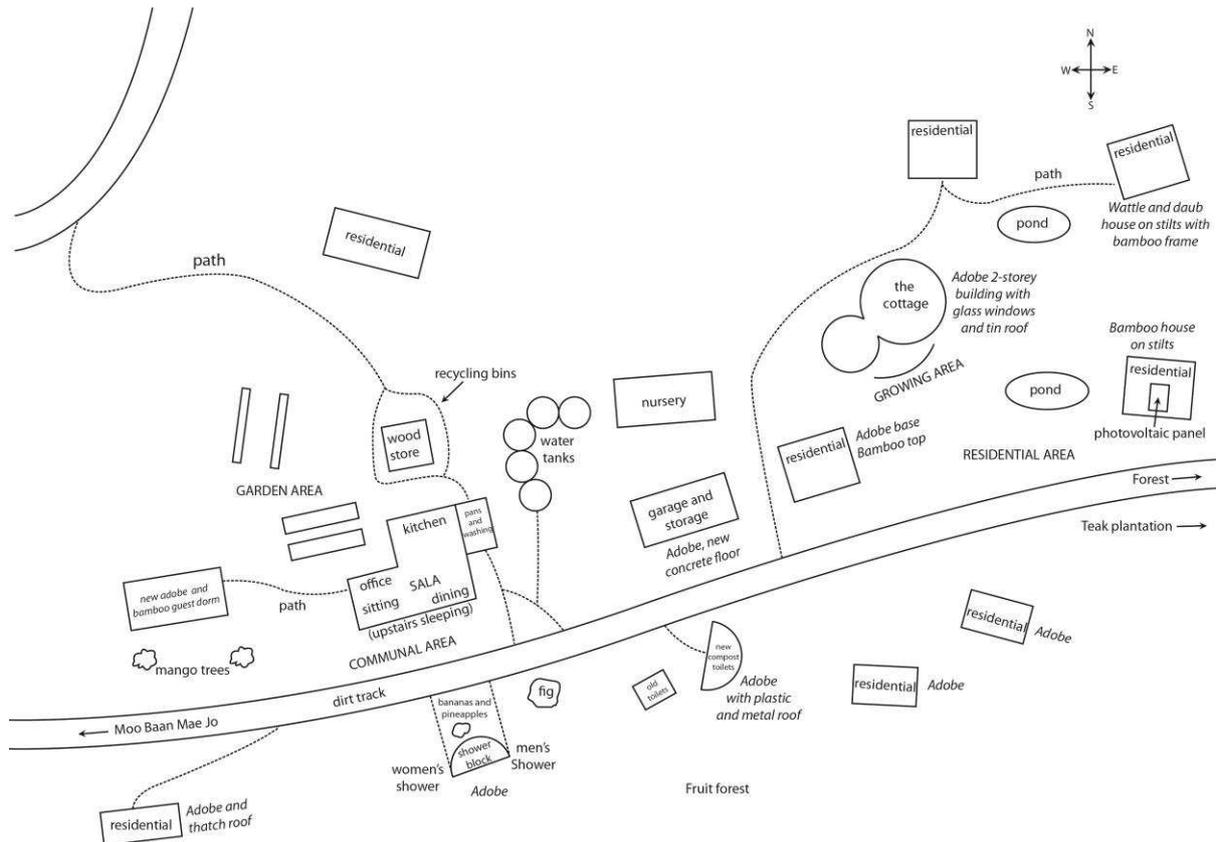
The size of housing directly affects the resources and energy used in construction and occupation<sup>42</sup>. In the main, the smaller they are the more ecological they are. Most eco-communities only have small private residences because these homes only need to contain bedroom spaces<sup>43</sup>:

Build smaller units than normal ... the most effective thing you can do is simply build smaller and attached housing. Most of the carbon impact of housing comes from heating it, so if you have a smaller space you do not need as much energy to heat it and if it is attached, side by side with your neighbours, then you also need less heat because the common walls share the heat across the buildings. So one of the things we do is build smaller spaces and then have common spaces to provide a little extra space.<sup>44</sup>

In communities such Panya Project (Thailand), there are large communal spaces for the shared kitchen, gardens, sitting area, office space, laundry, workshops, greenhouses, guest space and bathrooms (Figure 3). Panya Project is near Mae Taeng, Chiang Mai, northern Thailand. Established in 2004 the 10-acre site has become a place for experimentation and education in permaculture and

natural building. It was set up by a group of young Americans led by Christian Shearer with the aim of creating a permanent community. For a variety of reasons few of the founding members stayed full-time and it is now more a transient place where people come to learn skills and work the land for a few months and then move on, though several volunteers return annually. The advantage of this flux in residents, however, is that it feels quite a vibrant place invigorated by the energy of new arrivals. All the buildings on-site are described as natural buildings and the majority are earthen, built using either sun-dried adobe bricks or wattle and cob, with both techniques using clay and straw or rice husks.

Figure 3: Layout of Panya Project, Chiang Mai, Thailand



Panya tries to be about much more than the buildings, and residents consider the process of building and its completion as enhancing community (all builds are a collective process), part of a broader vision of changes required, an expression of creativity, and as a nucleus of ideas they hope people will take with them worldwide. Panya has put into practice the belief that walls and houses can isolate us from nature and each other and that if we re-design them we can better integrate nature into our daily lives. This is best exemplified in the Sala which has few external walls and is a very open space. It is protected from the elements by a large over-hanging roof, but allows much of nature in. Other buildings have no glass in their windows. Many of the dwellings are also purposely small – one house has just three metres by four and a half metres floor space. This reduces both build time and material requirements.

The residential houses need only contain space for sleeping and privacy. Most simply contain a bed and some storage space. All cooking, dining, and washing is done in communal spaces. These small houses do not need to benefit from close proximity to reduce energy use because the community is in

North West Thailand and in a tropical region. Instead the houses are built to enable air flow through them and having some distance between structures aids natural ventilation (Figure 4).

