Towards sustainable development in the countryside?

A case study of the first eco-hamlet under Pembrokeshire Planning Policy 52

"I knew that there were ways, lots of different ways of living on the land, farming, creating lifestyle and livelihood that had massive potential for replication across the country, created far higher quality of life, were really good for biodiversity and could potentially compete with farmers in terms of productivity." (Respondent 3)

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Abstract

Mainstream western lifestyle consumes more resources than sustainably available. Bottom up and top down approaches attempt to counteract the resulting threats of climate change, peak oil and biodiversity loss. In Pembrokeshire these approaches merge in Planning Policy 52, which opens the countryside for legal Low Impact Development (LID). Lammas is the first LID- community under this regulation. Qualitative data from in-depth interviews and participation-observation are used to explore Lammas' back-to-the-land background, motivation and experience. Coming from the alternative scene it aims to bring LID into the mainstream. But despite favourable planning law, LID and permaculture were not approved of by the local authorities, resulting in a three year long marathon to gain planning permission. Nine families, mainly middle class intelligentsia as found in green communes and eco-villages, construct the eco-hamlet. But there are significant differences to other movements. Lammas focuses on engagement with the land and has less urge to change society, drop out of mainstream or establish alternative social structures. Positive solutions to reduce their ecological impact are most important to them. As the small-holdings are still busy building, it remains to be seen if they reach their goal to increase productivity and biodiversity. If they succeed, they would present a viable sustainable lifestyle. Therefore, Policy 52 and Lammas potential as a role model for sustainable development in the open countryside are discussed.

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I. Introduction

We live in times of a changing environment and pressing challenges (Barrow, 2006): global temperatures are rising (Solomon *et al.,* 2007) and biodiversity is decreasing at rates up to 1000 times higher than 'natural'. For both, land use is one of the main reasons (Townsend *et al.,* 2003). Furthermore, our economy is based on finite resources, which become scarcer (Karlsson, 2007) and once their peak is reached, current growth rates might drop (Hopkins, 2009). The global anthropogenic impact on land has long been recognized (Cole, 1970). There are almost "no natural spaces left" (Barrow, 2006: 6). Therefore, society's current ecological footprint poses a threat to future development (Jenkins, 2002). To sustain the average lifestyle in Wales, three planets would be needed, with the food and housing sector contributing largely to this resource consumption (Welsh Assembly Government One Planet: One Wales, 2003). However, there are no solely technological solutions to the linked problems of food demand, soil degradation, pollution and resource depletion (Trainer, 1995 and 2007). To achieve the transition to a sustainable society, a change in technologies, institutions (Jenkins, 2002) and, most importantly, worldview is needed (Beddoe *et al.,* 2009).

In Wales, there are both bottom up and top down responses to these challenges. Not only have parts of the back-to-the-land movement (e.g. Centre for Alternative Technologies, Brithdir Mawr) presented different ways of living: they suggest the use of 'soft technology' such as permaculture and Low Impact Development. These different ideas need space to materialize if they are to become a real alternative (Halfacree, 2007). But also, sustainability has been a core value of the Welsh Assembly Government since its formation in 2007. And in Pembrokeshire, bottom up and top down approaches are merged in Planning Policy 52. For the first time, LID is allowed in the open countryside. Thus, here 'legal space' to test alternative solutions is now available. Policy 52 also mentions explicitly the creation of communities, as envisaged by green writers: self- sufficient, small scale agricultural communes have been proclaimed as vital for a sustainable future (Bahro, 1986; Young, 1990).

This paper is a case study of Lammas, the first community that is using this new 'legal space'. After a brief overview of the institutional and counter-cultural context, I examine the motivation, background and experience of its members. Discussing Policy 52 and Lammas it is aimed to assess the extent to which they could contribute to sustainable development in the countryside.

II. Context of institutions and counter-cultural movements

II.1. The top down approach – a change in institutions?

The past decades have seen a growing recognition of global environmental issues and in 1988, the Intergovernmental Panel on Climate Change was formed to produce a scientific basis of understanding. Anthropogenic activities, especially greenhouse gas (GHG) emissions from burning of fossil fuels and deforestation (Ruddimann, 2008), are now widely accepted as a contributing factor to rising temperatures (Houghton, 2009; Ruddimann, 2008; Smithson *et al.* 2008). Governments attempt to find global agreements on mitigation

measures. However, the Kyoto protocol signed by the UK and 186 other states has not been ratified by e.g. the US, and a successor protocol does not yet exist (Copenhagen Climate summit failed in 2009).

Despite this international delay, on a national level the UK is committed to reduce carbon emissions by 34% until 2020, and strategies are set out for a transition into a low carbon society. In addition, the UK as part of the United Nations Conference on Environment and Development has agreed in Rio 1992 on the Convention on Biological Diversity and Agenda 21, which emphasises the need for sustainable development and conservation. Sustainability is most commonly (Crush, 1995) understood as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs" (Brundtland, 1987: 43). In Wales, this is a particularly strong, binding commitment. It is articulated latest in the *One Wales: One Planet Sustainable Development Scheme* as "central organising principle" of legislation in Wales (WAG, 2009: 25). The ecological footprint (Wackernagel *et al.,* 1999), which measures the resources needed in global ha per capita, is used as indicator of sustainability. Wales aims to reduce the average ecological footprint from currently 3 to 1 planet within a lifetime.

II.2. The role of the planning system

Land use determines not only GHG emissions through the form of development, but also space available for wildlife and thus biodiversity (Whittaker, 1972). Furthermore, placement of distinct developments affects transport requirements. Cement and transport are major contributors to GHG emissions (Huntzinger and Eatmon, 2009; Chapman, 2007) whilst industrial agriculture has negative effects on the environment (Biswas, A. 1979; Biswas, M. 1979). Food, housing and transport are thus regarded as the most important regulation areas for sustainability by the Welsh Assembly Government (WAG, 2009).

Planning law steers development (Garner and Jones, 1997) and thus controls the 'legal space' available for different ideas. Furthermore, illegal developments can be removed and are excluded from official social interactions, e.g. bank loans and mail service (Cutajar and Carr, 2009). Thus development outside the legal framework is marginalised.

In Wales, overarching planning law is the UK Town and Country Planning Act (TCPA) 1990, amended 2004. Devolved planning responsibility to the WAG has resulted in Planning Policy Wales, which sets out guidelines for local planning policies such as Pembrokeshire's Joint Unitary Development Plan (JUDP). Technical Advise Notes (TAN) from the WAG give directions how local development plans are to be issued (Maxey, 2009b). Since the TCPA 1947, residential development in the open countryside has been permitted only if it was agricultural and of a "viable" scale (TCPA 1990: Planning Policy Statement 7) to protect areas for food production and wildlife and prevent urban sprawl (Scott Report, 1942).

A financial test secures that buildings remain tied to viable land based activities (Garner and Jones, 1997). This makes it difficult especially for low income families to establish a Low Impact Development (LID) smallholding which does not aim for cash crops but for self-sufficiency. In the conventional planning paradigm, planning permission is only granted if a certain income can be proven for the agricultural business. Meanwhile building however, families often rely on tax credits for rented accommodation and thus have to prove a low

income. Planning authorities have therefore been described as “prohibiting” sustainable development and especially LID (Fairlie, 2009a: 38) in the countryside. In consequence, LID are also built illegally.

However, since 1947 the meaning of the term agriculture has been exceedingly broadened beyond the initial intention of the TCPA. Today’s industrial agriculture cannot protect the countryside where it is not connected to the surrounding land, e.g. in intensive animal husbandry (Garner and Jones, 1997). Furthermore, industrialised farming has many detrimental effects on the environment: monoculture reduces habitats, fossil fuel intensive fertilizers cause eutrophication and herbicides and pesticides disturb food chains, all contributing to reduce biodiversity (Townsend *et al.,* 2003). In addition, transport requirements of specialised agriculture are fossil fuel intensive.

