

PROOF OF EVIDENCE OF PETER COW MARCH 2016
PERMACULTURE DESIGNER, TRAINER AND CONSULTANT

1. My experience and background

1.1 I have worked within permaculture design since 1998. Following completion of a Permaculture Design Course in 1998, I graduated my Diploma in Applied Permaculture Design, certified by the 'Permaculture Association Britain' (PAB) in 2007. I trained as a Permaculture teacher following this Diploma, and now lead teach Permaculture Design Courses around Europe and beyond – having led over 20 PDCs to date, as well as specialised courses in social applications of Permaculture and nature connection practices. I have been a diploma tutor for the PAB's 'Diploma in Applied Permaculture Design' since 2009, and a member of the PAB Education Working Group since 2011. I have also supported other national Permaculture Associations in their development around Europe, particularly through the European Permaculture Teachers Partnership.

1.2 I was a founder member of Affinity Woodland Workers Cooperative and lived in the community at Steward Community Woodland from April 2000-September 2007. I have stayed in close contact ever since, though I am no longer a resident or a member of the Cooperative. I have visited regularly, and have co-taught 5 Permaculture Design Courses there with Aranya.

1.3 This proof of evidence is based on my life at Steward Wood, reading the management plans and various reports related to this planning application (including drafts of the latest 2016-2026 Management Plan), and many visits over the years, including one on the 14th January 2016, where I saw the new buildings, the growing area, communal spaces and met with 7 of the residents to get the most up to date view of the site and community.

2. Explanation of permaculture

2.1 Permaculture is a combination of three elements:

1. An ethical framework of Earth Care, People Care, and Fair Share (self-imposed limits on population and consumption, in order to live within the earth's carrying capacity.)
2. Ecological principles based on the direct observation of how natural systems work. For example "Each important function is supported by many elements".
3. Design processes and techniques that act as a framework to create practical strategies and action plans that lead a project towards the ethical goals using ongoing deep observation, creativity and the application of the ecological principles and a range of sustainability techniques and technologies.

2.2 A definition of permaculture that has been accepted by the Charity Commission reads:

"Permaculture is a term coined from permanent agriculture and permanent culture. It may be defined as the conscious design and maintenance of agriculturally productive ecosystems which have the diversity, stability, and resilience of natural ecosystems. Permaculture design aims to produce such systems by specifying and assembling appropriate conceptual, material and strategic components; these include housing, water systems, transport and the like and also invisible structures such as legal and financial systems, and the

development of supportive social networks. Permaculture contributes to the conservation of the environment by the harmonious integration of landscape and people so as to benefit people by providing their material and non-material needs in a sustainable way.”

2.3 Permaculture is not a dogma nor a prescribed set of techniques, it is a mindset and a way of decision making and approaching goals using the wisdom of natural systems to find the best solutions for your unique situation, whilst keeping to the 3 ethics as named in 2.1

2.4 Many people practising permaculture decide to live modestly and have a lower than usual requirement for cash income. This makes it much easier to achieve a sustainable lifestyle, and for the land to provide a good deal of what is needed for subsistence. Projects aim for resilience and self reliance, but rarely for total self sufficiency – trade with others is seen as an important link and projects are usually part of wider networks and social ecologies, which itself imparts greater resilience and abundance to those involved.

2.5 Permaculture projects develop slowly over time working with deep observation and conscious feedback loops to incorporate ever increasing complexity within the living systems and the physical and social infrastructures. This is key to the long term viability of land based systems, enterprises and ‘personal sustainability’ of the participants.

3. Permaculture at Steward Wood

3.1. The site has been designed using permaculture design methods, and clearly shows how it has been zoned to increase energy efficiency (of human labour). Low impact structures are located around a central community long house, and have good access to the wash house. The main garden is placed to make use of the flattest area of site with best sunlight. The 2016-2026 Management plan is well thought through and makes good use of existing resources. The compartments are clearly laid out and reflect on-the-ground realities. See Appendix 1 for more detailed evidence of use of specific design tools and processes in the project.