Figure 4: A small adobe house at Panya Project, Chiang Mai, Thailand



### **Home extends beyond the house**

In addition to communal spaces in eco-communities enabling individual homes to be structurally quite small, the physical and emotional sense of home extends far beyond the house structures. Peninsular Park Commons is a co-housing development created from renovating some existing houses and building some new structures. Developed by Eli Spevak and Jim Labbe in 2003 in Portland, Oregon, USA, it was designed to be an affordable urban eco-community. The original 7-unit courtyard apartment block was converted into 6 homes and a common unit (Figure 5). Four more new units were then built on the old driveway; “so much of our city is already allocated to cars, so we focus on using some of that space [driveways] for homes and outdoor gathering spaces”<sup>45</sup>. The community is ecological in its construction (reuse of building materials, solar thermal panels, use of light tunnels) and design (no car driveway but bike shed and easy bike route into the community, shared guest space, outside drying space). The common area unit is open to all residents and has a kitchen, dining area, living room and bathroom. It is used for watching TV, meetings and as guest space. There is also a communal bike shed.

Beyond the buildings are the communal gardens and raised vegetable patches (Figure 6). Rather than stop the development at the edge of the plot however, Peninsula Park Commons stretched out into the street and reclaimed the pavement (sidewalk) with planters. Plant beds overflow into the placement and merge the communal garden with the public space. Nature is brought into the homes while the community seeks to link into its neighbourhood.

As with other eco-communities a great deal at Peninsula Park Commons is shared; in their vision statement part of its purpose has been to create “an environment in which it is convenient to share such items as motor vehicles, home appliances, books, garden equipment, costumes, games, outdoor gear, construction tools, entertainment systems”<sup>46</sup>. There is also a very deliberate approach to existing

communities; “we want to slip into existing communities”<sup>47</sup>. They hold community events like their annual community ice cream social and garden party.

Figure 5: Layout of Peninsula Park Commons, Portland, Oregon, USA

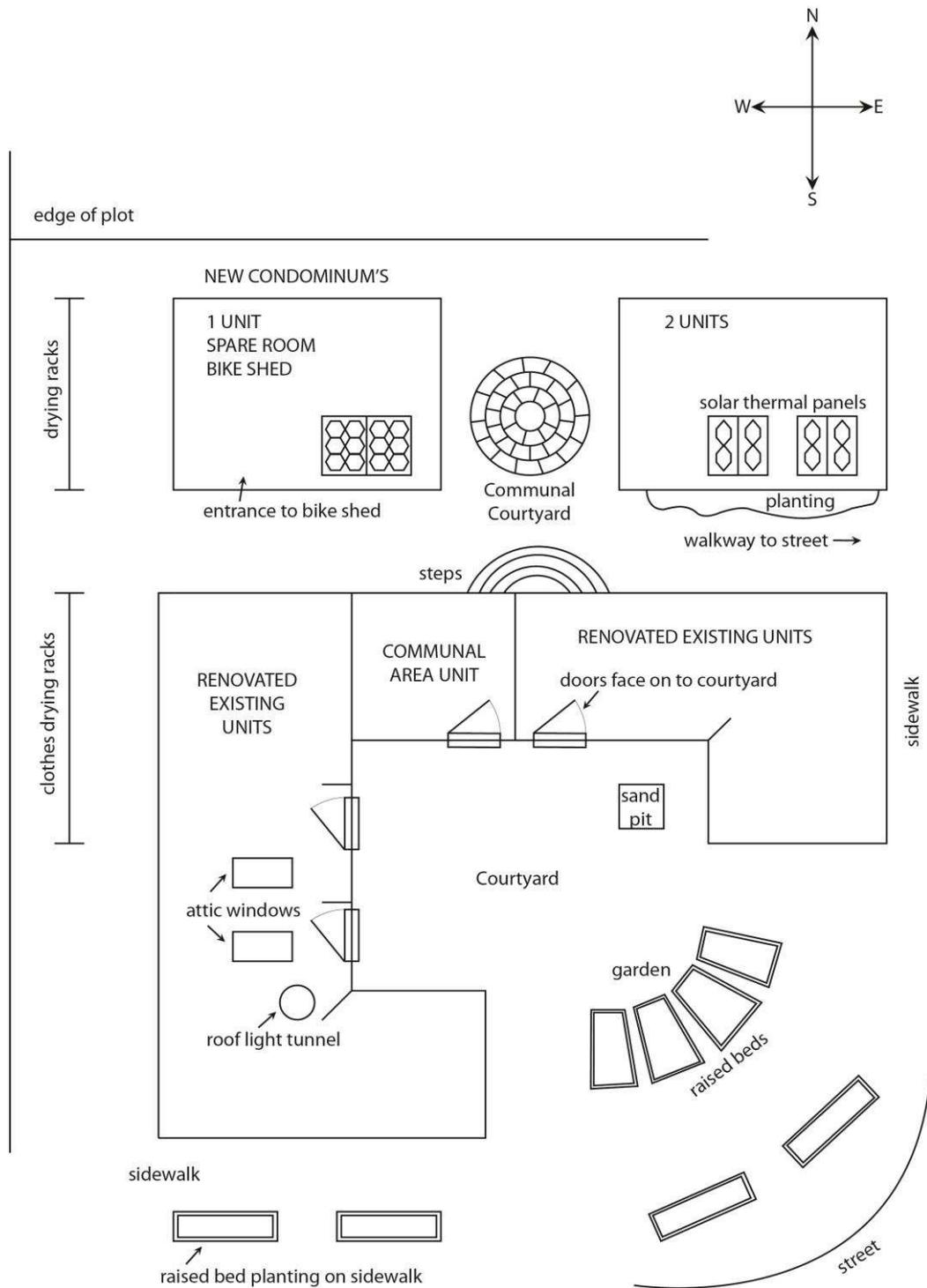


Figure 6: Peninsula Park Commons, Portland, Oregon, USA (view from the south)



### **Space for risk taking**

The discussion so far has explored how eco-communities have re-organised existing places and sought to redesign these places to be more inclusive and encourage interaction. Yet eco-communities can also be supportive places for risk taking, in other words the politics of the commons encourage invention.