Pembrokeshire's Planning Policy 52 JUDP poses a change to this planning paradigm as it allows residential land based development in the open countryside. There are two novelties in this regulation. First, the assessment of the development being tied to the land is not based on financial viability but by its ability to produce sufficient resources needed. Second, it promotes permaculture and LID small scale sustainable agriculture in contrast to specialised industrial agriculture.

II.3. The bottom up approach: context of counter culture

Going “back-to-the-land” has a long history in the northern hemisphere (Halfacree, 2006), and is generally associated with radical movements (Howkins, 2003). Recently, the probably most prominent wave started with the 1970s counter culture. Amongst its multiple driving forces and strains (Coates, 2001), hippies dropping out of mainstream society (Young, 1973) migrated into the rural idyll in order to leave industrialised economy (Dietz 2008). Reconnecting with the land they were searching for different social systems and ecological lifestyles. These “radical others” (Halfacree, 2006) were driven to the fringes of society by environmental concern, risen through Carson's “Silent Spring” (1962), Harding's “Tragedy of the Commons” (1968) and concerns about the limits of growth. But they also sought to escape competitive markets through self-sufficiency and live a simple and good life instead (Jacob, 1997).

However, in the 1970 emphasis has been put on the development of new social structures. Communards often came from a dysfunctional family background and felt alienated from mainstream society (Pepper, 1991). In consequence, they sought “self-identity” and “self-fulfilment”. Traditional family structures were considered dominative and exploitative (Abrams and McCulloch, 1976). However, ambitions of green communes to live sustainably were rarely met (Pepper, 1991). Reaching self sufficiency requires hard work and farming skills. Also, Jacob (1997) found a significant gap between dreams and achievements of back-to-the-landers. Additionally, group relationships were often challenging (Miles, 2003). As the expected changes in social structures were not visible, energy often faded (Nelson, 1989) and many communards returned to the city (Jacob, 1997).

II.4. New greens, LID and Permaculture – new technology and worldview?

Over the last 20 years, a new migration into rural areas appeared with stronger connections

to green practices and interests (McKay, 1998). A global network of eco- villages (GEN, http://gen.ecovillage.org) has evolved from former back-to-the-land movements (Jackson and Jackson, 2004). Eco-villages are diverse settlements which aspire to be "human scale, full-featured settlements in which human activities are harmlessly integrated into the natural world in a way that is supportive of healthy human development and that can be continued into the indefinite future" (Dawson, 2010). Often based on permaculture and using LID building techniques, they represent holistic worldviews of sustainability, including not only ecological but also socio-economic, cultural and spiritual aspects (Jackson and Svensson, 2002a) whereupon each has a different emphasis (Dawson, 2010). Generally, humans are seen as part of the environment rather than separate from it, influenced by deep ecology (Fox, 1995) and Lovelocks "Gaia Theory" (2000). Permaculture principles are often core values: working with natural energy flows instead of subordinating nature; caring for people and the earth, and fair-share. LID buildings use natural, recyclable materials with low embodied energy. Permaculture is not only a holistic form of agriculture but also a life philosophy (Bell, 1992), thus complementing LID. Some well known examples in Britain are Findhorn, Steward Community Woodland and Tinkers Bubble. LID communities such as the latter often only gain retrospective planning permission on appeal after difficult planning campaigns (Fairlie, 2009b).

Wales has attracted back-to-the-land migration because of its low population density; its "otherness" compared to mainstream England and associated tolerance towards alternative ideas. Thus, diverse alternative rural lifestyles exist and "hippies" are featuring the inventory of Wales' tourist attractions (Halfacree, forthcoming). Sustainability is a key motivation for many, most prominent probably in the Centre for Alternative Technology (CAT) in mid Wales (Pepper, 1991).

A concentration of LID in Wales ranges from long established, large radical drop-out communities like Tepee Valley and Woodhouse Wood to single dwellings (Yr Cwtsh), educational projects (Down to Earth), art communities (Coed Hills) and others. Most notably, the community Brithdir Mawr in Pembrokeshire is an example where a sustainable lifestyle is more important than "dropping out" from mainstream society (Halfacree, forthcoming). The planning "battle" to get permission for an attached roundhouse (Wrench, www.thatroundhouse.info) originated two reports about LID (UWE, 2002; Baker Associates, 2004) and thus furthered Policy 52 (Lovell, 2009; Fairlie, 2009b). The neighbourhood of Brithdir Mawr is rich in LIDs and eco-houses (personal observation on eco-housing tour, 14th of June 2010), e.g. the former home of John Seymour, environmentalist and author of "Self Sufficiency" (1970) who attracted people from "Britain and all over Europe" (personal communication from V. Moller). However, to gain planning permission is generally a difficult hurdle for both single LID and eco-villages (Fairlie, 2009a; Christian, 2003; Halfacree, 2003;) and often not obtained beforehand.

Today the context to go back-to-the-land seems promising. Especially in Pembrokeshire both planning law and the alternative scene are favourable for LID. Also, the agricultural paradigm has shifted to a diversified countryside (Murdoch *et al.,* 2003). Productivism is seen as declining (Halfacree, 2006, Ilbery and Bowler, 1998). At the same time, green attitudes become more popular (Meijering *et al.,* 2006; Halfacree, 2003), offering chances and a broader market for organic small scale production.

However, as cottage houses are considered picturesque homes, migration into rural areas becomes difficult for all but the affluent (Holly and Jones, 1997; Holly *et al.,* 2009). Correspondingly, the major driving force behind LID is the need for affordable housing. About one third of the people who seek advice from *The Land is Ours* (TLIO), a grass root organisation that promotes LID, originate from rural backgrounds, and most do not seek communal living. Thus, it is not necessarily linked with back-to-the-land or counter-cultural movements (Fairlie, 2009a). There is a lack of research into LID in general (Halfacree, 2003; Maxey and Pickerill, 2009; Fairlie, 2009a) and ecological communities as contributors to a sustainable countryside in particular (Meijering *et al.* 2007). This case study of a LID-community in Pembrokeshire aims to narrow this gap.

III. Methodology

The aim of this study was to assess if Policy 52 facilitated sustainable development in the case of Lammas. How does Policy 52 regulate for sustainable development? And was the change in institutions towards sustainability recognizable in the case of Lammas? Furthermore, what motivated members to join Lammas, and how important is a sustainable lifestyle to them? Is Lammas part of the bottom up approach; especially is it a green commune (as defined by Pepper, 1991)?

Following a broadly humanistic (Rodaway, 2008) and post-marxist (Samers, 2008) approach, qualitative data are used (Flowerdew and Martin, 2005) for analysis and comparison with broader society (Cloke *et al.,* 2008). The data were collected in 18 interviews, each between one and two hours, structured and held as informal conversations similar to Pepper's (1991) approach. Participant-observation was an additional tool for data-gathering. I stayed at the community during an open volunteer week and later on as a volunteer for a total of one month. The interviews were recorded, transcribed and “splitted” (Kitchin and Tate, 2000: 244). If not stated otherwise, the quotations given are representing the majority (> 2/3) of members. Where answers deviated significantly, they are included in the results. Secondary data, mainly the planning law, application and the appeal decision were used to complement the study. For full description of the research and methods used, see appendix.