3.2. The site and project is clearly using permaculture principles. A good understanding of permaculture and sustainability principles mean that the project is achieving its goal of low impact living, local self-reliance and wider sustainability. (See Appendix 1&2 for examples of how Steward Wood uses permaculture design methods, tools and principles.)

3.3. Members of the group are trained in permaculture design. Daniel Thompson-Mills, Merlin Howse and John Elsworthy have all completed the full permaculture design course. The rest of the adult members are familiar with permaculture through attendance at sessions of the design courses and specialist courses held on site and through ongoing project development discussion and planning.

3.4. The eco-footprint demonstrates that they are putting theory into action. They have shown substantial commitment to the goal of living within the earth’s carrying capacity, to the extent that there are few other projects in Britain that can demonstrate similar achievements. The report by 4th World Ecological Design suggests their footprint is 39% of national average, and this

was based on worse case scenarios, indicating that the actual figure may be lower. The carbon footprint conducted by Merlin Howse suggests that carbon emissions are 23% of the national average.

3.5. The group are documenting and evaluating their progress and using this to inform future developments. In particular the Continuous Cover Forestry documentation shows good progress towards a more even aged stand of trees within the woodland.

3.6. Regular planning meetings are held by the community members and lead to an inclusive approach to developing and enhancing the project. They have been trained in and use Sociocratic decision making which enhances equality by the hearing of all voices and wisdom, and also leads to faster consensus decision making. It includes robust review procedures, which mean that aspects of the project that are no longer functioning as well as desired are noted and plans are developed to solve issues and increase productivity.

3.7. The site uses a range of appropriate sustainability techniques and technologies that are incorporated into the overall design. These include micro-hydro and solar electric, composting toilets, low voltage appliances, low impact building methods, water harvesting, cycling, more efficient 'rocket' woodstoves, water treatment and composting.

3.8. The project uses a range of rural crafts and self-reliance methods, such as basket making, hand felling of trees, drying herbs, preserving food, wine and beer making, making bowls and spoons from wood, fashioning tool handles, making herbal medicines, wild food gathering, seed collecting, making living willow structures, hunting and water harvesting.

3.9 These 2 last points demonstrate some of the ways that the community meets DMD 30 (ii) -

“all activities and structures on site have low impact in terms of the environment and use of resources”

3.10. The project places great emphasis on the well-being of community members and visitors. The community as a whole provides a rich, stimulating and supportive social environment for adult and especially child members of the community. They have clearly allocated tasks and responsibilities, and have a robust and efficient system of meetings and working groups.

3.11. Community development and outreach. This is achieved by members of the community through a combination of:

- A well used website with regular updates added, along with Facebook and other social media.
- Educational tours provided to schools and visitors.
- Demonstrations and talks provided locally.
- The weekly Growing Day and fortnightly Conservation Day which are advertised for local people to become involved in.
- An active WWOOF programme which supports volunteers on arranged weeks to visit and learn about organic gardening and low impact living through working alongside community members in various tasks.
- Members of the community working part time in local businesses such as at GreenShoes and the greengrocers in Moretonhampstead.
- Members of the community initiating, volunteering at, and supporting local sustainability initiatives.

3.12. Educational work to develop sustainability skills: in particular the permaculture design courses are helping to develop the skills of others as well as those of the community. Other courses on herbal healing, nature connection,

wood carving, foraging etc. also strengthen resilience and connection to the land for the community and others.

3.13. Sustainable transport - Steward Wood members use bicycles, cars and walking - Moretonhampstead is only a 30 minute walk away. There is an extensive collection of bikes in the bike shed, and vehicles on site owned by community members, with parking on the bottom track next to the walking and cycling Community Path. The project has supported the creation of this Community Path from the beginning, and it now provides easy and safe access for local visitors and residents by bicycle and foot between Moretonhampstead and the project.

4. Permaculture and on site residency

4.1 Steward Wood has been continuously inhabited by the community since April 2000, and has provided a home for the residents, visitors and the children born on site over the years.

4.2 It is an integral part of the project's economy that the members house themselves on site and thus avoid expensive rental costs nearby, allowing more time to carry out the project's aims. They can use the resources of the woodland to meet many of their needs in low impact, sustainable ways.