Lammas has built a rural eco-village (called Tir y Gafel) in west Wales. It is an unusual place in that it is one of the few eco-villages in Britain that was planned and secured planning permission before building began. Using an innovative planning policy (The Joint Unitary Development Plan (JUDP), Policy 52 - 'Low Impact Development') Lammas was able to secure permission for nine eco-smallholdings on mixed pasture and woodland of south-facing land in Pembrokeshire. That the project was the result of years of planning appeals and only allowed through a new planning policy meant that Tir y Gafel has very much been considered at the cutting edge of eco-communities. Policy 52 set high standards for Lammas to meet: buildings were to be highly sustainable, use local, renewable, recycled, and/or natural materials and have low visual impact. Residents must also ensure that land-based activities (be it agriculture, forestry or horticulture) provide 75 per cent of basic household needs. Therefore residents had to be innovative and take risks in order to achieve all these conditions on a limited budget.

Lammas was taking a risk in pursuing the Tir y Gafel development, the first of its kind and under heavy surveillance from the state. Although residents each have their own allocated land and thus space and freedom in how they use their plot and make their livelihood, they are collectively responsible for meeting the planning targets. One resident described it as “more a village than a community” in that they live side by side but do not predetermine how everyone should live, yet if just one of the households fails to comply to Policy 52 the whole development is at risk of facing demolition. There was also a belief that individually they would struggle to build and live off the land – that without the physical and emotional support of each other it would be a long hard task for survival. There was a strong sense of mutual solidarity, sharing and kindness. For Lammas it was only through collectively supporting each other, being an eco-community, that they were able to take the risk to build a new eco-village from scratch.

The freedom that they have collectively has secured created the space for innovative and inventive eco-building. Simon Dale and Jasmine Saville had previously built an eco-house, colloquially called the ‘hobbit house’, but had been unable to secure long-term rights to the land on which it was built. At Tir y Gafel they have been able to create a larger version as their home and continue to experiment in a variety of natural build techniques (Figure 7). As Seyfang and Smith<sup>48</sup> have argued, places such as Tir y Gafel provide invaluable spaces for experimentation and grassroots innovations that can develop without competition (in niches). Once completed and tested in this protected environment, these innovations can serve as models for broader scale sustainable practices.

Figure 7: Simon Dale in his house, Tir y Gafel, Wales<sup>49</sup>



The risk taken by Tir y Gafel residents went beyond establishing a new community on a Welsh hillside to challenging building regulations. Residents took a risk in not complying with standard building regulations, arguing that they were costly and not applicable to their novel eco-constructions. There was a concern that trying to make houses made from natural materials comply with building

regulations, such as airtightness tests, would be extremely expensive and cost money the community could not afford. Complying with regulations also meant paying to have structural checks and to get buildings certified by various professionals, a use of expertise rejected by many eco-communities. Unfortunately, the state insisted that all homes on the site did comply with current building regulations. There was a standoff; court cases, criminal proceedings and several homes were threatened with demolition. Many of the features of the houses at Tiy y Gafel, like the use of external compost toilets or the lack of piped water, were deemed inappropriate by the state<sup>50</sup>. The result was significant remedial work and increased costs:

Our home costs approximately £3,000 to construct. Depending upon the flexibility of building control officers, compliance would increase this cost by an estimated 100-1000% which would use up at least all our budget for establishing our land based businesses and quite likely possibly render the project unviable.<sup>51</sup>

Tir y Gafel was experimenting in radical eco-house design and build methods, a vital space in which niche ideas can be tested and developed, but unfortunately the state sought to close down such experimentation.

### **Diversifying the commons**

Lydia Doleman<sup>52</sup>, an American self-builder argues that, “buildings have the capacity to equalize people or segregate them”. In other words, eco-communities can build places that encourage diversity or constrain it. Eco-communities need to design their buildings and shared spaces to accommodate diversity, building for different bodily abilities<sup>53</sup>. Eco-communities tend to have a more open sense of what constitutes family, rejecting the heteronormative concept of male and female coupledness that dominates in other parts of society (particularly Europe)<sup>54</sup>. Moving beyond the nuclear family and single-family dwelling as the defining form of social structure, has enabled eco-communities to develop new forms of interpersonal relationships and intimacy (a new politics of self)<sup>55</sup>. This is expressed through a greater acceptance of different sexualities, multiple partners and shared child care. Gender equality was also aspired to by trying to avoid creating gender-specific roles (such as men doing the building and women the cooking) and by sharing the domestic housework and child care burden<sup>56</sup>. There has been mixed success in achieving this, however, as Metcalf acknowledges that “within most intentional communities, however, we find traditional gender roles being followed by women and men”<sup>57</sup>.

This open sense of family extends to a concept which Critchlow Rodman calls co-care, a form of neighbourly mutual assistance that is being developed in co-housing designed particularly for seniors and the older generations<sup>58</sup>. This approach, being practiced at Wolf Willow and Harbourside co-housing in Canada and in the Netherlands, designs houses and builds community around the needs of an ageing population<sup>59</sup>. In addition to the structural provision of a carers suite on-site and disabled accessible rooms all on one level, a sense of responsibility to look after and care for each other is built into the social elements of the community. Despite a growing recognition of the need to develop intergenerational eco-communities, issues of ageing were largely ignored in the case study eco-communities<sup>60</sup>. There can be high turnover in eco-communities and as Manzella notes “there is little about contemporary intentional communities that encourage future generations to stay”<sup>61</sup>; all too often children leave and communities age without an influx of younger newcomers. Even in those with multiple generations like Findhorn eco-village there was concern that there were no pensions or provisions planned for the long-term residents who have been members and worked in the community for decades.