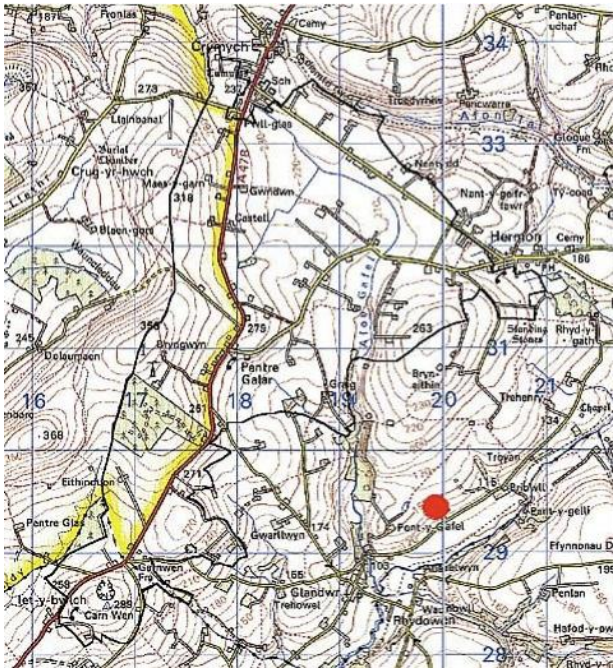
IV. Results

IV.0. The 'legal space'

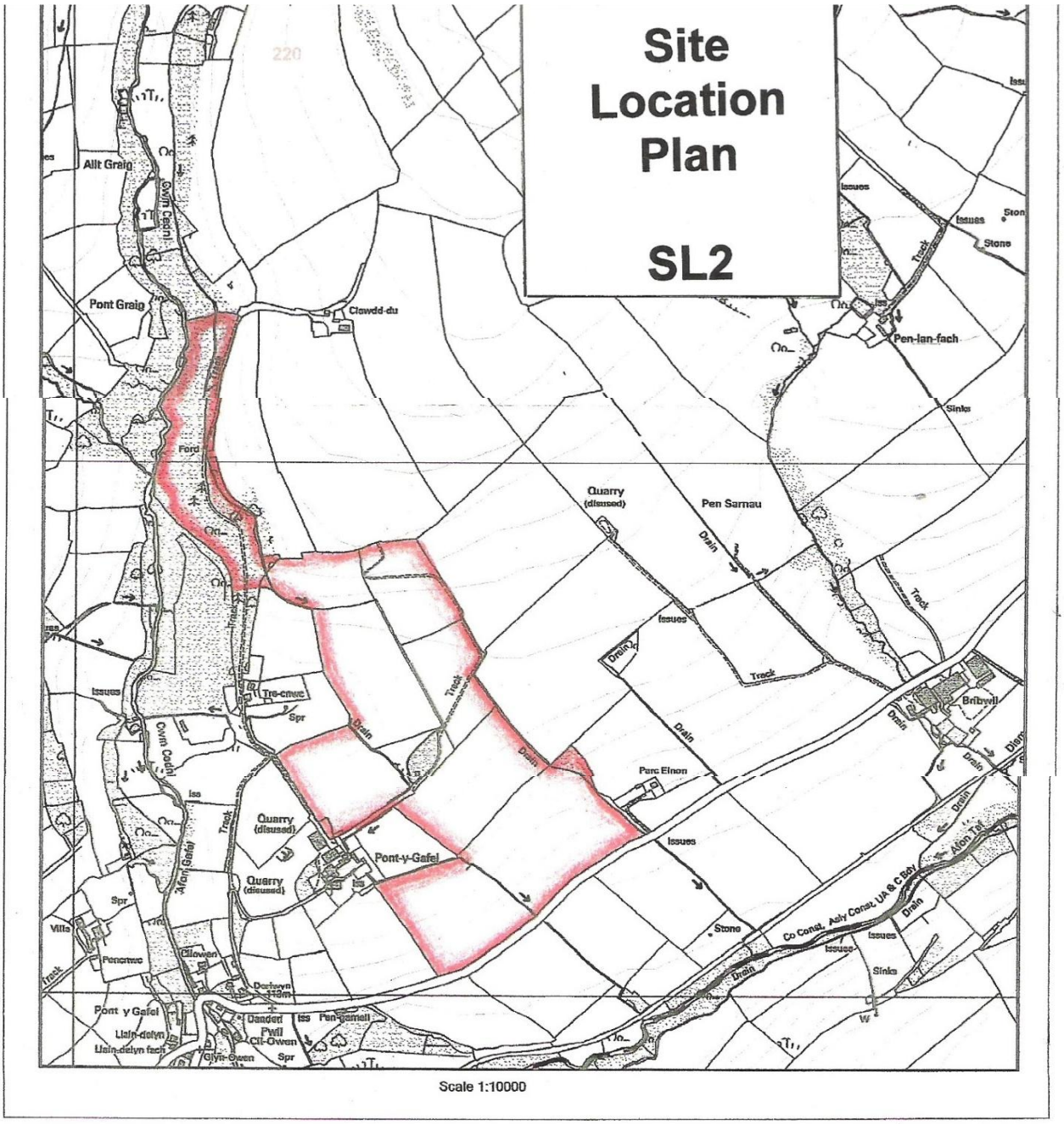
Pembrokeshires Planning Policy 52 (adopted 2006, see appendix) enables legal LID in the open countryside. The new policy is a result of the Agenda 21 process (Maxey, 2009a) and two studies into LID (Baker Associates, 2004; UWE Land Use Consultants, 2002). Policy 52 allows sustainable structures and activities. Businesses must be tied to the land and developments must meet 75 percent of basic household needs directly from it after a period of 5 years. Additionally, the development must make a “positive contribution” to the environment, the economy and wider society whilst blending into the landscape. Also, the number of adult residents must directly relate to the workforce needed.

IV.1. Lammas

Map 1: Pembrokeshire © Wikipedia commons, 2010.



Map 2: Glandwr, reproduced from OS map © Crown Copyright 2001. Approximate location of Lammas indicated in red, respectively.



Map 3: the eco-hamlet Lammas,Tir y Gafel, with courtesy of Lammas.

Lammas Low Impact Initiatives Ltd is setting up an eco-hamlet in Pembrokeshire (map 1), close to Glanwr (map 2 and 3).

I expected Lammas to be a commune (as described by Philby, Independent 10/07/2010) of radical environmentalists, cluttered together in building wagons around a camp-fire:

"I had carefully dressed this morning, nothing too pink, and was eager to find out if I 'fitted

in' this community." (Field diary, 12/07/2010).

However, there was no experience of entering a closed group. Five detached houses and a terrace house are planned to be placed around a mill pond. Every family has their own space, and a diversity of aesthetics is apparent in different building and clothing styles.

Instead of debating how to save the world whilst eventually smoking "a puff of grass" (Halfacree, forthcoming), parents spent their evenings with their children. Because Lammas was pictured as "a hippie commune" by local opponents (Wimbush, 2009), it is important to them to correct this picture:

"We are not a commune, but an eco-hamlet!" (Respondent 5)

Founded in 2005, Lammas was designed to fit under Policy 52 as an example of how a legal low impact settlement could look like.

"This was too good an opportunity to miss!" (Respondent 3)

The organisation bought 76 acres of a former sheep farm and conifer plantation (see map 3) now called Tir y Gafel. The land is divided into 9 plots, leased for 99 years to the residents and who convert them into smallholdings. According to Policy 52, a management plan binds the leaseholders to LID and permaculture principles. If it is not acted upon, the lease can ultimately be withdrawn. Similarly, residents are only able to sell their leasehold back to Lammas, and the organisation then finds a new leaseholder. Thus, it is ensured that sustainable practices are continued as requested by Policy 52, and the management plan is applicable to successors of the first residents, as well. Thus, the underlying structure of Lammas is strictly organised, similar to green communes in the US in the 1980s (McLaughlin and Davidson, 1985) and other communes today (Bunker *et al.,* 2008).