4.3. The nature of the complex, interwoven lifestyle of a self reliant permaculturalist is one of many small and large daily and seasonal tasks, undertaken in intimate relationship with the land and the social landscape around them. These daily and seasonal tasks need to be undertaken at the optimal timing, which is best assessed by personal observation, for example where and when to plant tender crops, harvesting wild foods, tracking deer and other prey, fixing infrastructure problems such as leaking roofs etc. The community's self reliance and its diverse maintenance needs are supported by flexible scheduling, such as being able to change plans or move resources like firewood, goats or produce around in response to good or bad weather, a late frost etc. Only by living on site, in close relationship with the surroundings gives this awareness and responsibility to the members.

5. Project viability and number of residents

5.1 The project's size has varied over the years - I was resident at the lowest ebb in 2002/3, with only 4 adult residents on site. The project was barely viable at that scale, and seemed like it was in a hibernation with little progress at the time, especially as we were adapting to having a young baby with us at the time.

5.2 The project requires physical and social input and maintenance to deliver its many goals, including some rest time for residents. This input is achieved by residents and visitors together, especially with WWOOF volunteers. I think that a project of this scale, vision and complexity needs a core of 7 active adults at least - with more to meet the needs of any children on site as well, and then more to deliver specific projects such as the More Food project, experimenting with renewable technologies and woodland habitat creation/conservation work.

5.3 To make a "positive environmental, and/or social and economic contribution" as DMD 30 requires, the project needs to work beyond low impact or subsistence living, delivering a regenerative impact on the land and its physical and social surroundings - an excellent criteria. To work beyond subsistence and helping others to improve their lives and lifestyles requires a

surplus of project energy and person power – which I believe would be enabled by having up to 18 adults in the project, including having space for the project's children as they come of age.

6. Permaculture, sustainable land use and woodland management

6.1 Steward Wood is classified as a Section 3 woodland, which as Dave Wood states in his witness statement for the planning application in 2009, is “very rare for coniferous woodland”. I am not privy to why this classification was given by the DNP – I have been told that all the woodland in the Wray valley is classified as Section 3, as is a substantial amount of woodland on Dartmoor. The most ancient and intact part of the woods is the small area of 'semi-natural' ancient woodland at the Eastern tip of Steward Wood, which is alongside a larger semi natural woodland. This tip was classified as a low intervention zone early on, and has received much less disturbance from this project than a commercial forestry company would likely have done, seeing as it predominantly contains plantation larch that are of harvesting age. I imagine that the project, and its overall conversion of the woodland to predominantly broadleaf woodland (something a commercial operation would be very unlikely to do) further enhances the status of this woodland, and this part, rather than detracting from it. (Wood 2009)

6.2 I believe that Dartmoor desperately needs more, and more resilient woodland, especially in these days of larch clearfelling due to phytophthora. This project's vision and commitment, if given permanent permission to continue, secures the woodland for generations to come, even if there is a compulsory clear fell order due to Phytophthora infection. Other woodlands on Dartmoor, managed for predominantly economic reasons, have not been replanted after compulsory phytophthora clearance (there is no compulsion to replant in such orders, though it is highly recommended), and woodland cover has been lost as a result.

6.3 Permaculture, due to its diverse, polycultural nature, allows forestry, agriculture, education, residency, wildlife habitat and many other functions from a single piece of land. In fact it is one of the key permaculture principles to design for multiple functions from systems and sites. I understand that this does not easily fit into land use categories, and it can seem to an observer more used to reductive categorising that 'the site's current use is confused' as Kevin Frediani says. I see that a complex land use is key to its sustainability, and that this confusion is a subjective experience, as residents of the community are clear, and have been clear for a long time in their management plans about their intentions to regenerate broadleaf woodland and meet some or all of their their food, fuel, fibre, fertility, healing, construction and other needs from this mixed polycultural woodland. Our lives and lifestyles are enhanced when we realise, and act upon the understanding that food can be grown in towns and cities as well as farms, people can live in the countryside as well as towns, farms can be diversified, wildlife habitat can also support human livelihoods, and woodlands can provide a lot of food (Frediani 2015)

6.4 The woodland is managed in different ways in different places, with more forest gardening/coppicing around the settlement area, and continuous cover forestry throughout the rest of the woodland. With regard to future canopy creation, the management plan specifically states that singling out of ash trees for future canopy is to be carried out, and the oaks planted in 2002 in the settlement area also provide more species for the future canopy and for

resilience in that area. There are many ash trees left to form present and future canopy in the settlement area, though not as many as in traditional CCF, as there is more forest garden designing there.