Other forms of diversity, such as race, disability or class have been even more neglected by eco-communities<sup>62</sup>. White middle class university educated professionals have long dominated eco-communities<sup>63</sup>. Some communities have sought to specifically engage with those who have disabilities or special needs. Inspired by Rudolf Steiner, Sólheimar (Iceland) and Kitezh (Russia) eco-communities have sought to create welcoming supportive places for special needs children<sup>64</sup>. Camphill communities (Britain and Norway) also seek to provide places for disabled people to live and work. A few communities have also sought to be multiracial. Koinonia Farm (Georgia, USA), a Christian farm eco-community, explicitly sought to attract black participants, but different emphasis on materialism, social justice and socio-economic conditions meant that “it was difficult for blacks who earned a wage, even a low wage, to give that up and move to a community in which communal sharing was the rule, which would amount to ‘voluntary poverty’”<sup>65</sup>.

In the main, however, this approach creates communities for diverse others as separate from other eco-communities, rather than seeking to diversify residents per se. Rather, there is a significant risk of homogeneity where “communities defined in terms of a shared home inevitably produce insiders and outsiders”<sup>66</sup> in the ways in which boundaries are created<sup>67</sup>. This may give community residents identity and power, but is problematic for others and for diversity. Indeed, “the more diverse and powerful individuals are, the more stable and lively the community will become through a network of complex relationships ... unity and diversity need each other”<sup>68</sup>. While the value of diversity is often acknowledged, the purpose of many eco-communities is, in part, to create boundaries between their community project and mainstream society. These boundaries create space for experimentation, alternative ways of doing and living and facilitates important feelings of belonging and identity. In this context Sargisson explores the purposeful estrangement eco-communities create which “facilitates critical distance and group coherence”<sup>69</sup>. The experience of estrangement, however, is paradoxical for many eco-community members, who both need it to feel part of the community, but who also eventually find it too much to endure. Estrangement in eco-communities acts to create members as a permanent otherness; separate, alienated and distanced from mainstream society. To overcome the possibility of this alienation developing into difficult practices (motivated by fear and mistrust) Sargisson argues that “the boundaries that surround intentional communities need to be punctured and kept porous”<sup>70</sup>.

### **Eco-living requires time, patience and compromise**

We are building houses, that’s the easy bit, but we are also building a community. Anyone can build houses, but it’s really difficult to build communities ... we put a lot of effort into that, how we make decisions, how we have fun together.<sup>71</sup>

Eco-living requires significant negotiation, compromise and careful attention to decision-making structures (governance). Living in eco-communities is not always easy, exemplified by the sometimes high turnover of residents, who find communal life too difficult<sup>72</sup>. There is significant diversity in the ways in which eco-communities have sought to make decisions, from highly democratic consensus-based models to decision-making power being concentrated to a few leaders<sup>73</sup>. The more democratic and shared the approach the longer the process takes. The consensus model, in particular, is lengthy because decisions are only reached when there is unanimous agreement (without voting). The process consequently requires extensive discussions, modifications to a proposal, and negotiations. This can become problematic if a decision is needed in a set timeframe<sup>74</sup>. However, once a decision has been agreed it can be quickly implemented because time has already been taken to negotiate problems. Crucially, practising consensus productively requires training, skill, creativity, and the ability to

overcome interpersonal issues<sup>75</sup>. As noted in the opening quote and confirmed by Cunningham and Wearings' research, building structures appears to be easier than negotiating self-organisation for the community<sup>76</sup>.

The need for communities to make communal decisions is juxtaposed against a fear of a lack of privacy: "the greatest fear of many people choosing a community is that they won't have enough privacy"<sup>77</sup>. Jarvis argues that we are in an age of isolation, of one-person households, "a paradox whereby yearning for connectedness coexists with neoliberal policies and cultural norms which promote self-reliance and the accumulation of private property"<sup>78</sup>. Many eco-communities deliberately reduce privacy and instead encourage more communal and collective activities, such as eating together and in some cases sleeping together; "there is a loose, inverse relationship between the degree of communalism and privacy"<sup>79</sup>. For some people, and at some times, this lack of privacy can be problematic. Litfin<sup>80</sup> uses the term 'ratcheting' to describe the numerous spontaneous interactions of living in close proximity. As people move around and through the eco-community they have many random encounters with others. People often need a balance between contact and solitude.

In terms of housing there is a need "to find ways to meet people's privacy needs while keeping our home sites compact and not sprawled all over the landscape"<sup>81</sup>. The tendency to seek to hide from others to create privacy by building scattered apart, increases environmental destruction and infrastructure costs<sup>82</sup>. Metcalf suggests that this lack of privacy is somewhat offset by the provision of quiet prayer or meditation spaces<sup>83</sup>. Lama Foundation and Findhorn eco-village both had specific quiet spaces, with Lama Foundation also having a hermitage for silent retreat. However, most of the eco-communities visited did not have these quiet spaces. Rather co-housing has to some extent been developed to produce more privacy while not rejecting the benefits of community and communality. Co-housing "combines the autonomy of private dwellings with the advantages of community living"<sup>84</sup>, or as Sullivan-Catlin argues co-housing could also be conceived of as "a cooperative neighbourhood"<sup>85</sup>. The co-housing model is proving so popular because it enables a balance between privacy and sharing<sup>86</sup>. Ideally interaction is encouraged by ensuring front doors face each other while creating privacy for living rooms and careful window placement<sup>87</sup>.