The residents

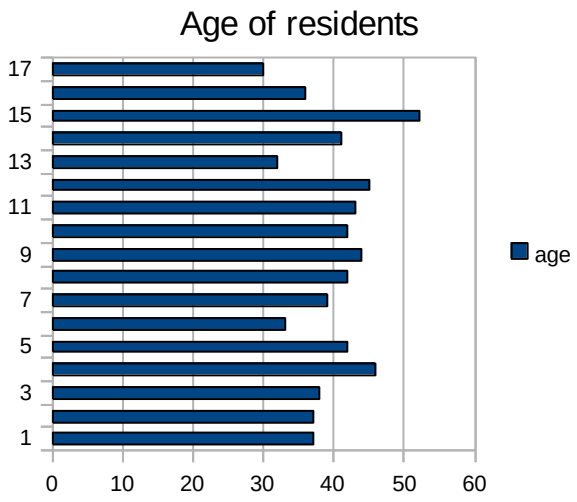


Table 1: Bar chart, y-axis residents, x-axis age (years) (range 30 – 52).

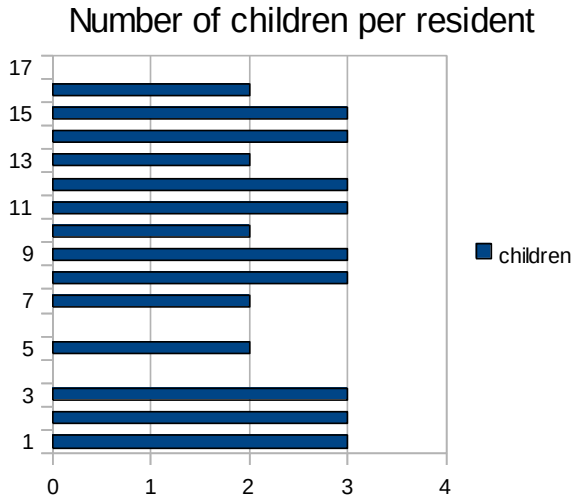


Table 2: Bar chart, y-axis residents, x-axis children/resident, not all living on site.

The residents of Lammas are 17 adults, aged between 30 and 52 (table 1), and 15 children. The average age is 41 and 7, respectively. Most residents (95 percent, see table 2) have children, whose age ranges from 1 to 17. However, most children are at primary school age and attend a local Welsh or Steiner school. All couples except one are married and only one person is single.

Profession	Education
Curator of Botany Museum	Biology
Marine Core, Farm worker	3 ½ years of University, no degree
Painter, Carpenter, Decorator	Architecture
BBC Radio, Voluntary Sector	English Literature and Arts
Therapeutic practice, Training company for emotional well-being	Engineering
Carpenter, Voluntary Sector	Arts
Forest school, Story Teller, Voluntary Sector	Arts
Illustrator	Arts
Hedgerow layer, Voluntary Sector	English and French
Environmental Engineer	Environmental Science
Primary School Teacher, Voluntary Sector	Environmental Science
Craftwork	Politics, Environment and Development
Nurse, Voluntary Sector	
Permaculture Teacher	
Builder	

Table 3: Education and professional background given by residents.

Interestingly, in one half of the couples the woman is the older partner. In the other half, she was described by her partner as being the strong, practical part or being the one who was the driving force for a more ecological lifestyle, for example:

"I did not want to come here at first but she was quite clear about it." (Respondent 11)

This could be seen as a stronger emphasis on feminine values in the couples and their life choices. Yang, the male aspect, is associated with an technocratic and exploitative life strategy whereas yin, the female aspect, is associated with an integrative, environmentally harmonious life strategy and the concentration only on the yang aspect is seen as problematic for society by e.g. the Gaia-Trust (Jackson and Jackson, 2004) an organisation

supporting the foundation of eco-villages.

However, Lammas has no coherent spiritual worldview. I encountered diverse belief systems, from Christianity over Paganism to Buddhism and Atheism.

The importance of legal, spatial, and radical context

Lammas develops in Pembrokeshire as a reaction to Policy 52.

"[S]itting around a fire ... [we] talked about working with the local council for a LID rather than fighting a retrospective planning battle." (Respondent 7)

The 'legal space' available here was the major reason for the location. It attracted members because it is a legal LID.

"Lammas would not have happened without planning permission and I don't see people here living in benders as they do in Stewards Wood." (Respondent 18)

Members coming from an urban background (41 percent) mostly did not seek a remote rural space as other back-to-the-land communities (Meijering *et al.* 2003; Sargisson, 2009).

"We would have preferred if it was in Mid-Wales, not so far away from everything." (Respondent 9)

More than half already come from a back-to-the-land background in West Wales. For them, the alternative scene is important:

"There is a strong, interesting counter-culture here [...]" (Respondent 18):"We know many people like us here, I don't feel like we are that radical." (Respondent 7) And as for other back-to-the-landers, the land price in Pembrokeshire played a role: *"It is more affordable than Devon." (Respondent 15)*

Thus, the combination of a context of 'radical others' (Halfacree, forthcoming) and the 'legal space' available led to the foundation of Lammas. Furthermore, the latter is influenced through the former, as the constant difficulties with LID (e.g. Tony Wrench's roundhouse at Brithdir Mawr) led to Policy 52.

IV.2. The Motivation

There are common themes which only differed in the degrees of their relevance to the decision of each family.

IV.2.1. Living in the countryside

Foremost, there is the general desire to live in the countryside.

"I just always had an interest for the outsides." (Respondent 4)

This was repeated by virtually everyone. But nature has different meanings to them. Through the different religious views of the residents, it is often associated with spiritual values:

"There is this sacredness of land.. and of Wales." (Respondent 7)

"It feels sacred to me, just being in nature." (Respondent 11)

Thus, there is a tendency towards a deep ecology world view, some see themselves as part of the ecosystem:

"On an emotional level that [environment] is part of me."(Respondent 14)

"You just tie into the land until it becomes part of you. [...] Growing and this connection with the land is really core to me." (Respondent 7)

"I feel I have much to learn from close contact to nature. And that is where my spirit comes alive." (Respondent 18)

This leads to a "natural" wish to protect and conserve nature, as it is described by Naess (in Fox, 1995): because they see the environment as vital for their well-being, there is a self-interest to preserve it. This was expressed by a one woman for whom, before Lamas, environmentalism has

"never been on [her] agenda [...]:

When *I have no separation with the plants [..] and the trees [...] that are part of this environment, of which I am a part with, ... then ... my impact becomes inter-relational." (Respondent 5)*

The close connection to the land fosters this view:

The time I have spent in nature makes me keen to play an active role in looking after it." (Respondent 14)

For others, it is simply the rural idyll:

"We were so happy living in a cottage during University, and we did not want to spend our whole lives in the city." (Respondent 7)

And for all, it is a good life, especially for their children:

"I think it's lovely for the children, running around, playing with friends outside." (Respondent 1)

IV.2.2. Living affordably

This desire to life in the countryside is closely connected to another main reason for all residents to join Lammas:

"This is affordable!" (Respondent 1),

The lease for a plot is around £ 80 000, and a roundhouse can be build with as little as £ 3 000 (personal communication project coordinator). A smallholding or cottage on the other hand was out of reach even for the more affluent families. Furthermore, as they will generate their own electricity, heat, have their own water and waste disposal, and grow their own food, once they are established they will have small overheads. This was seen as a chance

"not [to] work for depths" (Respondent 2)

and

"escape the rat-race" (Respondent 16).

Thus, financial reasons were a main motivation.