6.5 The carrying capacity of the woods is a difficult calculation to make, and an important one. Other experts have assessed that the community is within carrying capacity. I have seen that the better dwelling insulation and woodstove/cooking technology has reduced the per dwelling need for firewood over the years, even as numbers expand. The key for me is also the more holistic view - the calculation that the woodlanders are living at between 23% and 39% of the national average. If they were to live off site, it would be higher, thus adding to the global carrying capacity of the planet. Steward Wood is a finite physical resource, and there are other places to get resources from if needed. The planet is a finite resource, and apart from sunshine, there is no other place to get resources from. Not allowing this project to continue would mean an increase in the eco footprints of the residents, and would rob the rest of society of an important resource for learning how to live more sustainably everywhere. The residents of Steward Wood are highly invested in living within the carrying capacity of the wood, though the effects of actions today can take years to become apparent.

6.6 Frediani also had concerns about the future canopy's diversity, seeing only hazel, ash and sycamore as the main contenders. Such an overstorey would be vulnerable to chalara, and the sycamore would not be so valuable for wildlife, which is a well founded fear. Fortunately there are also oaks planted broadscale across the inner larch area, as well as a broad diversity of other trees as part of the forest garden plantings, including lime, birch and apple. (Frediani 2015)

6.7 I have seen a draft of the new woodland management plan for the project. It was a shame that it was not available at the time of the application last year, and I can see that it builds upon the ideas and good work carried out over the years at Steward Wood in previous plans, and does not represent a radical departure from previous objectives and activities. It includes plans for ongoing continuous cover forestry and forest garden mosaic plantings, continuing to meet the needs of wildlife, residents, visitors and neighbours. It contains action plans (as have all previous Steward Community Woodland Management Plans), for safeguarding and increasing habitat for bats, hedgehogs and dormice, and for reducing the amount of Laurel, Sycamore and Larch.

6.8 In my experience and judgement the management at Steward Wood is based upon ecological principles, good forward planning, the needs of wildlife for habitat and food, the needs for residents for fuel, food, safety, shelter and healing and the needs of visitors and neighbours for education and visual screening. Felling plans are discussed and consented on in community meetings before work can be carried out, and plans for house building incorporate the needs of trees, wildlife, and the locality of the site.

7. Conclusion

7.1 Based on my many visits and stays at Steward Wood, I believe that the project is an important contribution to research into positive impact living, that the residents have a proven track record in sustainable living whilst improving the habitat and the quality of the woodland around them, as well as benefiting the local human community in many ways. The members of the community and project are committed and have every intention of developing the project further.

7.2 If the appeal were not to be granted and the community were removed from the site and housed elsewhere, there is absolutely no doubt whatsoever that the region would become less sustainable. The carbon footprint will increase and an important opportunity will have been lost to nurture and learn from a valuable project which is inspiring everyday people to take responsibility for their environmental impacts and to live more sustainably.

7.3 DMD30 states that - "Where there is minimal visual or environmental harm, or harm to the residential amenity of adjacent properties, and where the site can be restored to its former condition when occupation ceases, there will be no objection in principle." I believe that this project does a good deal better than 'minimal... harm" and that it has, as good permaculture has, a regenerative and positive effect on its many spheres of influence - the woodland, the residents of the community, visitors, wildlife, the local community and the wider planet.

7.4 Steward Community Woodland is a significant and worthwhile project, with many wider benefits, not least the ongoing research value of this experimental low/positive impact living initiative. Their aims are high, and their track record is inspiring. They have every prospect of continuing to fulfil their objectives, if granted a permanent permission.