## **Conclusions**

An eco-community is a place in which residents illustrate a concern for the social, economic and environmental needs of each other and nature, and where there is collaborative, collective and communal housing and living. Eco-communities are best understood as "a process, and not a finished product"<sup>88</sup>. While many advocate that eco-communities are the best way in which to build a sustainable society, they are also problematic in their homogeneity, in their use of lifestyle strategies as a way in which to change the world<sup>89</sup>, and their reliance on consumption of green commodities and green technologies, which perpetuates (albeit green) capitalism<sup>90</sup>. This is not to deny the achievements of eco-communities, but to avoid an uncritical assessment.

Eco-communities are often founded on the principle of the commons and in many ways illustrate the success of sharing space, objects, knowledge and time. Building collectively reduces costs and environmental waste<sup>91</sup>. Developing systems of reciprocity and sharing enables eco-communities to function and for people to lead comfortable lives using fewer resources. Living in compact spaces works if there is communal space available to share, particularly access to shared green spaces. Connection is encouraged in many eco-communities through the design of spaces of conviviality and communal space where residents would regularly encounter others.

However, the benefits of sharing are complicated by the need to negotiate and compromise and the most successful systems of sharing demonstrate clear agreements for how tools, food and space are

shared. Just as there is a need for common space, so too is there a need for retreat and private space and there is a general move towards co-housing which provides privacy for residents in small efficient houses, but still encourages communal activities and sharing<sup>92</sup>.

Yet the commons in eco-communities is about much more than simple spatial strategy to create spaces of interaction. It is not simply about ensuring that there is as much communal space as there is private. The building of the commons and practices of commoning are multi-layered processes. They involve the shared emotional support required to take risks in trying new approaches, the listening and dialogue needed to involve diverse viewpoints and diversity into a community, and the time and patience to reach democratic decisions<sup>93</sup>. The physical structures are crucial in enabling these more social materialities of commoning to be practised. The circular shape of the Lama Foundation community dome and the spread of Peninsula Park Commons over the pavements, for example, illustrate the bringing in and stretching out of eco-communities. These spatial strategies enable the inclusive meetings to be held in a circle or neighbours being encouraged to join in an event. In other words the physical structures, how eco-communities are materially built, shape how the commons work (or not) in terms of sharing resources, objects, spaces, skills, and care.

## References

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- <sup>1</sup> Calhoun, C (1998) Community without propinquity revisited: communications technology and the transformation of the urban public sphere, *Sociological Inquiry*, 68, 3, 373-397, p.391.
- <sup>2</sup> Willem Duyvendak, J (2011) *The Politics of Home: Belonging and Nostalgia in Western Europe and the United States*. Palgrave Macmillan, Basingstoke.
- <sup>3</sup> Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge.
- <sup>4</sup> Gilman, R (1991). The eco-village challenge: The challenge of developing a community living in balanced harmony - with itself as well as nature - is tough, but attainable, In *Context*. Available at: <http://www.context.org/iclib/ic29/gilman1/>
- <sup>5</sup> Pepper, D (1991) *Communes and the Green Vision: Counterculture, Lifestyles and the New Age*. The Merlin Press, London; Chatterton, P (2013) Towards an agenda for post-carbon cities: Lessons from LILAC, the UK's first ecological, affordable, cohousing community, *International Journal for Urban and Regional Research*, 37, 5, 1654-1674; Bird, C (2010) *Local Sustainable Homes*. Transition Books, Totnes, Devon; Van Schyndel Kasper, D (2008) Redefining community in the ecovillage. *Human Ecology Review*, 15, 1, 12-24; Hockerton Housing Project (2001) *The Sustainable Community: A Practical Guide*, Hockerton Housing Project, Nottinghamshire, England; Ergas, C (2010) A Model of Sustainable Living: Collective Identity in an Urban Ecovillage, *Organization and Environment*, 23, 1, 32-54; Kirby, A (2003) Redefining social and environmental relations at the ecovillage at Ithaca: A case study, *Journal of Environmental Psychology*, 23, 3, 323-332
- <sup>6</sup> Meltzer, G (2005) *Sustainable Community: Learning from the cohousing model*. Trafford, Crewe, Cheshire; Martin Bang, J (2007) *Growing Eco-Communities: Practical ways to create sustainability*. Floris Books, Edinburgh; Moss Kanter, R (1972) *Commitment and Community: Communes and Utopias in Sociological Perspective*. Harvard University Press, London; Van Schyndel Kasper, D (2008) Redefining community in the ecovillage. *Human Ecology Review*, 15, 1, 12-24
- <sup>7</sup> Linebaugh, P (2008) *The Magna Carta Manifesto: The Struggle to Reclaim Liberties and Commons for All*. University of California Press, Berkeley.
- <sup>8</sup> Ostrom, E (1990) *Governing the Commons: The Evolution of Institutions for Collective Action*. Cambridge University Press, New York.
- <sup>9</sup> Blenker, Y (2006) *The Wealth of Networks: How Social Production Transforms Markets and Freedom*. Yale University Press, London; Carlsson, C (2008) *Nowtopia: How Pirate Programmers, Outlaw Bicyclists, and Vacant-Lot Gardeners are Inventing the Future Today*. AK Press, Oakland.
- <sup>10</sup> Miles, M (2008) *Urban Utopias: The built and social architectures of alternative settlements*. Routledge, London
- <sup>11</sup> Miles, M (2008) *Urban Utopias: The built and social architectures of alternative settlements*. Routledge, London; Birnbaum, J and Fox, L (2014) *Sustainable [R]evolution: Permaculture in ecovillages, urban farms,*