IV.2.3. Living sustainably

Another general response was the desire to live accordingly to green values, e.g. sustainable, organic consumption, recycling, and reduction of GHG emissions. Frustration was felt in mainstream society of not being able to escape certain unsustainable behaviour, for example:

"I started to get really fed up with getting my food from the supermarket and all the packaging on the shelves." (Respondent 4)

"[O]ur lives in a city [...] there was nothing more we could do really to make our lives more eco. [laughs] It was all very sort of negative about what was possible." (Respondent 1)

"All the chemicals, in plywood, for example, and fluoro-carbon compounds in fire retardants. You can't escape that if you are renting." (Respondent 18)

Furthermore, the awareness of their ecological footprint, with a perceived helplessness to change it, led to negative feelings. Guilt, cynicism and despair about mainstream life were expressed by some:

"I felt guilty to go and buy something new!" (Respondent 9)

But interestingly, most members did not give detailed descriptions of climate change, environmental pollution and destruction. Instead, they explained their solution:

"Sustainability is about creating a closed system." (Respondent 11)

Here, developing a low impact house and working the land to fulfil personal needs is a way for the residents to regain control over their own impact. The most striking thing I found

during my stay was the general willingness to take on responsibility, which was explained by one respondent as:

"Responsibility, for me is not an obligation or a duty but the ability to respond. And with issues such as climate change, we [society] are not responding yet. " (Respondent 2),

Policy 52 requires making a positive ecological contribution and to take positive action and see it manifesting on the land could be a major contributor to relieve negative feelings, evident for example in the following:

"What Lammas revealed was a different way of living." (Respondent 2)

"I am much more relaxed now. If I really need something, I just go and buy it." (Respondent 9)

For me the engagement with the land was uplifting and the work experience encouraging, a view that was shared by other volunteers and residents.

"I feel fantastic, I am doing workout surrounded by beautiful nature." (Field diary (13/07))

Also, the residents made generally a very empowered and confident impression on me. Also, volunteers insecure at the beginning seemed to gain more self-esteem over the time I was there.

However, Lammas does not attempt to create a 'better', independent society. As the project coordinator, who has spent 10 years in LID, explained:

"An element of compromise is important because that was my interaction with the rest of society. I was [...] living in a different financial frame, in a different time frame to most of society to a point where I was just one complete wacko, medieval peasant living in the woods on his own. Where's the point of this?" (Respondent 3)

As elements from mainstream and alternative culture are merged, the degree of radicalism towards sustainability differs. No one attempts to live completely fossil fuel free as people in other LID communities, e.g. Tinkers Bubble or Stewards Wood (Halfacree, 2006 and 2004). But some use heavy machinery (JCB) whilst others dig trenches by hand. Some buy plywood on Ebay, others use only natural materials from within a radius of 5 miles. At the beginning, this caused tension in the group. However, they respect Policy 52's definition of LID and thus do not undertake to find a consensus on how to live most sustainably.

Engagement with the land

The engagement of every family with the land is evident on the different plots, as:

"You can see directly how they relate to the earth, ... the layout of the land ... is a ... direct reflection of the people." (Respondent 5)

This corresponds to a "physical manifestation of the inner connection with the land" Sargisson (2009: 181) found in a sustainable community in New Zealand.

Sustainable thinking becomes less abstract as it concerns daily life. Policy 52 requests that the residents will provide their own energy, most of their food, treat their own waste and thus have control over the biggest part of their environmental footprint. Living on site, my consumption became measurable: I had to recharge my battery, for example. In consequence I thought twice about how much electricity an activity consumed. If the electricity to recharge has to be generated, too, this leads to a fuller understanding of the consequences of consumption:

"[Lammas] connect[s] [people] with the key resource land and meet[s] their needs directly. Because that's how you build relationships and understanding." (Respondent 3)

Furthermore, all residents described how they were rethinking their design to feedback from the land, e.g. experiences of frost pockets. But although an evolving process is fundamental to permaculture, every deviation from the planning permission could be revised. Thus, the expected visit of a planning inspector caused much tension.

However, other sides of living in the countryside are enlarging the ecological footprint. Scarce public transport (1 bus per week) forces residents to rely on their car. This was bemoaned repeatedly, especially by residents with an urban background.

"In the city, we didn't really need a car, but here we are completely dependent on it." (Respondent 9)

"There are no buses." (Respondent 4)

And while some go to extremes such as sometimes cycling 30 miles to a railway station, they generally give in and drive around.

"You cannot lock the children in." (Respondent 7)

Policy 52 requires a traffic management plan and so far it is met by a car sharing scheme. However, journeys could be reduced by better management, e.g. joint trips, in the future.

IV.2.4. Communal living

Another main reason to be part of Lammas mentioned by all residents is the proximity to other likeminded people. Community is regarded as important for emotional and practical support. Especially those inexperienced with LID mentioned sharing knowledge as main motive. In consequence, they chose to develop a terrace house. This said, residents did not want to share living spaces. Only one family stated:

"We were looking for another community to live in. So that's sort of what's sparked our interest with this project." (Respondent 1)

About half of the residents lived in communities before. They emphasised the importance of

own space, with defined boundaries, because they have made negative experiences. For example:

"They let people come and go, there were no rules, very open and able to be abused. [...] Not a safe environment for children to grow up in." (Respondent 15)

This subgroup now lives on single plots. Residents without experience in community life, however, mostly feared strict rules and restricted personal freedom in communities:

"I never wanted to live in a community or commune that had an overriding ethos."(Respondent 10)

Thus, the distance between the families is large:

"It is easy not to see anyone for a week." (Respondent 11)

And I felt like visiting one plot at a time and not a community as a whole every time I was there. This said, there is a good neighbourhood. People chat when passing by, and help each other out:

"J. came over for tea, and brought back some tools she borrowed. [...] S. came during the morning to ask about foraging." (Field diary, 15/07),

Especially if a job needs more hands or has to be done quickly, help is there. For example:

"We put up the roof of the roundhouse. Tony Wrench was leading the operation. It was a great sense of purpose and empowerment in the air. Everyone was [...] helping. [...] We had to work together to lift logs. [...] The whole operation took about 3 hours, but in the end we managed." (Field diary, 18/07)

But whilst there is the common commitment to LID, permaculture and sustainable living, there are no regular group activities:

"Lammas took a very clear decision early on: a family could come and live here and be complete hermits. Never come to a social gathering, never come to a meeting, that is totally fine. And so that social interaction that takes place comes from a place of voluntary give, good will. And that's, for me, that's a really important principle of good community." (Respondent 3),

However, there are weekly business meetings, concerning infrastructure and outreach of Lammas (e.g. interaction with authorities, hub building, energy grid etc.). But these are not meant for personal issues.

Individual houses and businesses are the responsibility of their owners:

"[E]very one is independent on their plot and in their decisions, and everybody work for themselves." (Field diary (16/07)

At times, I found the group surprisingly loose, because people were busy on their own plots

and often did not know what was happening on others. However, this view was not shared by the residents, who feel connected to each other. The hamlet has only begun building in 2009, on some plots even later, and residents expressed their expectations that more emphasis will be put on community life, and emotional well-being of the group once the community hub is completed.

IV.2.5. Changing the world?