7.5 I would humbly ask the inspector to find in favour of the appellants.

Appendix 1: Steward Wood's use of permaculture design methods and tools

The project has used the principles and techniques of permaculture all through its evolution. Some of the founder members were certified in Permaculture Design at the inception, and so design methods were used from the start and continue to be used; in designing the original loanstock system, choosing the land, designing the site and guiding the ongoing project development.

Examples of design methods and tools being used -

A1.1 Energy Efficient Zoning

Permaculture zoning is a tool that maximises human energy efficiency on the ground - elements that are visited frequently are located as near as possible to the visitor's home, elements that are visited less often are located further away.

This can be seen in the siting of intensive food gardens around the dwellings, with the less intensive growing happening further away in the communal growing area. Firewood is also felled and gathered close to home, while outer zones of the woodland are allocated for wildlife and possible future commercial extraction and/or timber conversion by sawmill (assisted either by vehicle or draught animal). The dwellings themselves, while private, are all clustered in a circle around the central communal facilities of kitchen, longhouse, bathhouse and workshop - the facilities are in community zone 1, the dwellings community zone 2.

The newest dwelling locations have moved closer to the facilities and access tracks, to further enhance efficiency of movement.

A1.2 Sector Analysis

Working alongside zoning, sectors enable designers to use the characteristics of the site to their advantage, for example sectors of wind, aspect, slope, view,

frost etc.

The community chose to buy a south west facing woodland to increase the sunlight sector on the land – sunlight is one of the most valuable resources in a temperate landscape. A woodland itself also has many advantages over bare fields in terms of sector analysis – wind and rain are ameliorated, and the structures are less visually intrusive to neighbours and local people. The dwellings themselves are all located a little way up the hill, to avoid frost at the bottom of the valley, and are now mostly below the springline – allowing for gravity fed water to the houses.

Slope is also used to aid firewood harvesting as firewood is generally collected uphill of dwellings and carried/rolled/slid/carted down.

A1.3 Incremental site development

The project has evolved over the last 16 years from neglected commercial woodland to a thriving community woodland of wildlife, residents, visitors, work, play and housing. This development has been slow and steady, building up each area of the project incrementally. Incremental design allows for rethinking and course correction, and creates a realistic time framework for site development.

The first year involved a lot of learning about the woodland and its surroundings, and the structures built were designed to be temporary – people started off living in tents and there was a basic field kitchen built. A lot of time was spent on basic infrastructure such as water, electricity and shelter. Sitings for structures were temporary until residents felt confident enough to site them more definitely.

The structures themselves were quickly built, low investment buildings, and the community avoided felling any large trees until they had been observing the site for a whole year.

After the first year, when more informed about where to site structures, new building work was more substantial (although still only wood and canvas) and relatively more time and money was invested in them. The first woodland management plan was drawn up, and work then began on clearing the conifers, and replanting the site with broadleaved trees. The growing area also became more of a priority in this second stage, itself being incrementally laid out and developed.

The third stage has seen the project becoming more able to accommodate visitors and events, whether on courses or as wwoofers. Communal infrastructure has been improved again, to become more resilient and efficient, and some dwellings have been replaced, again with more time and money invested in them to be more efficient and robust, now the locations are set.

A1.4 Design macros

Permaculture has a few acronyms set out to guide the design process, one example being the OBREDIM macro - Observation, Boundaries, Resources, Evaluation, Design, Implementation, Maintenance. Macros have been used to guide the process in many of the designs at Steward Wood, including the compost toilet, the long house, the woodland management plan, the first forest garden and the kitchen.

A1.5 Creating Guilds and Relative Location

Relative location is key to permaculture design, placing elements where they bring the most yield and create the least work. A guild is a collection of

elements placed together that support each other synergistically, like a tree sheltering a bush while the bush helps feed the tree with nitrogen, or shops being close to each other in a town centre.

Guilds created on site include the compost toilet-fruit bushes guild, the longhouse-kitchen-office-sleeping platform-firepit guild, and the laundry-sauna-shower room guild. There are also social guilds created with the local surroundings in the various social networks members have been involved in, from singing groups to local carnival entries to teaching computing courses in the library.