- 
- and communities worldwide. North Atlantic Books, Berkeley, California; Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge; White, N (2002) *Sustainable Housing Schemes in the UK*, Hockerton Housing Project, Nottinghamshire, England; Jackson, H and Svensson, K (eds.) (2002) *Ecovillage Living: Restoring the Earth and Her People*. Green Books, Totnes, Devon; Fike, R (ed.) (2012) *Voices from the Farm: Adventures in Community Living*, Book Publishing Company, Summertown, Tennessee, 2<sup>nd</sup> edition; Walker, L (2005) *Ecovillage at Ithaca: Pioneering a Sustainable Culture*, New Society Publishers, Gabriola Island, Canada; Thörn, H, Wasshede, C and Nilson, T (2011) *Space for Urban Alternatives? Christiania 1971-2011*, Balto Print, Vilnius; Miller, T (ed.) (2013) *Spiritual and Visionary Communities: Out to Save the World*. Ashgate, Farnham, Surrey
- <sup>12</sup> Conrad, J (ed.) (1996) *Eco-villages and Sustainable Communities: Models for 21<sup>st</sup> Century Living*. Findhorn Press, Forres; Dawson, J (2006) *Ecovillages: New Frontiers for Sustainability*. Schumacher Briefings, Green Books, Totnes, Devon.
- <sup>13</sup> Sargisson, L (2012) *Second-Wave Cohousing: A Modern Utopia?*, *Utopian Studies*, 23, 1, 28-56
- <sup>14</sup> Martin Bang, J (2007) *Growing Eco-Communities: Practical ways to create sustainability*. Floris Books, Edinburgh.
- <sup>15</sup> Leafe Christian, D (2003) *Creating a Life Together: Practical Tools to Grow Ecovillages and Intentional Communities*. New Society Publishers, Gabriola Island, Canada.
- <sup>16</sup> Jackson, H and Svensson, K (eds.) (2002) *Ecovillage Living: Restoring the Earth and Her People*. Green Books, Totnes, Devon.
- <sup>17</sup> Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge.
- <sup>18</sup> Schwarz, W and Schwarz, D (1998) *Living Lightly: Travels in Post-Consumer Society*. John Carpenter Publishing, Oxfordshire.
- <sup>19</sup> Wimbush, P (2012) *The Birth of an Ecovillage: Adventures in an Alternative World*. FeedARead Publishing, England
- <sup>20</sup> Sargisson, L (2012) *Second-wave cohousing: a modern Utopia?* *Utopian Studies*. 23(1), 28-56
- <sup>21</sup> Chatterton, P (2013) *Towards an agenda for post-carbon cities: Lessons from LILAC, the UK's first ecological, affordable, cohousing community*, *International Journal for Urban and Regional Research*, 37, 5, 1654–1674
- <sup>22</sup> Jarvis H (2013) *Against the ‘tyranny’ of single family dwelling: learning from Christiania at 40*. *Gender, Place and Culture*, 20, 8, 939-959
- <sup>23</sup> Metcalf, W (2004) *The Findhorn Book of Community Living*. Findhorn Press, Forres, Scotland; Metcalf, B (ed.) (1996) *Shared Visions, Shared Lives: Communal Living around the Globe*. Findhorn Press, Forres, Scotland.
- <sup>24</sup> Williams, J (2005) *Designing neighbourhoods for social interaction: the case of co-housing*. *Journal of Urban Design*, 10, 195-227
- <sup>25</sup> Marckmann, B, Gram-Hanssen, K and Haunstrup Christensen, T (2012) *Sustainable Living and Co-Housing: Evidence from a Case Study of Eco-Villages*. *Built Environment*, 38, 3, 413-429.
- <sup>26</sup> Walljasper, J (2010) *All That We Share: A Field Guide to the Commons*. The New Press, New York.
- <sup>27</sup> Franklin A, Newton J, Middleton J, Marsden T (2011) *Reconnecting skills for sustainable communities with everyday life*. *Environment and Planning A* 43(2) 347 – 362
- <sup>28</sup> Eraranta, K, Moisander, J and Pesonen, S (2009) *Narratives of self and relatedness in eco-communes: Resistance against normalized individualization and the nuclear family*. *European Societies*, 11, 3, 347-367.
- <sup>29</sup> Van Schyndel Kasper, D. (2008) *Redefining community in the ecovillage*. *Human Ecology Review*, 15 (1). pp. 12-24
- <sup>30</sup> Martin Bang, J (2005) *Ecovillages: A Practical Guide to Sustainable Communities*. Floris Books, Edinburgh, p.124-5
- <sup>31</sup> Kraftl, P. (2010) *Geographies of Architecture: The Multiple Lives of Buildings*, *Geography Compass* 4: 402-415.
- <sup>32</sup> Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge.
- <sup>33</sup> Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge, p.127
- <sup>34</sup> Seyfang, G (2009) *The New Economics of Sustainable Consumption: Seeds of Change*. Palgrave Macmillan, Basingstoke