Lammas seeks to raise awareness that a low impact lifestyle is available and viable. They wish to show that there are "sustainable solutions [...] to climate change, peak oil and rural regeneration" (Lammas leaflet). Thus, open days and volunteer weeks are run, and a hub will host a visitor centre. The residents are keen to provide monitoring reports and are open to research, which became evident in a meeting I took part in. Also, other groups and individuals who want to set up a LID are supported through information and gatherings. Thus, there is an "evangelical" purpose at least written in the foundations of the organisation. In fact, this was a main purpose for the project coordinator to found Lammas:

I guess I see it as my job to prove its [LIDs] viability to governments, farmers, politicians, business people, as an option." (Respondent 3)

The need for society to change towards more sustainability is generally seen:

"The consumer society as it is at the moment is wrong and it needs to be changed." (Respondent 17)

However, the residents mainly do not expect to have a huge influence on society:

"I know that not everyone would like to live in this way." (Respondent 17)

Hence, solutions for their own lives seem to be more important to them then changing society. They are primarily concerned about their individual impact:

"I think about what I am doing and ... try to control my little area." (Respondent 1)

Consequently, access to resources becomes more important than political action:

"I just saw some inevitable crisis coming and not having much money myself it seemed like a good skill to learn how to grow my own food." (Respondent 11)

"I wasn't driven by a political urge to be low impact and to change the system. [...] No matter what happens to the system, I will be fine." (Respondent 6)

This is a strong contrast to the desire of commune members in the 90s to force social change (Pepper, 1991). However, Lammas hopes to have some influence through example, and one respondent expressed her believe in the individualistic approach to change:

"I think my actions are political as everybody's actions are." (Respondent 18)

Whilst all would want to see a new, sustainable back-to-the-land movement, not all are this optimistic:

"Without a doubt ... more villages like Lammas will happen in Wales." (Respondent 5)

However, different attitudes towards social change result in different attitudes to the outreach of Lammas. The less it is seen as an effective mean for social change or the urge for social change is felt, the less tolerant residents seem to be towards the amount of visitors, for example. About one third feel uncomfortable about exposing themselves constantly without getting a reward:

"Sometimes I feel like a goldfish in a bowl, and it's not as if we are getting paid for it, it is entirely our free time." (Respondent 15)

There is a conflict between their need for privacy and their wish for political action. This is similar to the experiences by other communities with evangelical purpose, e.g. CAT (Pepper, 1991).

In contrast to other LID communities, Lammas is being built legally. This could influence its impact on society, because it offers a common ground. Nothing 'irregular' is happening so prejudices are potentially diminished. This was evident in visitors who were reassured by the fact that these unfamiliar timber-frames had planning permission. Thus, Policy 52 facilitates the rapprochement of mainstream society to LID. This view is shared:

"We needed a planning policy break in order to move it forwards from benders in fields to track ways and solid constructions and something that could appeal to ordinary people. (Respondent 3)

Furthermore, Lammas is merging mainstream and alternative culture. Whilst they practise sustainability through permaculture and LID, they do not attempt to live without fossil fuels (as Tinkers Bubble or Stewards Wood). However everyone sets his own limits, for example whether to use a JCB or not. Overall, they are striving for a comfortable, modern lifestyle with Hi-Fi music and internet connection:

"I was very clear that I was not going to live in a scruffy little hovel [laughs] that is called low impact. ... I want the modern comforts that come with the modern lifestyle and I want beauty." (Respondent 5)

They aspire a lifestyle that is sustainable in an ecological sense, but also for their families.

"We are thinking about sustainability in terms of seven generations. We hope to re-establish intergenerational living." (Respondent 15)

IV.3. The Planning process

Time	Progress
2005, August	Inception of “Lammas”, building of website to attract people, permaculture design course, selection of location
2006, December	Request for pre-application meeting
2007, April	Pre-application meeting
2007, June	First application (800 pages, 200 drawings), no subsequent meetings with case officer despite request
2007, October	Refusal, because of insufficient data regarding business plans and traffic- generation Request for meeting with PCC by Lammas, no result
2008, March	Re-application (1185 pages, 250 scale drawings, 2 scale models) Requests for meeting with PCC by Lammas, no results
2008, June	Last request for meeting with PCC by Lammas
2008, September	*Brithdir Mawr gains temporary planning permission for 5 low impact dwellings from Pembrokeshire Coast National Park Planning Department under Policy 52 (application 42 pages)*

2008, September	2nd Refusal because of lacking detail in the business plan (hours of residents working on different tasks) and reliance on grants
2008, October	Appeal not possible because of missing access statement (*local authorities are not to proceed with a planning application without an access statement, 5.2 WA guidance on planning and inclusive design, 2007*)
2008, November	New application
2009, January	2nd meeting with PCC
2009, February	Appeal on non-determination, started as written appeal (decision expected: June)
2009, March	Development notice for agricultural buildings (barns and polytunnel)
2009, March	PCC stated that they needed more detailed information for the permitted buildings
2009, March	PCC requested hearing on the appeal, this was subsequently re-opened as a hearing (decision expected: August)
2009, July	Appeal hearing site visited
2009, August	Planning permission granted

Table 4: The Planning Process, from Wimbush (2008) and Appeal Decision (see Appendix, courtesy of Lammas)

The project applied with the expectation to gain permission in June 2007, as members of Lammas were involved in the Supplementary Planning Guidance (SPG) which further explains the requirements of the policy and the project was

"[...] constructed backwards from the policy, its requirements always in mind" (Respondent 3).

However, the experience of the planning process was very different. Despite an initial promising meeting with the local authorities, in which the novelty character of the development was discussed, the assessment did not acknowledge its otherness. For example, ADAS stated the project was nonviable, but was not briefed about its differences compared to conventional development (ADAS, 2008). Thus, it took over 3 years, three applications and an appeal before permission was granted in August 2009. And it took a lot of stamina:

"At times it was very demoralising. [...] The Pembrokeshire County Council as local planning authority has done so little to forward the application process and so much that hindered or delayed it, that it is difficult to imagine that all applications are treated in this way..." (Respondent 3)

The general view is that the local authority does not want LID:

"I think they took it very seriously but they very seriously wanted to block it." (Respondent 5)

Lammas will now lodge a complaint with the ombudsman.

IV.3.1. Devil in the detail

It was a fulltime job for the coordinator to organise and compile the information from reports and surveys (e.g. geology, biodiversity, soil, water, economic surveys and a visual impact assessment). Additionally, the writing of detailed design plans for plots and associated businesses was done by the respective families.

"We would sit down at 10 at night when the kids were in bed, doing our 'Lammas homework'." (Respondent 10)

However, the fine detail was seen by most of the members as ridiculous:

"We had to state were which vegetables were going to be planted and how much they would yield." (Respondent 18)

While this might be appropriate for monoculture, it poses difficulties for permaculture because in the latter, various vegetables are grown in one field. Hence, some were just not willing to do it, as they thought:

"They would not give us planning permission anyway." (Respondent 16)

The project coordinator described the frustration he felt in trying to cooperate with the planning officer as advised in the SPG:

"There was no planning process! [laughing bitterly]" (Respondent 3)

IV.3.2 Caught between two lives

It was felt as increasingly difficult to be in between an old and new situation, insecure about the future. Interested parties restrained from the project, because:

"They wanted to move on with their lives." (Respondents 11 and 13)

or because their doubts grew larger:

"I began questioning what I would do there, on a field, with a saw in my hand." (Respondent 8)

Similarly, residents questioned the project at some point, for example:

"After the 2nd refusal I dropped out inwardly for a few months, I just couldn't do it anymore." (Respondent 15)

"Before the third application, we said we couldn't do it anymore, but we left our application in." (Respondent 9)

IV.3.3. A leap of faith

The decision to actually live in Tir y Gafel as part of the Lammas project is described as

"a leap of faith" (Respondent 4),

a feeling shared especially by residents inexperienced with LID. For them, not getting planning permission was to a degree a welcome procrastination:

"I was quite happy, to be honest, as it meant I did not have to move there at that point." (Respondent 1)

On the other hand, there was a significant positive correlation (PPM 0.43, $P<0.05$, $N=17$) between prior experience with LID and negative experience of the planning process. Who had lived in LID before expressed more stress and found no positive aspects of the refusals. On the contrary, the long time it took to gain permission had partly severe consequences on the families:

"I found it incredible traumatic. It was hideous, we were waiting and waiting and waiting for the planning permission, our money [...] went down [...] so we don't have enough for the lease now." (Respondent 15)

"[It] really got to me and in spring of 2009 I had two hernias and a burst appendix in a short period of time." (Respondent 3)

IV.3.4. Planning process benefiting LID?