A1.6 Reviewing and learning

Reviewing and monitoring is an important part of the design process, enabling designers to learn from previous designs and improve future ones. The SADI macro (Survey, Assess, Design, Implement) can be repeated, as the designer surveys the design once it is up and running, and then may choose to design in different features to improve it. These improvements can then be surveyed and assessed and improved in turn.

The incremental design technique as outlined above meant that the development of the growing area, and communal spaces was staged, and at each stage reviews provided fresh ideas and improvements to the process. The Woodland Management Plan updates in 2007 used reviews of previous management achievements to tailor its aspirations into realistic proposals. The previous plan was also reviewed and this was used to help formulate the new version.

A1.7 Mapping

Designing on paper or computer screen is a very accessible, visual way to evaluate ideas. It is also much less work than designing in situ and making mistakes on the ground.

Map overlays have been central to the site's woodland management design since the start. The software enables a designer to create multiple overlays illustrating the wildlife areas, tree species, slope, water features etc. This powerful tool stores and makes available a wealth of data that is vital to such a large scale design. On a more simple level, the second kitchen interior was designed on squared maths paper with scaled furniture images blued and moved around. The design proposals were then easily moved around and displayed to members of the community.

A1.8 Surveying and Analysis

Permaculture is information and imagination intensive, not labour intensive, so gathering information and mulling it over is vital to any permaculture design. Surveying work carried out during the project includes: researching old maps to get a picture of the land's history; sending a questionnaire around the local village to see what people wanted from the project in the early days; spending the first year observing the land rather than ploughing ahead; monitoring the woodland's progress in terms of continuous cover; an intuitive survey of what the land wants as part of the management plan update; surveying the potential and progress of rare wildlife on site.

Appendix 2: How the project uses the principles of permaculture* and

sustainability.

(* The permaculture principles used here are taken from permaculture co-founder David Holmgren's 2002 book Permaculture: Principles and pathways beyond sustainability.)

Principle 1: Observe and interact

This principle encourages people to observe, plan, go out and do, and then learn from their experiences, and then go and do more with that knowledge, and so on in a positive spiral of action learning.

- The project as a whole is very much about interaction, it is living and experimenting and learning on many levels, with the land, the people and one's self.
- The first year of the project was designed as a gentle time of observation and learning. The big decisions about more permanent infrastructure sitings were put off until after the community had seen the land in all its seasons throughout the year.
- The 2007 Woodland Management Plan update incorporated several reviews from earlier plans and the previous 7 years of interaction with the wood.

Principle 2: Catch and store energy

This principle focuses people on collecting and storing energy in all its forms – informational, social, temperature, electrical, physical etc.

- The houses at Steward Wood are all designed to collect and store as much heat from the winter sun as possible, by clearing southward vistas and designing in large south facing windows. The 'energy' from the sun is then stored in the structures by insulation and the use of thermal masses.
- Steward Wood was chosen for the project partly because it is southwest facing sloping land – this aspect means it relatively receives a lot of energy from the sun.
- The predominant land use at the woods is forestry and food growing, which by its nature collects sunlight and stores it as carbon energy and food.
- Wwoofers visit the woods for long and short stays – their energy and enthusiasm is caught on site by the work they do in the gardens, building sites and kitchen. They in turn catch informational and cultural energy in the form of new ideas and experiences.

Principle 3: Obtain a yield

This principle recognises the importance of meeting one's needs from one's activities.

- The community meets some of its food needs from the various growing areas on site. It also meets all its heating and cooking needs from on site firewood.
- The project also provides housing and some employment for its members.
- Water for drinking and washing is provided by the woodland's spring and the community's filtration system.

Principle 4: Apply self regulation and accept feedback

This principle encourages people to regulate their resource consumption and acknowledge and accept feedback and outside constraints.

- The project has always sought to minimise the use of fossil fuels, as these contribute to climate change and are a dwindling resource that must be husbanded and eventually phased out. After 5 years of abstinence the on site fossil fuel policy was relaxed to allow the

use of chainsaws, to free up more time for other activities such as food growing.

Principle 5: Use and value renewable resources and services

Renewable resources and services are fundamentally sustainable.