- 
- <sup>35</sup> Seyfang, G (2009) *The New Economics of Sustainable Consumption: Seeds of Change*. Palgrave Macmillan, Basingstoke, p.124-125
- <sup>36</sup> Klinker, S (2004) *Shelter and Sustainable Development* in Kennedy, J, F (ed.) *Building Without Borders: Sustainable Construction for the Global Village*. New Society Publishers, Gabriola Island, Canada, pp.5-30, p.11
- <sup>37</sup> Godfrey Cook, M (2011) *The Zero-Carbon House*. The Crowood Press, Marlborough, Wiltshire.
- <sup>38</sup> Interview with Eli Spevak, architect and resident of Peninsula Park Commons
- <sup>39</sup> Interview with Chelsea Lord, Lama Foundation volunteer
- <sup>40</sup> Interview with Richard Gomes, resident of Lama Foundation
- <sup>41</sup> Tanner, C, J, Title, B and Reedman, T (2007) A case study for the Ecovillage at Currumbin – integrated water management planning, design and construction, *WIT Transactions on Ecology and the Environment*, 1, 33-41, May
- <sup>42</sup> Salomon, S (2006) *Little House on a Small Planet*. The Lyons Press, Guilford, Connecticut, USA.
- <sup>43</sup> Jarvis, H (2011) Saving space, sharing time: integrated infrastructures of daily life in cohousing, *Environment and Planning A*, 43, 560-577
- <sup>44</sup> Interview with Eli Spevak
- <sup>45</sup> Interview with Eli Spevak
- <sup>46</sup> [www.penparkcommons.org/vision.htm](http://www.penparkcommons.org/vision.htm)
- <sup>47</sup> Interview with Eli Spevak
- <sup>48</sup> Seyfang, G and Smith, A (2007) Grassroots innovations for sustainable development: towards a new research and policy agenda, *Environmental Politics*, 16, 4, 584-603; Seyfang, G (2010) Community action for sustainable housing: Building a low-carbon future, *Energy Policy*, 38, 7624-7633
- <sup>49</sup> Photograph taken by and courtesy of Amanda Jackson.
- <sup>50</sup> Dale, S and Saville, J (2011) The Compatibility of Building Regulations with Projects under New Low Impact Development and One Planet Development Planning Policies: Critical and Urgent Problems and the Need for a Workable Solution. Available at: [http://www.simondale.net/house/Building\\_Regulations\\_and\\_LID.pdf](http://www.simondale.net/house/Building_Regulations_and_LID.pdf)
- <sup>51</sup> Dale, S and Saville, J (2011) The Compatibility of Building Regulations with Projects under New Low Impact Development and One Planet Development Planning Policies: Critical and Urgent Problems and the Need for a Workable Solution. Available at: [http://www.simondale.net/house/Building\\_Regulations\\_and\\_LID.pdf](http://www.simondale.net/house/Building_Regulations_and_LID.pdf), p.11
- <sup>52</sup> Doleman, L (2011) Flying Hammer Productions. <http://theflyinghammer.com/>
- <sup>53</sup> Imrie, R (2013) Shared Space and the Post-politics of Environmental Change, *Urban Studies*, 50, 16, 3446-3462
- <sup>54</sup> Wilkonson, E (2014) Learning to love again: ‘Broken families’, citizenship and the state promotion of coupledom, *Geoforum*; Wilkinson, E and Bell, D (2012) Ties that bind: on not seeing (or looking) beyond ‘the family’, *Families, Relationships and Societies*, 1, 3, 423-9
- <sup>55</sup> Eräranta, K, Moisander, J and Pesonen, S (2009) Narratives of self and relatedness in eco-communes: Resistance against normalized individualization and the nuclear family. *European Societies*, 11, 3, 347-367; Jarvis, H (2013) Against the ‘tyranny’ of single-family dwelling: insights from Christiania at 40. *Gender, Place and Culture: Journal of Feminist Geography*, 20, 8, 939-959
- <sup>56</sup> Vestbro, D, U and Horelli, L (2012) Design for Gender Equality: The History of Co-Housing Ideas and Realities, *Built Environment*, 38, 3, 315-335
- <sup>57</sup> Metcalf, W (2004) *The Findhorn Book of Community Living*. Findhorn Press, Forres, Scotland, p.100. See also Meah, A and Jackson, P (2013) Crowded kitchens: the ‘democratisation’ of domesticity? *Gender, Place and Culture: A Journal of Feminist Geography*, 20, 5, 578-596
- <sup>58</sup> Critchlow Rodman, M (2013) Co-caring in Senior Cohousing: A Canadian model for social sustainability, presented at ISCA Conference, Findhorn Eco-village, Scotland, June.
- <sup>59</sup> Brenton, M (2011) Cohousing: Supportive Local Networks in Old Age, in Bunker, S, Coates, C, Field, M and How, J (eds.) *Cohousing in Britain*. Diggers and Dreamers Publications, London.
- <sup>60</sup> Bauman Power, M, Krause Eheart, B, Racine, D and Karnik, N, S (2007) Aging Well in an Intentional Intergenerational Community: Meaningful Relationships and Purposeful Engagement, *Journal of Intergenerational Relationships*, 5, 2, 7-25; Glass, A, P (2012) Elder Co-Housing in the United States: Three

---

Case Studies, *Built Environment*, 38, 3, 345-363; Brenton, M (2013) Senior cohousing communities – an alternative approach for the UK? Joseph Rowntree Programme Paper, available at: <http://www.jrf.org.uk/sites/files/jrf/senior-cohousing-communities-full.pdf>

<sup>61</sup> Manzella, J, C (2010) *Common Purse, Uncommon Future: The Long, Strange Trip of Communes and Other Intentional Communities*, Praeger, Oxford, England, p.171

<sup>62</sup> Chitewere, T (2006) *Constructing a green lifestyle: Consumption and environmentalism in an ecovillage*, unpublished PhD thesis, State University of New York at Binghamton; Chitewere, T and Taylor, D, E (2010), 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 Dorceta E. Taylor (ed.) *Environment and Social Justice: An International Perspective (Research in Social Problems and Public Policy, Volume 18)*, Emerald Group Publishing Limited, pp.141-176; Van Schyndel Kasper, D (2008) Redefining community in the ecovillage. *Human Ecology Review*, 15, 1, 12-24

<sup>63</sup> Pepper, D (1991) *Communes and the Green Vision: Counterculture, Lifestyles and the New Age*. The Merlin Press, London; Manzella, J, C (2010) *Common Purse, Uncommon Future: The Long, Strange Trip of Communes and Other Intentional Communities*, Praeger, Oxford, England.