The positive side of careful planning is acknowledged:

"At least, we are clear now what to do." (Respondent 9)

However, not many found positive comments on the planning process. Instead, residents are convinced that the determined project coordinator forced the eco-hamlet to exist:

"If it wasn't for him, this would not be happening." (Respondent 1)

Objectively, no input from the planning authority is recognizable that made the project more ecologically sustainable. The concerns raised were mainly about economic viability and visual impact (Pembrokeshire County Council, 2008). This results in the need to hide the buildings from view. Hence, three houses have to be placed in unfavourable positions for permaculture and passive heating. Furthermore, residents mentioned difficulties to get permission for poly-tunnels. However, despite two refusals, nothing material had to be changed. Thus Lammas thinks:

"We shouldn't have gone through that" (Respondent 3)

IV.4. Main findings

Lammas does not intent to be a commune and there are no regular activities of the group as a whole. Their structure resembles a traditional hamlet.

Main reasons to live in Lammas were the sustainable lifestyle, the affordability of a plot compared to a small-holding and the neighbourhood of like-minded people.

The planning process was partly experienced as traumatic and led to actual or temporary drop outs. However, Policy 52 had positive effects: detailed planning, a common definition of sustainability and less marginalisation through planning permission.

V. Discussion

V.1. Sustainable community

Lammas intents to promote sustainable development and lifestyles, similar to green communities (Pepper, 1991; Meijering, 2003; Dawson, 2010). However, it differs from communes and the eco-village movement both in the motivations of its members and their daily lives.

First, Lammas has not formed its own 'vision' between its inhabitants (Christian, 2003) how to live sustainably but follows Policy 52, a significant difference to other eco-villages and

green communes. This Policy was influenced by LIDs in the area and people who now live in the eco hamlet helped to shape it as “political entrepreneurs” (Lovell, 2009). However, the policy now sets the legal background of what is allowed as sustainable. This results in different approaches to LID building and farming. Hence community building could be facilitated, as rules are not charged with personal interests or feelings.

Second, residents did not join Lammas primarily to live communally, but to have an affordable alternative to a smallholding. Every family leases their own plot, a major difference to communities where often property is at least commonly used. Pepper defines a commune as a community with shared activities, meals, spaces, childcare and most importantly income on a regular, intentional basis (1991, based on Rigby, Abrams and McCulloch, Shenker (1986) and Kanter (1973)). Lammas has no shared finances, meals, living spaces or childcare. Furthermore, group relationships, a criterion also used by Meijering *et al.* (2007) are not favoured over others. In Lammas, social contacts with family, friends and neighbours from “outside” are equally or more important measured by the number of contacts I witnessed. Therefore, Lammas is a community of good neighbourhood, not a commune.

Although started from people with a radical alternative background, Lammas has in turn attracted less radical people. They chose Lammas because of its legality, not because its remote location. On the contrary, residents did not seek to restrain from society as other green communities (Meijering *et al.,* 2007). Furthermore, members were not prepared to live without planning permission (or) in temporary dwellings like teepees and benders as Tinkers Bubble and Stewards Wood (Halfacree, 2006 and 2003), for example. Thus, the intention of residents is clearly to “lead on”, not to “drop out”, similar to Brithdir Mawr (Halfacree, 2006). Main motivation is to gain control over the ecological footprint, not to escaped a dysfunctional background for personal growth as communards often did (Pepper, 1991). On the contrary, in Lammas the family is the most important unit.

Furthermore, a functioning commune needs energy to maintain it (Laughton, 2008). Consequently, often green communes failed to establish sustainable daily lives (Halfacree, 2006). Thus communards themselves questioned how important communes are for a green utopia (Pepper, 1991). In contrast to them, Lammas concentrates on different engagement with land: LID and permaculture. A holistic, ecocentric worldview is shared with the eco-village movement. Building and growing, residents manifest their ideas of a sustainable world. Thus in contrast to former back-to-the-land communities change is more visible. This, and their mutual support (Laughton, 2008) could be important factors to maintain the land based lifestyle. Thus Lammas could be a role model for other eco- villages or eco-hamlets.

However, generally eco-villages have a stronger emphasis on communal living and sharing. The development of different social frameworks (Svensson, 2002), especially conflict management tools (Christian, 2003) are seen as essential to prevent dissolution (Jackson, 2004; Dawson, 2010). Communal work is often used to create a group feeling. However, Lammas bonded through the shared planning experience, which also acted as 'bottleneck' entrance to membership as advised for healthy communities (Christian, 2003) and expects to grow closer together once they are developed.

V.2. Social change towards sustainability

As eco-villages globally evolved from back-to-the-land movements (Jackson and Jackson, 2004), Lammas evolved from local alternative communities, for example Brithdir Mawr and Tepee Valley. But other than communities in the 1970 and 1990, Lammas does not primarily aim for different social interactions. And rather than having revolutionary attempts, Lammas sets on cooperation with the authorities. So far, this resulted in a long planning process, but also in a grant for a community building. This lack of radical criticism of new greens towards a capitalistic society is criticised from a socialist perspective (Li, 2008). However, the residents mainly do not see themselves as agents of social change, probably because they perceive that "society does not want me to save it" (Gypson, 2009). Consequently, most residents are mainly concerned about their own ecological footprint.

This said, they take an individualistic, reformist approach and wish to inspire through their example. Merging alternative and mainstream elements, they hope to appeal: *"I want my parents-in-law to visit and not realise they are using a compost toilet" (Respondent 13).* Compared to other LID communities such as Stewards Woos, Tinkers Bell (Halfacree, 2006 and 2003) or early CAT (Pepper, 1991), Lammas residents are mainly less radical.

As other eco-villages (Dawson, 2010), Lammas functions as an education centre, with 1100 visitors and 250 volunteers already. Lammas as a "political entrepreneur" (Lovell, 2009) lobbies for LID and, for example, shaped the SPG for Policy 52 (Maxey, 2009a) and influenced TAN 6 (Maxey, 2009b). The latter allows LID in Wales' countryside following Lammas "model for sustainable development" (Davidson, 2010). This policy is another part of the demanded restructuring of institutions (Jenkins, 2002; Beddoe *et al.,* 2009) around sustainability as a core value (WAG, 2010).

V.3. Contribution to a sustainable countryside

Key driver of the changing countryside is the global food system (Symes and Jansen, 1994). Productivism not only caused environmental deterioration (Townsend et al., 2003), it also converted the countryside into an exclusive place to live (Cloke, 1992, Marsden 1999, Murdoch *et al.* 2003). Furthermore, it is threatened by rising oil prices as it is heavily dependent on fossil fuels (Ilbery and Bowler, 1998). In this structural crisis (Drummond *et al.,* 2000, Halfacree 2006), eco-villages could be one way to regenerate the countryside (Jackson and Svensson, 2002b). With LID and permaculture, they offer carbon neutral housing and a different agricultural system which could secure food supply and increase biodiversity. Thus, they could counteract climate change and biodiversity loss on a local level. Therefore, eco-villages are promoted by green writers (Dawson, 2010; Pickerill and Maxey, 2009; Fairlie, 2009b; Wrench, 2009, Bahro, 1986) and politicians in Britain (Lucas, 2010; Davidson, 2010) and beyond (Takeuchi *et al.,* 1998; Hu and Wang, 1998).