- The project uses the ultimate renewable resource – sunlight – for heating, food growing and tree growing.
- The project uses the renewable resource of woodfuel for all its heating needs.
- Building materials are often taken from the land for the many shelters and homes.
- The electricity used on site is all generated from on-site renewables – solar panels and tiny hydro electric schemes.
- The water supply on site is all harvested, collected, cleaned and treated on site using renewable and biological resources.

Principle 6: Produce no waste

It is important for systems to treat/reuse/compost any waste on site, rather than outsourcing it as pollution to degrade the environment somewhere else.

- The community's food waste is either fed to dogs or composted to create fertility for the gardens.
- Human poo is turned into vibrant humanure in the compost toilets, then fed to fruit trees and bushes.
- A lot of the materials purchased by members are already second hand – from charity shops, recycling centres, online resource sites and Proper Job in Chagford.

Principle 7: Design from patterns to details

This principle encourages people to see the big picture or meta design, and then focus in on the small details, so all actions and designs are framed by larger perspectives and patterns.

- The entire project was formulated as a response to the bigger pictures of resource depletion, environmental pollution and climate change. The project creates and allows detailed personal and communal responses to these big pictures.
- On a site design level, the infrastructure layout and woodland management plan both use the tool of zoning, which creates a master template for individual actions and sitings that is energy efficient and appropriate – for example intensive food growing is near the settlement.

Principle 8: Integrate rather than segregate

Permaculture is about the interrelations between things, how to help them work synergistically together to produce results. Clustering elements together cleverly can increase yields and reduce work and pollution.

- The project is itself an integration of working, living, teaching, learning, creating and having fun, all in one place. All these human needs and more are integrated into and met to some extent by the project.
- Community living is itself also integration in the face of an increasingly segregated society.
- The community has always sought to be a part of the wider local community of Moretonhampstead as well. Members have participated in a wide range of activities in the locality, from local theatre to computer courses to toddler

group.

Principle 9: Use small and slow solutions

Small and slow solutions, while not as exciting and productive immediately, allow for steady stable growth and mean any mistakes made early on are not so damaging.

- A lot of the woodland activities are carried out using hand tools, which are more sustainable but usually slower than large machine equivalents.
- The communal infrastructure and personal dwellings have been incrementally built up since day one - the many refashionings allowing new ideas, techniques and materials to be incorporated.
- Planting trees, especially oak trees to produce future fuel, fibre and food is a slow and steady solution to meet future needs.

Principle 10: Use and value diversity

Diversity is strength and stability, especially in changing times.

- Continuous Cover Forestry practices are used to manage the woodland, promoting a mixed age, mixed height woodland that is more resistant to windthrow and provides a continuing, diverse supply of trees of all sizes for building and commercial uses. It also provides more habitat possibilities for wildlife in its patchwork. The central community living area has less canopy trees and more sunlight and shrub species, aiming for 'woodland edge' - forest gardening habitat rather than tall woodland. This creates more edge within the woodland as well.
- There are multiple sources and storages of water, electricity and firewood to ensure a stable and reliable supply of these essentials to the community.
- Community members sometimes eat wild plants and meats, making for a more diverse diet.

Principle 11: Use edges and value the marginal

The edge between two systems is often the most productive area, where a rich environment can foster more possibilities than exist in the systems on their own - for example suburbs, tea breaks and coastlines. The marginal can be a place of experimentation and vitality, where new ideas, unusual elements and rare species are to be found.

- The management plan puts in place measures to create and protect habitats for rare wildlife such as dormice and certain species of bats.
- The project as a whole is on the edge of society, experimenting with old and new technologies and ways of living to explore solutions to our environmental problems.
- Perennial leaves and fruits are planted along the side of paths in the settlement area.

Principle 12 : Creatively use and respond to change

Life's contexts are continually changing, and any system must take this into account if it is to thrive.

- The project itself is a response to the changes modern society is making to its ecological and social environment, it is an attempt to find new/old paths to sustainability and happiness.
- The woodland management plan includes measures to cope with climate change - ie. tree planting mixes that will deal with climate instability and warming.

- The community has also been involved in local Transition Town initiatives – groups of people working together to prepare towns and villages for the massive shifts that peak oil and climate change will bring.