<sup>64</sup> Dawson, J (2006) *Ecovillages: New Frontiers for Sustainability*. Schumacher Briefings, Green Books, Totnes, Devon, p.56

<sup>65</sup> Manzella, J, C (2010) *Common Purse, Uncommon Future: The Long, Strange Trip of Communes and Other Intentional Communities*, Praeger, Oxford, England, p.173

<sup>66</sup> Willem Duyvendak, J (2011) *The Politics of Home: Belonging and Nostalgia in Western Europe and the United States*. Palgrave Macmillan, Basingstoke, p.83.

<sup>67</sup> Moss Kanter, R (1972) *Commitment and Community: Communes and Utopias in Sociological Perspective*. Harvard University Press, London.

<sup>68</sup> Halbach, D (2005) The rainbow power of community, in Peters, V and Stengel, M (eds.) *Eurotopia: Intentional Communities and Ecovillages in Europe*, Ökodorf Sieben Linden, p.28

<sup>69</sup> Sargisson, L (2007) Strange Places: Estrangement, Utopianism, and Intentional Communities, *Utopian Studies*, 18, 3, 393-424, p.393

<sup>70</sup> Sargisson, L (2007) Strange Places: Estrangement, Utopianism, and Intentional Communities, *Utopian Studies*, 18, 3, 393-424, p.417

<sup>71</sup> Paul Chatterton, co-founder of LILAC, quoted in Haines, S (2013) 'Strong bond' of Leeds LILAC co-housing residents, BBC News, 1<sup>st</sup> January

<sup>72</sup> Garden, M (2006) Leaving Utopia, *The International Journal of Inclusive Democracy*, 2, 2, available at: [http://www.inclusivedemocracy.org/journal/vol2/vol2\\_no2\\_Garden.htm](http://www.inclusivedemocracy.org/journal/vol2/vol2_no2_Garden.htm)

<sup>73</sup> Metcalf, W (2004) *The Findhorn Book of Community Living*. Findhorn Press, Forres, Scotland.

<sup>74</sup> Renz, M, A (2006) Pacing Consensus: Enacting, Challenging, and Revising the Consensus Process in a Cohousing Community, *Journal of Applied Communication Research*, 34, 2, 163-190

<sup>75</sup> Walljasper, J (2010) *All That We Share: A Field Guide to the Commons*. The New Press, New York.

<sup>76</sup> Cunningham, P, A, and Wearing, S, L (2013) The Politics of Consensus: An Exploration of the Cloughjordan Ecovillage, Ireland, *Cosmopolitan Civil Societies: An Interdisciplinary Journal*, 5, 2, available at: <http://epress.lib.uts.edu.au/journals/index.php/mcs/article/view/3283>

<sup>77</sup> Leafe Christian, D (2003) *Creating a Life Together: Practical Tools to Grow Ecovillages and Intentional Communities*. New Society Publishers, Gabriola Island, Canada, p.148

<sup>78</sup> Jarvis, H (2011) Saving space, sharing time: integrated infrastructures of daily life in cohousing, *Environment and Planning A*, 43, 560-577, p.561

<sup>79</sup> Metcalf, W (2004) *The Findhorn Book of Community Living*. Findhorn Press, Forres, Scotland, p.102

<sup>80</sup> Litfin, K, T (2014) *Eco-villages: Lessons for Sustainable Community*. Polity Press, Cambridge.

<sup>81</sup> Chuck Marsh of Earthhaven eco-community, USA, quoted in Leafe Christian, D (2003) *Creating a Life Together: Practical Tools to Grow Ecovillages and Intentional Communities*. New Society Publishers, Gabriola Island, Canada, p.147

<sup>82</sup> Leafe Christian, D (2003) *Creating a Life Together: Practical Tools to Grow Ecovillages and Intentional Communities*. New Society Publishers, Gabriola Island, Canada.

<sup>83</sup> Metcalf, W (2004) *The Findhorn Book of Community Living*. Findhorn Press, Forres, Scotland.

- 
- <sup>84</sup> Williams, J (2005) Designing Neighbourhoods for Social Interaction: The Case of Cohousing, *Journal of Urban Design*, 10, 2, 195-227, p.200
- <sup>85</sup> Sullivan-Catlin, H (2004) "A Good Borderland": Cohousing Communities and Social Change, *Communal Societies*, 24, 121-141
- <sup>86</sup> Lietaert, M (2010) Cohousing's relevance to degrowth theories, *Journal of Cleaner Production*, 18, 576-580
- <sup>87</sup> Leafe Christian, D (2003) *Creating a Life Together: Practical Tools to Grow Ecovillages and Intentional Communities*. New Society Publishers, Gabriola Island, Canada.
- <sup>88</sup> Van Schyndel Kasper, D (2008) Redefining community in the ecovillage. *Human Ecology Review*, 15, 1, 12-24, p.20
- <sup>89</sup> Fotopoulos, T (2000) The Limitations of Life-Style Strategies: The Ecovillage 'Movement' is NOT the Way Toward a New Democratic Society, *Democracy and Nature*, 6, 2, 287-308
- <sup>90</sup> Chitewere, T (2006) *Constructing a green lifestyle: Consumption and environmentalism in an ecovillage*, unpublished PhD thesis, State University of New York at Binghamton
- <sup>91</sup> Urban Vestbro, D (2012) *Saving by Sharing – Collective Housing for Sustainable Lifestyles in the Swedish Context*, presented at the 3<sup>rd</sup> International Conference on Degrowth for Ecological Sustainability and Social Equity, Venice, 19<sup>th</sup> to 23<sup>rd</sup> September, available at: <http://www.slideshare.net/degrowthconf/saving-by-sharing-collective-housing-for-sustainable-lifestyles>
- <sup>92</sup> Meltzer, G (1999) Cohousing: Linking Communitarianism and Sustainability, *Communal Societies*, 19, 85-100
- <sup>93</sup> Fosket, J and Mamo, L (2009) *Living Green: Communities that sustain*. New Society Publishers, Gabriola Island, Canada, p.164