However, permaculture is a complex system and design and human labour intensive. But whilst global agreements to cut GHG emissions are difficult to reach (Kremer *et al.,* 2010), institutions such as Policy 52 enable those willing to make necessary changes. As Jacob (1997) acknowledges, "highly motivated individuals can go [far], by themselves, in piecing

together a sustainable lifestyle".

LIDs main strength are its small ecological footprint and its affordability (Fairlie, 2003; Maxey, 2009a, 2009b) and there is a considerable market for affordable, sustainable houses in Wales (JRF, 2008). Lammas, like BedZED and Hockerton (Lovell, 2008, BedZED, 2010) is another model showing possibilities to cut GHG emissions in the housing sector. And its affordability is probably the main driving force behind LID, it motivated residents at Lammas as well as people contacting TLIO (Fairlie, 2009a). Thus, Policy 52 could change the exclusiveness of the countryside, as well. LID might draw even more attention in the future, because from 2011 in Wales and 2016 in UK all new buildings have to be carbon neutral. However, so far it lacks safety and building standards to be an alternative for mainstream development.

Furthermore, deprivation is less felt by people with stable social contacts living in green spaces (Woodward, 1996). Also, our society starts to value environment, family and friends more highly as important for happiness (Independent, 2010). 'Grow your own' becomes more and more popular (BBC, 2009). Therefore, community projects similar to Down To Earth and The Community Farm in Swansea could promote permaculture and LID for sustainable lifestyles and assist to regenerate deprived rural areas (Raphaely and Marinove, 2007) in Wales.

V.4. Policy 52 – legal space for sustainable development

The legal space opened by Policy 52 is considerably small and it remains to be seen if Lammas' model will replicate. First, it is still difficult for LID to gain planning permission. There have only been three applications under Policy 52 so far, all approved on appeal. And Pembrokeshire's council leader expressed his concern about Lammas' "dangerous precedence" (Pembrokeshire County Council, 2009). This illustrates that local authorities are not as willing as the WAG to see LID appear in the countryside (Fairlie, 2009a, 2009b).

Second, Policy 52 does not only expect development and activities to have a low environmental footprint and enhance biodiversity, in consistence with the criteria for LID given by Fairlie (1999). It also requests LID to make a "positive social and/or economic contribution with public benefit" (Policy 52, see Appendix). Moreover, it also requests that the development is "tied directly to the land". Hence, Policy 52 still resembles the permission for agricultural or forestry dwellings (Fairlie, 2009a). And it still reflects the conventional planning paradigm that in principle, there should be no residential development in the countryside:

"A proposal for LID may display many virtues, but in terms of the operation of conventional planning policy is inherently problematic if it involves the creation of a dwelling in a location where residential development is unwanted – the open countryside primarily." (Baker Associates, 2004: 44)

Therefore it seems the hurdle for LID is set very high. Indeed, if not for a determined coordinator, Lammas might not develop today. The planning application demands a degree

of detail which not all residents were able to provide. Similarly, others have chosen not to apply under Policy 52 with their LID (personal communication T. Wrench). It is indeed questionable (Wrench, 2009) why a LID development that performs better in regard to Wales aim of a one planet footprint has to provide even more benefits to society than a conventional one. For example, Stewards Wood and BedZED have an ecological footprint of 39 and 83 percent of the British average, respectively (4th world ecological design, 2008, BedZED, 2010).

Also, the reason behind Policy 52 is not always sustainability. The car management plan, for example, is more concerned with the increase in traffic locally than the overall increase of GHG emissions, and mere visibility would not necessarily make development unsustainable. Moreover, with scarce public transport, development in the countryside increases car use.

On the other hand, compared to conventional planning law LID is facilitated, as the viability test now is based on household needs instead of a certain income. And Lammas showed how they will provide ecological, social and economic benefits to the area. Therefore, the probably most difficult requirement of Policy 52 is the 5 year period to meet 75 percent of household needs. After this time houses and businesses have to be established. Although I could observe progress every time I visited, people expressed feelings of being behind the schedule. The pressure to fulfil Policy 52 timetable was evident, for example their main hope for the future is to be in a house and have a business in 5 years. But to start a land based living is work and energy intensive (Halfacree, 2006), and can lead to exhaustion (Laughton, 2008). Together with the challenge to live and work communally, it can lead to dissolution (Pepper, 1991). Thus, the 5 year target could create too much pressure. It could also be counterproductive as it forces “quick and easy” but (fossil) energy intensive solutions, for example cement foundations for buildings, use of machinery etc.

Similarly the emphasis put on visual impact has negative effects as it forces buildings in hidden corners. But to gain maximal passive solar heating and facilitate permaculture, buildings should be placed with large south facing windows and in a central zone. Here, Policy 52 forces to make compromises and contradicts permaculture and LID principles (e.g. low regular energy demands, integrated living and working spaces) which it is trying to accommodate.

Furthermore Policy 52 has a 'bottleneck' character. It is restricted to people who want to make a livelihood from the land. Residents at Lammas did not want to drop out of society, similar to Brithdir Mawr (Maxey, 2002; Halfacree, 2006). However, they made the decision to become smallholders. To reduce the ecological footprint of the housing sector, people could also live in LID and work from home, or commute from a LID-zone around urban areas (Fairlie, 2009a). In order to facilitate the transition to a sustainable, one planet society on individual level (Young, 1990), everyone willing to live in LID should be encouraged. However, mainstream society is tending to distance people from the land (Halfacree, 2006) which leads to less understanding of our dependency on natural resources. People at Lammas have become more aware of their impact through living on the land. Through tying developments to the land, Policy 52 hence supports the understanding of sustainable consumption.

Policy 52 enables to build eco-villages in the open countryside, thus facilitates sustainable development. LID and permaculture seem to have the ability to restore areas used for extensive agriculture; nonetheless, inhabited areas disturb wildlife. Therefore, the uneasiness to let go of the planning paradigm not to permit residential development in the open countryside is understandable. And if assessed with conventional methods as was Lammas (ADAS, 2008), conventional development could take place. Thus, local authorities need to be aware of sustainable techniques if the sustainable development is to be effectively controlled. However, areas for wildlife protection will not become obsolete.

VI. Conclusion

Land use is the key to a sustainable countryside for food production, people and wildlife. In Wales, sustainable development finds fertile soil, as authorities and grass-root movements begin to work together. Whilst the latter offer 'soft' technologies such as LID and permaculture, institutions now allow space to develop green ideas in the countryside. Eco-villages and hamlets such as Lammas could be built not only in Pembrokeshire but also, since 2010, in the whole of Wales. However, this institutional change is not recognisable on local level, and Policy 52 still bears the old planning paradigm. Thus, the change towards a sustainable countryside is not far reaching enough yet. Furthermore, LID is still a marginal building technique.

Lammas is an example of how individuals could regain control over their ecological impact. They have a good neighbourhood approach to community and could be a role model for others who aspire to live a sustainable lifestyle under the new planning law. However, it remains to be seen how they develop if their model will replicate.

But LID is not the only way towards to a sustainable countryside. There are other initiatives, both from grass root organisations (e.g. The Green Valleys, Transition Town Movement) and governments. People are converting their homes to eco-houses through better insulation, renewable energy and compost toilets. Also, 'grow your own' is becoming more popular. Thus, the ecological footprint of consumption and existing development can be reduced, too.

If numerous or not, eco-villages and hamlets like Lammas give hope to those who are concerned about the scale of our ecological impact. They show that a radical change for a sustainable life is possible. However, it depends on mainstream society to make changes in our worldview and lifestyle. I hope more people will take responsibility and choose from the sustainable alternatives available.

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